

# **Project Management Plan**

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## **Team Vision Statement**

To utilize networking, collaborating, and engineering skills to complete projects for the benefit of the people in the Dominican Republic, and to make us better engineers for the future.

## **Objective**

Our objective is to utilize HEC-ResSim, ArcGIS, WMS, and other tools to gather information on the following characteristics for the Rincon reservoir, and the proposed Mijo dam site: watershed characteristics, climate and flow regime, dam site characteristics, water availability and balance, flood control.

## **Project Sponsors**

Instituto Nacional de Recursos Hidraulicos (INDRH), Dominican Republic

**Dominican Republic Advisor:** Israel Acosta: [iacostalantigua@gmail.com](mailto:iacostalantigua@gmail.com)

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## **Team Members**

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## **Scope**

### **Watershed Characteristics**

- DEM
- Area
- Soil Type
- Land Use
- Curve Number/Roughness/Time of Concentration
- Man-made barriers/Recent Changes in the DEM/Updates to Basin Geometry

### **Climate and Flow Regime**

- Use ArcGIS to generate flow duration curve (FDC)
- Using FDC find probable maximum flow (PMF)
- Obtain stream flow records from INDRH
- Analyze stream flow records to find mean, maximum, and minimum flows
- Flow Duration Curve

### **Dam Site Characteristics**

- Soil type
- Dimensions: Reservoir Volume/Max Depth/Elevation-Area-Volume Curves
- Loading
- See Watershed Characteristics
- Hydro power/Recreation/Irrigation
- Spillways/Infiltration Gaging

### **Water Availability and Water Balance**

- Evapotranspiration
- Infiltration
- Ex filtration
- Precipitation
- Consumption

### **Flood Control**

- Use ArcGIS to generate flow duration curve (FDC)
- Use ArcGIS to delineate floodplain extents
- Using FDC find probable maximum flow (PMF)

### **Project Schedule**

<b>Week</b>	<b>Objective</b>
<b>January 23-29</b>	Finish Bios/website Begin Communication with Israel/determine scope of DR projects
<b>January 30-February 5</b>	Preliminary Delineation of Rincon and Mijo basins in WMS and ArcGIS HEC-Ressim User's Manual and Tutorials Get more information on the Cannal Projects
<b>February 6-12</b>	Collect/Analyze Water Budget data for Rincon and Mijo watershed areas. Analyze for regular and extreme (20 yr) precipitation events
<b>February 13-19</b>	Continued HEC-Ressim practice/Run Rincon Basin in HEC-Ressim Blakes GIS model for Hydro Power for Rincon
<b>February 20-26</b>	Prepare for any modeling changes that we may need to make in the DR with WMS and HEC-Ressim
<b>February 27-March 4</b>	Finalize site conditions Manage water balance events
<b>March 5-11</b>	Tie loose ends/Expect the Unexpected
<b>March 12-19</b>	In the Dominican Republic/ Live it up?

### **Communication**

Team meetings will be held every Friday, and during the week if necessary. The team will

communicate via email and telephone as appropriate. Israel Acosta will be contacted by email and through the team website. Weekly memos will be posted on the website as to report on our progress. The calendar on the team website will also be updated regularly to match our current timeline in regards to project progression.