CALIFORNIA COASTAL COMMISSION

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STAFF REPORT AND RECOMMENDATION

ON CONSISTENCY DETERMINATION

Consistency Determination: CD-127-96
Staff: MPD-SF
File Date: 10/10/96
45th Day: 11/24/96
60th Day: 12/9/96
Commission Meeting: 11/15/96

FEDERAL AGENCY:

International Boundary and Water Commission, U.S.

Section (IBWC)

DEVELOPMENT LOCATION:

East of Dairy Mart Rd., Tijuana River Valley, City and

County of San Diego (Exhibits 1-2)

DEVELOPMENT DESCRIPTION:

Removal (by mowing) of 37.5 acres of vegetation adjacent to

the river to maintain flood control capacity (Exhibit 3)

SUBSTANTIVE FILE

DOCUMENTS:

See Page 10.

EXECUTIVE SUMMARY

On April 10, 1995, the Commission received a consistency determination from the International Boundary and Water Commission, U.S. Section (IBWC) for the removal of 37.5 acres of vegetation in the Tijuana River Valley in San Diego. Existing treaties with Mexico require each country to maintain the capacity of the river within its borders to allow passage of anticipated flood flows (up to 135,000 cubic feet/second (cfs)). The project would include removal of riparian vegetation which is environmentally sensitive and endangered species habitat. The IBWC has committed to replacing an equivalent area of vegetation

habitat, using the same species as those being removed, in consultation with the U.S. Fish and Wildlife Service. With this mitigation the project is consistent with the stream alteration policy of the Coastal Act (Section 30236), because: (1) it is an allowable use as a necessary flood control project where no other method for protecting existing structures is feasible or less damaging, and where it is needed for public safety and to protect existing structures; and (2) it complies with the requirement that such projects incorporate the best mitigation measures feasible.

The habitat mitigation discussed above would consist of revegetation of comparable habitat on productive prime agricultural lands. This conversion of 37.5 acres of agricultural land to environmentally sensitive habitat is inconsistent with the Coastal Act requirement to maintain the maximum amount of prime agricultural land in production (Section 30241). Because this conversion is proposed in order to protect federally listed endangered species habitat, this conversion raises a conflict between two Coastal Act policies. This situation triggers the conflict resolution policy of the Coastal Act (Section 30007.5). The conflict between habitat protection and agricultural protection has been resolved in a manner that is most protective of significant coastal resources (endangered species protection).

The project is inconsistent with the requirement of Section 30231 of the Coastal Act to maintain natural vegetation buffer areas that protect riparian habitats. The project is also inconsistent with the environmentally sensitive habitat policy (Section 30240), because riparian habitat constitutes environmentally sensitive habitat. Nevertheless, the project is consistent "to the maximum extent practicable" with the Coastal Act, a standard which allows for deviating from full consistency when full "... compliance is prohibited based upon the requirements of existing law applicable to the Federal agency's operations" (federal consistency regulations, Section 930.32). In this case treaty obligations between the U.S. and Mexico require the IBWC to maintain the river's flood carrying capacity, and no feasible, less damaging alternatives are available to accomplish this maintenance of flood carrying capacity.

STAFF SUMMARY AND RECOMMENDATION:

I. STAFF SUMMARY

A. <u>Project Description</u>. The IBWC proposes to maintain the flood carrying capacity of the Tijuana River within the United States through the removal of vegetation that obstructs river flow during high flow periods. To accomplish this the IBWC proposes to mow 37.5 acres of riparian vegetation, in two stages. The first stage would consist of mowing 23.4 acres of riparian vegetation immediately (in November 1996), prior to the commencement onset of this year's rainy season. The IBWC states this acreage is the minimum amount required to assure an effective operating floodway during the upcoming flood season. The IBWC proposes removal of the remaining 14.1 acres of riparian vegetation in November 1997. The areas proposed for vegetation removal are shown on Exhibit 3.

The removal will be performed using a rotary type mower mounted on an all-terrain type vehicle. No grading, dredging, or other soil disturbances in the riverbed will be needed for the removal operation.

To mitigate habitat impacts, the IBWC also proposes offsite revegetation, using the same species being removed, on agricultural lands north of the river as shown on Exhibit 3. The IBWC proposes to revegetate an equivalent area to that proposed for removal (i.e., 1:1 mitigation). The revegetation would also be performed in two stages. Stage 1 revegetation would consist of 23.4 acres in November 1997, to mitigate the 23.4 acres removed in the Stage 1 removal. The revegetation of the remaining 14.1 acres will be initiated in November 1998. Cuttings of willows and mulefat scrub plants will be collected in the Tijuana River Valley and subsequently planted and irrigated using water from existing groundwater wells. Performance criteria will be established by the IBWC in consultation with the U.S. Fish and Wildlife Service.

B. <u>Background/Purpose</u>. The Tijuana River is an ephemeral stream draining a 1700 sq. mi. area, approximately 30% of which is in the United States. Due to historic flooding problems in the river which transcend the international boundary, the United States and Mexico entered into a Water Treaty in 1944. This treaty directed the IBWC to provide a flood control study for the Tijuana River to the two Governments. The flood control study and resolutions subsequently adopted identified the need for each country to perform the operation and maintenance of that part of the project located in its own territory. These obligations include preventing the obstruction of the flow of water across the boundary in either direction in the Tijuana River channel.

