DRAFT
MANAGEMENT PLAN
FOR THE
ROCKIN’ RIVER
RANCH
DRAFT MANAGEMENT PLAN FOR THE ROCKIN’ RIVER RANCH
UNIT OF ARIZONA STATE PARKS

EXECUTIVE SUMMARY ................................................................. 1
PURPOSE AND NEED .......................................................................... 6
PROJECT AREA .................................................................................. 8
SETTING AND FACILITIES ............................................................... 8
Location .......................................................................................... 8
Acreage .......................................................................................... 8
Neighbors ....................................................................................... 8
Current Land Uses And Designations ............................................. 8
Outlying State Parks lands and other conservation lands ............... 9
FACILITIES, DEVELOPED LAND, AND INFRASTRUCTURE .......... 12
Irrigated pastures ........................................................................... 12
Fallow pastures ............................................................................. 14
Roads .............................................................................................. 14
Trails ............................................................................................... 15
Fences .............................................................................................. 15
Ditches ............................................................................................ 16
Irrigation Pipes .............................................................................. 16
Utilities ............................................................................................ 16
Miscellaneous structures ............................................................... 16
Buildings, lawns, and parking areas ............................................ 16
Water .............................................................................................. 20
ENVIRONMENTAL SETTING ......................................................... 21
GEOLOGY AND SOILS ................................................................. 21
WATER ......................................................................................... 21
HABITAT TYPES ............................................................................. 21
CRITICAL HABITAT ......................................................................... 22
AQUATIC HABITATS ......................................................................... 24
Open water – lentic ......................................................................... 24
Open water – lotic .......................................................................... 25
Channelbar Wetlands .................................................................... 28
RIPARIAN HABITATS ....................................................................... 29
Barren riparian shorelines ............................................................ 29
Mixed deciduous pioneer forest – vegetated, riparian, sand-silt bars .. 30
Riparian grasslands and shrublands – vegetated floodplain riparian ... 31
Prosopis woodlands – vegetated floodplain riparian and uplands ..... 32
Barren rock surfaces, including cliffs ........................................... 33
UPLAND HABITATS ......................................................................... 34
Desert Scrub .................................................................................. 34
Buildings, lawns, and parking areas ............................................ 34
WILDLIFE AND PLANTS ........................................................................................................ 35
NATURAL AREA MISSION .................................................................................................. 36
NATURAL AREA HISTORY .................................................................................................. 36
MISSION OF THE NATURAL AREA ...................................................................................... 37
RELATIONSHIPS BETWEEN NATURAL RESOURCES AND OPERATIONS AND DEVELOPMENT ACTIVITIES .......................................................................................................................... 37
Compatibility Issues with Land Uses and Public Access .................................................. 37
Effects of Operations, Development and Public Access on Natural Resources ................... 37
Effects of Natural Resources or Their Management on Operations, Development and Public Access .......................................................................................................................... 38
FUTURE PARK DEVELOPMENT IMPACTS ON NATURAL RESOURCES ................................ 38
LAND USE AND MANAGEMENT UNITS .............................................................................. 39
LAND USE .......................................................................................................................... 39
Open/Undeveloped Areas .................................................................................................. 39
Administrative Areas ......................................................................................................... 39
Surrounding Land Use ....................................................................................................... 39
MANAGEMENT UNITS ....................................................................................................... 39
WATERSHED MANAGEMENT AREAS .............................................................................. 40
INVENTORY AND MONITORING ...................................................................................... 41
FLORAL INVENTORY AND MONITORING ......................................................................... 41
Floral Surveys .................................................................................................................... 41
Rare, Endangered, and Nonindigenous Plant Monitoring .................................................. 41
Rare and Endangered Plants .............................................................................................. 41
Nonindigenous Plant Monitoring ...................................................................................... 41
Wetlands .............................................................................................................................. 42
FAUNAL INVENTORY AND MONITORING ......................................................................... 42
Species Other Than Federal- or State-listed Threatened or Endangered Species .............. 42
Federal- or State-listed Threatened or Endangered Animal Species ................................ 42
WATER QUALITY MONITORING ...................................................................................... 43
Surface Water ................................................................................................................... 43
Groundwater ..................................................................................................................... 43
SOILS INVENTORY AND MONITORING ............................................................................ 43
SOILS INVENTORY AND MONITORING ............................................................................ 43
FIRE MONITORING ........................................................................................................... 43
Fire History ....................................................................................................................... 43
Fire Effects Monitoring ..................................................................................................... 43
NATURAL RESOURCES MANAGEMENT .......................................................................... 44
FOREST MANAGEMENT .................................................................................................. 44
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRICULTURAL OUTLEASES/GRAZING</td>
<td>44</td>
</tr>
<tr>
<td>HABITAT MANAGEMENT</td>
<td>44</td>
</tr>
<tr>
<td>Habitat Management Strategy and Goals</td>
<td>44</td>
</tr>
<tr>
<td>Wildlife Habitat Projects</td>
<td>44</td>
</tr>
<tr>
<td>Wildlife Waters, Nesting Structures and other devices</td>
<td>44</td>
</tr>
<tr>
<td>Woody Vegetation Removal</td>
<td>44</td>
</tr>
<tr>
<td>Prescribed Fire</td>
<td>44</td>
</tr>
<tr>
<td>Revegetation, Rehabilitation and Restoration</td>
<td>44</td>
</tr>
<tr>
<td>Fence Maintenance, Improvement and Removal</td>
<td>45</td>
</tr>
<tr>
<td>Endangered Species Habitat Management Projects</td>
<td>45</td>
</tr>
<tr>
<td>FISH AND WILDLIFE POPULATION MANAGEMENT</td>
<td>45</td>
</tr>
<tr>
<td>Federal Endangered, Threatened, and Candidate Species</td>
<td>45</td>
</tr>
<tr>
<td>Status of Endangered Species</td>
<td>45</td>
</tr>
<tr>
<td>Federally-listed, Proposed Candidate and Conservation Agreement Species Management Programs</td>
<td>45</td>
</tr>
<tr>
<td>Furbearer/Predator Management</td>
<td>45</td>
</tr>
<tr>
<td>Other Species Management</td>
<td>45</td>
</tr>
<tr>
<td>Birds</td>
<td>45</td>
</tr>
<tr>
<td>Mammals</td>
<td>46</td>
</tr>
<tr>
<td>Reptiles and Amphibians</td>
<td>46</td>
</tr>
<tr>
<td>Invertebrates</td>
<td>46</td>
</tr>
<tr>
<td>WETLANDS MANAGEMENT</td>
<td>46</td>
</tr>
<tr>
<td>WATER QUALITY</td>
<td>46</td>
</tr>
<tr>
<td>LAND REHABILITATION AND MAINTENANCE</td>
<td>46</td>
</tr>
<tr>
<td>SOIL RESOURCES MANAGEMENT</td>
<td>46</td>
</tr>
<tr>
<td>ADMINISTRATIVE AND DEVELOPED AREA MANAGEMENT</td>
<td>46</td>
</tr>
<tr>
<td>PEST MANAGEMENT (NATIVE AND NON-NATIVE SPECIES)</td>
<td>47</td>
</tr>
<tr>
<td>Animal Control</td>
<td>47</td>
</tr>
<tr>
<td>Plant Control</td>
<td>47</td>
</tr>
<tr>
<td>Environmental Considerations</td>
<td>49</td>
</tr>
<tr>
<td>FIRE MANAGEMENT</td>
<td>49</td>
</tr>
<tr>
<td>SPECIAL INTEREST AREA PROTECTION</td>
<td>49</td>
</tr>
<tr>
<td>General Provisions</td>
<td>49</td>
</tr>
<tr>
<td>Caves</td>
<td>50</td>
</tr>
<tr>
<td>Riparian and Other Wetland Areas</td>
<td>50</td>
</tr>
</tbody>
</table>

**TABLE OF FIGURES**

- **Figure 1.** Approximate Boundaries of Rockin' River Ranch on USGS Topographic Map ..... 10
- **Figure 2.** Aerial photo
- **Figure 3.** Habitat types delineated on the Rockin' River Ranch. ................................. 23
EXECUTIVE SUMMARY

The Rockin’ River Ranch (RRR) is a 209.4-acre property added to Arizona State Parks Verde River Greenway by purchase in 2008. This document is a DRAFT plan for management of the property. It is based on principles and managed by Arizona State Parks, and is subject to revision as more information becomes available and as the principles and guidelines are refined, accepted, and approved. This document reviews the conditions of the land and infrastructure as they stand in February 2009. This document, as submitted in March 2009 by Kenneth J. Kingsley and Amy J. Gaiennie, Volunteers, is NOT complete and will require review and completion before it is suitable for submission to the Arizona State Parks Board. It is to be considered as a starting place for additional input by the Natural Areas Program Advisory Committee and ASP staff.

Any integrated resource management plan must be based upon principles of adaptive management to meet changing needs and conditions, including the availability of funding and personnel. The foundation of a plan is the assessment and inventory of resources. Prevention of deterioration and loss of existing infrastructure is also critically important.

