Appendix A Comments and Responses on Draft Plan-EA

To be included in final environmental assessment

Appendix B Project Map

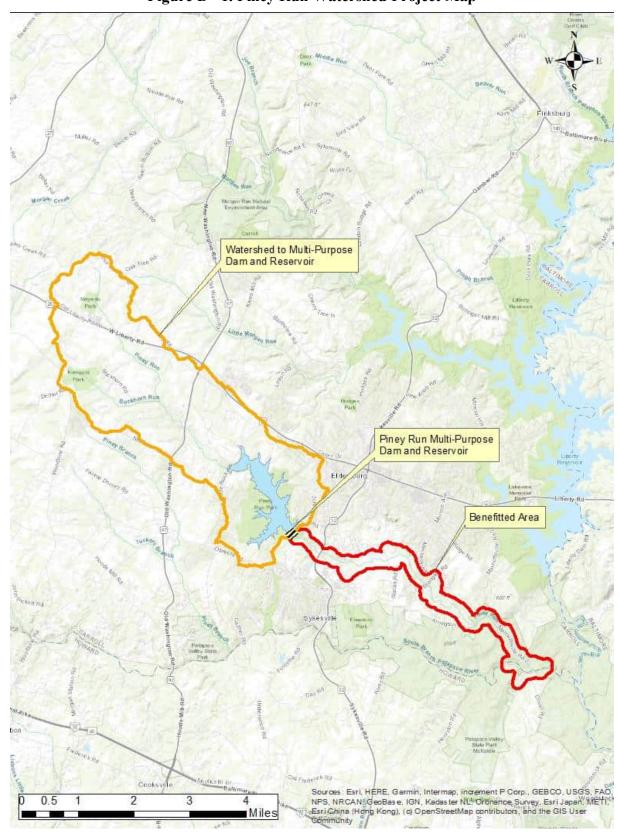


Figure B - 1. Piney Run Watershed Project Map

Appendix C Support Maps

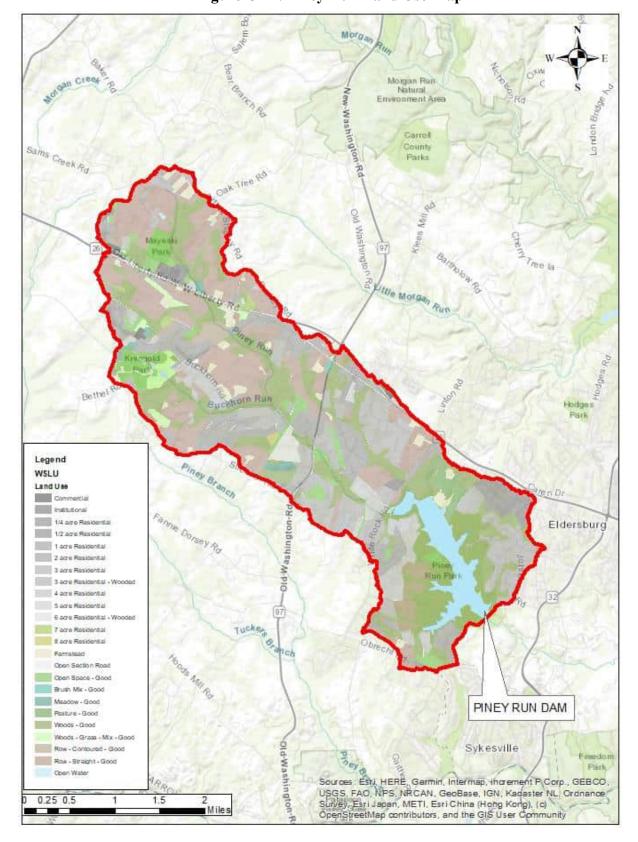


Figure C - 1. Piney Run Land Use Map

Figure C - 2. Piney Run Dam 2% AEP Non-Breach Event Floodplain Map (1 of 5)

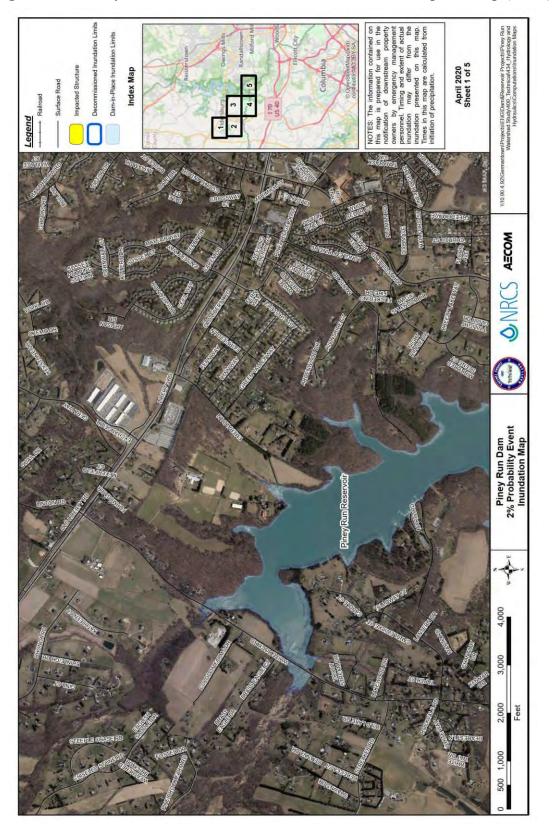


Figure C - 3. Piney Run Dam 2% AEP Non-Breach Event Floodplain Map (2 of 5)

