
DRAFT ENVIRONMENTAL ASSESSMENT

*2010 WATERSMART: WATER AND ENERGY EFFICIENCY GRANT FOR THE
FRESNO IRRIGATION DISTRICT BRIGGS LATERAL CANAL IMPROVEMENT
PROJECT*

Appendix C
Reclamation's determination (ESA and ITA)

October 2011



IN REPLY REFER TO:

United States Department of the Interior

BUREAU OF RECLAMATION
1243 "N" Street
Fresno, CA 93727



September 20, 2011

MEMORANDUM

To: Rain L. Healer
Natural Resources Specialist

From: Jennifer L. Lewis
Endangered Species Act Branch

Subject: No-Effect Determination for the *Fresno Irrigation District's Briggs Canal Improvement Project 2010* (EA-10-058)

The Bureau of Reclamation (Reclamation) proposes to award Fresno Irrigation District (FID) a WaterSMART Grant to partially fund system improvements to the Briggs Canal system consisting of upgrading existing facilities, re-lining a concrete-lined portion of the canal, and installation of new pipelines, turnouts, control gates and measuring equipment (Figure 1).

The Briggs Canal system is located near the community of Malaga and the City of Fowler in Fresno County. Habitat in the vicinity is predominantly agricultural lands and is located near recharge ponds, vineyards, orchards, other agricultural use parcels and some rural residential sites (Thomas and O'Leary 2011; Images 1-10). Facilities and access roads are routinely maintained for weed and rodent control.

Construction equipment would include an excavator or backhoe, compaction wheel, and compaction whacker. Staging would occur along the existing canal banks or within FID property at the Jefferson and Cornell ponds. Construction is scheduled during FID's regular maintenance period (mid to late October to April 1st). For a detailed description of specific improvement proposed for the Briggs Canal, please see Section 2.2 of the EA-10-058.

Protective measures incorporated into the project for the protection of wildlife are:

- Vehicles would use slow speeds (<15 miles per hour), especially at night, when driving through or around the project site to minimize potential for striking or disturbing animals.
- All excavated, steep-walled holes or trenches more than 2-feet deep should be covered at the close of each working day by plywood or similar material to prevent inadvertent entrapment of wildlife during construction activities. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals.
- Open pipes and culverts should be inspected before being moved or altered to prevent wildlife from being injured or trapped.
- If special-status species are encountered during an inspection, they should be left alone to passively exit the area unless otherwise authorized by California Department of Fish and Game (916-445-0045) or United States Fish and Wildlife Service (916-414-6620).
- Any migratory birds and their nests should be not be disturbed as outlined in the Migratory Bird

Treaty Act of 1918 (MBTA). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in Section 50 of the Code of Federal Regulations (CFR) Part 10, including feathers or other parts, nests, eggs or products, except as allowed by implementing regulations (50 CFR 21).

- If any tree removal must take place during the bird nesting season (February-August) due to construction schedule constraints, pre-disturbance surveys for bird nesting activity shall be conducted by a qualified biologist no more than 15 days before tree removal. If active nests are located within the construction site, nests shall be buffered an appropriate distance as specified by a qualified biologist. Within that buffer no disturbance shall occur until after nesting season for the observed species is concluded. Pre-disturbance surveys for bird nesting activity shall include the trees on-site, burrows and open buildings (house/garage and shed).

Reclamation reviewed the California Natural Diversity Database (CNDDDB 2011), Sacramento United States Fish and Wildlife Service (USFWS) Database (http://www.fws.gov/sacramento/es/spp_list.htm), and other information within Reclamation's files for federally listed or protected species in the vicinity of FID's Briggs Canal system.

There is one CNDDDB-recorded occurrence for the San Joaquin kit fox (*Vulpes macrotis mutica*) in Sanger from the 1980s (approximately 7 miles northeast of the action area). However, the project area occurs in actively cultivated fields (Images 1-10) and would not provide suitable denning or foraging habitat for kit fox (Warrick et al. 2007).

