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**BIOLOGICAL ASSESSMENT FOR BULL TROUT  
ON THE ONGOING ACTIVITIES IN  
THE JARBIDGE RIVER WATERSHED**

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## **DESCRIPTION OF THE AREA**

### **Ownership**

The Idaho Department of Lands manages about 9,800 acres of land within in the Jarbidge River watershed. Private lands occupy about 2,580 acres in Idaho and an additional 21,400 acres of land north of the Forest Boundary in Nevada. Jarbidge Resource Area manages about 22,100 acres of public lands in Nevada in the Jarbidge River watershed. In Idaho Jarbidge Resource Area manages approximately 178,000 acres of public land in the Jarbidge River watershed. The Jarbidge Ranger District administers over 50,000 acres of public land within the Jarbidge River watershed in Nevada.

### **Geology**

Elevations in the Jarbidge River Watershed range from about 3,690 feet at the Jarbidge River confluence with the Bruneau River to 10,838 feet on Matterhorn Peak in the Jarbidge Wilderness. The primary canyon system is the Jarbidge River. A number of secondary canyon systems are present in the Jarbidge River watershed. Secondary canyon systems on BLM administered lands include portions of Dave Creek, Deer Creek, Buck Creek, Jack Creek, Poison Creek, Columbet Creek, Dorsey Creek, and Cougar Creek. Canyon depths vary but are typically range from 150 to 600 vertical feet from the river to the uplands. Uplands between these canyons are generally broad undulating plateaus that slope downward generally to the north.

The Jarbidge River watershed geology is dominated by rock of volcanic origin. Jarbidge Peak is the remnant of an old volcano. Jack Creek originates near the old caldera on Jarbidge Peak. Old lava flows are dominated by either rhyolitic or basaltic material. A number of old shield volcanoes are in the watershed including Poison Butte, Mosquito Lake Butte, Horse Butte, Middle Butte and Pence Butte. Additionally, the Jarbidge Mountains show evidence of past glaciation. Rounded cobbles have been deposited by glacial out wash over the volcanic flows in some areas near Murphy Hot Springs.

Upland plateaus form 3 general areas divided by deep canyons (Figure 1). The Diamond A Desert plateau lies between the Bruneau and Jarbidge River Canyons. The Diamond A has a number of Creeks including Buck Creek, Columbet Creek, Cougar Creek, Deer Creek, Dorsey Creek and Sanovia Creek that cross BLM lands. The Wilkins Island plateau is bounded by the West Fork Jarbidge River, East Fork Jarbidge River, and Jarbidge Mountain. Perennial creeks coming from Wilkins Island plateau include Dave Creek, Jack Creek, and Freighters Defeat that cross BLM lands. Rattlesnake Creek is an ephemeral creek. On the BLM portions it lacks riparian vegetation. The Inside Desert plateau is the area that lies east of the Jarbidge River and extends to Clover Creek. This area is drained primarily by Poison Creek, an ephemeral creek. Poison Creek generally lacks riparian vegetation for most of its length on BLM lands. No perennial streams are present on BLM lands on the Inside Desert plateau within the Jarbidge River watershed. The perennial portion of Cougar Point Creek lies within the East Fork Jarbidge canyon.

## Soils

Along the canyon rims, soils are shallow and poorly developed from weathered rhyolite. Soils in portions of the upland plateaus are shallow gravelly to stony loams, however, in dips and depressions the soils are deeper and more loamy. The deeper soils are the result of weathered rhyolite/basalt on site, as well as some aeolian or loess deposits. The majority of wind transported sediment is likely from the alluvial deposits of old Lake Idaho. Toward the north some of the soils have a duripan layer at a depth of 8 to 14 inches which restricts rooting depth. Sites vegetated by Idaho Fescue usually have a clay horizon or clay pan which affects the plant community. In general the soils in the area have a low potential for erosion because of the vegetative cover and the amount of rock.

Soils in floodplains along some streams are fairly deep where the gradient is low (<1.5%), however, soil development in floodplains is essentially absent in reaches with higher gradient. Additionally, soil development is limited by topography in some floodplains. Soils in the riparian zone are primarily alluvial deposits. Soils in low gradient reaches could be impacted by livestock trampling and compaction in the riparian zones, particularly when they are wet in the spring and/or fall.

## Vegetation

### Riparian

At the lower elevations near the confluence of the Jarbidge River with the Bruneau River the riparian zone is very restricted due to repeated scouring during spring run-off, the confined canyon, narrow or lacking floodplain, and highly variable water flows. Rocky Mountain (*Juniperus scopulorum*) and western juniper (*J. occidentalis*) are present along with rose (*Rosa* spp.), currant (*Ribes* sp.), poison ivy (*Rhus radicans*), and coyote willow (*Salix exigua*).

Upstream of the confluence of the Jarbidge Forks and along many tributaries the number of willow species increases and includes: (*S. lutea*, *S. lasiocarpa*, *S. scouleriana*, *S. lemmoni*, and *S. drummondiana*). Other woody species found along the Jarbidge River and tributaries include: black cottonwood (*Populus trichocarpa*), quaking aspen (*P. tremuloides*), limber pine (*Pinus flexilis*), chokecherry (*Prunus virginiana*). Herbaceous species present include rushes (*Juncus baliticus*, *J. ensifolius*, and *J. bufonius*), sedges (*Carex microptera*, *C. douglasi*, *C. nebracensis*, *C. rostrata*, *C. lanuginosa*, *C. canescens*, and others), and grasses (Kentucky bluegrass - *Poa pratensis*, tufted hairgrass - *Deschampsia caespitosa*, mannagrass - *Glyceria* spp.).

### Upland Plateaus

Vegetation on the upland plateaus are dominated by shrub steppe habitats. The dominant shrub is Wyoming big sagebrush (*Artemisia tridentata* var. *wyomingensis*) with bluebunch wheatgrass (*Agropyron spicatum*) and Thurber needlegrass (*Stipa thurberiana*) the dominant grasses at the northern portion of the watershed. A few miles from the stateline the dominant grass shifts to Idaho fescue (*Festuca idahoensis*) while Wyoming sagebrush remains the dominant shrub. At elevations usually over 6500 feet mountain big sagebrush (*A.t. vaseyana*) replaces Wyoming big sagebrush. Other shrubs

on the upland plateaus include low sagebrush (*A. arbuscula*), antelope bitterbrush (*Purshia tridentata*), rubber rabbitbrush (*Chrysothamnus nauseosus*), and green rabbitbrush (*C. viscidiflorus*). At higher elevations small stands of quaking aspen are present. Aspen stands are often in areas with deeper soils and a northern aspect or an area where snow collects. In a few areas western juniper occur as scattered trees. Uplands near the confluence of the Jarbidge and Bruneau Rivers have a salt desert shrub community. In this area the basins are internally drained and are vegetated by shadscale (*Atriplex confertifolia*), spiny hopsage (*Grayia spinosa*), smooth horsebrush (*Tetradymia glabrata*), as well as Wyoming big sagebrush and rabbitbrush.

Native grasses are commonly present in the area include Sandberg bluegrass (*Poa secunda*), Indian ricegrass (*Oryzopsis hymenoides*), basin wildrye (*Elymus cinereus*), bottlebrush squirreltail (*Sitanion hystrix*), western wheatgrass (*Agropyron smithii*). At higher elevations Idaho fescue (*Festuca idahoensis*), mountain brome (*Bromus carinatus*), Nevada bluegrass (*P. nevadensis*), muttongrass (*P. fendleriana*), and oniongrass (*Melica bulbousa*) are found.

A large variety of forbs grow in the uplands. Common genera of perennial species include paintbrush (*Castilleja* spp.), lupine (*Lupinus* spp.), milkvetch (*Astragalus* spp.), fleabane (*Erigeron* spp.), buckwheat (*Eriogonum* spp.), onion (*Allium* spp.), rockcress (*Arabis* spp.) Penstemon (*Penstemon* spp.), balsamroot (*Balsamorhiza* spp.), hawksbeard (*Crepis* spp.), butterweed (*Senecio* spp.), pussy-toes (*Antennaria* spp.) and phacelia (*Phacelia* spp).

Many of the native upland communities burned in large fires from the 1970's through the 1990's. Parts of some of the fires were seeded to crested wheatgrass (*Agropyron desertorum*, *A. cristatum*) or intermediate wheatgrass (*A. intermedium*). The majority of the seedings are located east of the Jarbidge River. Cheatgrass (*Bromus tectorum*) may dominate burned areas following fire, particularly on poor condition rangeland at the lower elevations and precipitation zones. Native perennial plants are reduced in both numbers and cover in seedings and sites dominated by exotic annuals. Other exotic species that increase include tumbleweed (*Salola kali*), flixweed tansy mustard (*Descurainia sophia*), and tumbled mustard (*Sisymbrium altissimum*). Tree species in the mountains include curl-leaf mountain mahogany (*Cercocarpus ledifolius*), subalpine fir (*Abies lasiocarpa*), quaking aspen, and limber pine (*Pinus flexilis*). Shrub species may include serviceberry (*Amelanchier* sp.), mountain snowberry (*Symphoricarpos oreophilus*), and elderberry (*Sambucus* sp.), along with mountain big sagebrush and low sagebrush in the more open sites. Many of the same grasses forbs are found in the mountains as at lower elevations.

## **Recreation**

### Unpermitted Recreation

#### White-water Recreation

Flows in the Jarbidge River are suitable only during the late spring (May) and early summer (June) for white-water trips. Water temperatures in the Jarbidge River are usually less than 10 °C, suitable for fluvial bull trout. The recommended minimum flow

for white-water recreation is 1,000 cfs (Warren and Partridge 1993). Water flows are high making fishing difficult. Kayaks, inflatable kayaks, rafts and catarafts are the most common types of water craft used, but some recreationists have used white-water canoes. During drought years there is not enough water to safely float the Jarbidge River. Float trips for the Jarbidge River begin at the Jarbidge Recreation Site, the confluence of the East Fork and West Fork of the Jarbidge Rivers. The first take out is Indian Hot Springs on the Bruneau River about 0.5 miles below the confluence of the Jarbidge River with the Bruneau River and about 27 miles downstream of the put in. Some floaters continue down the Bruneau River to just downstream of Hot Creek a few miles from the town of Bruneau. Whitewater recreationists are encouraged to register at the Jarbidge River put in and voluntarily follow the same restrictions as outfitters to minimize impacts. Based upon voluntary registration at least 30 individuals floated the Jarbidge River in 2002. During years with normal or above snowpack and a longer flow period, more trips are likely.

