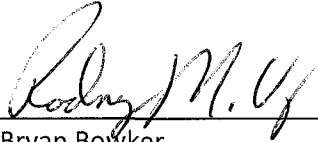


Finding Of No Significant Impact (FONSI)

Phase II: Final Restoration Plan and Environmental Assessment for the Cyprus Tohono Mine Natural Resource Damage Assessment, Sif Oidak District, Tohono O'odham Nation.

Based upon an environmental review and evaluation of the Final Restoration Plan and Environmental Assessment (RP/EA), it is my determination that **Alternative D** of the RP/EA does not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of Section 102 (2)(C) of National Environmental Policy Act. Accordingly, the preparation of an Environmental Impact Statement is not required.


for Bryan Bowker

Regional Director, Western Region, Bureau of Indian Affairs
Authorized Official for the U.S. Department of the Interior

7-15-13
Date

Decision Record

Phase II: Final Restoration Plan and Environmental Assessment for the Cyprus Tohono Mine Natural Resource Damage Assessment, Sif Oidak District, Tohono O'odham Nation.

Background

The Cyprus Tohono Mine is located in a rural area approximately 32 miles southwest of Casa Grande, Arizona. The Cyprus Tohono Mine lies in the Santa Rosa Basin southwest of the Slate Mountain Range at an elevation of approximately 1,800 ft and spans Pinal and Pima counties. It is located in the Sif Oidak District (SOD) of the Tohono O'odham Nation (TON) on 4,180 acres of leased land. The community of North Komelik is located approximately one mile west of the Cyprus Tohono Mine.

The Cyprus Tohono Corporation (CTC) provided a total of \$825,000 to be distributed in two phases. Phase I of the restoration settlement concerned the groundwater natural resource injury. CTC provided \$78,710 in Phase I to replace water fixtures such as faucets and shower heads for residences in North Komelik. Ongoing investigation work continues by CTC, TON, and Environmental Protection Agency (EPA) to characterize the nature and extent of the groundwater contamination. Phase II of the restoration settlement concerned non-groundwater natural resources injury. CTC provided \$746,290 in Phase II to replace non-groundwater resources, in particular, and to create or enhance existing wetland habitat for migratory birds. These funds are sufficient to restore approximately twenty - 40 acres of wetland habitat. This RP/EA addresses how these Phase II funds will be used.

Public Involvement and Scoping

A public scoping meeting was held on July 22, 2009, at North Komelik, Tohono O'odham Nation, to discuss the completion of the Phase I of the Cyprus Tohono restoration implementation as well as invite public comment or suggestions for alternatives for the Restoration Plan/Environmental Assessment (RP/EA).

The Draft RP/EA was available for review and comment for 45 days. The public review period opened on October 11, 2012, and closed on November 26, 2012. A Notice of Availability (NOA) was mailed to 45 interested parties. The NOA and Draft RP/EA were posted on the U.S. Fish & Wildlife Service (USFWS) - Arizona Ecological Services Internet homepage.

The NOA was also available through legal notices in the Casa Grande Dispatch and an advertisement in The Runner, a weekly newspaper in Sells. The Draft RP/EA was also available at the Sif Oidak District office, the TON-Environmental Protection Office office in Sells, the Casa Grande library, and the USFWS

office in Phoenix. Public meetings were held on October 20, 2012, and November 7, 2012, at the SOD to present the alternatives and solicit public comment.

One written comment was received on the Draft RP/EA during the 45-day public review and comment period. In addition to the one written comment, an additional 13 verbal comments/questions during the public meetings was also taken into consideration and addressed in the EA.

Issues Identified

- *Loss of Habitat and Associated Wildlife*
- *Migratory Birds*
- *Water Resources (Surface, Groundwater)*
- *Other Potentially Impacted Resources (Vegetation, Cultural, Land-Use, Wetlands)*

Design Criteria

- 1.) Evaluate whether the goals to restore, rehabilitate, replace, or acquire the equivalent of the injured natural resources have been met.
- 2.) Determine baseline conditions for water, vegetation, wildlife before wetland restoration begins.
- 3.) Implement a monitoring program for each project which would include provisions for project success and reporting to ensure the specific project objectives and restoration actions are conducted as intended.
- 4.) Include performance standards and criteria for each restoration action, guidelines for implementing corrective actions, and a schedule for frequency and duration of monitoring.
- 5.) Test the benefits and hazards of artificial wildlife waters because of the number of wetlands to be built and the opportunity to conduct pre-treatment tests.