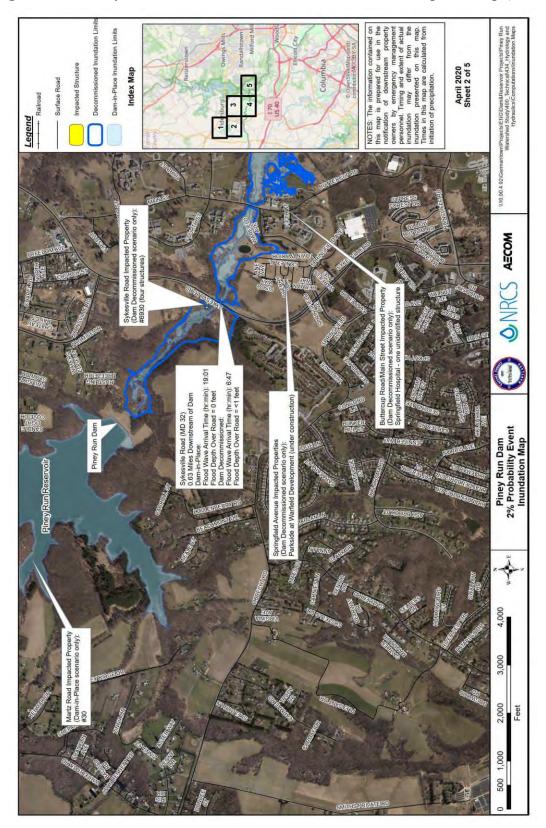


Figure C - 4. Piney Run Dam 2% AEP Non-Breach Event Floodplain Map (3 of 5)

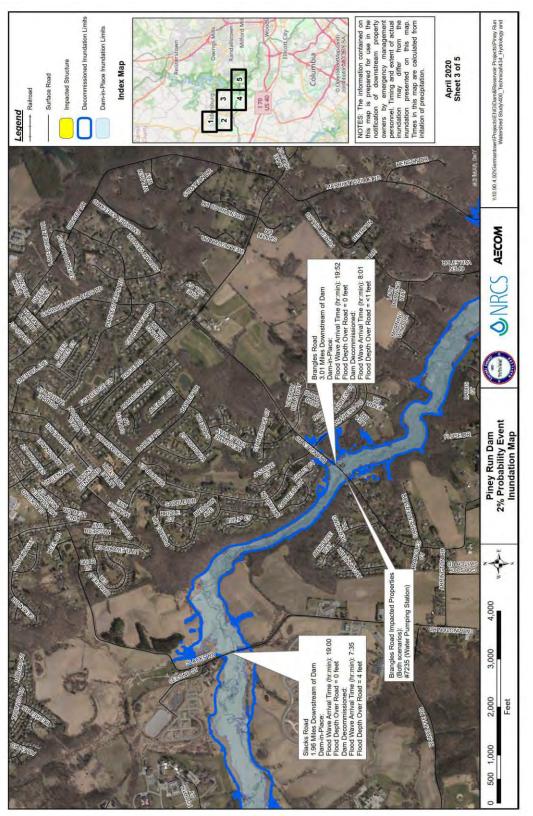


Figure C - 5. Piney Run Dam 2% AEP Non-Breach Event Floodplain Map (4 of 5)

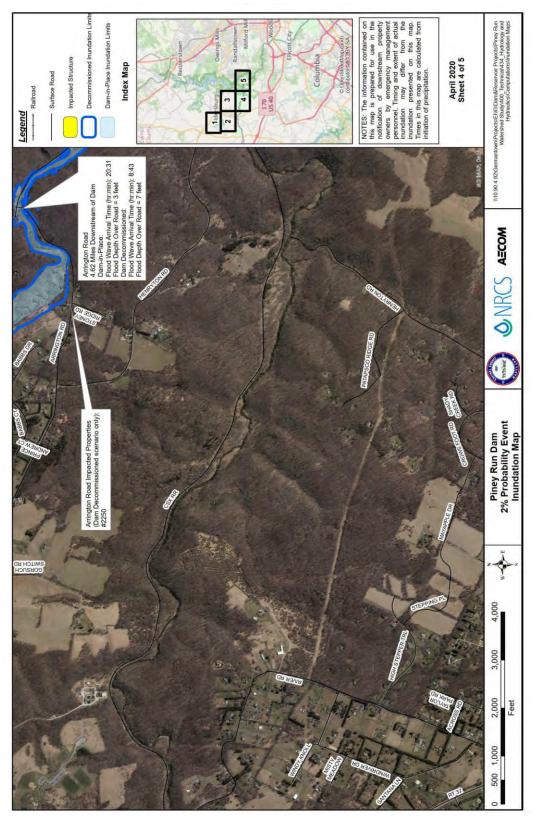


Figure C - 6. Piney Run Dam 2% AEP Non-Breach Event Floodplain Map (5 of 5)

