



Virtual Dam Owners Workshop

March 16 and 18, 2021



Maryland
Department of
the Environment



Housekeeping

- We have scheduled 30 minutes for each session including time for Q&A.
- Questions should be placed in Q & A function.
- There will be a 5 minute break between sessions.





AGENDA - DAY 1

10:00 – 10:20 Introductions and Opening Remarks - Jennifer Smith

10:25 – 11:55 Hiring a Dam Engineer - Hal Van Aller

11:00 – 11:30 Lessons Learned from the FEMA HHPD Grant Program – Visty Dalal

11:35 – 12:10 Permitting Process 101 – John Roche

12:15 – 12:35 Dam Ownership and Enforcement Issues – Hira Shrestha

12:40 – 12:55 Safety Issues at Dams – Kelly Flint

1:00 – 1:30 Dam Safety Guidance Documents – John Roche

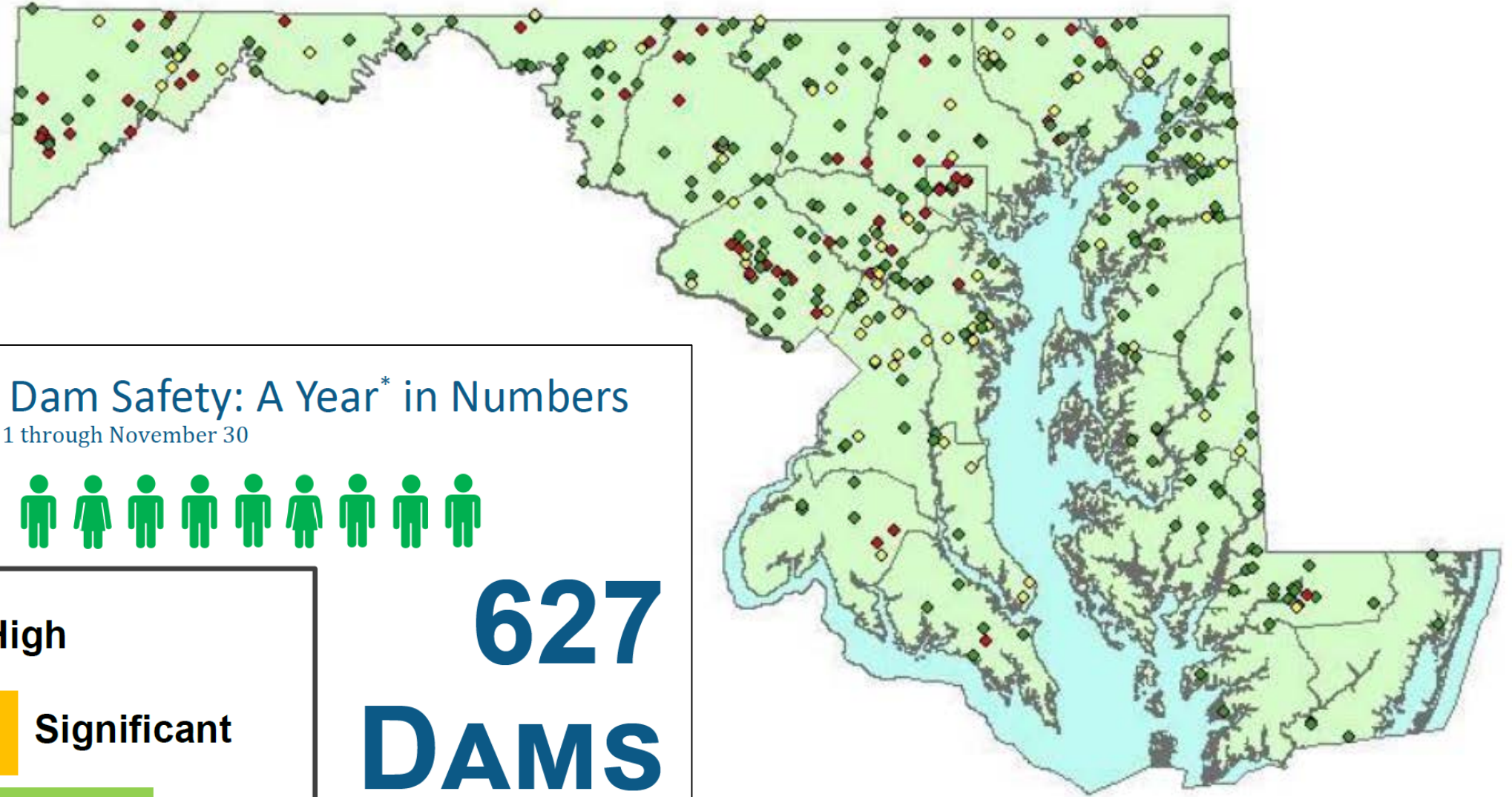
1:30 – 2:00 Closing Remarks and Q&A – Ray Bahr