#### Camping

BLM improved 3 high use camping areas along the East fork of the Jarbidge River in 2000. Improvements included a ramp just below the confluence of the Jarbidge Forks for rafters, installing 2 vault toilets, and hardening (graveling travel ways) campsites, installing fire rings, and constructing a few stairways to the river to reduce recreation impacts.

#### Fishing

BLM has no jurisdiction in setting season or limits for fishing. Nevada Division of Wildlife and Idaho Department of Fish and Game set seasons and limits within Nevada and Idaho, respectively. A number of recreationists fish in the Jarbidge River both forks and the mainstem. Fishing season occurs from June through October. The highest incidence of fishing is between 4<sup>th</sup> of July and Labor Day. Idaho Fish and Game has mount bull trout posters in several areas directing any bull trout that is caught, be released. BLM has no data on the amount of use the area receives.

#### Hunting

Hunters are able to harvest a variety of upland and big game species in the watershed area. Parts of 3 Idaho and 1 Nevada mule deer hunting units extend into the Jarbidge River watershed. In Idaho small portions of big game hunt units 41, 46, and 47 are present within the watershed. There are hunting seasons for the following wildlife species: California bighorn sheep, mule deer, pronghorn, elk, sage grouse, chukar, mourning dove, cottontail rabbit, and forest grouse. Hunts have been established for specific weapons (muzzleloader, archery, and rifle). In Idaho archery season starts in August and mountain lion season can extend into March. Hunts in Nevada begin in August and extend into November. Nevada Division of Wildlife and Idaho Department of Fish and Game set seasons, weapon restriction and bag limits within Nevada and Idaho, respectively. BLM has no current data on the amount of hunting use that occurs.

#### Permitted Recreation

##### White-water recreation

Four outfitters provide guided float trips down the Jarbidge River. Outfitters are required to minimize impacts on the environment because of the WSA. Each outfitter is authorized to make 3 trips annually. Floating season changes annually, during years with low snow pack, no guided trips occur. Based upon trip reports each outfitter averages

each trip down the Jarbidge River lasts about 3 days. Trip data for the outfitters for the past 5 years are contained in Table 1-1. The data represent guided trips for both the Jarbidge and Bruneau Rivers. The following are the stipulations on these permits:

- ◆ The use of gas stoves or fire pans is required.
- ◆ The use of portable toilet units is required for solid human waste.
- ◆ Use a tarp or similar ground cover as a kitchen floor to catch food scraps and trash which can then be emptied into a trash bag.
- ◆ Use only dead and down wood or drift wood for fuel.
- ◆ Bathe away from the river high water mark and use a minimal amount of low or non-phosphate soap.
- ◆ Strain food particles out of dish or waste water before dumping the strained water onto well drained soil above the high water mark and away from the camp area.
- ◆ Burn combustible waste, including toilet paper. Carry out all garbage and solid human waste.
- ◆ The use of motors is prohibited.

Table 1-1. Number of participants on guided trips on the Bruneau/Jarbidge Rivers.					
Year	1998	1999	2000	2001	2002
Participants <sup>1</sup>	109	108	0	9	83
<sup>1</sup> Participant numbers include both clients and guides					

### Hunting

One outfitter is authorized to guide mountain lion hunts. The outfitter is not authorized to take motorized vehicles into any of the WSAs or the Bruneau – Jarbidge River ACEC except on designated routes. Recreation use fees are collected only on the amount of overall time spent (days) on BLM lands. Therefore, use information cannot be differentiated into whether or not the trips were in Jarbidge River watershed.

### Other Recreation Special Use Permits

One outfitter offers survival training for clients on an individual basis. The permit allows the outfitter to operate year long, however, the bulk of the use is normally in the late spring through fall. This outfitter operates over the entire Idaho portion of the field office area and only enters into the Jarbidge River Watershed on occasion. The majority of the time this outfitter would be operating in other portions of the Jarbidge Field Office area.

## Lands

### Rights of way

The lands program issues rights-of-way, leases, and other permits. In some cases the rights-of-ways were granted prior to the passage of the Federal Land Policy and Management Act (FLPMA). Leases and permits are renewed or transferred periodically. Rights-of-way are occasionally transferred. A number lands actions have been issued within the Jarbidge River watershed in the past. Utility rights-of-way are for electric power lines and telephone lines. These utilities serve the local communities of Murphy Hot Springs, Idaho, Jarbidge, Nevada, and areas beyond. The power line crosses the East

Fork of the Jarbidge Canyon about 1.0 southwest of Murphy Hot Springs on the canyon rims and the West Fork Jarbidge on Forest Service lands. Rural Telephone Company of Glens Ferry has two 5 foot wide rights-of-way (IDI-15679 and IDI-22677) for telephone lines that cross the East Fork of the Jarbidge River on private land at Murphy Hot Spring (T16S, R09E, Section 24) and one 5 foot wide right-of-way (N 38899) that crosses the West Fork of the Jarbidge River in Sections 1, 9, 10 and 12 (T47N, R58E) in Nevada. There are no roads associated with either canyon crossing. Right-of-way widths are measured as the distance from centerline. Old right-of-ways lack any stipulations. New (post FLPMA) usually included stipulations. Pertinent to this consultation the stipulations require the following:

- ◆ Waste (produced during construction or maintenance) is to be removed from the area and properly disposed of in a land fill.
- ◆ If necessary the right-of-way holder will reseed disturbed areas.
- ◆ The holder shall comply with Toxic Substances Control Act of 1976 with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant.
- ◆ The right-of-way holder is responsible for the use of pesticides, rodenticides, and herbicides in compliance with Federal and State law and in accordance with their registered uses.
- ◆ Maintenance is to be conducted within the right-of-way width.

A number of roads in the Jarbidge River watershed have rights-of-way (Table 1-2). Some were granted as RS-2477 (IDI-20724), while others are post FLPMA rights-of-way. A landing strip is permitted on the plateau just east of Murphy Hot Springs, Idaho. Figure 2 depicts the locations of the lands actions within the Jarbidge River watershed. Only a small portion of the roads within the Jarbidge River Watershed have been formally granted a right-of-way. Stipulations on FLPMA road rights-of-way pertinent to bull trout or its habitat include the following:

- ◆ The holder shall grade the road so that it drains to the inside and maintain a drainage ditch approximately 1 foot deep on the inside of the road with water bars every 500 to 600 feet, if necessary.
- ◆ The holder shall comply with the applicable Federal and State laws and regulations concerning the use of pesticides (i.e. insecticides, herbicides, fungicides, rodenticides, and other similar substances) in all activities/operations under this grant. The holder must have a written plan approved by the authorized officer prior to the use of such substances.
- ◆ The holder shall obtain written authorization from the Authorized Officer prior to any improvements or reconstruction of the subject road.
- ◆ Upon completion of construction, the Authorized Officer will conduct an examination to determine if reseeding is necessary.
- ◆ Maintenance is to be conducted within the right-of-way width.

File #	Holder	Type	Width	FLPMA
IDI-9423	Three Creek Road District	Road	75'	N
IDI-11845	Idaho Power	Electric power line	20'	N

IDI-15679	Rural Telephone	Buried cable	5'	Y
IDI-16779	Three Creek Road District	Road	25'	Y
IDI-19949	Idaho Power	Electric power line	25'	Y
IDI-20316	Rural Telephone	Buried cable	5'	Y
IDI-20724	Owyhee County	Road	30'	N
IDI-22677	Rural Telephone	Buried cable	5'	Y
IDI-25544	Idaho Division of Aeronautics	Landing strip		N
N 11599	Forest Service	Road	33'	Y
N 37520	Forest Service	Road	33'	Y
N 38760	Idaho Power	Electric power line	25'	Y
N 38899	Rural Telephone	Buried cable	5'	Y
Right of way widths are measured from the centerline to the edge. FLPMA Y = post FLPMA, N = pre FLPMA				

### Fire Suppression

Lightning caused wildfire is a naturally occurring phenomenon in sagebrush steppe habitats. The Jarbidge River Watershed has averaged just under 1 fire per year since 1980 (Figure 3). To date none of the fires have burned in headwaters streams that provide spawning and rearing habitat for bull trout. This area received more precipitation and vegetation remains greener later in the summer. Some fires are put out by rain that may accompany thunderstorms in the area. Generally, these fires are small and usually not reported or suppressed. Reported fires are suppressed using a number of methods.

Typically four wheel drive heavy or light engines are first to arrive in initial attack. Depending upon the fire size, rate of spread and other conditions they may request additional support: more engines, bull dozers, retardant drops, and helicopter water bucket drops are most commonly used in the rolling uplands. In areas with steep rocky topography hand lines are dug by hot shot crews. Water drops and retardant may also be used in these areas. In some instances hose lays are used to aid the mop up of hot spots. Water tenders fill at surface waters (ponds or streams) and transport water to the fire and refill fire engines. Water tenders are filled using a small pump. The following are the pertinent guidelines:

- ◆ Use of air tankers would be carefully evaluated. Retardant drops are not supposed to be within 300 feet of existing waterways.
- ◆ Use of bull dozers are carefully evaluated and use may be restricted near water sources. Bull dozers generally do not blade fire line across creeks.
- ◆ Lower Snake River District policy requires that on steep slopes fire lines have water bars constructed in them to reduce the chance of gully erosion. Bull dozed fire lines are usually reseeded
- ◆ Because of the topography there are only a few spots where helicopters could fill their water buckets out of the East Fork, West Fork or Jarbidge Rivers. In the event that the Jarbidge River would be used to fill helicopter buckets, most fires occur in the summer when water temperatures are above 20°C. Bull trout would most likely be in the colder headwater streams at this time. Dave, Deer, or Jack Creeks are too narrow and have too many trees along the creek channels to make safely dipping water practical.

