Hazard Creep

How it can affect SWM retrofit projects

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by

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Many dams were originally constructed in rural areas with little or no development downstream and were designed according to lower risk criteria.

www.damsafety.org/media/Documents/Images-Animations/Dam Animations/Hazard Creep.wmv
Over time, roads and homes are constructed.
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Years later, downstream growth can accelerate, with large scale residential, commercial, and even industrial development taking place.
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In many cases, typical regulations related to the 100 year floodplain have not been rigorously enforced until more recent times.
Breath Inundation zones are typically much larger than the regulated 100 year floodplain and much development has often occurred in the fringe area.
Increased Flood Risks

Before Downstream Development

Increased Flooding

After Downstream Development

100-YR
1/2 PMF
PMF
Sunny Day
Embarkment Retrofit Design

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Maryland Department of the Environment
Failure Storms to Analyze

- PMF
- 1/2 PMF
- Brim-UP
- 100-Year
- Sunny Day
Questions?

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