

HEC RAS WATERWAY CHANNEL COMPUTER MODELING NORTH BRANCH OF THE ELKHART RIVER

Step 1 – Existing Data Collection

Define General Study Area

Define Target Study Areas (Transition Zone) others?

Outline the Drainage Basins to be included in study area

Collect maps of study area - *Rick*

Obtain available survey data / cross sections / etc - *Rick*

Determine any needed areas lacking pertinent elevations required to conduct the hydraulic analysis – request quotes from surveyors

Step 2 – Implement Funding Requests and Applications

Prepare a Cost Estimate to Complete surveying and hydraulic analysis

Consider possible partnering opportunities. (Elkhart River Alliance, St. Joseph River Basin Commission, Lagrange Co., etc)

Discuss funding opportunities with Region 3A, State Representatives, DNR, etc.

Submit funding applications

Step 3 – Field Survey

Surveyor / engineering firm selection

Conduct any needed field surveys

Step 4 - Request a Statement of Qualifications from Pre-Selected Engineering Firms to conduct the HEC RAS hydraulic model

Submittal to Include:

Rick draft

- Company Profile
- List of Similar Completed Projects including project description, project cost, dates
- Client References
- Computer Program proposed to be used in the modeling
- Review one or two project reports

Step 5 - Prepare a Scope of Services

Lead Agency to prepare SOS and should include as a minimum:

- Study area
- Drainage basins
- Hydraulic Simulations to be conducted
 - Base - without improvements
 - 2008 flood conditions
 - 10 year flood
 - 25 year flood
 - 50 year flood
 - 100 year flood

Base - with improvements

Weed eradication – n coefficient alternatives

River bottom gradient changes (dredging or sediment removal)

A second parallel channel

Log removal program

Channel Straightening (dispel public interest)

Constructed detention basins

Engineering controlled discharge structures

- Study Schedule
- Number of meetings and presentations to attend
- Describe the advantages and disadvantages of each improvement
- Provide a engineers estimate of probable costs for potential improvements

Rick Smigielski
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