Alternatives Considered

I. Alternative A: No Action

No restoration actions would be taken to compensate for the loss of natural resources and services. This alternative would take no further action to restore the natural resources and services injured at Cyprus Tohono Mine.

II. Alternative B: Conversion of Existing Wetlands

Existing wetlands would be enhanced to provide habitat for migratory birds and other wetland-associated wildlife. A total of 20-40 acres of additional wetland area would be constructed under this alternative.

Existing wetlands that are common on TON include charcos and the standing water created by spreader dikes. Charcos are earthen stock tanks/ponds used on the TON as a water source for cattle. Generally they are about one acre in size, have steep banks on at least three sides, take advantage of natural drainages to catch water, and have established/mature mesquites surrounding them. Most were constructed with Natural Resource Conservation Service (NRCS) funding, but no funding for maintenance was provided. As a result, many of them have not been maintained and sediment has accumulated over time. Spreader dikes are earthen dams placed across drainages and are designed to slow the flow of water and to encourage/increase forage production for livestock. Sedimentation has filled in many of these over time.

Three- 10 existing wetlands ranging in size from 2- 15 acres each would be enhanced to provide improved wetland habitat for migratory birds and other wetland-associated wildlife. The restoration planning team would prioritize wetlands for restoration according to the following design criteria:

- 1.) Occurring within a NRCS ecosites suitable for holding water (clay bottom, loamy bottom, loamy bottom/clay bottom, loamy bottom/saline bottom/saline loam, saline bottom, saline bottom/loamy bottom/clay bottom),
- 2.) A record of high persistence, occurring at a distance of at least 0.62 mile from agriculture;
- 3.) Occurring at a distance of at least 0.62 miles from housing/developments.

The restoration planning team would select at least one wetland within potential Sonoran pronghorn habitat if it meets other selection criteria. Charcos would be excavated to expand their total area, flatten bottom and shoreline slopes, and vary the water depth. Wetlands behind spreader dikes would be excavated to expand their area, remove sediment/soil, and/or repair bottoms.

Water would primarily accumulate from surface run-off because members of the local community prefer not to use groundwater as a source. Most potential existing wetlands are four to twenty-three miles from the Santa Rosa canal, the nearest source of Central Arizona Project (CAP) water. The cost of installing pipe from the canal to a planned wetland would be prohibitive for most. If CAP water is used, pipelines would be constructed using best management practices to minimize site disturbance. Where possible, water control structures would be added to the wetlands to allow drainage for maintenance or non-native species control. Roads and water crossings to wetland enhancement sites may need to be improved to allow heavy equipment access to the sites.

Another possibility would be expanding Lake St. Clair by up to 20 acres. Seepage would be reduced by compacting soils or adding clay, bentonite, or a natural liner over part of the lake. If a liner is used, it would be installed between layers of geotextile pads for puncture protection. Newly compacted or added materials would be covered with a layer of sub-surface soil to allow

invertebrate and plant growth without spreading invasive plant species that may be present in topsoil (Biebighauser 2011).

Approximately 67% of the wetland area would be designed to benefit the American avocet, primarily during the months of greatest use by the species. American avocets prefer water depths of 4-8 inches, gradually-sloped bottoms, shoreline slopes of 12:1, and shorelines barren of vegetation (Robinson et al. 1997).

The remaining wetland area would have some areas of deeper water to support other species that require such depths. These wetland areas may also support emergent and shoreline vegetation to provide habitat for other migratory birds and wildlife that require denser vegetation than avocets, such as waterfowl and egrets. The denser shrubs and mesquite trees that are likely to self-establish around each of these wetlands would provide habitat for raptors, nighthawks, and passerines. This additional habitat would compensate for the loss of these birds. Additionally, the wetlands and surrounding vegetation would supply habitat for a variety of other wildlife.

