

SOUTH CAROLINA EMERGENCY MANAGEMENT DIVISION



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“HOVERING FRIENDS OR FOES?”

UAV/UAS POLICY BARRIERS & RECOMMENDATIONS



HIGHEST CLASSIFICATION: **UNCLASSIFIED**
DEVELOPED/CLASSIFIED BY: PAT MILLER, RISK MGT COORDINATOR
DECLASSIFY ON: N/A
DERIVED FROM: MULTIPLE SOURCES

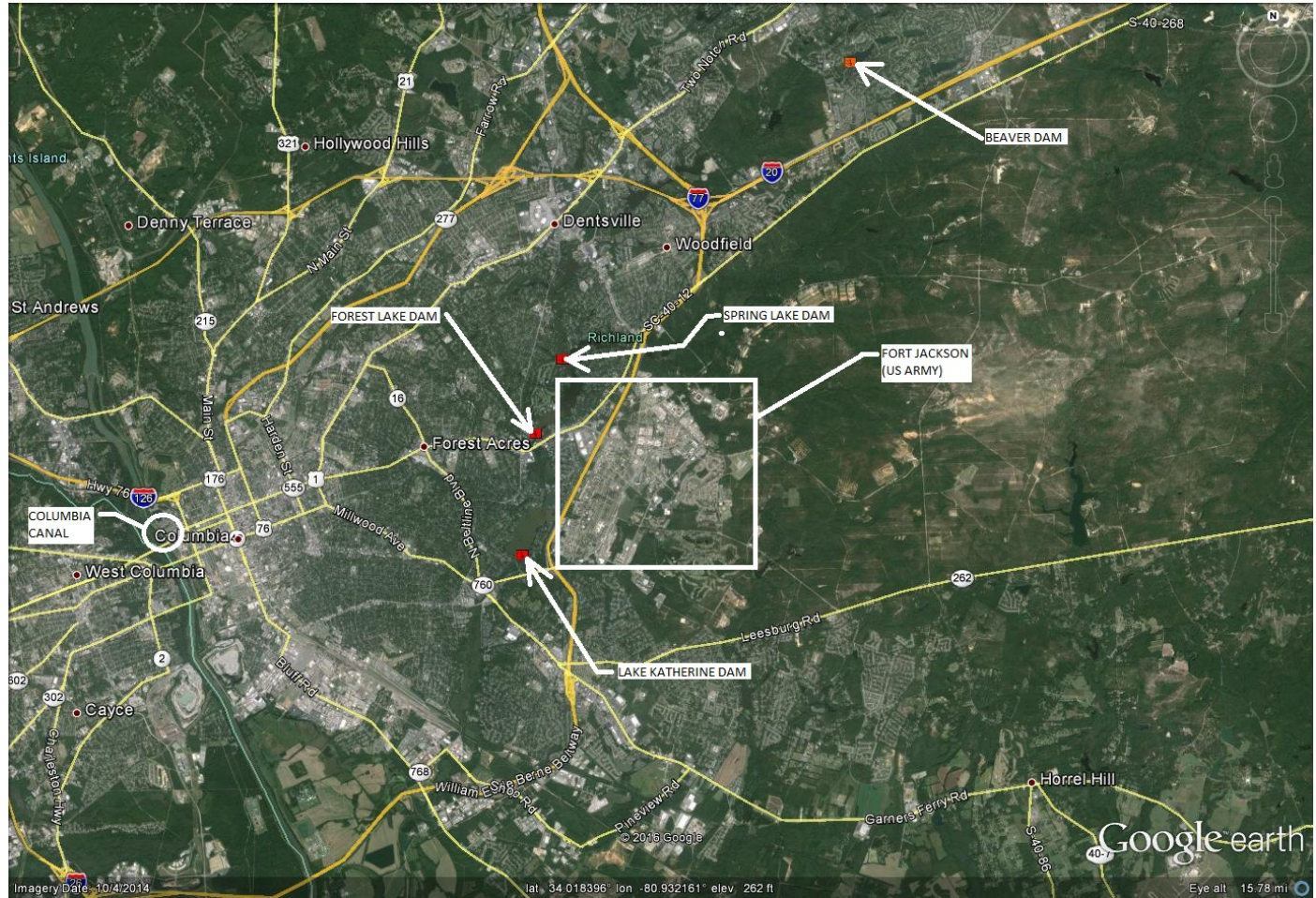
UNCLASSIFIED

DAMS IMAGED



LOCATIONS OF THE FOUR DAMS IMAGED BY USACE UAV TEAM ON OCT 9, 2015.

APPROXIMATE LOCATION OF COLUMBIA CANAL





BEAVER DAM

3

BEAVER DAM (NE
Columbia, SC)

