

## Cooperating Technical Partners – ASFPM CTP subcommittee Monthly Call – Aug 11, 2022

Attendees: Alan Lulloff, Dave Guignet and Darryl Rockfield

### Webinars

#### Watersheds

Dave suggested that there be a track at the next ASFPM conference that focuses on watersheds. A watershed approach generates a more wholistic approach to addresses flooding issue. 2D rain on mesh modeling intrinsically provides a watershed analysis due to the grid structure on which it is based. In contrast 1D modeling analyzes individual stream segments via xsections.

#### Floodview

Wood demoed a new tool that they have developed that allows a person to visualize a flood event on their phone. After the demo some staff indicated that it would be useful to show velocities and flood depths.

#### Maryland CRAB

ASFPM has been funded to prepare materials promoting higher standards floodways. One component is evaluating the number of structures impacted by BFE+1 flood extents. Maryland did an analysis of BFE+3 along the coast. They found a 3 to 1 and in some cases a 4 to 1 relationship between number of structures in the bfe+3 area to the number of structures in the SFHA. They have about half the state completed for riverine BFE+1, 2 and 3 but have not yet done any analysis of the data. However, the ratio seems much lower than along the coast.

#### National Water Model

The National Water Model webinar is scheduled for September 29th.

#### Safety Grates on Culverts

We agreed on the last call that the next webinar would be on safety grates on culverts. MHFD worked with Colorado State University to evaluate different designs related to pinning hazards and catching debris. They developed a physical model.

There are issues with culverts due to the fact that increasing the size of culverts while it makes them more resilient - it also causes increased flooding on those downstream.

Maryland has a state law that does not allow an action that causes increased flooding unless those impacted are compensated. Therefore, MD DOT replaces damaged structures with the same size structure. It results in roads acting a dams.

MO is implementing a process in conjunction with PA projects that culverts be properly sized appropriately for their use – able to pass 100, 50 and 25 year events respectively for state, county or local roads. This is being done so that in the aftermath of the flood event the bridges/culverts damaged can be replaced with structures that have adequate capacity to pass these flood flows.

WI has provided funding via FEMA mitigation grants to mitigate the impact of flooding on culverts.

Should a companion topic related to culverts be identified it could potentially be added to the webinar on culvert safety.

The culvert webinar would be conducted in the Oct – Dec timeframe.

Dave forwarded an email from ESRI related to grant funding available for the US Department of Transportation as part of the Bridge Investment Program. The grants are divided into three categories— Planning, Bridge Projects, and Large Bridge Projects—and offer over \$2.4 billion to state and local governments to replace, rehabilitate, preserve, or protect our nation's bridges.

#### MO

Darryl provided a presentation to the leadership of his department on their flood hazard mapping efforts. MO had some significant flooding in the past few weeks. The presentation was very well received. Recent weeks have been consumed by grant applications. The MO flood mapping portal will be going live tomorrow.

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