The property can be divided into several distinctive zones, each with its own management requirements. Zones are defined using the Draft guidelines currently being developed for State Natural Areas by the Natural Areas Program Advisory Committee. In Section 6.1 of these guidelines sensitivity zones are as follows:

1. Each State Natural Area will be divided into sensitivity Zones according to degree of development within the respective areas. Visitor presence and use will be specified for each zone. Not all zones will be represented in individual Natural Areas.
2. In establishing zones, consideration will be given to the natural features and characteristics of the resource and to the objectives of the State Natural Area as stated in the Master/IRMP. Coordination between Development, OPS, RM, and reviewed by NAPAC. A narrative description will be developed for each zone.
3. Classification of Sensitivity Zones- Description-Primary Uses

ZONE 1 Predominantly unaltered natural environments contain unique natural characteristics that are unmodified. Primary use is research. Permit required for utilization.
ZONE 2 Unaltered natural environments predominates. Day use wilderness recreation experience is emphasized. Primary visitor uses are hiking and observation.
ZONE 3 Slightly altered natural environment discernible. Man-made structures are minimal. Efficiency in outdoor skills is important. Primary visitor uses are hiking and observation.
ZONE 4 Altered natural environment evident. Man-made structures may be provided for comfort and convenience. Moderate proficiency in outdoor skills involved. Primary visitor uses are hiking, observation, and primitive camping.
ZONE 5 Altered natural environment dominant. Structures and facilities may exceed basic comfort and convenience accommodations. Proficiency in outdoors skills in not necessary when supplemented by administrative controls. Primary visitor uses picnicking and day use family activities.

In specific to the RRR property;
Zone Location 1 includes 0.75 miles of Verde River floodway with approximately 62 acres within the 100-year floodplain (Management Zone 2).

Zone Location 2 is comprised of mature mesquite bosque (approximately 100 acres, some of which may be within designated floodplain) (Management Zone 2).

Zone Location 3 is approximately 30 acres of previously cultivated land capable of returning to mesquite bosque, saltbush shrubland, or grassland but currently dominated by dense growth of Prickly Russian Thistle (Management Zone 3).

Zone Location 4 is approximately 54 acres that are actively irrigated pasture, 1.6 acre storage pond with associated historic water rights (note that some of this area lies within the 100-year floodplain) (Management Zone 5).

Location Zone 5 consists of approximately 15 acres of buildings, roads, parking areas, and corrals (Management Zone 5).

Zone Location 1 currently appears to be in good biological and hydrological condition. Young Cottonwood/Willow Riparian vegetation is present and actively growing. The community of wildlife and plants expected to occur in the area appears to be present and surviving, with resilience to flooding. Non-native invasive species of plants and animals are present, as they are throughout the Verde River basin, but are not dominant and do not appear to be explosively increasing. The floodway appears to provide habitat for the endangered Southwestern Willow Flycatcher and various other wildlife species of concern. The floodway is within the designated Critical Habitat for the Southwestern Willow Flycatcher and the Razorback Sucker. There are no identified urgent management needs for Zone Location 1. Long-term management principles, consistent with the principles of State Natural Areas, are described in this document. Recommendations are made to:

- establish, conduct, and continue an inventory and monitoring program or flora and fauna, beginning with surveys for the federally listed species, Southwestern Willow Flycatcher and Yellow-billed Cuckoo
- establish and maintain a program for a presence of law enforcement patrols
- close a rough dirt road on the east side of the river that provides access to the property from Forest Service land in cooperation with the Coconino and Prescott National Forest
- follow the principles and implement the practices described in the Draft Integrated Invasive Species Management Plan for VRGSNA and DHRSP Period 2006 – 2010
- specifically consider the possible presence of nesting Southwestern Willow Flycatchers before attempting any removal of Tamarisk
- develop a plan for public access and use of the area with the adjacent Prescott National Forest lands in cooperation with the Verde Ranger District.
- develop appropriate trails and other infrastructure for supporting public access and appreciation of the area
Zone Location 2 is approximately 100 acres, comprised of mature mesquite bosque, some of which may be within designated floodplain. It has no identified urgent maintenance requirements. Recommendations are made to:

- establish, conduct, and continue an inventory and monitoring program for flora and fauna, beginning with surveys for the federally listed species Yellow-billed Cuckoo
- establish and maintain a program for presence of law enforcement patrols
- evaluate the conditions in this zone-location for appropriate protection and restoration or rehabilitation techniques
- consider removing dense Prickly Russian Thistle by some means that will not foster regrowth of this invasive species
- explore the possibility of establishing young mesquites within this zone
- determine the practicality of managing the treesallow for the natural re-generation of the mesquite bosque in this zone-location– with minimal management activity possibly by thinning or watering, to foster growth to larger stature
- develop a plan for non-motorized limited public access and use of the area
- develop appropriate trails and other infrastructure for supporting public access and appreciation of the area

Zone Location 3 is currently a field of Prickly Russian Thistle and Western Harvester Ants, with scattered native plants including Silverleaf Nightshade, Burrobrush, and grasses. In its current state, it is not likely to deteriorate significantly and may slowly develop into native grassland or shrubland. The dense, dry Russian Thistles may be a fire hazard. Further disturbance of the soil is not recommended because that would be likely to foster their growth as well as other non-native species. Recommendations are made to:

- develop a program of experimental treatments for Russian Thistle removal and control of undesirable native vegetation
- determine desired future conditions
- develop a program of restoration of a native community (flora and fauna) that meets desired future conditions OR
- develop a plan to create infrastructure for a recreational park
- minimize public use of this zone-location until final plans for it have been developed and executed so as to reduce fire danger and disturbance

Zone Location 4 is 54 acres of actively irrigated pastures which includes a 1.6 acre storage pond that requires consistent active management to prevent deterioration of the existing resource. Currently there is a lease to manage this as a horse boarding and breeding operation. Leasing this area provides time and management to develop long-term plans. Recommendations are made to:

- review the terms of the lease to clarify management requirements and responsibilities
- maintain roads in passable condition
- replace broken fence posts or remove as appropriate for future planned use
Post boundaries of the property with signs
- Clean out, and inspect and repair all irrigation ditches and associated infrastructure
- Maintain storage pond as a functioning wetland
- Develop a long term plan for the property in this zone location for possible recreational development OR
- For wildlife habitat such as created wetlands, etc.

Zone Location 5 consists of approximately 15 acres of buildings, roads, parking areas, and corrals that has urgent and ongoing maintenance requirements to prevent further deterioration of infrastructure, repair damaged structures, and protect public safety. Specific actions currently recommended include:

- Maintain roads in passable condition
- Replace broken fence posts or remove as appropriate for future planned use
- Post boundaries of the property with signs
- Evaluate the condition of each building and determine which to keep and which to remove
- Evaluate maintenance needs of buildings and develop a specific plan, including possible uses (office, staff lodging, visitor center, etc.) and schedule for each
- Remove or fence the severely deteriorated house near the entrance
- Clean out and inspect all irrigation ditches and associated infrastructure
- Clearly demarcate appropriate parking areas
- Evaluate existing large trees for safety conditions and take appropriate actions

Development of a specific long-term program for management of the developed portions of the property will require:

- Definition of program goals and objectives
- Clear definition of specific responsibilities, chain of command, procurement procedures, allowable and supported activities, and evaluation methods with regard to the relationship between ASP and any leaseholders or contractors

Additional actions that are recommended for all zone locations of the property are:

- Begin a program of inventory and monitoring consistent with the principles expounded in various documents pertaining to the management of Arizona’s State Natural Areas
- Develop a long term plan for the development of the entire property as a unit of Arizona State Parks

The Nature Conservancy (TNC) was instrumental in the purchase of this property and maintains an active interest in it as a part of their long-term program on the Verde River. TNC should be
considered as partners in the planning process and future management of the property, and resources available from TNC may be valuable. Other valuable resources and potential partners includes the Forest Service, Yavapai County, Town of Camp Verde, and Salt River Project.
PURPOSE AND NEED

This document is a working draft of guidelines for the management of a newly acquired unit of Arizona State Parks currently known as the Rockin’ River Ranch (RRR). The property was acquired in 2008 by use of Natural Areas Acquisition Funds, and is within the area currently designated as Verde River Greenway State Natural Area.

Arizona State Parks acts as the guardian for natural and cultural resources that are extremely diverse and geographically dispersed. To fulfill its stated mission, “Managing and conserving Arizona’s natural, cultural and recreational resources for the benefit of the people, both in our Parks and through our Partners” and to achieve its stated vision, “To be recognized nationally and locally as the outstanding resource organization,” requires new approaches and commitment to integrated and adaptive planning. This will insure compatibility of use for sustainability and healthy functioning of ecological processes. A document titled “Integrated Management Guidelines for State Natural Areas” is currently in draft form. When completed and formally adopted by the Arizona State Parks Board, this document will detail Arizona State Parks’ guiding philosophy and principles for managing and protecting the State Natural Areas. This Draft Management Plan for the Rockin’ River Ranch generally follows the version of the Draft Integrated Management Guidelines dated January 2009, and is subject to revision as the Guidelines become final and as new information is acquired. The following principles are from a working draft being developed by Arizona State Parks:

Key Principles Guiding Arizona State Parks to Develop Natural Areas Management Policies

- Current Master-Management Plans are obsolete and require more detail and up-to-date “Best Management Practices” for the Natural Area values
- Active management actions are required to meet primary objective of establishing State Natural Areas
- Natural Areas support fragile habitats that are easily disturbed by people
- Natural Areas have been modified to some degree by past and on-going land use activities such as domestic livestock grazing
- Compatible and appropriate types of uses for domestic livestock grazing (for example, for weed control) should be identified through site specific management planning process
- Normally appropriate uses for Natural Areas include birding, wildlife watching, wildflower and native plant observation, photography, hiking, research, education and interpretation
- Conditionally appropriate uses for Natural Areas include fishing, picnicking, canoeing, and hunting
- Traditional inappropriate and incompatible uses for Natural Areas include camping, bicycles, horseback riding, rock climbing and caving, off-road vehicles, unleashed pets, and collection of plants, animals, minerals, or artifacts. These activities may be considered in Management Zones 4 and 5 as defined earlier in this document–thing already in practice.
- Biological Resource Management may include multiple strategies that protect, conserve, and enhance the natural area resource values
The following goals for an Integrated Management Plan are from the draft Integrated Management Guidelines:

Pursuant to Arizona Revised Statutes § 41-501, the Arizona State Parks Board shall establish State Natural Areas to preserve and protect “parcels of land or water that contain examples of unique natural terrestrial or aquatic ecosystems, rare species of plants and animals and unusual or outstanding geologic or hydrologic features” and as identified in the Agency Six 2000 Plan provide interpretation and environmental education and limited recreational opportunities whenever feasible.

