

APPENDICES

[APPENDIX A – USFWS LIST OF PROPOSED, THREATENED, AND ENDANGERED SPECIES](#) A-1

[APPENDIX B – PLANT AND ANIMAL SPECIES OBSERVED](#) B-1

[APPENDIX C – RELOCATION ASSISTANCE INFORMATION](#).....C-1

[APPENDIX D – FPPA FORM AD 1006](#)..... D-1

[APPENDIX E – SHPO CONCURRENCE](#)E-1

[APPENDIX F – STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS](#) F-1

[APPENDIX G – PM-10 MONITORING DATA](#)..... G-1

[APPENDIX H – TITLE VI](#) H-1

[APPENDIX I – LETTERS FROM COOPERATING AGENCIES](#)I-1

[APPENDIX J – NEPA / SECTION 404 CONCURRRENT PROCESS](#)J-1

[APPENDIX K – LEVEL OF SERVICE DEFINITIONS](#)..... K-1

[APPENDIX L – FLOODPLAIN EVALUATION REPORT SUMMARY](#).....L-1

[APPENDIX M – LIST OF ACRONYMS](#).....M-1

APPENDIX A

**USFWS LETTER - POTENTIAL SPECIES OF
CONCERN WITHIN THE BRAWLEY BYPASS
PROJECT AREA**



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
Carlsbad Field Office
2730 Loker Avenue West
Carlsbad, California 92008

JUL 16 1998

Bruce April
District Biologist
Department of Transportation
2829 Juan Street
P.O. Box 85406
San Diego, California 92186

Re: Request for Federally Listed Endangered, Threatened, and Proposed Species that May Occur in the Vicinity of the Proposed Brawley Bypass, Imperial County, California (1-6-98-SP-102)

Dear Mr. April:

The U.S. Fish and Wildlife Service (Service) has reviewed the information in the Alternatives Analysis Report, dated May, 1997, and is providing a list of endangered and threatened species that may occur in the vicinity of the proposed Brawley Bypass in Imperial County, California. We do not have site specific information for this area; consequently, the attached list contains general information regarding listed species that may occur in the vicinity of the project.

The Service is concerned with potential impacts not only to the federally listed species, but to burrowing owls and to birds that may roost in vegetation along the New River. We would like to work with you to minimize impacts to such species. In addition, Brawley Bypass development will likely entail construction of a bridge to span the New River. Bridge structures have been found to benefit bat species in several desert areas. Therefore the Service would like to work with Caltrans to encourage inclusion of "bat-friendly" expansion joints and design details, in the hopes that this bridge might benefit the bat populations of Imperial County.

Should you have any questions, please contact Sandy Vissman of my staff at (760) 431-9440.

Sincerely,

for Sheryl L. Barrett
Assistant Field Supervisor

Listed Endangered, Threatened, Proposed,
and Candidate Species that May Occur in the Area
of the Proposed Brawley Bypass, Imperial County, California
(1-6-98-SP-102)

July 15, 1998

Common Name	Scientific Name	Status
<u>Listed Species</u>		
<u>BIRDS</u>		
brown pelican	<u>Pelecanus occidentalis</u>	E
least Bell's vireo	<u>Vireo bellii pusillus</u>	E
peregrine falcon	<u>Falco peregrinus</u>	E
southwestern willow flycatcher	<u>Empidonax traillii extimus</u>	E
Yuma clapper rail	<u>Rallus longirostris yumanensis</u>	E
mountain plover	<u>Charadrius montanus</u>	C
<u>FISH</u>		
desert pupfish	<u>Cyprinodon macularius</u>	E
E:	Endangered	
C:	Candidate	

APPENDIX B

PLANT AND ANIMAL SPECIES OBSERVED WITHIN THE BRAWLEY BYPASS PROJECT AREA

APPENDIX B
PLANT AND ANIMAL SPECIES OBSERVED WITHIN
THE BRAWLEY BYPASS PROJECT AREA

PLANTS

Scientific Name	Common Name
<i>Allenrolfea occidentalis</i>	iodine bush
<i>Arundo donax</i> *	giant reed
<i>Atriplex canescens</i>	fourwing saltbush
<i>Atriplex lentiformis</i>	big saltbush
<i>Avena</i> sp.*	wild oats
<i>Brassica nigra</i> *	black mustard
<i>Brassica tournefortii</i> *	mustard
<i>Casuarina</i> sp.*	horsetail tree
<i>Chenopodium album</i> *	goosefoot
<i>Convolvulus arvensis</i> *	bindweed
<i>Conyza canadensis</i> *	horseweed
<i>Cynodon dactylon</i> *	bermuda grass
<i>Distichlis spicata</i>	saltgrass
<i>Echinochloa colona</i> *	barnyard grass
<i>Eucalyptus</i> sp.*	eucalyptus
<i>Helianthus</i> sp.*	sunflower
<i>Heliotropium curassavicum</i>	wild heliotrope
<i>Heterotheca grandiflora</i>	telegraph weed
<i>Hordeum</i> sp.*	barley
<i>Lactuca serriola</i> *	wild lettuce
<i>Leptochloa uninervia</i> *	mexican sprangletop
<i>Lotus</i> sp.	
<i>Lycopersicon esculentum</i> *	tomato
<i>Malva parviflora</i> *	little mallow
<i>Medicago sativa</i> *	alfalfa
<i>Melilotus albus</i> *	white sweet clover
<i>Parkinsonia aculeata</i> *	Mexican palo verde
<i>Phalaris minor</i> *	canary grass
<i>Phoenix dactylifera</i> *	date palm
<i>Phragmites australis</i>	common reed
<i>Pluchea serricea</i>	arrowweed
<i>Polygonum arenastrum</i> *	knotweed
<i>Polypogon monspeliensis</i> *	rabbitfoot beardgrass
<i>Portulaca oleracea</i> *	common purslane
<i>Prosopis glandulosa</i> var. <i>torreyana</i>	mesquite