In May 1976 the U.S. Army Corps of Engineers (Corps) completed a Final EIS for the construction and operation and maintenance of the Tijuana River Flood Control Project. This project was completed in 1978 by joint agreement with Mexico to protect lives and property in the United States and Mexico from flood waters of the Tijuana River. The project in the United States was designed and constructed by the Corps for the IBWC. The flood control project includes a 2.7 mile concrete flood control channel in the city of Tijuana, and, in the U.S., a Corps-constructed 0.5 mile of concrete channel, 2.0 miles of levees and an energy dissipator. The purpose of the project was to facilitate flood flow of up to 135,000 cubic feet per second, without causing adverse impacts to citizens of the United States or Mexico.

Recent flooding during the winter of 1993 (Exhibit 4) resulted in a significant amount of riparian vegetation and other ruderal vegetation becoming established in the flood control channel and the immediate vicinity. According to the IBWC the growth of this vegetation has reached a critical point, such that its removal is crucial to the functioning of the Flood Control Project, as well as protecting the integrity of the levee system in the event of a massive storm. The IBWC states:

Therefore, the vegetation along the Tijuana River channel between the dissipator structure and the existing Dairy Mart Road must be maintained to prevent obstruction to any flow. The location of the existing river channel was designed to control low flow conditions in a stable defined channel. If vegetation is allowed to grow along and in the river

channel, the channel could eventually relocate to an area of least flow resistance, probably to the north of the present location. This change in location could cause the river channel to meander more severely, moving the location of the river channel at the existing Dairy Mart Road Bridge to the south.

If the vegetation clearing program is not accomplished and the river channel relocates, the existing vegetation will expand into the area adjacent to the new channel. This process will not only progressively block normal and flood flows in the Project channel; also, the structural integrity of the toe of the north levee could be jeopardized by redirection of erodible flow velocities scouring the flood plain.

C. Practicability. The federal consistency regulations provide:

Section 930.32 Consistent to the maximum extent practicable.

(a) The term "consistent to the maximum extent practicable" describes the requirement for Federal activities including development projects directly affecting the coastal zone of States with approved management programs to be fully consistent with such programs unless compliance is prohibited based upon the requirements of existing law applicable to the Federal agency's operations. If a Federal agency asserts that compliance with the management program is prohibited, it must clearly describe to the State agency the statutory provisions, legislative history, or other legal authority which limits the Federal agency's discretion to comply with the provisions of the management program.

The relevance of this regulation, which considers international treaty obligations of the U.S. Government, is discussed on page 9-10 of this report.

- D. Status of Local Coastal Program. The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the LCP has been certified by the Commission and incorporated into the CCMP, it can provide guidance in applying Chapter 3 policies in light of local circumstances. If the LCP has not been incorporated into the CCMP, it cannot be used to guide the Commission's decision, but it can be used as background information. The City of San Diego LCP (including the Tijuana River Valley Segment) has been certified by the Commission and incorporated into the CCMP.
- E. <u>Federal Agency's Consistency Determination</u>. The International Boundary and Water Commission (U.S. Section) has determined the project to be consistent to the maximum extent practicable with the California Coastal Management Program.

II. Staff Recommendation

The staff recommends that the Commission adopt the following resolution:

Concurrence

The Commission hereby <u>concurs</u> with the consistency determination made by the International Boundary and Water Commission (U.S. Section) for the proposed project, finding that the proposed project is consistent to the maximum extent practicable with the California Coastal Management Program (CCMP).

III. Findings and Declarations. The Commission finds and declares as follows:

A. <u>Environmentally Sensitive Habitat/Stream Alteration</u>. The Coastal Act provides for the protection of environmentally sensitive habitat and coastal streams, as follows:

Section 30240

- (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.
- (b) Development in areas adjacent to environmentally sensitive habitat areas ... shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat ... areas.

Section 30231

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, ... maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

The Coastal Act also allows stream modification in some situations, including for flood control purposes, as follows:

Section 30236

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (1) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat.

As discussed in the project purpose discussion (pages 3-4), the project is needed to maintain the flood carrying capacity of the Tijuana River channel. The flooding threat was clearly established during the serious flooding events that took place on the Tijuana River during the winter of 1993 (Exhibit 4). This flooding caused human deaths, damaged homes north of the river, injured and killed livestock, washed out several roads (thus isolating residents within the floodplain), cut off services (including water and sewer), and destroyed crops in the floodplain.

The proposed mowing of riparian vegetation will lessen this threat to property, human lives, public recreation and other coastal resources. In addition, there are no less damaging ways to maintain the flood carrying capacity of the river, because structural or hydrological modifications would have more significant downstream habitat impacts. The Commission finds therefore that the project constitutes an allowable use under Section 30236, as it is a flood control facilities where no other method for protecting existing structures is feasible, and where it is needed for public safety and to protect existing development. The Commission also notes that the Tia Juana River Valley Plan, a component of San Diego's Local Coastal Program, expresses language supporting the goal of maintaining the flood control capacity of the river (Exhibit 5).

Section 30236 of the Coastal Act also requires that allowable flood control projects "incorporate the best mitigation measures feasible." Mitigation requirements are also triggered based on the requirement of Section 30240 to protect environmentally sensitive habitat areas.

