

**U.S. Department of the Interior
Bureau of Land Management**

**Environmental Assessment
DOI-BLM-NV-S010-2012-0069-EA**

N-91051

**Right-of-Way for a Diversion Dam Structure,
Dirt Dikes, Canal and Access Roads on Public Lands**

APPLICANT

City of Mesquite, Nevada, and Bunkerville Irrigation Company

LOCATION

Located in Mesquite, Nevada, on the Shoreline and in the Virgin River

PREPARING OFFICE

**U.S. Department of the Interior
Bureau of Land Management
Las Vegas Field Office
4701 N Torrey Pines
Las Vegas, Nevada 89130
702-515-5000**



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Chapter 1. Environmental Assessment

*Right-of-Way for a Diversion Dam Structure, Dirt Dikes, Canal and Access
Roads on Public Lands*

1.1. Identifying Information:

DOI-BLM-NV-S010-2012-0069-EA

1.1.1. Title, EA Number, and Type of project:

Title: Right-of-Way for a Diversion Dam Structure, Dikes, Canal and Access Roads on Public Lands.

EA Number: DOI-BLM-NV-S010-2012-0069-EA

Type: Site Type Right-of-Way

1.1.2. Location of Proposed Action:

Located in Mesquite, Nevada, south of Hafen Lane, on the shoreline and in the Virgin River.

LEGAL DESCRIPTION:

Mount Diablo Meridian, Nevada, T. 13 S., R. 71 E., sec. 16, lots 4, 5; sec. 20, lots 1, 3, 7, S½NE¼, NE¼SW¼, N½NW¼SW¼, sec. 21, N½NW¼, SW¼NW¼.

1.1.3. Name and Location of Preparing Office:

Department of the Interior
Bureau of Land Management
Las Vegas Field Office
4701 N. Torrey Pines
Las Vegas, NV 89130

Office Number: LLNVS00560

1.1.4. Identify the subject function code, lease, serial, or case file number:

Casefile Number: N-91051

1.1.5. Applicant Name:

City of Mesquite, Nevada, and Bunkerville Irrigation Company

1.2. Purpose and Need for Action:

Description: The diversion dam structure and dirt dikes which exist in the Virgin River, in Mesquite, Nevada, is eroded and in need of repair and reconstruction. The Bunkerville Irrigation Company (BIC) has a right-of-way with the Bureau of Land Management (BLM), grant NEV-043705, for maintenance of the diversion dam, canal and access road, granted June 11, 1956. The reconstruction and rebuilding of the dam structure and dikes will utilize public lands outside the boundaries of the existing right-of-way. According to 43 CFR 2807.20(d), if a grant is

issued prior to October 21, 1976, and there is a proposed substantial deviation in the location or use of the right-of-way grant, the holder must apply for a new grant consistent with the Federal Land Policy and Management Act of 1976, (FLPMA) Title V, Sec. 501 (43 USC 1761). The City of Mesquite, and the BIC are applying for a new right-of-way grant for reconstruction and repair of the diversion dam structure and dirt dikes on public lands. The repair and reconstruction of the diversion dam and dikes is critical for recovery of the endangered species in the Virgin River and is necessary to provide irrigation to 1100 acres of farmland in the area.

1.3. Scoping, Public Involvement and Issues:

The BIC has been diverting water and maintaining the diversion dam structure since 1956. The diversion dam structure is eroded and in need of repair. The City of Mesquite and BIC has applied for funding from the Natural Resources Conservation Service (NRCS) for reconstruction of the diversion dam and dikes. The right-of-way is necessary according to the FLPMA Act and to provide documentation approval to the NRCS.

The diversion structure is located in the Virgin River, in Mesquite, which is within a critical habitat area for the Virgin River chub, woundfin and southwestern willow flycatcher.

The diversion structure is located in a high risk area for noxious weeds.

Stipulations will be attached to the right-of-way grant which will include conservation and protection of the natural resources, cultural resources, Threatened and Endangered (T&E) Species, and the environment.

This proposal has been reviewed by BLM resource team members. Their comments and evaluations are included in this environmental assessment.

A summary of this EA is available for review by the public on the internet on the DOI.GOV website under NEPA number: DOI-BLM-NV-S010-2012-0069-EA.

Chapter 2. Proposed Action and Alternatives

2.1. Description of the Proposed Action — Alternative Number 1:

Description: Alternative Number 1 is a right-of-way for reconstruction of the diversion dam and dirt dikes and continued maintenance of the diversion dam, dirt dikes, canal, and access roads on public land. The diversion dam structure acts as a fish barrier for protection of endangered fish in the river. The canal draws water from the dam and provides irrigation for 1100 acres of farmland in the area. The diversion dam structure and dirt dikes are falling apart and in need of repair. The right-of-way will allow for reconstruction and repair of the diversion dam structure and the dirt dikes. The right-of-way will also include the existing access road to the diversion dam, and access road which traverses parallel to the canal. Neither the canal nor the access roads require reconstruction or repair and will remain as they exist. There will be no new construction or rehabilitation to the adjacent Bunkerville ditch or canal. However, the right-of-way will allow for normal routine maintenance and upkeep of the access roads and canal, as has been done for years.

History: The BIC obtained right-of-way NEV-043705, with the BLM, on June 11, 1956, for construction and maintenance of a diversion dam, access road, and canal. Through the years, the diversion dam and dirt dikes have fallen apart, eroded, and are in need of repair. Reconstruction and rebuilding of the dam structure will utilize public lands outside the boundaries of the existing right-of-way. Right-of-way NEV-043705 is a pre-FLPMA right-of-way. According to government regulation 43 CFR 2807.20(d), since the right-of-way is a pre-FLPMA right-of-way, and construction of the dam will be outside the right-of-way boundary, a new right-of-way grant is required. The City of Mesquite, and the BIC, in cooperation, are applying for a new right-of-way grant, to allow for the reconstruction and repair of the diversion dam.

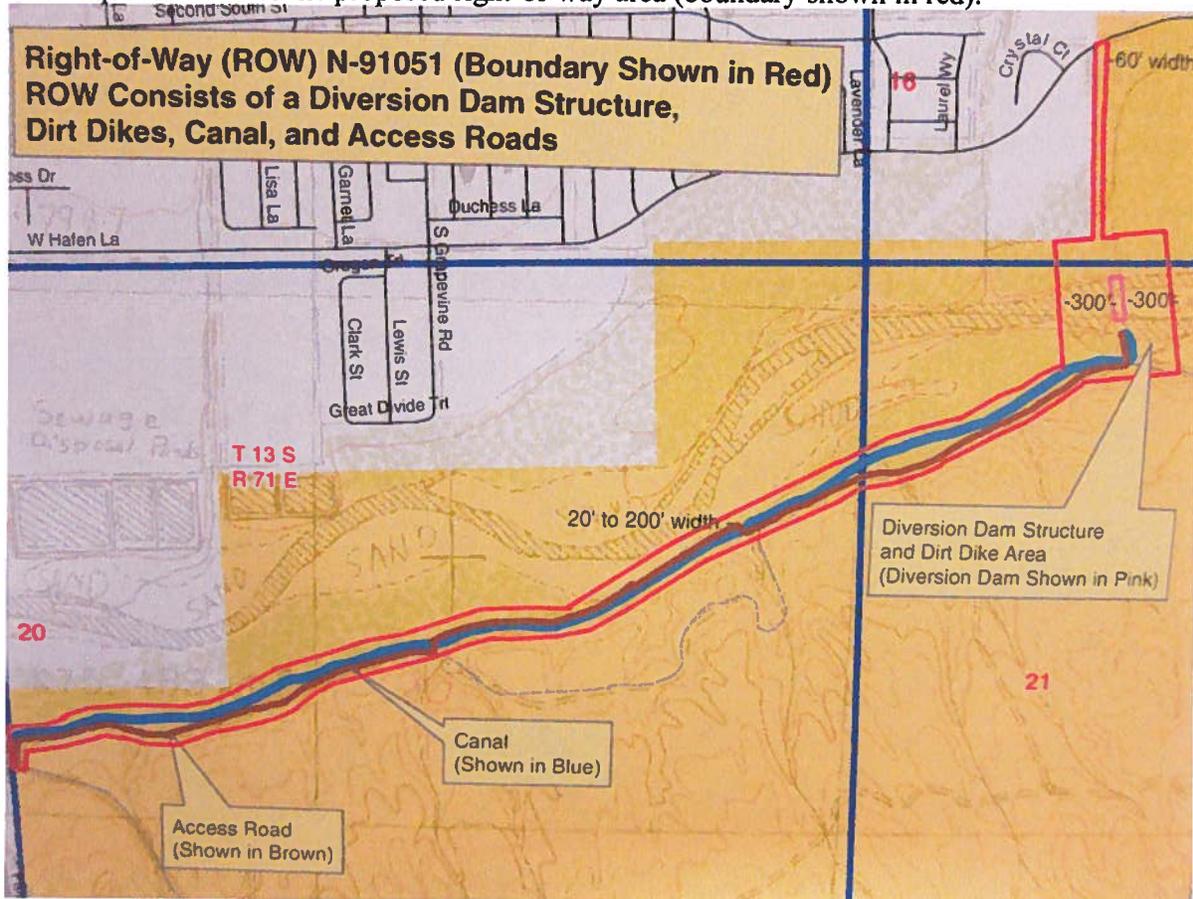
Dimensions: The approximate dimensions of the dirt dikes are 40 to 100 feet wide and 100 to 400 feet in length. The diversion dam is approximately 60 feet by 350 feet. Reconstruction of the dirt dikes and dam will require a maintenance yard area of approximately 300 feet around the perimeter of the diversion dam for construction of the dam. The right-of-way area will be approximately 300 to 370 feet in width perimeter around the diversion dam, which includes the dikes, dam and construction area, and allow for a 60 feet wide by 1200 feet in length access road entrance to the dam area. The existing canal varies from 10 to 60 feet wide and 5640 feet in length. The right-of-way area will include the access road and canal and will be approximately 20 to 200 feet in width and 5640 feet in length. The total right-of-way area will encompass approximately 30.10 acres. The right-of-way will be granted for 30 years.