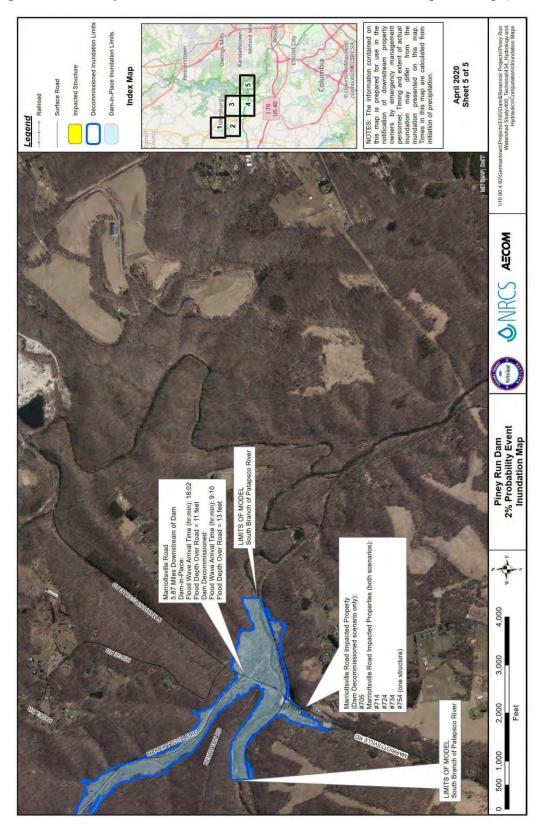


Figure C - 7. Piney Run Dam 1% AEP Non-Breach Event Floodplain Map (1 of 5)

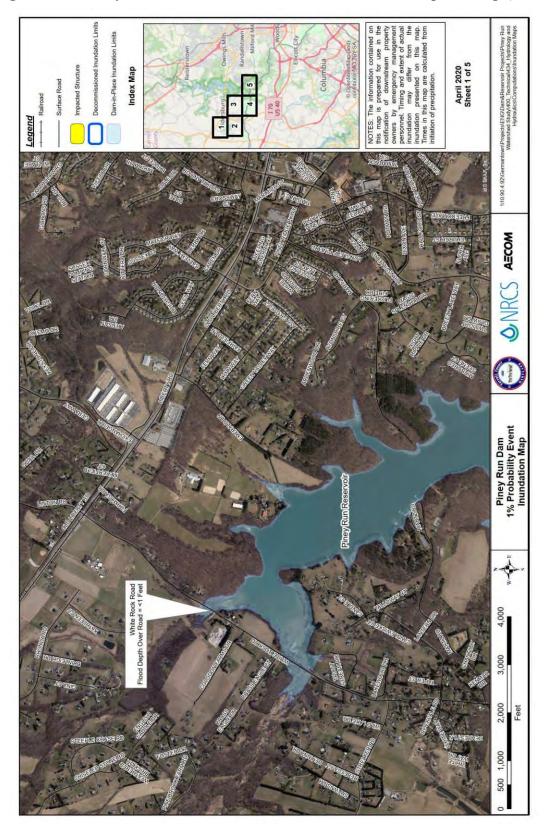


Figure C - 8. Piney Run Dam 1% AEP Non-Breach Event Floodplain Map (2 of 5)

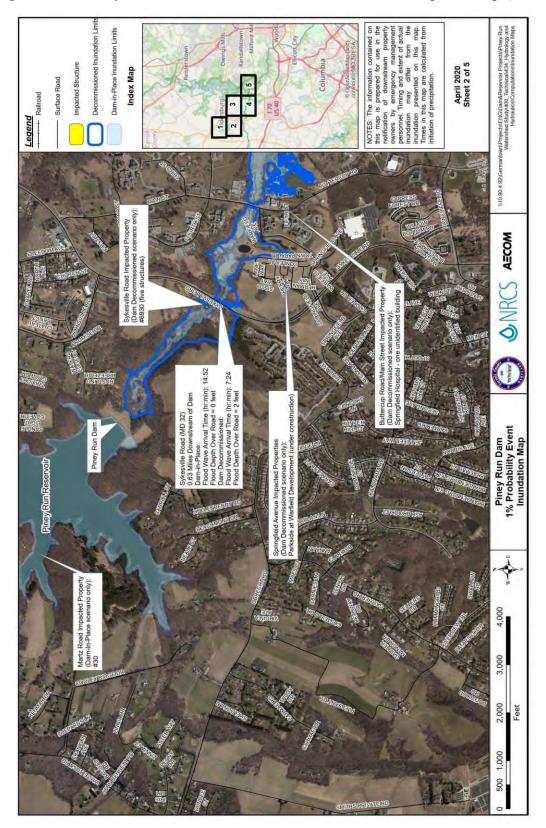


Figure C - 9. Piney Run Dam 1% AEP Non-Breach Event Floodplain Map (3 of 5)