The existing vegetation along the riparian corridor in the project area is characterized by various species of willow and herbaceous species such as the shrub mulefat. Sensitive wildlife in the valley relying on this vegetation includes the least Bell's vireo and southwestern willow flycatcher. The U.S. Fish and Wildlife Service has designated significant portions of the Tijuana River Valley as critical habitat for the least Bell's vireo (Exhibit 6); up to 10% of the U.S. population of the least Bell's vireo, a federally listed endangered species, resides in the Tijuana River Valley. The Commission considers impacts such as removal of this vegetation as constituting adverse impacts to environmentally sensitive habitat.

The IBWC acknowledges that the project will adversely affect 37.5 acres of riparian habitat, which has the potential to be used by the least Bell's vireo. While IBWC monitoring of this area during 1995 and 1996 "... has not indicated any nesting or active utilization of this riparian area," the IBWC has worked with the U.S. Fish and Wildlife Service to design a mitigation program for the project's habitat effects. This coordination has resulted in the IBWC incorporating mitigation measures into the project for its impacts on potential least Bell's vireo habitat. The replacement habitat will be located north of the river as shown on Exhibit 3, on existing agricultural fields. The IBWC states:

In addition, mitigation will be accomplished on a 1:1 basis in an area directly north of the project area. This area, which is under the jurisdiction of the IBWC, has been utilized for sod farming and row crops. In addition, IBWC believes that this area which will be

revegetated has greater habitat value since it is adjacent to an area which for the past two years has been occupied by one to two pairs of least Bell's vireo. Due to the location of this proposed revegetation site, protection from potential flooding impacts is afforded and is a definite benefit to the long term survival of this habitat.

The IBWC concludes:

The proposed project would negatively impact existing riparian habitat and agricultural lands. However, IBWC believes that a net gain in suitable habitat for least Bell's vireo would result upon successful vegetation of the agricultural lands. A net benefit to future park lands may also be possible subsequent to the mowing of the existing vegetation in the river channel. With the above given considerations, it is the determination of the IBWC that the subject project is fully consistent with Article 5 Land Resources of the California Coastal Act.

The Fish and Wildlife Service has informally concurred that the mitigation being proposed adequately offsets the impacts from the proposed vegetation removal adjacent to the river, assuming the IBWC follows through on its commitment to assure revegetative success by submitting success criteria to the Fish and Wildlife Service. Assuming this success criteria is forthcoming, with the mitigation incorporated into the project the Commission concludes that: (1) the project is an allowable use under Section 30236, as a necessary flood control project where no other method for protecting existing structures is feasible or less damaging, and where it is needed for public safety and to protect existing structures; and (2) the project complies with the requirement of Section 30236 that it incorporate the best mitigation measures feasible.

At the same time, the project is inconsistent with the requirement of Section 30231 of the Coastal Act to maintain natural vegetation buffer areas that protect riparian habitats along coastal streams and rivers, since the mitigation being proposed, while replacing least Bell's vireo habitat, does not do so along the river where it could be considered riparian vegetation protecting the river. The project is also inconsistent with the environmentally sensitive habitat policy (Section 30240) for the same reason, because riparian habitat constitutes environmentally sensitive habitat. Nevertheless, the project can be found consistent "to the maximum extent practicable" with the Coastal Act, for the reasons discussed in the following section.

B. Practicability. The federal consistency regulations provide:

Section 930.32 Consistent to the maximum extent practicable.

(a) The term "consistent to the maximum extent practicable" describes the requirement for Federal activities including development projects directly affecting the coastal zone of States with approved management programs to be fully consistent with such programs unless compliance is prohibited based upon the requirements of existing law

applicable to the Federal agency's operations. If a Federal agency asserts that compliance with the management program is prohibited, it must clearly describe to the State agency the statutory provisions, legislative history, or other legal authority which limits the Federal agency's discretion to comply with the provisions of the management program.

The IBWC has complied with this regulation, by including within its consistency determination the treaty obligations that require it to maintain the river's flood carrying capacity. These treaty obligations are embodied in Treaty Minutes No. 258 (1977), 236 (1970), and 225 (1967), which require, among other things:

That each government operate and maintain at its expense the part of the channelization project located in its territory ... to ensure the protection of the lands of each country against overflows of the Tijuana River.

The Commission has found above (page 6) that there is no other feasible less environmentally damaging way to maintain the river's flood control capacity. The Commission further finds that the IBWC's treaty obligations are the equivalent of "statutory provisions, legislative history, or other legal authority which limits the Federal agency's discretion to comply with the provisions of the management program." The Commission therefore finds that full consistency with the Coastal Act is prohibited based upon the requirements of existing legal authority applicable to the IBWC's operations. This finding, combined with the above findings that there are no less environmentally damaging alternatives and that mitigation is being provided for the most significant of the project's habitat impacts, lead the Commission to conclude that the project is consistent to the maximum extent practicable with the Coastal Act.

