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## **CHAPTER 4**

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## 4 OTHER NEPA CONSIDERATIONS

### 4.1 INTRODUCTION

NEPA requires that impacts to resources from proposed federal actions include the perspectives of cumulative impacts, the relationship between short-term uses of the environment and long-term productivity, and irreversible and irretrievable commitments of resources. While considerations of direct and indirect impacts are included in the discussion for each resource, cumulative impacts are evaluated in this chapter in accordance with NEPA and CEQ regulations.

### 4.2 CUMULATIVE IMPACTS

A cumulative impact is an impact that results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time (40 CFR 1508.7).

#### 4.2.1 Methodology

The cumulative effects were assessed by combining anticipated activities from the Proposed Action with past development activities, present on-going activities, and other reasonably foreseeable future projects and activities. Anticipated Proposed Action/Preferred Alternative activities are discussed in detail in Chapters 1 through 3. Like the previous analysis, the ROI depends on the resource being analyzed. Thus, the past, present, and reasonably foreseeable future activities are identified in a broad perspective.

As discussed in Chapter 1, Reclamation has adopted the policy of transferring project title to individual districts if the transfer could ensure operational stability, protection of federal investments, and compliance with applicable laws, contracts, and agreements. To date, a number of title transfers have been completed by Reclamation, and others are currently authorized or under consideration. Cumulative impact analysis for this project does not attempt to examine the general cumulative effects that may be associated with the disposition of Reclamation lands not included in the Proposed Action/Preferred Alternative considered in this FEIS. Cumulative impacts associated with the implementation of Reclamation's title transfer program under the National Performance Review are beyond the scope of this document.

Additionally, as discussed in Chapter 3, the Proposed Action/Preferred Alternative would not result in changes in operation of the Division facilities or changes in water consumption or quality of return flows from the District. As such, no cumulative impacts to Colorado

1 River water resources, including water quality in the Yuma-Transboundary area, would  
2 occur.

3 The past activities that have most impacted the ROI include the Union Pacific railroad;  
4 Interstate Highway 8 (I-8) and other nearby roads such as Old Highway 80; the Wellton-  
5 Mohawk Canal with its associated pumping station; the Ligurta Substation and related  
6 transmission and distribution lines; the development of communication towers in the vicinity  
7 of Telegraph Pass; and conversion of desert to agricultural land and other limited land  
8 development.

9 Major on-going influences on the ROI include potential adverse effects from increasing  
10 tourism; rapid population growth driving land conversion to rural and traditional residential  
11 development; increased demand for electrical and natural gas energy; constantly increasing  
12 traffic congestion; declining air quality; increasing demands for water, and increasing use of  
13 public lands for long-term winter camping.

14 Future uses of the land proposed for transfer may result in cumulative land use impacts  
15 when considered in combination with the effects of development (existing and planned) by  
16 others within the project area. Up to 9,800 acres of currently undeveloped vacant transfer  
17 lands have been identified as candidate lands for residential, commercial, or enhanced  
18 agricultural development. Potential development of these parcels includes the following  
19 projections:

20 ■ Potential construction and operation of a gasoline refinery. As discussed in Chapter 1,  
21 the proposed gasoline refinery would potentially be located partly on lands included  
22 within this title transfer project. Prior to construction and operation, the proposed  
23 refinery would be subject to a separate and independent NEPA analysis under BLM, as  
24 well as permitting reviews with state and county agencies, including other independent  
25 environmental analyses.

26 ■ Western had received an application to develop the WMGF as a combined-cycle power  
27 plant near Ligurta in the western portion of the District. The WMGF project also  
28 proposed to upgrade the Ligurta-Gila and Ligurta-North Gila transmission lines and the  
29 Ligurta, Gila, and North Gila substations. These proposed projects are no longer being  
30 pursued. As discussed in Chapter 1, a separate NEPA review of the proposed power  
31 plant was underway, but has now ceased. The WMGF is not considered further in this  
32 analysis.

