

Appendix A

List of Environmental Commitments

Colorado Best Management Practices

Noxious Weeds

- Implement Reclamation’s 2016 Integrated Pest Management Plan to reduce, minimize, eliminate, eradication, and control invasive species.
- Coordinate with Yuma County Pest Control District and Colorado Department of Agriculture to maintain knowledge of invasive species in the area, record new infestations, identify new techniques for control and eradication to protect resources, and if necessary, develop a plan for invasive species management. (<https://www.colorado.gov/pacific/agconservation/county-weed-programs>)
 - Colorado Noxious Weed Act (Noxious Weed Rule)

Yuma Colorado Noxious Weed Summary Statistics & Management Plans					
Species	Species Reported in County	Statewide Infested Acres	# of Counties Impacted	Management Plan	Data Collection Year
	15	777,232			
Species	Infested Acres	Statewide Infested Acres	# of Counties Impacted	Management Plan	Data Collection Year
Absinth wormwood	0	711	16	Eliminate by 2018	2013
Black henbane	0	206	18	Eliminate by 2018	2013
Bouncingbet	1	1,278	38	Eliminate by 2022	2016
Bull thistle	11	6,899	44	Eliminate by 2020	2015
Canada thistle	476	129,572	55	Suppress	2015
Chamomiles**	0	2,139	42	Eliminate by 2022	2016
Chinese clematis	0	330	13	Eliminate by 2018	2013
Common tansy	0	266	29	Eliminate by 2022	2016
Common & Cutleaf teasel	0	3,222	23	Eliminate by 2020	2015
Dalmatian toadflax	1	18,360	32	Eliminate by 2019	2014
Dames rocket	4	591	32	Eliminate by 2022	2016
Diffuse knapweed	90	68,968	45	Eliminate by 2021	2014
Eurasian watermilfoil	0	1,966	11	Eliminate by 2020	2015
Hoary cress	2	30,044	54	Eliminate by 2019	2014
Houndstongue	0	73,598	41	Eliminate by 2018	2013
Jointed goatgrass	79	10,167	41	Eliminate by 2020	2010/2015
Leafy spurge	0	39,577	48	Eliminate by 2019	2014
Moth mullein	10	1,049	31	Eliminate by 2022	2016
Musk thistle	485	87,431	56	Contain: Figure 18.13	2015
Oxeye daisy	0	15,806	38	Eliminate by 2018	2013
Perennial pepperweed	0	21,739	39	E. 2009	2014
Plumeless thistle	0	1,182	13	Eliminate by 2018	2013
Russian knapweed	0	55,719	52	Eliminate by 2019	2014
Russian olive	939	65,979	36	Eliminate by 2022	2012
Salt cedar	107	27,963	46	Contain: Figure 4.13	2014
Scotch thistle	40	56,510	38	Eliminate by 2022	2009/2015
Spotted knapweed	10	4,921	40	Eliminate by 2018	2013
Sulfur cinquefoil	0	768	30	Eliminate by 2022	2016
Wild caraway	0	1,690	30	Eliminate by 2022	2016
Yellow nutsedge	25	15,049	12	Contain: Figure 29.05	2012
Yellow toadflax	0	33,532	46	Eliminate by 2019	2014

Data Updated: 4/1/2017

Livestock Grazing Program

- Only certified weed-free forage would be used if supplemental feed is needed for livestock.
- Place salt blocks within a containment source to prevent leaching into soils and a minimum of 500 feet away from surface water resources.
- Fences may be established to control livestock movement. Fences may be permanent wire fences, wildlife-friendly or temporary electric fences. Gates will be established at road or trail crossing as needed.

Water Resources

- Restrict equipment within the riparian zone to minimize disturbance to water resources.
- Only utilize aquatic labelled herbicides within the riparian zone
- Prohibit depositing any material; slash, road material, debris, into surface water drainages.
- Obtain appropriate Federal or State permits for project work that occurs in or near surface water resources.
-

Vegetation Management

- Following construction activities, plant exposed soils with weed-free native seed mixture.
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Fire Management Program

- For any prescribed (control) burn, a burn plan will be developed in accordance with Reclamation Fire Management Plan to identify burn objectives, acceptable weather parameters for the burn event, control lines, sensitive resource to protect or avoid, personnel and equipment needs, and a map.
- Construct slash piles for burning away from surface water drainage at least 50 feet.
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Transportation Management

