Checklist for Submitting a Floodplain Study

Wisconsin Department of Natural Resources

This outline for department review of floodplain studies may not contain all of the requirements of the administrative code. It is a general outline and detailed examination of the codes should be done to be assured that a submittal may meet department approval. Appropriate areas should be filled in by the engineer submitting the study for WDNR review.

Community/Zoning Authority:_____

Official Stream Name:_____

County:_____

Study Author:_____

Submission Date:_____

Submitted to:_____

Legal Description:

Upstream Limit_____1/4(QQ), _____1/4(Q), Section(s)_____, Township_____, Range_____

Downstream Limit _____1/4(QQ), _____1/4(Q), Section(s)_____, Township____, Range____

Study Type (circle): Bridge/Culvert   Channel Realignment   Enclosure   Filling/Grading   BFE determination

Other _____

I) General Documentation

_____ Contact (Telephone Conservation) Reports

_____ Meeting Minutes/Reports

_____ General Correspondence

_____ Submittal letter or e-mail from zoning authority requesting review

II) Narrative Report

_____ Purpose of the study

_____ Geographic location of the study

_____ Detailed description of the methodology used for hydrology, hydraulics and any special applications used in the study

_____ Description of the project location related to model river stations

_____ Documentation of the changes made between each model run

_____ Floodway Data Table
 Note: Include at least one table with the following output variables:
 'River Sta'   'Q Total'   'W.S. Elev'   'Top Wdth Act' 'Flow Area' 'Vel Total'

_____ Previous studies on the same watercourse – date/author/source of study

_____ Data collection methods

_____ Past flooding

_____ Benchmark identification and location

_____ Coordination with other agencies

_____ Other supporting documentation provided

 (circle) Soils Maps   Watershed Maps   Photographs   Stream Flow Records

 Other: _____

III) Engineering Analyses

1) Hydrologic Analysis (electronic input/output files)

_____ Is there an existing model?

Existing model input file name: _____

The *two* techniques used to determine the regional flood flow discharges:

_____Log-Pearson Type III, described in Technical Bulletin #17B

_____Regional Regression Equations (i.e. Congers)

_____Synthetic hydrographs (i.e. HEC-HMS)

_____Was floodplain storage explicitly taken into account to attenuate flood peak flow?

_____If yes, have flood storage district maps been created for the community to adopt?

_____Which rainfall distribution was used?

_____If a distribution other than NRCS's MSE3/MSE4 was used, what duration was the critical duration when the critical duration analysis was performed to identify the peak storm duration?

_____Technical Release No. 55 (TR-55)

_____Comparison of similar drainage basins at gaged sites

_____Historic flood data

_____Other methods with department approval (comment on what method)

Input file name: _____

_____ New peak flows tie in with upstream and downstream published flows

2) Hydraulic Analyses (electronic input/output files)

Note: The same model must be used for both existing and proposed conditions for relative consistency

_____ Is there an existing model?

Existing model input file name: _____

_____ Existing model was not truncated from its original study reach

New hydraulic model type (i.e. HEC-RAS) _____

New input file name (project model name that has one or multiple runs):

_____

Model plan descriptions: _____

_____

(ex. p.01 = effective, p.02 = corrected effective, p.03 = pre-project, p.04 = post-project…)

What is the vertical datum of the survey/geometric data (NAVD88, NGVD29...) _____

_____Is there a dam with operable gates in the study reach?

_____If yes, does the modeled operation represent the DNR approved Inspection, Operations, and Maintenance Plan (IOM)? The dam operator then assumes liability that the gates will be operated as outlined in the IOM.

If not, explain_____

_____ Is there a detailed study upstream of the submitted reach? (Y/N)

_____If yes, do the profiles match within 0.5' at the boundary? (Y/N)

_____ Is there a detailed study downstream of the submitted reach? (Y/N)

_____If yes, do the profiles match exactly at the boundary? (Y/N)

_____ Model shows increases due to development (proper legal arrangements required)

3) Miscellaneous

_____ Supporting hand calculations, sketches and figures used in analyses

_____ Key to Cross-Section Labeling

_____ Key to Transect Labeling (coastal study only)

IV) Mapping information

_____ Workmaps including floodway, floodfringe, cross sections, and stream centerlines
_____ Floodway Data Table
    Note: Include at least one table with the following output variables:
    'River Sta'   'Q Total'   'W.S. Elev'   'Top Wdth Act'   'Flow Area'   'Vel Total'

Digital mapping data provided: _____
(Circle)   ESRI shapefile(s)/database   CAD data   Other

Horizontal coordinate system used: _____

V) Certification

_____ Signed, stamped, and submitted by a Professional Engineer registered in Wisconsin

   Name_____ Registration #_____