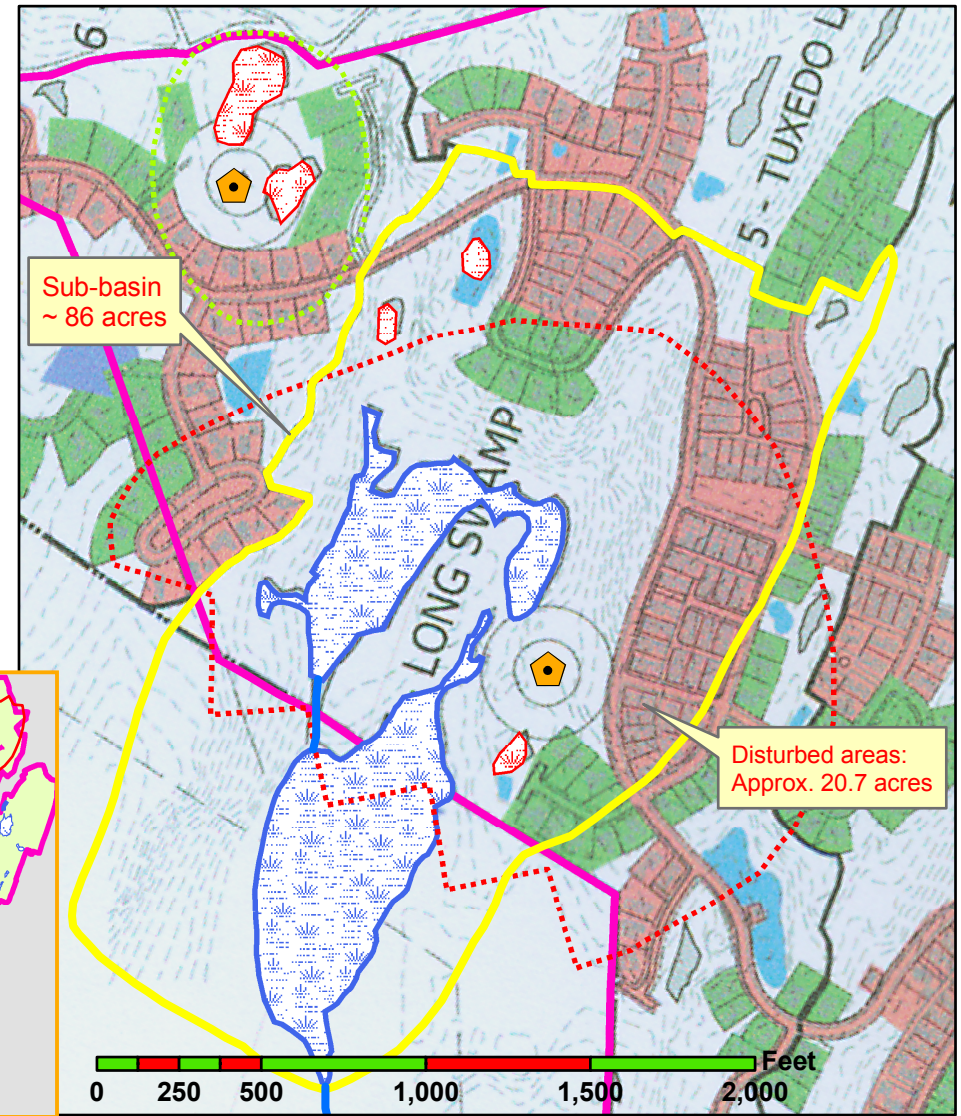
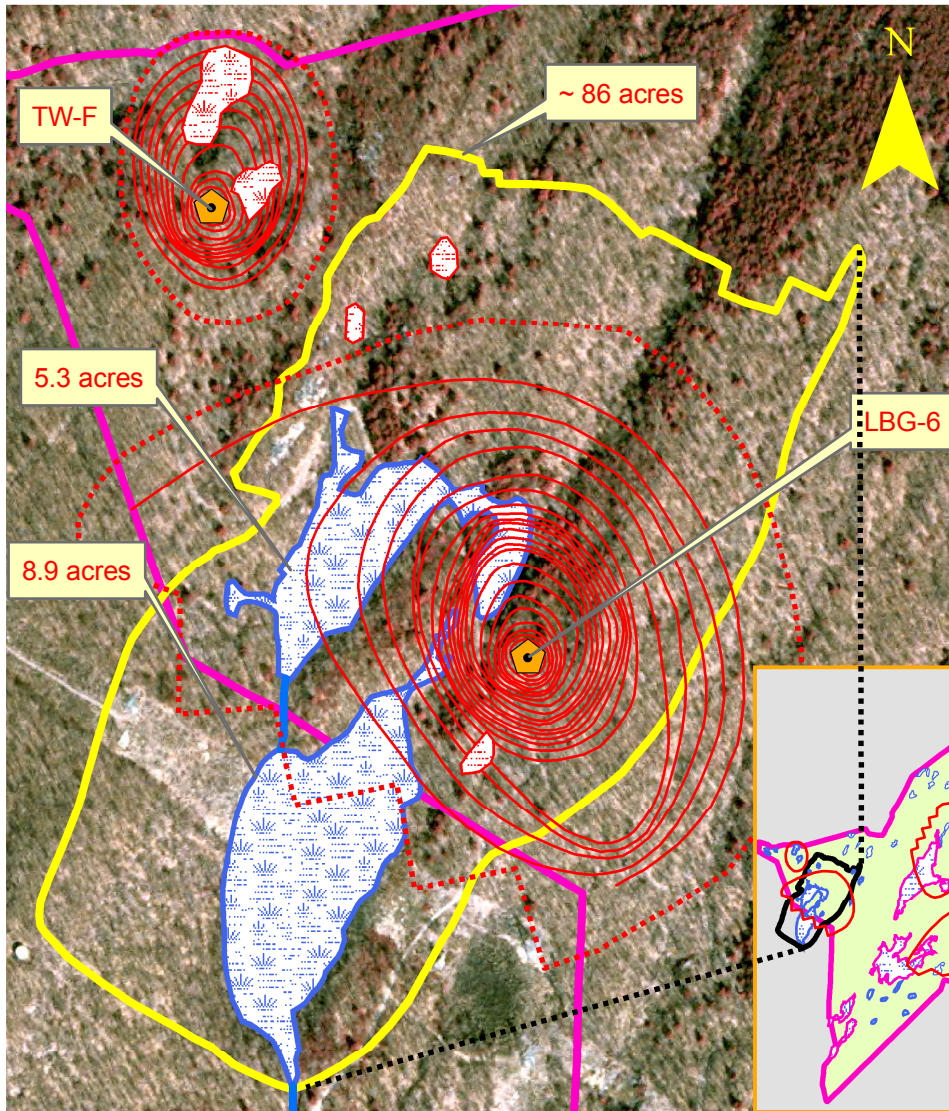