33 ■ Western may consider undertaking the upgrade of its transmission system and associated  
34 substations to 230-kV as separate project(s). ACC may also consider the potential for a  
35 new APS transmission line to better serve Yuma's demand for electricity. If pursued,  
36 these projects would be subject to separate and independent NEPA and/or state analyses.

- 1     ▪ Potential construction of a reservoir along the Wellton-Mohawk Canal to increase the  
2     storage and retention of water in the Wellton-Mohawk area. However, at this time, no  
3     firm funding commitment has been made and no detailed planning or design has been  
4     initiated.
- 5     ▪ The rapid growth in population is expected to increase associated demands for land,  
6     water, and energy. As evaluated in Chapter 3, residential and commercial development is  
7     likely to continue within the ROI, including development of some lands identified for  
8     transfer.

9     In the 2010 Plan, the county has identified issues and specific measures to address potential  
10    concerns associated with future development. The 2010 Plan discusses issues associated  
11    with water resources, air quality, noise pollution, solid waste disposal, hazardous wastes,  
12    renewable energy, agricultural resources, silviculture areas, cultural resources,  
13    environmental land use designations, geological resources and hazards, biological resources,  
14    and soils. These issues are summarized in this analysis.

## 15    **4.2.2 Cumulative Impacts by Resource**

### 16        *4.2.2.1 Land Resources and Use*

17    The land transfer would have a minimal direct effect on land use in the area, as there are  
18    approximately 75,000 acres of private and State Trust land already available for  
19    development in the Wellton-Mohawk valley. The issue of cumulative impacts rests on  
20    whether development of some transferred lands would be additive to development on the  
21    private and state lands available for development. The finding of the land use analysis in  
22    Section 3.2 is that the Proposed Action/Preferred Alternative would not be expected to  
23    increase the amount or rate of development anticipated within the project area.

24    Development within the county can also result in impacts to other resources in varying  
25    degrees. Yuma County is the primary land management agency with jurisdiction over lands  
26    that may be acquired by the District and subsequently developed by a private entity. In  
27    addition to Yuma County, the District (acting as the Rural Planning Agency) and  
28    municipalities where applicable, would review applications for development to ensure that  
29    planning is consistent with the 2010 Plan or other local planning documents. The Proposed  
30    Action/Preferred Alternative would not affect the level of development anticipated by the  
31    2010 Plan, so no additional impacts would occur with implementation of the Proposed  
32    Action/Preferred Alternative, aside from development that would occur anyway in the  
33    absence of the Proposed Action. The recent establishment of the District as a Yuma County  
34    Rural Planning Area is expected to strengthen compliance with the 2010 Plan. Annual  
35    updates to the Yuma County 2010 Plan are subject to the Major Plan Amendment process

1 and subject to approval by the County Board of Directors following a public review and  
2 comment period, including public hearings.

3 The proposed gasoline refinery would represent a major change in land use, from open and  
4 undeveloped land (although previously disturbed) to a complex industrial site with  
5 associated impacts on visual resources, air quality, noise, etc., which may cause an impact  
6 on adjacent land uses. A Major Plan Amendment to the Yuma County 2010 Plan was issued  
7 on December 13, 2004, to permit re-zoning of the proposed refinery site for heavy industrial  
8 use.

9 The land use for the ROW for Western's transmission system upgrade would remain the  
10 same. The alignments would most likely be located within existing utility corridors.

11 The land use for the reservoir would change over 100 acres from open land to use as a water  
12 project, which would directly impact the land use for the potential reservoir location, but  
13 would not be expected impact other land uses in the vicinity. The preliminary site for the  
14 reservoir project would be on mesa lands near the point where the Wellton-Mohawk Canal  
15 splits into the Wellton and Mohawk canals.

