

Parr Hydro Relicensing Activities List

Number	RCG/TWC	Date of Meeting	Person	Action Item	Completed
5	WQFW RCG	2/12/2013	Henry Mealing	SCE&G will develop two conceptual plans for an Entrainment and Impingement study at Parr Hydro and FFPS for TWC review. (Fisheries TWC). Discussed on 8/22/13. Draft issued to TWC on 10/24/13, reviewed at 12/19/13 Fisheries TWC Meeting, Final SP issued to TWC on 2/25/2014.	Complete 2/25/14
6	WQFW RCG	2/12/2013	Henry Mealing / Shane Boring	SCE&G will develop a conceptual plan for a Waterfowl Survey for RCG review. (WQ/F&W RCG). Draft provided to SCE&G on 8/7/13. Draft issued to TWC on 9/6/13, reviewed at 12/19/13 Fisheries TWC Meeting, Final issued to TWC on 1/16/14	Complete 1/16/14
8	WQFW RCG	2/12/2013	Gerrit Jobsis	Gerrit will schedule a time to present information about small dams located within the Project Vicinity.	Completed 3/19/14
9	WQFW RCG	2/12/2013	Dick Christie	SCDNR will present an overview of the current studies being conducted under the Santee Basin Accord	Completed 3/19/14
15	Ops RCG	2/19/2013	Bill Stangler	Bill S. will provide the updated paper on the Broad, Saluda, and Congaree interactions. Follow up email sent on 12/9/13	Complete
27	WQ TWC	4/9/2013	Henry Mealing	SCE&G and Kleinschmidt will compile all existing fisheries data, form a report and distribute to the TWC for review. Draft submitted to TWC on 7/25/13, reviewed at 8/22/13 meeting, final report issued to TWC on 11/8/13.	See Item 45 Complete 11/8/13
28	WQ TWC	4/9/2013	Henry Mealing	Compile and distribute Water Quality data into a report for TWC review. Draft issued on 7/22/13, reviewed at 9/10/13 meeting, 2nd draft issued on 1/17/14, discussed on 2/4/14. Third draft will need to be issued.	Complete 5/7/14
43	Instream TWC	5/7/2013	Henry Mealing	Develop Temperature and DO (WQ in West Area) Study Plan (IFIM TWC) (TBD after August meeting) Draft provided to SCE&G on 8/7/13 - Draft submitted to TWC on 8/28/13, discussed at 9/10/13 WQ TWC meeting. Final SP issued to TWC on 9/30/13.	Complete 9/30/13
46	Fisheries TWC	6/6/2013	Henry Mealing / Dan Dieter	Compile Mussel and Macroinvertebrate data summary report and distribute for TWC review. Draft submitted to TWC on 8/28/13, discussed at 9/10/13 WQ TWC meeting. Final issued on 11/21/13.	Complete 11/21/13

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47	Instream TWC	5/7/2013	Henry Mealing / Brandon Kulik	Develop IFIM Study Plan after transect recon trip and HSI curve, surrogates and guild recommendations (IFIM TWC) (Also evaluate navigable flow requirement by DNR), Draft provided to SCE&G on 9/5/13, Draft issued to TWC on 10/11/13. Final issued to TWC on 5/30/14	Complete 5/30/14
48	WQ TWC	6/6/2013	Henry Mealing	Schedule WQ TWC meeting after <u>WQ data summary report, WQ in West Channel Downstream of Parr Dam, sediment data summary, macroinvertebrate data summary report, and Tailrace macro investigation by Milton</u> are distributed to TWC.	Complete 9/10/2013
49	WQ TWC	6/6/2013	Henry Mealing	Develop WQ Study Plan (WQ TWC) (TBD after revised report is issued to TWC and discussed at next meeting TBD.) Issue with low DO part of the year. Sampling plan submitted to TWC on 6/10/14. Discussed at 6/25/14 meeting. Final Addendum issued on 6/27/14.	Determine if needed after additional survey of DO in tailrace
50	WQ TWC	6/6/2013	Henry Mealing	Develop Sediment Study Plan (WQ TWC). We provided enough information from old maps and photos at the 9/10/13 WQ TWC meeting. A study plan will not be required.	complete 9/10/13
51	WQ TWC	6/6/2013	Henry Mealing	Develop Macroinvertebrate Study Plan (WQ TWC) (TBD after February 4, 2014 meeting) Need to provide additional information in WQ Data Summary Report for DHEC. Study plan issued to TWC on 5/28/14. Will be complete when final survey is done and results added to Macro Report. Survey conducted August 28-29 2014	waiting for report
53	Fisheries TWC	6/6/2013	Shane Boring	Develop Robust Redhorse spawning area Study Plan (Fisheries TWC) (TBD after August meeting). Milton discussed with DNRs Scott Lamprecht and Forrest Sessions. A study plan is not necessary, just look for spawning areas as part of the mesohabitat survey and IFIM study. Email documenting discussion sent to TWC on 10/11/13 and plan to discuss in Fisheries TWC meeting on 12/19/13.	To be included as appendix to the IFIM Study Plan - 4/30/14 Complete 5/2/14