The diversion dam structure is located on BLM property in the City of Mesquite, in the Virgin River, just below Hafen Lane (see maps below). The site cannot be accessed without crossing BLM land. The diversion dam structure provides irrigation for 1100 acres of farmland and is critical for the livelihood of the local farmers. In addition, there is a critical need for a fish barrier for protection of the endangered fish. The structure acts as a fish barrier and prevents invasive fish from moving upstream. The project is critical for recovery of the endangered species in the Virgin River and is supported by all of the Federal Agencies. The Corps of Engineers (COE) and the Fish and Wildlife Service (Service) support the project; however, the Federal action agencies (NRCS, COE, and BLM) are responsible for carrying out any required environmental compliance, including consulting with the Service under section 7 of the Endangered Species Act. The NRCS, with the City of Mesquite acting as their non-Federal representative, will be the lead agency responsible for conducting section 7 consultation and coordinating with the other two Federal agencies. The right-of-way will be a contract with both the City of Mesquite and the BIC. The City of Mesquite will be responsible for management of the project, which includes the diversion dam, dirt dikes, access roads, and canal. The BIC will be responsible for the reconstruction and

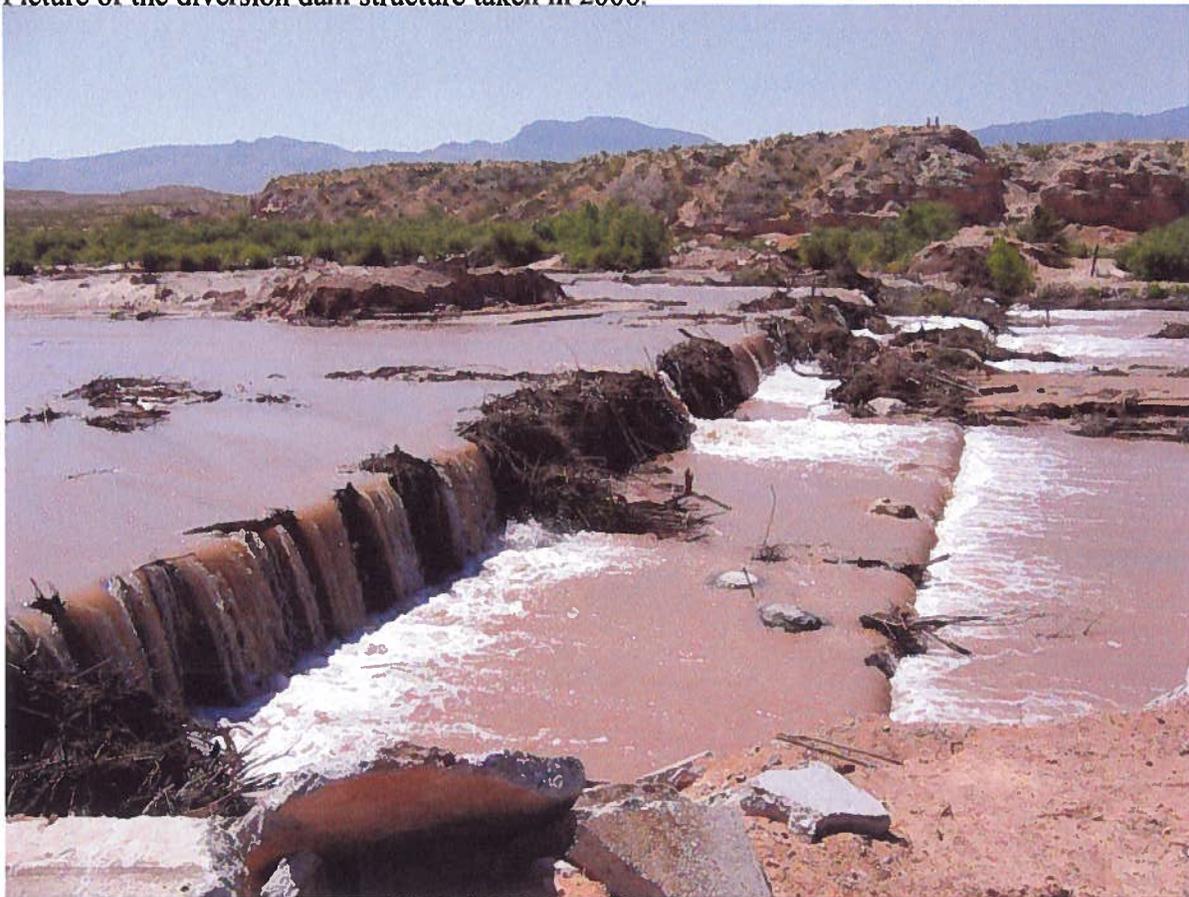
rehabilitation of the diversion dam, and dirt dikes, and continued maintenance of the diversion dam structure, canal, and access roads. The NRCS will provide the funding for the reconstruction of the diversion dam and will consult on the impacts of construction.

STABILIZATION/RECLAMATION: The river will be temporarily diverted to bypass the construction area, therefore, fish should not be present in the project area during construction activities. Impacts to fish species from temporary diversion of the river should be minimal, and should not result in mortality. Upon completion of construction, the shoreline area will be cleaned and restored to its natural state. Appropriate stabilization and rehabilitation measures will be completed in conformance with the requirements of the BLM, the State of Nevada Division of Environmental Protection, and Clark County Department of Air Quality and Environmental Management. The area is located in a high risk area for noxious weeds. The City of Mesquite and the BIC will implement control measures for invasive and noxious weeds. A weed management plan will be prepared.

The map below shows the proposed right-of-way area (boundary shown in red).



Picture of the diversion dam structure taken in 2006.



Picture of the diversion structure (dam and dirt dike) taken May 2, 2012. The structure is in need of repair.





N 1051

*Chapter 2 Proposed Action and Alternatives
Description of the Proposed Action
Alternative Number 1.*

Close-up of the diversion dam. Picture taken on May 2, 2012.



2.2. Description of Other Alternatives Analyzed in Detail:

NO ACTION ALTERNATIVE NUMBER 2:

Under a “no action” alternative, BLM land would not be made available for issuance of the right-of-way. No action would result in a further decay of the diversion dam structure, thus introducing invasive fish species which could affect the endangered fish and other species in the river, thus changing the ecosystem. Irrigation water for farmers would be negatively impacted.

2.3. Alternatives Considered but not Analyzed in Detail:

ALTERNATE NUMBER 3:

No other alternatives were considered.

2.4. Conformance

The proposed action is in conformance with the Las Vegas Resource Management Plan (RMP) decisions RW-1, and RW-1-h, approved October 5, 1998.

- RW-1 — “Meet public demand and reduce impacts to sensitive resources by providing an orderly system of development for transportation, including legal access to private inholdings, communications, flood control, major utility transmission lines, and related facilities.”
- RW-1-h— “All public land within the planning area, except as stated in RW-1-c through RW-1-g, are available at the discretion of the agency for rights-of-way under the authority of the Federal Land Policy Management Act.”

Rights-of-ways are allowable on BLM-administered lands per Title V of the Federal Land Policy and Management Act of 1976 and the BLM regulations (43 CFR 2800), at the discretion of the Secretary of the Interior or his/her delegated officer.

Chapter 3. Affected Environment:

SUPPLEMENTAL AUTHORITIES

| Supplemental Authority | Not Present | Present/Not Affected | Present/May be Affected | Rationale |
|---|-------------|----------------------|-------------------------|---|
| Air Quality | | X | | <p>Ensure dust control permit is obtained through DAQEM for all soil disturbing activity of .25 acres or greater, in the aggregate. At present, water is the only means by which BLM authorizes dust suppression for construction activities, as well as for operations and maintenance of public land activities known to generate fugitive dust. It is anticipated that activities associated with this project will generate fugitive dust and as such, must be managed. Additionally, all efforts should be made, during "non-working" times, soil disturbed as a result of project activity during "working" hours, should be managed through the use of a variety of Best Management Practices. Ensure dust control permit and all stipulations must remain in compliance for the duration of the project(s).</p> |
| Area of Critical Environmental Concern (ACEC) | X | | | <p>The proposed project area is not within an ACEC or any critical desert tortoise habitat. The proposed action is within designated critical habitat for the Virgin River chub, woundfin and southwestern willow flycatcher. Critical habitat will be further addressed under the T&E section</p> |

| Supplemental Authority | Not Present | Present/Not Affected | Present/May be Affected | Rationale |
|---|-------------|----------------------|-------------------------|---|
| Cultural/Historical | X | | | The BLM Archaeologist has determined that the undertaking as proposed is exempt from Section 106 review as per Appendix C.5 of the 2009 State Protocol Agreement with the Nevada State Historic Preservation Office (SHPO): "Issuing...modifications...where there would be no change in use or surface disturbance." The area has been disturbed from previous construction. |
| Paleontological Resources | X | | | No concerns. The area has been disturbed from previous construction and floodwaters. |
| Environmental Justice | | X | | No impacts should occur to low-income or minority communities from re-construction of the dam. |
| Farmlands Prime or Unique | X | | | There are no prime or unique farmland designations in the District. |
| Noxious Weeds/Invasive Non-native Species | | | X | Upgrade existing Dam, no new disturbance. A plan for dealing with noxious weeds will need to be completed as the area is infested with many different weed species. |
| Native American Religious Concerns | X | | | No concerns. The area has been disturbed from previous construction and floodwaters. |
| Floodplains | | X | | The action of issuing the ROW and replacing the existing temporary dam will not cause new impacts, as a dam as been in place at this location since 1956. |
| Riparian/Wetlands | | X | | The action of issuing the ROW and replacing the existing temporary dam will not cause new impacts, as a dam as been in place at this location since 1956. |
| Threatened, Endangered or Candidate Plant Species | X | | | Not present. |