During the design of this alternative, the planning team conducted an analysis of potential threats to successful wetland restoration and developed actions to prevent or abate those threats. Actions that were chosen are outlined below:

- A. Enhanced wetlands would be fenced to protect wetland vegetation from trampling by livestock or humans and protect water quality for migratory birds. Fences would be pronghorn-safe and follow AGFD's wildlife fencing guidelines. Pipe corral (3 rail) is the preferred fencing material. Gates would be installed to facilitate removal of cattle that may break into the enclosure. We would also work with local ranchers to manage livestock found within the fences.*
- B. Because fences would prevent cattle from accessing water, guzzlers or troughs equipped with wildlife escape ramps and incorporating additional bat-friendly design features (e.g., no fences across water source), would be installed outside the fence to provide clean water for cattle. Alternatively, rock ramps, similar to boat ramps, would be installed. These ramps would be fenced on the sides and would allow cattle safe access to clean water yet prevent them from trampling riparian vegetation or getting stuck in the mud.*
- C. Early detection and control of invasive plants would be practiced. Invasive species found in similar habitat within the Sonoran desert include buffelgrass, Sahara mustard (*Brassica tournefortii*), fountain grass (*Pennisetum setaceum*), bermudagrass (*Cynodon dactylon*), onionweed (*Asphodelus fistulosus*), Johnson grass (*Sorghum halepense*), tree tobacco (*Nicotiana glauca*), and tamarisk (*Tamarix* spp.). Integrated pest management (IPM) techniques including manual control, chemical control, and prescribed fire may be used.*

- D. Newly excavated areas that are intended to support vegetation would be seeded with a native seed mix of grasses and herbaceous plants to provide a head start and a competitive advantage over nonnative plants.*
- E. Signs would be installed to inform visitors why they should avoid trampling the shoreline, disturbing birds, or introducing aquatic animals.*
- F. Educational tours of Lake St. Clair would be offered to groups, such as schools, to provide educational opportunities about wetlands and invasive species.*
- G. Volunteers, TON, and outside groups (e.g. Arizona Sonora Desert Museum) could give talks in schools and communities to foster support for wetland restoration and wildlife conservation.*
- H. U.S. Customs and Border Protection (CBP) would be informed about the location of the wetlands to ensure they do not attract undocumented migrants (UDMs) and to advise CBP to not injure the wetlands.*

III. Alternative C: Construction of New Wetlands

Three-10 new wetlands would be created by excavation. A total of 20-40 acres of additional wetland area would be added under this alternative.

The restoration planning team would prioritize wetlands for restoration according to the following design criteria: 1.) Occurring within a NRCS ecosites suitable for holding water (clay bottom, loamy bottom, loamy bottom/clay bottom, loamy bottom/saline bottom/saline loam, saline bottom, saline bottom/loamy bottom/clay bottom), 2.) A record of high persistence, occurring at a distance of at least 0.62 mile from agriculture; 3.) Occurring at a distance of at least 0.62 miles from housing/developments. The restoration planning team would select at least one wetland within potential Sonoran pronghorn habitat if it meets other selection criteria. Charcos would be excavated to expand their total area, flatten bottom and shoreline slopes, and vary the water depth. Wetlands behind spreader dikes would be excavated to expand their area, remove sediment/soil, and/or repair bottoms.

Water would primarily accumulate from surface run-off because members of the local community prefer not to use groundwater as a source. Most potential existing wetlands are four to twenty-three miles from the Santa Rosa canal, the nearest source of Central Arizona Project (CAP) water. The cost of installing pipe from the canal to a planned wetland would be prohibitive for most. If CAP water is used, pipelines would be constructed using best management practices to minimize site disturbance. Where possible, water control structures would be added to the wetlands to allow drainage for maintenance or non-native species control. Roads and water crossings to wetland enhancement sites may need to be improved to allow heavy equipment access to the sites.

Approximately 67% of the wetland area would be designed to benefit American avocet, primarily during the months of greatest use by the species. American avocets prefer water depths of 4-8 inches, gradually-sloped bottoms, shoreline slopes of 12:1, and shorelines barren of vegetation (Robinson et al. 1997).