A reconnaissance-level biological survey was completed May 19, 2011 (Thomas and O'Leary 2011). No special-status species were observed and no designated or proposed Critical Habitat exists within the area, so none of the primary constituent components would be impacted. No natural habitat remains on the canal right-of-way or the immediately adjoining farmland and therefore, suitable habitat for special-status species is absent.

In conclusion, with implementation of the measures listed in Table 2-1 of the EA-10-058 and the absence of suitable habitat, Reclamation has determined there would be No Effect to listed species or designated critical habitat under the Endangered Species Act (16 U.S.C. §1531 et. seq.).

References

CNDDDB (California Natural Diversity Database). 2011. California Department of Fish and Game's Natural Diversity Database, Version 3.1.1. RareFind 3. Last Updated August 2011.

Thomas, J. and T. O'Leary. 2011. Reconnaissance level biological survey report (1038-1001 ENV). Prepared for Fresno Irrigation District. Provost & Pritchard Engineering Group, Inc. May.

Warrick, G. D., H. O. Clark, Jr., P. A. Kelly, D. F. Williams, and B. L. Cypher. 2007. Use of agricultural lands by kit foxes. *Western North American Naturalist* 67: 270-277.



Image taken from Thomas and O'Leary 2011.



Image 1 Measuring Station in Malaga Extension at Armstrong



Image 2 Cunha Box



Image 3 Cunha Box



Image 4 Jefferson Pond Turnout



Image 5 Open Channel Near Jefferson Pond



Image 6 Malaga Extension Standpipe at Lateral 2



Image 7 Sunnyside Box



Image 8 Malaga Extension existing Standpipe Spill to Pond



Image 9 Briggs Canal along Fowler Avenue



Image 10 Head of Briggs S. Branch along Fowler Avenue

Healer, Rain L

From: Rivera, Patricia L
Sent: Tuesday, June 14, 2011 11:21 AM
To: Healer, Rain L
Subject: RE: EA-10-058 2010 WaterSMART grant for FID's Briggs Canal

Rain,

I reviewed the proposed action to award a \$300,000 2010 WaterSMART: Water and Energy Efficiency grant (WaterSMART Grant) to Fresno Irrigation District to partially fund system improvements to the Briggs Canal system which includes upgrading existing facilities, re-lining a concrete-lined portion of the canal, and installation of new pipelines, turnouts, control gates and measuring equipment.

The proposed action does not have a potential to affect Indian Trust Assets. The nearest ITA is a PDA approximately 22 miles north of the project location.

Patricia

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Appendix D
Air Quality Modeling Outputs

October 2011

Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name:

Project Name: Briggs Lateral Canal Improvements

Project Location: San Joaquin Valley APCD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>CO2</u>
2011 TOTALS (tons/year unmitigated)	0.00	0.00	0.00	0.00	0.00	0.00	0.16
2012 TOTALS (tons/year unmitigated)	0.00	0.00	0.00	0.00	0.00	0.00	0.32

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>PM10</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.01	0.00	0.14	0.00	0.25

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>PM10</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.00	0.00	0.00	0.00	0.06

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>PM10</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.01	0.00	0.14	0.00	0.31

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>CO2</u>
2011	0.00	0.00	0.00	0.00	0.00	0.00	0.16
Trenching 10/31/2011-11/15/2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching Off Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building 11/16/2011-04/01/2012	0.00	0.00	0.00	0.00	0.00	0.00	0.16
Building Off Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Vendor Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.10
Building Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.06
2012	0.00	0.00	0.00	0.00	0.00	0.00	0.32
Building 11/16/2011-04/01/2012	0.00	0.00	0.00	0.00	0.00	0.00	0.32
Building Off Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Vendor Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.19
Building Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.12

Phase Assumptions

Phase: Demolition 10/30/2011 - 10/30/2011 - Default Fine Site Grading Description

Building Volume Total (cubic feet): 0

Building Volume Daily (cubic feet): 0

On Road Truck Travel (VMT): 0

Off-Road Equipment:

6/21/2011 4:02:29 PM

Phase: Trenching 10/31/2011 - 11/15/2011 - Default Paving Description

Off-Road Equipment:

Phase: Building Construction 11/16/2011 - 4/1/2012 - Default Building Construction Description

Off-Road Equipment:

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>PM10</u>	<u>CO2</u>
Natural Gas	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00
Landscape	0.01	0.00	0.14	0.00	0.25
Consumer Products	0.00				
Architectural Coatings	0.00				
TOTALS (tons/year, unmitigated)	0.01	0.00	0.14	0.00	0.25

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOX</u>	<u>CO</u>	<u>PM10</u>	<u>CO2</u>
Canal improvements	0.00	0.00	0.00	0.00	0.06
TOTALS (tons/year, unmitigated)	0.00	0.00	0.00	0.00	0.06

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2012 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

<u>Summary of Land Uses</u>						
Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Canal improvements		2.00	acres	0.02	0.04	0.30
					0.04	0.30

Vehicle Fleet Mix					
Vehicle Type	Percent	Type	Non-Catalyst	Catalyst	Diesel
Light Auto	42.5		0.9	98.9	0.2
Light Truck < 3750 lbs	12.1		2.5	91.7	5.8
Light Truck 3751-5750 lbs	21.1		0.9	98.6	0.5
Med Truck 5751-8500 lbs	11.9		0.8	99.2	0.0
Lite-Heavy Truck 8501-10,000 lbs	2.4		0.0	75.0	25.0
Lite-Heavy Truck 10,001-14,000 lbs	0.9		0.0	44.4	55.6
Med-Heavy Truck 14,001-33,000 lbs	1.3		0.0	15.4	84.6
Heavy-Heavy Truck 33,001-60,000 lbs	2.7		0.0	0.0	100.0
Other Bus	0.1		0.0	0.0	100.0
Urban Bus	0.0		0.0	0.0	0.0
Motorcycle	3.9		59.0	41.0	0.0
School Bus	0.1		0.0	0.0	100.0

<u>Vehicle Fleet Mix</u>						
Vehicle Type	Percent Type		Non-Catalyst		Catalyst	Diesel
Motor Home	1.0		0.0		90.0	10.0
<u>Travel Conditions</u>						
	Residential				Commercial	
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Canal improvements				2.0	1.0	97.0

Road Construction Emissions Model, Version 6.3.2

Emission Estimates for -> Briggs Lateral Improvements										
Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	CO2 (lbs/day)
Grubbing/Land Clearing	4.1	18.3	33.7	11.5	1.5	10.0	3.4	1.4	2.1	3,139.7
Grading/Excavation	4.7	20.1	36.3	11.9	1.9	10.0	3.8	1.7	2.1	3,562.4
Drainage/Utilities/Sub-Grade	4.2	16.7	30.8	11.7	1.7	10.0	3.6	1.5	2.1	2,910.5
Paving	2.8	9.7	14.6	1.3	1.3	-	1.2	1.2	-	1,295.2
Maximum (pounds/day)	4.7	20.1	36.3	11.9	1.9	10.0	3.8	1.7	2.1	3,562.4
Total (tons/construction project)	0.3	1.1	2.1	0.7	0.1	0.6	0.2	0.1	0.1	197.0

Notes: Project Start Year -> 2011
 Project Length (months) -> 6
 Total Project Area (acres) -> 1
 Maximum Area Disturbed/Day (acres) -> 1
 Total Soil Imported/Exported (yd³/day)-> 0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

Emission Estimates for -> Briggs Lateral Improvements										
Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	Total PM10 (kgs/day)	Exhaust PM10 (kgs/day)	Fugitive Dust PM10 (kgs/day)	Total PM2.5 (kgs/day)	Exhaust PM2.5 (kgs/day)	Fugitive Dust PM2.5 (kgs/day)	CO2 (kgs/day)
Grubbing/Land Clearing	1.9	8.3	15.3	5.2	0.7	4.5	1.6	0.6	0.9	1,427.2
Grading/Excavation	2.1	9.1	16.5	5.4	0.9	4.5	1.7	0.8	0.9	1,619.3
Drainage/Utilities/Sub-Grade	1.9	7.6	14.0	5.3	0.8	4.5	1.6	0.7	0.9	1,322.9
Paving	1.3	4.4	6.6	0.6	0.6	-	0.5	0.5	-	588.7
Maximum (kilograms/day)	2.1	9.1	16.5	5.4	0.9	4.5	1.7	0.8	0.9	1,619.3
Total (megagrams/construction project)	0.3	1.0	1.9	0.6	0.1	0.5	0.2	0.1	0.1	178.7

Notes: Project Start Year -> 2011
 Project Length (months) -> 6
 Total Project Area (hectares) -> 0
 Maximum Area Disturbed/Day (hectares) -> 0
 Total Soil Imported/Exported (meters³/day)-> 0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.