Potential Tuxedo Reserve Wetland Degradation From Aquifer Drawdown & Over-Development



Water production from Well LBG-6 may lead to dewatering of wetland water from the Long Swamp wetland complex during dry conditions (as opposed to when pumping tests were conducted). Pumping during aquifer testing drew groundwater down 207 feet. The 180-day projection indicates well drawdown 58 feet below the top of the major water-bearing fracture. Similarly, the 124 foot drawdown in Well TW-F may dewater isolated wetlands.

Over-development within watershed areas of headwater wetlands will almost assuredly degrade water quality and adversely impact species health and wetland viability. Wetland water budget, water renewal rate, primary production and health depend on natural groundwater and surface water influxes. Development (i.e., sub-basin and drainage modification, buildings, grading, roads, paving, utility lines) will disrupt life-giving hydrological fluxes. Exclusive of the Long Swamp wetland complex acreage, development will disturb some 29 percent of the wetland watershed. Urbanized watersheds with as little as 5 to 10 percent impervious cover have been documented as degrading species richness, diversity, and abundance. This Long Swamp wetland example provides rationale for both the ACOE and NYSDEC to revisit wetland-related permits while assessing potential impacts stemming from over-development and pumping induced wetland infiltration.

-  Tuxedo Reserve
 -  ~ Long Swamp Sub-basin
 -  ACOE Wetlands
 -  Isolated Wetlands
 -  Supply Wells
 -  Pumping Drawdown
- Prepared for: Tuxedo Land Trust 3-10




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