### Noxious Weed Control

A number of plant species occurring within the Jarbidge River watershed are designated as noxious weeds (Table 1-3). The majority of the noxious weeds are found in uplands, but some are present in riparian zones including Canada thistle, Scotch thistle, and diffuse knapweed. Both Scotch thistle and diffuse knapweed can be pulled or dug. Canada thistle is rhizomatous, therefore manual treatments generally are not effective on this species. To date the majority of the noxious weed control has been conducted in the uplands using Tordon®, 2-4 D, and to a lesser extent Roundup®. In the uplands the chemical is usually sprayed from booms mounted on a truck. Dye is mixed with the chemical to mark areas that have been sprayed. Oust® was aerially applied to control cheatgrass on roughly 300 acres following a wild fire in 1999. A helicopter was used to apply the herbicide. BLM presently prohibits Oust® application on public lands. No other herbicides have been applied aerially within the Jarbidge River watershed in the past 12 years.

Spotted knapweed in the vicinity of the Jarbidge Forks Recreation Site has been manually pulled or dug. All weed control work at this site has been done on the terrace above the riparian zone. A small infestation of diffuse knapweed in the uplands adjacent to Columbet Creek has been sprayed with Tordon. Spray was applied from a truck using a hand held wand to better control applications. No spraying has been done within the riparian zone. Diffuse knapweed within the riparian zone has been pulled or dug. Canadian thistle along a portion of Columbet Creek has also been sprayed with Tordon using a hand held wand connected to a spray truck.

Table 1-3. Noxious weeds found in the Jarbidge River watershed		
Common Name	Scientific Name	Growth Form
Canada thistle	<i>Cirsium arvense</i>	Perennial, rhizomatous
Field bindweed	<i>Convolvulus arvensis</i>	Perennial, rhizomatous
Diffuse knapweed	<i>Centaurea diffusa</i>	Biennial or perennial
Spotted knapweed	<i>Centaurea maculosa</i>	Perennial
Scotch thistle	<i>Onopordum acanthium</i>	Biennial
Whitetop	<i>Cardaria draba</i>	Perennial, rhizomatous
Black henbane	<i>Hyoscyamus niger</i>	Annual or biennial

### Livestock Grazing

Within the Jarbidge River watershed, parts or all of seven grazing allotments are present (Figure 4). Livestock are present in some of the allotments year round in some allotments, whereas, livestock may only be present part of the year in other allotments. Specifics for each allotment follow.

#### Seventy-One Desert

Seventy One Desert Allotment (1099) is the northern most allotment within the Jarbidge River watershed. Approximately, 40,290 acres of federal land, 1,921 acres of state land are in this allotment. Most of the acreage within the southern pasture is internally drained or runs into the Stiff Tree Draw watershed that empties into the Bruneau River nearly 6 miles below the mouth of the Jarbidge River. The 71-Desert Allotment consists of 4 pastures (Lookout Butte, Sheepshead, Stiff Tree, and Indian Hot

Springs. Of these pastures only the South Pasture has any land inside the Jarbidge River watershed (<150 acres). There are 2,981 preference AUMs in the 71-Desert allotment. In the past 1,750 AUMs of TNR have been issued in the allotment. The permit allows grazing year round, however, the normal season of use runs from early December to mid May annually. Approximately, 600-700 head of heifers graze in the Seventy One Desert Allotment.

#### Fences

Seventy One Desert Allotment has about 34.5 miles of fence. There are 12.3 miles of fence in the Indian Hot Springs Pasture. Of this nearly 8.7 miles are shared with the Poison Butte Allotment. A fence with a gate across the road to Indian Hot Springs keeps cattle from traveling down to the Bruneau River and then upstream to the Jarbidge River.

#### Water sources

Originally, constructed in 1982, the AEC Pipeline supplies water to several pastures in the 71-Desert Allotment. AEC pipeline is 8.2 miles long and provides water to 6 troughs. Only 0.3 miles of pipeline and one trough (T12S, R07E, Section 13 SWNE) are in the northern portion of the Indian Hot Springs Pasture, none are in the Jarbidge River watershed. Other watering locations in the southern pasture are 6 playas (T13S, R07E, Section 12 SWSW; Section 3 SESW; Section 2 SENE; T12S, R07E, Section 27 SWNE; Section 23 SWSW; Section 14 SESE). If the gate to Indian Hot Springs is open, then livestock can water out of the Bruneau and/or Jarbidge River.

#### Crawfish Allotment

The Crawfish Allotment (1118) contains a little less than 10,650 acres of BLM land and authorizes 1,065 AUMs to be grazed by cattle. There are 640 acres of State land and 9 acres of private land is within the allotment. The allotment is divided into 2 pastures. This allotment has a split season of use. Three hundred cattle graze from April 1 to May 31 and 25 cattle graze from October 1 to November 30 in the Crawfish Allotment.

#### Fences

Crawfish Allotment has about 18.5 miles of perimeter fence. Of this mileage 9.4 miles is shared with the Inside Desert Allotment. There are 3.15 miles of interior fence that separates the 2 pastures.

#### Water sources

The Crawfish Allotment is watered by parts of 2 pipelines. The Jim Bob water system has 1.2 miles of pipeline and 1 water trough (T14S, R10E, Section 21 SWSW). The Crawfish Pipeline has 2.3 miles of pipeline and 3 water troughs (T14S, R10E, Section 21 SENE, T15S, R10E, Section 03 SWNE and SESW). In addition there are 3 ponds (2 ponds in T14S, R10E, Section 22 SWSW and 1 pond in T14S, R10E, Section 09 SESE) in the bottom of Juniper Draw and ephemeral drainage and a spring on private land (T15S, R10E, Section 14 NWNENE).

#### Taylor Pocket Allotment.

Taylor Pocket Allotment (1077) has just over 17,000 acres of federal land, 150 acres of State of Idaho Land and 1,094 acres of private property. The majority of the Taylor Pocket Allotment is in the Bruneau River watershed but approximately 2,630

acres are in the Jarbidge River watershed. Taylor Pocket is divided into 3 pastures (Taylor Creek, East Deep Creek, Hole-in-the-Ground. Cattle are the primary class of livestock authorized for -grazing, however, some horse use is also licensed. The total amount of grazing authorized is 1,180 AUMs. Livestock in this allotment do not have access to bull trout habitat.

#### Fences

Taylor Pocket Allotment has 3.0 miles of fence that are not in common with either the Black Rock Pocket or Diamond "A" Allotments or the Humboldt National Forest boundary. Another 9.2 miles of fence are in common with either the Black Rock Pocket Allotment (2.4 miles) or the Diamond "A" Allotment (6.8 miles)

#### Water sources

Diamond "A" Pipeline, constructed in 1978, originates in the Taylor Pocket Allotment. It has 2 springs as source (T47N, R57E, Section 17 SESWSW BLM; Section 17 NENWNE private land). Diamond "A" Pipeline contains 27.3 miles of pipeline with 1 water storage reservoir, 15 troughs and ponds and provides water to troughs and ponds the Taylor Pocket, Black Rock Pocket, and Diamond "A" Allotments. Within the Taylor Pocket Allotment the Diamond "A" Pipeline runs for about 7.2 miles in a northwesterly direction. Only 1.9 miles of the pipeline are within the Jarbidge River watershed in the Taylor Pocket Allotment. No troughs on this pipeline are located in the Jarbidge River watershed, however, 2 troughs are about 0.2 miles from the watershed boundary (T47N, R57E, Section 07 NWSE; T16S, R07E, Section 26 SENE).

One other pipeline, as well as, several ponds, springs, Deep Creek a portion of the Bruneau River are located in the Taylor Pocket Allotment. However, these water sources are not in the Jarbidge River watershed and, therefore, are not mentioned any further.

#### Black Rock Pocket Allotment

Black Rock Pocket Allotment (1102) has about 11,900 acres of federal land, 830 acres of Idaho State Land, and nearly 220 acres of private property. Just over 6,600 acres of the Black Rock Pocket Allotment drain into the Bruneau River watershed. Black Rock Pocket Allotment has 2025 class 1 preference AUM's for cattle based upon the Jarbidge RMP (Bur. Land Manage. 1987). Season of use for the Black Rock Pocket Allotment is from September 15 to November 30 (Bur. Land Manage. 1987). Typically, 600 to 800 cattle graze in the Black Rock Pocket Allotment from mid-October to late November. Black Rock Pocket is not divided into pastures. TNR has never been used in the Black Rock Pocket Allotment. Livestock in this allotment do not have access to bull trout habitat. No perennial creeks are present.

#### Fences

All of the fences in the Black Rock Pocket Allotment are in common with either the Diamond "A" (9.6 miles) or Taylor Pocket (2.4 miles) Allotments. About 0.2 miles of fence surrounds a water storage reservoir.

#### Water sources

The Diamond "A" pipeline runs for 7.4 miles in a northerly direction through the Black Rock Pocket Allotment. A large water storage reservoir for the Diamond "A" pipeline is located in this allotment (T16S, R07E, Section 14 SENWNW). Water troughs along the Diamond "A" pipeline in the Black Rock Pocket allotment are located in the following: T16S, R07E, Section 11 NWSWSW; T15S, R07E, Section 35 SESWSW;

Section 23 NWSESE. Additionally, the pipeline provides water to 2 ponds (T16S, R07E, Section 10 SENENE; T15S, R07E, Section 15 NESESE). Playas are present in T15S, R07E, Section 15 NWNWSW and Section 26 NENENW. Playas hold water when there is adequate fall rain. However, playas are not reliable water sources. Water is more likely present in the spring following snow melt, however, livestock are absent at this time. A final pond is located in a draw (T15S, R07E, Section 26 NESWSE). This pond is dependent upon spring run off to be filled. Water usually evaporates by the time cattle graze the area in the fall. A 1.7 mile ephemeral segment of Cougar Creek is present in eastern side of the Black Rock Pocket Allotment. One other playa is present in the allotment but is not located in the Jarbidge River watershed.

