APPENDIX E

Land Use Evaluation

This appendix evaluates the effect that the land ownership changes under the No Action Alternative and the Proposed Action/Preferred Alternative would have on land use in the project area.
APPENDIX E

LAND USE EVALUATION FOR THE PROPOSED WELLTON-MOHAWK TITLE TRANSFER

1 PURPOSE AND SCOPE OF THIS APPENDIX

This appendix evaluates the future effect of land ownership changes under the proposed Wellton-Mohawk Title Transfer. Because the Proposed Action/Preferred Alternative would result only in an administrative action, direct environmental impacts would not occur. However, the public has expressed concern in scoping comments regarding future land development and potential impacts on native species and natural ecological processes. Consequently, this appendix to the EIS has been prepared to facilitate a future land use assessment with and without project conditions. Specifically, this paper seeks to answer the following questions:

- **Question 1 – Use of Transferred Land.** How would the proposed change in land ownership affect the use of the transferred lands?
- **Question 2 - Land Use Pattern in the Project Area.** How would the proposed change in land ownership affect the growth pattern in the project area?
- **Question 3 – Effect on Growth Rate.** How would the proposed change in land ownership affect the rate of growth in the project area?

The Proposed Action/Preferred Alternative and the lands to be transferred are not described in detail in this appendix, but can be found in Chapter 2 and Appendix D of the EIS. As discussed, the facilities and facilities ROWs included in the title transfer would continue to be operated and maintained by the District as under current management, with only administrative changes occurring in the absence of Reclamation’s oversight. Therefore, the analysis in the EIS assumes that no changes in land use or environmental conditions would occur within facility ROWs (including the Gila River Flood Channel) as a result of the Proposed Action/Preferred Alternative.

2 FINDINGS AND CONCLUSIONS

2.1 FINDINGS

**Land Use Planning.** The project area is included in a recent countywide planning effort, which produced the *Yuma County 2010 Comprehensive Plan* (2010 Plan) (Yuma County, 2001). The 2010 Plan calls for the preservation of the rural agricultural and open space character of the project area, designating approximately 90 percent of the land to agricultural and open space categories. The remainder is in residential and industrial categories, with
designated zones where development should occur. The county has designated the District as a Rural Planning Area under the administrative jurisdiction of the District. This action, coupled with the county’s efforts at cultivating citizen awareness of and participation in land use planning, bodes well for the management of future growth in accord with the county’s development plan.

**Projected Land Use under the No Action Alternative.** Under the No Action Alternative, the Division ROWs would continue to be managed for the operation and maintenance of Division facilities. Reclamation would retain the vacant land in federal ownership and could sell or exchange individual tracts for public purposes at the request of local, state, or federal agencies. Ultimately, the vacant federal land originally withdrawn from the public domain would be returned to the public domain, with limited sales of certain parcels by the Bureau of Land Management, following NEPA evaluation of specific proposals for disposal. The rest would become surplus to Reclamation’s requirements and could be offered for sale to the public at some future date, in response to specific requests. Each such request would be subject to NEPA evaluation before transfer or sale would be completed. Surplus lands would be managed according to federal law until they are disposed. Once in private hands, the lands would be available for development in accord with local zoning and planning provisions.

**Projected Land Use with the Proposed Action/Preferred Alternative.** Following the proposed transfer of ownership, the District administration would manage the transferred lands with emphasis on agricultural and open space preservation. Certain lands within agricultural zones would be made available to farmers for use as stockyards and storage areas. Approximately 9,800 acres have been identified as candidate lands for residential, commercial, or enhanced agricultural development, based on such factors as proximity to the Interstate 8 transportation corridor, prior agricultural use, and distance from mitigation areas. In view of existing constraints on development in the project area, only a minor part of this acreage would be developed, and development would occur slowly and selectively. Both the county and the District intend to guide the growth of the project area to preserve its agricultural and open space character. Current plans to develop the lands of the Proposed Action/Preferred Alternative include the proposed Arizona Clean Fuels petroleum refinery and associated infrastructure.