#### 16 4.2.2.2 Water Resources

17 The 2010 Plan states that recognition of water resource availability and water quality issues  
18 must be considered in land use decisions and development proposals. In addition to being  
19 considered during County review, water resources (including both quality and quantity of  
20 surface water and groundwater) are regulated under several federal and state laws, including,  
21 but not limited to, the Safe Drinking Water Act, the CWA, the Groundwater Management  
22 Act and associated assured water supply regulations, and the *Law of the River*. Water  
23 quantity and quality considerations are managed under state and federal jurisdiction, mainly  
24 by ADEQ, the Arizona Department of Water Resources (ADWR, and EPA. Water resource  
25 planning is also authorized through state and local legislative mandates, such as Growing  
26 Smarter Plus.

27 The proposed gasoline refinery would require cooling water and potable water. The potential  
28 water use by the proposed gasoline refinery may require the conversion of some of the  
29 District's consumptive use entitlement of Colorado River water to domestic and industrial  
30 use. The District has requested an amendment to its water supply contract with Reclamation  
31 to increase its domestic allotment to 12,000 acre-feet per year. Since 1993, the District  
32 acquired 3,000 acres of agricultural land, of which 2,000 acres were acquired following the  
33 1993 flood and another 1,000 acres was acquired from willing sellers. This acquisition  
34 resulted in the availability of water for domestic use. If additional water were necessary, this  
35 would be accomplished through the purchase of land with water rights from willing sellers.  
36 Over the last 10 years, the District has purchased lands with water rights in anticipation of

1 increased domestic water demand (including industrial use), resulting in acquisition of over  
2 3,000 acres of agricultural land that was retired to provide the additional domestic water  
3 needs forecast by the District. This potential conversion would not alter the overall  
4 consumptive use entitlement for the District or impact surface waters in the area.  
5 Groundwater supplies would not be impacted by the proposed refinery.

6 Water quality impacts to both surface water and groundwater from the proposed gasoline  
7 refinery would be minimized through compliance with applicable federal, state, and local  
8 regulations. The refinery facilities would be required to implement Spill Prevention, Control  
9 and Countermeasures Plans and Emergency Response Plans as well as compliance with the  
10 Arizona Pollutant Discharge Elimination System permit requirements, Aquifer Protection  
11 Permits, and applicable CWA requirements.

12 Upgrades to Western's transmission system are not anticipated to affect the availability or  
13 quality of surface water or groundwater resources because of similar environmental  
14 compliance requirements, including the CWA.

15 The reservoir proposed by the District would alter the surface waters within the District by  
16 impounding certain surface flows to increase the ability to control flows within the canal  
17 system. The reservoir would have a beneficial effect on local water supplies in the ROI by  
18 allowing the District to better utilize its water for agricultural purposes by controlling the  
19 timing of irrigation and reducing dependence on Reclamation's flow schedules. Additional  
20 capacity for surface water storage along the Lower Colorado River also would benefit the  
21 region. Construction of the reservoir would likely be required to comply with a Storm Water  
22 Pollution Prevention Plan, as well as other water resource compliance concerns.  
23 Groundwater quantity and quality would not be impacted by the proposed reservoir, nor  
24 would ARFs be anticipated to be impacted.

#### 25 4.2.2.3 Air Quality

26 The principal sources of air pollutants in the ROI, other than those naturally occurring  
27 within the desert environment, are industrial releases, agricultural operations, crop burning,  
28 aircraft, ground transportation vehicles, vehicle traffic on I-8, railroad operations, and the  
29 regional airshed shared with Mexico. Point source air pollution is regulated by the EPA and  
30 ADEQ for the ROI. No significant impacts are expected to air quality in the area as a result  
31 of the Proposed Action/ Preferred Alternative since the proposed action would not  
32 significantly alter existing conditions.