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55	Fisheries TWC	6/6/2013	Henry Mealing	Develop Fluctuation Study (Shoreline Habitat Impacted Zone /Littoral Zone) GIS/ Desktop Study Plan (Fisheries TWC) (TBD after August meeting). Draft submitted to TWC on 2/25/2014. Meeting held on 4/1/14. Second draft issued to TWC on 5/30/14. No comments received. Issued final to TWC on 6/24/14.	Complete 6/24/14
57	Fisheries TWC	6/6/2013	Henry Mealing	Develop American shad spawning below Parr Dam Study Plan (Fisheries TWC) (TBD after August meeting). Ron Ahle only wants Accord studies incorporated into Fisheries Report. A Study Plan is not required. Plan to discuss in Fisheries TWC meeting on 12/19/13.	complete 12/19/13
60	RT&E TWC	5/16/2013	Henry Mealing	Develop RT&E in PBL Literature based Study Plan (RT&E TWC). Draft submitted to SCE&G on 9/17/13, Draft issued to TWC on 10/1/13. Reviewed at October 22, 2013 meeting. Final SP issued to TWC on 11/8/13.	See Item 81 Complete 11/8/13
61	RT&E TWC	5/16/2013	Henry Mealing	Develop Mussel Survey Study Plan (RT&E TWC). Draft submitted to SCE&G on 9/27/13. Draft issued to TWC on 10/4/13. Reviewed at October 22, 2013 meeting. Final SP issued to TWC on 11/8/13.	See Item 108 Complete 11/8/13
63	RT&E TWC	5/16/2013	Henry Mealing	Develop Spiny Crayfish Study Plan (RT&E TWC) (Tom McCoy confirmed the need for this study on 6/10/13) Draft plan provided to SCE&G on 8/5/13. Draft Study Plan issued to TWC on 9/6/13 . Reviewed at October 22, 2013 meeting. Final SP issued to TWC on 11/8/13. Revised and reissued on 1/16/14	Complete 1/16/14
64	RT&E TWC	5/16/2013	Henry Mealing / Shane Boring	Develop RSSL Study Plan (RT&E TWC) Draft plan provided to SCE&G on 8/12/13. Draft Study Plan issued to TWC on 9/6/13 . Reviewed at October 22, 2013 meeting. Final SP issued to TWC on 11/8/13.	Complete 11/8/13
65	RT&E TWC	5/16/2013	Karla Reece/Henry Mealing	Develop SNS/Atlantic Sturgeon Study Plan?? (depending on NMFS request which is due by end of June) (RT&E TWC) Henry will review what we have already, introduce himself to Karla Reece and ask her if NMFS has any study requests.	Complete 3/4/14 See Item 79