C. <u>Agriculture/Conflict Resolution</u>. Section 30241 of the Coastal Act provides:

The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the areas agricultural economy, and conflicts shall be minimized between agricultural and urban land uses through all of the following:

- (a) By establishing stable boundaries separating urban and rural areas, including, where necessary, clearly defined buffer areas to minimize conflicts between agricultural and urban land uses.
- (b) By limiting conversions of agricultural lands around the periphery of urban areas to the lands where the viability of existing agricultural use is already severely limited by conflicts with urban uses or where the conversion of the lands would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development.

- (c) By permitting the conversion of agricultural land surrounded by urban uses where the conversion of the land would be consistent with Section 30250.
- (d) By developing available lands not suited for agriculture prior to the conversion of agricultural lands.
- (e) By assuring that public service and facility expansions and nonagricultural development do not impair agricultural viability, either through increased assessment costs or degraded air and water quality.
- (f) By assuring that all divisions of prime agricultural lands, except those conversions approved pursuant to subdivision (b), and all development adjacent to prime agricultural lands shall not diminish the productivity of such prime agricultural lands.

Mitigation measures included within the project to address habitat impacts consist of providing replacement vegetation on agricultural lands to the north of the Tijuana River, which are predominantly classified as prime agricultural lands. While maintaining the flood control capacity of the river will enhance agriculture on an overall basis by reducing flooding which threatens the area's predominantly agricultural economy, the project mitigation would nevertheless result in the conversion of 37.5 acres of productive, IBWC-owned prime agricultural land to environmentally sensitive habitat. Such conversion is inconsistent with the Coastal Act requirements of Section 30241 to maintain the maximum amount of prime agricultural land in production. Nevertheless, the project can be found consistent with the Coastal Act under the "conflict resolution" section of the Coastal Act, for the reasons discussed in the following section.

D. Conflict Resolution. Section 30007.5 of the Coastal Act provides:

The Legislature further finds and recognizes that conflicts may occur between one or more policies of the division. The Legislature therefore declares that in carrying out the provisions of this division such conflicts be resolved in a manner which on balance is the most protective of significant coastal resources. In this context, the Legislature declares that broader policies which, for example, serve to concentrate development in close proximity to urban and employment centers may be more protective, overall, than specific wildlife habitat and other similar resource policies.

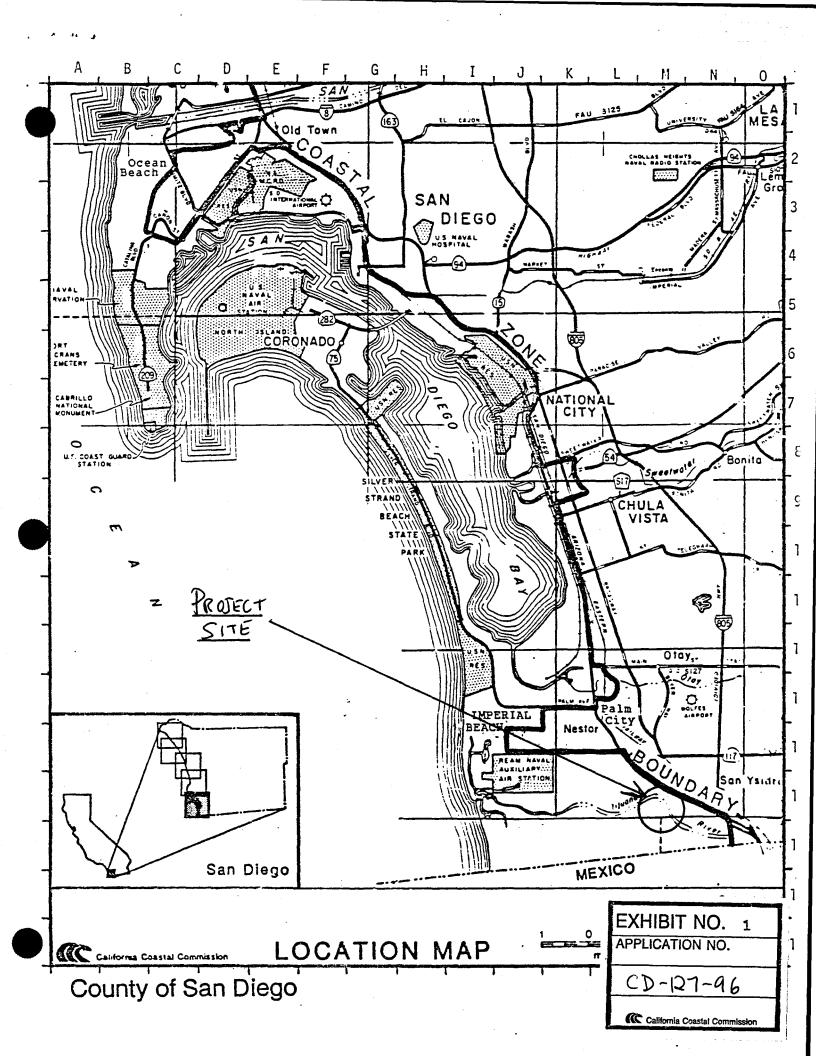
In the past, when presented with similar conflicts as discussed in the previous section, where agriculture has been proposed to be converted to environmentally sensitive habitat, the Commission has reviewed such conversions based on the above "conflict resolution" policy. The Commission has authorized such conversions where it has been able to find that it is most protective of significant coastal resources to establish or protect the habitat. An example of this is the conversion of agricultural lands that were historically seasonal wetlands in the Humboldt Bay area to a wildlife refuge, concurred with by the Commission in CD-33-92, CD-40-91 and CD-7-88 (U.S. Fish and Wildlife Service, Humboldt Bay).