33 As discussed in Section 3.10, the EPA designated the Yuma Area as non-attainment for  
34 PM<sub>10</sub>. The non-attainment area extends one mile into the far western portion of the District.  
35 Because of the non-attainment designation, the development of a PM<sub>10</sub> SIP and a  
36 determination of conformity between the SIP and adopted transportation plans, programs,

1 and projects were required. The 2005 Air Quality Conformity Analyses concluded that there  
2 were no measured violations of the PM<sub>10</sub> standard in the Yuma non-attainment area during  
3 the past seven years. In addition, PM<sub>10</sub> emissions continue to be less than 1990 values, and  
4 less than the budget permitted by the 1994 Yuma PM<sub>10</sub> Non-attainment Area SIP Revision.  
5 ADEQ is now developing a Maintenance Plan for the Yuma area that upon EPA approval  
6 will allow the area to be considered for re-designation to PM<sub>10</sub> attainment. Stakeholder  
7 meetings and progress on the development of the Maintenance Plan can be obtained through  
8 ADEQ.

9 Ongoing and future development construction activities, the proposed gasoline refinery,  
10 Western's potential transmission system upgrades, and the new reservoir would result in  
11 fugitive dust emissions that may have a temporary adverse impact on local air quality. These  
12 impacts would be insignificant to those associated with natural conditions and current  
13 agricultural activity in the area, and would only be subject to the terms defined in the SIP  
14 and Maintenance Plan under development if located within the PM<sub>10</sub> non-attainment area.

15 The addition of a gasoline refinery in the area along I-8 would contribute additional  
16 emissions to the region. EPA's Prevention of Significant Deterioration increments would  
17 apply to the proposed gasoline refinery and would prevent significant deterioration of air  
18 quality from refinery operations. The proposed gasoline refinery has an air quality permit  
19 from ADEQ, which monitors and limits emissions from the facility. The existing air quality  
20 permit was obtained in April 2005 and is under review for a time extension.

#### 21 4.2.2.4 *Biological Resources*

22 Impacts to biological resources from the Proposed Action/Preferred Alternative are related  
23 to the potential disturbance of candidate lands for development and other lands that may be  
24 made available for acquisition intended for enhanced farming operations. These activities  
25 may affect the vegetation cover types of disturbed lands, as discussed in Chapter 3.  
26 Additionally, FWS has concurred with Reclamation's determination that the Proposed  
27 Action "may affect, but not likely to adversely affect" the Yuma clapper rail and the  
28 southwestern willow flycatcher.

29 Outside of the Gila River Flood Channel, relinquishing federal involvement in lands under  
30 the Proposed Action/Preferred Alternative would remove the federal compliance  
31 requirements with Section 7(a)(2) of the ESA. Potential habitat for the southwestern willow  
32 flycatcher and Yuma clapper rail is most likely to occur within the riparian vegetation of the  
33 flood channel; however, federal protection under the ESA in these areas would still apply  
34 under the CWA, Section 404.

35 Historically, biological resources were impacted by construction of the railroad, I-8 and  
36 other roads, the Wellton-Mohawk Project including both irrigation and drainage activities,

1 the Ligurta Substation and its associated electrical transmission and distribution lines,  
2 conversion of desert to agricultural uses, and conversion of agricultural and desert lands to  
3 residential, commercial or industrial uses. Native vegetation and wildlife have been  
4 displaced because of habitat modification from these activities. However, new habitat was  
5 created through the construction of the Gila River Flood Channel and its associated  
6 mitigation areas. Future land use impacts to high-value habitat within and along the Gila  
7 River Flood Channel is not likely because these areas are within the Gila River floodplain  
8 and generally are under USACE jurisdiction.

9 Continuing land development within the ROI may result in additional loss or modification of  
10 biological resources. Rapid population growth in the ROI encourages land conversion for  
11 housing and related infrastructure. These conversions modify habitat for native plants,  
12 wildlife, and special-status species, displacing some wildlife and plants. However, much of  
13 the land targeted for development in the ROI was previously disturbed or is sparsely  
14 vegetated.

15 The proposed gasoline refinery would disturb biological resources. The proposed refinery  
16 site was previously disturbed and is now sparsely vegetated with low-value vegetation, so  
17 potential impacts would involve relatively small local areas compared to the 260,000 acres  
18 or more of ecologically similar terrain. A NEPA compliance document would be completed  
19 for the refinery and the project would comply with state and federal laws, which would  
20 provide adequate protection for special-status species.

