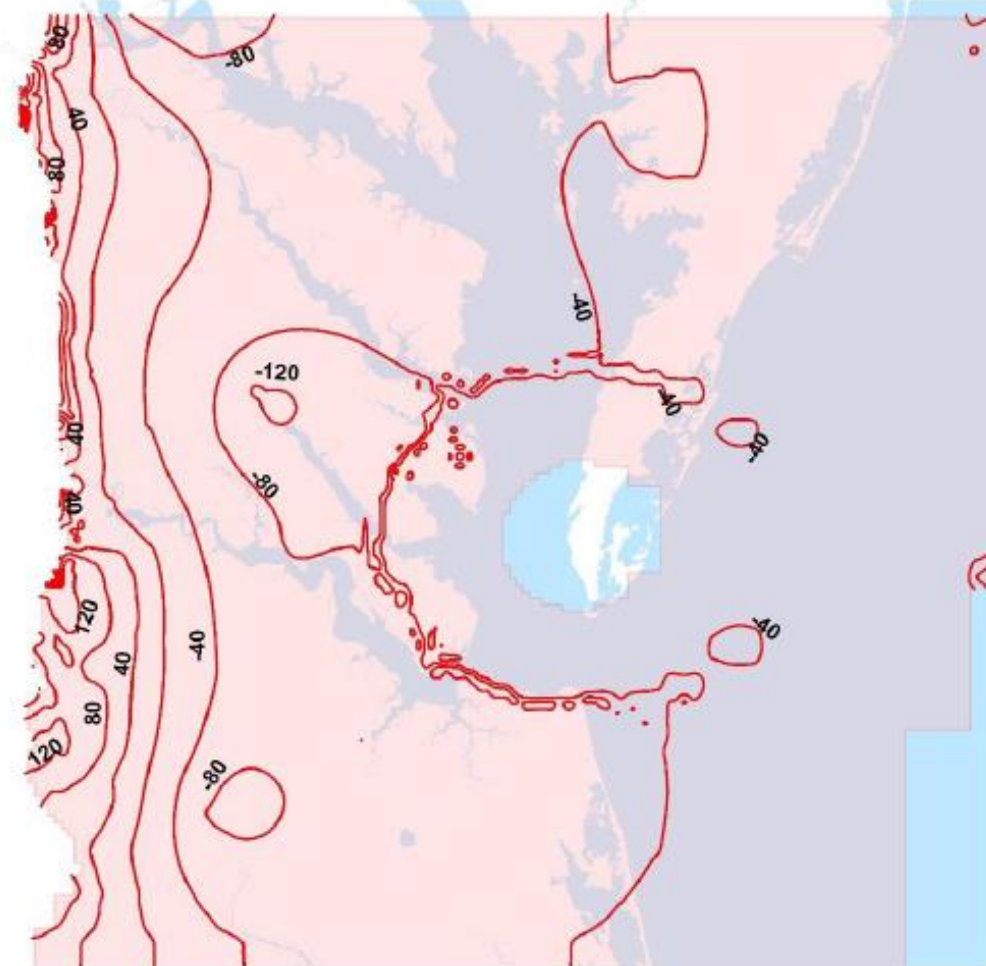


**EASTERN VIRGINIA GROUNDWATER
MANAGEMENT ADVISORY COMMITTEE**

Review

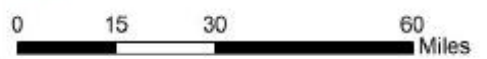
DUC – 11/4/2020

Simulated Potentiometric Contours Potomac Aquifer 2019 Reported Use Simulation



Contour elevations are in feet relative to mean sea level (msl) and at 40 ft intervals.

