INTERNATIONAL BOUNDARY AND WATER COMMISSION, UNITED STATES AND MEXICO

Presentation for the Colorado River Citizens’ Forum

February 20, 2007

Imperial, California
1944 WATER TREATY
Colorado River

- U.S. to deliver to Mexico a volume of 1.5 maf (1,850,234,000 cubic meters)/year
- When there are surplus waters, U.S. to deliver to Mexico a total volume of up to 1.7 maf (2,096,931,000 cubic meters)/year
SUPERFICIE TOTAL: 634,840 km²

DISTRIBUCION DE LAS AGUAS DEL RIO COLORADO

**MEXICO**
- 1,850 Mm³ (1.500 Map)

**E.U.A.**
- NEVADA
  - 370.04 Mm³ (0.300 Map)
- UTAH
  - 2,114 Mm³ (1.714 Map)
- WYOMING
  - 1,286 Mm³ (1.043 Map)
- COLORADO
  - 4,755 Mm³ (3.855 Map)
- ARIZONA
  - 3,515 Mm³ (2.850 Map)
- NEW MEXICO
  - 1,033 Mm³ (0.838 Map)
- CALIFORNIA
  - 5,427 Mm³ (4.400 Map)
  - * 6,414 Mm³ (5.2 Map)

**OCEANO PACIFICO**
- DE GOLFO CALIFORNIA

*6,414 Mm³ (5.2 Map)*
1944 WATER TREATY
Colorado River

- In the event of extraordinary drought, deliveries to Mexico reduced in the same proportion as consumptive uses in the U.S. are reduced
- 2000-2006 was the driest 7-year period in historical record
- Bureau of Reclamation is developing guidelines for managing Lower Basin shortage in the U.S.
- IBWC consultations underway with Mexico
LAKE MEAD

1999

2006
1970 BOUNDARY TREATY

- IBWC to maintain the Rio Grande and Colorado River as the international boundary
- Boundary is middle of the channel occupied by normal flow or middle of the channel which in normal flows has the greatest average width over its length
- IBWC to delineate the international boundary on maps
- IBWC may stabilize or rectify the channel
1970 BOUNDARY TREATY

Colorado River below Morelos Dam
1970 BOUNDARY TREATY

- Current boundary mapping
  - Aerial imagery collected
  - Maps to be drafted in 2007
  - Delineation of boundary must be in accordance with treaty and agreed to by both Sections
CARRYING CAPACITY AND BOUNDARY PRESERVATION

- Studies for long-term channel capacity improvements
- Maintain the river channel as the international boundary
- Project could include new river alignments, dredging, levee work
- Project suspended so that flood frequency analysis could be undertaken
Flood Frequency Study

- undertaken collaboratively between USIBWC and Bureau, which contracted Brown & Caldwell
- Study to review the flood control objectives for the limitrophe reach
- To determine combined flood flows from the Gila River and Colorado River mainstem
- To determine existing conveyance capacity (levee to levee) between Imperial Dam and SIB
- To develop recommendations for flood protection and boundary delineation in the limitrophe
- Study to be completed in June 2007
SEDIMENT

- To address sediment problems from the 1993 flood, ensure delivery of water to Mexico at NIB.
- Dredging Operations – coordinated with Bureau
- Morelos Dam – sediment removal is a safety of dams issue
  - USIBWC working to acquire permits
  - Consultation undertaken with USFWS
  - Habitat restoration plan being developed
  - Construction likely to begin in FY 08
COLORADO RIVER PROJECTS

Periodic dredging is required

Sediment in Colorado River
COLORADO RIVER SALINITY CONTROL

- Minute 242 (1973) regulates the salinity of water delivered to Mexico
- Water delivered to Mexico must be similar in quality to water delivered to U.S. users at Imperial Dam
- Wellton Mohawk Canal bypasses saline flows to the Santa Clara Slough in Mexico
- Desalination plant in the U.S. can be made operational when needed
COLORADO RIVER SALINITY CONTROL

Wellton Mohawk Bypass Drain
COLORADO RIVER SALINITY CONTROL

- Additional measures were undertaken to reduce salinity or even out salinity spikes at the Southerly International Boundary
  - Construction of a diversion canal into the Wellton-Mohawk Drain
  - Installation of a variable speed pump and automatic controllers for remote operation of the system
  - Purchase of equipment for continuous monitoring of salinity
- Test operation of Yuma Desalting Plant in spring 2007
SIB SALINITY PROJECT

Variable Speed Motor
Boundary Pumping Plant

Diversion Channel

Diversion Channel Outlet to River

Bifurcation Structure
COLORADO RIVER DELTA

- Minute 306 on the Colorado River Delta
  - IBWC to establish a framework for binational cooperation in the development of studies and recommendations in recognition of the interest of both governments in the preservation of the riparian and estuarine ecology of the delta region
COLORADO RIVER DELTA

- Binational Advisory Committee established:
  - Participation of non-governmental organizations
  - Mexican federal and state agencies
  - U.S. federal agencies

- Restoration and conservation projects
  - Advisory Committee has proposed various restoration and conservation projects
  - Projects relate to improving flow regimes to benefit ecosystems, habitat improvement, native plants, and hydraulic modeling
NEW RIVER

- Mexicali II Project substantially complete
- Ongoing water quality monitoring
- USIBWC willing to collaborate with - Calexico/CNRC on trash rack
  - Located in U.S.
  - To collect solid waste
  - Engineered to consider human safety
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