- For new construction, design roads to the minimum standard necessary to accommodate anticipated use and equipment
- Maintain existing roads and support structures to minimize erosion and provide for adequate surface drainage.
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Appendix B

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Appendix C

Laws and Regulations

American Indian Religious Freedom Act of 1978 (PL 95341) and Religious Freedom Restoration Act of 1993 (42 USC 2000)

The American Indian Religious Freedom Act of 1978 (AIRFA) requires federal agencies to consider the impacts of projects on the ability of American Indians to continue their traditional cultural and religious practices. The Act is a specific expression of First Amendment guarantees of religious freedom. It is not implemented by regulations. The Religious Freedom Restoration Act of 1993 (RFRA) protects everyone's practice of religion and establishes tests that must be met before a federal agency can "substantially burden a person's exercise of religion."

Antiquities Act of 1906, as amended (PL 59-209; 34 Stat. 225; 16 USC 431-433)

The Antiquities Act is the earliest and most basic legislation for protecting cultural resources on Federal lands. It provides misdemeanor-level criminal penalties to control unauthorized uses. Appropriate scientific uses may be authorized through permits, and materials removed under a permit must be permanently preserved in a public museum. The 1906 Act is broader in scope than the 1979 Archaeological Resources Protection Act, which partially supersedes it. Uniform regulations at 43CFR part 3 implement the Act.

Archaeological and Historic Preservation Act of 1974, as amended (PL 93-291; 54 USC 312501-312508: Preservation of Historical and Archeological Data)

The Archaeological and Historic Preservation Act of 1979 (AHPA) amended the Reservoir Salvage Act of 1960 (PL 86-523). AHPA authorizes federal agencies to protect historical and archeological data that might be lost as a result of construction projects or Federally-licensed or assisted programs. The act provides that up to one percent of congressionally authorized funds for a project may be spent from appropriated project funds to recover, preserve, and protect archeological and historical data.

Archaeological Resources Protection Act of 1979 (PL 96-95; 16 USC 470aa)

The Archaeological Resources Protection Act of 1979 (ARPA) requires a permit to remove archeological resources from federal or Indian lands. Permits may be issued to educational or scientific institutions only if the removal would increase knowledge about archeological resources. ARPA has felony-level penalties for excavating, removing, damaging, altering, or defacing any archeological resource more than 100 years of age, on public or Indian lands, unless authorized by a permit. ARPA prohibits the sale, purchase, exchange, transportation, receipt, or offering of any archeological resource obtained in violation of any regulation or permit under the act or under any Federal, State, or local law. The Act's definitions, permit requirements, and criminal and civil penalties augment the Antiquities Act of 1906, which it partially supersedes. ARPA is implemented by uniform regulations and Interior-specific regulations, both at 43 CFR part 7.

Clean Air Act of 1972 (42 USC 7401)

The Clean Air Act (CCA) requires that any federal entity engaged in an activity that may result in the discharge of air pollutants must comply with all applicable air pollution control laws and regulations (federal, state, tribal, or local). The Act requires the EPA to publish national primary standards to protect public health and more stringent national secondary standards to protect public welfare. States, tribes, and local governments are responsible for the prevention and control of air pollution. Measures will be incorporated into contractor specifications to ensure compliance with these laws and regulations.

Clean Water Act of 1972 - Section 401 (33 USC 1341)

Section 401 of the Clean Water Act (CWA), although administered by the EPA, is the responsibility of the state and eligible Indian tribes to develop and enforce. Section 401 provides the states with authority to grant or deny certification for a federally permitted or licensed activity that may result in a discharge to waters of the United States. States also may waive water quality certification.

Clean Water Act of 1972 - Section 404 (33 USC 1344)

Section 404 of the Clean Water Act of 1972, as amended, is administered by the USACE with oversight from the EPA. All activities involving the placement of dredged or fill materials in waters of the United States, including wetlands, are subject to the USACE permitting process. Both nationwide and individual permits are issued under Section 404. Nationwide permits are issued on a state, regional, or nationwide basis for any category of activities where such activities are similar in nature and will cause only minimal adverse environmental effects both individually and cumulatively. Individual Section 404 permits are issued for specific activities within specific waters.

Endangered Species Act of 1973 (16 USC 1531 et seq.)

The Endangered Species Act (ESA) requires consultation with USFWS for federally listed threatened and endangered species identified to exist or potentially exist in the project area.