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Number	RCG/TWC	Date of Meeting	Person	Action Item	Completed
67	Recreation TWC	5/14/2013	Henry Mealing / Alison Jukupka	Develop Recreation Use Needs Study (RUNS) Plan (Recreation TWC). draft study plan provided to SCE&G on 8/5/13, draft issued to TWC on 9/16/13. Reviewed at October 16, 2013 meeting. Final Plan issued to TWC on 12/11/13.	Complete 12/11/13
68	Recreation TWC	5/14/2013	Henry Mealing	Navigable Flow Study Plan (data will be collected part of IFIM Study Plan) (Recreation TWC). draft study plan provided to SCE&G on 9/6/13, draft issued to TWC on 9/16/13. Reviewed at October 16, 2013 meeting. Final Plan issued to TWC on 12/11/13.	Complete 12/11/13
69	Recreation TWC	6/17/2013	Henry Mealing	Recreation Flow Study (requested by Gerrit). draft study plan provided to SCE&G on 8/5/13, draft issued to TWC on 9/16/13. Reviewed at October 16, 2013 meeting. Final Plan issued to TWC on 12/11/13.	Complete 12/11/13
71	LLM TWC	5/21/2013	Henry Mealing	Develop Shoreline Management Plan Outlines (L&LM TWC). draft SMP outline provided to SCE&G by 8/19/13, draft issued to TWC on 9/16/13. Reviewed at October 16, 2013 meeting. Final Outline issued to TWC on 12/11/13.	Complete 12/11/13
76	Recreation TWC	5/14/2013	Bill A/Amy Bresnahan	Investigate ideas or options for canoe/kayak portage around west end of Parr Dam. Site Visit August 5, 2014	Complete 8/5/14
78	RT&E TWC	5/16/2013	Bill Stangler	Survey the area downstream of the Parr Dam to identify and confirm all possible Rocky Shoals Spider Lily populations. Follow up email sent on 12/9/13	
79	RT&E TWC	5/16/2013	Karla Reece	Find out as much information on the sturgeon issues within the Project Area as soon as she can and will report back to the group by late June/early July. Talked with Bill Post.	See Item 65 and Item 148 Complete 4/24/14
83	LLM TWC	5/21/2013	Tommy Boozer	Work on creating two large maps of the Project Area that includes the PBL and identifies SCE&G owned lands.	Complete 8/6/14
84	WQ TWC	6/7/2013	Henry Mealing	Schedule meeting to review final WQ summary report & Macro/mussel summary report. Held on 2/4/14. Need to schedule another meeting after data added as requested at 2/4/14 meeting. Final reports were issued, no additional meeting required.	See Items 49, 113 and 132 Complete 5/7/14

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Number	RCG/TWC	Date of Meeting	Person	Action Item	Completed
86	Instream TWC	6/7/2013	Henry Mealing	Schedule meeting to review all Instream flow related study plans. To be held on 3/5/14	Complete 3/5/14
93		7/8/2013	Mike Schimpff and Jennifer Austin	Develop hydraulic model to determine flood conditions downstream of Parr Dam. Initial maps complete. At 10/3/13 meeting we asked for additional refinement of 2,000 cfs increments from 44,000 - 60,000 cfs. Final report issued on 3/19/14	Complete 3/19/2014
96	IFIM TWC	7/31/2013	Shane Boring	Conduct meshabitat survey in preparation of IFIM study. Done on October 23 - 25, and November 18 and 21, 2013. Draft report submitted to SCE&G on 1/3/14, SCE&G provided comments on 1/6/14, Draft report issued to TWC on 1/8/14. Final Report issued to TWC on 4/4/14	Complete 4/4/14
98	IFIM TWC	8/29/2013	Shane Boring	Mesohabitat Study Plan - Draft issued to TWC on 8/29/13. Final issued to TWC on 9/30/13.	Complete 9/30/13
107	WQ TWC	9/10/2013	Kelly Miller	Make additions and edits to the Water Quality Report and resubmit to the TWC for review. These changes will include at least the following: metals downstream (including copper), USGS gauge at Carlisle data, phosphorous, pH, new nuclear SCDHEC mixing zone permit parameters.	Complete 1/17/14 See 132 and 133 for additional work
108	WQ TWC	9/10/2013	Henry Mealing	Develop a Mussel Study Plan for Monticello Reservoir. Draft issued to TWC on 10/4/13. Reviewed at October 22, 2013 meeting. Final SP issued to TWC on 11/8/13.	See Item 61 Complete 11/8/13
111	Operations RCG	10/10/2013	Bill A/ Henry	Schedule Operations RCG Meeting for January. To be held on 1/30/14.	Complete on 1/30/14
112	IFIM TWC	10/10/2013	Bill A/ Henry	Schedule IFIM TWC Meeting for January. To be held on 3/5/14.	Complete 3/5/14
113	WQ TWC	10/10/2013	Bill A/ Henry	Schedule WQ TWC meeting to discuss final WQ data summary report & Macro/mussel summary report. Held on 2/4/14, but groups needs more information.	Complete 2/4/14
114	LLM TWC	10/16/2013	Bill Marshall	Find out if the Palmetto Trail collects use estimates for inclusion in the RUNS. Follow up email sent 12/9/13. Per Bill Marshall no data is available.	Complete

