Lessons learned over 30 years of advocacy for the Lower Saluda River, Columbia, SC

Intro - Even though stocked annually by the SC Department of Natural Resources (SC DNR) since the early 1960s, a trout fishery never formed over the next 2 decades. Browns and rainbows caught in the fall months were lethargic and seemed to be stressed, often simply pulled over the water surface to net. By the winter, catches were rare. The Saluda River Chapter of Trout Unlimited (TU) was formed in 1982 and began working to better understand the river by working with the state resources agencies and local governments, especially as the river was in an urban setting with permitted wastewater discharges and crossed by several highways, including two interstates.

In 1985, a study was undertaken by the US Geological Service (USGS) to determine if the 'lower Saluda' as it is called was suitable for year round trout survival. The study was undertaken for 12 months and funded by an Embrace-A-Stream grant for $5,250 by the national office of Trout Unlimited. The study findings factoring in flows and water temperatures determined that the lower Saluda did have year round survival conditions for trout to thrive.

In 1988, the next step in what would become a multi-decade effort to understand and improve what the USGS study had established as a year round trout fishery was an 'Oxygen Dynamics' study by the University of South Carolina. Funded jointly by the Saluda River Chapter of TU (EAS grant), SC DNR, and also the SC Department of Health and Environmental Control (SC DHEC), this study showed that the dissolved oxygen levels in the releases from Lake Murray into the lower Saluda were dropping to low, lethal levels for trout, some less than 1 mg/l (milligram per liter) in the late summer and fall months.

These low levels were less than the state standard of 4.0 mg/l for what SC DHEC classified as a 'put, grow, and take' trout fishery, recognizing the growth potential of the river. However, SC DHEC did not pursue remedies, taking the position that the levels resulted from a natural phenomenon of eutrophication in the lower levels of the lakes, lowering the levels of dissolved oxygen where the intakes are located. After a number of years of 'debating' this issue for a man-made structure, federal court decisions in the mid 1990s requiring that fish and wildlife values had to be considered below impoundments helped bring a change of agency position. Following their notification to South Carolina Electric and Gas (SCE&G) that operated the hydroelectric plant at Lake Murray, the utility company began retrofitting the 5 turbines with air vents. As that work progressed over the next decade, the state water quality standards were better met. As the work was completed and minimum flows during non-generation periods were increased, a noticeable improvement in the number and size of trout caught became apparent. Additionally, the operational regime was changed from one that used the hydro to meet daily peak demands to an emergency reserve facility. That change cut the daily flow level

changes of several thousand cfs to a more even flow that approximated natural hydrology where rain events were the main cause of flows over the minimum levels.

The Lake Murray hydro operates under a FERC (Federal Energy Regulatory Commission license. A relicensing process to renew the license was begun in the early 2000s which allowed non-governmental entities (like TU and American Rivers) to participate in the studies and discussion of the utility company (and its consultants) and the federal and state resource agencies (SC DNR, SC DHEC, US Fish and Wildlife. etc). The FERC process takes several years and required all day attendance at many meetings, including resource conservation groups (RCG).

Very importantly the Saluda River Chapter of Trout Unlimited worked for many years before the relicensing began to develop an important data base of knowledge about the lower Saluda River. A key study with the SC DNR in addition to the annual temperature and flow regime and dissolved oxygen was an "Incremental Flow Incremental Methodology" (IFIM) study which measured habitat available for fisheries at different flow levels. Also, chapter volunteers recorded catches of trout marked before stocking with an adipose fin clip for the SC DNR biologist to analyze for movement and growth. All of the studies that TU supported over the years with the various agencies resulted in informed stakeholders that worked together before the relicensing to develop agreed on solutions for the developing trout fishery that were presented in unison by the agencies and the NGOs. This united front was critical in speeding up the process and ensuring that all factors were considered for requirements in the new license to avoid time consuming and negative 'infighting' among the stakeholders.

A lesson learned was that FERC allows the utility company assisted by their environmental consultants to control the process, including topics and meeting minutes.. At the end of the process when enough consensus had been reached to produce a 'Settlement Agreement' that document was sent to FERC as the basis for the new license requirements. It is important for all NGOs to understand that FERC does not respond to any concerns about the agreement once it is signed and delivered to them. The only recourse at that point is to file an injunction. So, that reality needs to be understood and any issues of disagreement need to be raised to FERC prior to the Settlement Agreement being finalized; or, even better, during the discussions in the process in the appropriate topic groups established at the beginning, especially when the minutes for those group discussions were considered incorrect or lacking.