

**INTERNATIONAL BOUNDARY AND WATER COMMISSION**  
**UNITED STATES AND MEXICO**

**El Paso, Texas**  
**September 25, 2007**

**JOINT REPORT OF THE PRINCIPAL ENGINEERS**  
**REGARDING THE DIVISION OF MAINTENANCE WORK IN THE RIO GRANDE**  
**FROM THE POINT CLOSEST TO MONUMENT NO. 1 TO THE END OF THE**  
**RECTIFICATION REACH IN THE EL PASO-JUAREZ VALLEY**

To the Honorable Commissioners  
International Boundary and Water Commission  
United States and Mexico  
El Paso, Texas and Cd. Juarez, Chih.

Sirs:

In compliance with your instructions and in accordance with the stipulations in the Conventions between Mexico and the United States for the Rectification of the Rio Grande in 1933 and for the Solution to the Problem of the Chamizal in 1963 and the Commission Minutes Nos. 165, 168, 214, 219, and 228, we submit for your consideration the proposal to divide the works for the maintenance of the Rio Grande channel and floodways in the area of El Paso, Texas-Cd. Juarez, Chih. Furthermore, our recommendations for the work priorities is based on critical locations where the river channel currently has problems conveying normal and flood flows as a result of sediment, vegetation growth and protection levees in poor condition. The August 2006 floods resulted in significant increases in sedimentation in some areas of the river.

The river reach where the works are located extends approximately 91.01 miles (146.462 Km) along the Rio Grande (sketch of location attached) from the point closest to Monument No. 1 on the international boundary line to Fort Quitman near Little Box Canyon (Cañón de Cajoncitos), which includes the International Diversion Dam, the 4.375 miles (7 km) of concrete lined channel in the Chamizal (Lopez Mateos Channel), and the grade control structures located approximately at Kms. 52+302 (Island), 65+177 (Tornillo), 85+293 (Alamo) and 120.054 (Guayuco).

The regulations established in paragraphs D-I through D-XI of Minute No. 165 have been reviewed and no basis has been found for proposing changes to them. However, we deem it pertinent to clarify some points in the aforementioned regulations to facilitate their application.

Rule I establishes that each Section shall be responsible for and perform the work required within its territory to keep the floodway clear of vegetation between the pilot channel and the corresponding levee. Rule III establishes that each country shall maintain at its cost the levee located in its territory. Rule V establishes that each country carry out at its cost the works relating to the conservation of the structures located in the levees in its territory. The Rules II

and IV establish that each Section of the Commission shall bear half the maintenance costs of the pilot channel and the structures located in, on or across the floodway, without specifically defining each country's responsibility for said works.

From the previous Joint Reports of Principal Engineers concerning river maintenance, we observe that once the construction was complete, in order to comply with the Rules II and IV, the work was divided between the two countries in such a way that each one executes approximately the same amount as the other, with no permanent division of work, by virtue of the fact that the job site has remained stable. However, we consider it pertinent to establish the following general distribution of works that will allow each country better planning, funds allocation and execution capabilities:

**GENERAL DIVISION OF WORK:**

**Mexico:**

- a) Desilt the pilot channel in the following reaches.

REACH	LOCATION (KM MARKERS)	DISTANCE (Km)
American Dam to International Dam	0+000 to 3+200	3.200
Chamizal (López Mateos) concrete channel	9+400 to 12+900	3.500
Riverside Dam Site to Km 94+211	27+680 to 94+211	66.531
<b>TOTAL</b>		<b>73.231</b>

- b) Compliance with the Section D, Rules I, III and V of Commission Minute No. 165, relating to the maintenance of the floodway, levee and structures in the levee that are in Mexican territory.

**United States:**

- a) Desilt the pilot channel in the following reaches.

REACH	LOCATION (KM MARKERS)	DISTANCE (Km)
International Dam to Km 9+400	3+200 to 9+400	6.200
End of concrete channel to Riverside Dam Site	12+900 to 27+680	14.780
Km 94+211 to End of Rectification	94+211 to 146+462	52.251
<b>TOTAL</b>		<b>73.231</b>

- b) Compliance with the Section D, Rules I, III and V of Commission Minute No. 165, relating to the maintenance of the floodway, levee and structures in the levee that are in United States territory.

We recommend giving priority to the following critical sites identified after the occurrence of high flows (on the order of 240 m<sup>3</sup>/s) in August 2006.