#### Wilkins Island Allotment

Wilkins Island Allotment (1084) contains about 7,620 acres of public lands administered by the Jarbidge Resource Area, 109 acres state land (Idaho), and 6,328 acres of private land. Cattle are the class of livestock that graze the allotment. On BLM lands the allotment has 773 preference AUMs (Bur. Land Manage. 1987). Specific livestock numbers vary yearly. Livestock grazing is authorized from 3/1/to 2/28 annually (Bur. Land Manage. 1987). However, the actual use period is usually split for spring and fall grazing. Cattle are turned out in May to early June and trail through to summer range on Humboldt National Forest land by early July. Cattle leave the forest in October and are usually removed from the allotment by early November. No temporary nonrenewable forage has ever been requested or authorized in the Wilkins Island Allotment. Wilkins Island Allotment is divided into three pastures: Rattlesnake, Chimney, and Billy Martin. No large wild fires have occurred in this allotment. The vegetation is variable with Wyoming big sagebrush/bluebunch wheatgrass in areas with deeper soils and low sagebrush/Idaho fescue on areas with shallow soils. Only 1 pipeline is present on BLM lands in Rattlesnake Pasture. There are about 12.5 miles of fence in the Wilkins Island Allotment. Although livestock in this allotment are fenced from Dave Creek, they have been known to be in the Dave Island Pasture during bull trout spawning.

#### Rattlesnake Pasture

Rattlesnake Pasture is mostly public lands with a small amount of state and of private property. Livestock are fenced from the East Fork of the Jarbidge River and Dave Creek.

#### Fences

Rattlesnake Pasture is the northern most pasture in the Wilkins Island Allotment and contains the most BLM land. A segment of gap fence runs across the bottom of Rattlesnake Draw and keeps cattle from the lower reach of the West Fork of the Jarbidge River. The East Fork Jarbidge gap fence keeps livestock from accessing the East Fork of the Jarbidge River upstream of Murphy Hot Springs. If the gates in the gap fences are open livestock can reach the respective rivers. A fence that runs east to west along the Idaho/Nevada state line separates the Rattlesnake Pasture from the Chimney Pasture. A total of 4.0 miles of fence are in the Rattlesnake Pasture. This does not include a small corral on private land. If livestock get through the fence on state land they can also access Dave Creek.

### Water sources

Rattlesnake Pipeline provides 3 upland water locations (T16S, R09E, Section 22 SESW, Section 26 NENE, Section 27 SESW) on public land and one location on private land (T16S, R09E, Section 27 SWSE). The water source is a spring on private land in Nevada (T47N, R58E, Section 11, NWSW). Rattlesnake Pipeline is about 5.6 miles long. The Wells Cabin Pipeline transports water about 6 miles to a trough (T16S, R09E, Section 25 NESW) in the Rattlesnake Pasture from private land in Nevada (T47N R58E, Section 25 SW). One other water source is present in the Rattlesnake Pasture. A small seep is present in draw just west of the Wilkins Island Road (16S, R09E, Section 24 (SWNESW), however, this spring is usually dry by late July.

### Chimney Pasture

A vast majority of the land in the Chimney Pasture is privately owned. The Chimney Pasture is separated by fences on the east side from Dave Creek. The bulk of the upland vegetation community is low sagebrush/Idaho fescue. Mountain big sagebrush/Idaho fescue is dominant in draws with deeper soils.

### Fences

A short 0.10 mile gap fence blocks livestock access to Dave Creek in Section 12 NE1/4 of NW1/4 (T46N, R58E). Other fences include 1.4 miles of fence that separates the Chimney Pasture from the Billy Martin Pasture. Another 1.4 miles of fence on the west side of Dave Creek Canyon, separates the Wilkins Island Allotment from the Daves Island pasture of the Poison Butte Allotment. Livestock are prevented from physically entering the West Fork of the Jarbidge River by cliffs and large talus slopes.

### Water sources

A small pond is located in T47N, R58E, Section 2, Lot 1 at the north end of the Chimney Pasture. The bulk of the water that fills this pond is snow melt, however, water levels are maintained by a small seep within 100 yards of the pond early in the year. This pond is usually dry by mid-July. A second pond is in a draw on private land (T47N, R58E, Section 14 SWSW). This pond also fills by snow melt and a spring (T47N, R58E, Section 23 NWSE). Two other springs are present in Rattlesnake Creek (T47N, R58E, Section 11 SESW and NWSW). Dave Creek Pipeline provides water to 2 troughs in this pasture. The Wells Cabin Pipeline may provide water to one or more troughs on private land in this pasture.

### Billy Martin Pasture

Billy Martin Pasture is the southern most pasture in the Wilkins Island Allotment. The bulk of the pasture is privately owned. Much of the area is vegetated by low sagebrush/Idaho fescue, however, mountain big sagebrush/Idaho fescue is present in draws with deeper soils.

### Fences

About three miles of fence on the rim on the west side of Dave Creek separates the Billy Martin Pasture from the Dave Island pasture of the Poison Butte Allotment. A gate in the fence (T47N, R58E, Section 25 NWNW) provides livestock an access point into Dave Creek. The only other fence is 2.4 miles that separates private land from National Forest lands managed by the Jarbidge Ranger District. Although livestock can physically enter the top of Freighters Defeat Creek, there is no evidence that cattle travel down this drainage. Vegetation, talus fields, and steep topography impede livestock

movements down this creek to the West Fork of the Jarbidge River. Cliff and rim rock prohibit livestock from accessing the West Fork of the Jarbidge River in other areas.

#### Water sources

Two water troughs on the Dave Creek Pipeline provide water in the western part of the uplands. A trough on the Wells Cabin Pipeline provides water on the eastern portion of the pasture. Two stock ponds fill from snow melt in a draw in the SW1/4 of Section 25 (T47N, R58E). A spring is located near the center of Section 23 (T47N, R58E). A second spring is located in the Section 27 (SE/14, SE1/4; T47N, R58E). Both springs went dry in the summer during the drought of the late 1980's.

#### Diamond "A" Allotment

Diamond "A" Allotment (1021) lies between the Jarbidge River and the Bruneau River. Diamond "A" contains nearly 110,120 acres of federal land, about 6,280 acres of Idaho State land, and 13,740 acres of private land. Approximately, 22,300 acres of the Diamond "A" Allotment are in the Bruneau River watershed. Presently, the Diamond "A" Allotment is divided into 9 use areas and managed under a coordinated resource management plan written in 1984. Winter, Cowan Reservoir, and Dorsey/Columbet Table pastures are in Idaho, whereas, Bear Paw, and Buck Creek are entirely in northern Nevada. Gardner Springs Pasture straddles the Idaho/Nevada state line. There are 8,546 AUMs of permitted in the Diamond "A" Allotment (Bur. Land Manage. 1987). Two permittees have 498 AUMs allowing horses to graze, the remaining AUMs are reserved for cattle grazing by a third permittee. The season of use in the Diamond "A" is year round, with the bulk of the grazing occurring in the fall through spring. Cattle graze the area in a deferred rotation. Livestock move from the Winter Pasture (I), to the Cowan Reservoir Pasture (II), then to Gardner Spring Pasture (VI), then to Bear Paw Pasture by June, then onto the Humboldt National Forest. In the fall cattle are moved from the forest to Buck Creek Pastures (V, IV, VIII), then on to Dorsey/Columbet Table (III) and back to Winter Pasture. The rotation is reversed annually. The reversal provides rest during the growing season for those pastures grazed in the spring/early summer the previous two years. Approximately 47 miles of fences form the pastures in the Diamond "A" allotment.

#### Winter Pasture (I)

Winter Pasture is the largest pasture and northern most in the Diamond "A" Allotment. It is bounded by the Bruneau River on the West and the Jarbidge River on the East. The bulk of the pasture is in native range land Wyoming big sagebrush with an understory mix of native grasses. Approximately 800 cattle graze this area primarily in the winter from early December to mid- April. About 75% of the Winter pasture is in the Jarbidge River watershed.

#### Fences

About 4.0 miles of fence separates the Winter Pasture from Black Rock Pocket Allotment. Another 2.0 miles of fence forms a small holding field between the Winter Pasture and the Cowan Reservoir Pasture. Another 3.5 miles of fence are in common with the Cowan Reservoir Pasture. About 0.5 miles of fence forms a small corral in the Winter Pasture.

### Water sources

Diamond "A" pipeline runs for 11.2 miles in the Winter Pasture, of this amount of pipeline 5.3 miles of the pipeline are in the Jarbidge River watershed. In the Winter Pasture the Diamond "A" pipeline provides water to 2 troughs (T14S, R07E, Section 35 NENENE; Section 24 SWSESE) and a pond (T14S, R07E, Section 34 NWNWNE) in the Jarbidge River watershed and 4 troughs not in the watershed. Additionally, there is a fenced water storage reservoir (T14S, R07E, Section 34 SESWSE). Three springs are present in this pasture. Arch Spring (T14S, R08E, Section 17 SWSNW) in the bottom of Cougar Creek has not been developed, but showed signs of heavy livestock use. Cougar Spring (T14S, R08E, Section 07 SWNWNE) in a side canyon to Cougar Creek has not been developed and livestock use is not very heavy. Lario's Spring (T14S, R08E, Section 31 SESESE) has been developed and the water is piped to a trough about 0.2 miles away in the bottom of Cougar Creek. Nine playas are present in the Winter Pasture. Only four of the playas are in the Jarbidge River watershed (T14S, R08E, Section 6 SWSESE - 2 small playas; T14S, R07E, Section 01 SWNESW; Section 15 NWNESE). The playas do not provide a reliable source of water. Water is most likely present in the spring. Four ponds (T15S, R08E, Section 18 SWNWNW; T14S, R07E, Section 11 NWSWSW; Section 14 SW NWSE; T13S, R07E, Section 35 NWNWNW) are in 3 unnamed draws in the Winter Pasture. The Bruneau River may also be a watering source for cattle in this pasture, but is not in the Jarbidge River watershed. Livestock access the Jarbidge River (T14S, R08E, Section 15 SWSW) and there may be other access points to the Jarbidge River in this pasture. Once livestock get into the bottom of the canyon they are likely to remain. Livestock use in this pasture coincides with the probable presence of fluvial bull trout.