IMAGED ON OCT 9
2015



Imagery Date: 10/4/2014 1995

lat 34.095581 lon -80.889792 elev 307 ft

Google earth

Eye alt 5884 ft

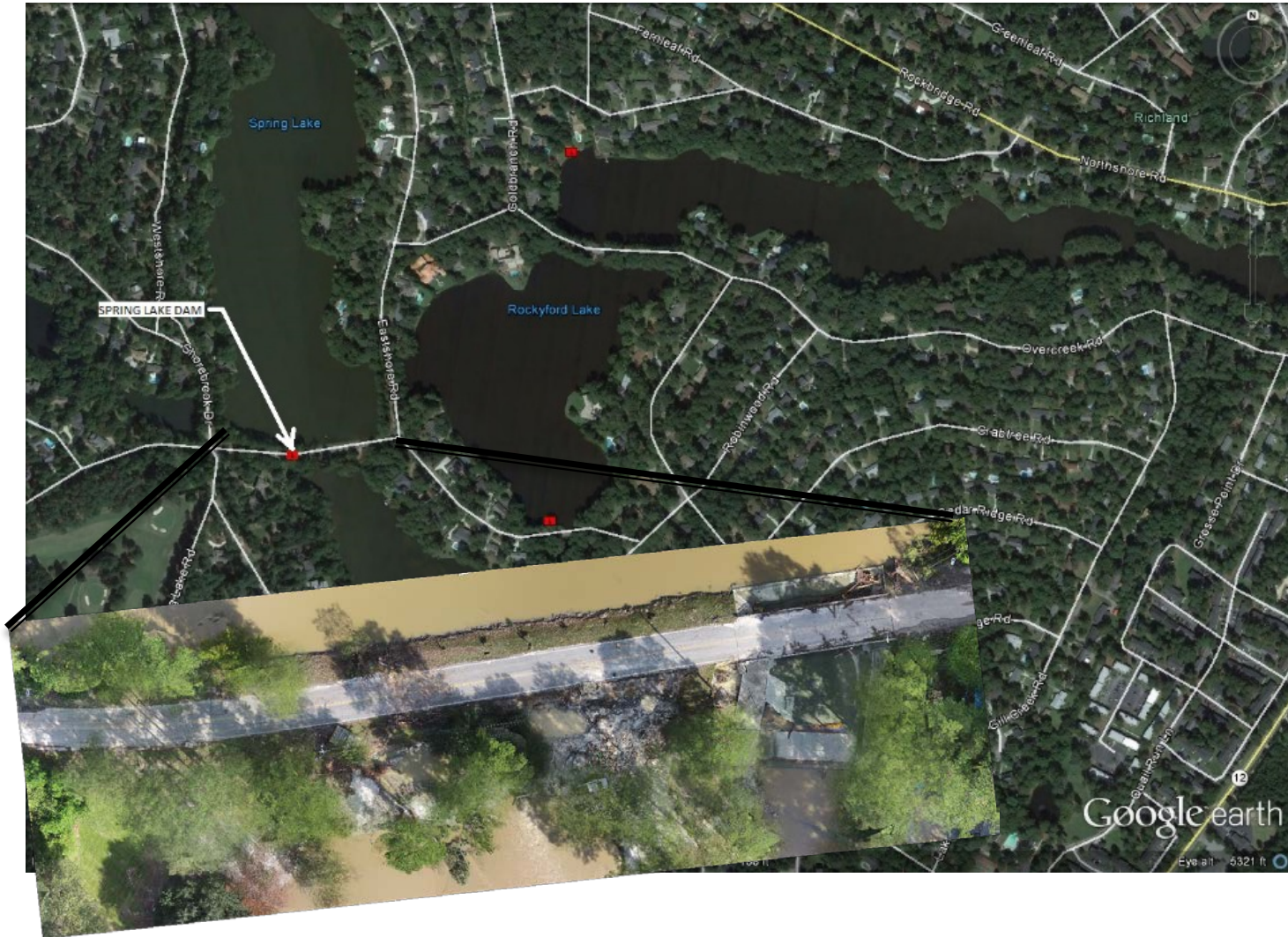


SPRING LAKE DAM

4

SPRING LAKE DAM
(NE Columbia, SC)