| Supplemental Authority | Not Present | Present/Not Affected | Present/May be Affected | Rationale |
|---|-------------|----------------------|-------------------------|--|
| Threatened, Endangered or Candidate Animal Species. | | | X | <p>The Natural Resources Conservation Service (NRCS) is the lead federal agency for Section 7 Consultation with the US Fish and Wildlife Service (USFWS) for this project. NRCS will ensure the proposed action is carried out in compliance with any minimization measures and/or terms and condition provided by the USFWS.</p> <p>For NEPA compliance, it is addressed in the EA below.</p> |
| Migratory Birds | | X | | <p>As there will be no new surface disturbance associated with the proposed action, there will be no impact on migratory birds. Stipulations are included in Exhibit A of this EA to ensure migratory birds are not affected within the action area during construction activities.</p> |
| Waste - Hazardous/Solid | | X | | <p>No issues. Include standard hazardous waste stipulations in grant.</p> |
| Water Quality | | X | | <p>The action of issuing the ROW and replacing the existing temporary dam will not cause new impacts, as a dam as been in place at this location since 1956.</p> |
| Wild & Scenic Rivers | | X | | <p>This section of river is eligible for inclusion in the National Wild and Scenic Rivers System. Need to see a proposed design of the diversion/fish barrier in order to make a determination of impacts to the river character. Since there will be no change to the size or character of the design, there is no impact.</p> |

| Supplemental Authority | Not Present | Present/Not Affected | Present/May be Affected | Rationale |
|--|-------------|----------------------|-------------------------|--|
| Wilderness/ WSA/Lands with Wilderness Characteristics | X | | | The proposed action is not located within or adjacent to designated Wilderness, WSAs, or ISAs. The proposed action is located in areas which underwent an initial wilderness inventory and were determined not to meet the elements of wilderness characteristics. This area was not nominated for wilderness characteristics as part of the Las Vegas RMP Revision and therefore the BLM did not consider a re-inventory in this area. The proposed action is in conformance with the existing LUP per FLPMA as it relates to management of LWCs. |
| Forests and Rangelands (HFRA only) Woodlands | | X | | Cactus and yucca are considered government property and regulated under the BLM Nevada forestry program. Because the proposed action is limited to existing roads and disturbed areas, no new impacts to cactus and yucca, acacia trees and other forestry products are expected. The proposed action does not include any additional surface disturbance; therefore there will be no impacts to rangeland health. |
| Human Health and Safety | | X | | No issues. Have proponent follow best management practices and health and safety regulations for construction of the underground pipelines. |

Other resources of the human environment that have been considered for this environmental assessment (EA) are listed in the table below. Elements that may be affected are further described in the EA. Rationale for those elements that would not be affected by the proposed action and alternative is listed in the table below.

| Other Resources | Not Present | Present/Not Affected | Present/May be Affected | Rationale |
|--|-------------|----------------------|-------------------------|---|
| Grazing Management | X | | | The proposed action area is not located in any authorized grazing allotments. |
| Green House Gas Emissions (Climate Change) | | X | | Currently there are no emission limits for suspected Greenhouse Gas (GHG) emissions, and no technically defensible methodology for predicting potential climate changes from GHG emissions. However, there are, and will continue to be, several efforts to address GHG emissions from federal activities, including BLM authorized uses. |
| Minerals | | X | | No mining claims or mining operations present. Any mineral materials produced within the right-of-way must be used within the right-of-way or stockpiled within the right-of-way for disposal through the BLM in accordance with the regulations found at 43 CFR 3600. If mineral materials are to be stockpiled on site for disposal or removed from the right-of-way at the time of construction, the disposal of the mineral materials must be analyzed in this NEPA document and a contract will be necessary before the stockpiled mineral materials can leave the right-of-way. |
| Socio-Economic Values | | X | | This project will not disproportionately impact social or economic values. |
| Soils/Hydrology | | X | | The action of issuing the right-of-way and replacing the existing temporary dam will not cause new impacts, as a dam as been in place at this location since 1956. |

| Other Resources | Not Present | Present/Not Affected | Present/May be Affected | Rationale |
|--|-------------|----------------------|-------------------------|--|
| Vegetation | | X | | As the proposed action is restricted to existing roads and disturbed areas, no new impacts to BLM special status plants are expected. There will be no surface disturbance. |
| Visual Resources | | X | | <p>As proposed this project would potentially impact VRM. there is not enough information about the design of the dam to make a good determination. This project is located in VRM Class II.</p> <p>Class II – The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape</p> <p>Since the design of the dam mirrors the existing dam and will not enlarge it in size or change it in shape or appearance, this project will receive an NI.</p> |
| Recreation | | X | | No impacts are expected. This is not located in a recreation area. |
| Fish and Wildlife excluding Federally Listed Species | | X | | Wildlife species in the general area include small mammals, rodents, birds and reptiles. These species may be found on the adjacent undisturbed lands and could wander into the proposed project area. Although there is no new surface disturbance associated with this project, primary direct impacts of the proposed action on wildlife would be mortality |

| Other Resources | Not Present | Present/Not Affected | Present/May be Affected | Rationale |
|-----------------|-------------|----------------------|-------------------------|--|
| | | | | resulting from construction activities and increased potential for harassments of wildlife. Wildlife species in the general area are common and widely distributed throughout the area and the loss of some individuals and/or their habitat would have a negligible impact on populations of the species throughout the region. |

3.1. Invasive Species/Noxious Weeds:

The project area is located in a high risk area for invasive species and legally designated noxious weeds. Currently, plant communities along the Virgin River are dominated by large stands of the non native, tamarisk (*Tamarix ramosissima*). Recent flood events scoured portions of the riverway, removing large sections of tamarisk and other vegetation. This has left the project area bare, providing openings for tamarisk re-establishment and possible introduction of other riparian weed species. Non native, invasive species that have been documented along the riverway include: Arundo (*Arundo donax*), camelthorn (*Alhagi camelorum*), Russian olive (*Elaeagnus angustifolia*), tall whitetop (*Lepidium latifolium*) and five-barb bassia (*Bassia hyssopifolia*).

Cut stump treatment of mature tamarisk and foliar herbicide treatment of vegetative tamarisk and camelthorn have been ongoing along the Virgin River. After treatments, areas are generally seeded with native species to encourage establishment of native plant species.

3.3. Fish and Wildlife, Excluding Federally Listed Species:

Wildlife species in the general area include small mammals, rodents, birds and reptiles. Additionally, the BLM sensitive species western burrowing owl, Mojave shovel-nosed snake, desert glossy snake, Mojave Desert sidewinder may be present in the general area.

3.4. Migratory Birds:

Migratory birds, including the BLM sensitive species the western burrowing owl (*Athene cunicularia*), may be present on the project site. The proponent will be required to adhere to the following mitigation measures:

- 1) To prevent undue harm, habitat-altering projects or portions of projects should be scheduled outside bird breeding season. In upland desert habitats and ephemeral washes containing upland species, the season generally occurs between March 15th - July 30th.
- 2) If a project that may alter any breeding habitat has to occur during the breeding season, then a qualified biologist must survey the area for nests prior to commencement of construction activities. This shall include burrowing and ground nesting species in addition to those nesting in

vegetation. If any active nests (containing eggs or young) are found, an appropriately-sized buffer area must be avoided until the young birds fledge.

3.5. Threatened and Endangered, or Candidate Animal Species:

Threatened and endangered species are placed on a federal list by the U. S. Fish and Wildlife Service (USFWS) and receive protection under the Endangered Species Act of 1973 (ESA), as amended.

Threatened and endangered species known to occur in the vicinity of the project area include the desert tortoise (*Gopherus agassizii*), Southwestern Willow Flycatcher (*Empidonax trailii extimus*), Virgin River chub (*Gila seminuda*), Woundfin (*Plagopterus argentissimus*). The proposed action does not occur within desert tortoise habitat, and will have no impacts on the species and will not be analyzed further in this document.

The proposed action occurs within critical habitat for Virgin River chub, woundfin and southwestern willow flycatcher and was designated as such due to its important riparian habitat for these threatened and endangered species. The proposed action will not result in any new disturbance within critical habitat.

Southwestern Willow flycatcher

The southwestern willow flycatcher migrates between North and Central Americas. It spends the summer and breeding months in North America in six southwestern states and travels south to Central America in the fall/winter. It can be found in thickets, brushy areas, swamps, open woodland, and second-growth areas with dense understory vegetation. Nests are usually built in swampy thickets with cottonwood, tamarisk and other vegetation ranging from 2 to 30 m tall characterized by high density and canopy cover. Their cup-like nests are often surrounded by dense vegetation and are found on the horizontal limbs in tall trees or large shrubs in riparian areas. Breeding occurs in the early summer months. There is no suitable habitat for the southwestern willow flycatcher within or directly adjacent to the proposed action, however there is suitable habitat upstream and downstream project area.

Virgin River Chub

The federally endangered Virgin River chub is a silvery, medium-sized minnow that averages about 20 centimeters in total length that is endemic to 134 miles of the Virgin River in southwest Utah, northwest Arizona, and southeast Nevada. The Virgin River chub is most often associated with deep runs or pool habitats of slow to moderate velocities with large boulders or instream cover, such as root snags. Threats to the Virgin River chub include natural and exotic predators, habitat alteration, toxic spills, and floods. There is potential for the Virgin River chub to be present in the area surrounding the dam.

Woundfin

The federally endangered woundfin is a small, silvery minnow that does not exceed 100 millimeters in length, has a streamlined torpedo-shaped body, a slightly flattened head and belly. The two leading dorsal fin-rays form a sharp spine that gives the species its name. Except for the mainstream of the Virgin River, woundfin are extirpated from most of their historical range. Adults and juveniles are associated with sand and fine gravel substrates in runs and quiet waters adjacent to riffles. Threats to the species include restricted distribution, loss of significant portions

of habitat range, deterioration of habitats, and introduction of non-native species. Recent surveys for woundfin have not detected the species within the area of the proposed project.

The yellow-billed cuckoo, a candidate species, is also known to occur in the vicinity of the project.

Cuckoos breed in large blocks of riparian habitats, particularly woodlands with cottonwoods and willows. In southern Nevada, this species is now limited to riparian woodlands along the Colorado and Virgin Rivers. The overall population trend for the cuckoo is decreasing but some areas are lacking information to determine a trend (USFWS 2003).

Yuma clapper rail

The Yuma clapper rail, listed as endangered, has been detected in marsh habitats along the Virgin River, and may occur upstream from the project area. This rail is a marsh bird that inhabits freshwater or brackish stream-sides and marshes with dense cattails, bulrush, and other aquatic vegetation. As marshes age and become desiccant, they lose habitat suitability for clapper rails. Recent surveys for other bird species documented the presence of the rail around Lake Mead near Las Vegas, Nevada, in the lower Virgin and Muddy Rivers of southern Nevada, and northern Arizona (USFWS 2006).

