



NRCS LITTLE RIVER WATERSHED DAM NO. 25

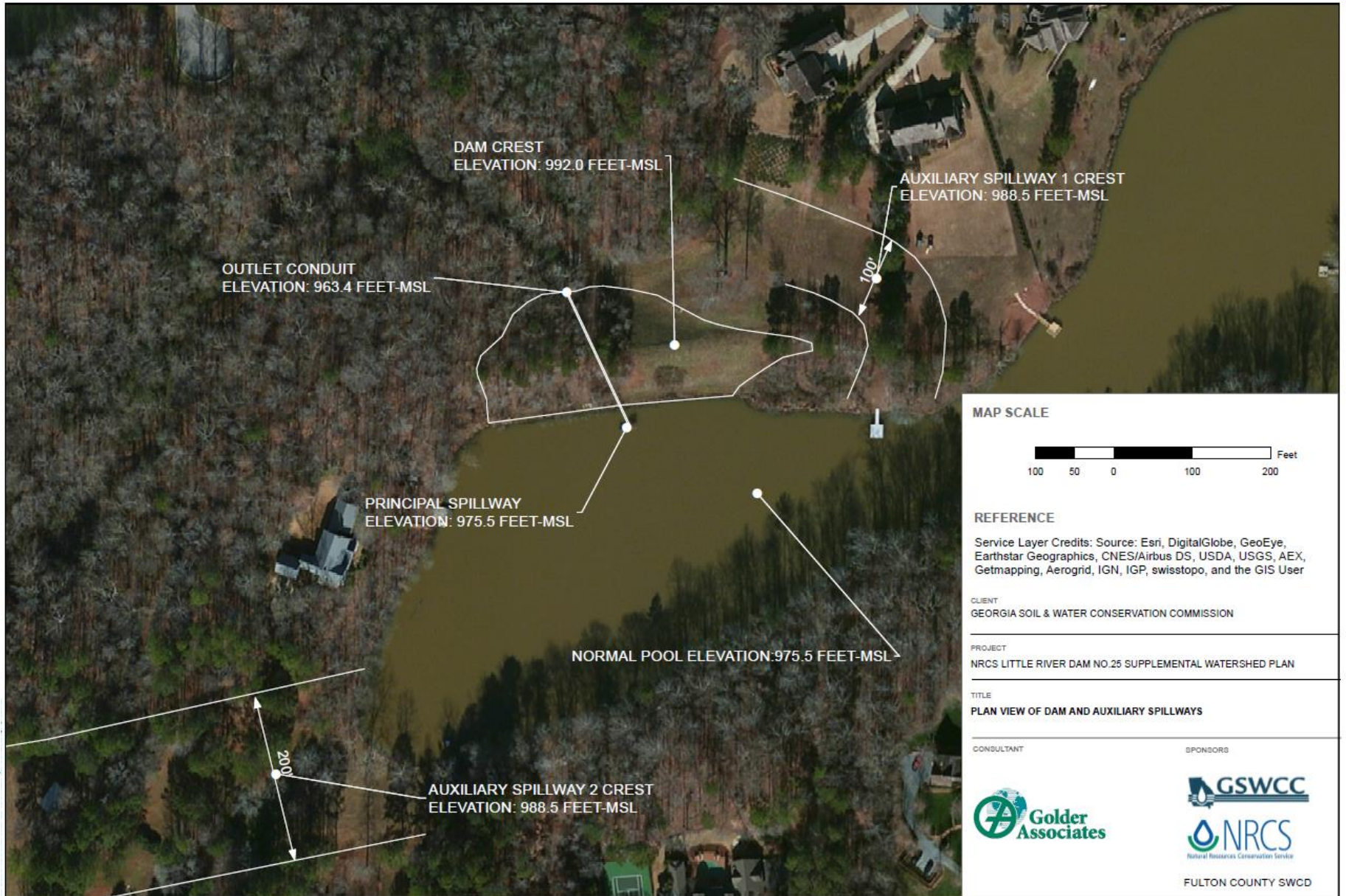
**Watershed Dam Rehabilitation
Public Engagement Meeting – Structural
Options Presentation
June 26, 2017**

