Attachment 1
Contacts for Resource Agencies and Non-Governmental Organizations

Contact information for those involved in proceedings that influenced the operations of the Facility during licensing or thereafter

Agency/Organization	Name	Address	Phone / Fax	Email
Alcoa Power Generating Inc. (Tapoco Division)	Marshall Olson	293 NC Highway 740 Badin, NC 28009	704-422-5622 704-422-5776 (fax)	marshall.olson@alcoa.com
Alcoa Power Generating Inc. (Tapoco Division)	Mark Gross	293 NC Highway 740 Badin, NC 28009	704-422-5774 704-422-5793 (fax)	mark.gross@alcoa.com
American Rivers	Rebecca Haynes, Associate Director of Southeast Conservation	1001 Washington St., Suite 301 Columbia, SC 29201	803-771-7114 x 12	rhaynes@americanrivers.org
Blount County	Mayor Ed Mitchell	341 Court Street Maryville, TN 37804	865-273-5702 865-273-5705 (fax)	
City of Alcoa	Mark Johnson	223 Associates Boulevard Alcoa, TN 37701	865-380-4795 865-380-4797 (fax)	mjohnson@cityofalcoa-tn.gov
City of Maryville	Greg McClain, City Manager	404 W. Broadway Avenue Maryville, TN 37801	865-273-3401 865-273-3424 (fax)	gmcclain@ci.maryville.tn.us
Cross Creek Property Owners Association	David Meeker	P.O. Box 433 Alpharetta, GA 30009	770-521-9589	meekerda@aol.com
Department of Interior – Office of Environmental Policy and Compliance	Gregory Hogue	Richard B. Russell Federal Building 75 Spring Street, SW, Rm 1144 Atlanta, GA 30303	404-331-4524 404-331-1736 (fax) 404-909-0537 (cell)	gregory_hogue@ios.doi.gov
Eastern Band of Cherokee Indians	Chief	88 Council House Loop P.O. Box 455 Cherokee, NC 28719	828-497-7002	
Eastern Band of Cherokee Indians	Tribal Historic Preservation Office	810 Acquoni Road P.O. Box 455 Cherokee, NC 28719	828-488-0237	

Agency/Organization	Name	Address	Phone / Fax	Email
Friends of Lake Santeetlah	Richard D. Eyestone	770 Cherokee Trail Robbinsville, NC 28771	828-669-1221 (home) 828-479-8477 (home May-Oct) 828-450-1206 (cell)	deyestone@charter.net
Graham County	Mickey Duvall, M.P.A., Ph.D, Graham County Manager	12 North Main Street Robbinsville, NC 28771	828-479-7961 828-479-7988 (fax)	mduvall@graham.nc.gov
National Park Service	Jeff Duncan, Southeastern Rivers Program	175 Hamm Road, Suite C Chattanooga, TN 37405	423-987-6127 888-854-2849 (fax)	jeff_duncan@nps.gov
National Park Service *Great Smoky Mountains National Park*	Chief, Resources Management and Science Division	107 Park Headquarters Road Gatlinburg, TN 37738	865-436-1245 865-436-0341 (fax)	
National Park Service Great Smoky Mountains National Park	Keith Langdon, Inventory & Monitoring Coordinator	1316 Cherokee Orchard Road Gatlinburg, TN 37738	865-436-1705	keith_langdon@nps.gov
National Parks Conservation Association	Don Barger	706 Walnut Street #200 Knoxville, TN 37902	865-329-2424	dbarger@npca.org
NCDENR - Division of Parks and Recreation	Tim Johnson	Lake James State Park P.O. Box 340 Nebo, NC 28761	828-659-8706	tim.johnson@ncdenr.gov
NCDENR - Division of Water Resources	Jim Mead	1611 Mail Service Center Raleigh, NC 27699-1611	919-715-5428 919-733-3558 (fax)	jim.mead@ncdenr.gov
NCDENR - Division of Water Quality	John Dorney	4401 Reedy Creek Road Raleigh, NC 27607	919-733-1786 919-733-9959 (fax)	john.dorney@ncmail.net
North Carolina State Historic Preservation Office, NC Department of Cultural Resources, Office of Preservation[1]	Renee Gledhill-Earley	4617 Mail Service Center Raleigh, NC 27699-4617	919-733-4763	renee.gledhill-earley@ncmail.net
North Carolina Wildlife Resources Commission	Chris Goudreau	645 Fish Hatchery Road Marion, NC 28752	828-652-4360 x 223 828-652-3279 (fax)	chris.goudreau@ncwildlife.org

Agency/Organization	Name	Address	Phone / Fax	Email
Tennessee Clean Water Network	Renee Victoria Hoyos	625 Market Street Knoxville, TN 37901	865-522-7007 x 100 865-607-6618 (cell)	renee@tcwn.org
Tennessee Department of Environment and Conservation	Daniel C. Eagar	7th Floor, L&C Annex 401 Church Street Nashville, TN 37243	615-532-0708	dan.eagar@tn.gov
Tennessee Historical Commission[1]	Joe Garrison	Clover Bottom Mansion 2941 Lebanon Road Nashville, TN 37243-0442	615-532-1550 ext. 103	joe.garrison@state.tn.us
Tennessee State Historic Preservation Office, TN Division of Archaeology[1]	Jennifer Barnett	Cole Bldg. No. 3 1216 Foster Avenue Nashville, TN 37210	615-741-1588 ext. 17	Jennifer.Barnett@state.tn.us
Tennessee Wildlife Resources Agency	John A. Mike	3030 Wildlife Way Morristown, TN 37814	423-522-2450 423-587-7057 (fax)	john.mike@tn.gov
Tennessee Wildlife Resources Agency	David McKinney	P.O. Box 40747 Ellington Agriculture Center Nashville, TN 37204		dave.mckinney@state.tn.us
The Nature Conservancy of Tennessee	Alex Wyss	625 Market Street, Ste. 1201 Knoxville, TN 37902-2204	865-546-5001 (office) 865-546-5007 (fax) 865-804-5545 (cell)	awyss@tnc.org
The Nature Conservancy of Tennessee	Gabrielle K. Call	Shady Valley Preserves Office 10537 Highway 421 North Shady Valley, TN 37688	423-739-2537 (office) 423-739-2441 (fax) 423-471-0700 (cell)	gcall@tnc.org
Town of Lake Santeetlah	Peggy Carver	4 Marina Drive Lake Santeetlah, NC 28771	828-479-8190 828-479-0248 (fax) 828-735-0033 (cell)	info@townoflakesanteetlah.org
Town of Robbinsville	Bobby Cagle, Jr., Mayor	Town Hall P.O. Box 126 Robbinsville, NC 28771	828-479-3250	
US Bureau of Indian Affairs	Jim Kardatzke / Kurt Chandler	545 Marriott Drive, Suite 700 Nashville, TN 37214	615-564-6500 615-564-6571 (fax)	

Agency/Organization	Name	Address	Phone / Fax	Email
US Department of the Interior	Gerald Thornton	Office of the Field Solicitor 800 South Gay Street, Suite 800 Knoxville, TN 37929	865-545-4294 865-545-4314 (fax)	gerald.thornton@sol.doi.gov
US Fish and Wildlife Service	Mark Cantrell	160 Zillicoa Street Asheville, NC 28801	828-258-3939 x 227 828-258-5330 (fax) 828-215-1739 (cell)	mark_a_cantrell@fws.gov
US Forest Service – National Forests in North Carolina	Lands & Minerals Program Manager Attn: Julie Moore	160 Zillicoa Street, Suite A Asheville, NC 28801-1082	828-257-4859 (office) 828-259-0567 (fax)	juliedmoore@fs.fed.us
US Forest Service – National Forests in North Carolina	Cheoah District Ranger Attn: Lauren Stull	1070 Massey Branch Road Robbinsville, NC 28771	828-479-6431	lbstull@fs.fed.us
US Forest Service – Cherokee National Forest	Forest Supervisor's Office Tom Speaks	2800 North Ocoee Street Cleveland, TN 37312	423-476-9700 (office) 423-476-9721 (fax)	
US Forest Service – Cherokee National Forest	Tellico Ranger District Katherine Foster	250 Ranger Station Road Tellico Plains TN 37385	423-253-8400 423-253-2804 (fax)	kfoster01@fs.fed.us
Western North Carolina Alliance	Julie Mayfield, Director	29 North Market Street, Suite 610 Asheville, NC 28801	828-258-8737 828-258-9141 (fax)	julie@wnca.org

Notes:

1) Party was a participant in the FERC relicensing of the Tapoco Project but was not a signatory to the Relicensing Settlement Agreement (RSA).

Attachment 2
Supplemental Information for Sections 12, and A through H of
March 2012 LIHI Certification Questionnaire

Section 1 – Background Information

Facility Description, Mode of Operation and Map

Project Boundary
The total area within the FERC Project Boundary is approximately 8,300 acres (5,800 acres of water and 2,500 acres of land). The Tapoco Project extends along the Little Tennessee River from about river mile marker 33 located approximately 3,000 feet downstream of Chilhowee Dam to just above river mile marker 60, a little more than a half-mile downstream of the Tennessee Valley Authority's (TVA) Fontana Dam. Chilhowee, Calderwood and Cheoah developments and Santeetlah Powerhouse are located on the Little Tennessee River. Santeetlah Dam and Reservoir are located on the Cheoah River, a tributary to the Little Tennessee River. Santeetlah Dam is located approximately 9.3 miles upstream of the confluence of the two rivers, which is located just downstream of Cheoah Powerhouse. The Project Boundary also encompasses much of the Cheoah River corridor downstream of the Santeetlah Dam.

Summary of Reservoir and Selected Infrastructure Attributes by Development			
Development	**Reservoir Acreage**	**Shoreline Miles**	**Selected Infrastructure Attributes**
Santeetlah	2,881	78.8	Dam 1,054 ft. long and 216 ft. high. Pipelines and tunnels carry Cheoah River water 5 miles to the Santeetlah powerhouse on the Little Tennessee River.
Cheoah	644	19.8	Dam is 750 ft. long and 229 ft. high. A tunnel carries water 450 feet from one intake to four turbine-generator units, and a penstock carries water 490 feet from a second intake to a fifth turbine-generator unit.
Calderwood	570	17.1	Dam is 916 ft. long and 230 ft. high. A 2,050 ft. long tunnel carries water from the intake to the powerhouse.
Chilhowee	1,734	26.1	Dam is 1,483 ft. long and 88.5 ft. high. A powerhouse integral to the dam is located immediately downstream of the intake.

Santeetlah Development

Santeetlah Dam is located in Graham County, North Carolina on the Cheoah River, just upstream of river mile 9. Santeetlah Reservoir consists of 78.8 miles of shoreline and 2,881 acres of water surface at its full-pool elevation of 1,940.9 feet[1]. The drainage area of Santeetlah Reservoir covers 176 square miles.

The installed capacity of the Santeetlah Development is 40.4 MW. The Santeetlah Powerhouse contains two vertical Francis turbine units directly connected to generators.

Little Tennessee River Reservoirs

Cheoah Development

Cheoah Development is the most upstream of the three Project developments located on the Little Tennessee River. The dam is located in Graham and Swain counties, North Carolina, between river miles 51 and 52, just upstream of the mouth of the Cheoah River. Cheoah Reservoir has 19.6 miles of shoreline and 644 acres of water surface at full-pool (elevation 1,276.8 feet). Cheoah Reservoir has a drainage area of 1,608 square miles.

The installed capacity of the Cheoah Development is 118.0 MW. Following upgrades now underway the installed capacity is projected to increase to 140.0 MW by 12/31/2013. The Cheoah powerhouse contains five vertical Francis turbine units directly connected to generators.

Calderwood Development

Calderwood Development, the third in the chain of Project developments, is located in Graham and Swain counties, North Carolina, and Blount and Monroe counties, Tennessee between river miles 42 and 44 of the Little Tennessee River. Calderwood Reservoir consists of 16.9 miles of shoreline and 570 acres of water surface at full-pool (elevation 1,087.8 feet). The drainage area of Calderwood Reservoir is 1,856 square miles.