### Cowan Reservoir Pasture (II)

Most of the pasture is vegetated by native plant communities, however some crested wheatgrass seeding is in the southeastern portion of the pasture. Some of the draws have wet meadows, while the uplands vary between Wyoming big sagebrush in areas with deeper soils to low sagebrush in areas with shallow rocky soils. Cattle typically graze the area from mid April to mid June during the spring season or early November to mid-December in the fall.

### Fences

About 2.6 miles of fence are in common with the Gardner Spring pasture and another 3.0 miles are shared with Dorsey/Columbet Table pasture. Another 12.4 miles of previously identified fence are also present.

### Water sources

Willow Spring Pipeline was constructed in 1983. Willow Spring, located on private property (T16S, R08E, Section 18 SENWSE), is the source of water for this pipeline. Willow Spring Pipeline has 2.3 miles of pipe and 2 water troughs (T16S, R08E, Section 7 NWNE; Section 6 NESW). There are 6.7 miles of Cowan Ditch lies in the Cowan Reservoir area. Two playas are present (T16S, R08E, Section 16 SESWSW; T15S, R07E, Section 36 SENWSW) which may contain water on a limited basis in the spring. Other water sources include ponds. One pond is located in Dorsey Creek (T15S, R08E, Section 28 SWNESE), whereas, the second pond is in a small draw (T16S, R07E, Section 12 SWNESW). Water is more reliable in the Dorsey Creek pond during spring

runoff. Other water sources include Dead Horse Springs (on private land) and Cowan Reservoir (T15S, R08E, Section 30 N1/2 S1/2). Cowan Reservoir functions as a sediment trap for portions of Cougar Creek. The Cowan Ditch moves water from both Dorsey Creek and Columbet Creek to Cowan Reservoir. However, in most years Cowan Reservoir does not contain water. In May 2002, BLM observed water in the ditch disappearing into the ground before it reached Cowan Reservoir.

#### Dorsey/Columbet Table Pasture (III)

Livestock use is in the opposite season from the Cowan Reservoir Pasture. For example if Cowan Reservoir is grazed in the fall, this pasture would be grazed in the spring. Additionally, some horse use is taken in this pasture in the winter and early spring annually. The grazing period (spring and fall) for this pasture overlaps the time period when fluvial bull trout would be present in the Jarbidge River.

#### Fences

A small drift fence (0.2 miles) keeps most livestock from trailing down Columbet Creek (T16S, R09E, Section 05, SWNWSW). If the gate is open livestock have access down Columbet Creek to the Jarbidge River. Also the gap fence does not form a complete barrier, livestock can enter Columbet Creek from the uplands down gradient from the fence. About 3.6 miles of fence lies along the Idaho/Nevada border and forms the southern boundary of the pasture. Just over 1.0 miles of fence also separates the Dorsey/Columbet Table pasture from private land along Columbet Creek.

#### Water sources

Dorsey Table Pipeline was constructed in 1981. The source of Dorsey Table Pipeline is a pond on private land (T16S, R08E, Section 35, Lot 3) that fills from Columbet Creek. Dorsey Table Pipeline has 6.0 miles of pipeline and 3 troughs (T16S, R08E, Section 11, SESW; Section 2 SWNE; T15S, R08E, Section 35 SENW). All of the troughs are within the Jarbidge River watershed. Other water sources include about 3.8 miles of Cowan Ditch, 2 playas (Wilson Lake T16S, R08E, Section 23 NE/14, SWSW which can be filled by Cowan Ditch, and Idaho Lake T16S, R08E, Section 25 NENENW). A small spring fills a pond (T16S, R09E, Section 5 NWSWSW) adjacent to Columbet Creek. Livestock also have access to portions of both Columbet Creek and Dorsey Creek. Water is also hauled to two locations on Columbet Table (T16S, R09E, Section 16 SWNW and Section 29 NENW).

#### South Columbet Table Pasture (V)

The South Columbet Table Pasture is predominantly public land. The Idaho Nevada state line lies along the northern boundary. The pasture is grazed in the early summer or late fall.

#### Fences

Roughly 4.7 miles of fence separate this pasture from other use areas within the allotment.

#### Water Sources

An unnamed spring (T47N R57E, Section 12, NWSWSW) has not been developed and is fenced in with private land. Livestock have access to Columbet Creek on private land in the western side of this pasture. A playa (T47N, R58E, Section 5, lot 4) is present near the Idaho/Nevada state line in the northeast corner of this. The permittee hauls water to this area when water is not present in the playa.

#### Buck Creek Pasture (IV)

The vast majority of the pasture is private property. Some winter horse use occurs in this pasture. Cattle are present in this pasture primarily in the fall (October to early November) for calves to be separated from cows.

##### Fences

Nearly 7.8 miles of fence form the boundary between this and other pastures in the Diamond "A" allotment. An unknown number of miles of fence form internal paddocks within this pasture.

##### Water sources

An undeveloped spring (T47N, R58E, Section 19 NENWNE) is present on an isolated 80 acres of public land fenced in with the private land. Sanovia, Columbet, Corral, Cow and Buck Creeks have water on private land. That portion of Buck Creek downstream of the Diamond "A" Ranch has not been grazed by livestock for the past 11 years. Livestock may also trail down the Deer Creek Grade road into the West Fork of the Jarbidge River and the lower portion of Deer Creek. Livestock grazing period occurs in October after spawning.

#### Gardner Spring Pasture (VIa)

Gardner Spring pasture is mostly public land intermingled with some private property. The uplands are vegetated by a mixture of low sagebrush/Idaho fescue and Wyoming big sagebrush/Idaho fescue/bluebunch wheatgrass plant communities.

##### Fences

Fences (4.2 miles) around private land occur in this pasture. Another 4.3 miles of fence are in common with other the Taylor Pocket Allotment. About 7.0 miles of fence are shared with other pastures in the Diamond "A" Allotment. In October 2002, about 1.4 miles of fence was constructed to protect portions of Columbet Creek on BLM land from livestock damage.

##### Water sources

Nearly, 1.3 miles of the Diamond "A" pipeline are present in the Gardner Spring pasture. Water troughs on this pipeline are located in both Nevada (T47N, R57E, Section 5 NWSWSW; Section 5 SWSWNE) and Idaho (T16S, R08E, Section 19, SENWSE). There are two springs on BLM administered land. Gardner Spring (T16S, R08E, Section 30 SWNWNE) and an unnamed spring in Nevada (T47N, R57E, Section 9, NWNENW) both have been developed with troughs for livestock. Other water sources include a portion of Dorsey Creek on both BLM and private lands, 3 springs on private land, and a pond in a draw (T47N, R57E, Section 5 SWSESW). South of the Idaho/Nevada State line, Black Jack Spring (T47N, R57E, Section 11 SW NWNE) has been developed for watering livestock. Additionally, livestock have access via water lanes to Columbet Creek at two locations (T47N, R57E, Section 14 SESESE; Section 13 NENW) on BLM lands. Consultation for this project was previously conducted in 2001 and 2002.

#### Bear Paw Pasture (VIb)

The Bear Paw Pasture has mostly private land. The plant community is primarily low sagebrush/Idaho fescue with some mountain shrub habitats. Cows with calves graze the Bear Paw pasture usually during the early summer (early June to early July) or late fall (October to early November). About 25 acres of the Bear Paw pasture are not in the Jarbidge River watershed.

Fences

Bear Paw pasture has 1.2 miles of fence in common with Dorsey/Columbet Table pasture and 3.9 miles in common with Gardner Spring pasture. About 1.2 miles of fence separates Taylor Pocket Allotment from this pasture. About 2.5 miles of fence are in common with the Humboldt National Forest Boundary.

Water sources

All of the water sources in this pasture are on private land. This includes 3 ponds associated with 2 springs, a third spring, and access to Dorsey Creek. Additionally, a spring on private land is one of two sources of water for the Diamond “A” pipeline. There are 0.5 miles of this pipeline within this pasture, no pipeline is located on public land.

South Buck Creek Pasture (VIII)

The vast majority of this pasture is privately owned. Livestock use is usually in the early summer or in October.

Fences

About 4.4 miles of fence on the south and west side of this pasture are in common with the Forest Boundary. Another 3.6 miles of fence form the northern pasture boundary.

Water Sources

On private land livestock have access to Sanovia, Buck, Cow, Corral, and a short segment (0.3 miles) of Deer Creek. On BLM lands livestock have access to about 0.7 miles of Deer Creek. Additionally 4 springs are present all located on private land in Corral Creek ((T47N, R58E, Section 32 SWNW and NWSW), Cow Creek (T47N, R58E, Section 31 NENE) and in he uplands (T47N, R57E, Section 25 SWNE). There is evidence that some livestock use Deer Creek on the BLM portion likely in the fall. It is not known if bull trout redds are present on the BLM portion of Deer Creek. Bull trout have been documented in Deer Creek by Nevada Division of Wildlife.

Two permittees graze the Poison Creek AMP Allotment. The allotment has 16,448 AUMs on the grazing permit for cattle and horses The Poison Creek AMP allotment has over 188,000 acres. It has been operated as two separate use areas since 1988. BLM is formally recognizing the division of the Poison Creek AMP Allotment into two separate allotments – the Poison Butte (6,360 AUMs) and Inside Desert (10,088 AUMs) Allotments. In addition to the normal grazing AUMs, the two permittees have used grazed at higher levels over the years (Table 1-4). The Inside Desert Allotment shares nearly 41 miles of fence with the Poison Butte Allotment.

Table 1-4. The amount of AUMs used in the Poison Butte Allotment and Inside Desert Allotments above the base permit by year.		
Year	Poison Butte	Inside Desert
2002	4,550*	7,270*
2001	1,069	4,327
2000	2,999	6,221
1999	6,731	11,714
1998	<b>8,633</b>	<b>13,771</b>
1997	4,067	13,741

1996	2,650	11,078
1995	1,605	6,226
1994	1,814	4,795
1993	1,811	4,735
1992	1,064	3,573
1991	656	4,520
1990	307	5,264
1989	0	2,839
1988	0	1,618
1987	0	1,227

\*AUMs authorized, actual use may be less.

Numbers in bold are the highest amount of additional AUMs used in the area.