21 Western's planned regional transmission system upgrades, including construction and  
22 maintenance, would likely be accomplished in accordance with mitigating measures  
23 established by Western, BLM, and others (such as intensive inventories, avoidance of  
24 habitats by routing adjustments, salvage and transplanting of plants, and installing warning  
25 devices for preventing bird collisions with electrical wires). As a federal agency, Western is  
26 responsible for compliance with NEPA for its activities. Further, applicable state and federal  
27 laws would protect special-status species. Thus, no significant impacts are anticipated from  
28 Western's regional transmission system upgrade.

29 The construction of the reservoir may impact biological resources. The land designated for  
30 the reservoir is disturbed, is sparsely vegetated, and has a relatively low wildlife habitat  
31 value. This low-value habitat would be converted to an aquatic habitat once the reservoir  
32 were full, which in turn would create new habitat for plants and wildlife.

33 In summary, impacts to biological resources are generally mitigated through compliance  
34 with state and federal regulations, with the possible exception of on-going development  
35 causing land use conversions. Per the Biological Assessment, less than 2 percent of habitat  
36 involved in the Proposed Action/Preferred Alternative is riparian, and this high-value habitat  
37 would fall under the jurisdiction of the USACE, maintaining federal protection and

1 protecting known special status species. Furthermore, other habitat types exist within the  
2 ROI and foreseeable future actions would be subject to independent NEPA analyses and  
3 compliance requirements with Section 7(a)(2) of the ESA.

#### 4 4.2.2.5 Cultural Resources

5 The analysis of the Proposed Action/Preferred Alternative found no significant impacts to  
6 cultural resources. Minor impacts would be adequately mitigated, based on required NHPA  
7 compliance and the implementation of mitigating measures involving avoidance, and/or data  
8 recovery, along with collection and/or protection of significant sites. A substantial number  
9 of cultural resource sites and potential TCP sites were removed from the title transfer and  
10 will retain their federal protection. Reclamation, in consultation with SHPO, tribes, Council  
11 and the District, is in the process of developing a HPTP to resolve the adverse effect of the  
12 title transfer.

13 Impacts to cultural resources occur in two basic forms. First, there are possible direct  
14 impacts of physical disturbance, destruction, and loss of artifacts. The scientific value of the  
15 artifacts is lost by simply disturbing the artifact or separating it from its original context.  
16 This degradation increases as the artifacts or features are physically degraded by breakage,  
17 vandalism, or removal. The second cultural resources impact is indirect. This kind of impact  
18 is manifested mainly as a visual intrusion by modern objects on a cultural resource site/TCP,  
19 which may draw visitors to areas of high value to Native Americans. Both kinds of impacts  
20 are associated with increased accessibility to remote areas.

21 Given the number of cultural sites involved in the Proposed Action/Preferred Alternative,  
22 the other foreseeable activities, and the interest of the Native American community, there  
23 would be cumulative aesthetic impacts to cultural resources. The tribes believe significant  
24 impacts due to development and other human activity have already occurred and will  
25 increase in severity. Physical impacts to artifacts, features, and sites are expected to continue  
26 long after the projects are built, since total protection of cultural resources is extremely  
27 difficult.

28 Cultural resources also include historical sites. Segments of the Juan Bautista de Anza  
29 National Historic Trail, Butterfield Overland Mail Route, and Gila Trail are located along  
30 the same general routes included within the Proposed Action/Preferred Alternative. The  
31 trails generally run east through the pass between the Gila Mountains and the Laguna  
32 Mountains and follow the Gila River to the south and east. The general locations of these  
33 trail segments are known from documentary evidence. The exact locations of these trails are  
34 unknown, since only discontinuous trail segments have been found in the Proposed  
35 Action/Preferred Alternative area (SRI 2005). There is no way to determine exactly where  
36 the Proposed Action/Preferred Alternative or other foreseeable actions actually cross or  
37 overlie these trails.