IMAGED ON OCT 9
2015 BY USACE



Google earth

Eye alt: 6321 ft

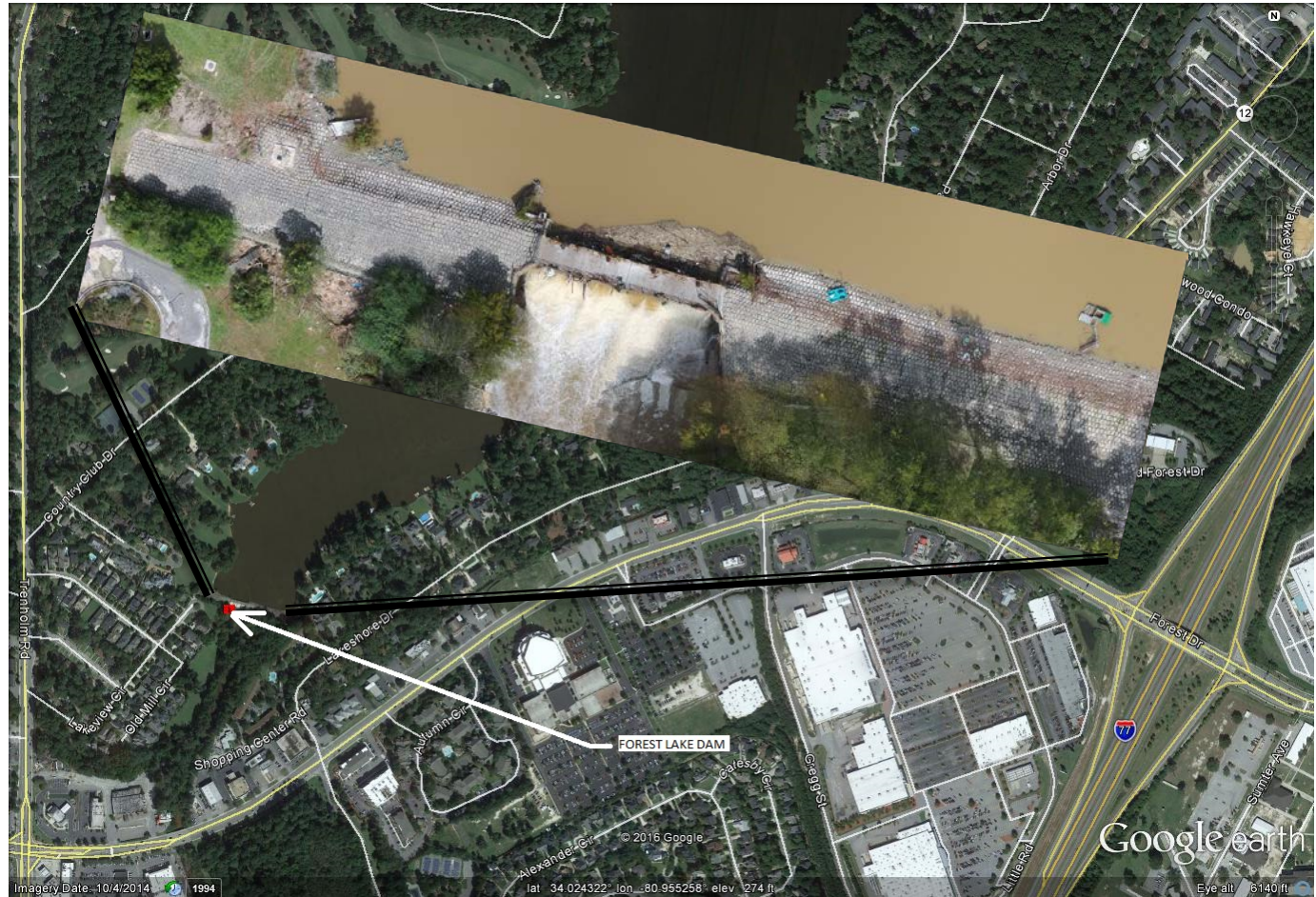


FOREST LAKE DAM

5

FOREST LAKE DAM
(NE Columbia, SC)

IMAGED BY USACE
on OCT 9, 2015





LAKE KATHERINE DAM

6

LAKE KATHERINE
DAM (NE Columbia,
SC)