**PRIORITY SITES IDENTIFIED AFTER FLOOD FLOWS IN AUGUST 2006.**

**For Mexico:**

- Reconstruction of 5 ruptures in the levee, located downstream of the Fort Hancock-Porvenir International Bridge.
- First phase of desilting the river pilot channel (22 Km), upstream of the "Alamo" grade control structure located at Km 85+293, including topographic study, construction plans and execution of works.
- Desilt the Rio Grande channel downstream of the confluence of the Mexican Las Banderas Arroyo.
- Rehabilitate the crown of the Mexican levee, including vegetation removal on the Mexican berm, from the upstream end of the lined channel to the end of the rectification reach (Km 5+900 to Km 146+462).
- Desilt 2 of the 7 Km of the lined channel (upstream end).
- Rehabilitation of the provisional protection levee located between American Dam and the upstream end of the lined channel, including topographic study and construction plans.
- Desilt the reach between American Dam and the upstream end of the lined channel, including the topographic study.
- Desilting in the area near International Dam (approximately 800 linear meters), including topographic study.

**For the United States:**

- Restore 8 miles (12.874 Km) of levee to project elevation, from the end of the Chamizal Project to Riverside Dam Site.
- Desilt 2 of the 7 Km of the concrete lined channel (upstream end).
- Realignment of the river and bank protection downstream from International Dam.
- Realignment of the river at the Diablo and Guayuco Arroyos. (The river alignment has changed due to the impact of the arroyos).

**RECOMMENDATIONS:**

1. That the division of work with regard to general maintenance of the pilot channel, floodway and the structures be adopted exactly as it is being proposed in this Report.
2. That the vegetation removal within the floodway and the sediment removal in the pilot channel be executed at a time when it is convenient for both countries; but in order to ensure that the work receives adequate maintenance, this shall be carried annually as specified in Minute 165.

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3. That major repairs required by any of the structures to ensure continual functioning of the work be executed by prior agreement of the two Sections of the Commission.
4. That each Section of the Commission develop schedules and a plan of operations for conducting the above mentioned priority maintenance work.
5. Should any event occur that substantially modifies the runoff conditions in the river channel, the distribution of work to maintain it will be reviewed and if circumstances warrant, adjustments will be made as necessary.

Respectfully,

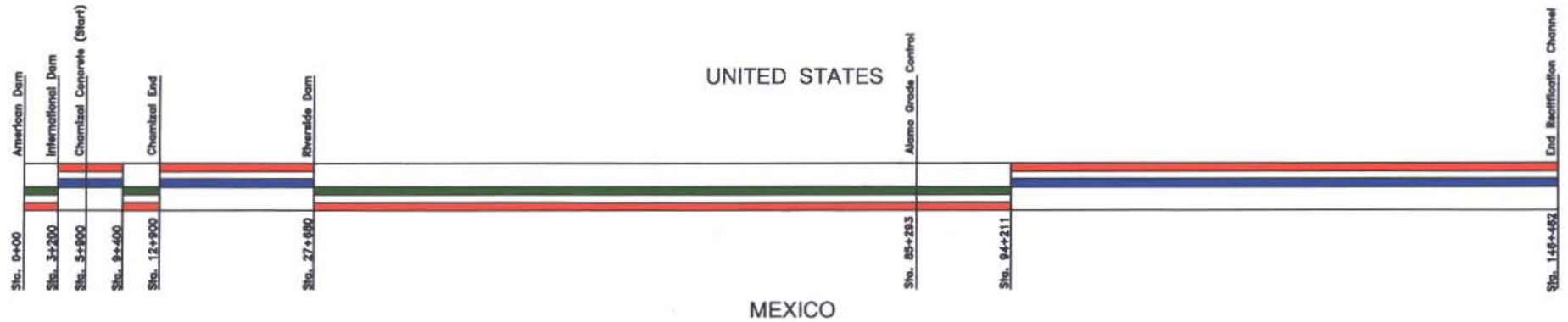


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EXHIBIT



NOTE: The Km markings are approximate; they were taken from "El Paso Rio Grande Projects, Canalization and Rectification Projects"

GENERAL DIVISION OF WORK:

Mexico:

REACH	LOCATION (Km markers)	DISTANCE (Km)
American Dam to International Dam	0+000 to 3+200	3.200
Chamizal (López Mateos) concrete channel	9+400 to 12+900	3.500
Riverside Dam Site to Km 94+211	27+880 to 94+211	66.531
Total		73.231

United States:

REACH	LOCATION (Km markers)	DISTANCE (Km)
International Dam to Km 9+400	3+200 to 9+400	6.200
End of concrete channel to Riverside Dam Site	12+900 to 27+880	14.780
Km 94+211 to End of Rectification	94+211 to 148+482	52.251
Total		73.231

INTERNATIONAL BOUNDARY AND WATER COMMISSION  
UNITED STATES AND MEXICO  
UNITED STATES SECTION

DIVISION OF MAINTENANCE WORK  
FROM MONUMENT No. 1 TO THE END OF THE  
RECTIFICATION - EL PASO-JUAREZ VALLEY