The remaining wetland area would have some areas of deeper water to support other species that require such depths. These wetland areas may also support emergent and shoreline vegetation to provide habitat for other migratory birds and wildlife that require denser vegetation such as waterfowl and egrets. The denser shrubs and mesquite trees that are likely to self-establish around each of these wetlands would provide habitat for raptors, nighthawks, and passerines. This additional habitat would compensate for the loss of these birds. Additionally, the wetlands and surrounding vegetation would supply habitat for a variety of other wildlife.

During the design of this alternative we conducted an analysis of potential threats to successful wetland restoration and developed actions to prevent or abate those threats. Actions that were chosen include:

- A. New wetlands would be fenced to protect wetland vegetation from trampling by humans and livestock and protect water quality for migratory birds. Fences would be pronghorn-safe and follow wildlife fencing guidelines established by AGFD. Pipe corral (3 rail) is the preferred fencing material. Gates would be installed to facilitate removal of cattle that may break into the enclosure. We would also work with local ranchers to manage livestock found within the fences.*
- B. Because fences would prevent cattle from accessing water, guzzlers or troughs equipped with wildlife escape ramps would be installed outside the fence to provide clean water for cattle. Alternatively, rock ramps, similar to boat ramps, would be installed. These ramps would be fenced on the sides and would allow cattle safe access to clean water yet prevent them from trampling riparian vegetation or getting stuck in the mud.*
- C. Early detection and control of invasive plants would be practiced. Invasive species found in similar habitat within the Sonoran desert include buffelgrass, Sahara mustard, fountain grass, bermudagrass, onionweed, Johnson grass, tree tobacco, and tamarisk. IPM techniques including manual control, chemical control, and prescribed fire may be used.*
- D. Newly excavated areas that are intended to support vegetation would be seeded with a native seed mix of grasses and herbaceous plants to provide a head start and a competitive advantage over nonnative plants.*
- E. Signs would be installed to inform visitors why they should avoid trampling the shoreline, disturbing birds, or introducing aquatic animals.*

- F. Educational tours of Lake St. Clair could be offered to groups, such as schools, to provide educational opportunities about wetlands and invasives.*
- G. Volunteers, TON, and outside groups (e.g. Arizona Sonora Desert Museum) could give talks in schools and communities to foster support for wetland restoration and wildlife conservation.*
- H. CBP would be informed about the location of the wetlands to ensure they do not attract UDMs and to advise CBP to not injure the wetlands.*

IV. Alternative D: Preferred Alternative; Enhancement and Creation of Wetlands

Enhancement and creation of wetlands would be combined including: 1) Expand existing earthen charcos or standing water created by spreader dikes, 2) Expand Lake St. Clair; and 3) Create new wetlands. The restoration planning team would prioritize the most cost-effective creation of wetlands, giving consideration to the amount of the acreage. A total of 20-40 acres of additional wetland area would be added under this alternative.

Up to ten existing wetlands would be enhanced to provide 10-20 acres of new wetland habitat for migratory birds. The restoration planning team would prioritize wetlands for restoration according to the following design criteria: 1.) Occurring within a NRCS ecosites suitable for holding water (clay bottom, loamy bottom, loamy bottom/clay bottom, loamy bottom/saline bottom/saline loam, saline bottom, saline bottom/loamy bottom/clay bottom), 2.) A record of high persistence, occurring at a distance of at least 0.62 mile from agriculture; 3.) Occurring at a distance of at least 0.62 miles from housing/developments. The restoration planning team would select at least one wetland within potential Sonoran pronghorn habitat if it meets other selection criteria. Charcos would be excavated to expand their total area, flatten bottom and shoreline slopes, and vary the water depth. Wetlands behind spreader dikes would be excavated to expand their area, remove sediment/soil, and/or repair bottoms.

Up to ten new wetlands could also be created under this alternative. New wetlands would meet the design criteria described for existing wetlands.

Another possibility would be to expand Lake St.Clair by up to 10 acres. Seepage would be reduced by compacting soils or adding clay or betonite or a natural liner over part of the lake. If a liner is used, it would be installed between layers of geotextile pads for puncture protection. Newly compacted or added materials would be covered with a layer of sub-surface soil to allow invertebrate and plant growth without spreading invasive plant species that may be present in topsoil.

