

Chapter 5

Development of a Detailed HEMP

5.1. General

After receipt of funding for the feasibility or design phase, the hydrologic engineer would build on the initial hydrologic engineering management plan to develop the fully detailed HEMP.

5-2. Document Contents

Using the results of Chapters 3 and 4, develop the detailed HEMP commensurate with the level of reporting. The detailed HEMP for the feasibility phase would document the step-by-step analysis of data development, storm studies, routing operations, unit hydrograph development, model calibration, etc., while the detailed HEMP for the PED phase would document the hydraulic design, physical model testing requirements, hydrologic studies needed for water control manuals, detailed sediment investigations, multi-dimensional modeling efforts, etc. Appendices D through F give generic examples of different hydrologic engineering management plans. The document should be reviewed and approved by the immediate supervisor. Complex analyses may benefit from a higher level review. A courtesy copy should be provided to the study or project manager.

5-3. Activity Sequence

For scheduling purposes, assign durations to each work item for all significant activities in the entire HEMP.

Establish milestone dates for each major component. Use milestone dates for furnishing necessary information to various members of the interdisciplinary planning team, receiving information required from others to meet the study completion date, and meeting any other scheduled events.

5-4. Hydrologic Study Management

The detailed hydrologic engineering management plan could be used on a day-to-day or week-to-week basis, especially for relatively new hydraulic engineers. Periodic updates and further detailing of tasks should be performed as work progresses or as additional effort becomes necessary to meet new interdisciplinary planning team or local sponsor requests. Additional work effort required by others, that is not included in the HEMP, becomes the basis for increases in hydrologic engineering time and cost allocations. This situation again emphasizes the need for a HEMP and for the responsible hydrologic engineer to use it throughout the study.

5-5. Study Documentation and Reporting

Update the HEMP for final documentation of the completed technical study so that future, similar work will have a better planning basis. Recording the actual human resources expended for each major activity is particularly useful for estimating future studies. Use the completed hydrologic engineering management plan for the outline of a technical hydrologic engineering appendix to the study documentation.