Calderwood Development has an installed capacity of 140.4 MW. The Calderwood Powerhouse contains three vertical Francis turbine units directly connected to generators.

Chilhowee Development

Chilhowee is the most downstream of the Project developments. The development is located in Blount and Monroe counties, Tennessee between river miles 33 and 34 of the Little Tennessee River. Chilhowee Reservoir consists of 26.4 miles of shoreline and 1,723 acres of water surface at full-pool (elevation 874.0 feet). The reservoir covers a drainage area of 1,977 square miles.

[1] All elevations are based on the USGS datum. When the Tapoco Project was originally constructed, a local survey datum was used for each development. The full-pool reservoir elevations (USGS/local datum) are as follows: Santeetlah 1,940.9 ft / 1,817 ft, Cheoah 1,276.8 ft / 1,154 ft, Calderwood 1,087.8 ft / 965 ft and Chilhowee 874 ft / 874 ft. Regardless which datum is used, the full-pool reservoir elevation reflects the top of the spillway gate elevation or the maximum normal water level for that reservoir.

The installed capacity of Chilhowee Development is 52.2 MW. The Chilhowee Powerhouse contains three Kaplan turbine units directly connected to generators.

Cheoah Dam

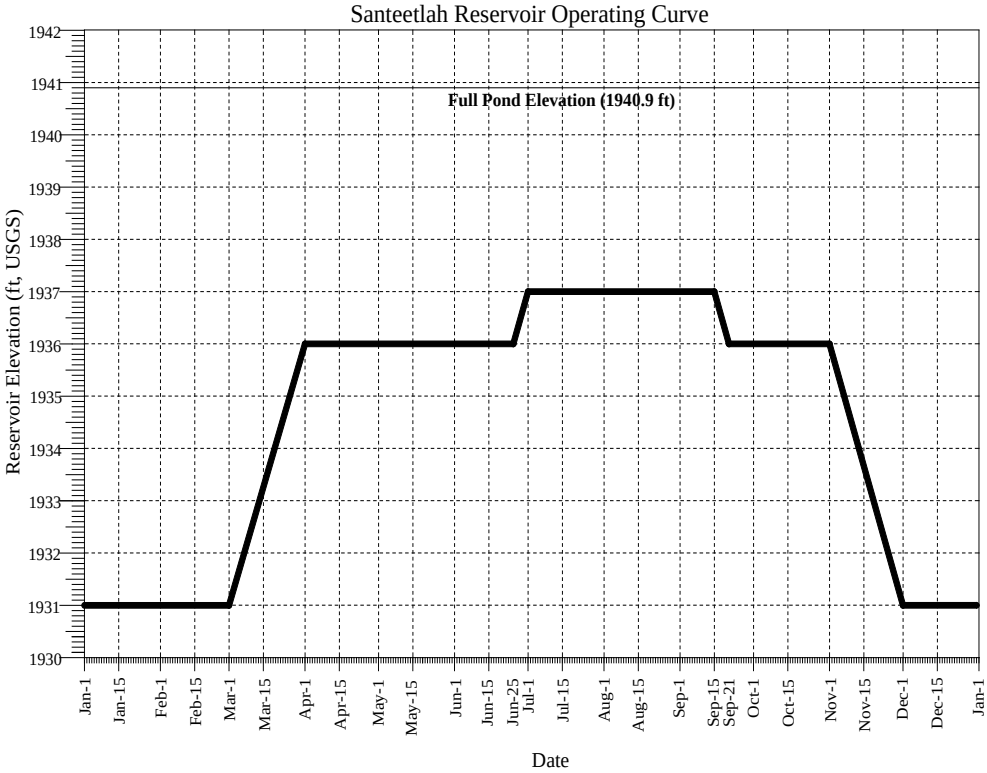
Cheoah Reservoir

Hydropower Project Operations

Santeetlah Reservoir, the largest of the four Project reservoirs, is operated as a storage impoundment in accordance with an annual operating curve, which establishes target seasonal reservoir levels. The current operating curve was adopted in 2004 as part of the Relicensing Settlement Agreement.

Santeetlah Reservoir is operated to maintain high recreational elevations during the summer months, followed by fall drawdown to allow for collection of rainfall and runoff during the late fall, winter and early spring. The current operating curve (below) was developed to also provide protection and enhancement for a variety of other resources and uses, including aquatic species and habitat, water quality, reservoir wetlands, archaeological sites, and scenic appearance throughout the year. During the period April 1 to November 1, the maximum drawdown at Santeetlah Reservoir is five feet. During the period December 1 to March 1, the maximum drawdown is ten feet. The elevation of Santeetlah Reservoir is reported online at http://www.alcoa.com/tapoco/en/info_page/santeetlah.asp. APGI has operated Santeetlah Reservoir in accordance with the operations curve since March 1, 2005, with no exceptions.

Santeetlah Reservoir Operating Curve



Date	Mar-1	Apr-1	Jun-25	Jul-1	Sep-15	Sep-21	Nov-1	Dec-1
Elevation (ft, USGS)	1931	1936	1936	1937	1937	1936	1936	1931

Prior to the Relicensing Settlement Agreement, there were no regular flow releases from Santeetlah Dam into the Cheoah River. Water from Santeetlah Reservoir was diverted to the

powerhouse located on the Little Tennessee River upstream of Cheoah Dam. The drainage area for the Cheoah River below Santeetlah Dam was made up of leakage from the dam, tributary inflow and occasional spills from the dam.

Beginning September 1, 2005 as part of the Relicensing Settlement Agreement, Tapoco has released flows from Santeetlah Dam into the Cheoah River according to Table 1 in Section A – Flows. The aquatic base flow for each month is determined by calculating the average daily inflow (ADI) value for the three preceding months using daily measures of change in reservoir elevation and total discharge. If the ADI value is greater than the historic 25th percentile average flow for that month shown in Table 2 in Section A - Flows, Tapoco releases flows according to Tier A of Table 1. If the ADI is less than or equal to the historic 25th percentile average flow for that month, flows are released according to Tier B of Table 1.

Since TVA's upstream Fontana Dam serves as the primary storage and flow control facility for the lower Little Tennessee River, operations of the Cheoah, Calderwood, and Chilhowee developments are based on Fontana's operation and planned discharges and are essentially operated in a run-of-river mode following the daily-cycle peaking operations of Fontana. During periods of high releases from Fontana, these three developments operate 24 hours per day and water is stored at Santeetlah Reservoir, based on available storage, for subsequent releases. During periods of low releases from Fontana, the Cheoah, Calderwood and Chilhowee developments operate a limited number of hours per day at maximum capacity in a modified run-of-river mode. Due to their limited ability to store water, the Cheoah and Calderwood reservoirs are operated with daily pondage and with maximum drawdowns of seven feet at Cheoah and six feet at Calderwood. There is no seasonal drawdown at either development.

Calderwood Powerhouse and Dam are located on a horse-shoe shaped area of the Little Tennessee River known as the Calderwood Bypass. Water from Calderwood Reservoir flows to the powerhouse through an underground tunnel that cuts across the horseshoe area. This diversion of water from the dam creates a "bypassed" reach of the Little Tennessee River main stem that extends from the dam to the powerhouse. Prior to the Relicensing Settlement Agreement, water flow in the bypass was limited to leakage from the dam and inflows from two small tributaries. In accordance with the 2005 FERC license for the Tapoco Project, Tapoco maintains minimum instream flows in the Calderwood Bypass.

The Chilhowee Reservoir is operated with daily pondage, a normal fluctuation range of one to two feet with a minimum outflow, a maximum drawdown of five feet from normal full-pool elevation and no seasonal drawdown. At TVA's request, the Chilhowee Development is operated from May 1 to October 31 with a minimum daily average outflow of 1,000 cubic feet per second (cfs) into the Chilhowee tailrace. For the remainder of the year, no minimum flow is required downstream of Chilhowee. TVA's Tellico Dam is located approximately 33 miles downstream of the Chilhowee Dam.


Great Smoky Mountains National Park
Chilhowee
Chilhowee Dam and Powerhouse
Reservoir
Calderwood Powerhouse
Calderwood Dam
Calderwood Reservoir
TENNESSEE
NORTH CAROLINA
Blount County
Swain County
Cheoah Reservoir
Swain County
Graham County
Cheoah Dam and Powerhouse
Cheoah
Santeetlah Powerhouse
Santeetlah Pipeline and Tunnel
Joyce Kilmer-Slickrock Creek Wilderness
Nantahala National Forest
Citico Creek Wilderness
Nantahala National Forest
Santeetlah Dam
Santeetlah Reservoir
Monroe County
Graham County
Nantahala National Forest
Legend
FERC Project Boundary
State Line
County Line
Roads
Project Structures
Water Bodies
Streams
Wilderness Areas
Forest and Park Lands
Cherokee National Forest
Nantahala National Forest
0 0.5 1 2 3 Miles
ALCOA
Alcoa Power Generating Inc.
Tapoco Division
Tapoco Hydroelectric Project, P-2169
Tapoco Project Area
PARSONS BRINCKERHOFF
Map No.: TP930 Issue No.: 1
Plot File Name: TP930a.pdf
Issue Date: 8 Mar 2012

Background for Sections A Through H

As background, the Tapoco Hydroelectric Project (FERC No. 2169) was relicensed by the Federal Energy Regulatory Commission (FERC) by Order dated January 25, 2005. The new license is based largely on a comprehensive relicensing settlement agreement signed by a supermajority of the relicensing parties and filed with FERC on May 7, 2004. The Tapoco Project Relicensing Settlement Agreement (RSA) outlines protection, mitigation, and enhancement (PME) measures for the Project that address ecological resources as well as other beneficial uses of the Cheoah and Little Tennessee Rivers, including hydropower generation, watershed protection, endangered species enhancement, fish passage and recreational opportunities. The participants in the settlement negotiations included APGI, state and federal resource agencies, the Eastern Band of the Cherokee Indians, local governments, homeowner associations, and local and national non-governmental organizations (NGOs) (see Attachment 1). The new Project license became effective beginning March 1, 2005 and has a term of 40 years. APGI began implementing the new license immediately and is in compliance with the new license.

APGI's Compliance Manager is responsible for overall compliance with the FERC Project license and RSA. Additionally, all APGI personnel are responsible for understanding APGI's commitments and conducting all activities in compliance with the FERC license, RSA, 401 certifications, protocols, plans, agreements, and conservation easements. The Compliance Manager uses the following tools to ensure compliance:

- **Compliance database** – maintained and updated regularly; includes e-copies of all relevant agency correspondence, compliance filings, and FERC notices/approvals;

- **Compliance tracking table** – generated from database and used to track compliance on an ongoing basis; this table identifies required action(s), person(s) accountable, and due dates;

- **Monthly compliance calls –** the Compliance Manager and support staff meet monthly on the first Thursday of the month via conference call to review what near and long term actions are required to ensure ongoing compliance;

- **Compliance manual** – developed to help APGI staff understand and comply with the Project license, agreements, plans etc.; the manual is available electronically and in hard copy; the manual is updated regularly (every five years);

- **Annual compliance training** – the Compliance Manager organizes an annual training, which typically includes a presentation, a question/answer period, and follow-up; and

- **Information sharing on Project websites** – the Project website (www.alcoa.com/tapoco) provides resource management plans in electronic format, monitoring data, flow data, annual reports etc.

The following offers supporting information for sections A through H of the LIHI Questionnaire.

Section A – Flows

A.1 Is the Facility in compliance with Resource Agency recommendations issued after December 31, 1986 regarding flow conditions for fish and wildlife protection, mitigation and enhancement (including in-stream flows, ramping and peaking rate conditions, and seasonal and episodic instream flow variations) for both the reach below the tailrace and all bypassed reaches?

Yes, Pass, Go to B

Historically there have been two bypassed river reaches at the Tapoco Project – the Cheoah River Bypass reach and the Calderwood Bypass reach. The RSA includes agreements to restore flows to both of these bypassed reaches. The details of these agreements are summarized below. The Resource Agencies did not recommend any flow conditions for the Cheoah and Chilhowee tailwaters.