- Potentiometric Water Level Contours
- Potomac Aquifer Model Boundary

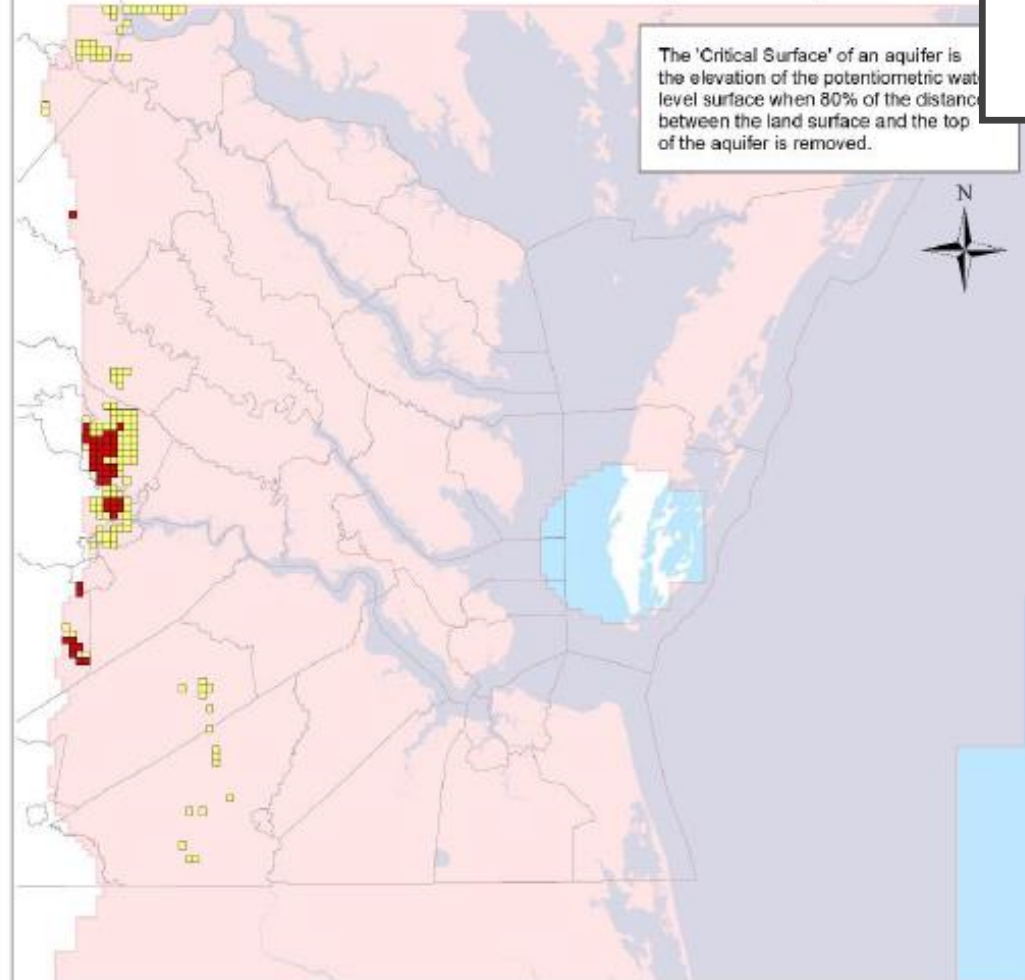


Prepared by Aquaveo, LLC for the Virginia DEQ, Office of Water Supply
October 16, 2020

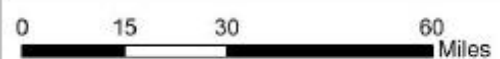


2019 Reported Use Simulation - Potomac Aquifer Simulated Water Levels Below the Critical Surface and Below the Aquifer Top

The 'Critical Surface' of an aquifer is the elevation of the potentiometric water level surface when 80% of the distance between the land surface and the top of the aquifer is removed.



- Cells that simulate water levels below the top of the aquifer
- Cells that simulate water levels below the Critical Surface
- Potomac Aquifer Model Boundary