Executive Order 11593, Protection and Enhancement of Cultural Environments

Issued May 13, 1971, the President directed Federal agencies to inventory cultural properties under their jurisdiction, to nominate to the National Register all Federally-owned properties that meet the criteria, to use due caution until the inventory and nomination processes are completed, and also to assure that Federal plans and programs contribute to preservation and enhancement of non-Federal properties. Some of the provisions of EO 11593 were turned into Section 110 of the National Historic Preservation Act.

Executive Order 11988, Flood Plain Management

Executive Order 11988 directs federal agencies to take flood plain management into account when formulating or evaluating water or land use plans.

Executive Order 11990, Protection of Wetlands

Executive Order 11990 directs each federal agency to provide leadership and take action to minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands in carrying out agency duties and responsibilities.

Executive Order 12898, Environmental Justice

Executive Order 12898 directs federal agencies to identify and address any disproportionately high adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. Executive orders represent administrative policy and do not have the force of law that comes with delegation of authority provided by Congress.

Executive Order 13007, Indian Sacred Sites,

Issued May 24, 1996, the President directed federal agencies to the extent practicable and allowed by law, to allow Native Americans to worship at sacred sites located on federal property and to avoid adversely affecting the physical integrity of such sites.

Executive Order 13175, Consultation and Coordination with Indian Tribal Governments

Issued November 6, 2000, the President directed federal agencies to coordinate and consult with Indian tribal governments whose interests might be directly and substantially affected by activities on federally administered lands.

Executive Order 13287, Preserve America

Issued March 3, 2003, the President directed federal agencies to increase their knowledge of historic resources in their care and to enhance the management of these assets. EO 13287 encourages agencies to seek partnerships with state, tribal, and local governments and the private sector to make more efficient and informed use of their resources for economic development and other recognized public benefits.

Historic Sites Act of 1935, as amended (PL 74-292; 49 Stat. 666; 16 USC 461)

The Historic Sites Act of 1935 declares national policy to identify and preserve nationally significant "historic sites, buildings, objects and antiquities." It authorizes the National Historic Landmarks program and provides the foundation for the National Register of Historic Places authorized in the National Historic Preservation Act of 1966. Regulations implementing the National Historic Landmarks Program are at 36 CFR part 65.

Native American Graves Protection and Repatriation Act of 1990, as amended (PL 101-601; 25 USC 3001-3013)

The Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) establishes federal policy with respect to Native American burials and graves located on federal or Indian lands. Federal agencies are required to consult with and to obtain the concurrence of the appropriate tribes with respect to activities that may result in the disturbance and/or removal of such burials and graves on federal or reservation lands. The Secretary of the Interior's implementing regulations are at 43 CFR part 10.

National Environmental Policy Act of 1969, as amended (42 USC 4321, and 4331–4335)

The National Environmental Policy Act (NEPA) states it is the Federal government's continuing responsibility to use all practicable means to preserve important historic, cultural, and natural aspects of our national heritage. It also instructs Federal agencies to prepare environmental impact statements for each major Federal action having an effect on the environment.

National Historic Preservation Act of 1966, as amended (PL 89-665; 54 USC 300101 et seq.: Historic Preservation)

The National Historic Preservation Act of 1966 (NHPA) establishes the federal policy concerning the protection of historic properties with state, local, and national significance. Federal agencies are required to carry out all activities under NHPA in cooperation with states, tribes and local governments. The NHPA establishes the Advisory Council on Historic Preservation (ACHP), State Historic Preservation Officers (SHPO), Tribal Preservation Officers (THPO/TPO), and a preservation grants-in-aid program. The NHPA creates the National Register of Historic Places (NRHP), implemented by 36 CFR part 60. Properties are determined eligible for listing on the NRHP through the process outlined in 36 CFR part 63, and by criterion listed in 36 CFR part 60.4.

Section 106 of the NHPA requires federal agencies to consider the effects of their undertakings on properties listed or eligible for listing on the NRHP. Section 106 is implemented by 36 CFR part 800, "*Protection of Historic Properties.*" Section 106 affords the SHPO (or THPO) and the ACHP reasonable opportunity to comment on the effects of those federal undertakings. Section 110(a) of the NHPA sets inventory, nomination, protection, and preservation responsibilities for Federally-owned cultural properties. Section 110(c) requires each Federal agency to designate a Preservation Officer to coordinate activities under the act. The 1992 amendments to the NHPA require the federal agency to consider the impacts of undertakings on properties of traditional religious and cultural importance to American Indians and to invite American Indian tribes to participate in the consultation process, should such resources be affected.