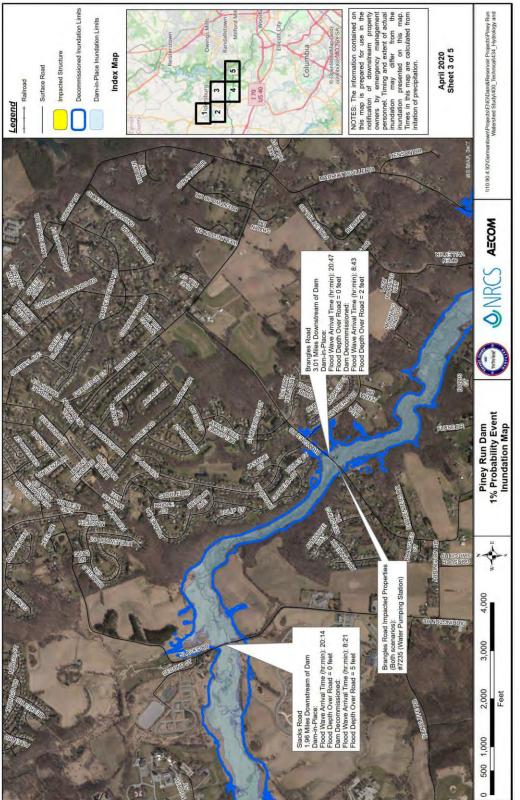


Figure C - 10. Piney Run Dam 1% AEP Non-Breach Event Floodplain Map (4 of 5)



Figure C - 11. Piney Run Dam 1% AEP Non-Breach Event Floodplain Map (5 of 5)

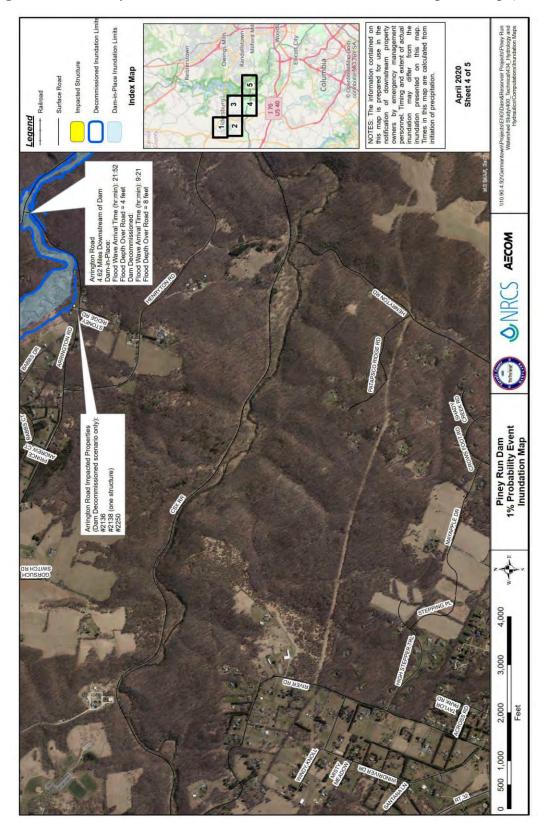


Figure C - 12. Piney Run Dam 0.2% AEP Non-Breach Event Floodplain Map (1 of 5)

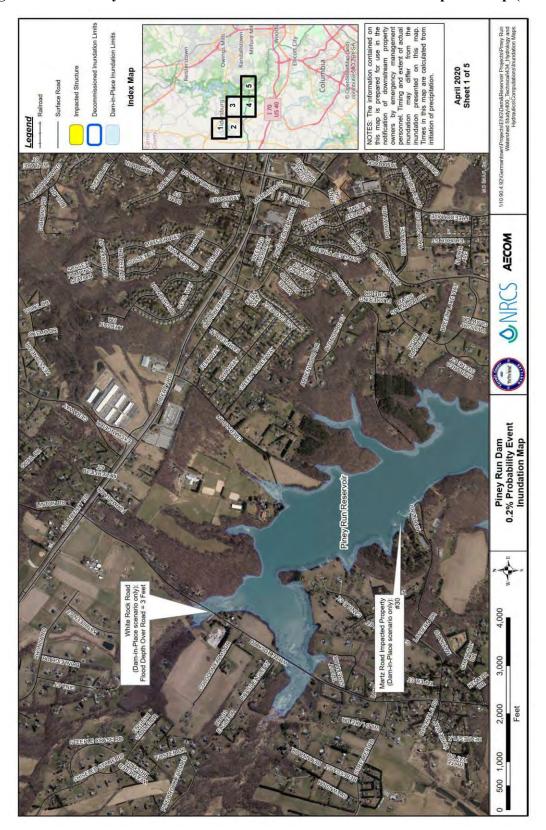


Figure C - 13. Piney Run Dam 0.2% AEP Non-Breach Event Floodplain Map (2 of 5)

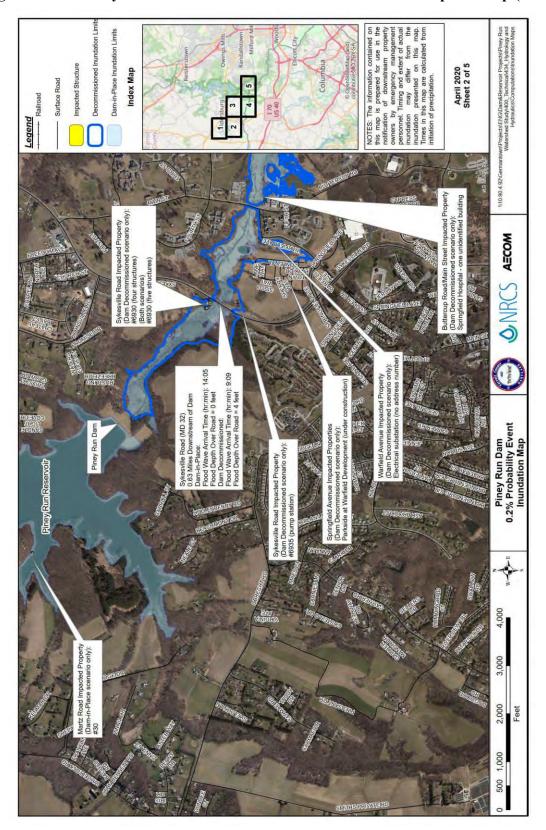


Figure C - 14. Piney Run Dam 0.2% AEP Non-Breach Event Floodplain Map (3 of 5)