Range trend studies in Jarbidge River watershed for the Poison Butte and Inside Desert Allotments are summarized in Table 1-5. Other trend studies are in these allotments, but they lie in different watersheds and therefore were not included. In general those unburned areas that were in good ecological condition have remained in good condition. Range trend in areas with sites in fair ecological condition (3 sites) and poor condition (7 sites) have remained static for the most part. Only one site in poor condition was rated as having a downward trend. Eleven sites are seedings which do not have an ecological condition rating. Trend in 9 plots in the seedings was static, whereas, one site had an upward trend and the remaining site had a downward trend. The specific locations and trend for the sites are in the monitoring section.

Allotment Name	Ecological Condition and Trend								
	Good			Fair			Poor		
	Up	Static	Down	Up	Static	Down	Up	Static	Down
Poison Butte		1			3			3	
Inside Desert								3	1

#### Inside Desert Allotment

The Inside Desert contains roughly, 115,900 acres [BLM – 105,900 acres, State – 5,770 acres, private land – 4,200 acres] and is divided into 31 pastures. The base grazing permit is for 10,088 AUMs. In the past up to 13,771 AUMs above this level were grazed. The season of use in the Inside Desert Allotment is year round. Pastures grazed in the spring are usually deferred so that they are not grazed during the same time every year. Not all of the livestock are in any one pasture at a time. The permit holder normally grazes cattle pairs and yearlings totaling about 1,950 head and approximately 50 horses. Typically there is one bull for every 15-20 head of heifers. Approximately, 21,550 acres in 9 pastures of the Inside Desert Allotment are within the Jarbidge River Watershed. Pasture fences and water sources are described only for those pastures within the Jarbidge River Watershed.

The permittee will meet with BLM annually. The results (grazing schedule) will be sent to the FWS by April 30 each year. No changes in pasture management due to bull trout considerations are anticipated in this allotment. Grazing management will be adaptive in response to yearly monitoring information. Adjustments in pasture rotations, timing, season of use and numbers will be based on the previous years monitoring data. This kind of adaptive management will allow the Jarbidge Field Office to most rapidly respond to grazing management problems. None of the pastures in the Inside Desert Allotment contain bull trout aquatic habitat. The perennial streams present are not within the Jarbidge River Watershed.

#### Rocky Draw Pasture

##### Fences

The majority of this pasture is vegetated by crested wheatgrass seedings installed following wild fires. About 700 acres of the Rocky Draw Pasture is within the Jarbidge River Watershed. About 3.6 miles of fence in this pasture lie in the Jarbidge River Watershed.

##### Water Sources

Only one water source (T14S, R09E, Section 20 NESE) in this pasture lies within the Jarbidge River Watershed. Four other water troughs are present in this pasture to the north. All the water troughs present are part of the Jim Bob Pipeline.

#### West Well Pasture

##### Fences

Most of the pasture is vegetated by crested wheatgrass seeding. Approximately, 300 acres of this pasture lie within the Jarbidge River Watershed. Within the watershed it share just over 0.4 miles of fence with the Rocky Draw Pasture and has an additional 1.3 miles of fence in common with the Poison Creek Bend Pasture.

##### Water Sources

There are six water troughs on the Jim Bob Pipeline in this pasture, but none are within the watershed boundary. The nearest trough is about 0.3 miles away north of Middle Butte.

#### Poison Creek Bend Pasture

##### Fences

The majority of this pasture is native Wyoming big sagebrush/grass. Nearly all of this pasture lies within the Jarbidge River Watershed. There are 4.4 miles of pasture fence. Just over 6.2 miles of allotment boundary fence are shared with the Poison Butte Allotment.

##### Water Sources

No water troughs are located within the Jarbidge River Watershed. The only water trough is about 0.2 miles north of the watershed boundary on the east side of Middle Butte. Three ponds are present in Poison Creek (T14S, R09E, Section 35 NESE; T15S, R09E, Section 01 SWNE; and T15S, R09E, Section 12 SENW). These ponds have water periodically in the winter and early spring.

#### East Middle Butte Pasture

##### Fences

Well over half of the East Middle Butte Pasture lies within the Jarbidge River watershed. The area is vegetated by some crested wheatgrass seeding and native Wyoming big sagebrush/bluebunch wheatgrass. Within the watershed boundary about 2.9

miles of boundary fence is in common with the Crawfish Allotment. About 3.4 miles of pasture fence are shared with the Poison Creek Bend Pasture and 2.0 miles of fence are shared with the Horse Lake, Pence Butte, and South Diamond Pastures.

#### Water Sources

A single water trough (T14S, R10E, Section 31 NWSW) on the Jim Bob Pipeline is present in the Jarbidge River watershed. A second water source is a pond in the bottom of Poison Creek (T15S, R10E, Section 7 NWSW)

#### Crawfish Pasture

##### Fences

Roughly 160 acres of the Crawfish Pasture lies within the Jarbidge River Watershed. The northern part of this pasture is Wyoming big sagebrush/native grasses. A wild fire in the mid-1990's burned the southern part of the pasture. About 0.5 miles of boundary fence is in common with the Crawfish Allotment and 0.9 miles of pasture fence is in common with the Pence Butte pasture.

##### Water Sources

No water sources in this pasture are located within the Jarbidge River watershed. The nearest water sources are in the eastern portion of the pasture over 2 miles away.

#### Pence Butte Pasture

##### Fences

The vast majority of this pasture lies outside the Jarbidge River watershed, about 750 acres is within the watershed area. A portion of this pasture is vegetated with Wyoming big sagebrush/grass. Some crested wheatgrass seeding is also present. Within the Jarbidge River Watershed the Pence Butte pasture has 1.1 miles of fence in common with the East Middle Butte pasture and just over 3 miles of fence in common with the Horse Lake pasture.

##### Water Sources

Four water troughs connected to the Jim Bob Pipeline are present within the pasture, but none are within the Jarbidge River watershed. The closest water trough is just under 0.2 miles from the watershed boundary west of Pence Butte.

#### Horse Lake Pasture

##### Fences

The vast majority of this pasture lies within the Jarbidge River Watershed. Most of this pasture is native sagebrush/grass. Part of an old intermediate wheatgrass seeding is present. About 0.7 miles of pasture fence is in common with the East Middle Butte Pasture, 3.0 miles with the Pence Butte Pasture, and 5.3 miles with the South Diamond Pasture. Nearly 1.7 miles of fence lies along the Rogerson Highway. About 1.7 miles of fence functions as a boundary fence with the Poison Butte Allotment.

##### Water Sources

The pasture has 2 water troughs (T15S, R10E, Section 30 SESE; T16S, R10E, Section 09 SWNW). Horse Lake, a playa (T15S, R10E, Section 32 SWSESE), is located mostly on private land and between the 2 troughs. It may provide some livestock water when water is present.

#### South Diamond Pasture

##### Fences

The South Diamond Pasture is entirely within the Jarbidge River Watershed. A portion of this pasture burned in a wildfire 1999. This pasture contains native Wyoming

big sagebrush/bluebunch wheatgrass and some old intermediate wheatgrass seeding. At the north end of this pasture are two small holding fields (about 480 acres and 30 acres) in size. About 2.0 miles of fence forms the boundary of the holding fields. About 5.3 miles of fence is shared with the Poison Butte Allotment. An additional 5.3 miles of fence is in common with the Horse Lake Pasture.

#### Water Sources

Two troughs provide livestock with reliable water (T15S, R09E, Section 25 SENE, and T15S, R10E, Section 31 SENW). Two ponds are present in Poison Creek (T16S, R10E, Section 06 SENW; T15S, R09E, Section 13 NESE) that may provide some water during the spring.

#### Halogeton Pasture

#### Fences

This pasture is vegetated by an old seeding with a strong native component. Approximately, 400 acres of this pasture lie within the Jarbidge River Watershed. Just over 1.6 miles of pasture fence separate this area from the Rogerson Road within the watershed. An additional 1.0 miles of fence form the boundary fence with a pasture in the Poison Butte Allotment in the watershed.

#### Water Sources

Two water troughs on the Jim Bob Pipeline are located in the Halogeton Pasture, however, neither is within the Jarbidge River watershed. A pond (T16S, R10E, Section 17 NWSE) in Poison Creek is in the northwest corner of the pasture. This pond is within the Jarbidge River watershed.

#### Poison Butte Allotment

Poison Butte Allotment has approximately 72,700 acres [BLM – 65,100 acres, State - 3,150 acres, private land – 4,450 acres] and is divided into 27 pastures. Approximately, 48,500 acres in 16 pastures of the Poison Butte Allotment are within the Jarbidge River watershed. Only the Daves Island pasture allows livestock access to bull trout spawning and rearing habitat. Daves Island Pasture has roughly 3,200 acres of private land and 2,600 acres of BLM land. The West Nevada Strip, West Halogeton, West Airport, South Sheep, West Dishpan, Poison Butte, Rock Corral, and Inside Lakes Pastures are adjacent to the East Fork Jarbidge and Jarbidge River, but livestock access is greatly restricted by cliffs between the upland plateau and the river. In the West Airport and West Halogeton pastures fences help limit livestock access to the East Fork Jarbidge River. East Nevada Strip, East Halogeton, East Airport, North Sheep, East Dishpan, Middle Butte, South Poison Creek Burn, North Poison Creek Burn, and Saltbush Pastures are entirely or have a portion of their acreage within the Jarbidge River watershed.

At this time the base permitted AUMs for the Poison Butte Allotment is 6,360 AUMs. Grazing use in the Poison Butte Allotment is year round. The permit holder normally grazes with 600-900 cow/calf pairs and 400-500 head of yearlings. There is usually one bull per 15-20 cows. The herd size in the Poison Butte Allotment is expected to increase to roughly 1,500 cow/calf pair. The permittee also runs about 30 head of horses. Pastures grazed in the spring are usually deferred so that they are not grazed during the same time every year. Not all of these livestock are in any one pasture at a

time. Under current management Dave's Island pasture is grazed from May or early June to late October or into November depending upon snowfall.