Water would be primarily from surface run-off, because the local community prefers not to use groundwater as a source. If CAP water is used, pipelines would be installed following best management practices to minimize disturbance. Water control structures would be included in the new wetland design to enable draining the new wetlands, if needed, for maintenance or invasive species control. Roads may need to be improved to allow heavy equipment access to the sites.

Approximately 67% of the wetland area would be designed to benefit American avocet, primarily during the months of greatest use by the species. American avocets prefer water depths of 4-8 inches, gradually-sloped bottoms, shoreline slopes of 12:1, and shorelines barren of vegetation (Robinson et al. 1997).

The remaining wetland area would have some areas of deeper water to support other species that require such depths. These wetland areas may also support emergent and shoreline vegetation to provide habitat for other migratory birds and wildlife that require denser vegetation such as waterfowl and egrets. The denser shrubs and mesquite trees that are likely to self-establish around each of these wetlands would provide habitat for raptors, nighthawks, and passerines. This additional habitat would compensate for the loss of these birds. Additionally, the wetlands and surrounding vegetation would supply habitat for a variety of other wildlife.

During the design of this alternative we conducted an analysis of potential threats to successful wetland restoration and developed actions to prevent or abate those threats. Actions included:

- A. New wetlands would be fenced to protect wetland vegetation from trampling by livestock and humans and protect water quality for migratory birds. Fences would be pronghorn-safe and follow AGFD's wildlife fencing guidelines. Pipe corral (3 rail) is the preferred fencing material. Gates would be installed to facilitate removal of cattle that may break into the enclosure. We would also work with local ranchers to manage livestock found within the fences.*
- B. Because fences would prevent cattle from accessing water, guzzlers or troughs equipped with wildlife escape ramps and incorporating additional bat-friendly design features (eg. no fences across water source), would be installed outside the fence to provide clean water for cattle. Alternatively, rock ramps, similar to boat ramps, would be installed. These ramps would be fenced on the sides and would allow cattle safe access to clean water yet prevent them from trampling riparian vegetation or getting stuck in the mud.*
- C. Early detection and control of invasive plants would be practiced. Species that could be invasive at the restoration sites include buffelgrass, Sahara mustard, fountain grass, bermudagrass, onionweed, Johnson grass, tree tobacco, and tamarisk. IPM techniques including manual control, chemical control, and prescribed fire may be used. Specifics would be developed as a part of an IPM plan.*
- D. Newly excavated areas that are intended to support vegetation would be seeded with a native seed mix of grasses and herbaceous plants to provide a head start and a competitive advantage over nonnatives.*
- E. Signs would be installed to inform visitors why they should avoid trampling the shoreline, disturbing birds, or introducing aquatic animals.*
- F. Educational tours of Lake St. Clair would be offered to groups, such as schools, to provide educational opportunities about wetlands and invasives.*

- G. *Volunteers, TON, and outside groups (e.g. Arizona Sonora Desert Museum) could give talks in schools and communities to foster support for wetland restoration and wildlife conservation.*
- H. *CBP would be informed about the location of the wetlands to ensure they do not attract UDMs and to advise CBP activities not to injure the wetlands.*

Summary of Potential Restoration Alternatives and Actions

The proposed and preferred projects that would restore natural resources lost or injured at the Cyprus Tohono Mine and provide additional resource services to compensate the public for the interim losses are shown in **Table 1**.

Table 1.: Summary of Potential Restoration Alternatives

Alternatives	Project Description
A. No Action	No restoration or enhancement would occur.
B. Wetland Enhancement	Enhancement of existing charcos, spreader dikes, and Lake St. Clair to create more and better habitat for shorebirds and other wetland species.
C. Wetland Creation	Creation of new wetlands for shorebird habitat and other wetland species where none existed before.
D. Mixture of B and C (Preferred Alternative)	Enhancement of existing charcos, spreader dikes, and Lake St. Clair and create new wetlands where none existed before. Create additional and improved habitat for shorebirds and other wetland species.

Decision and Rational

Decision: The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires the federal government to promulgate regulations for developing natural resource damage claims. The Natural Resource Damage Assessment and Restoration (NRDAR) 43 CFR § 11 outlines restoration planning, and provides that restoration plans should consider ten factors (identified at 43 CFR § 11.82) when evaluating and selecting among possible projects to restore or replace injured natural resources.