Gregg W. Hudock, P.E.
ghudock@golder.com

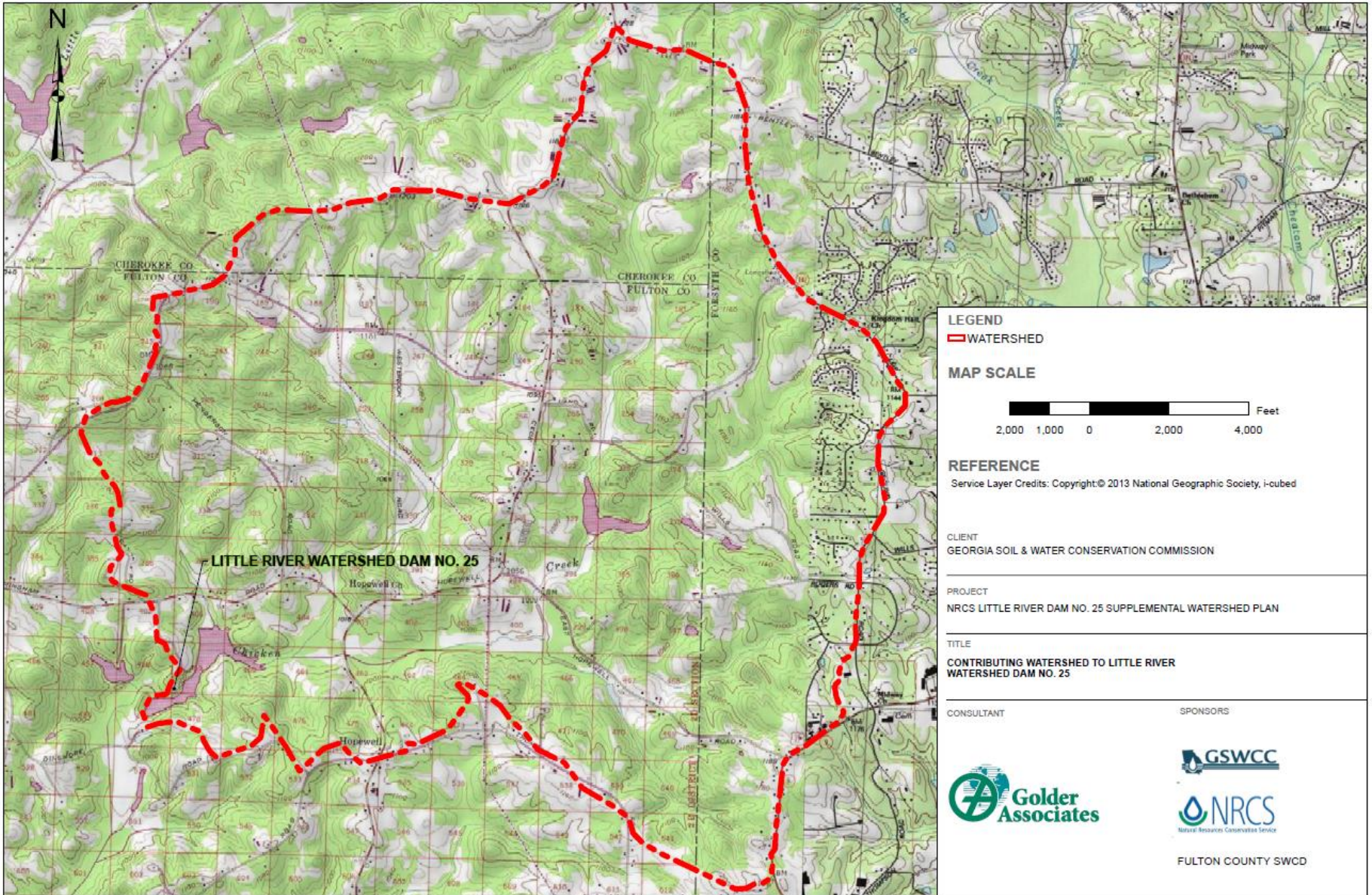




LR-25 Dam



LR-25 Watershed





LITTLE RIVER DAM 25 COMPLIANCE STUDIES



- **Existing Dam is SAFE and operating as designed**
- 16 structures inside the breach inundation zone
- Minor repairs are needed to the embankment and principal spillway
- Compliance with GA SDP Design criteria - existing Dam Overtops by 6 ft.
- Compliance with NRCS Design criteria – existing Dam Overtops by 11 ft.