**Goals**

Guide staff in the development of integrated comprehensive plans that

- Promote long-term viability for Natural Area values,
- Allow for management continuity over time, and
- Provide opportunities for public appreciation of the natural resources and State Natural Areas.

The following goals and objectives for management of the original six mile ASP managed Verde River Greenway (VRG)-were prepared for a workshop held on 18 and 19 September 2006 and should be considered applicable to the Rockin’ River Ranch.

**GOAL 1. Conserve Natural Resources**

Protect and restore the ecological integrity of the natural resources of the VRG.

- Objective 1. Inventory
- Objective 2. Monitoring
- Objective 3. Acquisition

**GOAL 2. Preserve Cultural Resources**

Protect the significant pre-historic and historic cultural resources of the VRG.

- Objective 1. Inventory
- Objective 2. Monitoring

**GOAL 3. Manage Recreation Opportunities**

Provide for opportunities for recreation that are compatible with the conservation values of the VRG.

- Objective 1. Monitoring

**GOAL 4. Adopt Adaptive Management Strategies**

Manage the VRG using adaptive management strategies through annual review of management goals, objective, and monitoring results.

**GOAL 5. Communicate and Educate**

Develop communication and education programs to improve the broad base understanding and support of the VRG vision and values.
PROJECT AREA

SETTING AND FACILITIES

Location.
The Rockin' River Ranch is in Camp Verde, Yavapai County, Arizona. The site is in Range 5 East and Township 13N (Gila and Salt Baseline Meridian), in the southeast quarter of Section 21, the southwest quarter of Section 22, and the northwest quarter of Section 27. Figure 1 shows the outline of the property on a USGS Topographic Map. Figure 2 is an aerial photograph of the property showing parcel boundaries.

Acreage.
The property consists of eight seven adjoining assessor’s parcels totally 209.4 acres.

Neighbors.
The property is bordered by Prescott and Coconino National Forests (U.S. Forest Service) on several sides. Privately owned land lies to the south and east and consists of a plant nursery, irrigated pastures, low-density residential properties, and grazing land. Access to the property is by means of a dirt road across Prescott National Forest land off Salt Mine Road. Boundaries of the property are fenced, or have fences near them (see details on fencing in the following section). Boundaries are not clearly marked, but gates are marked with signs.

Current Land Uses and Designations.
The developed portions of the property are currently being leased as a horse boarding and breeding facility. It appears that most of the property has been historically disturbed, primarily cultivated as pasture or cropland, with concomitant roads, ditches, and buildings. Most of the land is currently not in production and has not been cultivated for an unknown number of years. Approximately 54 acres are actively irrigated pasture, seeded periodically with a mixture of seeds called “Verde Valley Pasture Mix” which includes several species of non-native grasses and forbs and may contain some native species. There are several buildings in various stages of use or disrepair, corrals, roads, and parking areas. One building is currently occupied as a residence. Most of the remaining undeveloped portion of the property is comprised of Velvet Mesquite bosque woodland (approximately 10020 acres) that appears to have been cleared and cultivated in the past century but abandoned more than 50 years ago, and approximately 30 acres that were more recently cleared and cultivated but are currently fallow and have been so for an undetermined number of years. Zoning is RCU-2A (rural residential, 2-acre minimum lot size); thus, over 70 home sites could be developed on the upland portion of the property without a zoning change request to increase density (it is likely that additional home sites could be located within the floodplain if built structures were elevated per Yavapai County building code specifications).
Outlying State Parks’ lands and other conservation lands

The property is within Arizona State Parks’ designated Verde River Greenway expansion zone, near the Greenway’s southern terminus. Approximately 0.75 miles of Verde River are included in the property. The West Clear Creek Recreational Site (Coconino-Prescott National Forest) is immediately adjacent to the north. Along with the Clear Creek River Access Point (RAP) there is a parcel of land called the Trusswell Parcel that is approximately 170 acres of USFS land that was a farmstead that is beginning to revert to native vegetation (Mesquite bosque with grasses). There is an approximately 4 acres archeological sited located on USFS near the entrance road that has been marked and will need to be protected from incursion along our entrance road. As noted earlier there is adjoining USFS land on the north, east, south and west boundaries of RRR.

It is 1.5 miles upstream of the Congressional Wild and Scenic River designation on National Forest lands at Beasley Flats. Montezuma’s Castle National Monument is approximately 7.6 miles north of the property. Dead Horse Ranch State Park and the Verde River Greenway State Natural Area at Cottonwood are approximately 30 miles upstream. Located within the Verde River Watershed, but outside the ASP Verde River Project area, Fossil Creek Wild and Scenic area is approximately 17 miles south of ASP southern project terminus.
Figure 1. Approximate Boundaries of Rockin' River Ranch on USGS Topographic Map. Red outline is the RRR property boundary and the Green outline shows a grazing allotment that has reverted back to USFS.
Figure 2. Aerial photo. Blue line shows the eight assessors parcel that make up the RRR unit of State Parks.
FACILITIES, DEVELOPED LAND, AND INFRASTRUCTURE

These areas are and have been used by humans in pre-historic and historic periods for ranching and agriculture. They include:

Irrigated pastures.
Approximately 54 acres divided into six flood-irrigated pastures bordered by the Woods (Verde) Ditch and a bare earth lane (Figures 3,4). The pastures are replanted or over seeded every year with Verde Valley Pasture Mix and are presently used for boarding and breeding of horses. These pastures are frequented by several species of birds, including: Canada Goose, Great-tailed Grackle, Brown-headed Cowbird, European Starling, and Say’s Phoebe. Irrigation ditches border the pastures. Portions of the ditch system are concrete lined and other portions are simple dirt ditches. A lane borders the north edge of the irrigated pastures and leads into the main complex of buildings. Along the lane and in the ditch we observed mixed perennial and annual weeds, including Prickly Russian Thistle, Rough Cocklebur, Burningbush, Common Sunflower, and Bermudagrass. Although we did not observe Tree-of-Heaven growing within the boundaries of the property, there is a substantial stand of this tree growing along the Woods Ditch where it crosses the entrance lane to the property and along the Woods Ditch where it crosses Salt Mine Road.

Figure 3. Flood irrigated pastures. Bare earth lane located on left of photograph.  
Figure 4. Irrigated pastures view from pond looking north across pastures.
Figure 5. From Entrance road looking south across irrigated pastures with plant nursery in background (off of ASP property).
Fallow pastures.
Approximately 30 acres of previously cultivated agricultural fields are now fallow. These acres have been recently used to graze cattle and American Bison. Prickly Russian Thistle and Silverleaf Nightshade cover most of this area, except for large bare areas surrounding the nests of Western Harvester ants (*Pogonomyrmex occidentalis*). These ants are seed feeders, capable of severely stinging people, and are known to retard restoration of native plant communities from grazing damage.

![Figure 6. Aerial photo of 30 acre fallow field.](image)

![Figure 7. Close up photo of Russian Thistle in fallow field.](image)

Harvester Ant Nest

Roads.
A network of dirt roads of various qualities is present.

- The primary entry road to the property is a dirt road off Salt Mine Road. The entry road crosses USFS property with a 50 foot right of way easement and the Verde Ditch right of way before passing through the entry gate. It is in moderately good condition, but when wet is slippery and easily rutted.
Immediately after entering the property there is a side road going south to the irrigation pond. It bifurcates and encircles the pond, then rejoins and continues along the southern boundary of the property, parallel to an irrigation ditch. This side road is in moderately poor condition but is passable to high clearance vehicles when the road is dry.

The main entry road continues along the northern border of the property with short spurs to an old house and a working horse barn. It continues to the central portion of the property, with branches to each building and parking area. Parts of this road are slippery and easily rutted when wet.

One branch of the entry road passes through a gate onto Forest Service property, and then continues parallel to the river as a riding and hiking trail. Parts of this road are in poor condition due to ruts and soil that becomes very muddy when wet.

Branches of the road continue around the fallow fields, generally paralleling irrigation ditches.

Other branches parallel a flood control berm, and then enter the mesquite bosque; one branch passes through a gate to the river. Another branch continues to a gate near the southeastern corner of the property.

On the east side of the river, a rough dirt road comes off a Forest Service road and descends toward the property on Forest Service land. It crosses the river onto RRR property and is passable to quads and high clearance vehicles at low water. It connects to a rough dirt road on the property that is passable at low water and that connects to the network through a gate.

**Trails.**

Horseback riding trails leave the corral and pasture area through several gates and connect with a primary trail that parallels the river. There is no clear evidence that this trail has been carefully planned, built, or maintained. It has been adapted by users to conditions. In a few places, it has high and low water branches. It is in generally very good condition for riding and hiking. It continues southward onto Forest Service land. It shows frequent use and is probably important to people who board their horses at the RRR. In addition, there is access from RRR to a social trail on USFS land across Salt Mine Road.