Fish and Wildlife Coordination Act of 1958 (16 U.S.C. 661-667e)

The Fish and Wildlife Coordination Act (FWCA), as amended, requires that whenever the federal government authorizes, sponsors, or issues a permit to impound, modify, divert, or otherwise control the waters of any stream or body of water for any purpose by any entity, the entity must consult with USFWS and the state's fish and wildlife management agency.

Paleontological Resources Preservation Act of 2009 (16 USC 470aaa-aaa-11)

The Paleontological Resources Preservation Act of 2009 (PRPA) requires the U.S. Department of Agriculture and the Department of the Interior to manage and protect paleontological resources on Federal land using scientific principles and expertise. The law, which applies only to Federal land, includes criminal and civil penalties for fossil theft and vandalism. The law also provides authority for issuing permits for collecting paleontological resources. The Department of the Interior is in the process of developing implementing regulations for this Act.

Public Conduct on Bureau of Reclamation Facilities, Lands, and Waterbodies (43 CFR part 423)

Section 423.29 *Natural and cultural resources* states “you must not destroy, injure, deface, remove, search for, disturb, or alter natural resources or cultural resources, including abandoned buildings or structures, on or in Reclamation facilities, lands, or waterbodies except in accordance with §423.29(g) and other applicable Federal, State, and local laws” [§423.29(a)]. In addition, the public may not possess or use a metal detector or geophysical discovery device to recover subsurface objects or features on Reclamation lands without a permit [§423.29(f)].

Reclamation Policies and Directives and Standards

These are agency principles for managing resources and facilities as administered by Reclamation. The documents provide guidance to local offices for management actions.

Reservoir Salvage Act of 1960, as amended (16 USC 469-469c)

The Reservoir Salvage Act of 1960 extended the Historic Sites Act of 1935. It gave the Department of the Interior, through the National Park Service, major responsibility for preservation of archeological data that might be lost specifically through dam construction.

Appendix D

Glossary of Terms

Acre-foot: Volume of water (43,560 cubic feet) that would cover one acre *I* one foot deep with water.

Active storage pool: Reservoir capacity that can be used for power generation or for other purposes.

Aquatic Ecosystem: The stream channel, lake, or estuary bed, water, biotic communities, and the habitat features that occur within an ecosystem (biological and physical components and their interactions) in which water is the principal medium. Examples include wetlands, streams, reservoirs, and area with plants or animals characteristic of either permanent or seasonal inundated soils.

Archaeology: Study of human cultures through the recovery and analysis of their material relics.

Best Management Practices: Land management methods, measures, or practices intended to minimize or reduce water pollution. Usually BMPs are applied as a system of practices rather than a single practice. BMPs are selected on the basis of site-specific conditions that reflect natural background conditions and political social, economic, and technical feasibility.

Biological assessment: Analysis prepared by or under the direction of a Federal agency for the purposes of identifying potential impacts of a proposed action on endangered or threatened species and on proposed critical habitat that may be present in the action area. The analysis is provided to the Fish and Wildlife Service (FWS) or National Marine Fisheries Services (NMFS) either for information, when it has been concluded that no effect would occur, or with a request for formal consultation when it has been determined that species of concern or critical habitat may be affected.

Biological opinion: Document stating the FWS and the NMFS opinion as to whether a Federal action is likely to jeopardize the continued existence of a threatened or endangered species or result in the destruction or adverse modification of critical habitat.

Candidate species: Plant or animal species not yet officially listed as threatened or endangered but which is undergoing status review by the FWS.

Conservation pool: The pool allocated to the storage of water for conservation purposes only.

Critical habitat: Specific areas with physical or biological features essential to the conservation of a listed species and which may require special management considerations or protection. These areas have been legally designated via Federal Register notices.

Cultural Resource: Any buildings, sites, districts, structures, or objects significant in history, architecture, archaeology, culture, or science.

Cumulative Impacts: These impacts review the past, present and reasonably foreseeable future management activities, taking into consideration private, state and federal lands for the resource being analyzed.

Dead storage: Reservoir capacity from which stored water cannot be evacuated by gravity.