1 The interpretive value of the trails is in their relationship to the natural features in the  
2 landscape. The area of the Proposed Action/Preferred Alternative already contains many  
3 visible constructed intrusions of these natural features, particularly in the river valley, in the  
4 form of irrigation and drainage systems, power transmission systems, agricultural fields,  
5 railroad, and roadways. The impact of these modern features to the already affected region  
6 would be cumulative, but the trail corridors and the natural features would retain their  
7 interpretive value; thus, the impact would not be significant. In time, these human intrusions  
8 may become historic in their own right.

9 In the ROI, previous infrastructure-oriented development has included multiple  
10 transportation systems (interstates, highways, paved roads, and railroads), irrigation and  
11 drainage systems (Wellton-Mohawk Canal, GGMC and their associated infrastructure of  
12 pumps, levees, siphons, access roads, and gates), and power transmission systems  
13 (transmission lines and structures, substations, and access roads). Evidence of physical  
14 impacts to cultural resources from these developments can be found throughout the ROI.  
15 The developments have also visually impacted the landscape.

16 The rapid population growth already present in the area is expected to continue, along with  
17 the associated impacts of changing land uses. The changing of open land to developed land  
18 for agricultural, residential, commercial, and industrial purposes would impact cultural  
19 resources both physically and ethnographically, because much of the change would occur on  
20 private lands where cultural resources are not afforded federal protection under NHPA.

21 The proposed gasoline refinery is likely to be located in a previously disturbed setting so  
22 impacts would be relatively slight; however, depending on the location and site layout, there  
23 is a possibility of cultural resources being present. The proposed gasoline refinery site would  
24 be subject to a NEPA analysis and compliance with NHPA Section 106 would be required.

25 Portions of the potential transmission line upgrades may follow many of the same  
26 alignments as the historic trails previously discussed. However, since the transmission  
27 upgrades would probably use existing utility corridors, the cumulative impacts would not be  
28 significant. These projects would be subject to NEPA analysis and compliance with NHPA  
29 Section 106 would be required.

30 The area for the new reservoir previously was used for agriculture, making it much less  
31 likely that significant cultural resources remain.

32 The cumulative impacts of the Proposed Action/Preferred Alternative and the reasonably  
33 foreseeable actions would likely result in some physical impacts to archaeological or  
34 historical sites, even with appropriate mitigation of impacts. Because of regulations  
35 requiring assessment of cultural resources and implementation of the consultation process to  
36 consider mitigation, cumulative physical impacts from the Proposed Action/Preferred

1 Alternative and foreseeable actions would not be significant. However, increasing  
2 development would result in physical impacts to archaeological or historical sites because of  
3 increased access to these sites. This impact is likely to occur whether or not the Proposed  
4 Action/Preferred Alternative is implemented.

5 New development would impact the cultural landscape, and places important to tribes would  
6 be subjected to visual and functional impacts. The Proposed Action/Preferred Alternative,  
7 when added to the other past, present, and reasonably foreseeable activities, would result in  
8 a significant cumulative impact to cultural resources. A determination of the significance of  
9 these impacts will be made during the development of the MOA. A specific treatment plan  
10 will be developed in consultation with Reclamation, SHPO, Council, District, and tribes  
11 under the terms of the MOA. This process currently is in progress as part of the Proposed  
12 Action, and certain lands having significant cultural resources, primarily petroglyphs and  
13 intaglios, were previously removed from the title transfer proposal and will retain their  
14 federal protections, thereby lessening the cumulative impacts of the Proposed Action.

#### 15 *4.2.2.6 Transportation*

16 Providing for the safe and efficient movement of people and goods on the road system  
17 within the ROI raises numerous challenges. Because of continued development and limited  
18 funds, the need for improved traffic flow and maintenance of existing transportation systems  
19 is increasing. Effective provision for these transportation needs requires intensive  
20 investment and intergovernmental and regional cooperation. While, the Proposed  
21 Action/Preferred Alternative would not impact transportation in the area infrastructure  
22 improvements related to ROI development will definitely affect regional transportation and  
23 circulation.