Chapter 4. Environmental Effects:

4.1. Invasive Species/Noxious Weeds:

Travel and construction disturbance impose increased risks of introducing and transporting weeds. The holder shall be responsible for completing a Noxious Weed Management Plan for weed control on disturbed areas within the limits of the right-of-way. The Noxious Weed Management Plan will need to conform to the guidelines of the Las Vegas Field Office Noxious Weed Plan, and will need to be approved by the BLM. The holder will be required to abide by the Noxious Weed Management Plan for the duration of the project. A copy of the Weed Management Plan will be attached and become a part of this document.

4.2. Fish and Wildlife, Excluding Federally Listed Species:

Wildlife species in the general area include small mammals, rodents, birds and reptiles. Additionally, the BLM sensitive species western burrowing owl, Mojave shovel-nosed snake, desert glossy snake, Mojave Desert sidewinder may be present in the general area. These species would be displaced as lands are disturbed within the project area. The primary direct impacts of the proposed action on wildlife would be killing or maiming of ground dwelling animals and less mobile species (such as reptiles) during construction, displacement of individuals, and the loss and fragmentation of habitat. Additional impacts associated with the mortality from vehicular traffic may also occur. Wildlife species in the general area are common and widely distributed throughout the area and the loss of some individuals and/or their habitat would have a negligible impact on populations of the species throughout the region.

Impacts to BLM Sensitive Species are not anticipated to lead to further decline of the species range wide as the total disturbance for this project is relatively small.

4.3. Migratory Birds:

Migratory birds, including the BLM sensitive species the western burrowing owl (*Athene cunicularia*), may be present on the project site. The proponent will be required to adhere to the following mitigation measures:

- 1) To prevent undue harm, habitat-altering projects or portions of projects should be scheduled outside bird breeding season. In upland desert habitats and ephemeral washes containing upland species, the season generally occurs between March 15th - July 30th.
- 2) If a project that may alter any breeding habitat has to occur during the breeding season, then a qualified biologist must survey the area for nests prior to commencement of construction activities. This shall include burrowing and ground nesting species in addition to those nesting in vegetation. If any active nests (containing eggs or young) are found, an appropriately-sized buffer area must be avoided until the young birds fledge.

4.4. Threatened and Endangered, or Candidate Animal Species:

Threatened, Endangered Species

The holder shall consult with the Natural Resources Conservation Service (NRCS) and the U.S. Fish and Wildlife Service (USFWS) to ensure Section 7 Consultation is followed for this project. NRCS is the lead federal agency for Section 7 Consultation with the USFWS. NRCS will ensure

the proposed action is carried out in compliance with any minimization measures and/or terms and conditions provided by the USFWS.

The proposed action will not result in any new disturbance within critical habitat for Virgin River chub, woundfin and southwestern willow flycatcher. The proposed action will benefit the critical habitat by continuing to control the flow of river necessary to maintain current riparian habitat upstream and downstream from the project area, and potentially protecting habitat from small flood events.

Southwestern Willow flycatcher

The proposed action to reconstruct and upgrade the existing diversion dam structure is not within of adjacent to suitable habitat for the southwestern willow flycatcher, and therefore, will have no direct impacts to the species or its habitat.

Virgin River Chub

There is potential for the Virgin River chub to be present in the area surrounding the proposed action to reconstruct and upgrade the existing diversion dam structure. It is our understanding that the river will be temporarily diverted to enable construction crews to build the diversion. This should result in keeping fish out of the construction area; therefore, no mortality should occur. There would be minor effects to fish that are diverted along with the river because they will be temporarily displaced out of their normal habitat, but this is not expected to result in mortality and adverse effects to the species. The proposed action is to be carried out in compliance with best management practices to avoid impacts to the species resulting from possible spills (i.e., fueling of equipment should take place off site a safe distance from the river). In the event of a spill, a plan should be in place prior to the start of work to ensure a quick, efficient cleanup follows. Accidental fuel or other toxic spill may kill or harm animals, or affect the health and behavior of the species.

The proposed action will benefit the species by preventing invasive fish species from traveling further upstream from the project area.

Woundfin

The proposed action area will not occur within suitable habitat for the woundfin, however, the species may be found both upstream and downstream from the project area. The proposed action is to be carried out in compliance with best management practices to avoid impacts to the species resulting from possible spills (i.e., fueling of equipment should take place off site a safe distance from the river). In the event of a spill, a plan should be in place prior to the start of work to ensure a quick, efficient cleanup follows. Accidental fuel or other toxic spill may kill or harm animals, or affect the health and behavior of the species.

The proposed action will benefit the species by preventing invasive fish species from traveling further upstream from the project area.

Yellow-billed cuckoo

Although the yellow-billed cuckoo is known to occur in the vicinity of the proposed action, the project footprint is not considered suitable habitat for the species as it is devoid of most vegetation, and it is unlikely the species would be utilizing the area during construction; therefore, the species and its habitat are not expected to be affected by the proposed action.

*Chapter 4 Environmental Effects:
Threatened and Endangered, or Candidate Animal
Species:*

N-91051

Yuma clapper rail

The Yuma clapper rail may occur upstream from the project area. The proposed action is not within suitable habitat for Yuma clapper rail, and therefore is not expected to affect the rail or its habitat.

4.5. CUMULATIVE IMPACTS:

Cumulative impacts associated with this area were analyzed in the Las Vegas Resource Management Plan and Final Environmental Impact Statement, Statement, and Record of Decision signed October 1998.

PAST, PRESENT, AND FUTURE ACTIONS CONSIDERED:

The diversion dam structure has existed in the Virgin River, in the City of Mesquite, Nevada, since 1956. It diverts the water and provides irrigation for local farmers, and acts as a fish barrier for protection of the endangered fish. The structure prevents invasive fish from moving upstream. The BIC has been maintaining the dam and the diversion of the water for years. However, the diversion dam structure is falling apart and in much need of repair. The City of Mesquite and BIC have applied to receive funding from the NRCS for construction and rebuilding the diversion dam structure.

Future impacts associated with this action should be minor, since the project is for reconstruction and upgrading of an existing structure. BIC plans on doing continued maintenance on the structure for protection of the endangered fish species and to aid in providing irrigation for local farmers. The reconstruction and upgrading will occur to the diversion dam and dirt dikes. There will be no renovation or reconstruction to the existing canal and access roads, only routine maintenance. Since they will be upgrading and reconstructing the diversion structure and dirt dikes, but not the canal, the change to the visual surroundings, will be minor.

Impacts to the Virgin River Chub, Woundfin and other protected fish, and other resources should not occur due to temporary diversion of the river during construction activities, and are expected to be negligible and should not result in mortality. Once the dam is completed, no further impacts should occur. The proposed action will benefit the species of fish by continuing to control the flow of the river necessary to maintain current habitat, and by preventing invasive fish species from traveling further upstream from the project area (see Threatened and Endangered Species above).

The reconstruction and upgrading will occur to the diversion dam and dirt dikes. There will be no renovation or reconstruction to the existing canal and access roads, only routine maintenance.

Reconstruction of the diversion dam in conjunction with other projects on the river, when done in conformance of the guidelines of the Weed Management Plan, are not expected to introduce new weed species or greatly increase existing weed populations.

Upon completion of construction, appropriate stabilization and rehabilitation measures will be completed in conformance with the requirements of BLM, the State of Nevada Division of Environmental Protection, and Clark County Department of Air Quality and Environmental Management. BIC will continue in the maintenance and rehabilitation of the structure.

Chapter 5. Tribes, Individuals, Organizations, or Agencies Consulted:

Table 5.1. List of Persons, Agencies and Organizations Consulted

| Name | Purpose & Authorities for Consultation or Coordination | Findings & Conclusions |
|--|---|---|
| John R. Willis, City of Mesquite (City), 10 E. Mesquite Blvd., Mesquite, NV 89027 | Applicant | Applied for the right-of-way. The City will manage the right-of-way and project. |
| Robert Bunker, Bunkerville Irrigation Company (BIC), P.O. Box 7337, Bunkerville, Nevada 89007 | Applicant | The BIC will manage the re-construction of dam and dikes, and continued maintenance of the dam, dirt dikes, canal and access roads. |
| Corps of Engineer | Consultation | |
| Fish and Wildlife Service, Nevada Fish and Wildlife Office, 4701 N Torrey Pines Drive, Las Vegas, NV 89130 | Cooperative Agency — Consultation and Review | |
| Natural Resources Conservation Service | Cooperative Agency — Lead for Section 7 Consultation and Review | |

Chapter 6. List of Preparers

Table 6.1. List of Preparers:

| Name | Title | Responsible for the Following Section(s) of this Document |
|-------------------|--|---|
| Dorothy J. Dickey | Realty Specialist | Introduction, Purpose and Need, Scoping, Land/Access |
| Lisa Christianson | Environmental Protection Specialist | Air Quality, Greenhouse Gas Emissions |
| Fred Edwards | Botanist | Botanist, Forest Initiative, Healthy (Cactus/Yucca), Threatened, Endangered or Candidate (Plant Species), Vegetation Excluding Listed Species |
| Susanne Rowe | Archaeologist | Cultural Resources, Native American Religious Concerns, Paleontology, |
| Katie Kleinick | Natural Resource Specialist | Fish & Wildlife, Migratory Birds, Threatened, Endangered or Candidate (Animal Species) |
| Amelia Savage | Wildlife Biologist | Fish & Wildlife, Migratory Birds, Threatened, Endangered or Candidate (Animal Species) |
| Boris Poff | Hydrologist | Floodplains, Hydrologic Conditions, Riparian/Wetlands, Soils, Water Resources/Quality (Drinking/Surface/Ground) |
| Mark Slaughter | Wildlife Biologist | Fish & Wildlife, Migratory Birds, Threatened, Endangered or Candidate (Animal Species) |
| Lori Dee Dukes | Geologist | Geology/Mineral Resources/Energy Production |
| Marilyn Peterson | Recreation Specialist | Recreation, Wild and Scenic Rivers |
| Krystal Johnson | Wild Horse and Burro Specialist | Farmlands, Prime or Unique |
| Chris Linehan | Recreation Specialist | Visual Resources |
| Lucas Rhea | Natural Resource Specialist | Invasive Species/ Noxious Weeds/ Fire Management |
| John Evans | Planning and Environmental Coordinator | Environmental Justice |
| Sendi Kalcic | Wilderness Specialist | Wilderness/WSA's/ Lands with Wilderness Characteristics |
| Jill Craig | Natural Resource Specialist | Invasive Species/ Noxious Weeds |