<i>Rumex crispus</i> *	curley dock
<i>Salsola tragus</i> *	tumbleweed
<i>Solanum elaeagnifolium</i> *	white horse-nettle
<i>Malvella leprosa</i>	white mallow
<i>Suaeda moquinii</i> *	bush seepweed
<i>Tamarix chinensis</i> *	salt cedar
<i>Typha</i> sp.	cattail

* = exotic species

ANIMALS

Scientific Name	Common Name
Amphibians/Reptiles	
<i>Rana catesbeiana</i>	bullfrog
<i>Cnemidophorus tigris</i>	western whiptail
<i>Uta stabsburiana</i>	side-blotched lizard
<i>Lampropeltis getulus</i>	common kingsnake
	turtle sp.
Birds	
<i>Ardea herodias</i>	great blue heron
<i>Casmerodius albus</i>	great egret
<i>Bubulcus ibis</i>	cattle egret
<i>Butorides striatus</i>	green heron
<i>Nycticorax nycticorax</i>	black-crowned night heron
<i>Plegadis chihi</i>	white-faced ibis
<i>Anas platyrhynchos</i>	mallard
<i>Anas cyanoptera</i>	cinnamon teal
<i>Anas clypeata</i>	northern shoveler
<i>Cathartes aura</i>	turkey vulture
<i>Circus cyaneus</i>	northern harrier
<i>Accipiter cooperii</i>	Cooper's hawk
<i>Buteo jamaicensis</i>	red-tailed hawk
<i>Falco sparverius</i>	American kestrel
<i>Phasianus colchicus</i>	ring-necked pheasant
<i>Callipepla gambelii</i>	Gambel's quail
<i>Rallus longirostris yumanensis</i>	Yuma clapper rail
<i>Fulica americana</i>	American coot
<i>Charadrius vociferus</i>	killdeer
<i>Charadrius montanus</i>	mountain plover
<i>Numenius americanus</i>	long-billed curlew

<i>Larus delawarensis</i>	ring-billed gull
<i>Larus philadelphia</i>	Bonaparte's gull
<i>Columba livia</i>	rock dove
<i>Zenaida aslatica</i>	white-winged dove
<i>Zenaida macroura</i>	mourning dove
<i>Columbina passerina</i>	common ground dove
<i>Geococcyx californianus</i>	greater roadrunner
<i>Tyto alba</i>	barn owl
<i>Athene cunicularia</i>	western burrowing owl
<i>Chordeiles acutipennis</i>	lesser nighthawk
<i>Calypte anna</i>	Anna's hummingbird
<i>Ceryle alcyon</i>	belted kingfisher
<i>Contopus borealis</i>	olive-sided flycatcher
<i>Contopus sordidulus</i>	western wood-pewee
<i>Empidonax trailli extimus</i>	southwestern willow flycatcher
<i>Sayornis nigricans</i>	black phoebe
<i>Sayornis saya</i>	Say's phoebe
<i>Myiarchus cinerascens</i>	ash-throated flycatcher
<i>Tyrannus verticalis</i>	western kingbird
<i>Eremophila alpestris</i>	horned lark
<i>Stegidopteryx serripennis</i>	northern rough-winged swallow
<i>Hirundo pyrrhonota</i>	cliff swallow
<i>Corvus corax</i>	common raven
<i>Auriparus flaxiceps</i>	verdin
<i>Campylorhynchus brunneicapillus</i>	cactus wren
<i>Polioptila melanura</i>	black-tailed gnatcatcher
	thrush sp.
<i>Mimus polyglottos</i>	northern mockingbird
<i>Anthus rubesens</i>	American pipit
<i>Lanius ludovicianus</i>	loggerhead shrike
<i>Sturnus vulgaris</i>	European starling
<i>Vireo gilvus</i>	warbling vireo
<i>Vermivora celata</i>	orange-crowned warbler
<i>Dendroica petechia</i>	yellow warbler
<i>Dendroica coronata</i>	yellow-rumped warbler
<i>Vermivora celata</i>	orange-crowned warbler
<i>Dendroica townsendi</i>	Townsend's warbler
<i>Geothlypis trichas</i>	common yellowthroat
<i>Wilsonia pusilla</i>	Wilson's warbler
<i>Piranga ludoviciana</i>	western tanager
<i>Pheucticus melanocephalus</i>	black-headed grosbeak
<i>Pipilo aberti</i>	Abert's towhee