24 The proposed refinery is anticipated to require approximately 3,000 construction jobs over 3  
25 years, and over 300 permanent employees for continuing operation (ACF 2004). Short-term  
26 traffic delays at highway crossings and locations where local roads intersect with  
27 construction access roads may occur from large vehicles delivering equipment and  
28 materials. A temporary increase in employee traffic would be experienced during  
29 construction of the facility. These conditions would be similar to those currently being  
30 experienced from other development in the region, and would therefore be expected to have  
31 minimal impact on transportation.

32 Long-term employment at the proposed gasoline refinery would result in minor increases in  
33 local traffic. The short-term and long-term impacts of the foreseeable actions would occur at  
34 different times and at different locations; therefore, they would not have a significant  
35 cumulative impact on transportation in the area.

1 Similarly, the construction of new developments, Western's transmission system upgrades,  
2 and the reservoir would generate small amounts of employee-generated traffic, and would be  
3 expected to have minimal impact on transportation in the area. Short-term traffic delays at  
4 highway crossings and locations where local roads intersect with construction access roads  
5 may occur from large vehicles delivering equipment and materials.

#### 6 4.2.2.7 *Visual Resources*

7 The impacts of the Proposed Action/Preferred Alternative would not have a significant  
8 cumulative impact on visual resources. Visual resources in the area previously have been  
9 impacted by intrusions such as the railroad, Ligurta Substation, electric transmission lines,  
10 and the Mohawk-Wellton Canal and associated pumping stations. Increasing development in  
11 the region probably will alter the viewshed immediately within the ROI. Significant  
12 alteration of the viewshed beyond the boundaries of the irrigation district is not anticipated  
13 because the viewshed is maintained as military land and therefore is not likely to be subject  
14 to residential or similar development.

15 The visual impact of Western's transmission system upgrade would be negligible, since the  
16 upgrade would replace existing transmission lines. The new reservoir would only impact the  
17 visual foreground of the few people near the project. The reservoir would not involve any  
18 elevated facilities that would block or impair remote views.

19 The proposed gasoline refinery could require elevated structures, including stacks and flares.  
20 The proposed location near I-8 would involve a large number of potential viewers.  
21 Depending on perspective, the impacts are likely to be substantial, and cumulative impacts  
22 to visual resources are expected because the reasonably foreseeable activities would modify  
23 the overall visual character of the area. The proposed refinery will be subject to an  
24 independent NEPA analysis where appropriate mitigation may be applied.

#### 25 4.2.2.8 *Noise*

26 The impacts of the Proposed Action/Preferred Alternative would not have a significant  
27 impact on noise levels. High levels of noise exist within the ROI from the traffic along I-8,  
28 military flights, and Union Pacific Railroad operations, which averages slightly more than  
29 1.5 trains per hour. The proposed gasoline refinery has potential to generate noise. Since  
30 noise is a localized effect and the proposed gasoline refinery would be surrounded by  
31 industrial park land uses, cumulative noise impacts would be maintained at a tolerable level  
32 for the circumstances.

33 Short-term noise impacts may be generated during construction activities for new  
34 developments, the proposed refinery, the transmission system upgrades, and the reservoir.

1 These impacts would be minimized through standard construction practices, such as  
2 operating during standard daylight hours.

#### 3 4.2.2.9 *Socioeconomics*

4 The analysis of the Proposed Action found that there were no significant impacts to  
5 socioeconomics. No changes in employment opportunity are anticipated, considering no  
6 change in agriculture or overall development potential is proposed. Impacts to population,  
7 housing, public services, community services, and the economic base are well within  
8 expected fluctuations in the regional economy and would not be affected by the Proposed  
9 Action/Preferred Alternative.

10 The proposed refinery would employ over 3,000 people during construction, employ over  
11 300 people during operations, and pay tens of millions of dollars annually in taxes (ACF  
12 2004). Construction and operation of the proposed refinery would create additional demand  
13 for housing, public services, and community services. The taxes paid by the refinery would  
14 offset the need for additional services and generate a general beneficial socioeconomic  
15 impact, offsetting increased costs associated with infrastructure maintenance. Local earnings  
16 paid to refinery workers also would generate a similar beneficial socioeconomic impact.