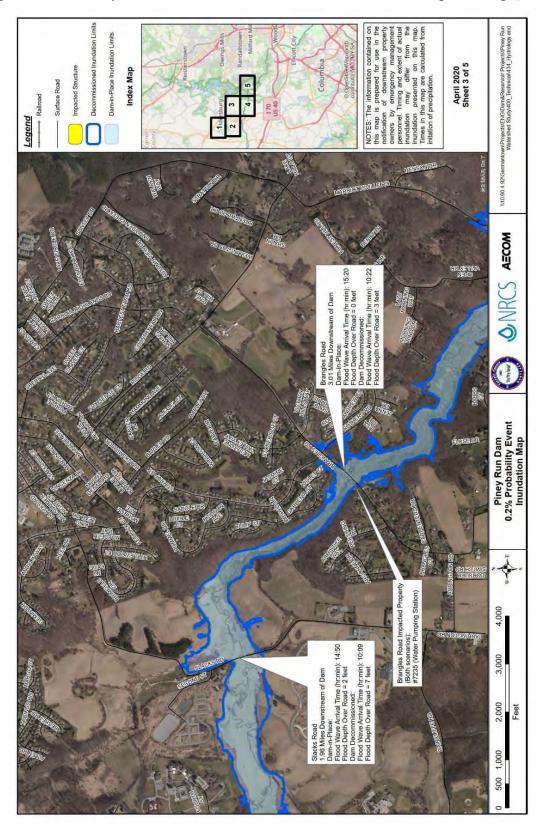


Figure C - 15. Piney Run Dam 0.2% AEP Non-Breach Event Floodplain Map (4 of 5)

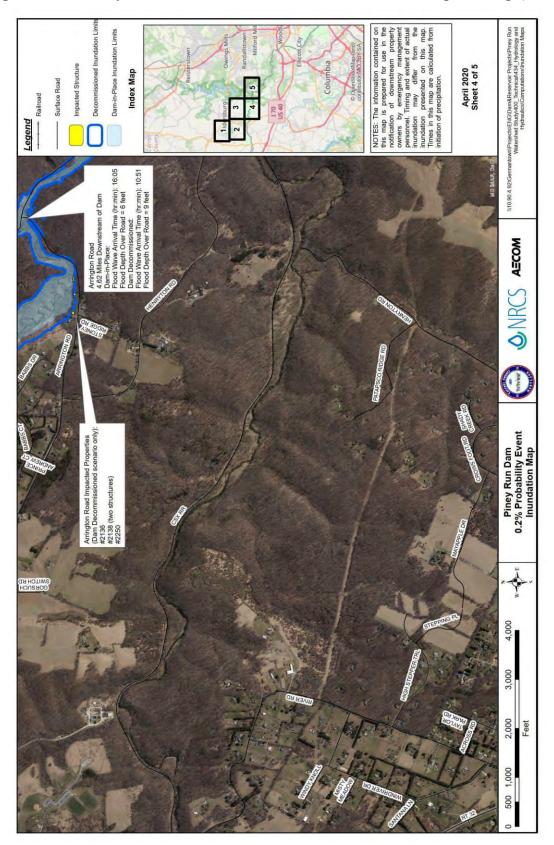
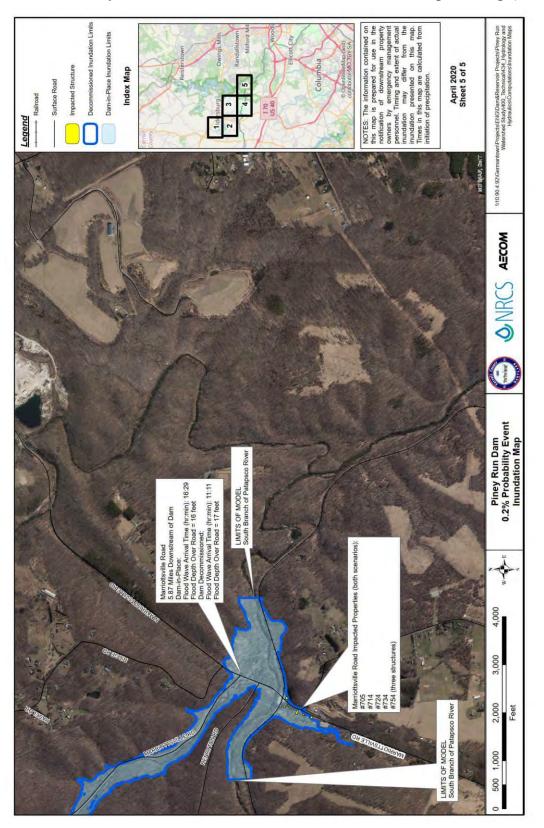


Figure C - 16. Piney Run Dam 0.2% AEP Non-Breach Event Floodplain Map (5 of 5)