The permit holder will meet with Jarbidge Field Office staff annually. The results (grazing schedule) will be sent to the FWS by April 30 each year. Grazing management will be adaptive in response to yearly monitoring information. Adjustments in pasture rotations, timing, season of use and numbers will be based on the previous years monitoring data. This kind of adaptive management will allow the Jarbidge Field Office to most rapidly respond to grazing management problems. Pasture fences and water sources are described only for those pastures within the Jarbidge River Watershed.

#### Dave Island Pasture

##### Fence

BLM lands are vegetated primarily by low sagebrush/Idaho fescue uplands with Wyoming and mountain big sagebrush mixed with Idaho fescue and some bluebunch wheatgrass in the swales and draws where soils are deeper. On the lee side of some ridges, small stands of aspen are present, with big sagebrush and snowberry in the understory. About 1.5 miles of fence along the southern edge of the pasture is in common with Forest Service boundary. An additional 5.2 miles of fence separate this pasture from the Wilkins Island Allotment. In the past this pasture has been grazed into October.

##### Water Sources

Aside from Dave Creek on the western side of the allotment, other water sources include at least 3 springs. Of these springs 2 are located on BLM lands. One is located in Morgan Draw (T47N, R58E, Section 13 SESE), whereas the other spring is located in an unnamed draw to the east ((T47N, R59E, Section 18 SENE). A pond was dug at this spring sometime in the past to collect water for livestock.

#### West Nevada Strip Pasture

##### Fences

West Nevada Strip pasture is vegetated by low sagebrush/Idaho fescue on the broad ridges and Wyoming big sagebrush/Idaho fescue/bluebunch wheatgrass in the swales. About 0.4 miles of fence form a boundary with the Forest Service lands. About 0.6 miles of gap fences are present to block access to the East Fork Jarbidge River. If livestock get through the gap fence they can reach the East Fork of the Jarbidge River near Cougar Point. Livestock can potentially reach the East Fork of the Jarbidge down the draw (T16S, R09E, Section 30 NW) and trail down the road. Nearly 3.9 miles of fence is in common with the East Nevada Strip and West Halogeton pastures.

##### Water Sources

Four water sources are present in this pasture. Three water troughs (T47N R59E, Section 16 SENE; Section 08 NESE; and Section 04 SWSE) connected to the Jim Bob Pipeline provide water to livestock. A spring (T47N, R59E, Section 05 NWSE) is also present and used by cattle. An old pond is located in Idaho (T16S, R 10E, Section 30 NESE) however, it does not hold much water.

#### West Halogeton Pasture

##### Fences

This is a relatively small pasture (less than 1100 acres) and is vegetated by a Wyoming big sagebrush/bluebunch wheatgrass/Idaho fescue plant community. It shares about 2.1 miles of fence with the West Nevada Strip pasture. Roughly 3.7 miles of fence occur along the Rogerson Road or are shared with the East Halogeton pasture.

### Water Sources

Two water troughs connected to the Jim Bob Pipeline supply water to livestock in this pasture. Stock water troughs are located at T16S, R10E, Section 19 SENE and Section 29 NENW.

### West Airport Pasture

#### Fences

Much of the West Airport Pasture is old seeding with a strong native component. A little over 0.4 miles of gap fence restrict livestock access to the East Fork of the Jarbidge River. A little over 2.2 miles of fence keep livestock off the Murphy Hot Springs landing strip. About 1.4 miles of fence in this pasture keep cattle from the Rogerson Road. Three miles of fence separate the West Airport and South Sheep Pastures and 3.8 miles of fence form the boundary to the East Airport Pasture.

#### Water Sources

The Jim Bob Pipeline provides water to three troughs (T16S, R10E, Section 07 SWSW Section 18 SENW; T16S, R09E, Section 01 NESW) in this pasture.

### South Sheep Pasture

#### Fences

The South Sheep Pasture is vegetated by Wyoming sagebrush/bluebunch wheatgrass community. A fire in 1999 burned the sagebrush off the northern portion of the pasture. About 2.8 miles of fence is shared with the North Sheep Pasture and an additional 2.8 miles of fence is shared with the West Dishpan field. An old sheep trail leads into the Jarbidge River canyon (T16S, R09E, Section 13 SESW).

#### Water Sources

The only water sources are present in the pasture. Water troughs on the Jim Bob Pipeline are present at T16S, R09E, Section 02 NENW and T15S, R09E, Section 26 SESW.

### West Dishpan Pasture

#### Fences

The bulk of the West Dishpan pasture is an unburned Wyoming big sagebrush/bluebunch wheatgrass plant community. Just over 1.7 miles of fence splits the Poison Butte and West Dishpan pastures. Just over 4.1 miles of fence is shared with the East Dishpan Pasture. The cliffs along the Jarbidge River canyon prohibit livestock access to the Jarbidge River in this pasture.

#### Water Sources

The Jim Bob Pipeline supplies water to 3 troughs on the eastern side of this pasture. (T15S, R09E, Section 28 SENW, Section 20 SWSE, and Section 17 SWNW). Dishpan Well is present in T15S, R09E, Section 34 (NWNW), but the pump is used very infrequently. Three playas are present that hold water in some years. Two playas are at T15S, R09E, Section 33 NESE. The large Dishpan playa is in the SE corner of Section 29 (T15S, R09E).

### Poison Butte Pasture

#### Fences

The majority of the Poison Butte Pasture is vegetated by native plant communities. There is an area of crested wheatgrass seeding just west of Poison Butte that was drilled in 1980 following a wild fire. Approximately 7.8 miles of fence form the northern, eastern, and southern boundaries of this pasture. A number of draws on the

western side lead to the Jarbidge River, however, topography precludes cattle access to the water.

#### Water Sources

Water sources in the Poison Butte Pasture include 2 water troughs in the southern part of the pasture (T15S, R09E, Section 08 SWSW) and another trough in the northern part of the pasture (T14S, R09E, Section 32 SWSE). These water troughs are part of the Jim Bob Pipeline and are on the eastern side of the pasture. A small seep is present near Poison Creek (T14S, R30E Section 30 SESE). A pond (T14S, R09E Section 32 NENW) in the bottom of Poison Creek provides water in wetter than normal winters or springs.

#### Rock Corral Pasture

##### Fences

This pasture is vegetated by a mixture of native plant communities. Wyoming big sagebrush/grass is the dominate community. Some salt desert shrub vegetation sites are also present. In a few areas burned by wild fire and some highly disturbed sites cheatgrass, an exotic annual, dominates the area. About 0.4 miles of fence in this pasture is shared with the Inside Lakes Pasture. A little over 5.1 miles of fence is shared with the North and South Poison Creek Burn Pastures on the east side.

##### Water Sources

Two water troughs (T14S, R08E, Section 11 SESW and Section 03 SESE) are present in the Rock Corral Pasture. A pond (T14S, R08E, Section 03 SWSE) is located in the bottom of Poison Creek. This pond is not a reliable source of water.

#### Inside Lakes Pasture

##### Fences

Very little of this pasture is within the Jarbidge River watershed. A portion of the pasture is vegetated by salt desert shrub habitat as well as some Wyoming big sagebrush/grass. About 0.4 miles of fence in the watershed area are shared with the Rock Corral Pasture. A little less than .1 miles of fence is shared with the Saltbush Pasture.

##### Water Sources

Two water troughs on the Jim Bob Pipeline provide livestock water. Neither trough is located within the Jarbidge River watershed. However, one trough (T13S, R08E, Section 34 SESE) is less than 0.1 miles from the watershed boundary. A playa (T13S, R08E, Section 30 SW) is located in the watershed area. Water in this playa is not very reliable. Three other playas are located further north in the pasture, but are not within the watershed area. Livestock can trail to the mouth of Poison Creek (T13S, R08E, Section 32 NENW) to access the Jarbidge River.

#### Saltbush Pasture

##### Fences

The majority of this pasture has burned in wildfires and has been seeded to crested wheatgrass. About 0.5 miles of fence in the Saltbush Pasture is shared with the North Poison Creek Burn Pasture. Remaining fence is not within the Jarbidge River watershed.

##### Water Sources

There are five water troughs all on the Jim Bob system are located within the Saltbush Pasture. The nearest trough is a little over 0.8 miles from the watershed area.

#### North Poison Creek Burn Pasture

### Fences

Much of this pasture has burned in the past and been seeded to crested wheatgrass. Native islands are vegetated by Wyoming big sagebrush/Sandberg bluegrass. About 1.7 miles of fence is shared with the South Poison Creek Burn Pasture. A little over 2.1 miles of fence are share with the Rock Corral Pasture. The remaining fence lies outside to the watershed.

### Water Sources

Three water troughs connected to the Jim Bob Pipeline are located within the pasture. Two of the troughs (T14S, R08E, Section 1 SWSW and Section 12 SWSE) are located within the watershed area. The third trough (T14S, R08E, Section 2 NWNE) is located about 0.1 miles east of the watershed boundary.

South Poison Creek Burn Pasture

### Fences

Most of this pasture has been seeded to crested wheatgrass following wild fires. Within the watershed boundary about 3.3 and 0.5 miles of fence are in common with the Rock Corral and Middle Butte Pastures, respectively, of this allotment. Another 1.8 miles of fence are shared with the Inside Desert Allotment.

### Water Sources

Post Office Reservoir (T14S, R08E, Section 13 NENE) is present but does not provide a reliable water source. There were 4 water troughs for livestock attached to the Jim Bob Pipeline. Only 2 troughs are presently active (T14S, R09E Section 18 SESE and Lot 2).

Middle Butte

### Fences

Most of this pasture has burned in past wild fires however, a native herbaceous component remains. Most of the burned area was also seeded with crested wheatgrass. About 3.4 miles of fence are in common with the Inside Desert Allotment. Nearly 1.0 miles of fence are shared with the East Poison Butte and Poison Butte pastures.

### Water Sources

Two natural water sources are present Lake Pit Reservoir ((14S, R09E, Section 28 NW) and a pond in Poison Creek (T14S, R09E, Section 33). Water is not present in either area on a consistent basis. A single water trough (T14S, R09E, Section 29, SENE) hooked to the Jim Bob Pipeline provides livestock with drinking water.

