

## **Status and Timeline for the Projects under the Capital Projects Sales Tax Passed in November of 2007**

### **New County Library**

Prior to November 2007 – Library Board contracted with CGD to design a new library using Library funds

November 28, 2007 – County signs architectural contract with CGD for final design and construction funded through the capital projects sales tax.

May 5, 2008 – County Issues PO for redesign on a reduced footprint due to \$10m budget

February 24, 2009 – County Issues PO to YPS Construction for \$7,624,352

October 3, 2010 – Library opening – project Occupancy with continued construction

October 27, 2010 – Project substantial completion

January 31, 2011 – Final Billing for Construction at \$7,827,762.00, not incl. inspections, architect fees, furnishings and owner supplied items

### **Buzzard's Roost Hydro Project – Seismic Evaluation and Remediation**

December 20, 2005 – Issues the consulting engineering report titled “Buzzards Roost Hydroelectric Development, Preliminary Liquefaction Triggering Evaluation of Dam Foundation Soils”. This preliminary report using a simplified analysis indicated that the soils in the dam would likely liquefy if subjected to the Miyagi, Loma Prieta, and Landers earthquakes as specified in a letter from the Atlanta Regional Office dated Nov. 20, 2003. After the report, DTA provides a conceptual estimate of the costs of complying with the probable FERC required remediation projects for seismic and inundation based on the limited understanding at that time characterizing the projects at a probable cost of \$30 million.

March 10, 2006 – First meeting with FERC in Atlanta to discuss the status of seismic and spillway issues as pursued by Duke Power under the hydro lease.

December 11, 2006 – Atlanta meeting with FERC, DTA, and County staff and manager to further discuss seismic and spillway issues and options.

March 16, 2007 Atlanta meeting with FERC and DTA for establishing seismic work schedule and stability of the concrete dam structures, and summarizing the current knowledge regarding the stability of the earthen embankment under earthquake conditions and the design earthquakes that have been applied to other dams in the region. This meeting identified that FERC required the County to determine which earthquakes were appropriate for our dam, subject to FERC review and approval. The County was directed to employ the services of a seismologist to determine which earthquakes would be appropriate.

June 26, 2007 – Independent Seismologist retained.

November 2, 2007 Seismologist's report submitted to FERC.

April, 2009 – After several meetings with FERC throughout 2008 to refine parameters and analysis by the consultants, DTA/HDR Seismic study completed and submitted to FERC.

October 27, 2011 – FERC response letter received regarding the 2009 seismic study review requesting several specific modifications to study issues.

March 2, 2012 – revised seismic studies incorporating the last FERC comments completed.

**June 4, 2012 – FERC letter received by County approving seismic analysis with no remediation.**

### **Buzzard's Roost Hydro Project – Fuse Plug and Flood Capacity Remediation**

November 6, 2006 – DTA issues engineering study titled as the Emergency Spillway Remediation Evaluation and Potential Maximum Flood Outflow Discharge Event. The report evaluates several approaches to reaching the required spillway capacity in replacing the existing fuse plug including an erodible fuse plug, tainter gates, and Fuse Gates. The Fuse Gate solution is identified as the lower cost alternative.

April 1, 2007 – Atlanta meeting with FERC and DTA (now HDR) summarizing the deficiencies and concerns identified by DTA as consultant for Duke Power under the lease that expired in 2006. This meeting identified the requirement for replacement of the existing fuse plug with a structure that could safely pass the probable maximum flood when operated in tandem with the powerhouse gates. Greenwood County was directed to have DTA proceed with the design of the selected Fuse Gate system.

March 19, 2008 – HydroPlus and DTA meet with the county to discuss the fuse gate system, leading to a draft contract being submitted in June and July of 2008.

October 2008 – DTA submits a 47 week preliminary schedule for design and construction of the fuse gates.

January 2009 – Hydro Plus provides an updated services agreement to be considered by the County.

February 13, 2009 – FERC Atlanta office raises additional questions about the spillway capacity required to meet their standards and requests further discussions and verification of downstream inundation mapping. DTA begins this work as directed by FERC, placing the fuse gate project on hold until completion. County requests that fuse gates and spillway remediation be held until the seismic issues are settled to allow the projects to proceed at the same time for earthwork efficiencies.