A≡COM Piney Run Dam PMF Breach Inundation Map 2,000 1,000 200

Figure C - 17. Piney Run Dam Hydrologic Breach Inundation Map (1 of 14)

PMF Inundation Limits Index Map **A**≡COM Piney Run Dam PMF Breach Inundation Map 2,000 1,000 200

Figure C - 18. Piney Run Dam Hydrologic Breach Inundation Map (2 of 14)

m/Projects/ENG/Dam&Reservoir Projects/Piney Watershed Study/400 Technical/434 Hydrology Index Map **A**≡COM **♦**NRCS MacBeth #7132 #7133 #7134 Piney Run Dam PMF Breach Inundation Map Shub Drive #7573 #7575 #7576 3,000 2,000 500 1,000

Figure C - 19. Piney Run Dam Hydrologic Breach Inundation Map (3 of 14)

Index Map Arrington Road 4.62 Miles Downstream of Dam Flood Wave Arrival Time (hr.min): 1:36 Flood Depth Over Road = 37 feet 1110.90.4.92\G **A**≡COM **ONRCS** Piney Run Dam PMF Breach Inundation Map Arington Road Impacted Proper #7134 #2136 Was structures) #2250 #2251 #2211 #2213 Stoney Ridge Baptist Church 3,000 LIMITS OF MODEL South Branch of Patapsco Rive 2,000 1,000 200

Figure C - 20. Piney Run Dam Hydrologic Breach Inundation Map (4 of 14)

NRCS AECOM Piney Run Dam PMF Breach Inundation Map 3,000 LIMITS OF MODEL North Branch of Patap at Liberty Dam 2,000 Feet 500 1,000

Figure C - 21. Piney Run Dam Hydrologic Breach Inundation Map (5 of 14)

Index Map NRCS AECOM Marriottsville Road Impacted Prop #11411 FLOW DIRECTION Piney Run Dam PMF Breach Inundation Map 3,000 2,000 500 1,000

Figure C - 22. Piney Run Dam Hydrologic Breach Inundation Map (6 of 14)

Index Map **A**≡COM Piney Run Dam PMF Breach Inundation Map 2,000

Figure C - 23. Piney Run Dam Hydrologic Breach Inundation Map (7 of 14)

A≡COM Piney Run Dam PMF Breach Inundation Map 4,000 3,000 2,000 1,000 200

Figure C - 24. Piney Run Dam Hydrologic Breach Inundation Map (8 of 14)

A≡COM Piney Run Dam PMF Breach Inundation Map 3,000 2,000 1,000

Figure C - 25. Piney Run Dam Hydrologic Breach Inundation Map (9 of 14)

A≡COM Piney Run Dam PMF Breach Inundation Map 2,000

Figure C - 26. Piney Run Dam Hydrologic Breach Inundation Map (10 of 14)

PMF Breach Inundation PMF Inundation Limits Legend **A**≡COM Piney Run Dam PMF Breach Inundation Map 177,000 118,000 29,50059,000

Figure C - 27. Piney Run Dam Hydrologic Breach Inundation Map (11 of 14)

PMF Breach Inundation PMF Inundation Limits **A**≡COM Piney Run Dam PMF Breach Inundation Map 177,000 118,000 29,50059,000

Figure C - 28. Piney Run Dam Hydrologic Breach Inundation Map (12 of 14)

PMF Breach Inundation PMF Inundation Limits **A**≡COM Piney Run Dam PMF Breach Inundation Map 4,000 3,000 2,000 1,000

Figure C - 29. Piney Run Dam Hydrologic Breach Inundation Map (13 of 14)

PMF Breach Inundation PMF Inundation Limits **A**≡COM Piney Run Dam PMF Breach Inundation Map Main Street I #5681 #5695 236,000 177,000 118,000 29,50059,000

Figure C - 30. Piney Run Dam Hydrologic Breach Inundation Map (14 of 14)