**District Administration’s Adherence to the County 2010 Plan.** The land uses anticipated by the District administration are in accord with Yuma County’s land use plan for the project area. Notably, the District’s land use policy calls for preservation of undisturbed open-space lands.
**Comparison of No Action Alternative and Proposed Action/Preferred Alternative.**

Under the Proposed Action/Preferred Alternative, the amount of development that may occur on the transferred land is unknown. Under the District’s management policy, future development would be channeled towards land previously disturbed or in the Interstate 8 corridor. Lands on which natural values predominate would be preserved from development. These determinations would be made by the District, which 1) advocates preservation of the agricultural and open space values of the project area, and 2) would have the ability to control growth patterns by virtue of ownership of the land. Local constraints on development also have a dampening effect on community or commercial development.

Under the No Action Alternative, approximately 5,800 acres of federal land (the withdrawn lands) would ultimately be returned to the public domain. Eventually, the remainder of the lands is projected to be declared as surplus by Reclamation and sold. However, this scenario is subject to uncertainties regarding the amount, timing, and final nature of any potential land sales.

As a practical matter, little distinction can be made as to the physical difference between the No Action Alternative and the Proposed Action/Preferred Alternative in terms of location and type of future land development. However, the timing of land availability may have a significant influence on the care and consistency with which land use decisions are made.

Under the Proposed Action, the District would begin to exercise its management role over the vacant federal lands as soon as the transfer is made. Under the No Action Alternative, several decades may pass before many of the same lands become available as candidate lands for development. During this period, growth in the project area would be based on a more fragmented pool of land available for development, which would detract from existing land use planning.

**2.2 CONCLUSIONS**

Based on the findings presented above, the following conclusions were reached regarding the effects of the proposed change in ownership of the vacant federal land involved in the Proposed Action/Preferred Alternative.

- **Question 1 – Use of Transferred Land.** The use of some of the vacant federal land would change as the result of 1) making a portion of the land available to individual farmers for supplementing existing farms and improving the agricultural productivity, and 2) making a portion of the land available for community and commercial development consistent with local zoning and development planning. Most of the land would not have a change in land use. The No Action Alternative would have a deferred and reduced effect on land use similar to that of the Proposed Action/Preferred Alternative.
• **Question 2 – Land Use Pattern in Project Area.** The proposed uses of the transferred lands would be integrated into the prevailing agricultural, rural residential, and open space character of the project area. The candidate lands for community and commercial development would increase the acreage available for future community and commercial development in the areas identified for development in the 2010 Plan. This would increase the likelihood that growth would be localized in areas identified in the county land use projections and reduce future demands on prime agricultural land for conversion to other uses. Thus, the change in land ownership would complement and support the proposed pattern of growth in the project area. The No Action Alternative would have a deferred and less influential effect on land use similar to that of the Proposed Action/Preferred Alternative.

• **Question 3 – Effect on Growth Rate.** No significant developmental pressure would affect the lands to be transferred. The project area appears to contain sufficient private and State Trust lands to support projected growth trends under the 2010 Plan, with its emphasis on agricultural and open space preservation. In addition, the District would manage the transferred land under a policy strongly oriented towards agricultural and open space preservation. In combination, these factors lead to the conclusion that the Proposed Action/Preferred Alternative would not stimulate growth in the project area.

### 3 GEOGRAPHIC FOCUS, DEVELOPMENT, AND LOCAL PLANNING OBJECTIVES

#### 3.1 GEOGRAPHIC FOCUS

The project area, for purpose of this analysis, is defined as the east-west strip of land lying between the U.S. Army Yuma Proving Ground boundary on the north and the Barry M. Goldwater Range on the south, as shown on Map E-1. The project area extends along the Gila River corridor from approximately 8 miles east of Yuma to the east side of Texas Hill, a distance of approximately 47 miles. The average width of the project area is about 10 miles. The area encompasses approximately 260,000 acres.