Cheoah River Bypass Reach

In order to enhance, maintain, and protect fish and wildlife habitat and biological integrity and water quality in the Cheoah River bypass reach, APGI began releasing aquatic base flows from Santeetlah Dam September 1, 2005 in the magnitude and for the duration described in Table 1. APGI determines the aquatic base flow for each month by calculating the average daily inflow (ADI) value for the three preceding months. APGI calculates the ADI using its recorded measures of daily change in reservoir elevation and total discharge (generation flows, instream flow releases, high flow events, and flood discharge flows). If the ADI is greater than the historic 25th percentile average flow for that month (Table 2), APGI releases flows according to Tier A and if the ADI is less than or equal to the historic 25th percentile average flow for that month, APGI releases flows according to Tier B. Flow data is recorded and posted on APGI's Project website at http://www.alcoa.com/tapoco/en/info_page/santeetlah.asp.

Cheoah River

Table 1: Aquatic Base Flows

Month	Tier A Flowrate (cfs)	Tier B Flowrate (cfs)
January	50	50
February	100	90
March	100	90
April	100	90
May	90	80
June	60	60
July	60	50
August	50	40
September	50	40
October	50	40
November	50	40
December	60	50

Table 2: Historic 25th Percentile Average Flows
Based on 31-year Period of Record (1971-2001)

Month	Threshold Flow (cfs)
Jan	256
Feb	446
Mar	484
Apr	615
May	617
Jun	526
Jul	403
Aug	289
Sep	208
Oct	141
Nov	116
Dec	148

Table 3: High Flow Events – 5-year Repeating Schedule

Month	Year 1		Year 2		Year 3		Year 4		Year 5		Magnitude (cfs)[3]		
	# Events	Total Days Per Month	# Events	Total Days Per Month	# Events	Total Days Per Month	# Events	Total Days Per Month	# Events	Total Days Per Month	Day 1	Day 2	Day 3
January													
February	1	2	1	2	1	2	1	2	1	2	1000	Var[1]	
March	1	3	1	3	1	3	1	3	1	3	1000	600[2]	300
April	2	5	3	6	2	5	2	5	3	6	1000	850	300
May	2	4	2	4	3	6	3	6	3	6	1000	850	
June	1	2	1	2					1	2	1000	850	
July					1	2					1000	850	
August							1	1			1000		
September	1	1			1	1					1000		
October	1	1	1	1			1	1			1000		
November	1	1	1	1	1	1	1	1	1	1	1000		
December													
Total Per Year:	10	19	10	19	10	20	10	19	10	20			

1 600 cfs from hour 15 to hour 19, 400 cfs from hour 20 to hour 34; 200 cfs from hour 35 to hour 47; 100 cfs for hour 48

2 600 cfs from hour 16 to hour 36; 300 cfs from hour 37 to hour 48

3 12:00 a.m. (midnight) shall be the starting point for determining the appropriate time for initiating and changing flow releases

Table 4: High Flow Events (2005-2011)

2005	2006	2007	2008
September 17	February 8-9	February 7-8	February 16-17
October 1	March 21-23	March 17-19	March 15-17
November 2	April 1-2	April 14-15	April 5-7
	April 8-9	April 21-23	April 19-20
	April 15-16	May 5-6	May 3-4
	May 6-7	May 19-20	May 10-11
	May 27-28	May 26-27	May 17-18
	June 3-4	July 7-8	August 17
	October 1	September 1	October 4
	November 1	November 3	November 1

2009	2010	2011	
February 21-22	February 20-21	February 19-20	
March 14-16	March 20-22	March 19-21	
April 4-5	April 10-12	April 2-3	
April 18-19	April 24-25	April 9-10	
April 25-26	May 8-9	April 16-17	
May 9-10	May 22-23	May 14-15	
May 16-17	June 26-27	May 21-22	
May 30-31	September 18	June 18-19	
June 20-21	October 2	October 1	
November 7	November 6	November 5	

APGI began releasing aquatic base flows and periodic high flows from Santeetlah Dam beginning September 1, 2005 according to Tables 1-3. Table 4 shows the dates that APGI released high flows from Santeetlah Dam from 2005 through 2011. The USGS gage at Bearpen Gap (Gage No. 0351706800) is used to measure flows released from the Santeetlah Dam into the Cheoah River and monitor compliance with the requirements outlined in the RSA. APGI funds the operation of the Bearpen Gap flow gage. APGI uses the calibrated manual staff gage below Santeetlah Dam at the Joyce Kilmer Bridge for visual confirmation of Cheoah River flows. In accordance with the RSA, APGI reviews the results from the aquatic base flows and periodic high flow events from Santeetlah Dam with the Resource Agencies at the annual Cheoah River flow planning meeting each October. There have been no instances of non-compliance with the flow regime. In letters dated February 21, 2012, February 27, 2012, and February 29, 2012, the USFWS, USFS, and NCDENR respectively, indicated that the restored flows in the Cheoah River are supporting agency restoration goals (see Attachment 5).

Staff Gage Cheoah River at the Joyce Kilmer Bridge

Calderwood Bypass Reach of Little Tennessee River

On March 1, 2005 APGI began releasing minimum instream flows in the Calderwood Bypass reach of the Little Tennessee River according to the repeating 10-year schedule shown in Table 5. The minimum flow regime varies annually in both discharge and timing (i.e. adjustments in flows will be made on the first Tuesday of the month, no later than

12:00 p.m., so as to not always occur at the end of one month and beginning of another). APGI uses the gate position and headpond elevation to determine the magnitude of the flow release. APGI releases water from the base of the gate, down approximately six feet from normal full pond elevation of 1087.8 feet USGS datum.

APGI makes the determination to release minimum instream flows in the Calderwood Bypass according to Scenario A, B or C for each calendar year, so long as the required frequency of each of these scenarios is met within each ten-year period.

Table 5: Calderwood Bypass Instream Flows

Scenario	A	B	C
January	45	50	55
February	40	50	60
March	35	50	65
April	20	40	60
May	30	40	50
June	25	30	35
July	30	30	30
August	20	25	30
September	25	25	25
October	35	30	25
November	45	40	25
December	40	40	40
Average Annual Flow	**32.5 cfs**	**37.5 cfs**	**41.5 cfs**
Frequency	**3/10 years**	**5/10 years**	**2/10 years**

In order to reduce the potential for thermal impacts on stream biota, during the normally hot and dry months of July – September, APGI considers the flows in Table 5 for each month as target flows. APGI operates within a limited flow band around the flow values due to the variation in headpond elevations during normal operation and the small magnitude of some of the required flows. APGI may exceed target flows if water is released upstream or inflows exceed the turbine capacity of the Calderwood Powerhouse or as necessary to pass trash at the dam.

In releasing the target flows into the Calderwood Bypass reach consistent with Table 5, APGI must ensure that the released flows are no greater than 50 cfs above the target flows, except as provided in the previous paragraph, and no lower than 5 cfs below the target flows.

APGI may temporarily reduce instream flows in the Calderwood Bypass for the purpose of safely crossing the Little Tennessee River to utilize the Goat Creek access route to construct, reconstruct, inspect, maintain or perform related activities with respect to the Calderwood transmission lines. In accordance with the Project license and applicable conditions, APGI has on several occasions reduced flow in the Calderwood Bypass to access the Calderwood transmission lines. In each case, APGI has provided the required

15 days prior notice to the appropriate Resource Agencies and FERC and has maintained 20 cfs in the Calderwood Bypass during the entire period that transmission line work was performed.

APGI began releasing minimum instream flows into the Calderwood Bypass on March 1, 2005. APGI has operated in compliance with the flow regime from 2005 through the present. Flow data is recorded and posted on APGI's Project website at http://www.alcoa.com/tapoco/en/info_page/calderwood.asp.

Section B – Water Quality

B.1 Is the Facility either:

a) In Compliance with all conditions issued pursuant to a Clean Water Act Section 401 water quality certification issued for the Facility after December 31, 1986?
or
b) In Compliance with the quantitative water quality standards established by the state that support designated uses pursuant to the federal Clean Water Act in the Facility area and in the downstream reach?

Yes, Go to B2

Pursuant to §401 of the Federal Clean Water Act, the State of Tennessee certified on April 29, 2004 and the State of North Carolina certified on November 8, 2004 that the Tapoco Project will not violate applicable water quality standards provided it conforms with the approved plans, specifications, and other information submitted.

The North Carolina certification includes 14 conditions, 11 of which mirror the RSA. The remaining three conditions are in addition to, although not inconsistent with, the RSA. These conditions require: (1) APGI to report consumptive withdrawal of water from Santeetlah Reservoir; (2) conduct all activities in a manner consistent with state water quality standards and any other state and federal law; and (3) provide that the certification does not grant or affirm any property rights, license, or privilege in any water or any right of use in any water. In addition to the agency letters in Attachment 5 confirming compliance, Table 6 summarizes the status of APGI's compliance with each of the conditions.

Table 6: Conditions of the North Carolina §401 Water Quality Certificate

Condition No.	**Status**
1. Release aquatic base flows from Santeetlah Dam	In Compliance, See Section A.1
2. Provide high flow events into the Cheoah River	In Compliance, See Section A.1
3. Convene an annual planning meeting in early October of each year to discuss Cheoah River flows	In Compliance, See Section A.1

Condition No.	Status
4. Beginning in October 2010, in conjunction with the annual meeting in Condition No. 3, consult with the USFWS, USFS, NCDENR, NCWRC, EBCI, and Graham County regarding possibility of providing an additional high flow event on a trial basis	In Compliance, APGI held this meeting on October 5, 2010. See Attachment 3.
5. If inflow is not adequate to provide high flow releases and maintain required reservoir levels while maintaining instream flows, make equitable reductions in reservoir levels and high flow releases as outlined in Condition No. 5	In Compliance, Implementation of the Low Inflow Protocol has not been necessary to date.
6. Continue funding the USGS Bearpen Gap gage; install/maintain a calibrated staff gage or equivalent at the Joyce Kilmer Bridge; and make available the calculated release to the Cheoah River at Santeetlah Dam on an hourly basis via the Internet	In Compliance, See Section A.1
7. Prior to the gate modifications and automation in Condition No. 8, release a continuous base flow of approximately 50 cfs through an existing Tainter gate at Santeetlah Dam and provide high flow events with consideration of factors outlined in Condition No. 7	In Compliance, Completed March 2005 – July 2007
8. Add “piggy back” gates to, and automate, either two or three of the existing Tainter gates on Santeetlah Dam to accommodate release of the aquatic base flow and high flow events	In Compliance, Completed July 2007
9. Operate Santeetlah Reservoir according to the operating rules outlined in Condition No. 9, except when operating under the Low Inflow Protocol	In Compliance, See Section 1
10. Monitor the elevation of Santeetlah Reservoir on an hourly basis and make that data available via the Internet	In Compliance, See Section 1
11. During emergencies and for planned Project maintenance or inspection activities, APGI may vary from the reservoir operating curve, vary flows below the required aquatic base flows or lake levels, or vary from the high flow release schedule, with notification to NCDENR, NCWRC, USFS, and USFWS as outlined in Condition No. 11	In Compliance, No variations have been necessary to date.
12. Identify and report in writing existing and proposed consumptive uses (defined as ≥ 100,000 gallons per day) to DWQ and NC Division of Water Resources	In Compliance, See Section B.2. There are no consumptive uses at Santeetlah.

Condition No.	Status
13. Conduct activities in a manner consistent with State water quality standards and any other appropriate requirements of State law and federal law	In Compliance, See Section B and Letters in Attachment 5
14. Certification does not grant or affirm any property right, license or privilege in any waters or any right of use in any waters and Certification does not authorize any person to interfere with riparian rights, littoral rights or water use rights of any other person	N/A

The Tennessee certification contains 21 conditions, 16 of which mirror the RSA. The remaining five conditions are in addition to, but are not inconsistent with, the RSA. These conditions require: (1) conformance of approved plans, specifications, agreements, data and other information submitted in support of APGI's application; (2) prohibit the release of pollutants in flowing water from construction or maintenance activities associated with the Project; (3) require that Project-related work be carried out in such a manner as will prevent violations of water quality criteria rules; (4) bar any petroleum products or other chemical pollutants from entering state waters; and (5) make the terms and conditions of the certification applicable to any contractors. In addition to the agency letters in Attachment 5 confirming compliance, Table 7 summarizes the status of APGI's compliance with each of the conditions.