**Fences.**

The following types of fences are present:

- **Pole.** These are Ponderosa Pine poles that border the entry road on both sides and enclose, or partially enclose, the irrigated pastures. Many of the poles are broken and need replacement.

- **Electric.** Fences enclosing many of the sections of irrigated pastures are electrified and appear to be in good condition.

- **Barbed wire.** The less accessible portions of the property are bounded by barbed wire fences of varying age and condition, but they are generally in quite good shape. Along
the river side of the property, the fences are placed above the floodway and do not accurately demarcate the property boundary. There are several gates in the wire fences that allow unauthorized access to the property from neighboring areas.

Ditches.
A network of irrigation ditches takes water from the Verde Ditch and distributes it around the property. The network has been mapped by the equestrian operations assistant manager of the RRR, and a copy of the map may be available. Some of the ditches are clogged with debris, mud, and weeds, but most that are needed to maintain the pastures are serviceable. Other disused old ditches are present and sometimes difficult to follow because they have become filled with dirt or have been partially obliterated.

Irrigation Pipes.
Sections of a disused above ground motor-operated wheeled irrigation system are present in the fallow fields and stacked by the hay barn.

Utilities.
The property has electric service and telephone service. The lines have not been mapped as part of this draft plan. Sewage is treated on site by septic tanks. Horse manure management has not been explored as part of this draft plan. Liquid Propane Gas tanks are present at several buildings. Tank is present at the main lodge for the outdoor barbeque grill.

Miscellaneous structures.
Remains of a ropes course that was created by a former owner of the property are present in the riparian area. These consist of climbing poles, zip line structural supports, an obstacle wall, and other pieces of ropes, cables, and equipment. Several concrete blocks that were apparently part of a cable crossing the river are present in the floodway. One terminus of the cable crossing has fallen from the cliff and is present along the river. Unidentified poles are present in the mesquite bosque. Electrical transformer boxes are present along the western fence in the southern part of the property.

Buildings, lawns, and parking areas.
Approximately 15 acres in the central portion of the property has buildings associated with the horse breeding and boarding operation that is currently leasing the property from Arizona State Parks. This area has also been used for special events (weddings) and as a retreat. The following is a draft report by Michael A Freisinger, Arizona State Parks Museum Curator describing the buildings and his observations of the property. Following that is a portfolio of photographs of the buildings.
The Rocking River Ranch property contains numerous buildings, structures and features relating to a 20th century ranch property. The flat alluvial landscape along the Verde River is ideal for agriculture and pasture, thus making it also ideal for a recreational/environmental park similar to Deadhorse Ranch State Park.

The historic landscape and land use of the property appears to consist of several different chronological components. There is a possible prehistoric component, although not identified at this time. An archaeological survey of the property would determine if any prehistoric and early historic sites exist. Observations suggest that there was early land clearing and agricultural use in the area adjacent to the river, possibly late 1800s, early 1900s. This would suggest the possibility of the remains of early building(s) or structure(s) in this area, although most likely buried by flooding. Later clearing and agriculture appear to have occurred from the 1930-80s further inland, west with present day pasture comprising ~60 acres.

The existing buildings and structures appear to have been built during at least three different time periods, 1920-30s, 1940-50s, and 1980-90s.

The earliest building appears to be a rectangular 1920-30s ranch house with horizontal wood siding and post and rail front porch. The inside has been renovated in the 1960-70s and is in fair condition.

A barn from the same period is located ~150 ft. to the NE. It is in fair to poor condition.

Other features that could be associated with this time period (1920s-50s) are some rock walls, rock water troughs and flood berm above the river.

In the 1940-50s the front house and present caretaker house were added. Both are similar architectural style and construction. The front house features a river cobble fireplace and cobble chimney. The house is in poor to fair condition.

There are two modern buildings, a modern main house with several bedrooms, and an unfinished two story apartment building with downstairs public restrooms.

There are also two additional barns and a service building, all modern 1960s-1990s.

Although a few of the buildings are more than 50 years old there is no indication at the present time that they are eligible for State And National Register designation. However they do have characteristics of a ranch setting.

The front house could be renovated and used as office space. It would be difficult to use it as a visitor center. The rectangular 1920-30s ranch house could also be renovated and used as an inside meeting area.
Water.

The property is crossed by and adjacent to the Verde River, which is perennial. It includes the river main channel and a broad cobble bar (approximately 0.75 miles of river), immediately downstream of the confluence of West Clear Creek. Essentially all of the property is within the historic or prehistoric floodplain of the Verde River and prehistoric lake bottom. Approximately 62 acres are within the 100-year floodplain. Other water sources on the property include a 1.6-acre pond that holds water for irrigation, irrigation ditches that are intermittently filled, water troughs for livestock, and occasional standing water following irrigation in poorly drained sections of the pastures. All water on the property originates from the Verde River, either directly or via the irrigation system, or from wells.

The property receives irrigation water from the Verde (Woods) Ditch and includes 60 ditch shares, which are currently being used to irrigate approximately 54 acres of pasture via a 1.6-acre storage pond. A 2005 settlement agreement between Salt River Project (SRP) and the previous owners recognizes 55.6 acres of water right on the property with claimed priority dates as early as 1889 (Statements of Claimant in the Adjudication were filed in order to document and protect those rights). These water rights are extremely valuable due to the strategic location of the property and quantity of historic rights recognized by SRP (the property is at the far downstream extent of private lands with water rights along the Verde River, providing an opportunity to “call on” junior upstream water rights holders to deliver water to the property; further, only a handful of properties in the Verde Valley have historic water rights in excess of 50 acres). Protection of the property provides a potential opportunity to retire and dedicate water rights to instream flow for the benefit of wildlife and recreation. The Verde Ditch originates approximately 13 miles upstream and terminates approximately 1.5 miles downstream. Several small ditches carry water to the irrigated fields. Several ditches are cement lined, but others are dirt bottomed. Some ditches appear to be inactive and filling with soil and plants. Two ponds for holding irrigation water were dug on the property. The pond in the northwest portion of the parcel is approximately 1.6 acres in size and receives water from the Verde (Woods) Ditch. It apparently is perennial and has fish and other aquatic organisms present. The pond in the southeastern portion of the parcel is smaller, less than one acre, and apparently has not held water for many years. The ditch leading to it is completely blocked with dirt. The property is near the southern (downstream) end of the Verde Ditch, and irrigation water should be expected to carry chemicals and other materials from the entire reach of the ditch and lands along it.

There are three Adudication filings and one Statement of Claim filings also associated with the property. All reference either one or more wells and/or the claim for recognition of the pre-statehood use of water from the Verde Rivers via the Wood Ditch/Verde Ditch.

Potable water wells- from Sejokora e-mail to Casavant. Insert (4 wells)
ENVIRONMENTAL SETTING

GEOLOGY AND SOILS

The terrain is generally flat, with an approximate average elevation of 3,000 feet. Most of the substrate consists of recent alluvium, predominantly sand and sandy loam that has been mechanically disturbed at some point in the recent past by agricultural operations and historic floods. Some areas of high bentonite clay content that retard water penetration are scattered throughout the property. At the extreme east side of the property on river left there is a cliff and steep slope derived from the Verde Formation. There are no other rock formations, and no rock outcrops, caves, or mines present. There are a few scattered rock piles around the edges of cleared fields. These piles consist of river-worn boulders and large cobbles and are not more than about two feet tall and twenty feet in diameter.

Flood control and bank stabilization efforts performed over many years include berm construction, placement of eddy jacks, and use of scrap automobiles in bank placements. The natural drainage of the property was disrupted by these efforts and by clearing and leveling of fields and installation of ditches. This disruption makes it impossible to trace natural drainage across the property. It appears from aerial photographs and vegetation patterns that the entire property was historically subject to flooding, and that there was one or more high flow river channels across the property, parallel to the river.

WATER

The property is crossed and adjacent to the Verde River, which is perennial. The total length of river on the property is approximately 0.75 mile. Essentially all of the property is within the historic or prehistoric floodplain of the Verde River and prehistoric lake bottom. Other water sources on the property include a 1.6-acre pond that hold water for irrigation, irrigation ditches that are intermittently filled, water troughs for livestock, and occasional standing water following irrigation in poorly drained sections of the pastures. All water on the property originates from the Verde River, either directly or via the irrigation system, or from wells.

HABITAT TYPES

The natural condition of most of the property cannot be discerned from current conditions. Speculation on site specific conditions would not be well supported because most, if not all, of the nearby land has been subjected to current or historic agricultural uses, flooding, and flood control efforts, grazing and other disruptive activities. Under current conditions, a range of habitat types can be observed. Figure 2 delineates the larger habitat types on the property. Nomenclature follows that of Stevens et al.\(^1\) It is important to note that the definable habitat types along the river are dynamic in nature because of flooding and drying together with maturation or succession of the vegetation, and many patches of specific types are too small to map at the scale used here.