Maryland Dam Owner's Workshop

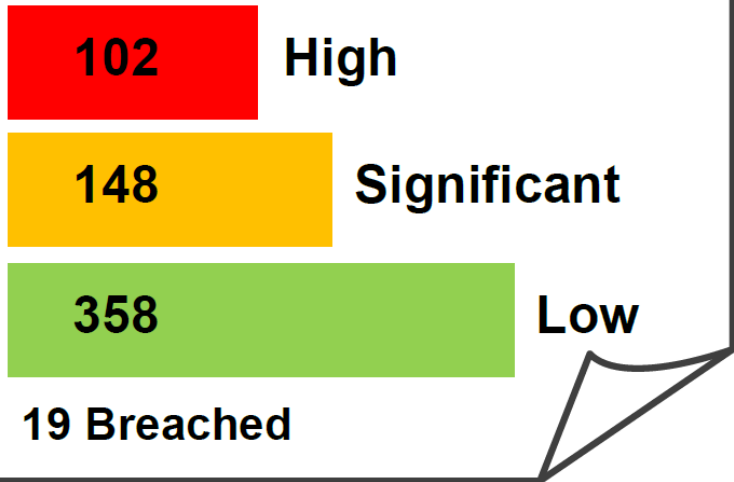
MARYLAND DAM SAFETY IN 2021



Maryland Dam Safety: A Year* in Numbers

Data from January 1 through November 30

9 Staff 



627 DAMS
15,000+
small ponds


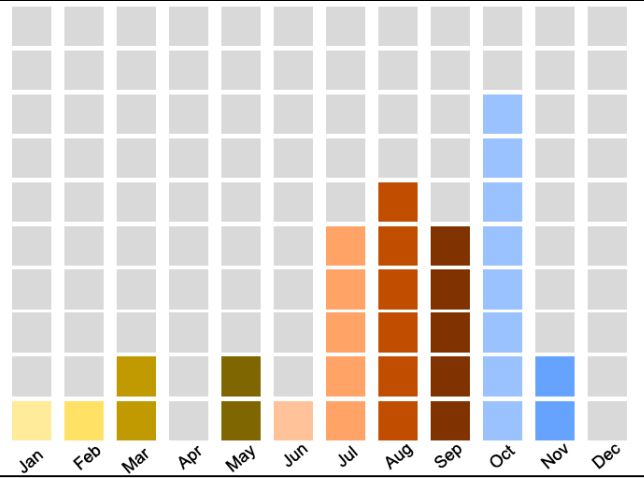
- 1999 Hurricane Floyd: 15-20 inches of rain in 24 hours
 - Nagels Mill Dam failed and damaged MD 16
 - Stubbs Dam new spillway failed
 - Foreman Branch Dam overtopped and failed
 - Jones Lake overtopped and failed
 - Frazers Mill Dam overtopped and failed
 - Cabin Creek Dam overtopped and failed
 - Sassafras Mill Dam overtopped and failed
 - Von Spreckelson Dam overtopped and failed
 - Meeks Farm Dam overtopped and failed
- 1999 Winter Ice Melt
 - Rolling Green Community Dam failed
- 2001 Winter Storm
 - Woodlawn Landfill stormwater pond dam failed by internal erosion
 - Hunting Creek Dam spillway flows washed out a State road
- 2006 Severe Flooding after 10-15 Inches of Rain
 - Lake Needwood Dam seepage issues and downstream evacuation
 - Galestown Millpond Dam overtopped and failed
 - Wrights Millpond dam overtopped and failed
 - Cabin Creek Dam failed again
 - Mill Creek Dam failed
 - Irving Mill Pond Dam failed
- 2007 Heavy Warm Rain on Top of Snowmelt
 - Little Youghiogheny Dam Site 1 (Hospital) near failure
- 2008 Heavy Rains in Anne Arundel County
 - Chartwell Golf Course Dam and St. Andrews Road collapsed
- 2011 Heavy Rains
 - Preference Estates Dam in LaPlata overtopped and failed
- 2014 Heavy Rains
 - Blairs Valley Dam flood of record, Clear Spring evacuated
- 2016 Heavy Rains
 - Riawalkin Dam (Nanticoke Road) overtopped and failed 2016
- 2018 Heavy Rains
 - Cascade Lake Dam overtopped and partially failed
- 2019 Heavy Rains
 - Riawalkin Dam overtopped and failed again
 - Frederick Community Church dam overtopping near failure
- 2020 Hurricane Isaisas
 - Running Hare Dam overtopping near failure
 - Aspen Run Pond Dam



170 DAMS

INSPECTED

71% HIGH HAZARD DAMS INSPECTED



87
Permit Applications Received



19
Permits Issued



83
Permit Exemptions Issued

Dams with EAPs in Compliance



Dams with EAP Exercise in Past 5 Years



11 EAPs were **exercised** in 2020. Exercises conducted in Washington and Howard Counties



13 EAPs were **activated** in 2020. Four (4) low hazard dams/small ponds failed or nearly failed

Outreach Activities

- 3 "What's In Your Pond" Seminars
- 3 Presentations by staff at national conferences
- 2 Presentations by staff to local governments/orgs.
- 2 Dam Safety Newsletters created
- 1 Policy Memo Completed

What Else Have We Been Working On?