<i>Passerculus sandwichensis</i>	savannah sparrow
<i>Melospiza melodia</i>	song sparrow
<i>Zonotrichia leuophrys</i>	white-crowned sparrow
<i>Agelaius phoeniceus</i>	red-winged blackbird
<i>Sturnella neglecta</i>	western meadowlark
<i>Quiscalus mexicanus</i>	great-tailed grackle
<i>Molothrus ater</i>	brown-headed cowbird
<i>Carpodacus mexicanus</i>	house finch
Mammals	
<i>Citellus tereticaudus</i>	round-tailed ground squirrel
<i>Thomomys bottae</i>	botta pocket gopher (burrow mounds)
<i>Canis latrans</i>	coyote
<i>Sylvilagus audubonii</i>	Audubon's cottontail
Invertebrates	
<i>Colias eurythem</i>	alfalfa butterfly
<i>Pieris protodice</i>	common white butterfly
<i>Vanessa cardui</i>	painted lady butterfly
<i>Leptotes marina</i>	marine blue butterfly
<i>Brephidum exilis</i>	pygmy blue butterfly
<i>Pyrgus albescens</i>	western checkered skipper

APPENDIX C

RELOCATION ASSISTANCE INFORMATION

IMPORTANT RELOCATION ASSISTANCE INFORMATION

The following explanation is general in nature and is not intended to be a complete statement of Federal and State relocation laws and regulations. Any questions concerning relocation should be addressed to Caltrans Right-of-Way.

Any persons to be displaced will be assigned to a relocation advisor, who will work closely with each displacee in order to see that all payments and benefits are fully utilized, and that all regulations are observed, thereby avoiding the possibility of displacees jeopardizing or forfeiting any of their benefits or payments. At the time of the first written offer to purchase, owner-occupants are given a detailed explanation of the State's relocation services. Tenant occupants of properties to be acquired are contacted soon after the first written offer to purchase, and also are given a detailed explanation of the Caltrans Relocation Program. To avoid loss of possible benefits, no individual, family, business, farm, or nonprofit organization should commit to purchase or rent a replacement property without first contacting a Caltrans relocation advisor.

I. RELOCATION ASSISTANCE ADVISORY SERVICES

In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, Caltrans will provide relocation advisory assistance to any person, business, farm or nonprofit organization displaced as a result of the acquisition of real property for public use. Caltrans will assist displacees in obtaining comparable replacement housing by providing current and continuing information on the availability and prices of both houses for sale and rental units that are "decent, safe and sanitary". Nonresidential displacees will receive information on comparable properties for lease or purchase. (For business, farm and nonprofit organization relocation services, see Section III.)

Residential replacement dwellings will be in equal or better neighborhoods at rents or prices within the financial ability of the individuals and families displaced, and reasonably accessible to their places of employment. Before any displacement occurs, comparable replacement dwellings will be offered to displacees that are open to all persons regardless of race, color, religion, sex, national origin, and consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance will also include the supplying of information concerning Federal and State assisted housing programs, and any other known services being offered by public and private agencies in the area.

Persons who are eligible for relocation payment(s) and who are legally occupying a property required for the project will not be asked to move without first being given at least 90 days written notice, and unless at least one decent, safe and sanitary replacement residence, available on the market, is offered to them by Caltrans.

II. RESIDENTIAL RELOCATION PAYMENTS PROGRAM

The Relocation Payment Program will help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for or incidental to the purchase or rental of the replacement dwelling and actual reasonable moving expenses to a new location within 50 miles of the displacement property. Any actual moving costs in excess of the 50 miles are the responsibility of the displacee. The Residential Relocation Program can be summarized as follows:

Moving Costs

Any displaced person, who lawfully occupied the acquired property, regardless of the length of occupancy in the property acquired, will be eligible for reimbursement of moving costs. Displacees will receive either the actual reasonable costs involved in moving themselves and personal property up to a maximum of 50 miles, or a fixed payment based on a fixed moving cost schedule.

Purchase Supplement

In addition to moving and related expense payments, fully eligible homeowners may be entitled to payments for increased costs of replacement housing. Homeowners who have owned and occupied their property for 180 days or more prior to the date of the first written offer to purchase the property, may qualify to receive a price differential payment and may qualify to receive reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. An interest differential payment is also available if the interest rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate. The maximum combination of these three supplemental payments that the owner-occupant can receive is \$22,500. If the total entitlement (without the moving payments) is in excess of \$22,500, the Last Resort Housing Program will be used. See the explanation of the Last Resort Housing Program below.

Rental Supplement

Tenants who have occupied the property to be acquired by Caltrans for 90 days or more and owner-occupants of 90-179 days prior to the date of the first written offer to purchase may qualify to receive a rental differential payment. This payment is made when Caltrans determines that the cost to rent a comparable "decent, safe and sanitary" replacement dwelling will be more than the present rent of the displacement dwelling. As an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to the purchase, subject to certain limitations noted below under the Down Payment section below. The maximum amount payable to any tenant of 90 days or more and any owner-occupant of 90-179 days, in addition to moving expenses, is \$5,250. If the total entitlement for rental supplement exceeds \$5,250, the Last Resort Housing Program will be used.