CRITICAL HABITAT

Critical Habitat is a legal status conferred by the USFWS on geographic areas deemed to be important to the survival and recovery of listed Threatened or Endangered Species. Designation as Critical Habitat requires that certain procedures be followed for any projects that are funded by, or require permits or cooperation from, any agency of the federal government. The RRR is within the area designated as Critical Habitat for the Southwestern Willow Flycatcher and the Razorback Sucker. Both of these species have been found near the RRR property and may be expected to occur, at least occasionally. The necessary constituent elements for these species are present on the RRR, and are not likely to be altered in any way by development and management of the property under any scenario consistent with Arizona State Parks’ policies. It is possible that development and management by Arizona State Parks will involve funding, permits, or cooperation with a federal agency, especially the U.S. Forest Service. Early coordination with the local USFS biologists and USFWS is advisable.
Figure 3. Habitat types delineated on the Rockin' River Ranch.
AQUATIC HABITATS

Open water – lentic
This habitat consists of a 1.6-acre pond on the western side of the property. The pond is connected to the Woods (Verde) Ditch, which is approximately 17 miles long. The ditch takes water from the river upstream and returns it downstream from the property. The ditch was dry in January 2009, and is probably dry most winters. The pond, which is used to store water for irrigation of the pastures, contained water all winter and appears to be permanent. Plants around the pond include Velvet Mesquite, Burningbush, Common Sunflower, and Fremont Cottonwood. Animals that may be found pond include any that may have been carried by the ditch from the river, and immigrants from other nearby ponds. Invertebrates that may be found in and around the pond include dragonflies and damselflies, semiaquatic and aquatic Hemiptera (true bugs), and the non-native Red Crayfish, which is widely established throughout the Verde River basin. It is possible that several species of mosquitoes will find suitable breeding habitat here. Fish have been reported from the pond, and probably include all species found in the river. It is possible that former owners of the property also stocked the pond with fish. Lowland Leopard Frogs might use the pond, but more likely that it has a population of American Bullfrogs, which would kill smaller frogs. Birds that use the pond include Say’s Phoebe and Vermillion Flycatcher (foraging site), and several species of sparrows and finches that forage in the adjacent weeds come to the still water to drink. Waterfowl, particularly during migration, may rest on the pond, and Mallards, Wood Ducks, and American Coots may find suitable nesting conditions. Northern Raccoons and Northern River Otters may occasionally forage in the pond.
Open water – lotic

There are three segments of the river on the RRR property (see aerial photos). This habitat includes runs, pools, and riffles (rapids) of the Verde River. Runs are moving water without disruption of the surface, generally over a bed or relatively fine material such as sand, silt, or gravel. Pools are relatively wide and deep with slow velocity flows and sometimes eddy currents. Bed materials typically consist of silt, sand, and fine gravel and may include cobbles and boulders deposited by floods. Riffles, in comparison, are narrower, shallower, and steeper with higher velocity flows. Bed materials of riffles have relatively coarse structure of gravel, pebbles, cobbles, and boulders; all deposited during debris flow floods. The configuration is dynamic, changing with weather and flood events, but the typical pattern is alternation of runs, pools, and riffles. Beavers may alter the flows by their dams, but these are usually washed out by high flow events. Several species of fish (Table 3) have been documented from the Verde River. Of the native species likely to occur, the following specific habitat preferences have been noted (Stevens et al. 2008 citing several authors):

- **Desert Suckers** spawn in riffles. Young develop in quiet pools near the riverbanks. Adults prefer pools during the day and riffles at night.
- **Sonora Suckers** prefer pools in relatively deep, quiet waters. Young develop along stream margins.
- **Roundtail Chubs** prefer eddies below rapids and low-gradient riffles. They spawn in reaches with gravel bottoms. Young develop along stream margins.

Several species of dragonflies and damselflies may be found along open expanses of water\(^1\). The Verde River may serve as a corridor for northward movement of dragonflies during the summer months. It has been reported that as many as 12 species can be seen flying at a single site along the middle Verde River in August. Bottom-dwelling larvae of most species of dragonflies and damselflies prefer slow-moving areas of the river, as well as ponds. Aquatic and semiaquatic Hemiptera (true bugs) also use slow-moving portions of the river, such as eddies and pools. The non-native red crayfish is widely established throughout the Verde River. The Lowland Leopard Frog, a species of concern, may possibly be found along slow to moderate reaches of the Verde River (Stevens et al); however, it is doubtful that this species will be found on the property because of the dominance of the nonnative bullfrog. Several species of birds may be found utilizing the river as foraging habitat, including Common Merganser, Mallard, Wood Duck, Spotted Sandpiper, Bald Eagle, Great Blue Heron, and Belted Kingfisher. American Beaver, Common Muskrat, Northern River Otter, Northern Raccoon, and Ringtail may spend much of their time in the river or foraging along its banks, and many other species of native mammals may come to the river to drink or forage.

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Aerial photographs of the three segments of the Verde River on the RRR property, arranged from north to south.

North reach

Middle reach

South reach
Open water - riffle

Open water – run

Open water – pool
Channelbar Wetlands

These areas occur in the wettest portions of the riparian zone where surface soils either are saturated year-round or have shallow standing water. They occur along the banks and island bars of the river and are frequently altered by flooding. The degree and timing of flood disturbance of the wetlands will determine the plant communities that grow there. In January and February 2009, the dominant plants observed in these areas were cattails and Rough Cocklebur. Recent flooding had knocked down or washed out much of the vegetation. Dragonflies, damselflies, and aquatic and semiaquatic Hemiptera (true bugs) use this habitat. Maricopa Tiger Beetles may burrow or forage in open areas in slightly drier portions of this habitat. Mosquitoes may find pools of shallow water to be ideal larval habitat. Birds that may frequent this habitat include Marsh Wren, Common Yellowthroat, Virginia Rail, Sora, Least Bittern, Mallard, Spotted Sandpiper, and Red-winged Blackbird. American Beaver, Northern River Otter, and Northern Raccoon tracks and signs are common, showing that these animals frequent this habitat.
RIPARIAN HABITATS
The various components of the riparian area intergrade. Trees may create a canopy over otherwise barren cobbles or cattails, and mixed deciduous trees grade into mesquite woodland or grass and shrubs. These cannot be precisely delineated at the scale used here, and probably change at least somewhat at various water levels and over time. The current river level is considerably lower than the historic river level because the river has incised over time. Major floods are expected to rearrange the components, but most will probably be retained to some extent by the existing incised banks and flood control structures.

Barren riparian shorelines
This habitat is represented on the property by a broad cobble bar deposited during a major flooding event, and that appears to be submerged frequently at high water levels. The size of the area varies with the flow level of the river, and it may not always be a “shoreline” but may be several feet from the water at low water levels. The area shows evidence of recent flooding; sparsely distributed flood-adapted plants are typical of this area. We observed Sandyseed Clammyweed and Yellow Sweetclover in this habitat in January and February, as well as numerous shells of the Asiatic Clam that had apparently been left by floodwaters or had lived in this habitat when it was inundated. Invertebrates expected to be found in this habitat include several species of dragonflies and damselflies that require open expanses of water and shoreline as foraging and display areas. This habitat is also important for Killdeer and other shorebirds as foraging and nesting habitat.
Mixed deciduous pioneer forest – vegetated, riparian, sand-silt bars

On the RRR property, the dominant canopy species of this habitat type are Fremont Cottonwood, and Goodding’s willow, with some Arizona Sycamore interspersed. The trees occur in small, isolated stands or as linear bands that parallel the river channel and its braids. They require high spring floods, consequent scouring of the soil, overbank deposition of water and sediment, and stream meandering for germination and establishment of their seedlings. There are very distinct cohorts of same-age trees, including clusters of very young, middle aged, and large old trees. Each cohort indicates a specific season in the past when flooding events and the presence of viable seeds at the right time resulted in conditions that fostered germination and survival. The old trees are on the historic floodplain terrace above the incised riverbed. Some grow along irrigation ditches. A group of very large trees is present along what appears to be a historic braid or high flow channel of the river, now left dry, in the southwest corner of the property. The several cohorts of younger trees grow in the current incised river floodplain. The understory generally consists of a thicket of shrubs and small trees, but may be dense to open depending upon the community’s stage of development and the flooding history. The most common shrubs in the understory include Narrowleaf Willow Tamarisk, Mule’s Fat, although several other species of shrubs are present. The herbaceous layer consists of mixed annuals and short-lived perennials, including the nonnative Bermudagrass, which is well established and scattered patches of the nonnative Johnsongrass. Invertebrates that may be found in this habitat include dragonflies and damselflies, aquatic and semiaquatic Hemiptera, and, perhaps, Maricopa Tiger Beetle and other tiger beetles. This habitat is well known to have the highest density and diversity of birds among all habitat types on the Verde River, and is used by a long list of species.\textsuperscript{2} It may also be important for two Special Interest Species: Southwestern Willow Flycatcher and Yellow-billed Cuckoo. Both birds use this habitat type for breeding.