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Number	RCG/TWC	Date of Meeting	Person	Action Item	Completed
117	LLM TWC	10/16/2013	Alison Jakupca	Begin reaching out to various people and organizations to help develop a list of participants for the RUNS and Recreational Flows Study focus groups .	will start in fall of 2014
118	RT&E TWC	10/22/2013	Shane Boring	Research the Carolina darter to determine if the species is located in the Project Area. As part of RT&E Desktop Study report	Complete 5/16/14
123	RT&E TWC	11/1/2013	Bill Argentieri/ Kelly Miller	Resolve coordinate discrepancies of bald eagle data and re-distribute to RT&E TWC and include in PAD.	Complete 4/2/14
125	Fisheries TWC	12/19/2013	Bill Argentieri / Ray Ammarell	SCE&G will develop graphs depicting the fluctuations during wet versus dry years at Parr and Monticello Reservoir. To be complete by 4/1/14 meeting	Completed 4/1/14
126	Fisheries TWC	12/19/2013	Bill Argentieri / Ray Ammarell	SCE&G will find information on the reservoir surface areas before and after the crest gates were built, to be included in the Fluctuation Study Plan. Included in the Draft Study Plan issued on 2/25/14	Completed 2/25/14
128	Fisheries TWC	12/19/2013	Henry Mealing	Kleinschmidt will finalize the Waterfowl Study Plan and distribute to the TWC. Final SP was issued to RCG on 1/16/2014.	Complete 1/16/14
129	Fisheries TWC	12/19/2013	Henry Mealing / Bill Argentieri	Kleinschmidt will amend and finalize the American Eel Study Plan as discussed at the meeting and distribute to the TWC. Bill A. will submit this study plan to the Accord members for approval. Final SP issued to TWC on 1/23/14. Proposal to perform work was submitted on 5/8/14.	Complete 5/8/14
130	Fisheries TWC	12/19/2013	Henry Mealing / Shane Boring	Kleinschmidt will revise the Entrainment/Impingement Study Plan and resubmit the draft to the TWC for review.	complete 2/25/2014
131	WQ TWC	2/4/2014	Kelly Miller	Provide Byron and Bill S. with a CD containing the raw data used in the Baseline Water Quality Report.	Given to Byron 4/1/14. Given to Bill S 6/25/14 complete
132	WQ TWC	2/4/2014	Kelly Miller	Incorporate all edits discussed in the meeting into the Baseline Water Quality Report and will perform all additional analyses to include in an addendum to the report.	Complete 5/7/14

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133	WQ TWC	2/4/2014	Bill Argentieri / Kelly Miller	Pull together the USGS data and perform the analysis discussed during the meeting.	completed 2/10/2014
134	WQ TWC	2/4/2014	Kerry Castle	Send Kelly additional SCDNR turbidity data	completed 2/6/2014
135	WQ TWC	2/4/2014	Henry Mealing	Develop a Macroinvertebrate Study Plan and submit to SCDHEC for approval	completed 5/28/14
136	WQ TWC	2/4/2014	David Eargle	Send Kelly the macroinvertebrate data collected by SCDHEC at Haltiwanger Island.	complete 2/28/14
137	WQ TWC	2/4/2014	Steve Summer	Send Addendum to Thermal Mixing Zone Evaluation for VCSNS unit 1 to Kelly when it is available.	complete 4/23/14
138	IFIM TWC	2/19/2014	Henry / Shane	Proposal for IFIM scope of work for 2014. Proposal submitted on 4/2/2014.	Complete 4/3/2014
139	Operations RCG	2/19/2014	Henry / Bret	Proposal for developing Operations Model scope of work. Proposal submitted on 3/14/2014.	Complete 3/14/2014
140	LLM TWC	2/19/2014	Alison Jakupca	Proposal for developing SMP and Permitting Handbook for Parr and Monticello. Proposal submitted on 2/18/2014.	complete 2/18/2014
141	RT&E TWC	2/19/2014	Henry / Shane	Proposal for developing RT&E Literature Search, Entrainment/Impingement Study and CrayFish field trap location. Proposal submitted on 2/24/2014.	complete 2/26/2014
142	Operations RCG	1/30/2014	Bret Hoffman/Henry Mealing	Finalize Operations Model Plan and re-issue to RCG for their approval	complete 4/8/2014
143	Operations RCG	1/30/2014	Bret Hoffman/Henry Mealing	Scott H said that he would like to see a report on the development of the inflow data set added as an appendix to the final operations study report. Dataset sent out to RCG for review and comment.	Complete 5/13/14
144	Operations RCG	1/30/2014	Bret Hoffman/Henry Mealing	SCE&G and Kleinschmidt will perform research to determine if there are any significant water withdrawals planned for downstream of the Project.	
145	Operations RCG	1/30/2014	Bret Hoffman/Henry Mealing	Kleinschmidt will examine the availability of hourly USGS flow data for the upstream gages proposed in the Study Plan. Inflow data set.	Complete 5/13/14