In addition to the occupancy requirements, in order to receive any relocation benefits the displaced person must buy or rent and occupy a "decent, safe, and sanitary" replacement dwelling within one year from the date the department takes legal possession of the property, or from the date the displacee vacates the displacement property, whichever is later.

Down Payment

The down payment option has been designed to aid owner occupants of 90- 179 days and tenants with no less than 90 days of continuous occupancy prior to Caltrans first written offer. The down payment and incidental expenses cannot exceed the maximum payment of \$5,250. The one year eligibility period in which to purchase and occupy a "decent, safe and sanitary" replacement dwelling will apply.

Last Resort Housing

Federal regulations (49 CFR 24) contain the policy and procedure for implementing the Last Resort Housing Program on Federal-aid projects. Last resort housing benefits are, except for the amounts of payments and the methods in making them, the same as those benefits for standard residential relocation as explained above. Last resort housing has been designed primarily to cover situations where a displacee cannot be relocated because of lack of available comparable replacement housing, or when the anticipated replacement housing payments exceed the \$5,250 and \$22,500 limits of the standard relocation procedure, because either the displacee lacks the financial ability or other valid circumstances. In certain exceptional situations, Last Resort Housing may also be used for tenants of less than 90 days.

Other Relocation Information

After the first written offer to acquire the property has been made, Caltrans will within a reasonable length of time, personally contact the displacees to gather important information, including the following:

- Preferences in area of relocation;
- Number of people to be displaced and the distribution of adults and children according to age and sex;
- Location of school and employment;
- Specific arrangements needed to accommodate any family member(s) special needs;
- Financial ability to relocate into comparable replacement dwelling which will adequately house all members of the family.

III. THE NONRESIDENTIAL RELOCATION ASSISTANCE PROGRAM

The Nonresidential Relocation Assistance Program provides assistance to businesses, farms and nonprofit organizations in locating suitable replacement property, and reimbursement for certain costs involved in relocation. The Relocation Advisory Assistance Program will provide current lists of properties offered for sale or rent, suitable for a particular business's specific relocation needs. The types of payments available to eligible businesses, farms and nonprofit organizations are moving and searching expenses, and possibly reestablishment expenses or a fixed In Lieu payment instead of any moving, searching and reestablishment expenses. The payments types can be summarized as follows:

Moving Expenses

Moving expenses may include the following actual, reasonable costs:

- The moving of inventory, machinery, equipment and similar business-related property dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting of personal property.
- Loss of tangible personal property provides payment for actual, direct loss of personal property that the owner is permitted not to move.

- Expenses related to searching for a new business site, up to \$1,000 for reasonable expenses actually incurred.

Reestablishment Expenses

Reestablishment expenses related to the operation of the business at the new location, up to \$10,000 for reasonable expenses actually incurred.

Fixed In Lieu Payment

A fixed payment in lieu of moving and searching payments, and reestablishment payment may be available to businesses that meet certain eligibility requirements. This payment is an amount equal to the average annual net earnings for the last two taxable years prior to the relocation and may not be less than \$1,000 nor more than \$20,000.

IV. ADDITIONAL INFORMATION

Relocation Payments Not Income

Reimbursement for moving costs and replacement housing payments are not considered income for the purpose of the Internal Revenue Code of 1954, or resources for the purpose of determining the extent of eligibility of a displacee for assistance under the Social Security Act, local "Section 8" Housing programs, or other Federal assistance programs.

Right To Appeal

Any person, business, farm or nonprofit organization which has been refused a relocation payment by the Caltrans relocation advisor or believes that the payment(s) offered by the agency are inadequate, may appeal for a special hearing of their complaint. No legal assistance is required. Information about the appeal procedure is available from the relocation advisor.

APPENDIX D

FPPA FORM AD 1006

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request 6-17-00	
Name Of Project State Routes 78/111 Brawley Bypass		Federal Agency Involved FHWA	
Proposed Land Use New Highway Right of Way		County And State Imperial, California	
PART II (To be completed by SCS)		Date Request Received By SCS 6-26-00	

Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply - do not complete additional parts of this form).		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Acres Irrigated 496.4	Average Farm Size 703
Major Crop(s) Alfalfa Sudan Vegetables	Farmable Land In Govt. Jurisdiction Acres: 496.4 % 17	Amount Of Farmland As Defined in FPPA Acres Data NOT Available			
Name Of Land Evaluation System Used CA Storie System	Name Of Local Site Assessment System None	Date Land Evaluation Returned By SCS 8-3-00 S.C.			