Table 7: Conditions of the Tennessee §401 Water Quality Certificate

Condition No.	Status
1. Operate Project in conformance with approved plans, specifications, agreements, data and other information submitted in support of the Certification Application and the limitations, requirements, and conditions of the Certification	In Compliance, See Attachment 2
2. Establish/maintain Tallassee Fund and provide annual funding to the Tallassee Fund	In Compliance, See Section D.2
3. Develop/operate/maintain fish passage program	In Compliance, See Section C.6
4. Release instream flows in the Calderwood Bypass reach of the Little Tennessee River	In Compliance, See Section A.1
5. During the months of July-September, consider flows outlined in Condition No. 4 as target flows and operate within a limited flow band around the flow values	In Compliance, See Section A.1
6. Ensure that the released flows into the Calderwood Bypass reach are no greater than 50 cfs above the target flows outlined in Condition No. 4, except as provided in Condition No. 5, and no lower than 5 cfs below the target flows; file a plan and schedule for FERC approval for gate modifications/complete gate modifications	In Compliance, See Section A.1

Condition No.	Status
7. Use the gate position and headpond elevation to determine the magnitude of the flow release and release water from the base of the gate	In Compliance, See Section A.1
8. Record flow data electronically, using the control system at Calderwood Dam, and make the calculated hourly Calderwood Bypass flow release data available electronically via the Internet	In Compliance, See Section A.1
9. Operate Calderwood Reservoir with no seasonal drawdown and maximum drawdowns of 6 feet from normal full pool elevation	In Compliance, See Section 1
10. Operate Chilhowee Reservoir with no seasonal drawdown and maximum drawdowns of 5 feet from normal full pool elevation	In Compliance, See Section 1
11. May modify instream flow releases required in Condition Nos. 4-8 and the reservoir drawdowns required in Condition Nos. 10 and 11 on a temporary basis as outlined in Condition No. 11	In Compliance, See Section A.1
12. Develop and file with FERC a sampling plan to periodically sample benthic macroinvertebrates in the Chilhowee tailwater	In Compliance, APGI filed the Chilhowee Development Benthic Macroinvertebrate Study Plan in February 2007. FERC approved the plan in May 2007. The first sampling was conducted in 2007 and a study report was filed with FERC in 2008. Additional sampling is not required until 2019.
13. In the event that issues related to FERC jurisdiction over Tapoco Project lands lying within the Great Smoky Mountains National Park (GSMNP) boundary are resolved, grant and convey a permanent conservation easement (the "Bulge Easement") to TNC on a tract south of US Highway 129, known as "The Bulge" and grant to TNC the option to purchase the remaining fee simple interest underlying the Bulge Lands (the "Bulge Option")	In Compliance, Complete – 2005.

Condition No.	Status
14. Grant and convey a permanent conservation easement on APGI non-Project lands to TNC that creates 200 feet of protection on the shorelines of Chilhowee and Calderwood reservoirs	In Compliance, See Section D.2.
15. In the event that issues related to FERC jurisdiction over Tapoco Project lands lying within GSMNP boundary are resolved, grant and convey a permanent conservation easement ("Corridor Easement") to TNC for non-Project lands within a corridor adjacent to the Calderwood Bypass and grant to TNC the option to purchase the remaining fee simple interest underlying the Corridor Lands (the "Corridor Option")	In Compliance, See Section D.2
16. So long as the fee interest in the Corridor Lands is owned by APGI or TNC, cooperate with TWRA in maintaining public access to the Corridor Lands and the property covered by the Shoreline Easement (called the "Tennessee Riparian Lands Easement" in the RSA)	In Compliance, Ongoing
17. In the event that issues related to FERC jurisdiction over Tapoco Project lands lying within GSMNP boundary are resolved, grant and convey a conservation easement (the "Term Conservation Easement") to TNC over all remaining APGI-owned non-Project lands in Tennessee in the vicinity of the Project and grant to TNC a permanent right of first refusal to purchase some or all of the remaining APGI Lands	In Compliance, See Section D.2
18. Do not carry out construction or maintenance activities in flowing waters associated with Project operation that are likely to release pollutant; separate grading, excavation or fill activities from the water column	In Compliance, Ongoing
19. Carry out all work in such a manner as will prevent violations of water quality criteria	In Compliance, Ongoing
20. Take appropriate steps to ensure that petroleum products or other chemical pollutants are prevented from entering waters of the State; immediately report/take measures to prevent the pollution of waters of the State for all spills	In Compliance, Ongoing
21. Convey all terms and conditions of the Certification to contractors	In Compliance, Ongoing

B.2 Is the Facility area or the downstream reach currently identified by the state as not meeting water quality standards (including narrative and numeric criteria and designated uses) pursuant to Section 303(d) of the Clean Water Act?

Yes, Go to B3

Water quality at the Project is generally good. No Project waters located in North Carolina are listed as impaired by NCDWQ on the 2010 North Carolina 303(d) list. The West Buffalo Creek arm of Santeetlah Reservoir was previously listed as impaired on the 2004

North Carolina 303(d) list due to nutrients as a direct result of nutrient laden discharges from upstream trout farms. In its most recent Little Tennessee River Basin Water Quality Plan (NCDWQ 2007), NCDWQ reported that the four trout farms located on the West Buffalo Creek arm of Santeetlah Reservoir were fully decommissioned by March 2004 due to an award of $1.25 million from the Clean Water Management Trust Fund that supported the buyout of the four trout farms. According to the most recent Little Tennessee River Basin Water Quality Plan (NCDWQ 2007), NCDWQ conducted a special study in 2005 of West Buffalo Creek and the West Buffalo Creek arm of Santeetlah Reservoir to document changes or improvements to the water quality of Buffalo Creek following the dismantling of the trout farms. Results from that study indicated that the nutrient reduction strategy was effective, however, an insufficient number of samples were available for NCDWQ to assign a use support rating to this segment.

Additionally, the most recent 303(d) list for Tennessee (2010) lists the segment of the Little Tennessee River below Calderwood Dam as impaired (Category 4c for impairment not caused by pollutant) due to habitat loss from flow alteration as flow is diverted around this section of the river (reference: http://www.tn.gov/environment/wpc/publications/pdf/2010_303d_final.pdf).

To alleviate impacts of the diversion of water from the Little Tennessee River below Calderwood Dam, on March 1, 2005 APGI began releasing minimum instream flows in the Calderwood Bypass reach of the Little Tennessee River according to the repeating 10-year schedule shown in Table 5 (see discussion in Section A above). In its §401 certificate, the state of Tennessee certified that the operation of the Tapoco Project, in conformance with approved plans and specifications, will not violate applicable water quality standards.

APGI is in compliance with both the NC and TN §401 water quality certificates. In accordance with the NC 401 certificate, APGI filed a letter dated April 25, 2005 with FERC which reported that there are no existing or planned consumptive uses at Santeetlah Reservoir of at least 100,000 gallons per day. By letter dated May 23, 2005, FERC acknowledged that APGI had fulfilled this requirement of the §401/FERC license.

B.3 If the answer to question B.2 is yes, has there been a determination that the Facility does not cause, or contribute to, the violation?
Yes, Pass, Go to C

In a §401 Water Quality Certificate issued April 29, 2004, the Tennessee Department of Environment and Conservation (TDEC), Division of Water Pollution Control, certified that the operation of the Tapoco Project, in conformance with approved plans and specifications, will not violate applicable water quality standards. Furthermore, in a letter dated March 8, 2012 the TDEC Division of Water Resources affirmed that APGI continues to operate the Tapoco Project in compliance with the Water Quality Certificate and therefore, is appropriately protective of water quality in the bypass reach below Calderwood Dam (see Attachment 5).

Section C – Fish Passage and Protection

C.1 Is the Facility in Compliance with Mandatory Fish Passage Prescriptions for upstream and downstream passage of anadromous and catadromous fish issued by Resource Agencies after December 31, 1986?
Yes, Go to C5

C.5 Is the Facility in Compliance with Mandatory Fish Passage Prescriptions for upstream and/or downstream passage of Riverine fish
Yes, Go to C6

C.6 Is the Facility in Compliance with Resource Agency Recommendations for Riverine, anadromous and catadromous fish entrainment protection, such as tailrace barriers?
Yes, Pass, Go to D

The USFWS filed a Prescription for Fishways for the Tapoco Project with FERC, which is appended to the FERC license as Appendix D. The Prescription specifically discusses a fishway for the Chilhowee Development.

Per the USFWS Prescription, fish passage entails annual funding by APGI for trapping and relocation of certain numbers of each target fish species (turquoise shiner (spotfin chub), yellowfin madtom, smoky madtom, and duskytail darter), each season. Actual numbers of each species are determined annually in consultation with the U.S. Fish and Wildlife Service. Annual funding is used first to accomplish the primary fish passage objective of moving a certain number of each of the target fish species between Abrams Creek and Citico Creek, and between Abrams Creek and the Tellico River. Funding is used secondarily to conduct associated sampling, marking and genetics testing to help demonstrate that the USFWS's goal of genetic mixing between the sub-populations of the four fish species is being met. Funding can also be used to trap and transport fish between the Tellico River and Citico Creek, to the extent that such efforts may also enhance the overall genetic health of the Abrams Creek populations. These details were included in a Fish Passage Translocation Plan that was prepared in consultation with the USFWS and filed with FERC on August 31, 2005. FERC modified and approved the Plan on August 22, 2006. In accordance with the approved Plan, APGI submits a summary report of the previous year's fish translocation effectiveness studies along with the proposed studies and schedule for the upcoming year, as discussed at the annual meeting, by March 15 of each year. APGI provides the USFWS with the opportunity to comment on the report before it is filed with the FERC.

Table 8 summarizes the total number of each fish species released in the Tellico River and Abrams Creek annually since the implementation Fish Passage Translocation Plan.

Table 8: Summary of Annual Fish Reintroductions

	Spotfin Chub		Smoky Madtom		Yellowfin Madtom		Duskytail Darter (now known as Citico Darter)	
	Tellico River	Abrams Creek	Tellico River	Abrams Creek	Tellico River	Abrams Creek	Tellico River	Abrams Creek
2006	3,017		148	8	84	8	490	
2007	1,460		277		419		510	
2008	2,400		603		300		375	
2009	2,524	204	351	100	413	100	365	
2010	698		201	48	96	49	292	98

The USFWS Prescription also requires APGI to develop and file with FERC a plan for evaluating the presence and status of important potamodromous and diadromous fishes (including but not limited to American eel (*Anguilla rostrata*), Lake sturgeon (*Acipenser fulvenscens*), Black buffalo (*Ictiobus niger*), Smallmouth buffalo (*Ictiobus bubalus*), Sauger (*Sander canadense*), and River redhorse (*Moxostoma carinatum*) in the upper end of Tellico Reservoir in the vicinity of the Chilhowee Dam tailwater. The plan was developed in consultation with the Resource Agencies (USFWS, USFS, TDEC, TWRA, and NPS) and filed with FERC on August 31, 2005. FERC approved the plan on July 20, 2006. In accordance with the approved Plan, APGI conducted initial monitoring within five years of the effective date of the FERC license (in 2009), with additional monitoring to be conducted in year 10 (2014) and year 20 (2024) of the FERC license. The USFWS will use the data collected under the fish monitoring plan to determine the need for additional fishways at the Chilhowee Development (in consultation with the USFS, NPS, TDEC, and TWRA). The need for additional fishways for the targeted potamodromous and diadromous fish species will be determined by the USFWS when certain conditions of populations or congregations occur. The presence of significant populations of the target fish species at Chilhowee Dam will be a condition precedent to the requirement of additional fishways.

