



Engineering Institute

in collaboration with

Department of Civil and Environmental Engineering

Faculty of Engineering

The University of the West Indies

St. Augustine, Trinidad

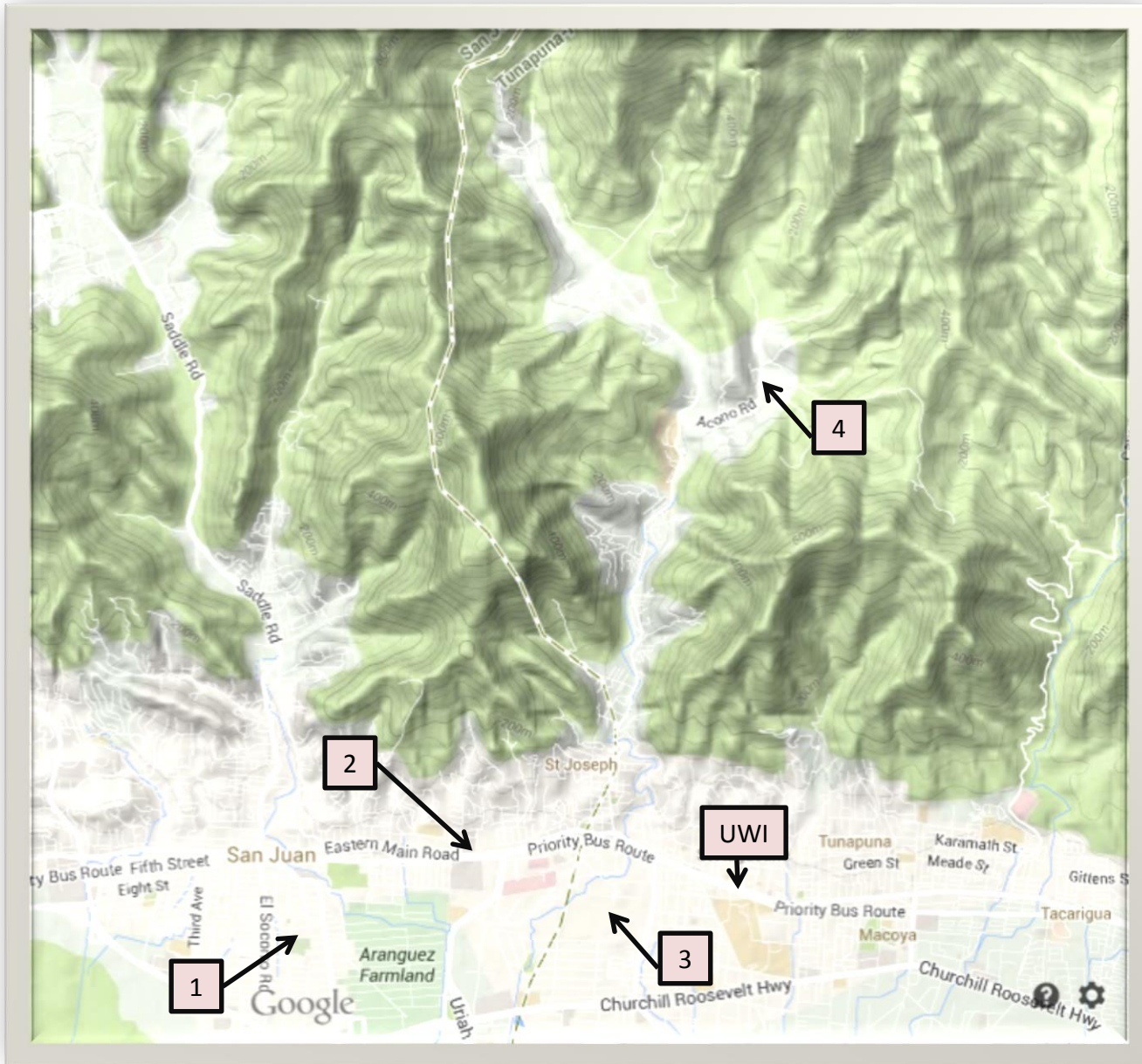
DAM HYDRAULICS

Optional Field Trip

13th January, 2015

Exploring the Northern Range Fluvial Geomorphology,
Hydraulic Structures and Sedimentation.

DAM HYDRAULICS



1] San Juan River – Weir, Irrigation System, Stilling Basin, Sedimentation Basin



2] Silt Trap, Mt. Lambert drain



3] Weir, Farm Road, St. Joseph River



4] Acono Water Treatment Plant, Acono River.

Dam Hydraulics Pre-Seminar Trip

Tuesday 13th Jan 2015

Optional Field Trip: Exploring the Northern Range Fluvial Geomorphology, Hydraulic Structures, Sedimentation, and riverien habitats.

Dress: Long sleeves shirt; sturdy pants (Jeans), Sturdy Shoes (No open shoes or heels) and boots to walk in the river, hat if you have. A change of clothes may be required if it rains. Bring Water!

#	Time	Description of Topic	Location
1	8:30- 9:00	Registration	
2	9:00 - 10:00	Visit the Aranguetz Irrigation Head Works, Located on the San Juan River. The works consists - Weir, Aqueduct, Sedimentation Pool, Stilling Basin. Over dredging of the river bed has lowered the river bed by ~ 2.0 m. Sediment at this location is fine sand and silt.	1] San Juan River
3	10:00 - 10:40	Visit the Mt. Lambert Main Drain Silt Trap. The source of the runoff for this drain is a small steep catchment. The high flows and debris have resulted in the loss of the Grill and severe erosion downstream of the weir. Sediment is mixed with sand, gravel and cobbles.	2] Silt Trap
4	10:40 - 11:30	Visit the Weir on Farm Road on the St. Joseph River. The weir supplied irrigation water to the Agricultural Station. Due to construction works on the Bridge down stream and high flood events the right side river bank was eroded by over 10 meters. Sediment is a mixed of sand, gravel and cobbles to boulders.	3] Weir on Farm Road
5	11:30 - 12:30	LUNCH BREAK	
6	12:30 - 3:30	Visit the Acono Water Treatment Plant Intake. Observe the sediment size and type. We take a walk along the river for 1.5 hrs. Observe the pools, the bars of sediment, the vegetation on the bank. If you are quiet you can see abundant fish in the water. See also water spiders and many other insects in the environment.	4] Acono River, Natural River
7	03:30- 04:15	Return to the UWI car park.	