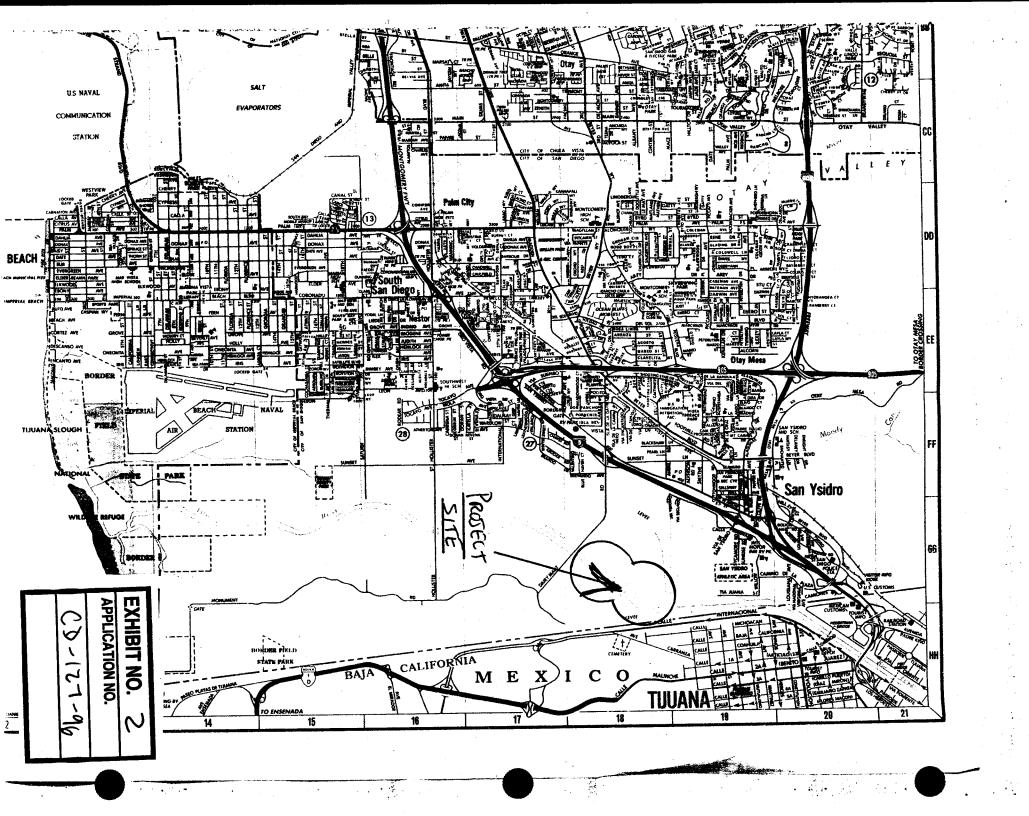
In this case, the Commission finds the conversion of 37.5 acres of agricultural land to environmentally sensitive habitat, which is being implemented in order to protect federally listed endangered species habitat, would, on balance, resolve a conflict between two Coastal Act policies in a manner which is the most protective of significant coastal resources. The Commission therefore concludes, based on Section 30007.5 of the Coastal Act, that the project is consistent with the Coastal Act.

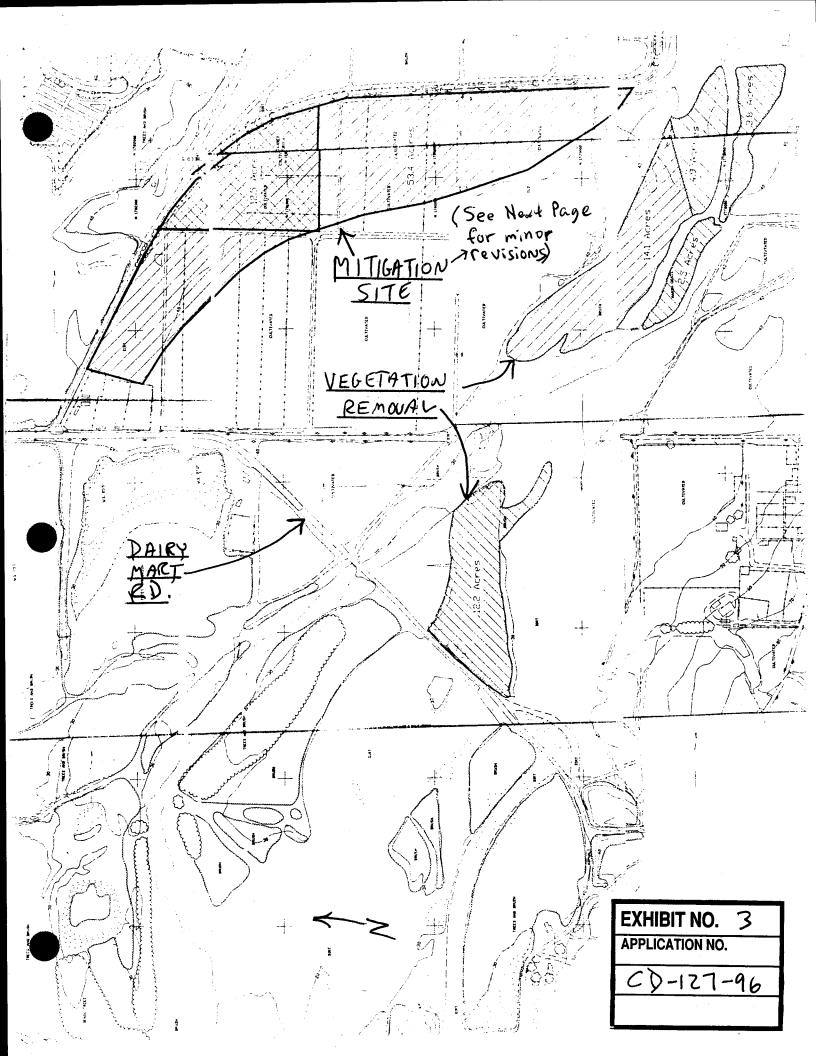
IV. Substantive File Documents:

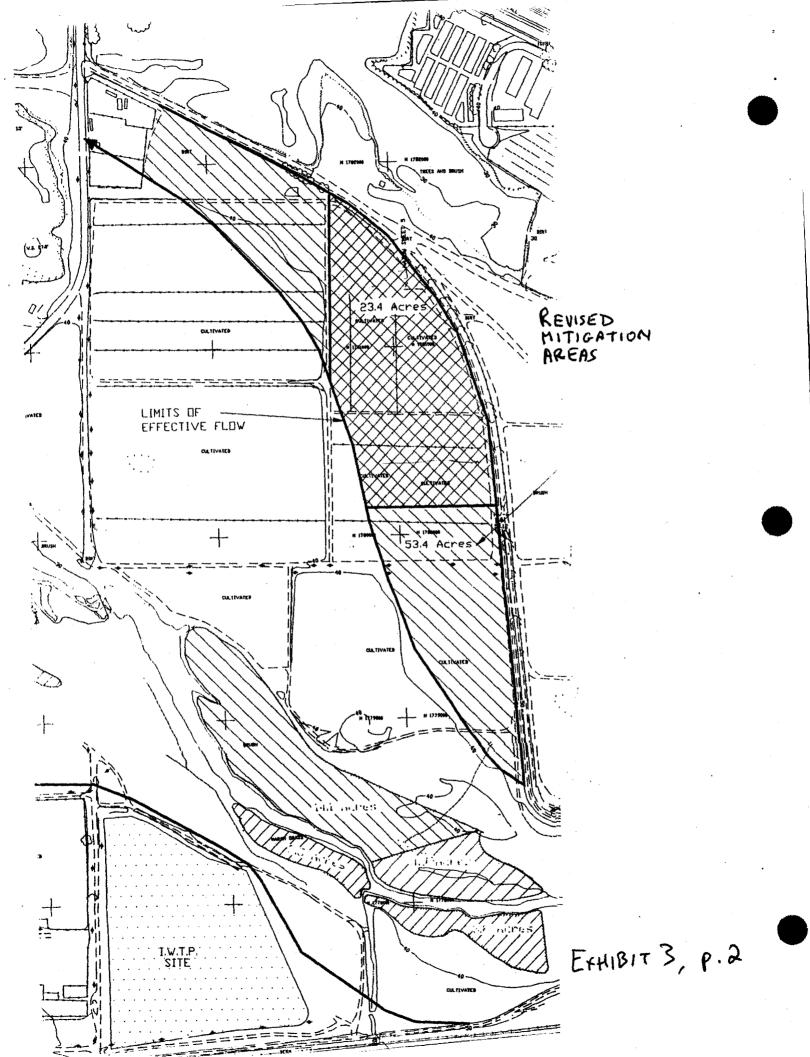
- 1. Consistency Determination CD-2-94 (IBMC), International Wastewater Treatment Plant (IMTP) and Ocean Outfall.
- IBWC Consistency and Negative Determinations for various modifications to the IWTP: CD-31-95, ND-1-95, ND-120-96, CD-121-96 and CD-122-96.
- 3. Coastal Development Permit 6-88-277 (City of San Diego), South Bay Land Outfall.
- 4. Certified Tijuana River Valley Land Use Plan and City of San Diego LCP Implementing Ordinances.
- 5. Tijuana River National Estuarine Sanctuary Management Plan.
- 6. International Wastewater Treatment Plant -- Biological Assessment, December 1993.
- 7. Hydrogeological Assessment of the Tijuana River Valley, State Water Resources Control Board, February 1992.
- 8. CD-33-92, CD-40-91 and CD-7-88 (U.S. Fish and Wildlife Service, Humboldt Bay).
- 9. U.S./Mexico Treaty Minute No. 258 (1977), Minute No. 236 (1970), and Minute No. 225 (1967).

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City of San Diego, 1993 Flood, photo shows last six miles of the Tijuana River as it empties into the Pacific Ocean and the over-the-bank flows against the developed area in midpicture.

FLOOD CONTROL

EXISTING CONDITIONS

The Tia Juana River Valley is almost entirely subject to floods of great magnitude and is the drainage way for the largest of the watershed basins in San Diego County. This basin represents 1,700 square miles, 27%, of which lie within the United States of America.