No additional structural fishway will be required by the USFWS under any circumstances for the passage of the target fish species before year 20 of the FERC license. Subject to this limitation, the Secretary of the Department of Interior reserves the right to require fishways at the Tapoco Project.

The Tapoco Project is in compliance with the USFWS Section 18 Prescription. In a letter dated February 21, 2012, the USFWS states that APGI is helping to ensure adequate fish passage around Project dams for native species through the implementation of the prescribed fishway. In a letter dated February 20, 2021, TWRA also supports APGI's implementation of the Fish Passage Translocation Plan and annual fish reintroductions.

Section D – Watershed Protection

D.1 Is there a buffer zone dedicated for conservation purposes (to protect fish and wildlife habitat, water quality, aesthetics and/or low-impact recreation) extending 200 feet from the average annual high water line for at least 50% of the shoreline, including all of the undeveloped shoreline?

Yes, Pass, Go to E

Table 9 shows that there are 3,304 acres within 200-ft of the four Project reservoirs. A portion of these lands are APGI lands protected by term and permanent conservation easements (discussed below under D.2). A much larger portion of these riparian lands are federal lands within the National Forest or National Park Service system. In total, 67% of the riparian lands are protected by conservation easements and/or federal ownership.

Table 9: Riparian Areas Dedicated for Conservation Purposes

Impoundment	Total Acreage 200 ft Buffer (acres)	APGI Lands in Conservation Easement (approx. %)	National Forest / Park, Other Public Ownership (approx. %)	Total Acres in Conservation Ownership (approx. %)
Santeetlah Reservoir	1,756	~2%	~76%	78%
Cheoah Reservoir	505	~42%	~30%	72%
Calderwood Reservoir	412	~30%	~11%	41%
Chilhowee Reservoir	631	~23%	~22%	43%
Total	3,304	~16%	~51%	67%

D.2 Has the Facility owner/operator established an approved watershed enhancement fund that: 1) could achieve within the project's watershed the ecological and recreational equivalent of land protection in D.1,and 2) has the agreement of appropriate stakeholders and state and federal resource agencies?

Yes, Pass, Go to E

The RSA included many commitments aimed at protecting the resources of the Little Tennessee River Basin including land protection, over $6 million payments to watershed trust funds over the life of the project license, and a Shoreline Management Plan. As of January 2012 $1,186,040 has been paid to trust funds.

Land Protection

In addition to the 7,839 acres owned within the Project boundary, APGI owns and manages approximately 12,725 acres of non-Project land. On August 30, 2005 APGI granted to The Nature Conservancy, at no cost, permanent conservation easements covering approximately 5,900 acres and term conservation easements on an additional 3,975 acres of this non-Project acreage for reconveyance to a federal or state agency (see

APGI Lands Maps on pages 30-31). The primary purpose of these conservation easements is to retain land and water areas predominantly in their natural, scenic, open or wooded condition or as suitable habitat for fish, plants or wildlife and preserve the historical, architectural, archaeological, or cultural aspects of the properties. The total number of acres protected through the conservation easements is approximately 11,000 acres. About 800 acres of the total are riparian (Project and non-Project) areas along the Project reservoirs.

Trust Funds

APGI also established two funds for natural resource stewardship and Project mitigation activities. The beneficiaries North Carolina Resource Management and Enhancement Fund (North Carolina Fund) include the North Carolina Wildlife Resources Commission, North Carolina Department of Environment and Natural Resources, U. S. Forest Service, Eastern Band of Cherokee Indians, and U. S. Fish and Wildlife Service The North Carolina Fund must be used within the scope of subject matter of the Fish and Wildlife Coordination Act, the Endangered Species Act, and Section 10 of the Federal Power Act including but not limited to 1) monitoring of biotic and abiotic parameters, 2) addition of large woody debris, and gravel and vegetation management in the Cheoah River below Santeetlah Dam, and 3) for other natural resource stewardship activities, including, but not limited to, a) threatened and endangered species recovery efforts, b) control of exotic species and environmental outreach and c) education directly related to those Cheoah River and Little Tennessee River basin resources affected by ongoing Project operations, in particular the Santeetlah and Cheoah developments, and the portion of the Calderwood Development in North Carolina. Projects funded by the North Carolina Fund to date include:

- Population genetics of the Appalachian elktoe mussel;
- Restoration ecology of fishes in regulated rivers;
- Virginia spiraea monitoring and management;
- Captive culture and reintroduction of priority fishes and mussels;
- Yellow Creek invasives eradication;
- Propagation and reintroduction of the Wounded darter; and
- Cheoah River gravel augmentation.

Additional details of the North Carolina Fund's activities can be found at http://www.alcoa.com/tapoco/en/info_page/nc_fund_board.asp.

APGI made an initial payment of $100,000 (escalated in accordance with the RSA) in 2005 and has made annual deposits of $25,000 (escalated in accordance with the RSA). Table 10 shows the annual payments made to the North Carolina Fund to date. Annual payments will continue for the duration of the FERC license except for the final three years of the project license term. Monies in the fund shall be held and managed by an entity unanimously agreed to by the beneficiary entities listed above and APGI.

Table 10: North Carolina Fund Annual Payments 2005 - 2012

Month/Year	Payment ($)
Initial payment (2005)	$102,080
January 2006	$26,201
January 2007	$27,011
January 2008	$27,710
January 2009	$28,395
January 2010	$28,554
January 2011	$28,891
January 2012	$29,613
Total to Date	$298,455

APGI also established the Tallassee Fund, which is managed by the USFWS, USFS, Great Smoky Mountains National Park, Tennessee Department of Environment and Conservation, Tennessee Wildlife Resources Agency, the Eastern Band of the Cherokee Indians, The Nature Conservancy of Tennessee, the National Parks Conservation Association, the Tennessee Clean Water Network, and American Rivers for 1) threatened and endangered species recovery efforts, 2) ecosystem enhancements and restoration, 3) management and control of exotic species, and 4) environmental outreach and education directly related to the Tapoco Project and non-Project lands in Tennessee currently owned by APGI to mitigate the continuing environmental impacts associated with the Project's operations. Projects funded by the Tallassee Fund to date include:

- Protecting a threatened watershed by acquiring baseline aquatic species data;
- Protecting a threatened watershed by inventorying and acquiring baseline monitoring data on the newly acquired Great Smoky Mountains National Park lands;
- Recovery status of 2 federally protected extirpated fish species in Abrams Creek, Great Smoky Mountains National Park;
- Re-establishment of Blotchside logperch into Tellico River and Citico Creek;
- Propagating and reintroduction of Hellbender into the Little Tennessee River Watershed;
- Exotic species removal in the southwestern portion of Great Smoky Mountains National Park;
- Targeted algal species inventory and water chemistry of lower Abrams in the Great Smoky Mountains National Park;
- Exotic invasive plant species removal in the Lower Abrams Creek Watershed of the Great Smoky Mountains National Park;
- Inventory of snails;
- Assessment of exotic hogs;
- Treatment of eastern Hemlock stands;
- Intensive control of wild hogs;
- Identify and improve fire-dominated bird habitat;
- Documentary to promote diverse aquatic species at Citico Creek;
- Roost ecology of Eastern small-footed bats; and

- Utilizing Cherokee heritage, tradition, and Cherokee syllabary.

APGI made an initial deposit of $100,000 (escalated in accordance with the RSA) in 2005 and has made annual deposits of $100,000 (escalated in accordance with the RSA). Table 11 shows the annual payments made to the Tallassee Fund to date. Annual payments will continue for the duration of the FERC license. Monies in the Fund shall be held and managed by an entity unanimously agreed to by the beneficiary agencies listed above and APGI.

Table 11: Tallassee Fund Annual Payments 2005 - 2012

Month/Year	**Payment ($)**
Initial payment (2005)	$102,080
January 2006	$104,806
January 2007	$108,044
January 2008	$110,842
January 2009	$113,580
January 2010	$114,216
January 2011	$115,564
January 2012	$118,453
Total to Date	$887,585

Shoreline Management Plan

APGI filed a Shoreline Management Plan (SMP) for the Project with FERC on October 1, 2004. By order dated March 31, 2006, FERC approved the SMP with minor modifications. In accordance with the FERC order, APGI distributed an SMP addendum in June 2006 that revised APGI's Shoreline Stewardship Policy, Specifications for Private Recreation Use Facilities, and Subdivision Access Approval, Multi-use Facility Permitting, and Industrial Approval Procedures, which are included in the SMP as appendices. (Reference http://www.alcoa.com/tapoco/en/info_page/shoreline_management.asp)

APGI prepared the Shoreline Management Plan in consultation with North Carolina Department of Environment and Natural Resources, North Carolina Wildlife Resources Commission, North Carolina State Historic Preservation Office, U.S. Forest Service, U.S. Fish and Wildlife Service, Bureau of Indian Affairs, Great Smoky Mountains National Park, Eastern Band of Cherokee Indians, Cross Creek Property Owners Association, Friends of Lake Santeetlah, Town of Lake Santeetlah, Town of Robbinsville, Graham County, Sierra Club, American Rivers, Tennessee Clean Water Network, The Nature Conservancy, Tennessee Department of Environment and Conservation, Tennessee Wildlife Resources Agency, Tennessee Historic Commission and the Tennessee State Historic Preservation Office.

Upon FERC's request for Comments, motions to intervene and protests on the Shoreline Management Plan, several key Resource Agencies, U.S Department of Interior, U.S Forest Service, and North Carolina Wildlife Resources Commission, filed letters of support for the

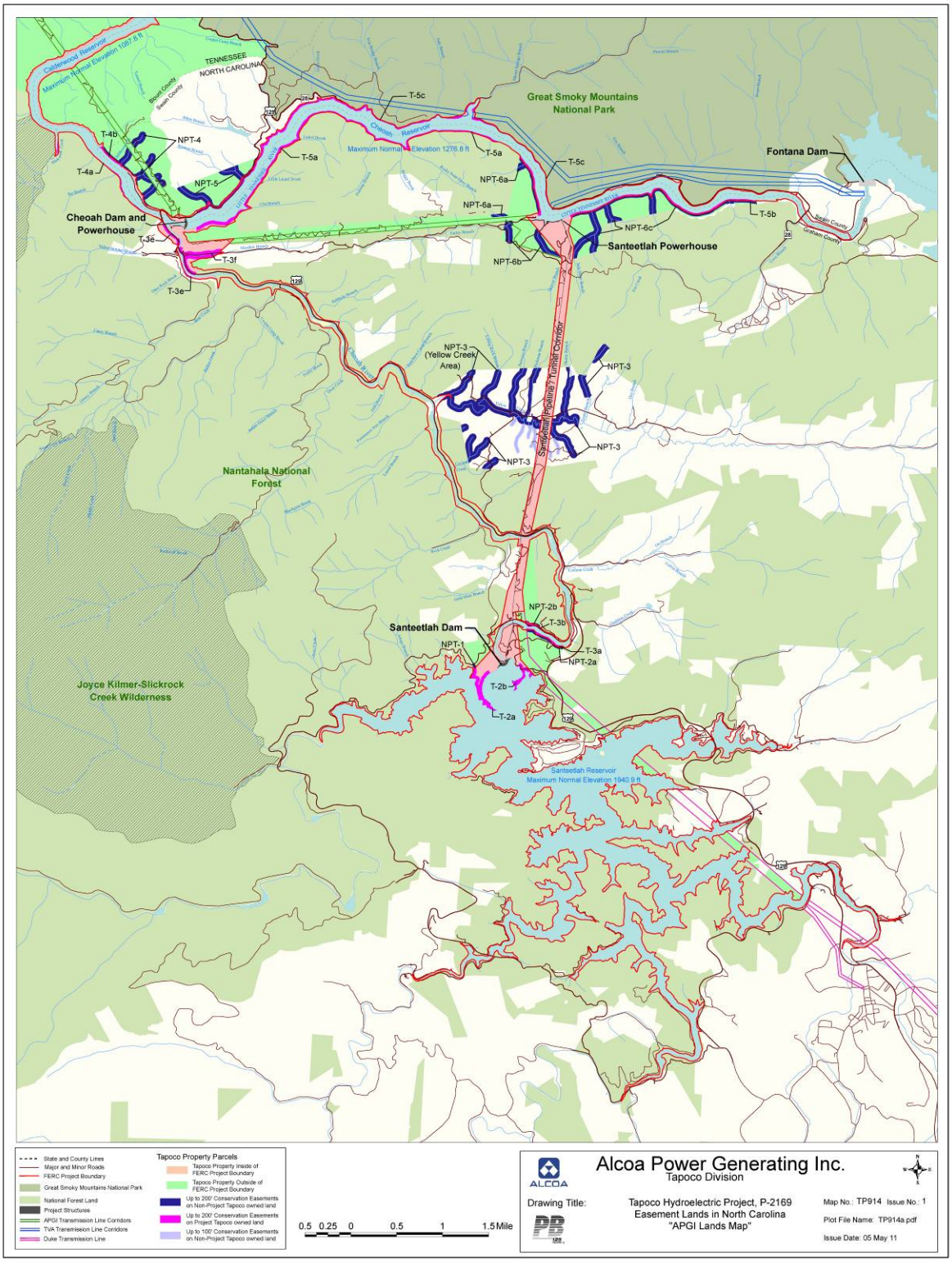
SMP.