- Dam safety permit processing improvements
- Technical design standards and policy memos
- Regulation updates
- Dam safety component to Hazard Mitigation Plan
- Maryland PMP update
- Maryland Atlas 14 update
- HHPD FEMA grant - \$\$\$ for dam repairs
- HGMP FEMA grant – dam inundation mapping



Small Ponds

- Small pond workshops
- MDE coordination with SCDs
- Small pond delegation authority
- Small ponds in Use III watersheds



What Hot Issues are Facing Dam Safety in Maryland?

- Aging infrastructure
- Funding for repairs
- “New” dams
- Hazard creep
- Resource limitations
- Climate change
- Ownership changes

166 dams in poor, very poor, unsafe or unacceptable condition



<https://tinyurl.com/7bwae7sv>



Existing dam and "farm" pond



Circa 1993

photo source: Google Earth

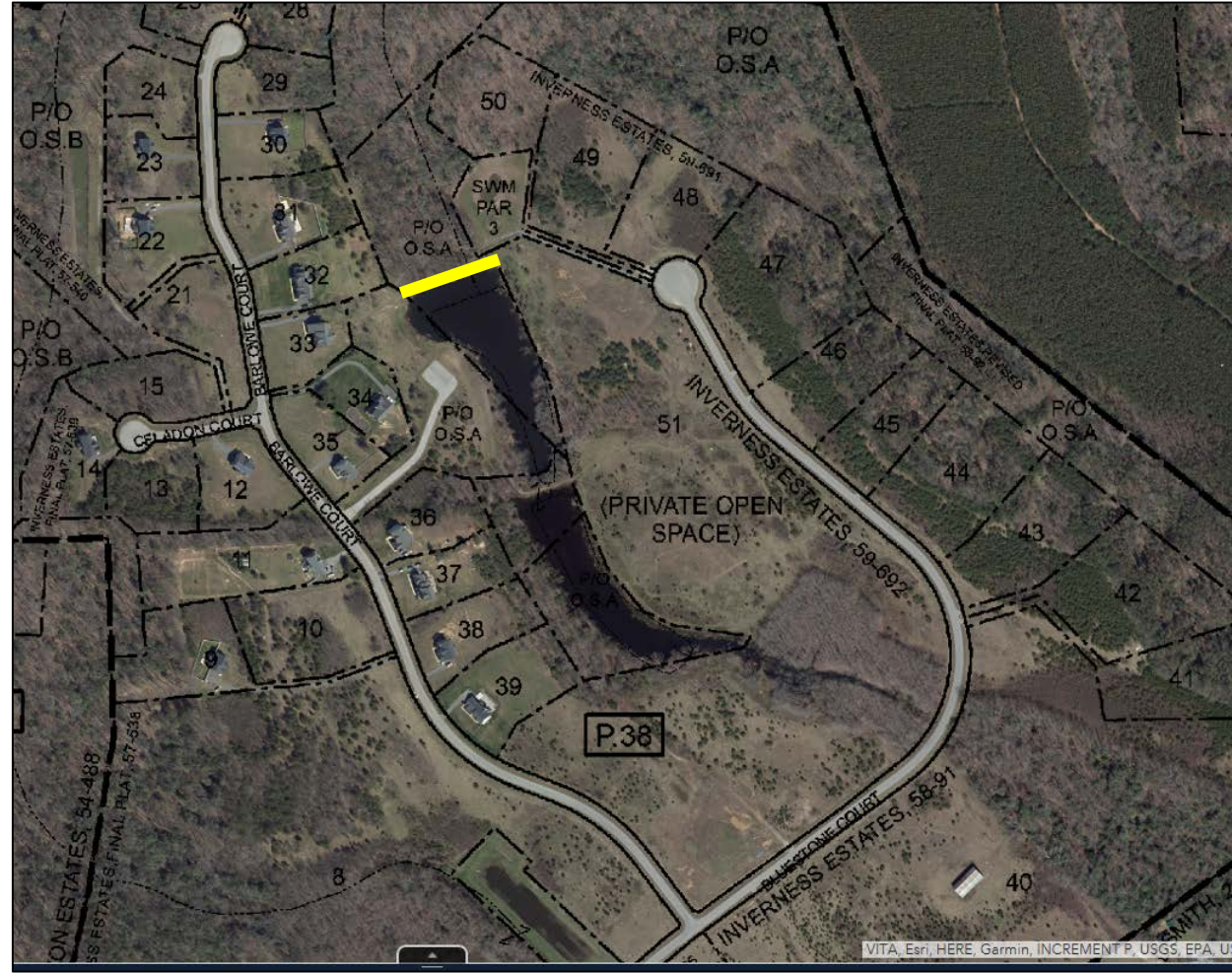


photo source: MD iMAP



All photos source: MDE

Existing Wet Pond #2



Low Hazard Dam



Existing Wet Ponds (#3 & #4)



H.O.A.
S.W.A.

H.O.A. H.O.A.

P13



All photos source: MDE

Thank You
JenniferM.Smith@maryland.gov
410-537-3561