Figure C - 31. Piney Run Dam Existing Conditions

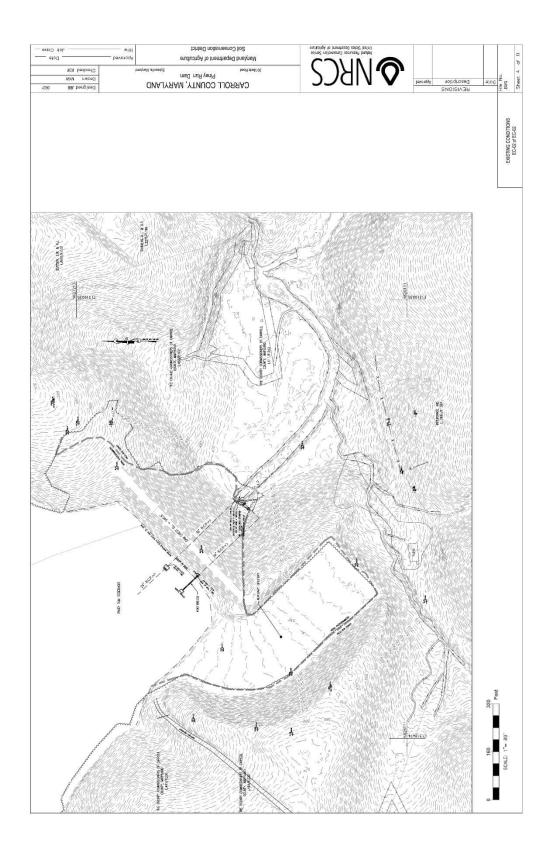


Figure C - 32. Piney Run Dam Alternative 1 Site Plan

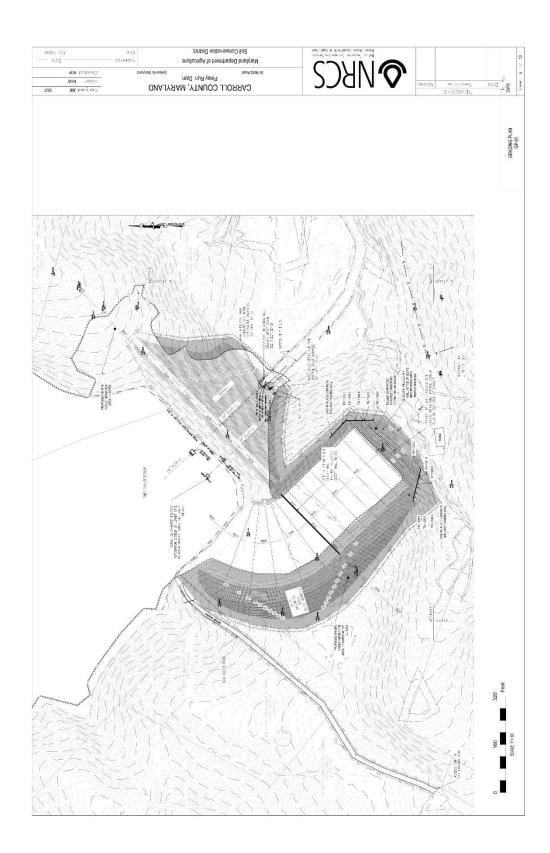


Figure C - 33. Piney Run Dam Alternative 1 Embankment Typical Section

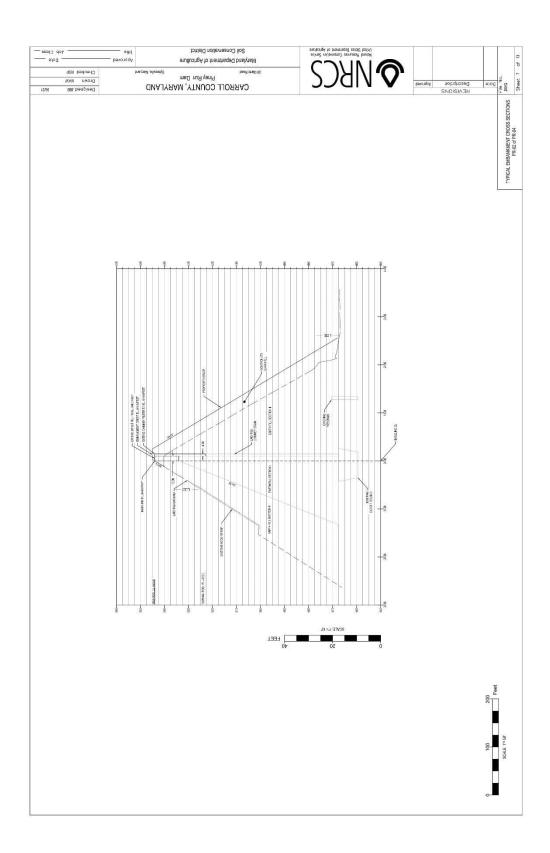


Figure C - 34. Piney Run Dam Alternative 1 Auxiliary Spillway Profile

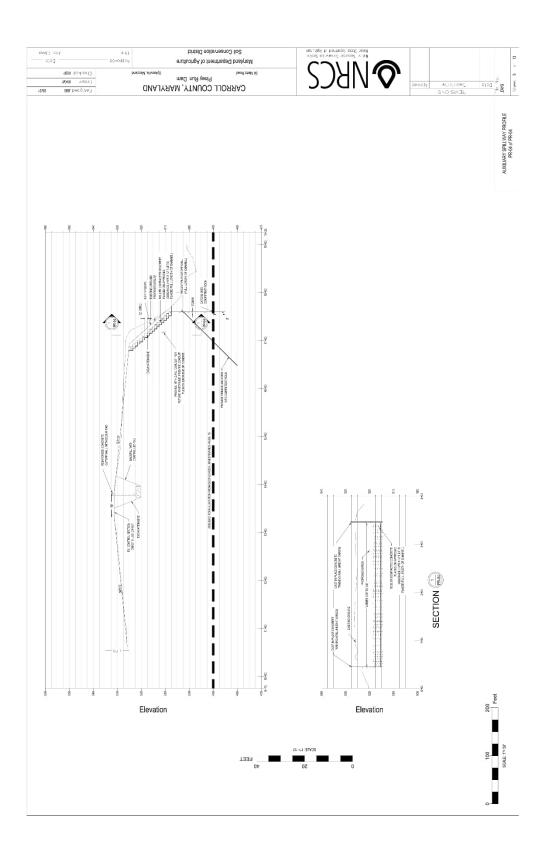


Figure C - 35. Piney Run Dam Principal Spillway End Wall Modifications

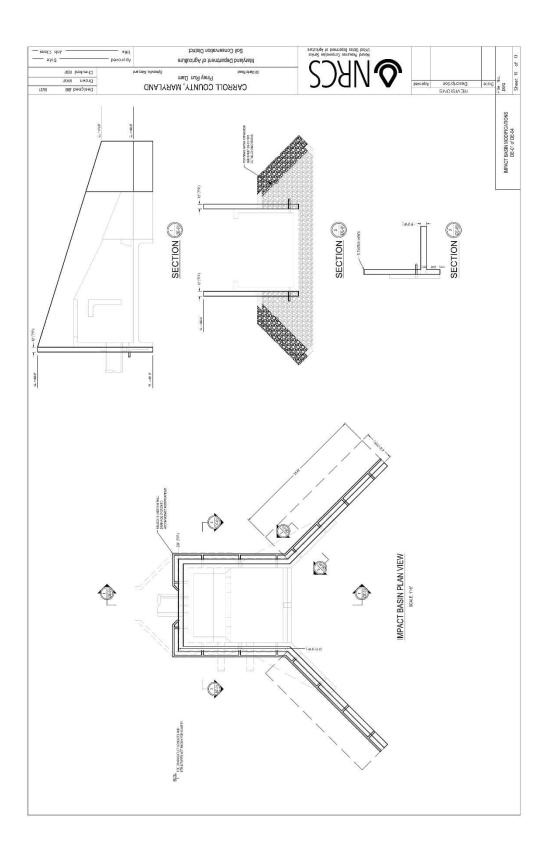
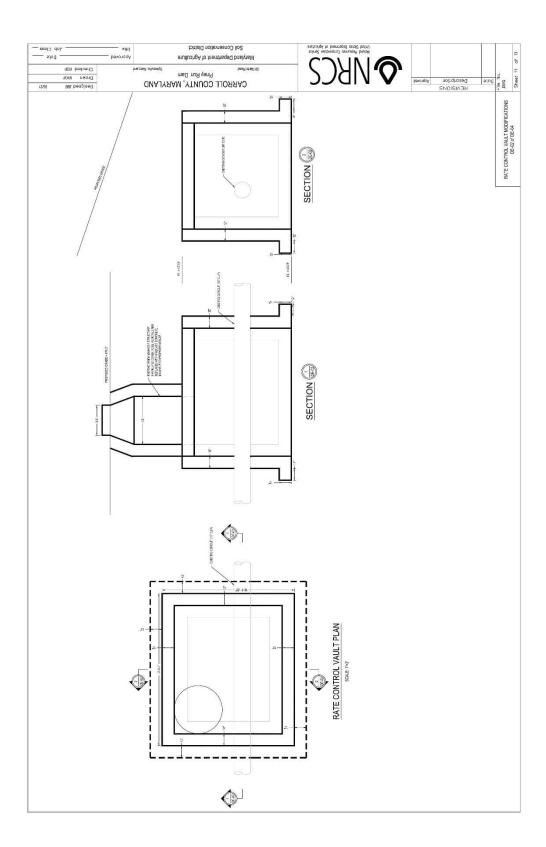


Figure C-36. Piney Run Dam Rate Control Vault Modifications