PART III (To be completed by Federal Agency)	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	306	336	331	365
B. Total Acres To Be Converted Indirectly	80	98	98	94
C. Total Acres In Site	386	434	429	459

PART IV (To be completed by SCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	162	162	140	140
B. Total Acres Statewide And Local Important Farmland	224	272	289	319
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	78	87	86	92
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	Data NOT Available			

PART V (To be completed by SCS) Land Evaluation Criterion				
Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)				
	34	34	29	28

PART VI (To be completed by Federal Agency)		Maximum Points	Fredrks	Fredrks w/intchg	Del Rio	DelRio N
Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))						
1. Area In Nonurban Use		15	12	13	15	15
2. Perimeter In Nonurban Use		10	8	9	10	10
3. Percent Of Site Being Farmed		20	18	19	20	20
4. Protection Provided By State And Local Government		20	20	20	20	20
5. Distance From Urban Builtup Area		-	-	-	-	-
6. Distance To Urban Support Services		-	-	-	-	-
7. Size Of Present Farm Unit Compared To Average		10	10	10	10	10
8. Creation Of Nonfarmable Farmland		25	22	25	25	25
9. Availability Of Farm Support Services		5	5	5	5	5
10. On-Farm Investments		20	20	20	20	20
11. Effects Of Conversion On Farm Support Services		25	15	15	15	15
12. Compatibility With Existing Agricultural Use		10	8	8	10	10
TOTAL SITE ASSESSMENT POINTS		160	138	144	150	150

PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	34	34	29	28
Total Site Assessment (From Part VI above or a local site assessment)	160	138	144	150	150
TOTAL POINTS (Total of above 2 lines)	260	172	178	179	178

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input type="checkbox"/>
----------------	-------------------	-----------------------------------------------------------------------------------------------

Reason For Selection:

APPENDIX E

SHPO CONCURRENCE

APPENDIX F

STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS

Appendix F

State and National Ambient Air Quality Standards

Pollutant	Averaging Time	State of California/a,c/	National/b,c/
Ozone	1 hour	0.09 ppm (180 µg/m ³)	0.12 ppm (235 µg/m ³)
	8 hour	NA	0.08 ppm (160 µg/m ³)
Carbon Monoxide	1 hour	20 ppm (23,000 µg/m ³)	35 ppm (40,000 µg/m ³)
	8 hour	9.0 ppm (10,000 µg/m ³)	9 ppm (10,000 µg/m ³)
Nitrogen Dioxide	1 hour	0.25 ppm (470 µg/m ³)	NA
	Annual	NA	0.053 ppm (100 µg/m ³)
Sulfur Dioxide	1 hour	0.25 ppm (655 µg/m ³)	NA
	3 hour	NA	0.5 ppm (1,300 µg/m ³)
	24 hour	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)
	Annual	NA	0.03 ppm (80 µg/m ³)
Particulate Matter (PM-10)	24 hour	50 µg/m ³	150 µg/ m ³
	Annual	30 µg/m ³	50 µg/ m ³
Particulate Matter (PM-2.5)	24 hour	NA	65 µg/ m ³
	Annual	NA	15 µg/ m ³
Sulfates	24 hour	25 µg/m ³	NA
Lead	30 day	1.5 µg/m ³	NA
	Calendar Quarter	NA	1.5 µg/m ³
Hydrogen Sulfide	1 hour	0.03 ppm (42 µg/m ³)	NA
Vinyl Chloride	24 hour	0.010 ppm (26 µg/m ³)	NA

Notes:

/a/ California standards for ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, particulate matter (PM-10) are values that are not to be exceeded. All other California standards shown are values not to be equaled or exceeded.

/b/ National standards, other than for ozone and particulate matter and those based on annual averages, are not to be exceeded more than once per year. For the one-hour ozone standard, the ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one. The eight-hour ozone standard is met at a monitoring site when the three-year average of the annual fourth-highest daily maximum eight-hour average ozone concentration is less than or equal to 0.08 ppm.

/c/ ppm = parts per million by volume; µg/m³ = micrograms per cubic meter.

NA: Not Applicable.

SOURCE: California Air Resources Board, *Proposed Amendments to the Area Designations for State Ambient Air Quality Standards, and Proposed Maps of the Area Designations for the State and National Ambient Air Quality Standards*, November 1997.

APPENDIX G

PM-10 MONITORING DATA

APPENDIX G

State Route 78/111 "Brawley Bypass" Project

Imperial County APCD
PM10 Monitoring in Project Area

LOCATION OF MONITORING SITE

Monitoring Site	Distance DownWind From Major Transportaion Facility (miles)					Distance From Border	Distance to Monitoring Station From Project (uw=upwind, dw=downwind)	
	I-8	SR 98	SR 86/111	SR 86/78	SR 111		Del Rio Alt	Fredricks Alt
Calexico-Ethel Street	10.5	0.3	1.2	n/a	n/a	0.8mi	24mi - uw	22mi - uw
Calexico-Grant Street	10.5	0.3	1.2	n/a	n/a	0.8mi	24mi - uw	22 mi - uw
El Centro-9th Street	1.5	10.6	4.5	n/a	n/a	9.1mi	16 mi - uw	14 mi - uw
Brawley-Main Street	n/a	n/a	n/a	0.1	n/a	21 mi	4 mi - uw	2 mi - uw
Westmorland-W 1st Street	n/a	n/a	n/a	0.1	n/a	26 mi	2 mi - uw	3 mi - uw
Niland- English Road	n/a	n/a	n/a	n/a	0.1	38 mi	14 mi - dw	16 mi - dw