East Poison Butte

### Fences

Most of this pasture has a native Wyoming big sagebrush/bluebunch wheatgrass habitat. It also contains a large patch of crested wheatgrass seeding. Just over 2.3 miles of fence are in common with the Inside Desert Allotment. About 1.2 and 2.4 miles of pasture fence are shared with the East Dishpan and Poison Butte pastures, respectively.

### Water Sources

Two water troughs attached to the Jim Bob Pipeline are present (T15S, R09E, Section 04 NENW and Section 09 SWNE). A playa is also present (T15S, R09E, Section 04 SWNE) that has water for livestock periodically.

## East Dishpan Pasture

### Fences

This pasture is vegetated by native plant communities, a portion of which has recently burned. It shares 0.5 miles of fence with the Inside Desert Allotment. It also has 1.2, 0.7, 4.1 and 2.6 miles of fence in common with East Poison Butte, Poison Butte, West Dishpan, and North Sheep pastures, respectively.

### Water Sources

Four water troughs are scattered in the pasture (T15S, R09E, Section 08 SWSW, Section 15 SESW, Section 17 SENW, and Section 28 NENE) that supply water to livestock. All these troughs are attached to the Jim Bob Pipeline.

## North Sheep Pasture

### Fences

The North Sheep Pasture is vegetated by native plant communities. A burn in 1999 removed sagebrush from the southern portion of the pasture. About 5.7 miles of fence separates this pasture from the Inside Desert Allotment. Nearly 2.8 miles of fence is shared with the South Sheep Pasture. The remaining 2.6 miles of fence is in common with the East Dishpan Pasture.

### Water Sources

Livestock in this pasture are watered by 3 water troughs connected to the Jim Bob Pipeline. Two troughs are in Section 26 (T15S, R09E, SENW and SENE), whereas a third water trough is in the northern part of the pasture (T15S, R09E, Section 14 SWSW

## East Airport Pasture

### Fences

The East Airport Pasture contains some old intermediate wheatgrass seeding as well as a large amount of native range. About 4.0 miles of fence split this pasture from the Inside Desert Allotment. About 3.8 miles of fence are shared with the West Airport Pasture. Nearly 0.6 miles of fence keep livestock off the Rogerson Highway.

### Water Sources

Livestock watering sites are in the northern (T16S, R09E, Section 1 NWSE) and southern (T16S, R09E Section 18 NWSE and SESE) portions of the pasture. All troughs are connected to the Jim Bob Pipeline.

## East Halogeton Pasture

### Fences

This pasture contains a mixture of old crested wheatgrass seeding with a strong native component and all native habitats. Within the Jarbidge River watershed about 1 mile of fence is in common with the Inside Desert Allotment. About 0.6 miles of fence restrict livestock access to the Rogerson Highway. The remaining 2.8 and 0.2 miles of fence are in common with the West Halogeton and East Nevada Strip Pastures, respectively.

### Water Sources

One water trough (T16S, R09E, Section 29 NENW) hooked to the Jim Bob Pipeline provides livestock water within the Jarbidge River watershed. A second trough (T16S, R09E, Section 21 SWSE) is about 0.3 miles east of the watershed boundary. During some years a pond in the bottom of Poison Creek (T16S, R09E, Section 29 NENE) has water some years after spring run off.

## East Nevada Strip

### Fences

Low sagebrush/Idaho fescue ridges and Wyoming big sagebrush/Idaho fescue/Bluebunch wheatgrass swales are the native habitats present in this pasture. Roughly 0.8 miles of fence is shared with the West Nevada Strip Pasture. Another 0.6 miles of fence forms the boundary with the Forest Service within the watershed. Other fence is beyond the watershed boundary.

### Water Sources

Two water troughs (T47N R58E Section 10 NENW Section 15 NENW) hooked to the Jim Bob Pipeline are present in this pasture. Neither trough is within the watershed. However, both are within 0.1 miles of the watershed boundary. A small spring is located in the northeastern part of the pasture (T47N, R58E, Section 03, SWSE), but is over 0.3 miles from the watershed boundary.

## Jim Bob Pipeline

### Background

Jim Bob Creek is a tributary to Robinson Creek, which is a tributary to the East Fork of the Jarbidge River. Jim Bob Pipeline was originally constructed in 1954 as a ditch and an 18" culvert to carry water from Jim Bob Creek, Nevada to the upper portion of Poison Creek, Nevada to fill a number of reservoirs along Poison Creek downstream in Idaho. The amount of water appropriated to the BLM was 3.5 cfs from March 1 through May 1. A portion of the ditch failed in 1974/1975. In the 1975 the ditch was replaced with a 6" diameter pipe to carry the water the diversion structure to holding tank (T47N R59E Section 35 SWSWSW), where it now provides water to a smaller pipeline on Forest Service lands as well as the Jim Bob Pipeline. The diversion dam partially washed out in 1978 and was reconstructed and reinforced. At that time the mainline down gradient from the holding tank to the Jim Bob Pipeline was 3" diameter plastic pipe, which was reduced down to 2.5" after 200 feet, and further reduced to 1.5" polyethylene (PE) pipe. Two permittees have filed water right claims on the Jim Bob Pipeline in Idaho for 0.23 cfs each from 1/1 through 12/31 annually. The claims are partially based upon water from Pence Springs in Idaho used to augment water to the Jim Bob Pipeline.

The existing diversion structure (T46N, R59E, Section 11 SWSENE) in Jim Bob Creek consists of about 6 vertical feet of rock filled gabions below a concrete dam (Figure 5a and 5b). The concrete dam is 5 feet high at the lowest point and set nearly 4 feet in the ground. Wings on the dam are an additional 18 inches taller. The concrete portion of the diversion is roughly 22 ft long with an 8.5 ft arm. Gabions also protect the arm. There is some overlap in height between the gabions and concrete diversion point. The diversion inlet (10" diameter circle) in the arm is screened to filter out most debris before water enters a concrete tank. Sediment that accumulates behind the dam somewhat reduces water flow through the screen. Within the concrete tank (Figure 6) the pipeline intake is a 6-inch diameter PVC pipe. A 2.25 inch diameter galvanized pipe serves as the overflow inlet. The overflow outlet is connected by PE pipe directly back to Jim Bob Creek.

Presently, the Jim Bob Pipeline system contains approximately 225 miles of pipeline and 145 water troughs on BLM lands (Figure 7). There are 7 reservoirs and 5

tanks present on the Jim Bob water system that store water to maintain flows in several of the pipeline spurs. The Jim Bob Pipeline helps provide livestock with water in portions of six allotments (Crawfish, Inside Desert, Juniper Butte, Juniper Draw, North Antelope



Figure 5a. Photograph of the Jim Bob Pipeline diversion structure shortly after construction (July 28, 1977). The photograph was taken from the upstream side.



Figure 5b. Photograph of the Jim Bob Diversion structure taken from downstream (August 15, 2002). The collection box is on the left side of the photograph in front of the concrete wing. Note the gabions in Jim Bob Creek in the foreground (lower right side).

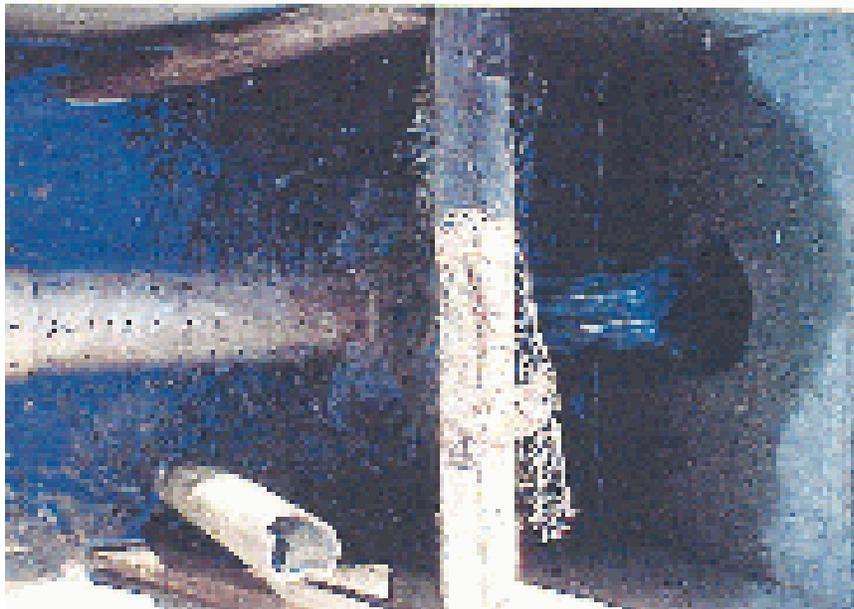


Figure2. Photograph of the collecting box at the Jim Bob diversion structure. The inlet is 10” diameter hole in the concrete (right side). The outlet (to Jim Bob Pipeline) is a 6” diameter PVC pipe perforated with ½” diameter holes (center left). The overflow is a 2 ¼” diameter galvanized stand pipe (bottom left).

Butte, and Poison Butte Allotments). Water rights in Nevada and Idaho are presently under going adjudication. Only one diversion structure is located on Jim Bob Creek, Nevada. Table 1-6 depicts the amount of AUMs in these allotments.

Allotment Name	Base Permit AUMs	TNR AUMs	Total Permitted AUMs
Poison Butte	6,360	8,633	14,993
Inside Desert	10,088	13,771	23,859
Juniper Butte	1,059	1,917	2,976
Juniper Draw	686	2,232	2,918
North Antelope Butte	741	573	1,314
Crawfish	1,065	0	1,065
Total AUMs	19,999	27,126	47,125

Cattle water consumption varies with the season (Heady 1975). Water requirements are highest during the summer when temperatures are hot (Heady 1975). A mature cow during the summer would potentially drink from 13 to 17 gallons and calves would drink up to 7 gallons of water per day. The present water diversion from Jim Bob Creek (@ 80

gpm) yields about 115,200 gallons per day as a minimum. Theoretically, this amount of water is adequate to water about 4,800 to 5,760 cow/calf pair per day (20 - 24 gallons/cow& calf/day during the summer). Water storage reservoirs allow for the storage of water in the spring when flows are higher in Jim Bob Creek and consumption by livestock is lower. Water leakage and evaporation from reservoirs, ponds, and troughs reduce the amount of available water.