

## **The Cooper River Rediversion Project ~**

All of the *Cooper River Rediversion* Project features are located in Berkeley County, near the town of St. Stephen. The project began at Lake Moultrie with the lake waters passing through a 2.1-mile dredged entrance channel, then through an intake canal beginning at the northeast corner of the lake, for a distance of 4.3- miles long, which was (mostly) excavated through what was considered “highland.” At the end of the intake canal comes a hydro-power plant, which is situated about one and one-half miles northwest of the town of St. Stephen. This is followed by a 5.1-mile-long tailrace canal, leading northeastward through Mattassee Lake into the Santee River.

The purpose of the project was authorized as a benefit to navigation in Charleston Harbor by rediverting about eighty percent of the freshwater from the Cooper River watershed, back into the Santee River (from whence it originally came/comes). According to the U.S. Army Corp of Engineers, such re-diversion is to reduce freshwater inflow into the Cooper River from an average of 15,600 cubic feet per second (cfs) to 3,000 cfs and thereby effect an eventual seventy percent reduction of the shoaling rate and the dredging requirements in Charleston Harbor. The major benefit of the project was/is primarily to navigation, resulting from the reduction in quantity of silt-laden water and cost of maintenance dredging. The Corp states other benefits will accrue to commercial shipping, the U.S. Navy, Fish & Wildlife, and area redevelopment. The greatly reduced requirement for disposal areas will contribute a significant environmental benefit.

Background history may be a bit helpful at this point: A serious shoaling problem developed in Charleston’s harbor, subsequent to 1942, when freshwater from the Santee River huge drainage basin was diverted through the State constructed Santee-Cooper Project into the Cooper River, in order to generate electricity (primarily to supply Charleston industrial plants) at the Pinopolis Hydro-power Plant and also, providing a navigational channel to Columbia. This diversion increased the average flow in the Cooper River from seventy-two cfs to 15,600 cfs. With this increased flow, silt-laden fresh water flowing in Charleston Harbor generated considerable density currents, causing stratification with the salt- water resulting in trapped sediments which increased maintenance dredging from less than 200,000 cubic yards (prior to 1942), to as much as 10,000,000 cubic yards annually. The increased dredging requirement has resulted in much greater Government, as well as private dredging costs, and significantly aggravated a critical material disposal problem in Charleston County.

Authorization and responsibility for the Cooper River Rediversion Project was authorized by Congress, as a result of studies and accompanying recommendations by the Secretary of the Army, Chief of Engineers, and the Board of Engineers for Rivers and Harbors, as was presented in a *Survey Report of Cooper River, South Carolina (Shoaling in Charleston Harbor)*. The report was prepared and transmitted on 29 December 1967, in response to a resolution by the Committee on Public Works, U.S. Senate, adopted 6 June 1960. It was officially published as *Senate Document 88* and the recommended project authorized by the Rivers and Harbors Act of 1968 13 August 1968. So . . . as you can see, this problem (and plan) began quite a few years ago, before actual digging began. Responsibility for design and construction of the project was with the District Engineer, U.S. Army Engineer District, Charleston, South Carolina. Real estate activities' (acquisitions included) responsibility was with the U.S. Army Engineer Division, Savannah, Georgia, providing additional project engineering assistance to the Charleston District, primarily for design of the powerplant, fishlift, and highway canal crossings.

A bit of history of the Santee-Cooper Lake System may be helpful at this point. This system consists of Lake Marion (173 square miles) which is connected to Lake Moultrie (94 square miles) by a Diversion Canal (approximately five miles long). The Pinopolis Hydro Plant is located at the south end of Lake Moultrie that discharges into the Tailrace Canal, which ultimately ties into the Cooper River, then Charleston's harbor.

The watershed contains about 14,700 square miles of the Santee River Basin above Lake Marion, of which 9,400 square miles is in the north-central part of South Carolina, with the remainder extending up into the Blue Ridge Mountains of North Carolina. These Santee River Basin flood waters are released over Wilson's Dam on (southeastern corner of) Lake Marion, by way of sixty-two "tainter" gates that discharge directly into the Santee River (heading southeastward toward Georgetown).

After completing the Cooper River Rediversion Project, an average of 3,000 cfs water will be (scheduled to) discharged through the existing Pinopolis Hydro Plant, and the remainder of about 12,600 cfs will pass through the St. Stephen Hydro Plant. Normal lake water surface elevations normally range from seventy-feet to 75.7 feet, referred to as mean sea level data of 1929. This Project was not expected to change water surface elevations / conditions when completed by the Corp.

Just a bit more . . . about the lands required to complete the Project: 3,000 acres, predominantly for the canals, the hydro plant, and disposal areas for excavated materials (not used in levee construction). Right-of-way widths varied from 1,750 feet to 2,500 feet for the Intake Canal, and from 600 feet to 3,100 feet for the Tailrace Canal. There were some additional properties outside the predominant project area required for access roads, project buildings, and an area for disposal of materials dredged from the entrance channel construction.

The Corp would tell you the land acquisition for the project “was in conformance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646).” *(Note the date of this Act.)* This legislation provided for “uniform and equitable treatment of persons displaced from their homes, businesses, or farms by Federal or Federally-assisted programs.” *(This writer has personal knowledge of this statement . . . to the contrary).* Only those interests in lands were acquired that were necessary to carry out project purposes and objectives intended in the authorization by the Congress. The Corp would also tell you that “Every effort was made to inform affected landowners sufficiently in advance to permit them to relocate with the least possible inconvenience. The government provided Relocation Advisory Assistance Service to help all persons who were displaced by the project. *(What a joke!)* With certain limitations, the Government reimbursed both landowners and tenants for expenses which they incurred in the process and, as a direct result of moving themselves, their families, and their possessions because of land acquisition for the project. *(Another huge joke!)* “Regarding value of project lands, ‘just compensation’ as required by the Fifth Amendment to the Constitution of the United States, was paid for any private property acquired for public use *(the biggest lie ever told!)*. This compensation, as established by the Courts, was “fair market value” determined by approved procedures and, if necessary, further verified by the Courts.”

This Rediversion Project is starting to bring back too many bad memories, so I’m going to dispense with saying more, by ‘nuf said!’ My brother and I loss 520 acres of prime farmland to the project. It was, however, . . . quite an interesting and huge project. I did all the progress photography work required for documenting the entire project, for all (twenty-seven, I believe) contractors and the Corp. Five years work; aerial and ground shots each month.

Keith Gourdin

*Resources: a booklet prepared in 1983 by the U.S. Army Corp of Engineers, Charleston District; and collections of Keith Gourdin*



From a centerline in the woods in 1977



From a centerline through the woods in 1978

From Lake Moultrie



through the Intake Canal to the St. Stephen Hydro Plant and into the Tailrace Canal.  
Project completed 1983.