The U.S. Department of Interior stated “We are pleased with the balance of shoreline uses afforded by the SMP and its shoreline classification and are encouraged that the primarily undeveloped characteristics of the Project developments will be retained for the benefit of fish and wildlife and their habitats as well as fish-and-wildlife-based recreation for the American public…We have worked with APGI and other parties and believe that the SMP adequately protects, enhances, and mitigates the ongoing and future impacts of the Project.”

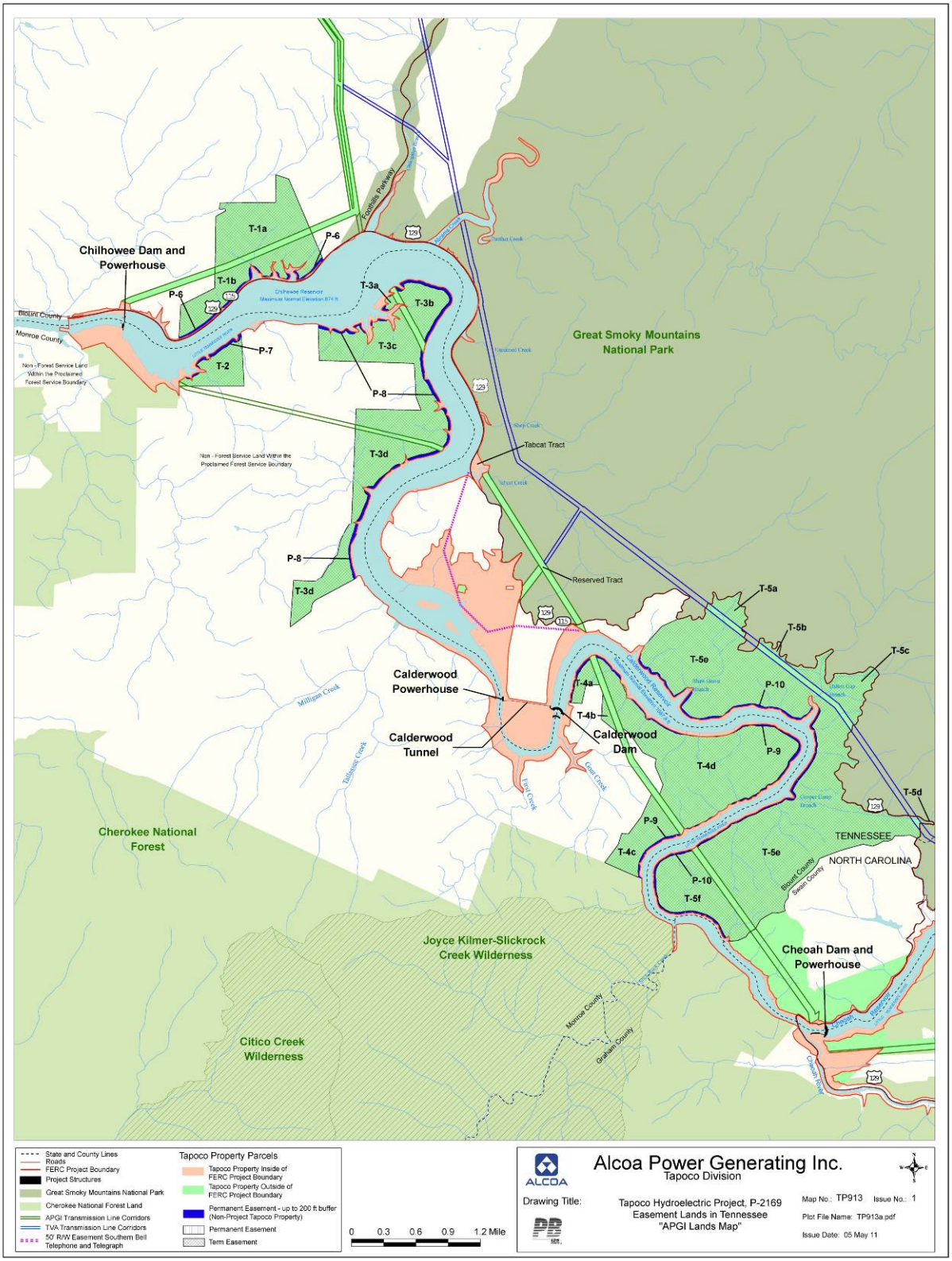
The NCWRC stated “The NCWRC was actively involved in the development of the shoreline management plan submitted by Alcoa Power Generating Inc. (APGI). We strongly support the shoreline management plan as written. We very much appreciate APGI’s commitment to the protection of fish and wildlife resources and habitats in the project area.”

Santeetlah Reservoir

APGI Lands Map – North Carolina



APGI Lands Map – Tennessee



Section E – Threatened and Endangered Species Protection

E.1 Are threatened or endangered species listed under state or federal Endangered Species Acts present in the Facility area and/or downstream reach?
Yes, Go to E2

E.2 If a recovery plan has been adopted for the threatened or endangered species pursuant to Section 4(f) of the Endangered Species Act or similar state provision, is the Facility in Compliance with all recommendations in the plan relevant to the Facility?
Yes, Go to E3

E.3 If the Facility has received authorization to incidentally Take a listed species through: (i) Having a relevant agency complete consultation pursuant to ESA Section 7 resulting in a biological opinion, a habitat recovery plan, and/or (if needed) an incidental Take statement; (ii) Obtaining an incidental Take permit pursuant to ESA Section 10; or (iii) For species listed by a state and not by the federal government, obtaining authorization pursuant to similar state procedures; is the Facility in Compliance with conditions pursuant to that authorization??
Not Applicable, Go to E5

E.5 Has the Applicant demonstrated that the Facility and Facility operations do not negatively affect listed species?
Yes, Pass, Go to F

The USFWS filed a "Biological Assessment for the Tapoco Settlement Agreement" with FERC (this Assessment is appended to the RSA). This Assessment concluded that none of the activities described in the RSA (e.g., Project operations, recreational enhancements etc.) are anticipated to have adverse effects on rare, threatened, or endangered (RTE) species. In some cases, the activities described in the RSA would have a beneficial effect.

Background

During studies conducted for the Project relicensing, 23 rare, threatened, and endangered species were located within the Project boundary: 12 were animal species (3 birds, 3 salamanders, 3 mammals, 2 fish, and 1 lizard) and 11 were plant species (5 herbaceous flowering species, 2 trees, 2 ferns, 1 moss, and 1 hornwort) as listed in Table 12. All of the species listed in Table 12 warrant formal protection under state or federal statutes. The Indiana bat and Appalachian elktoe are federally listed as "Endangered" and the Virginia spiraea is federally listed as "Threatened." The bald eagle was delisted under the federal Endangered Species Act (ESA) by the USFWS in 2007, however, the species remains of special concern and is listed by the State of Tennessee as "Deemed in Need of Management" and as "Threatened" by the State of North Carolina. Although the peregrine falcon was removed from federal listing, it remains state listed in both North Carolina and Tennessee. Additionally, the Junaluska salamander, historically known to inhabit the upper reaches of the Cheoah River just below Santeetlah Dam, and the

Southern Appalachian woodrat are listed as "Federal Species of Concern". All other species are listed at the state level.

APGI filed the Tapoco Project Endangered Species Management Plan (ESMP) with FERC on August 30, 2007. On March 4, 2008 FERC issued an Order Modifying and Approving the ESMP. The revisions requested by FERC were made and a revised ESMP was filed with FERC on September 4, 2008. FERC approved the revised ESMP on April 14, 2009.

Table 12: Federally or State Listed Rare, Threatened, and Endangered Species Located in 1999 within the Tapoco Project Boundary

Species	Family	Rank and Listing	Habitat Requirements
Animal Species			
Peregrine Falcon (*Falco peregrinus*)	Bird	Very rare and critically imperiled; endangered (NC and TN)	Nests are usually situated over lakes, marshes, swamps, rivers, as well as over coniferous and riparian forests adjacent to the nesting habitat
Bald Eagle (*Haliaeetus leucocephalus*)	Bird	Delisted in 2007; deemed in need of management (TN); threatened (NC)	Near seacoasts, rivers, and large lakes breeding in tall trees or on cliffs
Osprey (*Pandion haliaetus*)	Bird	Very rare and imperiled; threatened (TN)	Rivers, lakes, coasts
Hellbender (*Cryptobranchus alleganiensis*)	Salamander	Rare and uncommon (NC and TN); deemed in need of management (TN); species of special concern (NC)	Clear, fast-flowing streams and rivers with rocky bottoms; adjacent terrestrial habitat
Blackbelly Salamander (*Desmognathus quadramaculatus*)	Salamander	Very rare and imperiled; deemed in need of management (TN)	Sizable swift and boulder-strewn mountain streams, at elevations of 1,600-5,000 feet
Junaluska Salamander (*Eurycea Junaluska*)	Salamander	Federal species of concern; extremely rare and critically imperiled; deemed in need of management (TN); imperiled species of special concern (NC)	Lower elevations of the Appalachian Mountains under logs and rocks along streams
River Otter (*Lutra Canadensis*)	Mammal	Rare and uncommon; threatened (TN)	Streams, lakes, ponds, swamps, marshes, estuaries
Southern Appalachian Woodrat (*Neotoma floridana* ssp. *haematoreia*)	Mammal	Federal Species of Concern; extremely rare and imperiled; deemed in need of management (TN); imperiled species of concern (NC)	Rock strewn sites, usually mountaintops and valley sides
Meadow Jumping Mouse (*Zapus hudsonius*)	Mammal	Widespread, abundant, and apparently secure; deemed in need of management (TN); rare or uncommon watch species (NC)	Open grassy fields; abundant in thick vegetation near ponds, streams, and marshes in woodland areas