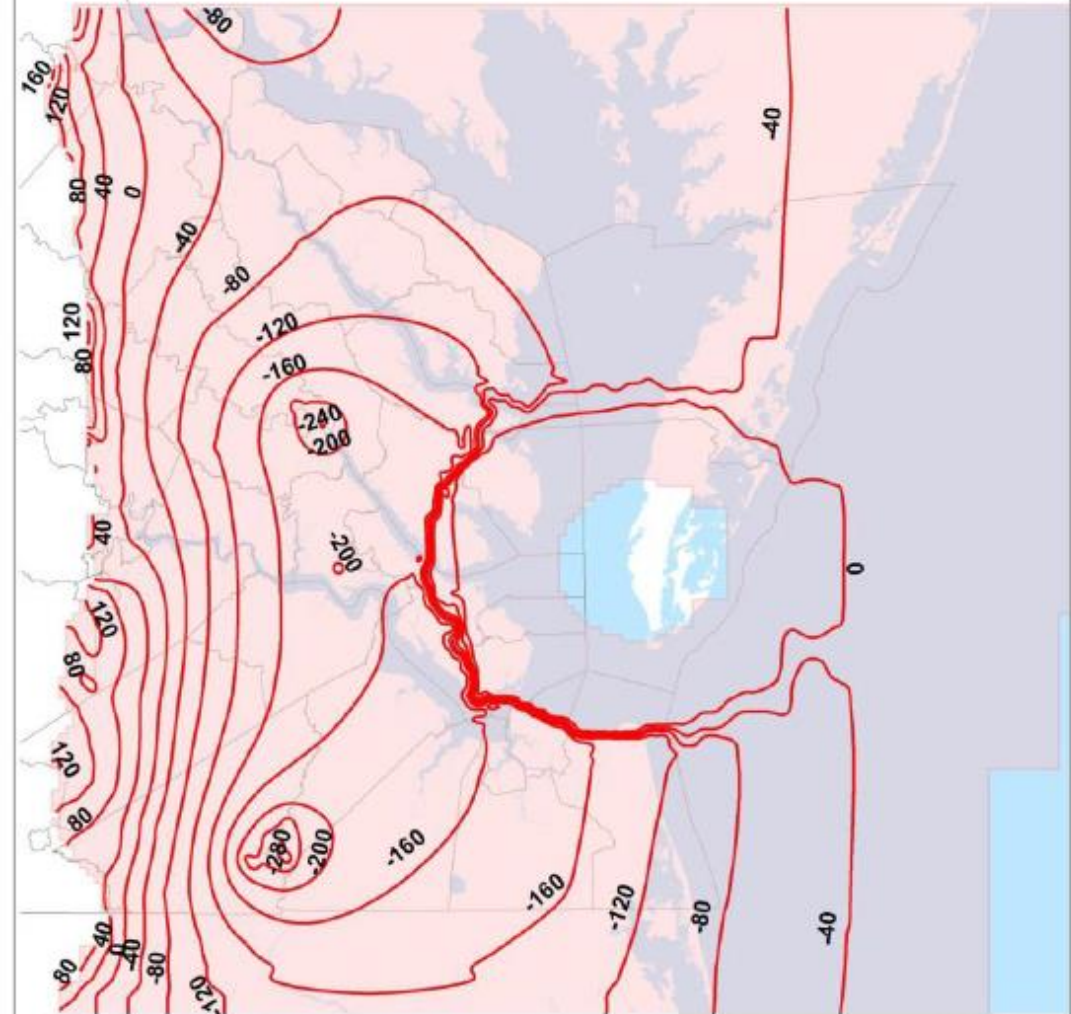


Prepared by Aquaveo, LLC for the Virginia DEQ, Office of Water Supply
October 19, 2020



MODEL RESULTS REPORTED USE

Simulated Potentiometric Contours Potomac Aquifer 2015 Total Permitted Simulation



Contour elevations are in feet relative to mean sea level (msl) and at 40 ft intervals.

Prepared by Aquaveo, LLC for the Virginia DEQ, Office of Water Supply September 1, 2015