Appendix A. EXHIBIT A — STIPULATIONS AND WEED MANAGEMENT PLAN

Exhibit A

Stipulations for N-91051

1.0 Special Stipulations

- 1.1. The project area is considered a high risk area for noxious weeds. The holder shall be responsible for completing a Weed Management Plan for weed control on disturbed areas within the limits of the right-of-way (ROW). The Weed Management Plan will need to conform to the guidelines of the Las Vegas Field Office Noxious Weed Plan, and will need to be approved by the Bureau of Land Management (BLM). The holder will be required to abide by the Weed Management Plan for the duration of the project. A copy of the approved Weed Management Plan will be attached and become a part of this document.
- 1.2. The right-of-way allows for the reconstruction and rebuilding of the diversion dam and dirt dikes. It does not allow for the reconstruction or rebuilding of the adjacent canal or Bunkerville ditch. The holder may continue normal routine maintenance and upkeep of the access road and canal, as they have been doing for years. Should the holder decide to reconstruct or rebuild the adjacent canal or Bunkerville ditch, the holder will need to apply for an amendment to the right-of-way.
- 1.3. The holder, acting on behalf of the Natural Resources Conservation Service (NRCS) shall consult with the U.S. Fish and Wildlife Service (USFWS), in coordination with the U.S. Army Corps of Engineers (USACE) and BLM, to ensure Section 7 Consultation is followed for this project. NRCS is the lead federal agency for Section 7 Consultation with the USFWS. NRCS will ensure the proposed action is carried out in compliance with any minimization measures and/or terms and conditions provided by the USFWS.
 - 1.3.1. There is a potential for the Virgin Chub to be present in the area surrounding the proposed action to reconstruct and upgrade the existing diversion dam structure. However, the river will be temporarily diverted to bypass the construction area, therefore, fish should not be present in the project area during construction activities. Impacts to the species from temporary diversion of the river should be minimal, and should not result in mortality. The proposed action is to be carried out in compliance with best management practices to avoid impacts to the species resulting from possible spills (i.e., fueling of equipment should take place off site in a safe distance from the river). In the event of a spill, a plan should be in place prior to the start of work to ensure a quick, efficient cleanup follows. Accidental fuel or other toxic spill may kill or harm animals, or affect the health and behavior of the species.
 - 1.3.2. The proposed action is not expected to adversely affect the woundfin because the species has not recently been detected in the vicinity of the project area; however, the species may occur upstream from the project area in Arizona. The proposed action is to be carried out in compliance with best management practices to avoid impacts to the species resulting from possible spills (i.e. fueling of equipment should take place off site a safe distance from the river). In the event of a spill, a plan should be in place prior to the start of work to ensure a quick, efficient cleanup follows. Accidental fuel or other toxic spill may kill or harm animals, or affect the health and behavior of the species.

2.0 General Stipulations

- 2.1. The right-of-way is issued subject to all valid existing rights.
- 2.2. No signs of advertising devices shall be placed on the premises or on adjacent public lands, except those posted by or at the direction of the Authorized Officer.
- 2.3. The right-of-way shall be maintained in a sanitary condition at all times. Waste materials at those sites shall be disposed of promptly at an approved waste disposal site. "Waste", as used in this paragraph, shall mean all discarded matter of any kind.
- 2.4. Holder shall mark the exterior boundaries of the right-of-way with stake and/or lath at 100 to 200 foot intervals. The intervals may be varied at the time of staking at the discretion of the Authorized Officer. The tops of the stakes and/or laths will be painted and the laths flagged in a distinctive color as determined by the holder. Holder shall maintain all boundary stakes and/or laths in place until final cleanup and restoration is completed.
- 2.5. Holder shall conduct all activities associated with construction, operation, maintenance and termination of this right-of-way within its authorized limits.
- 2.6. Holder shall maintain the right-of-way in a safe, useable condition, as directed by the authorized officer. A regular maintenance program shall include, but is not limited to, soil stabilization.
- 2.7. Holder shall maintain a copy of the authorization along with the stipulations on the construction site at all times. In the event that the public land underlying this right-of-way, encompassed in this grant, or a portion thereof, is conveyed out of federal ownership and administration of the right-of-way or the land underlying the right-of-way is not being reserved to the United States in the patent/deed and/or the right-of-way is not within a right-of-way corridor being excepted and/or reserved to the United States in the patent/deed, the United States waives any right it has to administer the right-of-way, or portion thereof, within the conveyed land under Federal laws, statutes, and regulations, including the regulations at 43 CFR Part [2800][2880], including any rights to have the holder apply to the Bureau of Land Management (BLM) for amendments, modifications, or assignments and for BLM to approve or recognize such amendments, modifications, or assignments. At the time of conveyance, the patentee/grantee, and their successors and assigns, shall succeed to the interests of the United States in all matters relating to the right-of-way, or portion thereof, within the conveyed land and shall be subject to applicable State and local government laws, statutes, and ordinances. After conveyance, any disputes concerning compliance with the use and the terms and conditions of the right-of-way shall be considered a civil matter between the patentee/grantee and the right-of-way holder.
- 2.8. Within 90 days of construction completion, the holder shall provide the authorized officer with data in a format compatible with the Bureau's Arc-Info Geographic Information System to accurately locate and identify the right-of-way:

Acceptable data formats are:

Corrected Global Positioning System files with sub-meter accuracy or better, in UTM NAD 83; Zone 11;

ARCGIS export files on a CD ROM, shapefile, geodatabase.

Data may be submitted in any of the following formats:
ARCGIS interchange, shapefile or geodatabase format.
CD ROM in compressed or uncompressed format.

All data shall include metadata for each coverage, and conform to the Content Standards for Digital Geospatial Metadata Federal Geographic Data Committee standards. Contact the GIS Department at (702) 515-5000.

3.0 Air Quality

- 3.1. The holder shall not violate applicable air standards or related facility siting standards established by or pursuant to applicable federal, state, or local laws or regulations. The holder shall be responsible for dust abatement within the limits of the right-of-way and is responsible for obtaining all necessary permits from appropriate authorities for acceptable dust abatement and control methods (e.g., water, chemicals). The holder shall be solely responsible for all violations of any air quality permit, law or regulation, as a result of its action, inaction, use or occupancy of the right-of-way.

Notwithstanding whether a violation of any air quality permit, law or regulation results, the holder will cooperate with the Authorized Officer in implementing and maintaining reasonable and appropriate dust control methods in conformance with law and appropriate to the circumstances at the sole cost of the holder.

- 3.2. All construction projects equal to or larger than .25 acres requires a dust control permit obtained through the Clark County Department of Air Quality and Environmental Management (DAQEM). All dust control permit conditions and stipulations must be in compliance for the duration of the project(s). At present, water is the only means by which BLM authorizes dust suppression for construction activities, as well as for operations and maintenance of public land activities known to generate fugitive dust. It is anticipated that activities associated with this project will generate fugitive dust and as such, must be managed. Additionally, all efforts should be made, during “non-working” times, and soil disturbed as a result of project activity during “working” hours, should be managed through the use of a variety of Best Management Practices. Ensure dust control permit and all stipulations must remain in compliance for the duration of the project(s).
- 3.3. Prior to relinquishment, abandonment, or termination of this right-of-way, the holder shall apply reasonable and appropriate dust abatement and control measures to all disturbed areas. The abatement and measures shall be designed to be effective over the long-term (e.g., rock mulch or other means) and acceptable to the Authorized Officer.
- 3.4. During excavation, backfilling, and contouring, the disturbed soil should be wetted sufficiently in order to effectively reduce airborne dust and reduce soil erosion.

4.0 Cultural

- 4.1. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf on public or federal lands shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the

Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation. Any decision regarding suitable mitigation measures will be made by the Authorized Officer after consulting with the holder. Holder shall be responsible for the resultant mitigation costs.

5.0 Hazardous Material/Pesticides/Liability

- 5.1. No hazardous material, substance, or hazardous waste, (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, *et seq.*, or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq.*) shall be used, produced, transported, released, disposed of, or stored within the right-of-way area at any time by the holder. The holder shall immediately report any release of hazardous substances (leaks, spills, etc.) caused by the holder or third parties in excess of the reportable quantity as required by federal, state, or local laws and regulations. A copy of any report required or requested by any federal, state or local government agency as a result of a reportable release or spill of any hazardous substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved federal, state or local government agency.
- 5.2. The holder shall immediately notify the Authorized Officer of any release of hazardous substances, toxic substances, or hazardous waste on or near the right-of-way potentially affecting the right-of-way of which the holder is aware.
- 5.3. As required by law, holder shall have responsibility for and shall take all action(s) necessary to fully remediate and address the hazardous substance(s) on or emanating from the right-of-way.
- 5.4. Use of pesticides shall comply with the applicable federal and state laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of the Interior. Prior to the use of pesticides, the holder shall obtain from the authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers and any other information deemed necessary by the Authorized Officer.

Pesticides shall not be permanently stored on public lands authorized for use under this right-of-way.

- 5.5. The holder shall comply with all applicable local, state, and federal air, water, hazardous substance, solid waste, or other environmental laws and regulations, existing or hereafter enacted or promulgated. To the full extent permissible by law, the holder agrees to indemnify and hold harmless, within the limits, if any, established by state law (as state law exists on the effective date of the right-of-way), the United States against any liability arising from the holder's use or occupancy of the right-of-way, regardless of whether the holder has actually developed or caused development to occur on the right-of-way, from the time of the issuance of this right-of-way to the holder, and during the term of this right-of-way. This agreement to indemnify and hold harmless the United States against any liability shall apply without regard to whether the liability is caused by the holder, its agents, contractors, or third parties. If the liability is caused by third parties, the holder will pursue legal remedies against such third parties as if the holder were the fee owner of the right-of-way.