The District extends the length of the project area and averages roughly half the width of the project area, as shown on Map E-1. The District’s boundaries encompass approximately 130,000 acres of predominantly agricultural land characterized by irrigated farms and cattle operations. The District, thus defined, is administered by the Wellton-Mohawk Irrigation and Drainage District, an irrigation and drainage district created, organized, and existing under and by virtue of the laws of the State of Arizona, with legal authority to own lands and facilities and to contract with Reclamation for diversion of Colorado River water for delivery to land owners.
Texas Hill Canal
Mohawk Canal
Wellton Mohawk Canal
Muggins Mountains
Wellton Canal
Dome Canal
Wellton
Ligurta
Tacna
Mohawk Canal
Antelope Hill
Roll
Texas Hill Canal
Gila River
U.S. Army Yuma Proving Ground

Legend
- Proposed Boundary Extension
- District Boundary
- Project Area
- Reclamation Lands
- Other Federal Lands
- Military Reservation
- State Lands
- Private

Wellton-Mohawk Title Transfer
Map E-1 Land Ownership in Project Area

Not to Scale. For illustrative purposes only.
3.2 EXISTING DEVELOPMENT

3.2.1 Greater Yuma Area

To the west of the project area lies, what will be termed for convenience in this document, the “greater Yuma area”. The greater Yuma area consists essentially of the Gila Valley along the Gila River, the Yuma Valley along the Colorado River, and the Somerton-San Luis area between the Yuma Valley and the international boundary with Mexico. This area contains a mixture of agricultural, community, light industrial development, and military installations (U.S. Army Yuma Proving Ground and U.S. Marine Corps Naval Air Station). Yuma is a regional transportation hub whose role is supported by its location with respect to agricultural areas of Arizona and California, and its proximity to the port of entry for shipping and tourism along the international boundary with Mexico. As trade and traffic with Mexico increase under the North American Free Trade Agreement (NAFTA), this role is also projected to increase. The area is popular as seasonal residence for persons seeking to escape winter weather in the northern states, who arrive in motor homes or travel trailers and swell the population of the greater Yuma area in the winter months. Their presence adds to the demand for goods and services in the area. The population of the greater Yuma area in 2000 was approximately 121,000.

3.2.2 Project Area

The project area has a rural agricultural character, consisting of irrigated farms and cattle operations with intermittent open space, much of it vacant and undisturbed land. The project area has one incorporated community (Wellton) and two small communities (Tacna and Roll). Wellton and Tacna are adjacent to both Highway 80 and Interstate 8 with future development projected to center around these two communities. The community of Roll lies in the midst of an agricultural area north of the Gila River, and is not projected to be a center for development. The population of the project area in 2000 was approximately 5,700.

The Gila Mountains have acted as a dividing line between the “community of interests” of the greater Yuma area and the project area. In the past, this demarcation has tended to set the project area apart from the growth of the greater Yuma area. However, as growth occurs in the greater Yuma area, growth in the project area is also stimulated as people relocate to regain the feeling of open space.

3.3 LAND USE PLANNING IN THE PROJECT AREA

The Yuma County Planning Department has recently prepared the 2010 Plan. The 2010 Plan was formulated through participation of a local citizen’s advisory group and addresses land use planning for the project area. The 2010 Plan refers to the project area as the Dome Valley/Wellton Planning Area, which has virtually the same boundaries as the project area.
defined for this analysis in Section 1. The land use goals for the project area, transcribed from the 2010 Plan, are expressed as follows:

- Preserve farmland
- Improve potable water quality
- Improve management of solid waste disposal
- Plan for future residential growth
- Develop additional parks and recreational resources
- Preserve open space lands

There is a public recognition that population growth will occur and that it is important to plan for it in a systematic way. There is also recognition that random growth tends to affect agriculture adversely. The 2010 Plan designates approximately 90 percent of the land in the project area in agricultural and open space categories. The remainder is in residential and industrial categories, with designated zones adjacent to the Town of Wellton and the community of Tacna as potential areas for such growth. The 2010 Plan includes the establishment of a Rural Planning Area in the project area, to be administered by the District. Land uses contemplated in the 2010 Plan are not predicated on the implementation of the land ownership change in the Proposed Action/Preferred Alternative.