Species	Family	Rank and Listing	Habitat Requirements
Indiana Bat (*Myotis sodalis*)[1]	Mammal	Federally listed as Endangered; endangered (TN and NC)	During the summer, roost and forage in floodplain and riparian forests. Trees normally used as primary roosts are dead and have a diameter at breast height greater than 12 inches. During the winter, roost sites are in caves or mines that maintain temperatures between 37°F and 43°F.
Smoky Dace (*Clinostomus funduloides* ssp.)	Fish	Extremely rare and critically imperiled; deemed in need of management (TN); imperiled; special concern (NC)	Sand and rock-bottomed pools and backwaters of clear, cool, swift shallow streams of small to medium size
Tuckaseegee Darter (*Etheostoma blennioides* ssp. *gutselli*)	Fish	Widespread, abundant, and apparently secure; endangered (TN)	Swift riffle areas with boulder, bedrock, or coarse cobble substrates in small to moderate rivers
Green Anole (*Anolis carolinensis*)	Lizard	Rare and uncommon; deemed in need of management (TN)	This species is arboreal, selecting moist habitats with trees, shrubs, and vine tangles; also found on man-made structures such as fences, homes, bridges
Appalachian Elktoe (*Alasmidonta raveneliana*)[1]	Mussel	Federally listed as Endangered; endangered (TN and NC)	Native to streams and rivers of the southern Appalachian region. Most often found in riffles, runs, and shallow flowing pools with stable, relatively silt-free, coarse sand and gravel substrate associated with cobble, boulders, and/or bedrock. Known to be endemic only to the upper Tennessee River system.
Plant Species			
Climbing Fumitory (*Adlumia fungosa*)	Herbaceous	Very rare and imperiled; threatened (TN); imperiled; significantly rare (NC)	Woods, moist coves, and rock outcrops
White-leaved Leatherflower (*Clematis glaucophylla*)	Herbaceous	Extremely rare and critically imperiled; threatened proposed endangered (TN); candidate species (NC)	Moist woods and along streams
Branching Whitlow Grass (*Draba ramosissima*)	Herbaceous	Very rare and imperiled; species of special concern (TN); imperiled and significantly rare (NC)	Dry mountain woodlands, over limestone
Buffalo Clover (*Trifolium reflexum*)	Herbaceous	Rare and uncommon; species of special concern (TN); critically imperiled; watch species (NC)	Open woods and clearings
Eastern Turkey beard (*Xerophyllum asphodeloides*)	Herbaceous	Rare and uncommon; threatened (TN); threatened watch species (NC)	Pine barrens, dry oak-hickory forest with a strong pine component

Species	Family	Rank and Listing	Habitat Requirements
Carolina-star Moss (*Plagiomnium carolinianum*)	Moss	Extremely rare and critically imperiled; species of special concern (TN); imperiled candidate species (NC)	Moist, granitic rock (or humus-covered rock), especially on cliff ledges near streams or waterfalls
Chalk Maple (*Acer saccharum*)	Tree	Very rare and imperiled; uncommon species (TN)	Rocky woods, along the banks of streams, rocky gorges, in moist soil; often at the base of rocky bluffs
Butternut (*Juglans cinerea*)	Tree	Federal Species of Concern; very rare and imperiled and threatened (TN); imperiled and rare (NC)	Moist, rich soils; will also grow on drier, rocky limestone soils
American Pillwort (*Pilularia americana*)	Fern	Extremely rare and critically imperiled; species of special concern (TN)	Edges of ponds, reservoirs (in draw down zones), vernal pools, pools on granitic outcrops
Dwarf Bristle Fern (*Trichomanes petersii*)	Fern	Very rare and imperiled; threatened (TN); critically imperiled threatened (NC)	Cliffs and overhanging ledges or sometimes epiphytic on the bases of tree trunks; also in moist ravines, or on the faces of sandstone, igneous or metamorphic boulders; ledges overhanging streams
Megaceros aenigmaticus	Hornwort	Extremely rare and critical; uncommon (TN); imperiled candidate species (NC)	Rocks along small, fast-flowing mountain streams and the spray zones around waterfalls and cascades; mature forest canopy and moist conditions
Virginia Spiraea (*Spiraea virginiana)* [1]	Shrub	Federally listed as Threatened; endangered (TN and NC)	Disturbed areas along rivers and streams. Flood scouring is essential since it inhibits competition. Also found along slow changing, dependable riparian areas.

[1]Although these species were not located within the Project Boundary during the 1999 Inventory referenced above, they are included in this table based upon studies conducted during the relicensing of the Tapoco Project and after the 1999 Inventory.

The following is a discussion of Project effects on the federally listed rare, threatened or endangered (RTE) species known to occur or potentially occurring at the Tapoco Project and the measures that APGI is implementing to protect and enhance these species in accordance with the ESMP, FERC license, and RSA.

Appalachian Elktoe

The Appalachian elktoe is an endangered rare freshwater mussel known to occur in the Cheoah River. The Cheoah River from Santeetlah Dam to the confluence with the Little Tennessee River was designated as critical habitat for this species in 2002. Modifications to the flow regime of the Cheoah River as part of the Relicensing Settlement Agreement were designed with this species under consideration. In August 1996, the USFWS approved and published an Appalachian Elktoe Recovery Plan. The immediate goal of the recovery plan is to maintain the only known surviving populations of the species and to protect its remaining habitat from present and foreseeable threats. The intermediate

goal of the plan is to restore and maintain the species throughout a significant portion of its historic range and to downlist the species from endangered to threatened status.

More recently, the USFWS designated critical habitat for the Appalachian elktoe under the Endangered Species Act (ESA) (Federal Register, Vol. 67, No. 188: September 27, 2002). A portion of the Tapoco Project, the Cheoah River from the Santeetlah Dam downstream to its confluence with the Little Tennessee River (9.1 miles), is designated as critical habitat for the Appalachian elktoe. The basis for the designation was that the Cheoah River is currently occupied by the species and provides the physical and biological habitat elements necessary for the life cycle needs of the species.

Under the new FERC license there are no operational changes or Project modifications that are likely to conflict with the USFWS's management of the Appalachian elktoe. In fact, the Cheoah River aquatic base flow regime and disturbance flow regime (see discussion of Section A above), which is based on the concept of restoring more natural-like flow conditions to the Cheoah River, is expected to increase the amount of available useable habitat for the elktoe and provide significant increases in habitat for adult and juvenile mottled sculpin, a known elktoe fish host.

In addition, APGI developed the ESMP which identifies measures to assist in the protection and enhancement of Appalachian elktoe at the Project. In consultation with the Resource Agencies, APGI coordinated with the Resource Agencies to monitor the Cheoah River elktoe populations in 2009. APGI is currently finalizing a report summarizing the results of the monitoring that will be filed with FERC by June 1, 2012. In accordance with the ESMP, APGI will continue monitoring the elktoe every second and fifth year (i.e., 2014, 2016, 2019, 2021, 2024, 2026, 2029, 2031, 2034, 2036, 2039, 2041, and 2044) for the term of the FERC license or until the elktoe has been delisted, whichever is sooner, and file a report with FERC after each survey year.

Gravel Augmentation in the Cheoah River

Gravel Augmentation in the Cheoah River

APGI and the North Carolina Fund Board are also implementing the Cheoah River Bypassed Reach Gravel Enhancement Plan which is also expected to benefit the elktoe through gravel introductions in the Cheoah River that would generally occur every other year and monitoring to determine the effectiveness of the gravel augmentation. The Plan was filed with FERC on August 31, 2005 and approved by FERC on August 11, 2006. Gravel introductions occurred in 2008 and 2010, and a third introduction is expected to occur in 2012.

Additionally, the ESMP identifies measures to be undertaken if APGI identifies the need to implement or permit ground-disturbing activities within the riverbed (e.g., instream vegetation removal or gage placement) or construct or permit the construction of Project-related facilities on lands within the Project boundary (e.g., recreation facilities). These measures would assist in the protection and enhancement of Virginia spiraea at the Project. Specific measures to improve Appalachian elktoe habitat in the Cheoah River may also be periodically undertaken by the Resource Agencies or through the auspices of the North Carolina Fund Board (discussed in Section D.2).

Indiana Bat

The Indiana bat is listed as endangered by the USFWS that is known to occur within the region of the Project but was not located within the Project Boundary. In March 1999, the USFWS issued a second Indiana bat revised recovery plan (Agency Draft Indiana Bat (*Myotis soldalis*) Revised Recovery Plan). The short-term recovery objective of the plan is to halt and reverse the continued decline of the Indiana bat. In the long-term, the USFWS hopes to delist the species. The purpose of the revised recovery plan is four-fold: 1) to update the recovery plan with information on the life history and ecology of the Indiana bat gathered since 1983; 2) to highlight the continued and accelerated decline of the species; 3) to continue site protection and monitoring efforts at hibernacula; and 4) to

focus new recovery efforts towards research to determine the factor(s) causing population declines.

The habitat of most concern for the Indiana bat at the Project is potential roost trees. While it is unknown whether there are any roost trees located around Santeetlah Reservoir or the Cheoah River, none of the operational and non-operational resource enhancement measures described in the RSA would be expected to adversely impact any trees of a size that is likely to be used by the Indiana bat. In addition, APGI developed the ESMP which identifies measures to be undertaken if APGI identifies the need to remove or cut a tree(s) with a diameter of 12 inches or greater located on Tapoco Project lands or modify a Project dam or other industrial structure within the Tapoco Project boundary which may provide habitat for the bats. The measures would ensure protection of the Indiana bat and its habitat at the Tapoco Project.

Virginia Spiraea

The Virginia spiraea is a federally listed endangered plant species that is known to inhabit the banks of the Cheoah River downstream of Santeetlah Dam. In November 1992, the USFWS approved and published a management recovery plan for the Virginia spiraea. The recovery objective is to delist the species. To be considered for delisting, certain recovery criteria must be met. Delisting will be considered when 1) three stable populations are permanently protected in each drainage where populations are currently known; 2) stable populations are established on protected sites in each drainage where documented vouchers have been collected; 3) potential habitat in the states with present or past collections has been searched for additional populations; and 4) representatives of each genotype are cultivated in a permanent collection. The USFWS recovery strategy for the Virginia spiraea is sequential: preserve, understand, extend knowledge, manage, and monitor.

APGI's operation of the Project as described in the RSA will support the recovery of the Virginia spiraea. Periodic spill events combined with disturbance flows in the Cheoah River (discussed in Section A above) are anticipated to benefit the plant by reducing shading and competition from other plants and by promoting asexual propagation.

In addition, APGI developed the ESMP which identifies measures to assist in the protection and enhancement of Virginia spiraea at the Project. In consultation with the Resource Agencies, APGI prepared and filed a Virginia spiraea status report with FERC on May 13, 2011 based on the monitoring and management measures funded by the North Carolina Fund Board discussed in Section D.2. In accordance with the ESMP, APGI will prepare and file a Virginia spiraea status report every five years after 2011. APGI is also working in cooperation with the North Carolina Department of Transportation (NCDOT) to exchange location information and protect Virginia spiraea populations within the 20 to 30 foot right-of-way (ROW) easement from the centerline of US Highway 129 and Project boundary. Additionally, the ESMP identifies measures to be undertaken if APGI identifies

the need to remove vegetation along the Cheoah River corridor, construct or permit the construction of recreational facilities, and/or convey lands along the Cheoah River corridor. These measures would assist in the protection and enhancement of Virginia spiraea at the Project.

Fish

APGI continues to support ongoing and future fish reintroduction efforts in Abrams Creek, a tributary to Chilhowee Reservoir. As described in Section C.6, APGI developed a Fish Passage Translocation Plan cooperatively with the USFWS to translocate four identified rare, threatened and endangered (RTE) fish species to Abrams Creek from Citico Creek and the Tellico River that was modified and approved by FERC on August 22, 2006. The goals of the Plan also include enhancement of the overall genetic health of the Abrams Creek, Citico Creek, and Tellico River fish populations, and the genetic mixing between the sub-populations of the four target fish species.

APGI's fish reintroduction efforts are currently targeting: 1) the turquoise shiner (spotfin chub), federally listed as threatened by the USFWS (September 9, 1977) and considered threatened in North Carolina and endangered in Tennessee; 2) the yellowfin madtom, federally listed as threatened (September 9, 1977) and considered endangered in Tennessee; 3) the smoky madtom, federally listed as an endangered species on October 26, 1984 and listed as endangered by the State of Tennessee; and 4) the duskytail darter, listed as endangered by the USFWS on April 27, 1993 and listed as endangered by the State of Tennessee. Concurrent with the smoky madtom listing, the USFWS also designated Citico Creek from the Cherokee National Forest boundary at upper Citico Creek bridge on Mountain Settlement Road upstream to the confluence of Citico Creek with Barkcamp Branch as critical habitat.

Generally, these four RTE species are considered as "possibly occurring" in Project waters. The spotfin chub is considered as "possibly occurring" in a portion of Abrams Creek that lies within the Project. The only other habitat within the Project that may be suitable to support the spotfin chub is the Cheoah River downstream of Santeetlah Dam. Since the yellowfin madtom, duskytail darter, and smoky madtom are known to occur in the free-flowing portion of Abrams Creek outside the Project boundary, these species may also exist in the short stretch of free-flowing Abrams Creek that is within the Project boundary.