January 22, 2010 – DTA completes the draft inundation report, and determines that the existing floodgates can pass 83% of the PMF if no fuse gates are added.

September 8, 2010 – DTA/HDR completes the final BR Dam Breach and Hazard Evaluation Study with inundation studies.

November 2011 – County requests HDR to investigate the feasibility of a Site Specific Rainfall Study to possibly revise the PMF values for Buzzard's Roost.

January 2012 – HDR submits the SSPMP Feasibility Study to the County.

February 21, 2012 – HDR submits the SSPMP Study proposal to the County.

May 11, 2012 – FERC approval of the Board of Consultants and the SSPMP process.

June 14, 2012 – FERC Atlanta, FERC Washington (by teleconference), Greenwood County Manager, Attorney, and Engineer, and the Board of Consultants hold the first formal BOC meeting at HDR offices in Charlotte.

July 16, 2012 – HDR provides Greenwood County with scope changes required by FERC additions to the initial BOC process from the first meeting of the Board of Consultants.

July 20, 2012 – Supplemental project budget request forwarded to Council for approval, approved August 7, 2012.

July 17, 2012 – Second Board of Consultants meeting in Charlotte at HDR offices attended by County staff, HDR professionals, with FERC and BOC by teleconference.

November 16, 2012 – Third BOC-FERC-Greenwood County – HDR meeting at HDR offices in Charlotte. Greenwood County represented by the Engineer. The meeting covered in more detail the requirements that FERC set out to transition the SSPMP results to a PMF routing through the project.

March 15, 2013 – BOC meeting at HDR offices in Charlotte with FERC, HDR, BOC, and Greenwood County (Engineer) covering Buzzard Roost preliminary PMF model development and results.

April 18, 2013 – Conference call meeting with FERC, BOC, HDR, and Greenwood County (Engineer) discussing the methodologies used in the runoff modeling and the correlations between theoretical runoff coefficients and historical measured runoff in the basins. The BOC requested that HDR do further analysis on the effect of antecedent conditions in calibrating the models for the project.

May 7, 2013 – Consultant and Board of Consultants (BOC) work placed on hold until funding procedures and approval of additional funds by County Council are resolved.

July 30, 2013 – Council held a public hearing and approved a resolution authorizing expenditures of an additional \$100,000 to continue and /or complete the SSPMP studies and BOC report.

August 15, 2013 – The signed resolution is provided and funds are transferred to the appropriate budget account and a purchase order was issued to HDR Engineering to restart the work on completion of the SSPMP study.

November 12, 2013 –A BOC conference was held on this date. This conference reviewed the work of the consultant on making Board recommended edits to the models for several tropical storms and the actual runoff rates as compared to the theoretical. The work is on schedule for a final report for submittal to the FERC in January of 2014.

April 7, 2014 –The Site Specific Probable Maximum Flood (PMF) Report was completed by consultant HDR and reviewed by the BOC and Greenwood County; report submitted by Greenwood County to the FERC.

December 8, 2014 – Greenwood County received a response from the FERC regarding the Site Specific Probable Maximum Flood Report, requesting that “additional technical questions ... be addressed by the Board of Consultants.”

January 7, 2015 – Greenwood County submitted a letter to the FERC with a plan and schedule to address the FERC comments regarding the SSPMF study.

January 20, 2015 – FERC letter received by Greenwood County noted receipt of the Greenwood County January 7, 2015 letter. Letter noted that teleconference was scheduled for January 27, 2015, as agreed upon by phone conversations and emails.

January 27, 2015 – Web meeting/Conference Call between FERC, HDR, BOC, and Greenwood County Manager and Engineer to discuss the plan and schedule for follow-up analysis required in the December 8, 2014 FERC letter. FERC presented a power point presentation to communicate concerns and additional requests.

March 31, 2015 – Greenwood County submitted the SSPMF Report Board of Consultants' response to the FERC December 8, 2014 letter and Greenwood County's plan and schedule for FERC requested supplemental PMF analysis. The schedule included the following dates:  
Supplemental analysis would be complete by April 17, 2015,  
Revision of April 2014 PMF Determination Report – Complete draft for BOC review by April 27, 2015  
Submit final PMF Determination Report to FERC – Complete by May 11, 2015

April 9, 2015 – Letter from FERC to Greenwood, noting receipt of March 31, 2015 submittal, and concurring with proposed action (Supplemental Analysis).