Ten factors were considered for a criteria in the alternative evaluation process; of these ten criteria, five criteria were selected and are shown in **Table 2**.

Table 2.: Comparison of alternatives for their ability to meet NRDAR criteria.

<i>NRDAR Criteria</i>	<i>Alt A (No Action)</i>	<i>Alt B: Wetland Enhancement</i>	<i>Alt C: Wetland Creation</i>	<i>Alt D: Mixture Of B And C (Preferred)</i>
Technical feasibility	+++	+++	++	+++
Cost-effectiveness	0	++	+	+++
The potential for additional injury resulting from the proposed actions	None	None	None	None
Consistency with relevant federal, state, and tribal policies	Y	Y	Y	Y
Compliance with applicable federal, state, and tribal laws.	Y	Y	Y	Y

Each restoration alternative and specific actions were evaluated based on effectiveness of actions within each alternative and NRDAR regulations. None of the alternatives result in long-term, significant impacts to the existing environment. Alternative A would not restore the natural resources injured and we determined it is not a viable alternative. Alternatives B and C could restore natural resources injured, but might limit the location of restoration projects. Individual restoration sites would require on-site testing to determine if soils, topography, and other conditions would affect the ability of the sites to function as wetlands. If the limited sites available in Alternatives B and C failed such tests, opportunities for restoration would be lost. We recommend Alternative D as the preferred alternative. Alternative D provides the most flexibility and potential for success.

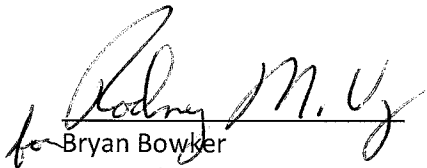
Rationale: The Natural Resource Damage Assessment and Restoration (NRDAR) regulations found at 43 CFR 11 authorize States, federally recognized Tribes (43 CFR 11.14(rr)), and certain federal agencies that have authority to manage or control natural resources, to act as “trustees” on behalf of the public, and to restore, rehabilitate, replace, and/or acquire natural resources equivalent to those injured by alleged hazardous substance releases. The Trustees worked together with the Cyprus Tohono Mine Corporation, in a cooperative process, to assess natural resource injuries caused by the releases of hazardous substances at the Cyprus Tohono Mine. The natural resource damages received through the negotiated settlement must be used to restore, rehabilitate, replace, and/or acquire the equivalent of those natural resources that have been injured. Federal agencies are required to comply with the National Environmental Policy Act (NEPA) prior to commencing an action.

The Bureau of Indian Affairs (BIA) is the lead agency on behalf of the Department of the Interior (DOI) for assessment and restoration, and BIA’s Western Regional Director is the designated federal

Authorized Official (AO) for this site. The Federal AO is the DOI official delegated the authority to act on behalf of the Secretary to conduct Natural Resource Damage Assessment and Restoration planning and implementation. The AO represents the interests of the DOI, including all affected bureaus. The AO will select one of the alternatives analyzed in detail after soliciting and considering public comments and will determine, based on the facts and recommendations contained herein, including the public comments, whether this EA is adequate to support a Finding of No Significant Impact (FONSI) decision, or whether an Environmental Impact Statement (EIS) is required.

Conclusion and Determination

Based upon an environmental review and evaluation of the Final RP/EA, it is my determination that **Alternative D** of the RP/EA does not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of Section 102 (2)(C) of NEPA. Accordingly, the preparation of an EIS is not required.


for Bryan Bowler

Regional Director, Western Region, Bureau of Indian Affairs
Authorized Official for the U.S. Department of the Interior

7-15-13
Date

Appeal Rights

This decision is effective upon the date it is signed by the authorized officer. The decision is subject to appeal. Any request for administrative review of this decision must include information required procedures under 25 CFR, Part 2 (Appeals from Administrative Actions), including all supporting documentation. Such a request must be filed in writing with the Regional Director, Bureau of Indian Affairs, Western Regional Office, 2600 N. Central, Phoenix, Arizona, 85004-3050, within 30 days of the date this Decision.