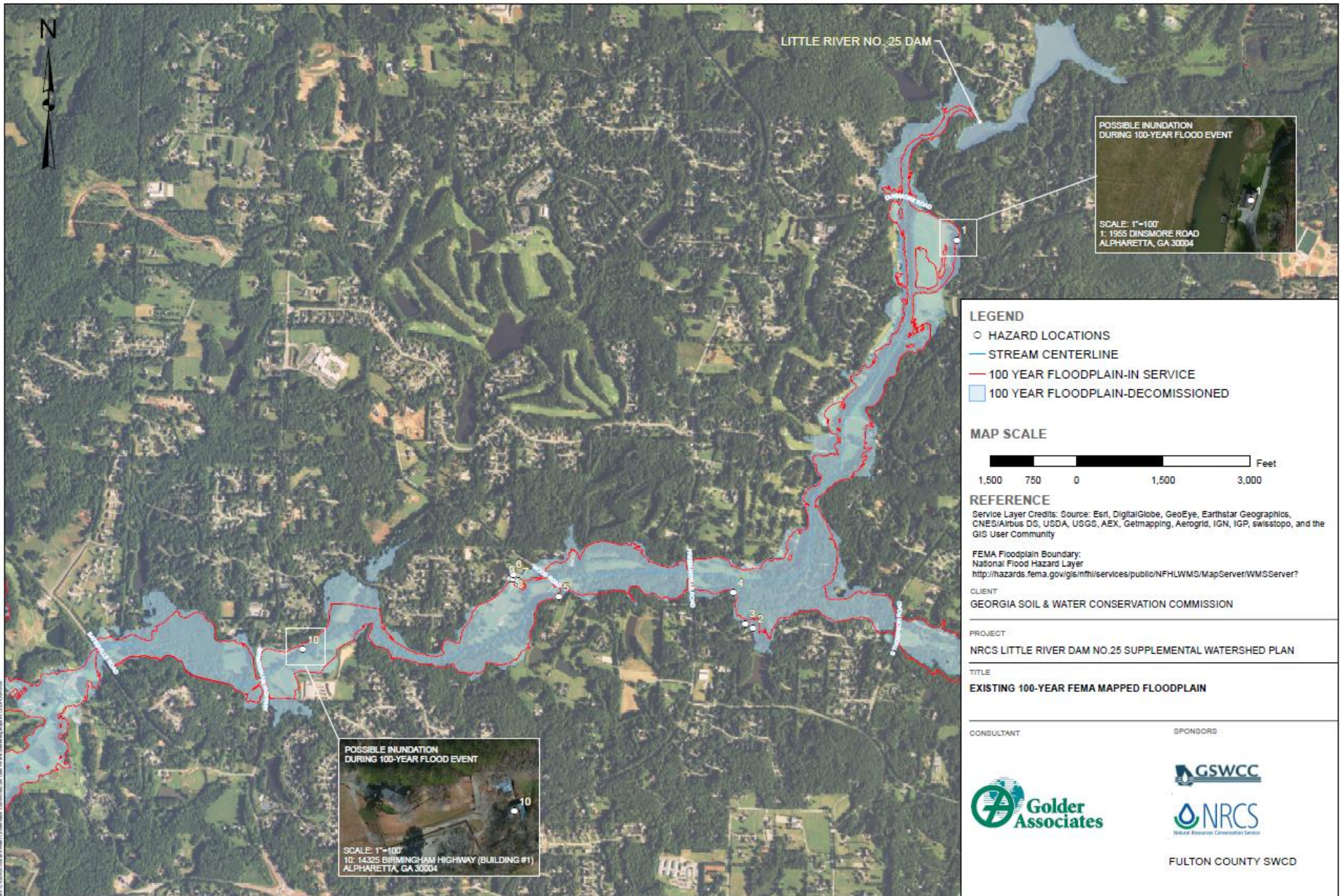
REHABILITATION ALTERNATIVES



- Alternatives studied:
 - Do nothing = GA SDP Compliance (Structural)
 - Remove the dam
 - Non structural = Breach Zone Buyout
 - Structural = NRCS Compliance



