

PRIORITY WATER RESOURCES/CIVIL PROJECTS IN PUERTO RICO

1. Río La Plata (Toa Baja) - CWIS 054450 - Ongoing major project, next phase is about to start. Toa Baja experienced the worst catastrophic flooding in these storms, with 12,000 homes flooded out and the municipality estimating \$300 million in total damages. Completion estimate for the project is \$500 million – Visited by the USACE District team.

2. Canóvanas/San Isidro - Flood control measures to protect the Villa Hugo community in the San Isidro sector of Canóvanas municipality. This project was terminated in August of 2017 because during the study phase it was determined that under the Section 205 CAP it was not cost viable, coming in at around \$36 million. At the time USACE suggested possibility to pursue instead under Section 7001, WRRD14, or Section 204, WRDA70. The Municipality of Canóvanas has shown interest in being the sponsor on any future efforts. Major hurdle is 154 relocations that need to happen to construct the project.

3. Ciales - (New Start) Channeling/mitigation project at Dos Ríos - Area experienced extensive and severe flood damage including two major bridge and road failures. Municipality has reports/plans/studies prepared and available: would want Secretary to be able to review those studies. Formerly sponsored by Puerto Rico Dept. of Natural Resources, assessments were conducted as early as 2003. Requires funding appropriation as there are no local resources available to match. Estimate \$20-30 million - Visited by the USACE District team

4. Guayanilla - (New Start) Río Guayanilla Flood Control - Flood from bodies of water through residential and commercial areas and public facilities in urban center described as "unprecedented", extensive damage to property and road accesses. Municipality has reports/plans/studies prepared locally: would require Secretary authority to adopt those studies. USACE approved SIR for New Start Project in 2017; authorization and funding needed; estimated \$60 million - Visited by the USACE District team

5. Aguada/Aguadilla - CWIS 091854 - Río Culebrinas Flood Risk Management - Under evaluation by USACE - Municipality of Aguadilla offered to be non-Federal sponsor -

mainly would protect Espinar community in Aguada. Catastrophic flood damage with water rescues conducted and two fatalities among responder personnel during Hurricane Maria. Environmental Assessment done under Section 205 in 2004. Estimate \$20million+

6. Aibonito - (New Start) Aibonito River Flood Damage Reduction — USACE determined Federal Interest, CAP Section 205. Mayor informed in letter dated February 22, 2017 that the municipality submitted a Study Initiation Request (SIR) to USACE-Jacksonville. During Hurricana Maria flooding cut off parts of the municipality from response services. Project estimate \$15 million - Visited by the USACE District team

7. Río Grande de Arecibo - CWIS 012335 - Unfinished flood control project, exceeded its Sec 902 limit; 1,800 homes, businesses and public facilities affected in recent hurricanes, \$100 million total damages. Estimate to continue flood control project is \$150 million. This could also potentially be combined with repairs to the levees for the Cambalache power plant.

8. Orocovis - (New Start) Río Orocovis Flood Control - A feasibility study was underway and due to be completed when the disaster struck. Would then require authorization and funding. Major flooding through residential and commercial urban areas. Project estimate \$20 million

9. Loíza - Shore erosion - CWIS455357 - Parcelas Suárez Community - Severe coastal erosion, exacerbated by the storm surge. Damage to roadways and threat to public facilities and utilities. WRDA-CAP14 funding may be available but has not been authorized for release. Design and construction contingent on funding. Current project estimate \$5 to 7 million

10. Arroyo - (A) Río Nigua Flood control - (New Start) - repeated flooding damage in urban area; estimate \$14 million; would also benefit Salinas. (B) Dredging/Repairs to Breakwater at Paseo Las Américas (New) for erosion/silting management to restore usability of harbor - project proposed by mayor in 2017, correcting effect of incomplete work performed in the 1990s. Was referred to contact Corps, at end of 2017 no response if followed up. Need to know what consideration if any has been given.

11. Yabucoa – Rio Yabucoa Flood Control – New Investigation under Section 205 – history of repeated incidents of urban flooding - \$15 Million estimated for project.

12. Vega Baja - Río Cibuco & Caño Caribe levee rehabilitation - CWIS 085931 - It is one of the "inactive" projects. Notified by Mayor of Vega Baja in letter dated 1/24/2018, referred to USACE.

13. Río Puerto Nuevo - CWIS 012462 - Major channeling project for the San Juan Region (\$1.3 billion total investment projected); progress by phases slowed by difficulties in LEERD acquisitions. Historic flooding levels experienced in hurricanes. The flooding event also revealed hazards with the need to replace existing bridges and retaining walls in canals that were not due to be attended until later phases programmed for the 2020s, so there may need to be consideration to move ahead their attention. - Visited by the USACE District team

14. San Juan Harbor Channel Improvements - CWIS 076078 and 016190 - Project estimates \$55/60 million - This could be eligible insofar as there may be effects of silting and movement of debris due to the storm, that requires re-clearing the channels to speed up the cargo movement necessary for a sustained recovery.

15. Camuy - Demolition and replacement of Harrison Bridge - Permit approved by USACE November 16, 2015 - Municipality requested USACE extension of permit due delay in project due to weather issues.

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