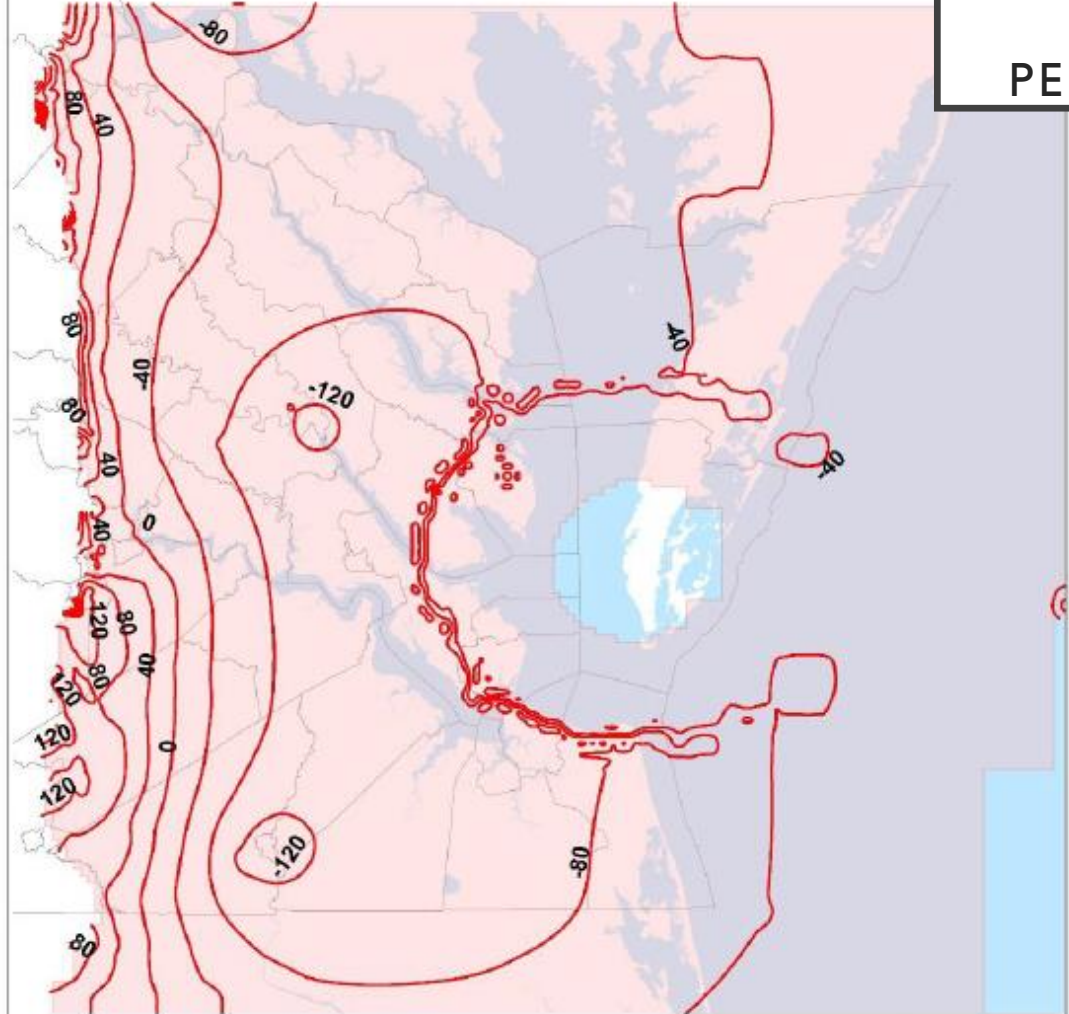
- Potentiometric Water Level Contours
- Potomac Aquifer Model Boundary



0 15 30 60 Miles

Simulated Potentiometric Contours Potomac Aquifer 2020 Total Permitted Simulation

**MODEL RESULTS
TOTAL PERMITTED**



Contour elevations are in feet relative to mean sea level (msl) and at 40 ft intervals.

Prepared by Aquaveo, LLC for the Virginia DEQ, Office of Water Supply October 16, 2020

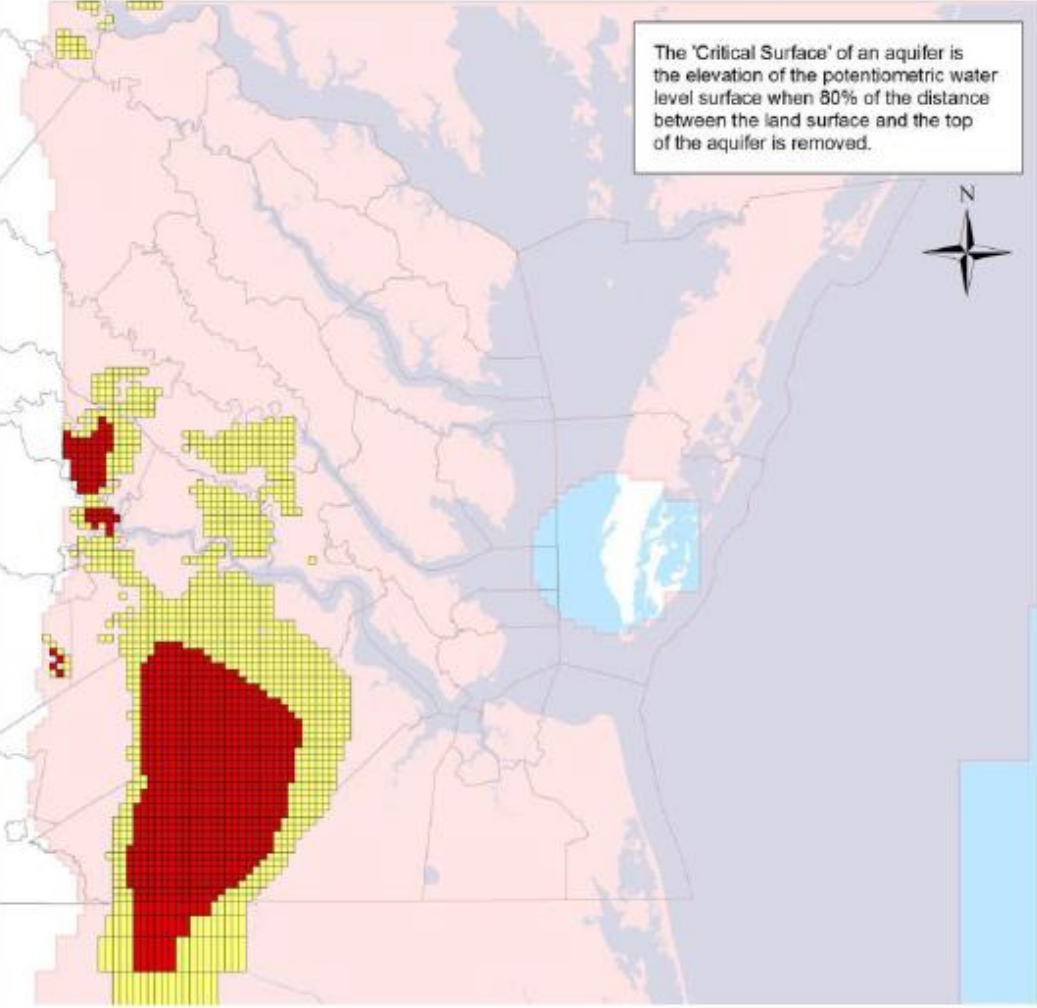
- Potentiometric Water Level Contours
- Potomac Aquifer Model Boundary