Notwithstanding any limits to the holder's ability to indemnify and hold harmless the United States which may exist under state law, the holder agrees to bear all responsibility (financial or other) for any and all liability or responsibility of any kind or nature assessed against the United States arising from the holder's use or occupancy of the right-of way regardless of whether the holder has actually developed or caused development to occur on the right-of-way from the time of the issuance of this right-of-way to the holder and during the term of this right-of-way.

- 5.6. Mineral material generated within the right-of-way must be used within the right-of-way, or stockpiled within the right-of-way for disposal through the BLM in accordance with the regulations found at 43 CFR 3600. If mineral materials are to be stockpiled on site for disposal or removed from the right-of-way at the time of construction, a contract (a BLM use authorization) will be necessary before the stockpiled mineral materials can leave the right-of-way.
- 5.7. For fire management, during construction normal conformance with seasonal fire restrictions is adequate. Restrictions can be in effect any time between May 15 and Oct. 1st. For the life of the ROW, due diligence is required for maintaining a wildfire defensive space of low to zero vegetation and fuels in this area.

6.0 Survey Monuments

- 6.1. Holder shall protect all survey monuments found within the authorization area. Survey monuments include, but are not limited to, General Land Office and Bureau of Land Management Cadastral Survey Corners, reference corners, witness points, U.S. Coast and Geodetic Survey benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments. If any of the above are to be disturbed during operations, the holder shall secure the services of a Professional Land Surveyor or BLM cadastral surveyor to perpetuate the disturbed monuments and references using surveying procedures found in the Manual of Instructions for the Survey of the Public Lands of the United States and Nevada Revised Statutes, Chapter 329, Perpetuation of Corners. The holder shall record such survey in the appropriate county and send a copy to the authorized officer. If the BLM cadastral surveyors or other Federal surveyors are used to restore the disturbed survey monuments, the holder shall be responsible for the survey cost.

7.0 Vegetation/Noxious Weeds/Land surface Treatment/Soil/Water/Riparian

- 7.1. Cactus and yucca are considered government property and regulated under the BLM Nevada forestry program. Because the proposed action is limited to existing roads and disturbed areas, no new impacts to cactus and yucca, acacia trees and other forestry products are expected.
- 7.2. The project area is infested with many different weed species and is considered a high risk for noxious weeds. The holder shall be responsible for completing a Noxious Weed Management Plan for weed control on disturbed areas within the limits of the right-of-way. Please see Special Stipulations 1.1 and attached Weed Management Plan
- 7.3. Land surface treatment for areas previously disturbed: Following excavation, trenches will be backfilled with the excavated soil. The soil will be distributed and contoured evenly over

the surface of the disturbed area. The soil surface will be left rough to help reduce potential wind erosion.

- 7.4. Land surface treatment for areas previously undisturbed: Strip the top three to six inches of soil material with associated plant material over all surfaces to be disturbed by construction. Stockpile this material along the course of construction will be salvaged and transplanted out of harm's way but still within the right of way. At the conclusion, including trench backfilling and compaction, replace the stockpiled soil with plant debris uniformly back on the surface of the disturbed area.
- 7.5. Soil/Water/Riparian: Need to consult with U.S. Army Corp of Engineers (USACE) and Nevada Department of Environmental Protection (NDEP). If drilling boreholes, holder needs to follow Nevada Administrative Code (NAC) protocols for drilling. Consult with USACE about a 404 permit.

8.0 **Migratory Birds**

- 8.1. To prevent undue harm, habitat-altering projects or portions of projects should be scheduled outside bird breeding season. In upland desert habitats and ephemeral washes containing upland species, the season generally occurs between March 15th - July 30th.

If a project that may alter any breeding habitat has to occur during the breeding season, then a qualified biologist must survey the area for nests prior to commencement of construction activities. This shall include burrowing and ground nesting species in addition to those nesting in vegetation. If any active nests (containing eggs or young) are found, an appropriately-sized buffer area must be avoided until the young birds fledge.

9.0 **Threatened and Endangered Species**

- 9.1. The NRCS is the lead federal agency for Section 7 Consultation with the USFWS for this project. NRCS will ensure the proposed action is carried out in compliance with any minimization measures and/or terms and conditions provided by the USFWS. Please see Special Stipulations, pg. 1 of this document.

**WEED MANAGEMENT PLAN
FOR THE RECONSTRUCTION AND MAINTENANCE
OF A DIVERSION STRUCTURE
LOCATED IN THE VIRGIN RIVER AND BANKS OF THE RIVER IN MESQUITE,
NEVADA**

RIGHT-OF-WAY N-91051

**FOR:
THE CITY OF MESQUITE, NEVADA
BUNKERVILLE IRRIGATION COMPANY, NEVADA**

**APPROVED BY:

BUREAU OF LAND MANAGEMENT
LAS VEGAS FIELD OFFICE
4701 N. TORREY PINES
LAS VEGAS, NEVADA 89130**

INTRODUCTION

Southern Nevada riparian areas are being negatively impacted by the introduction and spread of invasive, non-native vegetation (weeds). In accordance with Executive Order 13112, efforts shall be taken to prevent the spread or introduction of weed species for all projects conducted on Bureau of Land Management (BLM) lands. The State of Nevada and the U.S. Department of Agriculture maintain an official list of weed species that are legally designated noxious. (Appendix A). The Nevada Control of Insects, Pests, and Noxious Weeds Act NRS: Chapter 555 grants the Director of the Nevada Department of Agriculture the authority to investigate and control noxious plants. According to NRS 555.005, noxious weeds are defined as “any species of plant that is or is likely to be, detrimental or destructive and difficult to control or eradicate.” Weeds are a concern in the U.S. and likewise in southern Nevada, as they can alter fire cycles and soil conditions, outcompete native plant species, decrease habitat and forage for wildlife and degrade native plant communities.

GOALS AND OBJECTIVES

The goal of this weed management plan is to minimize the spread of weeds during the reconstruction and maintenance of the diversion dam structure.

The purpose of this weed plan is to prescribe methods to prevent and control the spread of noxious weeds during construction, operation and maintenance activities for right-of-way (ROW) project N-91051 for the reconstruction and maintenance of the diversion dam structure located south of Hafen Lane on the Virgin River in Mesquite, Nevada.

PROJECT DESCRIPTION

The City of Mesquite is applying for a right-of-way for reconstruction and maintenance of a diversion dam structure on public lands. The right-of-way area is located south of Hafen Lane, on the banks and in the Virgin River in Mesquite, Nevada. A diversion dam already exists. The Bunkerville Irrigation Company (BIC) has been diverting water and maintaining the diversion dam at this location for over 100 years. The diversion dam is in need of repair. The right-of-way application is for the reconstruction and maintenance of the diversion structure. The City of Mesquite has received permission from the Corps of Engineers and the U.S. Fish and Wildlife Service for the reconstruction and maintenance of the dam.

The diversion structure is approximately 800 feet in length which includes 350 feet of structure and 450 feet of dirt dike. The construction easement for the site area would be approximately 300 feet by 800 feet upstream and downstream of the structure. The Staging area for the re-construction will be on BIC private property. The right-of-way access road through public land, from the BIC property to the diversion structure, is approximately 300 feet in length by 60 feet wide.

PREVENTATIVE MEASURES and WEED MANAGEMENT

The Proponent will adhere to the Bureau of Land Management (BLM) guidelines for reducing the potential for the introduction of noxious weeds and invasive, non-native plant species. The following preventive measures will be implemented to minimize the spread and introduction of weed species:

1. The Proponent shall be responsible for controlling all incipient undesirable invading plant species (including listed noxious weeds and other invasive plants identified as undesirable by federal, state or local authorities) within the boundaries of their authorization area and Bureau-authorized ancillary facilities (e.g. access and utility corridors). In the event that weeds spread beyond the project footprint, then these weeds will be treated as a part of the project. Additionally, existing

weed populations that increase shall be treated to maintain and/or reduce current levels of weed presence.

2. Contracting personnel, maintenance workers, heavy equipment operators, and other personnel working on the project will be trained in the identification of predominant noxious weed species and will report infestations of noxious weeds observed during maintenance activities.
3. Prior to beginning reconstruction the project biologist will survey the corridor and any access roads for populations of invasive and noxious weeds to ascertain preconstruction conditions. (Appendix A includes a list of the State of Nevada legally designated noxious weed species). Existing weed populations will be identified, population sizes will be documented, and locations will be mapped using GPS. Findings will be reported to BLM Weed Management Specialist and all other state and local authorities involved as required.
4. Noxious weeds identified in access zones will either be controlled, or be flagged prior to construction and equipment routing will be adjusted to minimize the spread of weeds.
5. The project proponent shall coordinate activities with the BLM Weed Management Specialist (702-515-5000) regarding any proposed herbicide treatment. The project proponent shall prepare, submit, obtain and maintain a Pesticide Use Proposal for the proposed action. (Appendix B). (See also Exhibit A Stipulation 5.4).
6. A Pesticide Application Record will be submitted to the BLM Weed Management Specialist within one month for each use of herbicides on BLM lands. (Appendix B).
7. The project proponent shall limit the size of any vegetation and/or ground disturbance to the absolute minimum necessary to perform the activity safely and as designed. The project proponent will avoid creating soil conditions that promote weed germination and establishment.
8. The project proponent shall begin project operations in weed free areas whenever feasible before operating in weed-infested areas.
9. The project proponent shall locate equipment storage, machine and vehicle parking or any other area needed for the temporary placement of people, machinery and supplies in areas that are relatively weed-free. The project proponent shall avoid or minimize all types of travel through weed-infested areas or restrict major activities to periods of time when the spread of seed or plant parts are least likely.
10. Project related equipment and machinery (this includes the nooks and crannies of undercarriages) will be cleaned using compressed air or water to remove mud, dirt and plant parts before entering the project area, and upon leaving. Seeds and plant parts will be collected, bagged and deposited in dumpsters destined for local landfills.
11. Project workers shall inspect, remove, and dispose of weed seed and plant parts found on their clothing and personal equipment, bag the product and dispose of in a dumpster for deposit in local landfills. Disposal methods may vary depending on the project. If there are questions, the proponent shall consult with the BLM Weed Coordinator.
12. The project proponent shall evaluate options, including area closures, to regulate the flow of traffic on sites where native vegetation needs to be established.