Historical records show that the largest flood occurred in 1916, and is estimated at 75,000 cubic feet per second. Other medium floods have occurred in 1884, 1889, 1895, 1906, 1921, 1927, and 1937. Since 1936, eleven floods have occurred that have exceeded the present 1,500 cubic foot per second capacity of the river channel through the Tia Juana River Valley, the largest of which was 13,800 cubic feet per second which occurred in 1944.

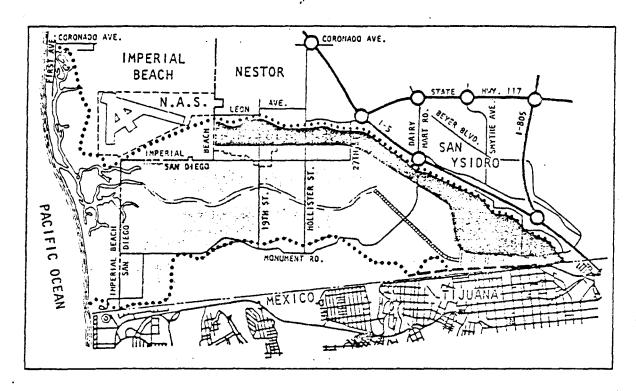
The total amount of acreage subject to inundation by 100 year floods is 4,446 acres (on the U.S. side). Approximately four-fifths of this area lies within the City of San Diego. The City of San Diego, which is primarily responsible for regulating development within floodplains, has zoned all this area for agricultural use for the public health, safety and general welfare of the people. The International Boundary and Water Commission is responsible, by international agreement, for coordinating international flood control projects. There is very little run-off in the streams of the lower valley area of the Tijuana River Basin, except during the winter rainy season. The steep gradient of land, and the solid and vegetal covers frequently produce high flood peaks that are of very short duration. The lower sections of the river channels are only capable of carrying smaller floods. During major floods practically all of the valley is inundated.

OBJECTIVES

As described within this plan, the valley conservation with peripheral urbanization alternative has been selected. This will involve construction of a low flow channel and dissipator system. This project would be complementary to floodplain management and soil reclamation programs. The following objectives would be satisfied by the project:

- 1. TO PROTECT APPROXIMATELY 30 ACRES OF EXISTING URBANIZED PROPERTY ADJACENT TO INTERSTATE 5 FROM FLOODING.
- 2. TO ENHANCE AN ADDITIONAL 420 ACRES OF LAND BY BUILDING A EARTHEN LEVEE AND THEREFORE PROTECTING THE PROPERTY FROM FUTURE FLOODING.

EXHIBIT NO. 5
APPLICATION NO.
CD-127-96



FLOOD WAY/FLOODPLAIN

NOTE: APPLICATION OF F.P.F. ZONE ON THE SOUTHSIDE OF FLOODPLAIN IS UNDER STUDY.



F.P.F. FLOODPLAIN FRINGE



F.W. FLOODWAY ZONE

FLOODPLAIN BOUNDARY STANDARD PROJECT FLOOD SOURCE: U.S. ARMY CORPS OF ENGINEERS

- TO PROVIDE FOR THE PRESERVATION OF AN ADDITIONAL 250 ACRES OF LAND 3. TO BE UTILIZED FOR URBANIZED PURPOSES BY ALLOWING EXTENSION OF THE LEVEE BY PRIVATE LAND OWNERS.
- TO ALLOW MEXICO TO COMPLETE ITS FLOOD CONTROL CHANNEL TO THE 4. BOUNDARY AND PREVENT BACKWATER FLOODING FROM THE UNITED STATES INTO MEXICO, THEREBY SATISFYING INTERNATIONAL OBLIGATIONS.
- TO REDUCE THE IMPACT OF URBANIZATION ON THE ESTUARY AND ALLOW FOR 5. THE CONTINUATION OF AGRICULTURAL USES.
- 6. TO PROVIDE. FOR THE ORDERLY REMOVAL OF SAND FROM THE DISSIPATOR SYSTEM, LOW FLOW CHANNEL AND SEDIMENTATION BASIN.

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o Federal

Participate in the purchase of property required for the flood dissipator system. The Corps of Engineers under direction of the International Boundary and Water Commission is charged with engineering the dissipator system, administering its construction, and maintaining the system. Further the Corps is responsible to construct and landscape levees, relocate existing roads and utilities as required and hold public hearings on their Environmental Impact Report.

o California State

The State participates with the Federal Government in funding the right-of-way required for the flood dissipator system.

o . The City of San Diego

Acquire property for right-of-way of the dissipator system. Participate in funding construction costs for City owned property protected from flood hazard as determined by the Corps of Engineer's cost-benefit analysis.

The City shall be responsible for application of the FW (Floodway) and FPF (Flood Plain Fringe) overlay zone to appropriate areas as defined in the plan.

SUMMARY

The dissipator system recommended by the Corps of Engineers for flood control will provide adequate flood protection for areas in the flood-plain fringe designated for urban uses. It will also prevent backwater flooding into Mexico. This system will help to replenish and improve the quality of the ground water supply in the floodplain. The plan will enhance agricultural uses, and insure the continuing existence of the Tia Juana River estuary. The dissipator system will also help retain the beneficial effects of periodic flooding of the floodplain, including flushing salts from surface soils, and improvement of land by deposition of silt and recharge of ground water. Urbanization will be accommodated behind the levee and on higher ground resulting in the use of the remainder of the floodplain, for agriculture, environmental preserve and recreation.