**Riparian grasslands and shrublands – vegetated floodplain riparian.**

There are small areas of riparian grassland and shrubland along the floodplain terraces, particularly along the slopes. Because of the small size and isolated nature of the patches of this habitat, combined with the interspersion of species into adjacent habitat types, it is difficult to delineate and probably does not have a distinctive flora and fauna. This habitat type is not delineated on the aerial photograph, but is noticeable in the field. Dominant vegetation consists of a mix of native grasses, such as Sand Dropseed, and non-native species such as Lehmann Lovegrass. Scattered throughout are forbs, shrubs, and small trees of various species, including Desert Willow, Velvet Mesquite, and Singwhorl Burrobrush. This may be an important foraging habitat for several species of sparrows that spend the winter in mixed flocks foraging in this region. Mammals observed by sign include Botta’s Pocket Gopher, Desert Cottontail, Black-tailed Jackrabbit, Coyote, and Common Gray Fox.
Prosopis woodlands – vegetated floodplain riparian and uplands

Approximately 100 acres of Velvet Mesquite woodland, also called bosque, is located in two parcels on the southern and eastern boundaries of the property. It appears that portions, if not all, of this habitat were once cleared as agricultural field, but were abandoned at some unknown time in the past century and have grown up to woodland. Flood borne sand and silt has buried the trunks of most of the trees, up to the lower branches, so most trees appear as clusters of branches from a trunkless root system. Dead branches suggest that the trees are not thriving, but struggling to survive with a lowered water table and zone of moisture beneath them. A dense understory of Prickly Russian Thistle and Silverleaf Nightshade, probably resulting from past grazing by domestic American Bison almost completely covered the ground when we observed this area in January and February. Flooding has apparently occurred historically, but has been a very infrequent event. A large suite of insects is associated with mesquite, feeding on flowers, fruits, and leaves. This habitat type can be a very important home for Tree Lizards, Desert Spiny Lizards, and several species of snakes. Several species of birds, including Yellow-billed Cuckoos and Lucy’s Warblers, frequent this habitat. Mammals observed directly or by sign in this habitat include Botta’s Pocket Gopher, White-throated Woodrat, Mountain Lion, Common Gray Fox, Coyote, Collared Peccary, Whitetailed Deer, and Elk.
Barren rock surfaces, including cliffs

There is one small area (an estimated 1.3 acres) of the RRR property with this habitat type. The cliffs, which are composed of tertiary lake deposits of the Verde Valley Formation, are in a parcel on the eastern boundary of the property, on the eastern side of the river. The cliffs themselves are, for the most part, too steep to allow the growth of vegetation; however, the visually dominant species of the cliff tops and edges are Juniper and Crucifixion Thorn. The edges and slopes of the cliffs and the upland above them (Wingfield Mesa) may provide habitat for several special interest species, including Arizona Cliff Rose, Tonto Basin Agave, Verde Valley Sage, Heathleaf Wild-buckwheat, Bigelow Onion, and Viviparous Foxtail Cactus. Birds that may utilize this habitat as nesting or foraging habitat are Belted Kingfisher, Peregrine Falcon, Common Raven, Cliff Swallows, Rock Wrens, and Great Horned Owl. Ringtails, White-throated Woodrats, and Rock Squirrels may make their homes in crevices on the cliff.
UPLAND HABITATS

These are defined as land that is not adjacent to water and is not subject to flooding under conditions currently expected to occur.

Desert Scrub

A small area (an estimated 3.5 acres) of undeveloped land is above the cliff on the above the Verde River, part of Wingfield Mesa. It is difficult on the ground to precisely determine the boundaries of the property that is within the RRR. The estimated area was mad through the use of the Yavapai County GIS mapping program. This land is adjacent to the Coconino National Forest and the Shield Ranch (private land ownership). It is partially fenced with a barbed wire fence, and has been used for cattle grazing in the recent past. Vegetation consists primarily of Crucifixion Thorn, stunted Velvet Mesquite, and other desert shrubs, forbs, and grasses. Substrate consists of volcanic rocks and sediments of the Verde Formation. This area grades into the cliff previously described.

Buildings, lawns, and parking areas.

Approximately 15 acres in the central portion of the property has buildings associated with the horse breeding and boarding operation that is currently leasing the property from Arizona State Parks. This area has also been used for special events (weddings) and as a retreat facility. It has been landscaped with a variety of trees and shrubs, including Pecan and Eucalyptus species, Pomegranate, Aleppo Pine, Fremont Cottonwood, Weeping Willow, Velvet Ash, and Pampas Grass. The central courtyard is a Bermudagrass lawn. The buildings and lawns provide unique habitat for several species of birds and mammals. A large nest, apparently of Common Ravens, is in the red barn. There are several semi-domesticated House Cats residing in the barns and other structures, and House Sparrows make nests in the hay barn and horse barn.
WILDLIFE AND PLANTS

No comprehensive inventory of the biological resources of this property has been conducted. A biological evaluation was prepared for this property in February 2009 (Appendix X). That document reviews the likelihood of special interest species occurring on the property.

No formal protocol surveys for any species of wildlife or plants have been conducted on the property as of February 2009. Surveys are recommended for the special interest birds, Western Yellow-billed Cuckoo and Southwestern Willow Flycatcher, both of which are expected to occur on the property. **Southwestern Willow Flycatcher surveys are scheduled for calendar year 2009.** See Appendix X for surveys results.

Additional surveys consistent with the policies of inventory and monitoring are advised as personnel and funding become available. The goal is to bring the inventory and monitoring on the RRR up to, if not exceeding, the standard set at Dead Horse Ranch and the upstream portion of the Verde River Greenway.

The nearest known area that has had an intensive survey of plants and animals is Montezuma’s Castle National Monument, which is approximately 7.6 miles due north of the Rockin’ River Ranch along a tributary stream of the Verde River. A published report of surveys done at the Monument is available. A similar report for Tuzigoot National Monument, approximately 30 miles upstream from the Rockin’ River Ranch is also available. Dead Horse Ranch State Park and the Verde River Greenway State Natural Area at Cottonwood, also approximately 30 miles upstream, have also had intensive surveys of plants and some animals, and unpublished reports are available from Arizona State Parks. In addition, a similar report is available for Montezuma Wells which is approximately 11 miles northeast of RRR. Montezuma Wells is currently restoring historic agricultural fields that may be useful information in the management of RRR.

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NATURAL AREA MISSION

NATURAL AREA HISTORY

Established in 1986, the Verde River Greenway State Natural Area (VRGSNA) is the first State Natural Area in Arizona. The original purchase included a six-mile reach of the Verde River and its associated riparian vegetation. It is contiguous with the Dead Horse Ranch State Park (DHRSP), which is managed for recreational activities including, but not limited to, fishing, biking, and hiking. DHRSP is designated as a state recreation park whereas the primary purpose is active and passive recreation opportunities for the public. The VRGSNA is designated as a state natural area whereby its primary purpose is protection, preservation, and study of the site’s natural resources. VRGSNA-DHRSP is comprised of combined recreational and natural area properties adjacent to the Town of Clarkdale, the City of Cottonwood, and south of the Town of Camp Verde. The boundaries of the VRGSNA, since the May 2005 Arizona State Parks Board meeting, are the Tuzigoot Bridge to the north and the Beasley Flats River Use Area on the south. This is an area of approximately 33 river miles.

A six mile stretch of the Verde River, located in Yavapai County, Arizona, and known as the VRGSNA, was identified in the late 1980’s as a critical portion of the river based on its rich natural and cultural resources as well as a growing demand for recreational use. A Verde River Greenway Management Plan was developed for Arizona State Parks Board and offers management recommendations for all landowners within the 100-year floodplain. The strategies are intended to promote the participation of all landowners in a management system based on the common vision to be successful stewards of the area’s natural and cultural resources.

In 2005, the Arizona State Parks Board expanded the Verde River Greenway Project beyond the original six mile stretch to encompass thirty-three miles of riparian wildlife corridor. In tandem with the expanded Greenway vision, additional properties have been acquired and are under Arizona State Parks management for natural resource values.

RRR was added to the VRGSNA in 2008, by purchase of approximately 209 acres, which includes the river and its floodplain and the buildings, roads, pastures, and other developed portions of the property and the water rights. The developed property is currently leased as a horse boarding and breeding operation [details of the lease are needed at some point in this document].

Previous owners of the property have used it as a retreat center, including a ropes course, as well as a horse operation, and it has apparently been used in the more distant past for various agricultural purposes. The flood plain portion of the Verde River has been subjected to severe floods throughout history, the latest being in 1993 and 1995. These two flood events, estimated to be 70-100 year events, scoured most of the vegetation from along the river channel as well as incising the channel and adjacent washes that feed into the river. The natural process of fire has been restricted in this habitat community (due to the urban wildland interface). Flooding still occurs on an annual basis with the severity of a flood event varying between bank full and 100-year flood events. The minor floods help with the natural recruitment of vegetation along the banks of the river and the flood plain.
MISSION OF THE NATURAL AREA

This section needs to be developed. The primary mission and overall intent of the VRGSNA is for the Verde River Greenway to become a thriving oasis that will perpetuate its unique natural ecosystem and wildlife habitat; an outdoor history museum, and a place where people can enjoy either passive or active outdoor activities.

The primary mission for the RRR, a unit of VRGSNA, is to provide education and appreciation for natural areas and access for the general public as compatible with the land management objectives.

RELATIONSHIPS BETWEEN NATURAL RESOURCES AND OPERATIONS AND DEVELOPMENT ACTIVITIES

Compatibility Issues with Land Uses and Public Access.

The developed portion of the property is currently being used as a horse boarding and breeding facility. People who board their horses there sometimes ride them on the trail that goes along the floodway. In addition, other riders sometimes use this trail to pass between neighboring Forest Service lands. If horseback riding is not considered compatible with the Natural Area, then the trail should be closed and posted.

The developed portion of the property is, in itself, probably not compatible with the Natural Area and some process of splitting the designated uses and management of the two distinctly different areas should be developed as described earlier in this document using the Draft Integrated Management Guidelines for Natural Areas (e.g. zones). Dead Horse Ranch State Park and its relationship with the Verde River Greenway State Natural Area may provide a useful model for the future of the RRR.

Effects of Operations, Development, and Public Access on Natural Resources.

The effects of operations, development, and public access on natural resources have not been determined. Detailed study may be warranted. Superficial examination indicates that there is clear functional-physical demarcation between the developed area and its operations and the natural area.

The river and horse trails provide public access to the natural area and they are used occasionally but not very heavily at this time. There is no evidence of any effects of access by river runners, although people have been observed stopping on the property and picnicking. Horse trails pass through the natural area and appear to have minimal effects.

A rough dirt road accesses the property on the east side of the river from Forest Service land. This road is used occasionally by off-road vehicles, and at low water, vehicles can cross the river onto the natural area. There is no evidence that this has any effect other than temporarily disturbing the water and sediments and maintaining the road in a disturbed state. Noise and presence may have some disturbing effect on wildlife and aesthetics.
There is minimal evidence of vandalism and litter. However, abandoned fire-rings have been observed regularly along the river bank.