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Number	RCG/TWC	Date of Meeting	Person	Action Item	Completed
146		3/24/2014	Bret Hoffman /Bill Argentieri	Survey embankment at section 42578 and run additional model analysis to determine actual flow criteria for Operational Flow Change Evaluation.	Complete May 6 & 7
147	WQFW RCG	3/19/2014	Gerrit Jobsis	Gerrit was asked to narrow down American Rivers' list of proposed dams and bring back to the group a new list of what is done and what needs to be done at the dams they propose as candidates.	
148	RT&E TWC	4/3/2014	Shane Boring	Schedule meeting/conference call with Bill Post/Henry/Bill A/Steve Summer and Milton to discuss SNS and Atlantic Sturgeon in Congaree River	Complete 4/24/14
149	Fisheries TWC	4/1/2014	Henry Mealing	Kleinschmidt will revise the fluctuation study plan to include comments and edits discussed at the meeting. The revised draft study plan will be sent to TWC members for further review and a Fisheries TWC meeting will be scheduled to discuss the revised plan. Revised plan submitted to TWC on 5/30/14. No comments received. Final plan issued 6/24/14.	complete 6/24/14
150	Fisheries TWC	4/1/2014	Milton Quattlebaum	Milton will redo the maps in the fluctuation study plan to ensure the polygons extend from shoreline to shoreline.	Complete
151	Internal Team Meeting	5/16/2014	Kelly Miller and Milton Quattlebaum	Send out WQ DO and Temperature data to TWC with proposed DO transect sample plan to verify USGS data accuracy.	Complete 6/10/14
152	Internal Team Meeting	5/16/2014	Kelly Miller and Milton Quattlebaum	Collect DO and temp data in tailrace and compare with USGS gauge.	July and August and September 2014
153	WQ TWC	6/25/2014	Kelly Miller and Milton Quattlebaum	Milton and Kelly will collect water quality data below Parr Shoals Dam during July and August, making sure to record which units are operating while measurements are being taken. They will report their findings back to the TWC.	July and August and September 2014
154	WQ TWC	6/25/2014	Kelly Miller	Kelly will distribute Kerry Castle's turbidity data to the group.	complete 6/27/14
155	WQ TWC	6/25/2014	Kelly Miller	Kelly will finalize the Water Quality Report Addendum, send it to the TWC and post it to the website	complete 6/27/14

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156	WQ TWC	6/25/2014	Bill Argentieri	Bill will look for historical unit operating data for Parr and FPS. Could find unit operations for FFPS and Parr Units 1, 3 and 4 to June 2013.	Complete 7/17/14
157	Ops RCG	6/26/2014	Bret Hoffman	Kleinschmidt will edit the Inflow Dataset Methodology Memo based on comments and distribute to the RCG for final approval. The memo will then be finalized with the submitted comments and questions/answers included as an appendix.	Complete
158	Ops RCG	6/26/2014	Bret Hoffman	Kleinschmidt will distribute the proposed daily dataset to the RCG. To be sent with draft meeting notes and methodology memo.	complete 7/28/14
159	Ops RCG	6/26/2014	Bret Hoffman	Kleinschmidt will complete the HEC-Res Sim model and the HEC RAS model and schedule a meeting for the model demonstration in September 2014. Meeting scheduled for 9/17/14	Complete
160	Ops RCG	6/26/2014	SCDNR & USFWS	The Agencies (SCDNR and USFWS) will evaluate the estimated numbers in the Duke Broad River study and see if they are accurate for the present.	
159	RT&E TWC	7/23/2014	Shane Boring / Kelly Miller	Include Broad River Spiny Crayfish Study Site Selection notes in the Final BRSC sampling plan and revise the Plan to note the listed sampling locations and number of sampling traps to be used.	