IMAGED ON OCT 9
2015 BY USACE



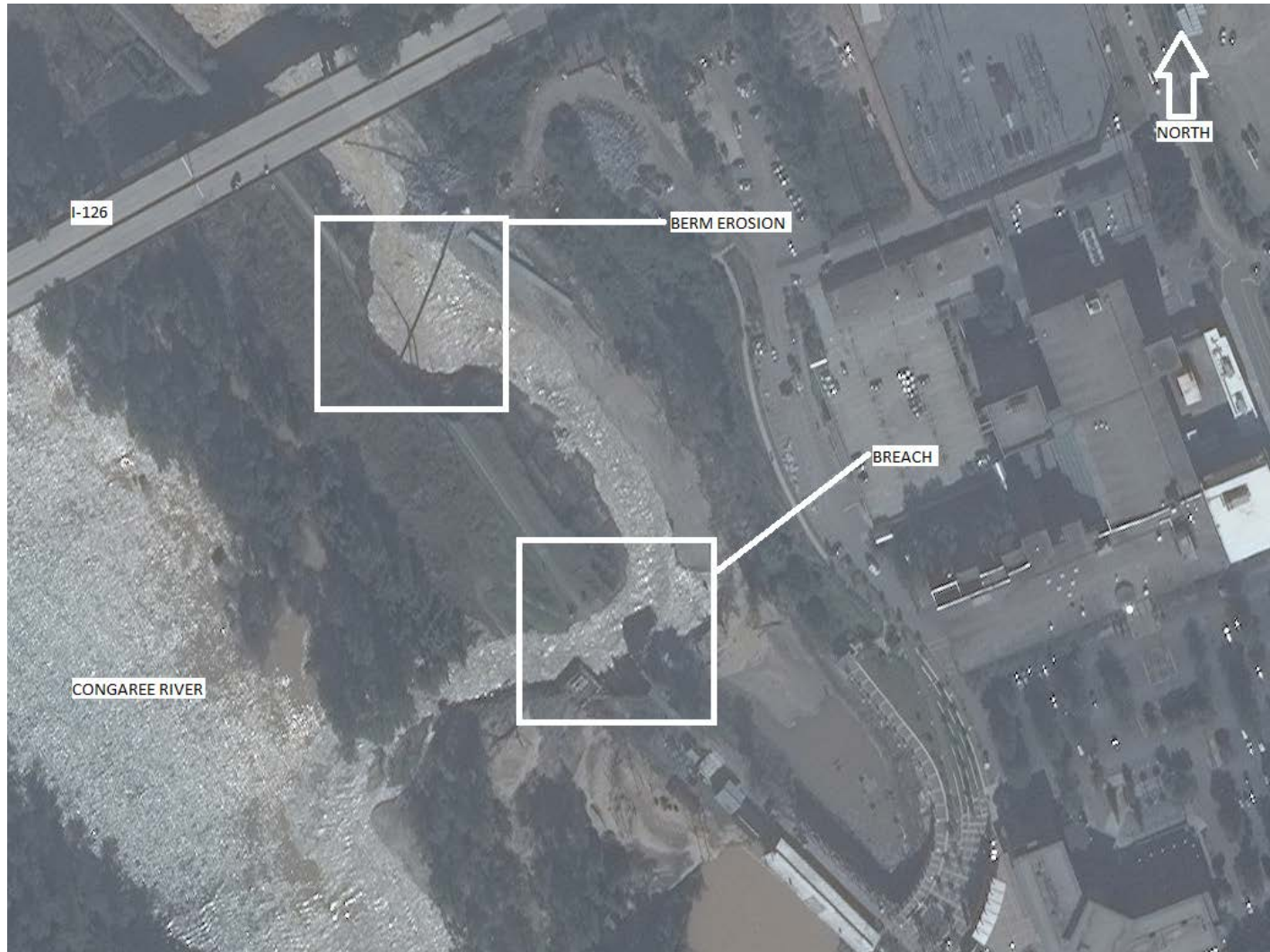


COLUMBIA CANAL

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COLUMBIA CANAL (NE
Columbia, SC)

IMAGED ON OCT 11-
12 2015 BY USACE





ANDREWS AIRPORT





POSSIBLE UAV/UAS MISSIONS

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- CI/KR Assessment
- HAZMAT Response
- Search & Rescue
- Damage Assessment





POLICY CONCERNS / RESTRICTIONS

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- ❑ RESTRICTED ON PURCHASING WITH DHS GRANT FUNDS – ON CONTROLLED EQUIP LIST
- ❑ FAA AIRSPACE DECONFLICTION (AIR BRANCH)
- ❑ ACCESS TO PRIVATE PROPERTY / PERMISSION TO OPERATE
- ❑ INTELLIGENCE OVERSIGHT CONCERNS WITH DoD ASSETS
- ❑ VARIOUS INTERPRETATIONS OF EXISTING POLICY
- ❑ POLICY/COSTS IMPEDE ABILITY TO TRAIN WITH INTERAGENCY PARTNERS
- ❑ PENDING STATE LEGISLATION

UNCLASSIFIED

SOUTH CAROLINA EMERGENCY MANAGEMENT DIVISION



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QUESTIONS???



