Developed by: DPW-BWPR, Modeling and Analysis Unit
Developed for: I&P – Raghu Badami
Date: March 4, 2021
Projected coordinate system: NAD 1983 StatePlane Maryland FIPS 1900 (US Feet)

1. Overview

To assist Inspections and Permits with the acquisition of modeled 100-year floodplain polygons by the development community, the Modeling and Analysis Unit of BWPR has provided a template shapefile 'IP_FloodPolygons.shp', an associated report information 'ReportInformation.xlsx'. The attribute table for this shapefile can be seen in Figure 1.

2. Template Shapefile

Figure 1: Attribute table for IP_FloodPolygons.shp

The modeled 100-year flood polygon should either be appended to the template shapefile, or an existing shapefile should be formatted to include the fields in Figure 1, as described in Table 1. If the data preparer does not have access to GIS to add attributes to the floodplain shapefile, please see Section 4. In all cases, the data preparer should ensure the data have the projected coordinate system NAD 1983 StatePlane Maryland FIPS 1900 (US Feet).

Table 1: Fields, their descriptions, and domains in IP_FloodPolygons.shp

Field	Description	Domain to be used
FID	Auto-populated by software	
Shape	Auto-populated by software	
ReportID	Report ID used to link associated table	
HH_Model	Hydraulic and/or hydrological model used	
ProjectNam	Name of project if applicable	
GradingPer	Grading Permit ID if applicable	
FloodOwner	Floodplain Owner	County County-Easement Private
Shape_Leng	Auto-populated by software	
Shape_Area	Auto-populated by software	

Each Shapefile should be named by combining the calendar year, company initials, and project location. For example, if the shapefile was prepared in 2021 by Morris & Ritchie Associates, Inc. for River Road

New Development, then the shapefile should be named “2021MRARiverRoadNewDevelopment.shp”. For floodplains that might not be contiguous but were modeled for the same project, a multipart polygon can be submitted.

Explanation of fields in IP_FloodPolygons.shp

Although the basic information to be included in the shapefile is outlined in Figure 1, and described in Table 1, further explanation is provided below for greater clarity.

ReportID

The purpose of this field is to link a given flood polygon to each record in the table contained in ReportInformation.xlsx. It is critical that ReportInformation.xlsx is completed to document data sources. There is no required format for this field, but it should be unique for every polygon that is created by the data preparer.

HH_Model

The purpose of this field is to document the hydrologic and hydraulic models used to generate the flood polygon. For example, this could be “HEC-HMS and HEC-RAS”.

ProjectNam

This field should contain the project name, where applicable. For example, this could be “1234 New Office Road Construction”.

GradingPer

This field should contain the Grading Permit number associated with the study, where applicable.

FloodOwner

This field should note who owns the floodplain, either the County, privately held, or whether it is under a County-Easement.

3. Template Spreadsheet

In addition to the template shapefile, the Modeling and Analysis Unit of BWPR is also requesting that the template spreadsheet, ReportInformation.xlsx, be filled out. This will ensure documentation of data sources which will be critical long term.

Explanation of fields in ReportInformation.xlsx

The purpose of the spreadsheet is to record details about the specific study that generated the modeled flood polygon. Data in the spreadsheet are linked to the shapefile via the ReportID field. Descriptions of these fields can be found in Table 2, and further explanation is provided below for greater clarity.

Table 2: ReportInformation.xlsx

Field	***Description***
ReportID	Report ID used to link to table to feature class
Authors	Authors of report or data
Title	Title of the report
EngineeringFirm	Name of engineering form that created report/data
ReportDate	Date that report was published
FileLocation	Link to file on server, if applicable. I&P to complete.

ReportID

This field should contain a report ID used to link each row in the table contained in ReportInformation.xslx to the associated flood polygon in IP_FloodPolygons.shp. As stated earlier, there is no required format for this field, but it should be unique for every polygon that is created by the data preparer.

Authors

This field should contain the names of the authors of any report associated with the flood polygons. If no report is available, this field should contain the names of the authors of the flood polygon.

Title

This field should contain the title of the report associated with the flood polygon.

EngineeringFirm

This field should contain the title of the report associated with the flood polygon. If no report is available, this should contain the name of the firm who created the data.

ReportDate

This field should contain the data of the report associated with the flood polygon.

FileLocation

This field should contain the file location of the report associated with the flood polygon.

4. If data preparer does not have access to GIS

If the data preparer does not have access to GIS software, the shapefile can be submitted solely with geometry. However, shapefile attributes outlined in Table 1 should be provided as an Excel spreadsheet. In such cases, an extra field “ShapefileName” should be entered in the spreadsheet stating the name of the shapefile. This will allow Anne Arundel County to append these attributes to the geometry. A template is found in ‘ShapefileAttributes.xlsx’.