HERBICIDE APPLICATION and HANDLING

Herbicide application, if necessary, will be coordinated with the BLM Weed Management Specialist. The Proponent or its contractor will obtain required permits from the local authorities. Permits may contain terms and conditions that go beyond the scope of this management plan. Certified personnel will perform the application in accordance with applicable laws and regulations and permit stipulations.

All herbicide applications must follow United States Environmental Protection Agency label instructions. Application of herbicides will be suspended when any of the following conditions exists:

- Wind velocity exceeds 6 miles per hour during application of liquids or 15 mph during application of granular herbicides;
- Snow or ice covers the foliage of weeds;
- Precipitation is occurring or is imminent.

Vehicle-mounted sprayers (e.g., handgun, boom, and injector) will be used in open areas that are readily accessible by vehicle. Hand application methods (e.g. backpack spraying) that target individual plants will be used to treat small or scattered weed populations in rough terrain. Calibration checks of equipment will be conducted at the beginning of spraying and periodically to ensure that proper application rates are achieved.

Herbicides will be transported to the project site with the following provisions:

- Only the quantity needed for each day's work will be transported;
- Concentrate will be transported in approved containers isolated from the vehicle's driving compartment, food, clothing, and safety equipment; and in a manner that will prevent tipping or spilling.
- Mixing will be done off site, over a drip catching device and at a distance greater than 200 feet from open or flowing water, wetlands, drainage facilities, or other sensitive resources. No herbicides will be applied unless authorized by appropriate regulatory agencies. All herbicide equipment and containers will be inspected for leaks. Disposal of spent containers will be in accordance with the herbicide label.

The proponent shall consult BLM Weed Management Specialist for an up-to-date list of herbicides approved for use on BLM lands.

HERBICIDE SPILLS and CLEANUP

All reasonable precautions will be taken to avoid herbicide spills. In the event of a spill cleanup will be immediate and in accordance with the herbicide label. When applying herbicides, spill kits will be kept in vehicles. Items to be included in spill kit are:

- Protective clothing and gloves;
- Absorptive clay, "kitty litter" or other commercial adsorbent;

- Plastic bags and bucket, shovel, fiber brush, dust pan;
- Caution tape;
- Highway flares for use on paved roads only; (flares are not to be used within the NCA)
- Detergent.

Procedures in response to an herbicide spill may include:

- BLM notification if a spill occurs;
- Local agency notification;
- Traffic control measures by the local entity having jurisdiction over the affected roadway;
- Disposal of cleanup materials in an authorized disposal site.

WORKER SAFETY AND SPILL REPORTING

All herbicide applicators will be state certified. Copies of material safety data sheets for the herbicides used are to be readily available. All herbicide spills will be reported in accordance with applicable laws and requirements.

MONITORING

Post project monitoring will be implemented to detect new infestations and expansion of existing weed populations. All areas, including staging areas, within the project footprint will be monitored. To ensure early detection of incipient weed species, post project noxious weed monitoring will occur during the growing season within one year after construction is completed. Any areas within the project footprint where a weed infestation is noted, particularly in previously unaffected areas, will be further evaluated to determine if these areas require remedial action and treatment. Following the field inspections, the proponent will document observations (in accordance with Preventative Measures and Weed Management Item 3), and provide monitoring reports to BLM and all other state and local authorities involved as required. The proponent will control the weeds on a case-by-case basis in coordination with the BLM Weed Management Specialist. Furthermore, the project proponent will conduct annual site visits during peak weed growth seasons to monitor the area and document conditions throughout the life of the ROW grant.

NEVADA BLM PESTICIDE USE PROPOSAL

PROPOSAL NUMBER: _____

REFERENCE NUMBER of EA: _____

FIELD OFFICE: COUNTY:

LOCATION:

DURATION OF PROPOSAL:

I. PESTICIDE APPLICATION (including mixtures and surfactants):

| | Trade Names: | Common Names: | EPA Registration No. | Manufactures: | Fomulations (Liquid or Granular) | Method of Application |
|---|--------------|---------------|----------------------|---------------|----------------------------------|-----------------------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |

| MAXIMUM RATE OF APPLICATION: | |
|------------------------------|------------------------------|
| USE UNIT ON LABEL: | POUNDS ACID EQUIVIVENT/ACRE: |
| 1. | 1. |
| 2. | 2. |

INTENDED RATE OF APPLICATION:

APPLICATION DATES:

NUMBER OF APPLICATIONS:

II. PEST (List specific pest(s) and reason(s) for application):

III. MAJOR DESIRED PLANT SPECIES PRESENT:

IV. TREATMENT SITE: (Describe land type or use, size, stage of growth of target species, slope and soil type).

ESTIMATED ACRES

V. SENSITIVE ASPECTS AND PRECAUTIONS: (Describe sensitive areas [e.g., marsh, endangered, threatened, candidate and sensitive species habitat] and distance to treatment site. List measures taken to avoid impact to sensitive areas).

VI. NON TARGET VEGETATION: (Describe the impacts, cumulative impacts, and mitigations to non target vegetation that will be lost as a result of this chemical application).

VII. INTEGRATED PEST MANAGEMENT: (Describe how this chemical application fits into your overall integrated pest management program for the treatment area.)

Originator: _____ **Date:** _____
Company Name: _____
Phone: _____

SIGNATURES:

Certified Pesticide Applicator: (may be unknown at this time)

_____ **Date:** _____

Field Office Pesticide/Noxious Weed Coordinator

_____ **Date:** _____
Bureau of Land Management
Weed Management Specialist

District Office Authorized Officer

_____ **Date:** _____
Bureau of Land Management
Authorized Officer

APPROVALS (State Office Use Only):

_____ **Date:** _____
Bureau of Land Management
State Pesticide Coordinator

_____ **Date:** _____
Deputy State Director,
Natural Resources, Lands and Planning

- CONCUR OR APPROVED
- NOT CONCUR OR DISAPPROVED
- CONCUR OR APPROVED WITH MODIFICATIONS

Bureau of Land Management

PESTICIDE APPLICATION RECORD

This Record is required and must be completed for monitoring within 24 hours after completion of application of pesticides. This record must be maintained for a minimum of 10 years. One form for each pesticide used (unless combined together).

1. Project Name: _____
Pesticide Use Proposal Number: _____

2. Name of Applicator and License(s) Applying the Pesticide:

3. Date(s) of Application: _____ Time of Application: _____
(MONTH, DAY, YEAR)

4. Location of Application: County, Township and Section or Road and Mile Markers .

5. Type of Equipment Used to Apply Pesticide: _____

6. Pesticide (s) Used: a. Company or Manufacturer's Name: _____

b. Trade Name: _____

c. Type of Formulation: Liquid ____/ Granular ____/

7. Rate of Application Used: track for each herbicide if combined.

a. Active Ingredient per acre: _____

b. Other ingredients in formulation used: _____

c. Mix Ratio: _____

d. Total Active Ingredient Used Each (gallons/oz): _____

e. Total Volume of Formulation (gallons/oz): _____

f. Acres Treated: _____

g. Total Project Acres (if known): _____

8. Primary Target Plant(s): _____

9. Start Conditions: a. Wind Direction: _____ b. Wind velocity: _____ c. Temp. _____

End Conditions: a. Wind Direction: _____ b. Wind velocity: _____ c. Temp. _____

10. Form Completed By:

Printed Name

Signature

APPENDIX A

Nevada Department of Agriculture Noxious Weed List

| Scientific Name | Common Name |
|--|---|
| FERNS AND FERN ALLIES | |
| SALVINIACEAE | |
| <i>Salvinia molesta</i> | WATER FERN FAMILY giant salvinia |
| ANGIOSPERMS (DICOTYLEDONS) | |
| APIACEAE | |
| <i>Cicuta maculata</i> | CARROT FAMILY water hemlock |
| <i>Conium maculatum</i> | poison hemlock |
| ASTERACEAE | |
| <i>Acroptilon repens</i> | SUNFLOWER FAMILY Russian knapweed |
| <i>Anthemis cotula</i> | mayweed |
| <i>Carduus nutans</i> | musk thistle |
| <i>Centaurea calcitrapa</i> | Purple Star thistle |
| <i>Centaurea diffusa</i> | diffuse knapweed |
| <i>Centaurea iberica</i> | Iberian Star thistle |
| <i>Centaurea masculosa</i> | spotted knapweed |
| <i>Centaurea melitensis</i> | locolote |
| <i>Centaurea solstitialis</i> | yellow star-thistle |
| <i>Centaurea virgata</i> var. <i>squarrose</i> | squarrose star thistle |
| <i>Crepina vulgaris</i> * | common crepina |
| <i>Chondrilla juncea</i> | rush skeletonweed |
| <i>Cirsium arvense</i> | canada thistle |
| <i>Onopordum acanthium</i> | scotch thistle |
| <i>Sonchus arvensis</i> | sow thistle |
| BORAGINACEAE | |
| <i>Cynoglossum officinale</i> | BORAGE FAMILY Hounds tongue |
| BRASSICACEAE | |
| <i>Brassica tournefortii</i> | MUSTARD FAMILY wild turnip |
| <i>Cardaria draba</i> | hoary cress |
| <i>Lepidium latifolium</i> | peppergrass |
| <i>Rorippa austriaca</i> | Austrian fieldcress |
| EUPHORBIACEAE | |
| <i>Euphorbia esula</i> | SPURGE FAMILY leafy spurge |
| FABACEAE | |
| <i>Camelthorn</i> | LEGUME FAMILY Alhagi camelorum |
| <i>Galega officinalis</i> | goats rue |
| <i>Austrian pea-weed</i> | Sphaerophysa salsula |
| HALORAGACEAE | |
| <i>Eurasian water-milfoil</i> | WATER-MILFOIL FAMILY Eurasian water-milfoil |
| HYPERICACEAE | |
| <i>Hypericum perforatum</i> | ST. JOHN'S WORT FAMILY Klamath weed |
| LAMIACEAE | |
| <i>Salvia aethiopsis</i> | MINT FAMILY Mediterranean sage |
| LYTHRACEAE | |
| <i>Lythrum salicaria</i> | LOOSESTRIFE FAMILY purple loosestrife |

APPENDIX A (Cont.)