On August 19, 2002, the Yuma County Board of Supervisors formally adopted Resolution No. 02-36 establishing the Wellton-Mohawk Irrigation and Drainage District Rural Planning Area (Appendix A). The formation of the Rural Planning Area will allow the District to evaluate proposed land use changes in relation to agricultural stability and to otherwise assist the county in managing future growth in the project area.

4 CURRENT LAND OWNERSHIP

The project area contains a mixture of private lands, District-owned lands, Arizona state lands, and federal lands under the jurisdiction of Reclamation and BLM. The entire project area contains approximately 260,000 acres, divided among ownership as listed in Table E-1. Reclamation lands are dedicated to the Wellton-Mohawk Division of the Gila Project (Division). Some of the Reclamation lands lie outside the District boundaries. Approximately 130,000 acres of land lie within the District, whose land ownership is divided approximately as listed on Table E-1.
TABLE E-1 CURRENT LANDOWNERSHIP IN THE WELLTON-MOHAWK VALLEY
(Rounded to Nearest 1,000 Acres)

<table>
<thead>
<tr>
<th>Land Owner</th>
<th>Total Acres</th>
<th>Acres within District</th>
<th>Acres Outside District</th>
<th>Land Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>District</td>
<td>5,000</td>
<td>5,000</td>
<td>0</td>
<td>Primarily ROWs for Gila River Flood Channel and adjacent wetlands development</td>
</tr>
<tr>
<td>Bureau of Reclamation</td>
<td>48,000</td>
<td>48,000</td>
<td>0</td>
<td>30,000 acres of ROWs for facilities; 27,000 acres of vacant land</td>
</tr>
<tr>
<td>Bureau of Land Management</td>
<td>86,000</td>
<td>2,000</td>
<td>84,000</td>
<td>Primarily vacant mesa land</td>
</tr>
<tr>
<td>State of Arizona</td>
<td>32,000</td>
<td>4,000</td>
<td>28,000</td>
<td>Leased state trust lands, wildlife habitat, and vacant land.</td>
</tr>
<tr>
<td>Privately owned</td>
<td>89,000</td>
<td>71,000</td>
<td>18,000</td>
<td>Irrigated farms, community development, rural residential, and vacant land</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>260,000</strong></td>
<td><strong>130,000</strong></td>
<td><strong>130,000</strong></td>
<td></td>
</tr>
</tbody>
</table>

5  PROPOSED LAND OWNERSHIP CHANGE

The Proposed Action/Preferred Alternative includes a change in ownership of approximately 19,400 acres of vacant federal land that Reclamation proposes to transfer to the District at no additional cost or to be purchased at fair market value. Most lands are within the District; some lie outside the District, generally within two miles of the District boundaries. Map E-2 shows the distribution of the federal lands proposed for land ownership change. These lands were acquired by Reclamation in connection with development of the Wellton-Mohawk Division (the acquisition process is described in Appendix D).

6  LAND USE UNDER THE NO ACTION ALTERNATIVE

This section describes the current uses of land in various ownerships and projects the future uses anticipated under the No Action Alternative. Constraints on land development are also discussed.

6.1  PROJECT AREA OVERVIEW

Of the 130,000 acres within the District, 62,875 acres are classified as irrigable and are eligible to receive Colorado River water under contracts with Reclamation. The rest of the land in the District consists of agriculture-related land, vacant land, community and scattered residential development, transportation corridors, and ROWs for facilities of the Wellton-Mohawk Division. Commercial and industrial uses account for less than one percent each of the total District acreage. The vacant land is undeveloped land or retired farmland, and includes Reclamation land to be transferred or purchased under the Proposed Action.
The Gila River Flood Channel and mitigation areas in the Gila River corridor lie within the District, occupying a mixture of land owned by Reclamation and the District. The District operates and maintains the flood channel in accordance with an environmental mitigation plan developed with the U.S. Army Corps of Engineers as part of the Clean Water Act Section 404 permitting process required for channel construction.

### 6.2 RECLAMATION LANDS

The vacant federal lands under consideration are currently being held by Reclamation to meet any further needs of the Division. Under the No Action Alternative, the lands would continue to be administered by Reclamation for an indefinite period, pending a decision on the permanent disposition of the lands. During this period, Reclamation may make available tracts of the land for public purposes such as parks, schools, and administrative areas for federal, state, and local agencies, as needs dictate. Reclamation would consider requests for purchase or lease of lands on a case-by-case basis, through consultation with the District regarding potential effects on the operation of the Division.