May 14, 2015 – Greenwood County submitted Revision 1 of the Determination of the Probable Maximum Flood (PMF) Report, which incorporated a supplemental analysis requested by the FERC.

July 2, 2015 – Letter from FERC to Greenwood summarized HDR's analysis and supplemental analysis, and concurred with the PMF water surface elevation. **This concurrence was a long awaited goal in the design process.** With this information, the design of the fuse plug replacement could begin. As part of the design process, FERC requested that Greenwood County submit a plan and schedule to evaluate the existing structures using the accepted site specific PMF, conduct a Probable Failure Mode Analysis (PFMA) as a part of the selection process for fuse plug replacement, and update the Standard Technical Information Document with the results of the site-specific PMF.

July 14, 2015 – Meeting between HDR and Greenwood County Manager and Engineer to understand, discuss and develop the alternatives in the pre-design process.

July 21, 2015 Greenwood County Council approved a resolution authorizing an expenditure of \$100,000 to consultant HDR to begin the pre-design phase.

August 4, 2015 – Greenwood County submitted the requested Plan and Schedule:  
By April 2016 -Evaluate the existing structures to safely pass the Site-specific PMF considering the fuse plug replacement with a more reliable auxillary spillway  
By Sept 2016 - Stability Analysis of all concrete gravity sections with Site-specific PMF loading  
By April 2016 - August 2016 - Conduct PMFA review  
By 2017 - Update Supporting Technical Information Document with results of SSPMF

August 4, 2015 – Consultant HDR submitted a proposal for the pre-design phase.

August 25, 2015 – Greenwood issued a purchase order to HDR for Phase 1 (pre-design phase).

August 31, 2015 –FERC accepted the plan and schedule proposed in the August 4, 2015 letter from Greenwood County.

October 9, 2015 – Conference call with FERC, HDR, and Greenwood County Manager and Engineer in which HDR reviewed and discussed status of the Greenwood County Plan and Schedule accepted in August 31, 2015 FERC correspondence. One purpose of the call was to establish a date for the focused Probable Failure Mode Analysis (PMFA) meeting for the recommended spillway remediation option. This meeting was set for the second quarter of 2016.

In addition, the concept of reservoir drawdown as an operational activity was presented to the FERC as a consideration to reduce the size requirements of the fuse plug. FERC would not allow this operational method to be considered as part of the design basis of the auxillary spillway (fuse plug replacement). In a previous conversation with FERC, the concept of a percent reduction of the PMF was presented for consideration; it was also not allowed.

February 2016 - County Engineer requested a Phase 1 engineering status update from HDR

February 18, 2016 – HDR submitted status report to Greenwood County.

March 6, 2016 – HDR submitted request for an increase in the purchase order amount, per their original estimate. Existing funding would allow work to continue through March 22, 2016.

April 5, 2016 – County Council voted to increase the amount of the purchase order to HDR in line with the estimate and the determination of remaining effort for the Phase 1.

May 2016 - Greenwood County received a design and preliminary cost estimate from HDR which was outside of the scope of the previous estimates.

June and July 2016 Rescheduled conference calls with FERC because of scheduling conflicts

July 28, 2016 – In response to FERC requests, Greenwood County submits a letter to FERC proposing a conference call in October 2016 to provide a project update.

September 2016 – Greenwood County retains Kleinschmidt Associates to perform a third-party review of the Phase I deliverables by HDR and requests the conference call to provide a project update be performed in November 2016.

December 2, 2016 – letter from FERC requesting conference call be performed by January 27, 2017 and Greenwood County submit monthly progress updates during design phase.

January 2017 – Greenwood County retains Kleinschmidt Associates for the design of the auxiliary spillway.

February 24, 2017 – Proposed subsurface exploration plan for the Auxiliary Spillway Remediation Project submitted to FERC, which was approved by FERC via letter dated March 8, 2017.

February 2017 - Conceptual Auxiliary Spillway Remediation Design submitted to FERC.

March-April 2017 – Subsurface investigation completed.

May 2017 – Preliminary (30%) design of auxiliary spillway submitted to FERC.