SUMMARY OF MONITORING DATA

Monitoring Site	%of Samples Exceeding Federal 24-hour Standard					%of Samples Exceeding State 24-hour Standard					Exceeds State Annual Standard					Exceeds Federal Annual Standard				
	1997	1996	1995	1994	1993	1997	1996	1995	1994	1993	1997	1996	1995	1994	1993	1997	1996	1995	1994	1993
Calexico-Ethel Street	3	8	2	0	(a)	80	67	58	0	n/a	yes	yes	yes	yes	yes	yes	yes	yes	yes	no
Calexico-Grant Street	8	6	4	6	2	70	65	59	65	54	yes	yes	yes	yes	yes	yes	yes	yes	yes	n/a
El Centro-9th Street	0	2	0	0	2	16	30	25	29	36	yes	yes	yes	yes	yes	no	no	no	no	no
Brawley-Main Street	2	2	0	0	3	24	36	31	28	43	yes	yes	yes	yes	yes	yes	no	no	yes	yes
Westmorland-W 1st Street	2	3	0	0	(a)	20	32	21	40	(a)	yes	yes	yes	yes	(a)	no	no	no	no	(a)
Niland- English Road	0	0	(a)	(a)	(a)	39	19	(a)	(a)	(a)	yes	yes	(a)	(a)	(a)	no	no	(a)	(a)	(a)

(a) No samples taken

Source of PM10 data:

California Air Resources Board

PM10 Air Quality Data Summaries (1993-1997)

APPENDIX H

TITLE VI

DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5267
FAX (916) 654-6608



July 26, 2000

**TITLE VI
POLICY STATEMENT**

The California State Department of Transportation under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, sex and national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

A handwritten signature in cursive script that reads "Jeff Morales".

JEFF MORALES
Director

APPENDIX I

LETTERS FROM

COOPERATING AGENCIES



United States
Department of
Agriculture

Natural
Resources
Conservation
Service

2151 Adams Avenue
El Centro, CA 92243
(619) 352-7886 ♦ Fax: (619) 339-9896

November 22, 1996

U.S. Department of Transportation
Federal Highway Administration
Attn: Tay Dam, Asst. Transportation Engineer
Region Nine-California Division
980 Ninth Street, Suite 400
Sacramento, CA 95814-2724

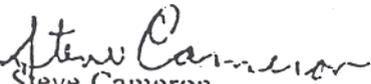
RE: REQUESTING NRCS TO BE A COOPERATING AGENCY FOR THE SR-78/111
BRAWLEY BYPASS EIS

Dear Mr. Dam:

I have received your request and this letter is to confirm that NRCS will be a cooperating agency in the project listed above. I will be the contact person for my agency.

If I can be of further assistance in the meantime, please let me know.

Sincerely,


Steve Cameron
District Conservationist

19667
Lewis



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
Carlsbad Field Office
2730 Loker Avenue West
Carlsbad, California 92008

January 17, 1997

David H. Densmore
Division Administrator
U.S. Dept. Of Transportation
Federal Highway Administration
Region Nine
California Division
980 Ninth Street, Suite 400
Sacramento, California 95814-2724

Re: State Route 78/111 Brawley Bypass Environmental Impact Statement, Imperial County,
California (1-6-96-TA-33)

Dear Mr. Densmore:

The U.S. Fish and Wildlife Service (Service) received a letter from your agency dated November 5, 1996, requesting that we be a cooperating agency for the referenced project. The Service understands that the Federal Highway Administration (FHWA) in cooperation with the California Department of Transportation is initiating an Environmental Impact Statement (EIS) for the referenced project and is asking the Service to express our views on subjects within our jurisdiction or expertise.

The project consists of constructing approximately 19.9 km of State Routes 78 and 111 in Imperial County, near the City of Brawley, from 0.8 km south of Baughman Road on State Routes 86 and 78 to 0.5 km north of Mead Road on State Route 111. The project is proposed as a four-lane expressway. Improvements to the corridor are considered necessary to provide the final link in continuous four-lane highway access between Interstate 8 in Imperial County and Interstate 10 in Riverside County. This project is part of the primary North American Free Trade Agreement (NAFTA) corridor between the mainland of Mexico and the City of Los Angeles. These improvements are also considered necessary to relieve local congestion and highway safety concerns in the City of Brawley along existing State Route 78 and 111 which are currently burdened with extensive commercial traffic.

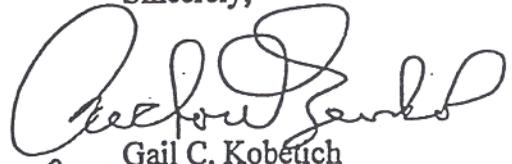
The Service accepts your invitation to coordinate on this project and looks forward to working closely with FHWA and the project applicant on several project components, including but not limited to: alignment variations if appropriate to minimize environmental effects, wetlands, floodway and floodplain, wildlife habitat, growth inducement, noise, land use planning, and

3-3.7-2.4
C: PKlos DI
C: [unclear] DI

Mr. David Densmore (1-6-96-TA-33)

hazardous waste. If you have any questions or would like to discuss the Service's roles and responsibilities during the preparation of this EIS, please contact my staff biologists, Beverlee Mare'chal for wildlife concerns, and Jeff Manning for wetland concerns at (619) 431-9440.

Sincerely,

A handwritten signature in black ink, appearing to read "Gail C. Kobetich". The signature is fluid and cursive, with a large initial "G" and "K".