Effects of Natural Resources or Their Management on Operations, Development and Public Access

The presence of the existing natural resources adds immeasurably to the enjoyment of the property by users. The river and horse trails provide public access to the natural area and they are used occasionally but not very heavily at this time.

Management of the area as a natural area having Critical Habitat and federally listed species may restrict some uses and management actions and may meet with some resistance by current users.

Roads have negative impacts on hydrological processes, vegetation, and wildlife but serve a necessary role in State Parks and State Natural Areas. Soil conditions on the dirt roads are such that parts of the road become slippery when wet and they are easily rutted. These conditions require frequent superficial road maintenance in order to maintain the roads as easily passable to passenger cars. There are roads that are poorly designed and maintained and contribute to soil loss, erosion, sedimentation and loss of natural resources. Assessment of the current design of road system is recommended to reduce negative impacts.

FUTURE PARK DEVELOPMENT IMPACTS ON NATURAL RESOURCES

Future park development has not been planned at this time. The impacts on natural resources should be evaluated and projected at the time that such development is planned.

Under any scenario, visitation to the area is expected to increase. Under current management guidelines, there will be little or no development within the river floodway, except, perhaps, minimal trails and boat landings.
LAND USE AND MANAGEMENT UNITS

LAND USE

Open/Undeveloped Areas.
The river floodway is open and undeveloped. There has been some past development of flood control structures (berms, jacks, car levees) which have had no apparent maintenance recently. The floodway is currently fenced from the developed areas by pole and/or barbed wire fences. These fences will require periodic and episodic maintenance.
The fallow fields and mesquite bosque area may be considered open and minimally developed. Restoration of these to a more natural appearance may be possible.
The cliff is undeveloped, although there is a ruined recent structure (zip line terminus?) at the base of the cliff.

Administrative Areas.
Some of the current buildings, roads, and pastures may be developed as Administrative Areas. Currently several of the buildings are used by the horse boarding operation.
It has been suggested that an area near the garage would be suitable to use as an RV pad for volunteer residence.

Surrounding Land Use.
The property is bordered by Prescott and Coconino National Forests (U.S. Forest Service) on several sides. Privately owned land lies to the south and east and consists of a plant nursery, irrigated pastures, low-density residential properties, and grazing land. The general area is a mixture of National Forest lands that are undeveloped and private lands that include low-density residential properties, ranches with irrigated pastures, and rural enterprises. The property is approximately one river mile downstream from a Clear Creek River Access Site.

MANAGEMENT UNITS
The property can be divided into several distinctive zones or management units, each with its own management requirements.

• Zone-Locatin1 includes 0.75 miles of Verde River floodway with approximately 62 acres within the 100-year floodplain.
• Zone-Locatin2 is comprised of mature mesquite bosque (approximately 100 acres, some of which may be within designated floodplain).
• Zone-Locatin3 is approximately 30 acres of previously cultivated land capable of returning to mesquite bosque, saltbush shrubland, or grassland but currently dominated by dense growth of Prickly Russian Thistle.
• **Zone Location 4** is approximately 54 acres that are actively irrigated pasture with associated historic water rights (note that some of this area lies within the 100-year floodplain).

• **Zone Location 5** consists of approximately 15 acres of buildings, roads, parking areas, and corrals

**WATERSHED MANAGEMENT AREAS**

This section needs to be developed.
INVENTORY AND MONITORING

Inventories produce the core information that managers need to make effective and sound decisions. Monitoring is “the collection of information to assess the status and trend in the condition of the structure and functioning (overall health) of biological populations and communities, and their habitat, and larger scale ecological systems over time for the purpose of assessing and directing management activities.” Inventory and monitoring data provides information on what management is needed even if no management is taking place.

A natural resource program should include inventorying and monitoring such attributes as biological diversity, geologic and water resources, soils, vegetation, and climate. Inventories should be conducted in accordance with scientifically acceptable protocols. Monitoring should be repeated over time and address specific management goals and activities for a species, natural community, or site.

FLORAL INVENTORY AND MONITORING

Floral Surveys.

No known floral surveys have been conducted on this property or in the immediate vicinity of it. The nearest known area that has had an intensive survey of plants is Montezuma’s Castle National Monument, which is approximately 7.6 miles due north of the Rockin’ River Ranch along a tributary stream of the Verde River. A published report of surveys done at the Monument is available. A similar report for Tuzigoot National Monument, approximately 30 miles upstream from the Rockin’ River Ranch is also available. Dead Horse Ranch State Park and the Verde River Greenway State Natural Area at Cottonwood, also approximately 30 miles upstream, have also had intensive surveys of plants, and unpublished reports are available from Arizona State Parks.

Rare, Endangered, and Nonindigenous Plant Monitoring.

Rare and Endangered Plants:

No known monitoring program for rare or endangered plants is extant at this time. A baseline survey was conducted as part of the Biological Evaluation. The rare or endangered plants that may be expected to occur in this area are associated with archaeological sites (Tonto Basin Agave) or the Verde Formation (Arizona Cliff Rose, Verde Valley Sage, Heathleaf Wild-buckwheat, Hualapai Milkwort, and Bigelow Onion). The only potential habitat for these plants is the upland and cliff area on the east side of the property. It was examined from a distance in February, and did not appear to support observable stands of any of these plants, but it is unlikely that they could be detected using this method at this time of year. Detailed survey for these species at an appropriate season is recommended. If any of these plants are found to be present, than it may be appropriate to develop and conduct a monitoring program.

Nonindigenous Plant Monitoring

No known program of nonindigenous plant monitoring is extant at this time. The general area and the property itself have an abundance of species of nonindigenous plants and there are some
areas in which these have clearly become established and/or problematic. Of immediate and continuing concern is Tree of Heaven (*Ailanthus altissimum*) which is present immediately adjacent to the property and in a very large stand upstream along the Verde Ditch. This species has not yet been documented on the RRR, and should be monitored and eradicated if it is found.

**Wetlands.**

No known programs of wetland inventory or monitoring are extant at this time. The only identified type of wetland present on the site is channelbar wetlands, which are subject to natural modification with flooding of the river. It may be considered useful to map and document the distribution and extent of these wetlands and monitor them over time.

**FAUNAL INVENTORY AND MONITORING**

No known faunal inventories have been conducted on the property. The nearest known area that has had an intensive survey of vertebrate animals is Montezuma’s Castle National Monument, which is approximately 7.6 miles due north of the Rockin’ River Ranch along a tributary stream of the Verde River. A published report of surveys done at the Monument is available. A similar report for Tuzigoot National Monument, approximately 30 miles upstream from the Rockin’ River Ranch is also available. Dead Horse Ranch State Park and the Verde River Greenway State Natural Area at Cottonwood, also approximately 30 miles upstream, have also had intensive surveys of vertebrate fauna, and unpublished reports are available from Arizona State Parks. The site is within the area in which an intensive fish survey has been conducted.6

**Species Other Than Federal- or State-listed Threatened or Endangered Species.**

A cursory survey of the property was conducted during the fieldwork for the Biological Evaluation, but no lists were kept. That fieldwork was conducted during January and February, when most of the plants and many animals were dormant or away. Detailed inventory and monitoring are recommended during the appropriate season.

**Federal- or State-listed Threatened or Endangered Animal Species.**

A Biological Evaluation was prepared for the property. The site is within the area designated as Critical Habitat for two endangered species: Razorback Sucker and Southwestern Willow Flycatcher. It is highly unlikely that any special interest species regularly frequent or depend upon the developed and fallow portions of the property. Part of the property is undeveloped and generally undisturbed cliff and steep hillside, which may be habitat for several special interest plant species, including the endangered Arizona Cliffrose. It is highly unlikely that this part of the property will ever be utilized or disturbed because of its steep terrain. The Verde River

The floodway is an important natural feature of the property. The following special interest species have been reported from or are likely to occur in the river floodway: Maricopa Tiger Beetle, Razorback Sucker, Colorado Pikeminnow, Roundtail Chub, Desert Sucker, Sonora Sucker, Lowland Leopard Frog, Mexican Garter Snake, Southwestern Willow Flycatcher, Bald Eagle, Western Yellow-billed Cuckoo, Common Black Hawk, and Belted Kingfisher. The two endangered fish species, Razorback Sucker and Colorado Pikeminnow, have been found in the general area because of repatriation attempts that have apparently failed, although some individuals may remain. The other fish species populations are apparently secure. Presence of the frog and snake is possible, but cannot be determined without surveys during their active seasons. We recommend protocol surveys in the appropriate season for Southwestern Willow Flycatcher and Western Yellow-billed Cuckoo, two species that we consider highly likely to occur on the property. Bald Eagles are reported to nest upstream and downstream from the property and to use the area as foraging habitat. Wintering Bald Eagles have been reported from the area, as have Common Black Hawks. Belted Kingfishers are present.

WATER QUALITY MONITORING
No water quality monitoring efforts are known to be occurring at this time.

Surface Water.
No surface water quality monitoring efforts are known to be occurring at this time.

Groundwater.
No ground water quality monitoring efforts are known to be occurring at this time.

SOILS INVENTORY AND MONITORING
No known efforts of soils inventory and monitoring have been done or are being conducted at this time.

FIRE MONITORING
No known efforts of fire monitoring have been done or are being conducted at this time.

Fire History.
There are no known records of fire history. There are no obvious signs of recent fires on the property.