DAM REMOVAL



LITTLE RIVER NO. 25 DAM

POSSIBLE INUNDATION DURING 100-YEAR FLOOD EVENT

SCALE: 1"=100'
1: 1955 DINSMORE ROAD
ALPHARETTA, GA 30004

POSSIBLE INUNDATION DURING 100-YEAR FLOOD EVENT

SCALE: 1"=100'
10: 14325 BIRMINGHAM HIGHWAY (BUILDING #1)
ALPHARETTA, GA 30004

LEGEND

- HAZARD LOCATIONS
- STREAM CENTERLINE
- 100 YEAR FLOODPLAIN-IN SERVICE
- 100 YEAR FLOODPLAIN-DECOMMISSIONED

MAP SCALE



REFERENCE

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

FEMA Floodplain Boundary:
National Flood Hazard Layer
<http://hazards.fema.gov/gis/infl/services/public/NFHLWMS/MapServer/WMS/Server?>

CLIENT
GEORGIA SOIL & WATER CONSERVATION COMMISSION

PROJECT
NRCS LITTLE RIVER DAM NO.25 SUPPLEMENTAL WATERSHED PLAN

TITLE
EXISTING 100-YEAR FEMA MAPPED FLOODPLAIN

CONSULTANT

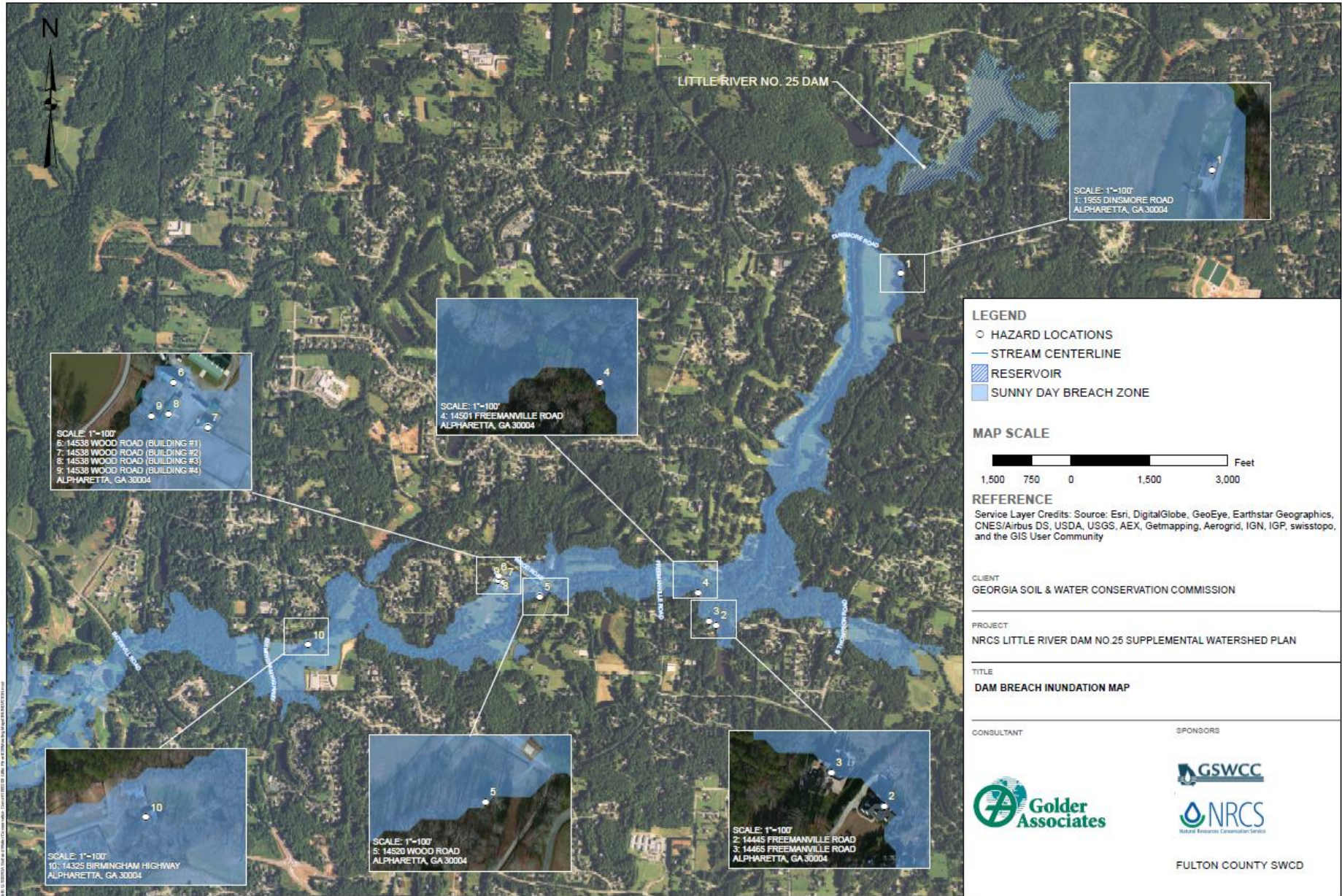
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FULTON COUNTY SWCD