The impact of this flood control system will not only meet the international obligation between the United States and Mexico, but will also facilitate governmental policies.

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PROPOSALS

t is proposed that a dissipator flood control system be built. This will involve the use of land which is presently under private ownership. The land involved is located at the east end of the valley totaling 440 acres. In addition an area of approximately 2,350 acres must be zoned in accordance with flood plain management concept.

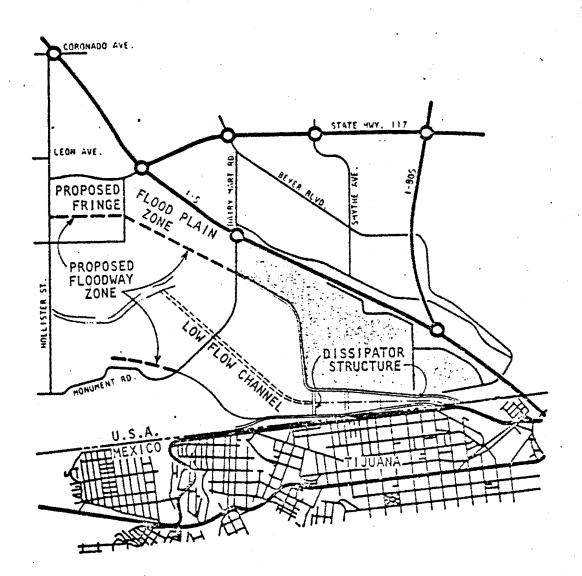
The dissipator system will require a short section of flood control channel near the Mexican border which will connect with the flood control system in Mexico; a flared dissipator structure which will discharge into the sedimentation basin, and a low flow channel from the dissipator extending to the existing natural channel. Levees will extend from the dissipator structure to prevent backflow into Mexico and to protect properties adjacent to Interstate 5.

- o It is proposed that an adequate maintenance procedure of the dissipator system be initiated thereby reducing the possibility of ponding and any attendant problems. A maintenance procedure utilizing filling of ponds, removal of weed growth and spraying must be initiated in order to mitigate the potential of health hazards.
- It is proposed that the U.S. Army Corps of Engineers in fulfilling its responsibility for the maintenance of the dissipator system formulate a program for the periodical removal of sand and gravel from the dissipator system. Under the Corps' management such a program could be beneficial in restoring the sedimentation basin to productive agriculture, in assuring the proper function of the dissipator system and in conserving a valuable natural resource, sand and gravel. Adequate site rehabilitation should be carefully observed to facilitate land use proposals in this plan.
- The levees should be sensitively designed and landscaped in order to mitigate the potentially adverse visual effect of the project.

 Millions of people per year view the Tia Juana Valley thereby necessitating that any major improvement in the area have a pleasing visual effect.
- o The City Council should urge both the State Legislature and the U.S. Congress to expedite appropriation of funds necessary for the development of the dissipator system. This action would assist in the implementation of the treaty between the United States and Mexico.

Successful implementation of this project requires coordinated effort of the Federal, State and City governments as follows:

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DISSIPATOR FLOOD CONTROL SYSTEM TIA JUANA RIVER VALLEY

SEDIMENTATION AREA

AREA PROTECTED FROM FLOOD HAZARD

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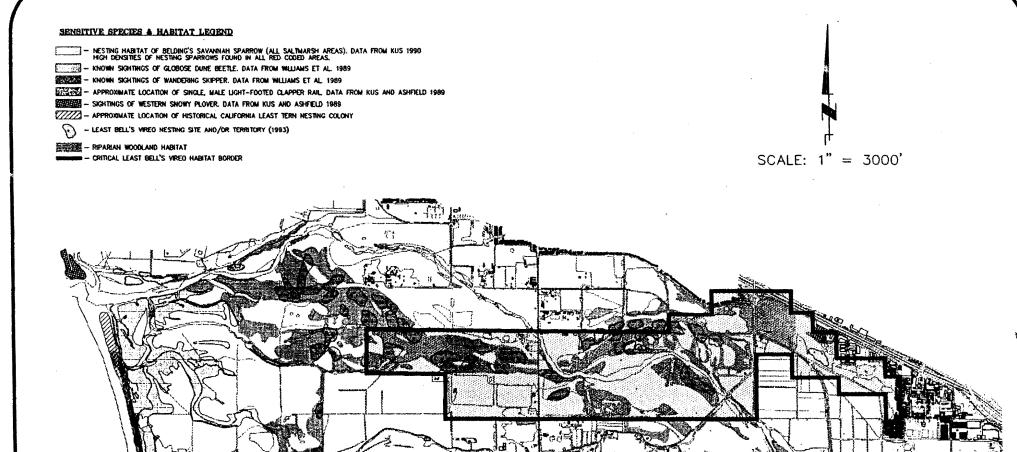


EXHIBIT NO. 6
APPLICATION NO.
CD-127-96

Figure 1. Tijuana River & Estuary Environmental Resources Map.