Fire Effects Monitoring.
There is no known effort at monitoring fire effects.
NATURAL RESOURCES MANAGEMENT

FOREST MANAGEMENT
This section needs to be developed. Concerns may include management of the mesquite bosque and riparian woodland.

AGRICULTURAL OUTLEASES/GRAZING
This section needs to be developed. Concerns may include management of the irrigated pastures and fallow fields.

HABITAT MANAGEMENT

Habitat Management Strategy and Goals
This section needs to be developed.

Wildlife Habitat Projects

Wildlife Waters, Nesting Structures and other devices
This section needs to be developed.
There are no known wildlife waters, nesting structures, or other devices currently on the property. Some wildlife species do use the existing livestock waters. Ravens are known to have nested in the barn.

Woody Vegetation Removal
This section needs to be developed.
There has been some limited removal of woody vegetation and there are a few slash piles.

Prescribed Fire
This section needs to be developed.
There has been a limited attempt to burn dried Prickly Russian Thistle in one of the fallow fields.

Revegetation, Rehabilitation and Restoration
This section needs to be developed.
Fence Maintenance, Improvement and Removal
This section needs to be developed.
See the section on fences in the description of facilities.

Endangered Species Habitat Management Projects
This section needs to be developed.

FISH AND WILDLIFE POPULATION MANAGEMENT

Federal Endangered, Threatened, and Candidate Species

Status of Endangered Species
A Biological Evaluation has been prepared. The endangered Southwestern Willow Flycatcher is likely to be present on the property. Surveys for this and other species are recommended.

Federally-listed, Proposed Candidate and Conservation Agreement Species Management Programs
This section needs to be developed.
There are currently no known programs on this property.

Furbearer/Predator Management
This section needs to be developed.
There are currently no known programs on this property.

Other Species Management

Birds
This section needs to be developed.
There are currently no known programs on this property. It is likely that Southwestern Willow Flycatchers occur on the property and some plan for their protection should be developed.
Mammals
This section needs to be developed.
There are currently no known programs on this property.

Reptiles and Amphibians
This section needs to be developed.
There are currently no known programs on this property. Surveys for Mexican Garter Snake and Lowland Leopard Frog should be conducted.

Invertebrates
This section needs to be developed.
There are currently no known programs on this property. Mosquitoes may be a problem if ditches and the irrigation pond are not maintained properly.

WETLANDS MANAGEMENT
This section needs to be developed.
There are currently no known programs on this property.

WATER QUALITY
This section needs to be developed.
There are currently no known programs on this property.

LAND REHABILITATION AND MAINTENANCE
This section needs to be developed.
There are currently no known programs on this property.

SOIL RESOURCES MANAGEMENT
This section needs to be developed.
There are currently no known programs on this property.

ADMINISTRATIVE AND DEVELOPED AREA MANAGEMENT
This section needs to be developed.
There are currently no known programs on this property. Review of the lease and clarification of chain of command and responsibilities are recommended.

PEST MANAGEMENT (NATIVE AND NON-NATIVE SPECIES)

Animal Control

This section needs to be developed.

Integrated Pest Management should begin with a thorough investigation and evaluation of the potential pest species present and an assessment of their current and likely future status. There are currently no known programs on this property. The following concerns are evident:

- Mosquitoes may be a problem, especially if management of the irrigation system is not consistent.
- There are several house cats in the developed areas; these may have beneficial effects in rodent control but deleterious effects on native reptiles, birds, and mammals.
- Rodent control in some form is a necessity in the buildings.
- House Sparrows are present in and around the buildings, especially the barns, where they find good nesting structure and food.
- Cowbirds, which are abundant on the site, may be a problem for Southwestern Willow Flycatchers and other small native birds.
- Canada Geese, which are a charismatic species, may do some damage by feeding in the pastures, but this is unlikely to be large compared to that done by horses.
- Flies of various species may build to problematic levels if manure management is not consistent.
- Ringtails have entered several buildings.

Plant Control

An inventory and status review of pest plants would be appropriate as a first step. It is evident from cursory examination of the property that several species of non-native plants are present in profusion in some areas and may be having an adverse effect on native plants and animals. A document titled: A Draft Integrated Invasive Species Management Plan For Verde River Greenway State Natural Area And Dead Horse Ranch State Park, Period 2006 – 2010 was prepared by S. Max Castillo, Unit Manager VRGSNA, and Amy Gaiennie, Resource Inventory and Monitoring (RIM) Volunteer, Arizona State Parks, reviewed and revised by Joanne Roberts, ASP Resource Ecologist, and is available and appropriate for application on this property.7

It appears that Prickly Russian Thistle (Salsola kali), also known as “tumbleweed” is the dominant plant in the fallow fields and is abundant in the mesquite bosque. Prickly Russian Thistle is a fast-growing non-native annual that is well adapted to disturbed soils. It was

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introduced into the United States by Russian emigrants in the 1800’s as a contaminant of flax seed. As the plant dries out, the base of the stem becomes brittle and breaks off, causing the plant to tumble and disperse its seeds. A mature plant may produce as many as 250,000 seeds. Today, it is common throughout the Western United States and has invaded about 100 million acres due to its highly successful dispersal mechanism, as well as its further spread by human activities. It depletes soil moisture, threatens native plant ecosystems, especially when water is a limiting factor, and can pose a serious fire hazard when it accumulates around obstacles.

The following websites provide some useful information about this species.

http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7486.html
http://www.aocweb.org/em/Portals/2/01_TitleContents.pdf
www.livestockforlandscapes.com/russianthistle.htm

Review of the available information reveals that there is currently no consistently useful approach that can be strongly recommended. Systematic experimentation on the fallow fields may result in information of value. For any control management strategies on the RRR property, the following characteristics of Prickly Russian Thistle should be taken into account:

- It is well adapted to poor soils, including alkaline soils and soils with dysfunctional nutrient cycling and low organic matter. Normally, it will not germinate successfully in firm soil but requires open sites with loosened soils.
- Over 90% of the seeds either germinate or decay in the soil during the first year.
- The seedlings are suppressed when other plants establish first and shade out the sunlight.

Management and control of Russian thistle is difficult. The following methods have been suggested by various sources:

- Mowing or destroying young plants by other means may be an effective way to control seeds. Hand pulling of seedlings may be an effective way of eliminating small areas of tumbleweed that are growing along the RRR roads and in the irrigation ditches.
- Burning – Although burning may control the fire hazard associated with Russian Thistle by eliminating the accumulated organic debris and some seed, burning takes place when much of the seed has already disbursed.
- Restoration with Native Plants – Planting more desirable, competitive plants can be an effective method of controlling Russian Thistle, as the soil becomes firm with recovery from disturbance. Before employing this management strategy, it is important to manage the Western Harvester Ants (*Pogonomyrmex occidentalis*) on the property, which are seed feeders and known to retard restoration of native plant communities from grazing damage.
- Grazing, in combination with other control methods, may reduce severe weed infestations and eliminate small infestations. Grazing may be appropriate for a riparian natural area where herbicides are not appropriate). Historically, livestock has used Russian Thistle as a forage plant. For example, Russian Thistle hay is credited with saving the beef cattle industry in Canada and the United States during the Dust Bowl era, when conventional hay crops failed and no other feed was available for starving animals. Young plants are also
appropriate for livestock forage and may be used. As the plant matures, however, the leaves develop a sharp-pointed tip and bracts beneath the flowers are spine-tipped, which may make the plant unpalatable to livestock. (Pest Notes). In addition, Russian Thistle can accumulate two compounds—nitrates and oxalates—that may be toxic to livestock. Diarrhea may be a consequence when sheep subsist on the plants for several weeks. A rare, acute neurological/metabolic problem may follow ingestion of large quantities of Russian Thistle in only a few hours. This problem is a result of the oxalates in the plant. It is possible to overcome this difficulty by supplementing the diet of the livestock, making sure hungry animals are not sent into large stands of this plant, and providing them with a variety of forages from which to choose.

- Biological control agents - To date, this method of control has been unsuccessful. Although the agents have become established, they have not produced sufficient control. Today, there are several control agents under investigation that may hold promise. One is a blister mite (*Aceria salsolae*) imported from the Mediterranean that appears to attack only Russian Thistle and stunts the plant by killing the growing tips. Also under investigation are seed-feeding and stem-boring caterpillars and two different weevils.

- No action – The oxalates in Russian Thistle may provide an advantage by making phosphorus more available, increasing phosphorus content of litter. This enrichment of the soil with a plant nutrient may assist native species in reclaiming the land as the soil recovers from disturbance.

- Soil Enhancement – Increasing the presence of mycorrhizal fungi in the soil by enhancing it with organic matter may be a promising strategy for recovery of Russian Thistle infested soil. Mycorrhizal fungi colonize the root systems of many plants and benefit them by facilitating increased water and nutrient absorption. The fungi, in turn, make use of carbohydrate by-products of plant photosynthesis. Increased numbers of mycorrhizal fungi could potentially promote the establishment and growth of native plants in the enhanced soil. At the same time, Russian Thistle exhibits a pathogenic response to mycorrhizal fungi and may actually be suppressed by their presence. A plentiful source of organic material needed for this strategy is agricultural waste; the waste must be composted to eliminate seeds.

**Environmental Considerations**

This section needs to be developed.

**FIRE MANAGEMENT**

This section needs to be developed.

**SPECIAL INTEREST AREA PROTECTION**

This section needs to be developed.

**General Provisions.**
This section needs to be developed.

**Caves**
There are no known caves on the property, and it is unlikely that any unknown caves will be found.

**Riparian and Other Wetland Areas**
This section needs to be developed.