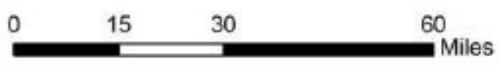
0 15 30 60 Miles

2015 Total Permitted Simulation - Potomac Aquifer Simulated Water Levels Below the Critical Surface and Below the Aquifer Top

The 'Critical Surface' of an aquifer is the elevation of the potentiometric water level surface when 80% of the distance between the land surface and the top of the aquifer is removed.



- Cells that simulate water levels below the top of the aquifer
- Cells that simulate water levels below the Critical Surface
- Potomac Aquifer Model Boundary

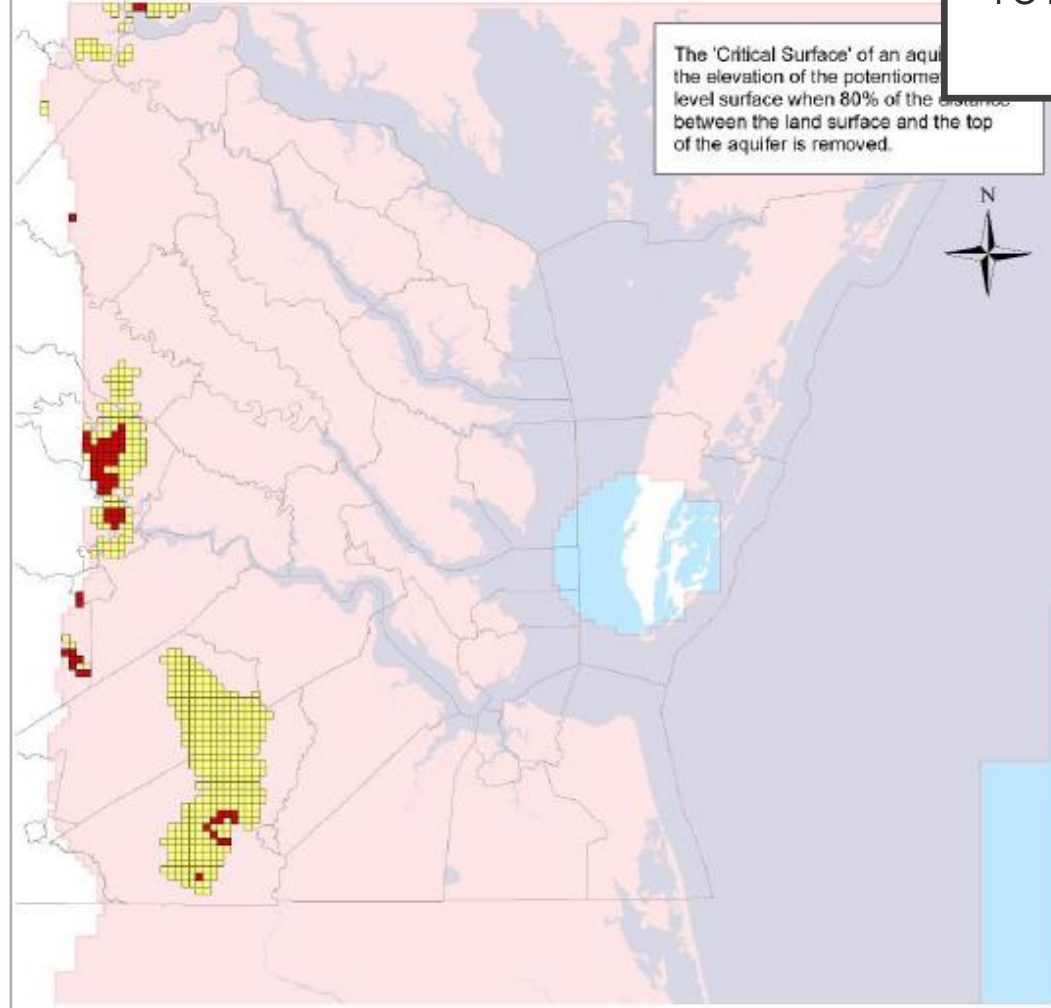


Prepared by Aquaveo, LLC for the Virginia DEQ, Office of Water Supply
September 1, 2015



2020 Total Permitted Simulation - Potomac Aquifer Simulated Water Levels Below the Critical Surface and Below the Aquifer Top