Endangered species: A species or subspecies whose survival is in danger of extinction throughout all or a significant portion of its range.

Endangered Species Act of 1973: Federal law that authorizes and establishes the process for the protection of habitats and populations of species threatened with extinction. The stated purposes of the act, as amended, is to provide conservation of the ecosystem upon which endangered and threatened species depend and to establish and implement a program to conserve these species.

Environmental Assessment (EA): Concise public document, not normally exceeding 30 pages, that briefly provides sufficient evidence and analysis to determine whether to prepare an environmental impact statement or a finding of no significant impact. An EA is prepared when an action does not meet the criteria for a categorical exclusion, and the need for an environmental impact statement has not been determined. The purpose of an EA is to document the relevant environmental issues and the environmental effects of a proposal sufficiently to determine their significance. The EA is normally circulated for public review. ·

Finding of No Significant Impact (FONSI): Decision document prepared by a Federal agency which may result from an EA. It briefly presents the reasons why an action will not have a significant effect on the quality of the human environment and, therefore does not require the preparation of an EIS. It refers to any mitigation measures adopted to reduce the action's impacts to the level of insignificance. A list of environmental commitments may be included, and/or the EA may be attached.

Flood control pool: Reservoir volume above the active conservation and joint-use pool that is reserved for flood runoff and then evacuated as soon as possible to keep that space in readiness for the next flood.

Flood plain: Land areas adjoining a river or other water course including at a minimum, that area subject to a one percent or greater chance of flooding in any given year. The base flood plain shall be used to designate the 100-year flood plain.

Full pool: Volume of water in a reservoir at maximum design elevation.

Inactive pool or storage: The reservoir capacity that can be released from the dam but is not available for irrigation or power generation.

Indian Trust Assets: Legal interests in assets held in trust by the United States for American Indian tribes or Indian individuals. Examples of resources that could be considered to be ITAs include lands, minerals, hunting and fishing rights, water rights, and instream flows.

Integrated Pest Management: A process for evaluating and selecting a program from available techniques to reduce pest populations in an ecologically, economically, and socially acceptable manner. Programs may include one or a combination of available techniques that may include the use of pesticides cultural or biological treatments; biological control agents; host resistance; genetic control; mechanical destruction or trapping; and behavioral chemicals including attractants and repellants.

Invasive Species: A plant, fungus, or animal species that is not native to a specific location (an introduced species), and which has a tendency to spread to a degree believed to cause damage to the environment, human economy or human health.

Listed species: Plant and animal species listed as threatened or endangered under the Endangered Species Act of 1973.

Mitigation (measures): Action taken to avoid, reduce the severity of, or eliminate an adverse impact. Mitigation can include one or more of the following: (1) avoiding impacts; (2) minimizing impacts by limiting the degree or magnitude of an action; (3) rectifying impacts by restoration, rehabilitation, or repair of the affected environment; (4) reducing or eliminating impacts over time; and (5) compensating for the impact by replacing or providing substitute resources or environments to offset the loss.

Multiple-purpose reservoir: Reservoir planned to operate for more than one purpose.

National Register of Historic Places: A Federally maintained register of districts, sites, buildings, structures, architecture, archaeology, and culture.

Non-consumptive water use: Water uses including swimming, boating, waterskiing, fishing, maintenance of stream-related fish and wildlife habitat, hydropower generation, and other uses that do not substantially deplete water supplies.

Paleontological Resources: The remains or traces of an organism or assemblage of organisms that have been preserved by natural processes in the earth's crust. Minerals, such as oil and gas, coal, oil shale, bitumen, lignite, asphaltum and tar sands, phosphate, limestone, diatomaceous earth, uranium, and vanadium, while they may be of biologic origin, are not here considered "fossils". Fossils of scientific value may occur within or in association with such materials.

Prescribed Burn: Controlled application of fire to wildland fuels in either their natural or modified state under specified environmental conditions that allows the fire to be confined to a predetermined area and at the same time produce the fireline intensity and rate of spread required to attain planned resource management objectives (synonym for controlled burning).

Public involvement: Process of obtaining citizen input into each stage of development of planning documents. Required as a major input into any EA or EIS.

Recreation Opportunity: Availability of a real choice for a user to participate in a preferred activity within a preferred setting in order to realize those experiences desired.

Developed Recreation: This type of recreation is dependent on facilities provided to enhance recreational opportunities in concentrated use areas. Examples include campgrounds and day-use picnic areas; with facilities such as parking lots, picnic tables, toilets, drinking water, and buildings.