SOURCES

- Hurricane Joaquin rain Total Image -
https://www.google.com/search?q=hurricane+joaquin+south+carolina&biw=1680&bih=933&source=Inms&tbm=isch&sa=X&ved=0ahUKEwjUyYz-pbTLAhXC4iYKHX-eDRMQ_AUIBygC#imgrc=5VonPfdonMSoyM%3A
- Drone Photo Cover Page -
https://www.google.com/search?q=hurricane+joaquin+south+carolina&biw=1680&bih=933&source=Inms&tbm=isch&sa=X&ved=0ahUKEwjUyYz-pbTLAhXC4iYKHX-eDRMQ_AUIBygC#tbm=isch&q=uav+drone&imgdii=dZFHV0DoPFdPeM%3A%3BdZFHV0DoPFdPeM%3A%3BtqjH6eaLFLWC3M%3A&imgrc=dZFHV0DoPFdPeM%3A
- HDR Engineering Inc. of the Carolinas; Gills Creek Watershed Assessment of Regulated Dams Report. Retrieved from: <http://www.scdhec.gov/Environment/WaterQuality/DamsReservoirs/> Feb 24, 2016.
- USACE, Jacksonville District; After Action Report (Draft), Unmanned Aerial System (UAS) Response Mission to Hurricane Joaquin Flooding Columbia SC.
- USACE, Jacksonville District UAS News, Volume 1, Issue 12, November 2015.