The 'Critical Surface' of an aquifer is the elevation of the potentiometric water level surface when 80% of the distance between the land surface and the top of the aquifer is removed.



- Cells that simulate water levels below the top of the aquifer
- Cells that simulate water levels below the Critical Surface
- Potomac Aquifer Model Boundary

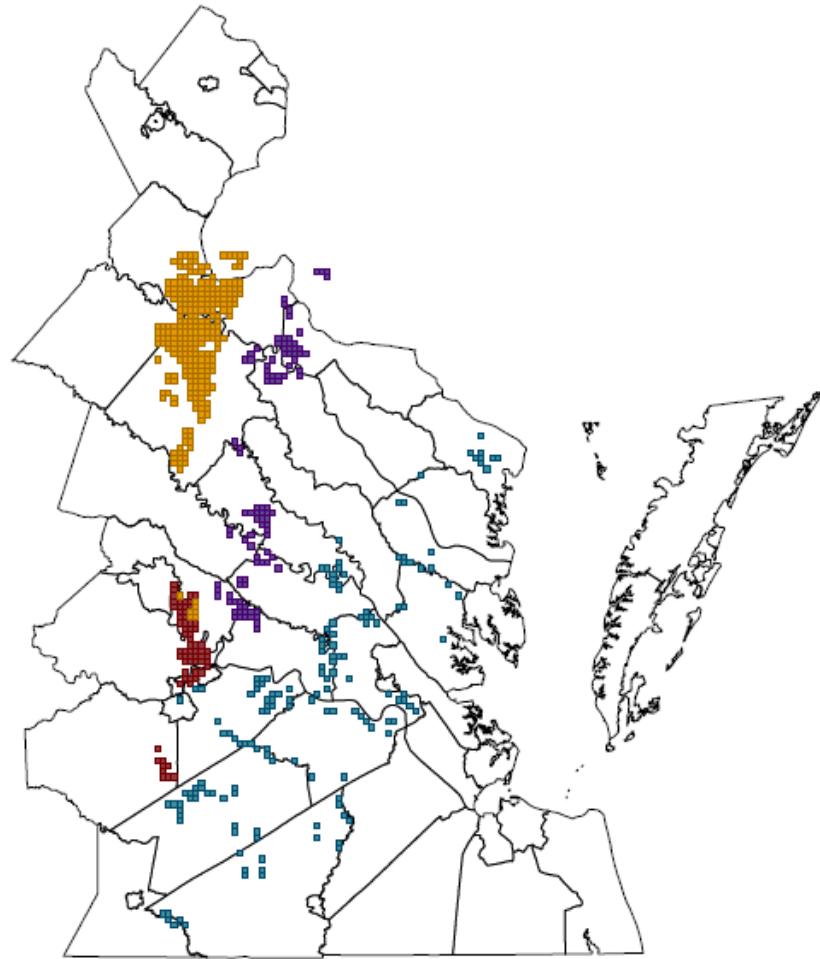


Prepared by Aquaveo, LLC for the Virginia DEQ, Office of Water Supply
October 19, 2020



MODEL RESULTS
TOTAL PERMITTED POTOMAC

Historical Critical Surface Violations



- Aquia Aquifer
- Piney Point Aquifer
- Yorktown Eastover Aquifer
- Potomac Aquifer

0 10 20 40 Miles

CRITICAL CELLS HISTORICAL