Dispersed Recreation: This type of recreation use requires few, if any, improvements and may occur over a wide area. This type of recreation involves activities related to roads, trails, and undeveloped waterways. The activities do not necessarily take place on or adjacent to a road, trail or waterway; only in conjunction with them. Activities are often day-use oriented and include hunting, fishing, off-road vehicles use, hiking, and others.

Recreation Opportunity Spectrum: A system for planning and managing recreational resources that categorizes recreation opportunities into six classes. Each class is defined in terms of the degree to which it satisfies certain recreational experience needs based on the extent to which the natural environment has been modified, the type of facilities provided, the degree of outdoor skills needed to enjoy the area and the relative density of recreation use. The six classes are:

Primitive: Area is characterized by an essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free of evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.

Semi-primitive Non-motorized: Area is characterized by a predominately natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restriction may be present, but would be subtle. Motorized recreation use is not permitted, but local roads used for other resource management activities may be present on a limited basis. Use of such roads is restricted to minimize impacts on recreational experience opportunities.

Semi-primitive Motorized: Area is characterized by predominately natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but would be subtle. Motorized use of local primitive or collector roads with predominantly natural surfaces and trails suitable for motor bikes is permitted.

Roaded Natural: Area is characterized by predominately natural or natural-appearing environment with moderate evidence of the sights and sounds of people. Such evidence usually harmonizes with the natural environment. Interaction between users may be moderate to high, with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is allowed and incorporated into construction standards and design of facilities.

Rural: Area is characterized by a natural environment that has been substantially modified by development of structures, vegetative manipulation or pastoral agricultural development.

Resource modification and utilization practices may be used to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often for special activities. Moderate user densities are present away from developed sites. Facilities for intensified motorized use and parking are available.

Urban: Characterized by a substantially urbanized environment although the background may have natural-appearing elements. Resource modification and utilization practices are often used to enhance specific recreational activities. Vegetative cover is often exotic and manicured. Sights and sounds of humans are predominant on the site. Large numbers of users can be expected both on site and in nearby areas. Facilities for highly intensified motor use and parking are available with forms of mass transit often available to carry people throughout the site.

Reservoir capacity:

Active capacity: Reservoir capacity normally usable for storage and regulation of reservoir inflows to meet established reservoir operating requirements.

Flood control capacity: Reservoir capacity assigned to the sole purpose of regulating flood inflows to reduce flood damage downstream.

Active conservation capacity: Capacity assigned to regulate reservoir inflow for irrigation, power, municipal and industrial use, fish and wildlife, navigation, recreation water quality, and other purposes.

Surcharge capacity: Reservoir capacity provided for use in passing the inflow design flood through the reservoir. Reservoir capacity between maximum water surface elevation and the highest of the following elevations: (1) top of exclusive flood control capacity, (2) top of joint use capacity, or (3) top of active conservation capacity.

Riparian Ecosystem: The moist transition zone between the aquatic ecosystem and the relatively drier, more upland, terrestrial ecosystem(s). This transition zone can extend both laterally and longitudinally away from aquatic ecosystems, sometimes into headwater swales that have no defined stream channel. The riparian ecosystem is the area whose soil is relatively more moist than the adjacent upland and whose vegetation growth reflects the greater accumulation of available water.

Rip-rap: Stones placed on the face of the dam, on streambeds, or on other land surfaces adjacent to water bodies or water courses to protect them from erosion.

Scoping: An early, open process for determining the range of issues to be addressed and identifying the significant issues related to a proposed action.

Species of concern: Plant and animal species that may be threatened under the ESA but for which insufficient information exists to warrant listing under the ESA. Such species enjoy no legal protection but are considered by the Fish and Wildlife Service to minimize future impacts and potential listing.

Stream: Natural water course.

Ephemeral - stream that flows briefly only in direct response to precipitation and whose channel is above the water table.

Intermittent or seasonal - Stream on or in contact with the groundwater table that flows only at certain times of the year when the groundwater table is high.

Perennial - Stream that flows continuously throughout the year.

Threatened species: Any species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Tributary: River or stream flowing into a larger river or stream.

Visitor days: Twelve visitor hours which may be aggregated by one or more persons in single or multiple visits.