BREACH ZONE BUYOUT



LITTLE RIVER NO. 25 DAM

SCALE: 1"=100'
 1: 1555 DINSMORE ROAD
 ALPHARETTA, GA 30004

SCALE: 1"=100'
 4: 14501 FREEMANVILLE ROAD
 ALPHARETTA, GA 30004

SCALE: 1"=100'
 6: 14538 WOOD ROAD (BUILDING #1)
 7: 14538 WOOD ROAD (BUILDING #2)
 8: 14538 WOOD ROAD (BUILDING #3)
 9: 14538 WOOD ROAD (BUILDING #4)
 ALPHARETTA, GA 30004

SCALE: 1"=100'
 10: 14325 BIRMINGHAM HIGHWAY
 ALPHARETTA, GA 30004

SCALE: 1"=100'
 5: 14520 WOOD ROAD
 ALPHARETTA, GA 30004

SCALE: 1"=100'
 2: 14445 FREEMANVILLE ROAD
 3: 14465 FREEMANVILLE ROAD
 ALPHARETTA, GA 30004

LEGEND

- HAZARD LOCATIONS
- STREAM CENTERLINE
- ▨ RESERVOIR
- SUNNY DAY BREACH ZONE

MAP SCALE



REFERENCE

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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 GEORGIA SOIL & WATER CONSERVATION COMMISSION