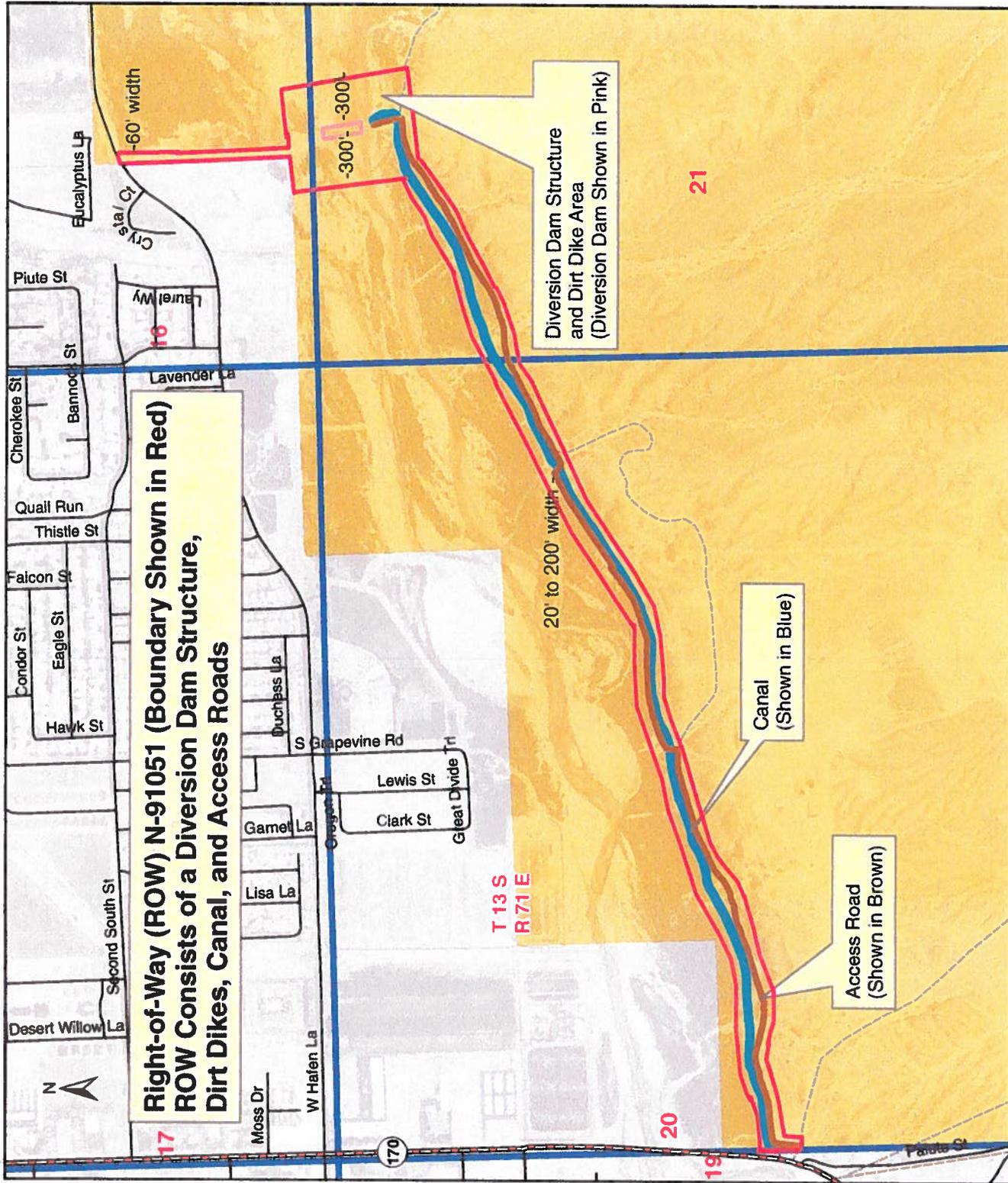
Nevada Department of Agriculture Noxious Weed List

| <u>Scientific Name</u> | <u>Common Name</u> |
|--|--|
| ROSACEAE <i>Potentilla recta</i> | ROSE FAMILY sulfur cinquefoil |
| SCROPHULARIACEAE <i>Linaria dalmatica</i> <i>Linaria vulgaris</i> | FIGWORT FAMILY dalmation toadflax yellow toadflax |
| SOLANACEAE <i>Hyoscyamus niger</i> <i>Solanum carolinense</i> <i>Solanum elaeagnifolium</i> | NIGHTSHADE FAMILY black henbane carolina horse-nettle white horse-nettle |
| TAMARICACEAE <i>Tamarix</i> sp. | TAMARISK FAMILY tamarisk |
| ZYGOPHYLLACEAE <i>Tribulus terrestris</i> <i>Peganum harmala</i> <i>Zygophyllum fabago</i> | CALTROP FAMILY puncture vine African rue Syrian bean caper |
| ANGIOSPERMS (MONOCOTYLEDONS) | |
| HYDROCHARITACEAE <i>Hydrilla verticillata</i> * | WATERWEED FAMILY hydrilla |
| POACEAE <i>Arundo donax</i> <i>Pennisetum setaceum</i> <i>Sorghum halepense</i> <i>Taeniatherum caput-medusae</i> | GRASS FAMILY giant reed fountain grass Johnsongrass medusahead |
| Source: Nevada Department of Agriculture | |
| * Denotes a Species Listed as Noxious by the US Department of Agriculture | |

Appendix B. EXHIBIT B — ARCGIS AERIAL AND TOPO MAP

Reconstruction and Maintenance of a Diversion Dam Structure

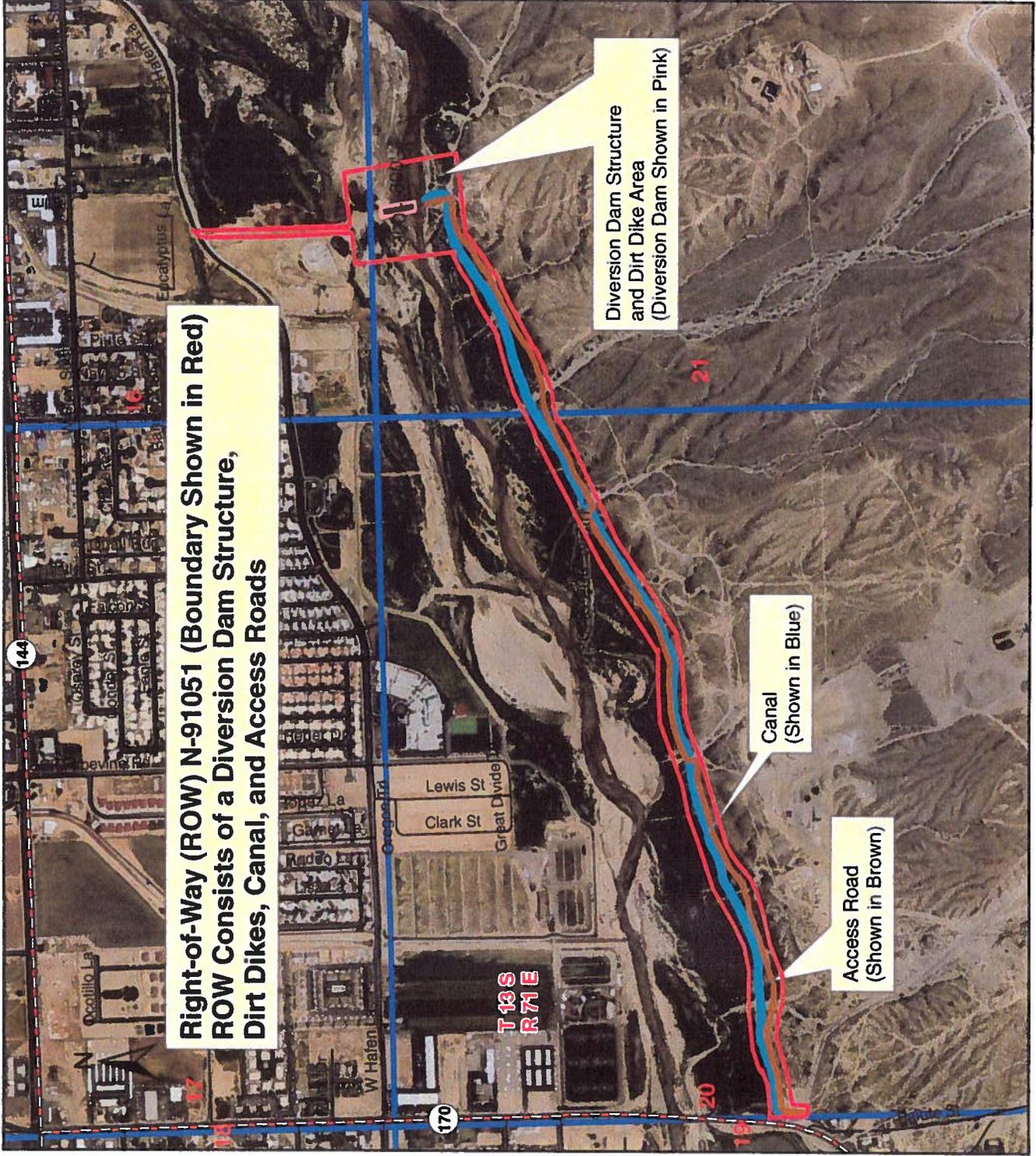
ARCGIS MAP



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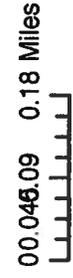
Reconstruction and Maintenance of a Diversion Dam Structure

ARCGIS MAP



| Legend | |
|--------|---------------------|
| | Interstate |
| | US Highway |
| | State Highway |
| | County Highway |
| | Arterial |
| | Collector |
| | Local |
| | Back Country Byway |
| | Resource |
| | Restricted |
| | Clark County Street |
| | Railroad |
| | Area .gen |
| | Section Line |
| | ROW Area |

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Appendix C. EXHIBIT C — MASTER TITLE PLAT (MTP) MAP