Designed JBB Checked RDP CARROLL COUNTY, MARYLAND
Piney Run Dam
Stepaule Nor SECTION SECTION 🚉 TOE DRAIN OUTLET PLAN VIEW SOME 1'-5

Figure C - 37. Piney Run Dam Internal Drain Modifications

 $\label{eq:Figure C-38.} \textbf{Geologic Investigation Plan}$

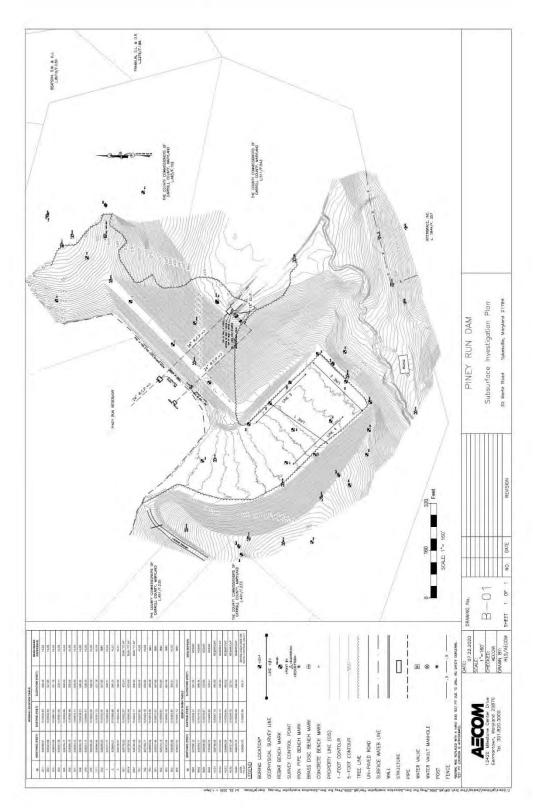


Figure 3 Delineated Features Index Piney Run Watershed Study Bureau of Resource Management Carroll County, Maryland

Figure C - 39. Piney Run Study Area Water Resources

Figure 5- Vegetation Study Area 520 Baltimore Invasive Species Present Annapolis Forest Cover Washington

Figure C - 40. Piney Run Study Area Vegetation

Figure C - 41. Piney Run FEMA Flood Map