Gail C. Kobetich
Field Supervisor

APPENDIX J

NEPA / SECTION 404

CONCURRENT PROCESS



DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, CORPS OF ENGINEERS
P.O BOX 532711
LOS ANGELES, CALIFORNIA 90053-2325

JUL 29 1999

REPLY TO
ATTENTION OF:

Office of the Chief
Regulatory Branch

John P. Rieger
California Department of Transportation
District 11
PO Box 85406
San Diego, California 92186-5406

Dear Mr. Rieger:

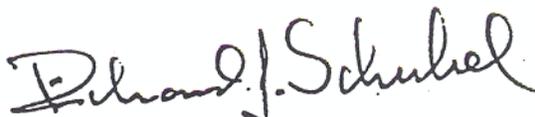
Reference is made to your letters of May 28, 1999 and June 24, 1998, regarding Corps regulatory jurisdiction over irrigation canals operated by the Imperial Irrigation District in the vicinity of Brawley, Imperial County, California. Your inquiry relates to various Caltrans highway projects, including the proposed Brawley Bypass, which may require realignment of several such canals to accommodate construction of new and/or improved roadways.

Based on a review of Corps' policy, previous permit actions in the area and information provided by your office, we have determined that the canals in question are exempted from Corps regulation under Section 404 of the Clean Water Act. Activities that would result in a discharge of fill within these existing canals, for such purposes as realignment, do not require a permit from our office. The Corps concurs with the findings of the delineation report prepared by Tierra Environmental Services and dated July 7, 1997.

Please be advised that this determination does not exempt construction of new canals or drainage ditches with existing waters of the United States or adjacent wetlands. In addition, natural channels that are not used solely for the purpose of irrigation or agricultural drainage may not be exempt from Corps jurisdiction. The Corps reserves the right to review such determinations on a case by case basis.

If you have any questions, please contact Antal Szijj of my staff at (909) 794-7704. Please refer to this letter and 972000500-AJS in your reply.

Sincerely,


Richard J. Schubel
Chief, Regulatory Branch

DEPARTMENT OF TRANSPORTATION

DISTRICT 11, P.O. BOX 85406, SAN DIEGO 92186-5406
(619) 688-6754
(619) 688-3192



August 17, 1999

11-IMP-78,111
PM L7.2-L15.7, 20.8-24.7
EA 167820
Brawley Bypass
97-20005-TCD
972000500-AJS

Antal Szijj
Army Corps of Engineers
Seven Oaks Dam Resident Office
32330 Santa Ana Canyon Rd.
Highland, CA 92346

Dear Mr. Szijj,

The California Department of Transportation (Caltrans) has been working with your agency regarding the proposed construction of a four-lane divided expressway from State Route 86, northwest of Brawley, to State Route 111, southeast of Brawley. The project is located in Imperial County and is referred to as the Brawley Bypass.

Caltrans was seeking an Individual Army Corps Permit pursuant to the NEPA EIS-404 Permit Concurrent Process and MOU. A Wetland Delineation Report prepared by Tierra Environmental Services, dated July 7, 1997, was verified by Richard Schubel of the Army Corps, letter dated July 29, 1999 (see attached). The jurisdictional impacts identified in that report (less than 1 acre) will qualify for a Nationwide Permit.

Caltrans is therefore terminating the NEPA EIS-404 Permit Concurrent Process for this project. If you have any questions, please contact Tracy DePue of my staff at (619) 688-3207.

Sincerely,

A handwritten signature in cursive script that reads "John P. Rieger".

JOHN P. RIEGER, Manager
Environmental Stewardship Branch

Attachment

bcc: SGlasgow/CRobinson
CWhite/BApril
RCarlin/VMady
JHull

Similar letters sent to:

Sheryl Barrett of Fish and Wildlife Service
David Carlson of Environmental Protection Agency
Jeff Lewis of Federal Highway Administration

APPENDIX K

LEVEL OF SERVICE

DEFINITIONS

LEVEL OF SERVICE (LOS) DEFINITIONS

Level of Service (LOS) is a qualitative measure of operating conditions within a traffic stream, and their perception by motorists and/or passengers. A LOS definition generally describes these conditions in terms of such factors as speed, travel time, freedom to maneuver, comfort and convenience, and safety. Levels of Service can generally be categorized as follows:

<u>LOS</u>	<u>Demand/ Capacity Ratio</u>	<u>Congestion or Delay</u>	<u>Traffic Description</u>
<i>(Used for two and four lane freeways and expressways)</i>			
"A"	<.34	None	Free flow.
"B"	0.35-0.52	None	Free to stable flow, light to moderate volumes.
"C"	0.53-0.69	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted.
"D"	0.70-0.92	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
"E"	0.93-1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
<i>(Used for all freeways and expressways)</i>			
"F0"	1.01-1.25	Considerable 0-1 hour delay	Forced flow, heavy congestion, long queues form behind breakdown points, stop and go.
"F1"	1.26-1.35	Severe 1-2 hour delay	Very heavy congestion, very long queues.
"F2"	1.36-1.45	Very severe 2-3 hour delay	Extremely heavy congestion, longer queues, more numerous breakdown points, longer stop periods.
"F3"	>1.46	Extremely severe 3+ hours of delay	Gridlock

<u>LOS</u>	<u>Demand/ Capacity Ratio</u>	<u>Congestion or Delay</u>	<u>Traffic Description</u>
			<i>(Used for conventional highways)</i>
"B" to	<0.45	None	Free to stable flow, light moderate volumes
"C"	0.46-0.65	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted
"D"	0.66-0.85	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
"E"	0.86-1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
"F"	>1.00	Considerable	Forced or breakdown Delay measured in average flow. travel speed (MPH). Signalized segments experience delays >60.0 seconds/vehicle.