Visitor use: Visitor use of recreation and wilderness resources for inspiration, stimulation, solitude, relaxation, education, pleasure, or satisfaction.

Watersheds: The area of land bounded by a divide that drains water, sediment, and dissolved materials to a common outlet at some point along a stream channel or to a lake, reservoir, or other body of water. Also called drainage basin or catchment.

Water-surface elevation: The elevation of a water surface above or below an established reference level, such as sea level.

Wetlands: Those area that are inundated by surface water or groundwater with a frequency sufficient to support and under normal circumstances do or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds.

Appendix E

February 2018 Public Comments

193 individual letters or emails were received from members of the public, companies, local governments, local organizations or agencies regarding ideas, issues, concerns, and/or suggestions for determining how to manage natural resources on Federal properties at Bonny Dam.

Each comment was cataloged and grouped into these subjects:

- Airstrip (102 comments)
 - “Re-establish a public recreational airstrip for small single engine planes on existing turf (back-country)”
 - “Airstrip should provide access to hiking, biking, fishing, camping, kayaking, picnicking, and wildlife viewing”
 - “Ensure airstrip use in support of emergency services”
 - “Establish an automobile and aircraft parking area near campground and picnic area”
 - “Airstrip would bring revenue into the local area and airports as well”
- Recreation (234 comments)
 - “Provide and/or restore a developed campground, marina, and picnic area to include fresh water, trash disposal, and fire pits”
 - “Provide dispersed recreation to include trails (hiking, horseback, biking, 4-wheelers), OHV terrain, kayaking, dog parks, historical sites, target and clay shooting, hunting, beach, and swimming.”
 - “Provide walking access for wildlife viewing to find reptiles, birds, small and large mammals.”
 - “Provide access to visitor center and associated facilities for meetings including environmental classes, 4-H, Boy Scouts and Girl Scout Troops, weddings, corporate retreats.”
 - “Restore the flow of the river to develop small water recreation”
 - “Construct new facilities such as horse barn, concessions, fishing docks, cable water-ski park, and golf course”
 - “Authorize special permitted events such as triathlon, grilling events, re-enactments, paint ball competitions, emergency service training”
 - “Do something at Bonny for visitors to enjoy”
 - “No more RVs in the campground parking area”
- Vegetation (26 comments)
 - “Reduce and eliminate invasive woody vegetation by spraying with helicopter or airplane for vegetation management”
 - “Trees and vegetation enhance hiking, biking, horse riding trails”
 - “Preserve habitat for endangered plant species: Prairie Moon Wart”
- Water (86 comments)
 - “Refill the Bonny Reservoir”

- “Restore, re-establish, and manage a functioning stream channel and floodplain to reduce woody vegetation and eliminate phreatophytes”
- “Retain the option to store water in the future, even as a small lake for water recreation”
- “Ensure the protection of water rights to downstream users, or others”
- “Sustain the Ogallala Aquifer by retaining water in Bonny Reservoir”
- Fish and Wildlife Management (45 comments)
 - “The quality of waterfowl hunting has significantly declined since the draining of the reservoir”
 - “Build small ponds near the dam for waterfowl habitat and migration, and fishing.”
 - “Address wildlife habitat needs”
 - “Create wetlands with standing water and a limited body of open water to benefit wildlife and fisheries”
 - “Create a wildlife refuge area (non-hunting area).”
 - “Partner with non-profit organization such as Ducks Unlimited and Delta Waterfowl for restoring and preserving wildlife habitat”
 - “Return area to natural beauty”
 - “Restore prairie areas as appropriate”
- Operations and Maintenance of Dam (6 comments)
 - “Install a digitally controlled gate to ensure correct water releases”
 - “Modify the outlet works to allow greater water release capacity and less chance of jamming by vegetation overgrowth”
 - “Blow-up the dam”
 - “Provide ADA access or safe access to the spillway area”
 - “Perform road maintenance, especially the North Road”
 - “Dam needs to be maintained as a flood control structure”
- Economics (35 comments)
 - “Ensure reasonable entrance fees for the park”
 - “Increase recreation to improve local economy for businesses, communities, and providing jobs”
 - “Republican River Compact has increase property taxes and decreased property value.”
- Cultural Resources (1 comment)
 - “Provide interpretive programs such as history of the dam construction, and history of the area’s places”

Once the comments are cataloged, the Planning Team combined into the issue statements for the analysis document and used to formulate alternatives as discussed in Chapter 2.