17 Aside from the proposed refinery, the foreseeable future activities combined with the  
18 Proposed Action would not result in a significant impact to socioeconomic resources, based  
19 on the current rapid population growth. The proposed refinery would have a net beneficial  
20 socioeconomic impact on the area. Therefore, cumulative socioeconomic impacts from the  
21 Proposed Action and the foreseeable activities would be beneficial to the area.

#### 22 4.2.2.10 *Environmental Justice*

23 Minority and low-income populations do not exist in sufficient densities to warrant their  
24 designation as minority or low-income populations under CEQ criteria, thus, there are no  
25 environmental justice impacts. In addition, future projects would not have environmental  
26 justice impacts under CEQ criteria unless population characteristics changed. Cultural  
27 resource and TCP issues are addressed in detail in Section 3.7. Cumulative impacts to  
28 cultural resources and TCPs are described in Section 4.2.2.5.

### 29 **4.3 SHORT-TERM USES OF THE ENVIRONMENT AND LONG-TERM** 30 **PRODUCTIVITY**

31 NEPA requires consideration of the relationship between short-term uses of the environment  
32 and long-term productivity associated with a proposed action. The Proposed  
33 Action/Preferred Alternative is an administrative action that would not result in a direct  
34 physical change to the environment. The current uses of the irrigation, drainage, and flood  
35 control facilities of the Division would continue under the Proposed Action/Preferred

1 Alternative. Currently, lands owned by Reclamation within the District are ROWs for  
2 irrigation facilities and the Gila River Flood Channel, or they are vacant lands within the  
3 District. Under the Proposed Action/Preferred Alternative, the ROWs and Gila River Flood  
4 Channel lands would continue to be used as they are at present during both the short- and  
5 long-term.

6 The Proposed Action/Preferred Alternative would likely result in as much as 1,400 acres of  
7 vacant land in scattered tracts in agricultural areas being made available to farmers with  
8 adjacent land, as discussed in Section 3.2. This change in use would increase the efficiency  
9 of farming operations in the District and would have little impact on the general landscape  
10 inasmuch as the lands are in or adjacent to established agricultural areas. In addition, as  
11 noted above, up to 8,400 acres of transfer lands have been identified as candidate lands for  
12 residential or commercial development, and may be made available to other parties for that  
13 purpose. Such use of these lands would increase the long-term productivity of the lands, but  
14 would reduce the development of lands in private and state ownership.

#### 15 **4.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES**

16 *Irreversible commitments* are decisions affecting renewable resources such as soils, wetlands  
17 and waterfowl habitat. Such decisions are considered irreversible because their  
18 implementation would affect a resource that has deteriorated to the point that renewal can  
19 occur only over a long period of time or at great expense, or because they would cause the  
20 resource to be destroyed or removed.

21 *Irretrievable commitment* of natural resources means loss of production or use of resources  
22 as a result of a decision. It represents opportunities forgone for the period of time that a  
23 resource cannot be used. Irretrievable refers to the permanent loss of a resource including  
24 production, harvest, or use of natural resources. For example, production or loss of  
25 agricultural lands can be irretrievable, while the action itself may not be irreversible.

26 The transfer of Division works, facilities, and lands from the federal government to the  
27 District would not cause any direct physical impacts to existing biological, cultural, or  
28 physical resources. Because the title transfer, in and of itself, would not result in any  
29 operational changes or other physical impacts that would irreversibly or irretrievably  
30 commit renewable resources, such as soils, wetlands, or habitat, there would be no direct  
31 irreversible or irretrievable commitment of such resources from this federal action. Other  
32 land use decisions following the title transfer may occur. However, because these decisions  
33 are vague, speculative, and will depend on a number of future political, planning, zoning,  
34 and economic factors, they can not be solely attributed to this federal title transfer action, but  
35 instead will result from the outcomes of these future, uncertain decisions and processes.

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