June 20, 2017 – Meeting with Greenwood County, Santee Cooper, consultant, and FERC to provide an overview of proposed design for auxiliary spillway remediation. The presentation provided an open discussion of design components.

June 2017 – Conference call with Greenwood County, and FERC to discuss hydraulic modeling in support of SSPMF / IDF studies.

July 2017 – Conference call between Greenwood County and consultants to discuss FERC comments regarding hydraulic modeling and spillway rating curve.

August 24, 2017 – Teleconference meeting with Greenwood County, consultants and FERC to discuss results of hydraulic modeling performed by HDR in support of the SSPMF/IDF studies. Three alternatives were discussed to address spillway capacity including 1) adding capacity at the existing spillway, 2) replace the existing fuse gate structure to pass additional flow at the auxiliary spillway; and 3) perform a Risk-Informed Decision Making (RIDM) process where the existing infrastructure is maintained, dam failure is evaluated at the IDF, and risks are assessed.

August 31, 2017 – Conference call with Greenwood County, Kleinschmidt Associates, and FERC to discuss using RIDM process to further evaluate auxiliary spillway remediation.

October 2017 – Call between Greenwood County and Consultants to discuss RIDM process, and path forward.

November 29, 2017- Submittal of letter to FERC regarding RIDM process, path forward, and current submittal.

January 9, 2018 - Receipt of letter from FERC in response to Greenwood's November 29, 2017 letter requiring that a Board of Consultants be selected, approved by FERC, and convened to "fully evaluate and balance the risks of remediation alternatives, construction approaches and practices."

March 19, 2018 – Teleconference between FERC (David Capka, FERC Director of the Office of Energy Projects, Division of Dam Safety and Inspections) and Toby Chappell, Greenwood County Manager to discuss the BOC requirement.

April 9, 2018 - Letter from Greenwood County to FERC agreeing to seat an Independent Board of Consultants, who will “consider only the auxiliary spillway remediation options proposed by the County.” The letter proposes three BOC members to be approved by FERC.

April 19, 2018 – Receipt of letter from FERC to Greenwood County approving the proposed members of the BOC.

April through August 2018 – Communications between Greenwood County and the individual BOC members developing contracts and scope of work.

August 21, 2018 – Council approves funding for BOC and support for BOC process by Kleinschmidt and Associates.

October 4, 2018 – All BOC members under contract and BOC meeting set for December 5<sup>th</sup> and 6<sup>th</sup>

November 12, 2018 – All relevant documents forwarded to BOC for review prior to first BOC meeting.

December 5-6, 2018 – First BOC meeting is held. Three BOC members are in attendance as well as five members of FERC, county personnel and Kleinschmidt and Associates.

December 13, 2018 – First draft of BOC report from the December 5-6<sup>th</sup> meeting is forwarded to Greenwood County.

April 10, 2019 – BOC report from the December 5-6<sup>th</sup> meeting is finalized.

May 17, 2019 – BOC report from the December 5-6<sup>th</sup> meeting is electronically filed with FERC along with a plan and schedule to address BOC recommendations and proceed to 60% design on a preferred design.

September 10, 2019 – FERC agrees with BOC report findings and gives approval to move project to 60% design.

### **Debt Defeasance**

April 1, 2014 - Greenwood County Council approved an ordinance providing for the application of certain capital project sales tax proceeds, the defeasance of certain obligations of Greenwood County. At this time the County had approximately \$10.5 million in outstanding general obligation bonds and capital leases. The County Council found that the retirement of debt and obligations incurred in connection with capital projects of the County was the best and highest use of such remaining unexpended proceeds of the tax, and that the remaining

unexpended proceeds of the capital project sales tax exist in an amount sufficient to retire, repurchase or defease all outstanding bonds and capital leases of the County. \$18,000,000 has been set aside to satisfy all required repairs to the Lake Greenwood Dam per Ordinance 2006-23-06.

April 3, 2014 – Greenwood County signed an Escrow Deposit Agreement with Regions Bank, Escrow Holder. Regions Bank has agreed to act as Escrow Holder and to perform the duties and functions imposed upon the Escrow Holder in order to satisfy the defeasance provisions of the ordinances authorizing the issuance of the Defeased Bond and also to provide for the payment of the Defeased Leases.