PROJECT
 NRCS LITTLE RIVER DAM NO.25 SUPPLEMENTAL WATERSHED PLAN

TITLE
 DAM BREACH INUNDATION MAP

CONSULTANT



SPONSORS

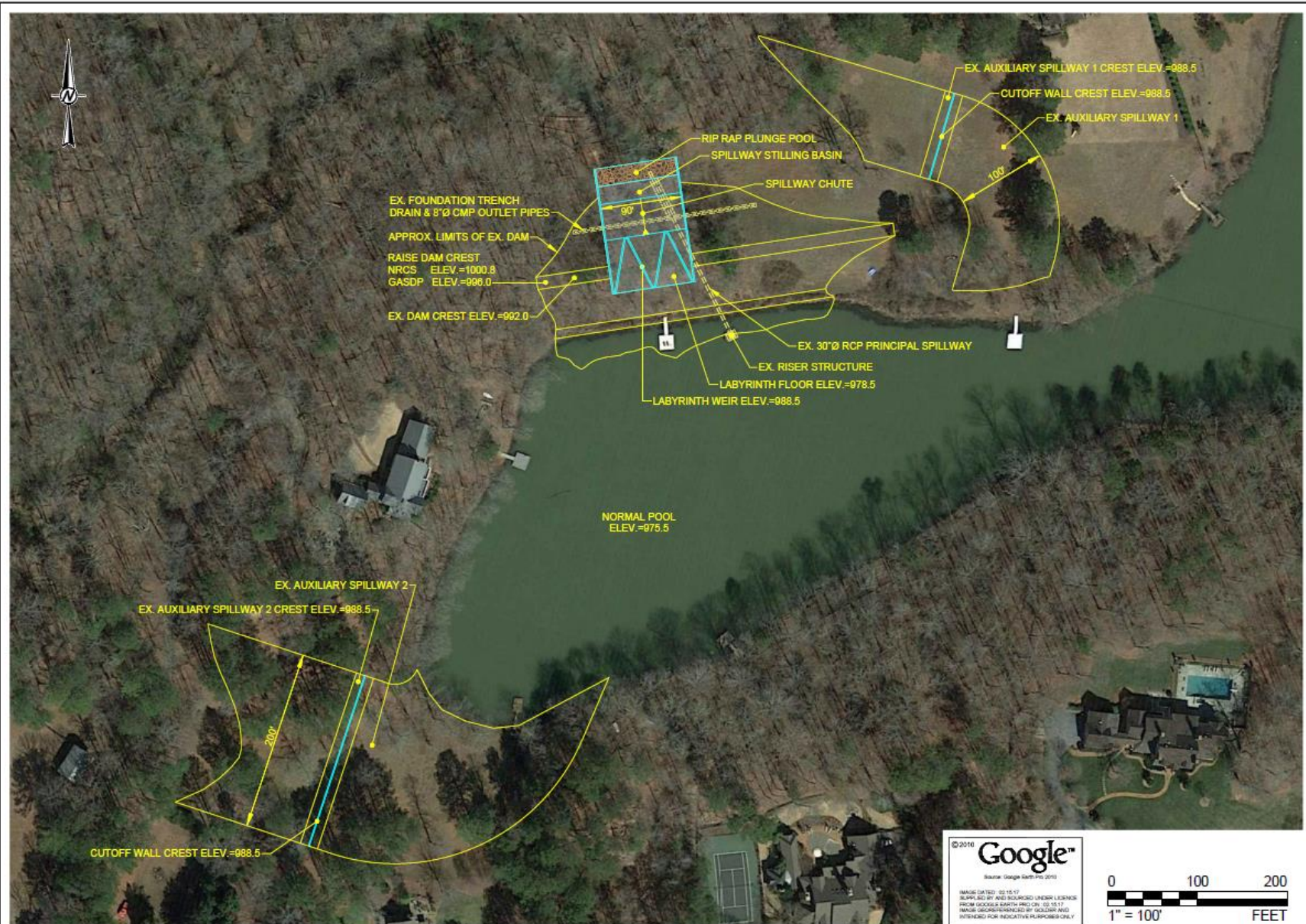


FULTON COUNTY SWCD

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90 FT WIDE LABYRINTH WEIR SPILLWAY



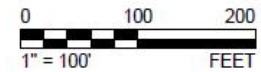
NATURAL RESOURCES CONSERVATION SERVICE
 GEORGIA SOIL & WATER CONSERVATION COMMISSION