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Appendix E
CEQA Environmental Checklist

October 2011

BRIGGS CANAL IMPROVEMENTS PROJECT

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and subsequent discussion on the following pages.

- | | | |
|--|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Mandatory Findings of significance |

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

William R. Stretch
Signature

WILLIAM R. STRETCH
Printed name

8-25-2011
Date

FRESNO IRRIGATION DISTRICT
For

DRAFT ENVIRONMENTAL ASSESSMENT

*2010 WATERSMART: WATER AND ENERGY EFFICIENCY GRANT FOR THE
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Appendix F
FID's Mitigation Monitoring and Reporting Plan

October 2011

Mitigation Monitoring and Reporting Program

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed Briggs Canal Improvement Project 2010 (Project) in Fresno County. The MMRP lists mitigation measures recommended in the IS/MND for the proposed Project and identifies monitoring and reporting requirements.

Table 1 presents the mitigation measures identified for the proposed Project. Each mitigation measure is numbered with a symbol indicating the topical section to which it pertains, a hyphen, and the impact number. For example, AIR-2 would be the second mitigation measure identified in the Air Quality analysis of the IS/MND.

The first column of Table 1 identifies the mitigation measure. The second column, entitled “Party Responsible for Implementing Mitigation,” names the party responsible for carrying out the required action. The third column, “Implementation Timing,” identifies the time the mitigation measure should be initiated. The fourth column, “Party Responsible for Monitoring,” names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last column will be used by the Fresno Irrigation District to ensure that individual mitigation measures have been monitored.

Table 1: MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
Biological Resources (BIO 1): Preconstruction surveys and implementation of avoidance and minimization measures for San Joaquin kit fox (USFWS 1999). See Appendix B for survey protocols.	Fresno Irrigation District	Preconstruction	Fresno Irrigation District	
Biological Resources (BIO 2): If any tree removal must take place during the bird nesting season (February-August) due to construction schedule constraints, pre-disturbance surveys for bird nesting activity shall be conducted by a qualified biologist no more than 15 days before tree removal. If active nests are located within the construction site, nests shall be buffered an appropriate distance as specified by a qualified biologist. Within that buffer no disturbance shall occur until after nesting season for the observed species is concluded. Pre-disturbance surveys for bird nesting activity shall include the trees on-site, burrows and open buildings (house/garage and shed). Preconstruction/preactivity surveys for nesting birds (USFWS 2000) must be completed if construction occurs	Fresno Irrigation District	Preconstruction	Fresno Irrigation District	

within the nesting season (February 1-August 31).			
Biological Resources (BIO 3): If construction activities must take place during the flowering season (July-September) for Sanford's arrowhead, a pre-disturbance survey for presence shall be conducted by a qualified biologist no more than 15 days before construction. If Sanford's arrowhead is found during survey, FID shall develop a salvage and relocation plan for all affected plants to a suitable protected area. The relocation shall occur prior the initiation of any Project activities that may impact Sanford's arrowhead. Monitoring shall be required during the relocation process until deemed complete by a qualified biologist.	Fresno Irrigation District	Preconstruction	Fresno Irrigation District
Cultural Resources (CUL 1): If, in the course of Project construction or operation, any archaeological or historical resources are uncovered, discovered, or otherwise detected or observed, activities within fifty (50) feet of the find shall be ceased. A qualified archaeologist shall be contacted and advise the County of the site's significance. If the findings are deemed significant by the Tulare County Resources Management Agency, appropriate mitigation	Fresno Irrigation District	During Construction	Fresno Irrigation District

measures shall be required prior to any
resumption of work in the affected area
of the Project.