Ultimately, the remaining unused lands would be declared surplus to Reclamation’s needs and disposed by 1) relinquishing the withdrawal actions on the withdrawn lands, which would revert to the public domain under BLM administration, and 2) assigning the remainder of the lands to the U.S. General Services Administration for public sale. After the withdrawn lands revert to BLM administration, BLM would evaluate the lands and determine their suitability for retention in the public domain or disposal through sale or exchange. For purposes of this analysis, it is assumed that BLM may dispose of (by sale or exchange) scattered parcels in the interior of the District that are not adjacent BLM land outside the District boundary.

The ultimate uses of the non-ROW lands are speculative at this time. It appears that some of the land would be desirable for public purposes, considering the locations in proximity to existing community development. Development would contend with naturally occurring development limitations such as topography, rural residential zoning, domestic water supply, physical barriers posed by canals, railroad, Interstate 8, and legal barriers posed by existing ROW. For purposes of this analysis, it is assumed that some of the Reclamation lands would be developed for public purposes inside and outside of the District after a period of time. It is further assumed that a time would elapse before Reclamation might reach the point of declaring the non-ROW lands to be excess. This assumption is based on the fact that Reclamation has no current plans to dispose of the land in the absence of the Proposed Action/Preferred Alternative.

Following the future projected land sales by the U.S. General Services Administration and BLM, some of the non-ROW land would ultimately become available for community or commercial development. Considering the predominant direction of, and constraints on, land...
The lands proposed for the title transfer are shown in either green or yellow. The yellow lands are candidates for a limited amount of development. The green lands are projected to remain as open-space lands. Rights-of-way for facilities are not shown on this map.

Wellton-Mohawk Title Transfer

Map E-2 Candidate Lands for Development after Title Transfer

Not to Scale. For illustrative purposes only.
use planning in the project area, such lands would tend to be the same lands that might be
developed following the Proposed Action/Preferred Alternative.

6.3 STATE LANDS

State of Arizona lands are primarily State Trust lands, which the state generally makes
available for lease to provide revenue. Many of the State Trust lands in the project area are
leased for agricultural purposes, including project area land in the District and mesa land.

State Trust lands may be sold for development purposes. This typically occurs when the
Trust land is adjacent to a developed area with an approved land use plan. The state receives
requests to sell the lands at public auction for community development purposes and there
are sound prospects for providing domestic water and other public utilities. Approximately
14 square miles of State Trust land (approximately 8,900 acres) lie along the Interstate 8
corridor that seem well situated for community or commercial development. The 2010 Plan
contemplates such use of State Trust land. Many of the State Trust lands along the Interstate
8 corridor are currently under lease for agricultural use.

6.4 DISTRICT LANDS

The District owns approximately 5,000 acres of land within the District boundaries, which
consist primarily of ROWs for the Gila River Flood Channel and mitigation areas. About
half of this land is encumbered with deed restrictions that preclude its use for other than
environmental purposes. In the future, under No Action conditions, the District would
continue to own and manage these lands.

6.5 PRIVATE LANDS

Private lands in the project area range from irrigated land in the District to undisturbed
desert land outside the District. The Town of Wellton and other community areas are
included in this category. Private lands currently provide the room for expansion of
community development and rural residential development. Notably, the Town of Wellton
proposes to annex certain tracts of land south of the present town and along Interstate 8, and
a landowner is preparing to develop housing and a golf course in that area on previously
farmed land.

6.6 CONSTRAINTS ON LAND DEVELOPMENT

There are various constraints on land development for residential or commercial purposes in
the project area. Physical access to many tracts of land is impeded by Division facilities and
transportation facilities. The numerous canals, drains, and protective dikes, and the Gila
River floodway form physical barriers to public access of undeveloped lands in various parts
of the District, as well as some outside the District. Floodways, while not necessarily
physical barriers, require special crossing provisions for hydraulic continuity and public safety. Legal access is also impeded by ROWs for these facilities. Both physical and legal access are controlled by Reclamation on behalf of the District for operation and maintenance of Division facilities. Interstate 8 and the railroad that run through the project area pose similar conditions. County acceptance of new subdivision plans requires that access provisions be negotiated in advance to the satisfaction of facility owners. Moreover, arrangements for legal access are a requirement for financing of development.