APPENDIX L

FLOODPLAIN EVALUATION REPORT SUMMARY

Figure 804.7

Floodplain Evaluation Report Summary

Dist. 11 Co. IMP Rte. 78/111 K.P. L11.6/25.3, 33.5/39.7
 Project No. 167820 Bridge No. N/A
 Limits _____

Floodplain Description " See Attachment "

	Yes	No
1. Is the proposed action a longitudinal encroachment of the base floodplain?	_____	_____X_____
2. Are the risks associated with the implementation of the proposed action significant?	_____	_____X_____
3. Will the proposed action support probable incompatible floodplain development?	_____	_____X_____
4. Are there any significant impacts on natural and beneficial floodplain values?	_____	_____X_____
5. Routine construction procedures are required to minimize impacts on the floodplain. Are there any special mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values? If yes, explain.	_____	_____X_____
6. Does the proposed action constitute a significant floodplain encroachment as defined in 23 CFR, Section 650.105(q).	_____	_____X_____
7. Are Location Hydraulic Studies that document the above answers on file? If not explain.	_____X_____	_____

PREPARED BY:
Kan M. Jewel
 Signature - Dist. Hydraulic Engineer

4/26/00
 Date

John Chisholm
 Signature - Dist. Environmental Branch Chief

4/26/00
 Date

Valie Mady
 Signature - Dist. Project Engineer

6/10/00
 Date

I CONCUR:
Jeffrey J Lewis
 Signature - FHWA

7/11/00
 Date

Floodplain Description

The New River Floodplain has narrow channel that meanders through a large, steep banked channel in the valley floor. Within the large channel are a series of agricultural fields, undeveloped open space, drains, access roads, and the Brawley Sewage Treatment Plant.

APPENDIX M

LIST OF ACRONYMS AND ABBREVIATIONS

ACRONYMS

AADT	Average Annual Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
AATC	Advanced Automatic Train Control
ACOE	U.S. Army Corps of Engineers
ADEIS	Administrative Draft Environmental Impact Statement
ADT	Average Daily Traffic
APE	Area of Potential Effect
ASR	Archaeological Survey Report
BMPs	Best Management Practices
CAA	Federal Clean Air Act
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCAA	California Clean Air Act
CDFG	California Department of Fish and Game
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CHP	California Highway Patrol
CNPS	California Native Plant Survey
CWA	Clean Water Act
dB	Decibel
dba	A-weighted decibel
dba L_{eq}	A-weighted decibel equivalent sound level
DEIR	Draft Environmental Impact Report
DEIS	Draft Environmental Impact Statement
EA	Environmental Assessment
EB	Eastbound
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Environmentally Sensitive Areas
FAA	Federal Aviation Administration
FCWA	Federal Clean Water Act
FEIS	Final Environmental Impact Statement
FHWA	Federal Highway Administration
FSTIP	Federal Statewide Transportation Improvement Program
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
ha	Hectare or hectares
HCM	Highway Capacity Manual
HOV	High Occupancy Vehicle
HPSR	Historic Property Survey Report
HWCL	Hazardous Waste Control Law

I	Interstate
ISTEA	Intermodal Surface Transportation Efficiency Act
IVAG	Imperial Valley Association of Governments
km	Kilometer or kilometers
kph	Kilometers per hour
L ₁₀	<i>Percentile Exceeded Sound Level (L_x)</i> represents the sound level exceeded for a given percentage of a specified period. For example, L ₁₀ is the sound level exceeded 10% of the time, and L ₉₀ is the sound level exceeded 90% of the time.
L _{eq}	Equivalent Sound Level
L _{max}	Maximum Level
LPAB	Landmarks Preservation Advisory Board
m	Meter or meters
mi	Mile or Miles
MIS	Major Investment Study
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
mph	Miles per hour
MSL	Mean Sea Level
MTC	Metropolitan Transportation Commission
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NOD	Notice of Determination
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRHP	National Register of Historic Places
PDT	Project Development Team
PM _{2.5}	Particulate Matter with an Aerodynamic Diameter less than 2.5 Micrometers
PM ₁₀	Particulate Matter with an Aerodynamic Diameter less than Ten Micrometers
ppm	Parts per Million
ROD	Record of Decision
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
SDEIS	Supplemental Draft Environmental Impact Statement
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
TCE	Temporary Construction Easement
TCRP	Governor's Traffic Congestion Relief Plan
TEA-21	Transportation Equity Act for the 21 st Century
TIP	Transportation Improvement Program
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WB	Westbound
WWTP	Wastewater Treatment Plan