20170221
RMK
GMH
GMH



LITTLE RIVER WATERSHED DAM NO 25
 SUPPLEMENTAL WATERSHED PLAN UPDATE

OPTION 1 - 90 FT LABYRINTH WEIR ON DAM CREST RAISE
 DAM CREST, CUTOFF WALLS IN AUXILIARY SPILLWAYS





190 FT WIDE RCC SPILLWAY



NATURAL RESOURCES CONSERVATION SERVICE
 GEORGIA SOIL & WATER CONSERVATION COMMISSION

DATE	20/07/2021
DESIGNER	FMS
CHECKER	DMH
APPROVER	DMH

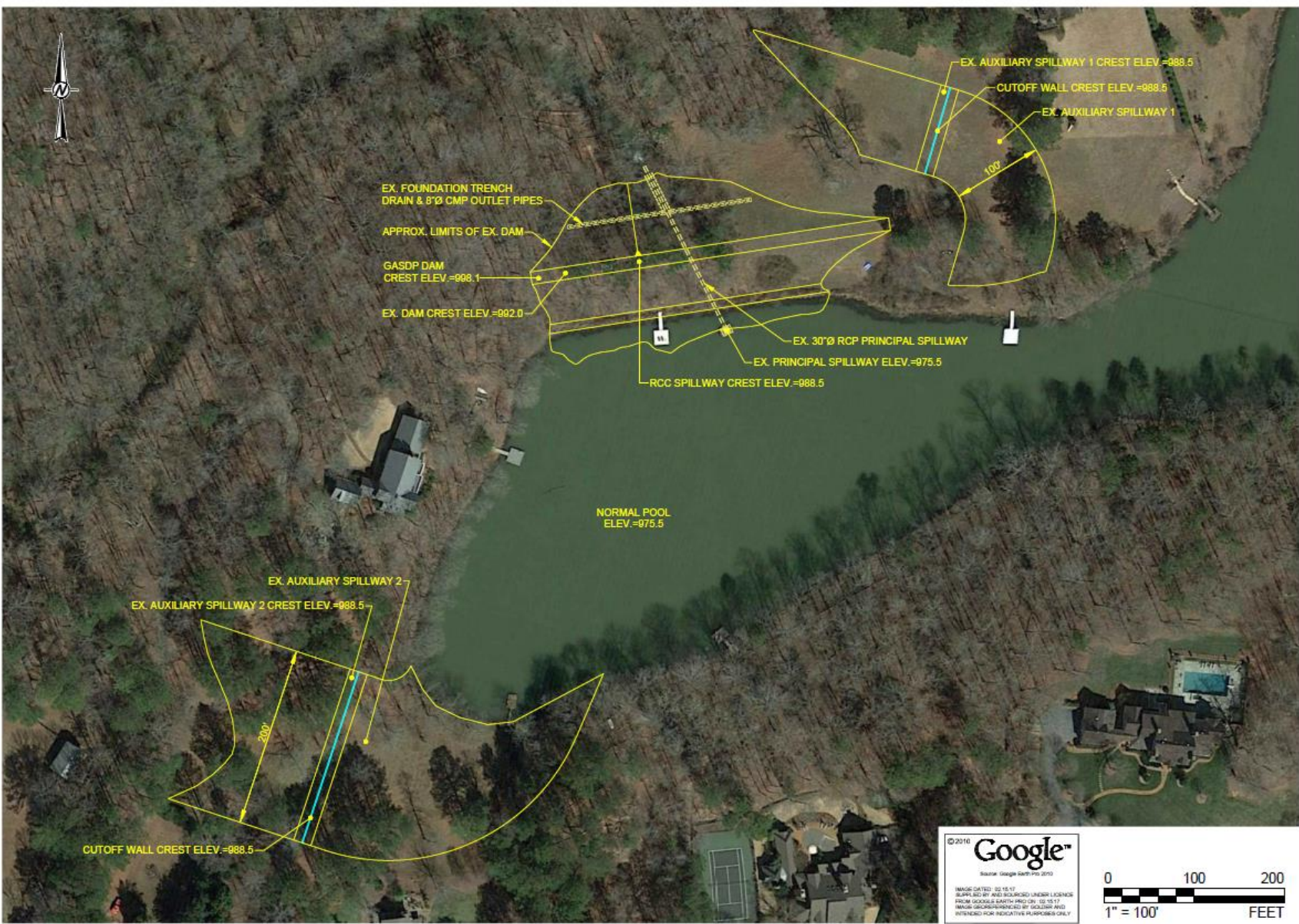


LITTLE RIVER WATERSHED DAM NO.25
 SUPPLEMENTAL WATERSHED PLAN UPDATE

OPTION 2 - 190 LF RCC WEIR ON DAM CREST, RAISE DAM
 CREST, CUTOFF WALLS IN AUXILIARY SPILLWAYS



CUTOFF WALLS IN AUXILIARY SPILLWAYS



NATURAL RESOURCES CONSERVATION SERVICE
GEORGIA SOIL & WATER CONSERVATION COMMISSION

DATE	3/17/2021
DESIGNED BY	RMS
CHECKED BY	OMW
APPROVED BY	OMW

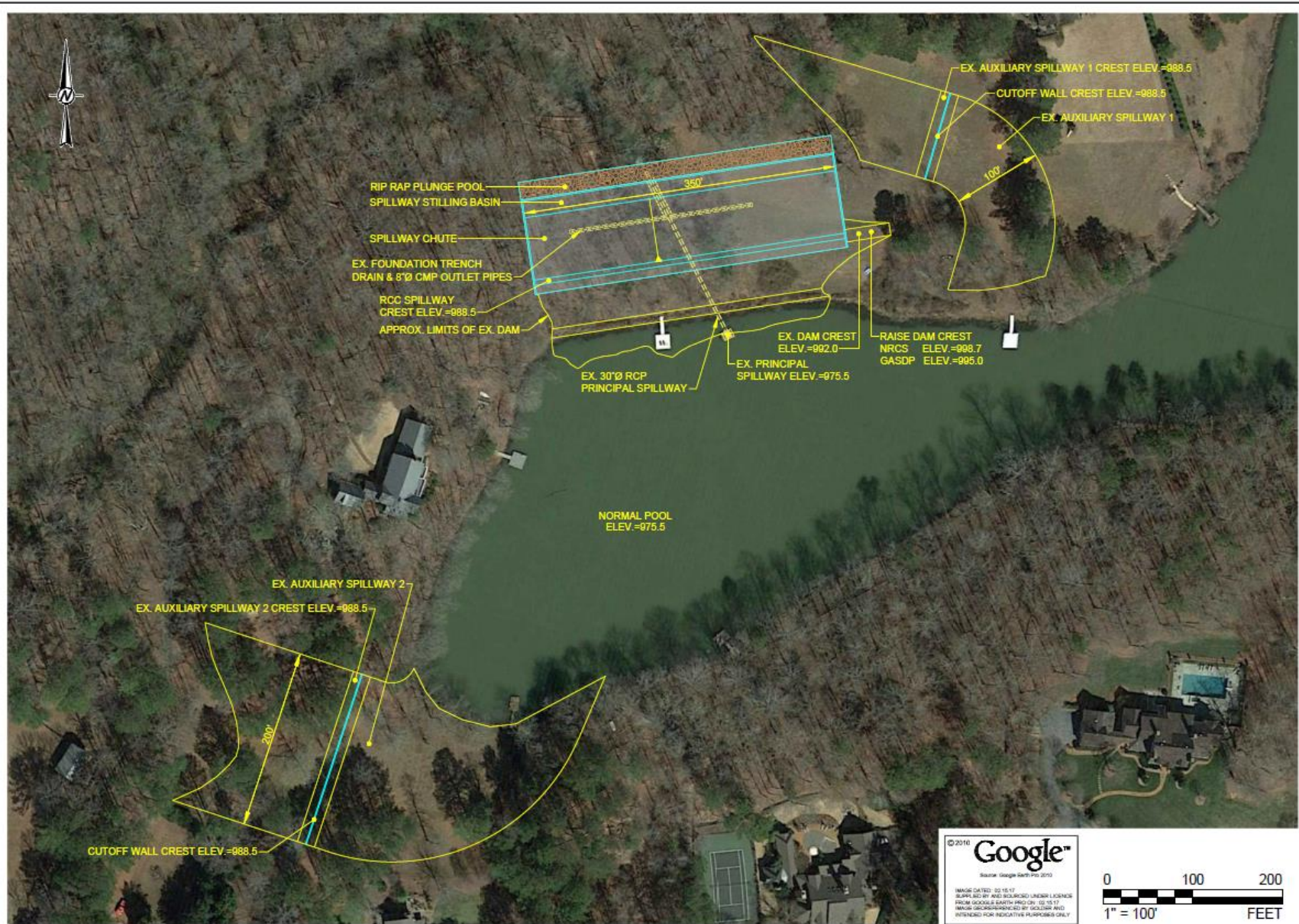


LITTLE RIVER WATERSHED DAM NO. 25
SUPPLEMENTAL WATERSHED PLAN UPDATE

OPTION 3 - NO STRUCTURE, RAISE DAM CREST,
CUTOFF WALLS IN AUXILIARY SPILLWAYS



350 FT WIDE RCC SPILLWAY



NATURAL RESOURCES CONSERVATION SERVICE
 GEORGIA SOIL & WATER CONSERVATION COMMISSION

20/07/2021

DATE	20/07/2021
DESIGNER	NRCS
CHECKER	GW/H
APPROVER	GW/H



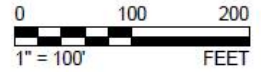
LITTLE RIVER WATERSHED DAM NO.25
 SUPPLEMENTAL WATERSHED PLAN UPDATE

OPTION 4 - 350 LF RCC WEIR ON DAM CREST, RAISE DAM CREST, CUTOFF WALLS IN AUXILIARY SPILLWAYS

1660298
 FIGURE 4

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LABYRINTH WEIR



Georgia State Financing
Investment Commission

Fulton County Soil & Water
Conservation District





WAVE/FLOOD WALL





CUTOFF WALL





ROLLER COMPACTED CONCRETE





ROLLER COMPACTED CONCRETE





ROLLER COMPACTED CONCRETE (COVERED)



Georgia State Financing
Investment Commission

Fulton County Soil & Water
Conservation District





NEXT STEPS



- NRCS Watershed Plan Update
- Comments on Watershed Plan
- Design (????)
- Permitting (????)
- Construction (????)

- Schedule: typically 2 to 3 years start to finish (depends on funding)



QUESTIONS?

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