Domestic water supply could severely limit development. The project area is underlain by groundwater whose mineral content exceeds standards for human consumption. Proponents of new development on the mesa or elsewhere would need to contract with the District for domestic water or develop their own groundwater supply and treatment facility. The District’s present contract with Reclamation for diversion of Colorado River water limits the domestic use of the water to 5,000 acre-feet per year and water deliveries are approaching this limit. The District has requested Reclamation amend the contract to permit the use of an additional 5,000 acre-feet of its entitlement for domestic purposes. Development of well water for domestic use is not a viable option due to the cost of treatment and potential restrictions on groundwater pumping.

Yuma County land use zoning plays a role in determining the residential and commercial development that may take place. The prevalent rural R-40 zoning classification limits the density of housing in areas not included in an approved subdivision or community plan. Topography also adds constraints in the form of desert washes or sloping ground.

7  FUTURE LAND USE WITH THE PROPOSED ACTION/PREFERRED ALTERNATIVE

This section describes the potential use of Reclamation land proposed for transfer to or purchase by the District, and the effect on lands in other ownerships.

7.1  RECLAMATION LAND

The District proposes to manage the vacant federal land to maintain its character as primarily undeveloped desert land, with minimal development in accordance with its agricultural goals and the provisions of the Rural Planning Area designation. The acquired tracts of land would be administered in various ways, depending on conditions and location. Four categories of use and/or disposition have been identified:

Natural Habitat - The District intends to leave undisturbed natural habitat in its current condition and manage it as open space. That land would continue to provide desert habitat and desert-oriented recreational uses.
Enhanced Farming Operations - Approximately 1,400 acres of land lie in small tracts adjacent to existing farms in the District. These lands would provide opportunities to enhance existing farming operations through such uses as stockyards, and storage areas for hay and equipment. It is expected that agricultural landowners would acquire such lands from the District within 10 years after implementation of the Proposed Action/Preferred Alternative.

Relinquishment of Abandoned Rights-of-Way - The transfer includes approximately 540 acres of narrow ROWs for irrigation ditches that no longer exist. Many of these ROWs strips run diagonally across or among farms and encumber land titles. The District would make arrangements to relinquish these ROWs to the underlying landowners. Relinquishment would not change the use of the underlying land.

Community and Commercial Development – Approximately 8,400 acres of land have been identified as candidate lands for potential community or commercial development over the next 30 years. The identification of candidate lands by the District was based on 1) proximity to existing development along the Interstate 8 corridor and elsewhere in the project area; 2) prior use and disturbance, including abandoned farm operations; 3) a preference to maintain a buffer between new development and present farming operations; and 4) distance from the Gila River Flood Channel and adjacent mitigation areas due to potential flooding. Most of candidate lands are adjacent to residential and industrial areas identified in the 2010 Plan. The amount of development that would occur on candidate lands would depend on various factors, including population growth and the compatibility of development proposals with the county’s land use plan. The District would consider requests to purchase or lease candidate land on a case-by-case basis.

The amount of development that would occur on candidate lands would depend on various factors, including population growth and the compatibility of development proposals with the county’s land use plan. The District would be able consider the availability of domestic water supply, the preservation of agricultural and open space values, and other factors to regulate development.

7.2 STATE LAND

State Trust land and its availability for development are discussed in Section 6. Under the Proposed Action/Preferred Alternative, the availability of vacant federal lands for community development would tend to reduce the amount of State Trust land sought for development in the project area.

7.3 PRIVATE LAND

Under the Proposed Action/Preferred Alternative, the amount of private land would increase to the extent that the District sells land to private parties. Initially, this would involve parcels
of land sold to supplement farming operations. The District’s selective release of lands for community or commercial development would proceed at a slower pace.