The USFWS has published recovery plans for all four species. Generally, the goal of the recovery plans is to restore viable populations of each species to a significant portion of its historic range and remove each species from the federal endangered species list. Additionally, the goal of the Smoky Madtom Recovery Plan is to restore four viable populations of the smoky madtom and to protect the species and its habitat to such a degree that the species no longer qualifies for protection under the Endangered Species Act.

APGI's fish reintroduction efforts support the overall goal of the recovery plans. Additionally, APGI's recent change in operation of Santeetlah Dam to provide aquatic base flows and high flow events in the Cheoah River might provide habitat enhancement for the spotfin chub, if indeed it still exists there. Overall, the Project is considered to have no impacts on these species and the Relicensing Settlement Agreement and Fish Passage Translocation Plan will benefit these species. Tapoco has also developed the ESMP that identifies measures to be undertaken if APGI identifies the need to implement or permit ground-disturbing activities within the Tapoco Project boundary in the vicinity of the Citico Creek, Abrams Creek, and Tellico River population areas for these species. These measures would help protect and enhance populations of spotfin chub, yellowfin madtom, smoky madtom, and duskytail darter and their habitat at the Tapoco Project, to the extent they exist in the Project.

Section F – Cultural Resource Protection

F.1 If FERC-regulated, is the Facility in Compliance with all requirements regarding Cultural Resource protection, mitigation or enhancement included in the FERC license or exemption?

Yes, Pass, Go to G

During the first year of the new FERC license (March 1, 2005 through February 28, 2006) APGI worked in consultation with the North Carolina State Historic Preservation Office, the Tennessee State Historic Preservation Office, the Eastern Band of Cherokee Indians Tribal Historic Preservation Office, the Bureau of Indian Affairs, the U.S. Forest Service and the Great Smoky Mountains National Park to develop a Tapoco Historic Properties Management Plan (HPMP). The HPMP was filed with FERC on February 28, 2006 and approved on June 21, 2006.

The HPMP requires APGI to consult with the NCSHPO, TNSHPO, EBCI THPO, BIA, USFS, and GSMNP if APGI proposes any ground-disturbing work within the Project Area of Potential Effect (APE) that may impact an existing significant archaeological site or is located within a high- or moderate-probability area. Additionally, the HPMP also requires APGI to give 45-day prior notice to the NCSHPO or TNSHPO (whichever applies) and the EBCI THPO if APGI plans to do work at the Project's historic structures that may diminish the integrity of location, design, setting, materials, workmanship, feeling, or association of the structures. Since implementation of the HPMP, APGI has conducted the following consultations:

- By letter dated July 10, 2006, APGI consulted with the TNSHPO, EBCI THPO, BIA, USFS, and GSMNP on ground-disturbing work for the Tellico Lake Utility Crossing below Chilhowee Dam.
- By letter dated August 7, 2006, APGI consulted with the NCSHPO, TNSHPO, EBCI THPO, BIA, USFS, and GSMNP on ground-disturbing work for the installation of fencing around the Project's four developments.

- By letter dated July 16, 2007, APGI consulted with the NCSHPO, EBCI THPO, and BIA on ground-disturbing work for a Tennessee Valley Authority transmission line easement request.
- By letter dated September 18, 2007, APGI consulted with the NCSHPO, EBCI SHPO, BIA, USFS, and GSMNP on a conveyance of Project lands.
- APGI conducted extensive consultation with the TNSHPO, EBCI THPO, BIA, USFS, THC, and GSMNP in 2008 regarding the impact of an extended 20 to 25-ft drawdown of Chilhowee Reservoir to facilitate the repair/reconstruction of a portion of the left embankment of Chilhowee Dam on historic properties within the Project's APE.
- By letter dated April 2, 2008, APGI consulted with the NCSHPO and EBCI THPO on the Cheoah Unit Nos. 1-4 upgrades.
- By letter dated July 15, 2008, APGI consulted with the TNSHPO, THC, EBCI THPO, BIA, USFS, and GSMNP about ground-disturbing work necessary to install a new transformer at the Calderwood Service Center.
- By letter dated September 12, 2008, APGI provided the THC, TNSHPO, EBCI THPO, BIA, USFS, and GSMNP with a copy of the report of the monitoring activities for the ground-disturbing work to install a new transformer at the Calderwood Service Center.
- By email and letter dated January 14, 2011, APGI consulted with the TNSHPO and EBCI THPO about replacing two original equipment gantry cranes and the original handrails located on top of Calderwood Dam at the Calderwood Development with a guardrail/handrail system and plan to photo-document the existing gantry cranes and railing facilities prior to their removal and replacement.
- By email dated May 9, 2011, APGI consulted with the NCSHPO, EBCI THPO, USFS, and USFWS about ground-disturbing work necessary to provide additional storage space and overflow parking in the vicinity of the intersection of US Highway 129 and Meadow Branch Road to support the ongoing upgrades at the Cheoah development.

Additionally, the HPMP requires APGI to implement several site specific mitigation strategies and investigations. Since implementation of the HPMP, APGI has implemented the following measures under the HPMP:

- In October 2006, June 2007, October 2007, April 2008, October 2008, April 2009, October 2009, October 2010, April 2011, and October 2011, APGI personnel inspected identified National Register of Historic Places (NRHP) eligible and potentially eligible sites at Santeetlah, Calderwood, and Chilhowee reservoirs to document any changes in the shoreline, signs of use or looting, and any other unusual activity or changes. Additionally, APGI had a professional archaeologist inspect NRHP eligible and potentially eligible sites on April 12, 2010 within the project boundary on Chilhowee, Calderwood, and Santeetlah reservoirs. During the survey, evidence of adverse effects was discovered at two sites. Immediately following the inspection APGI removed evidence of recreational use at both sites and posted additional "No Trespassing" signs. APGI also patched a cracked concrete slab at one of the sites.
- After consulting with the NCSHPO, TNSHPO, and EBCI THPO (email dated June 26,

2006), APGI in late 2006 posted signs to discourage artifact collection at each of the Project's recreation access areas.

- On June 25, 2007 APGI met with representatives of the NCSHPO, EBCI THPO, BIA, USFS and Legacy Research Associates in the field to discuss shoreline stabilization at two archaeological sites on Santeetlah Reservoir and at one archeological site on Calderwood Reservoir.
- By email dated December 20, 2007, APGI distributed site stabilization plans for Site 31GH445. In January 2008, APGI initiated shoreline stabilization work at Site 31GH445.
- APGI scheduled a conference call with the TNSHPO, EBCI THPO, and GSMNP on August 20, 2008 to discuss the Phase II testing Scope of Work for Site 40BT8. By letter dated August 20, 2008, APGI distributed a revised Scope of Work for review. The Scope of Work was subsequently finalized and the field work was completed during the week of August 25, 2008. APGI completed Phase II testing at site 40BT8 in 2009 and distributed a final report on May 18, 2010 to the TNSHPO, EBCI THPO, and GSMNP for review.
- In January 2009 APGI completed the archaeological survey work at Site 40BT8, as required by FERC's December 2008 Memorandum of Agreement with the TNSHPO, to address the potential impacts of the Chilhowee Reservoir extended drawdown. APGI provided the survey report to state and federal agencies in February 2009.
- On February 18-20, 2011, APGI had a professional archaeologist to conduct a subsurface investigation when Santeetlah Reservoir was drawn down 8 feet below the full-pool elevation. This work documented that within the drawdown at the site there is no evidence that intact cultural features or horizons are present and no further mitigation work was recommended within the drawdown of this site.

Additionally, although not required by the HPMP, APGI undertook several additional measures to protect cultural resources at the Tapoco Project. APGI stabilized approximately 360 linear feet of shoreline at Site 40MR687 (potentially eligible for the NRHP on Chilhowee Reservoir) to prevent further shoreline erosion at the site. On August 1, 2009, APGI donated artifacts and records gathered from the four Project reservoirs to the Frank H. McClung Museum at the University of Tennessee Knoxville, including all cultural material recovered from archaeological investigations conducted at the Project by APGI between 2001 and 2008. APGI also donated curation fees to help underwrite the purchase of storage cases for the materials and supply the necessary manpower to prepare the artifacts and records to be added to the museum's collections.

Tapoco Project Vicinity

Section G – Recreation

G.1 If FERC-regulated, is the Facility in Compliance with the recreational access, accommodation (including recreational flow releases) and facilities conditions in its FERC license or exemption?
Yes, Go to G3

G.3 Does the Facility allow access to the reservoir and downstream reaches without fees or charges?
Yes, Pass, Go to H

The Tapoco Project currently provides 43 recreation access areas, including recently constructed access areas in accordance with the RSA, which provide opportunities for picnicking, camping, boating/paddling, swimming, fishing, and hiking (see Tables 13-17). APGI provides access to these recreation opportunities at no cost to the public. Tapoco operates and maintains, solely or in cooperation with state and/or federal resource agencies, 24 of these areas, while the others are managed by the U.S. Forest Service (USFS), Tennessee Valley Authority (TVA), North Carolina Wildlife Resource Commission (NCWRC), or North Carolina Department of Transportation (NCDOT).

Consistent with the RSA APGI has paid over $1.4 million from 2005 through 2010 to upgrade recreational facilities at the four reservoirs and along the Cheoah River. APGI has also contributed $423,633 from 2005 through 2010 for the operation and maintenance of recreation related facilities (see Table 18).

APGI also generates high flow events for whitewater recreation as part of its FERC license.

Massey Branch Accessible Fishing Pier – Santeetlah Reservoir

Table 13: Santeetlah Reservoir Multi-Use Recreation and Access Facilities Available for Public Use

Site	Type	Fee	Ramp	Lane	Park-ing	Boat Temporary Tie-up Docks	Campsites
Santeetlah Dam Overlook	Access				10		
Cheoah Point Boat Access	Boat Launch Ramp		1	1	38	1	
Cheoah Point Campground	Camping	Yes			26		26
Cheoah Point Day Use Area	Swimming, Picnicking, Access				33		
East Buffalo Branch Campsites	Camping						9
Ted Jordan Wayside Area	Access (visual only)				10		
Massey Branch Wayside Picnic Area	Picnicking				10		
Massey Branch Wayside Camping	Camping				1		1
Massey Branch Boat Access Area	Boat Launch Ramp		1	1	15	1	
Snowbird Picnic Area	Picnicking				5		
Long Hungry Road Camping	Camping						6
Santeetlah Road Wayside	Access (visual only)				6		
Rattler Ford Group Camp	Camping	Yes					16
Horse Cove Campground	Camping	Yes					18

Site	Type	Fee	Ramp	Lane	Park-ing	Boat Temporary Tie-up Docks	Campsites
Joyce Kilmer Trailhead Parking	Access				25		
Avey Branch Boat Access	Boat Launch Ramp		1	1	35		
Atooga Branch Camping Area	Camping						2
Santeetlah Reservoir Dispersed Campsites	Camping						53
FACILITY TOTAL	18	3	3	3	214	2	131

Table 14: Cheoah River Multi-Use Recreation and Access Facilities Available for Public Use

Site	Type	Fee	Ramp	Lane	Park-ing	Boat Temporary Tie-up Docks	Campsites
Boater Put-in/Take-out Facilities	Non-motorized Boat Put-in/Take-out Ramps		2	1	25		
FACILITY TOTAL	1		2	1	25		

Table 15: Cheoah Reservoir Multi-Use Recreation and Access Facilities Available for Public Use

Site	Type	Fee	Ramp	Lane	Park-ing	Boat Temporary Tie-up Docks	Campsites
Panel Branch Boat Access Area	Boat Launch Ramp		1	1	25		
Lewellyn Branch Boat Access Area (relocation of Panel Branch Boat Access Area)	Boat Launch Ramp, Fishing Pier		1	1	14	1	
Farley Branch Boat Access Area	Boat Launch Ramp		1	1	8	1	
NC Highway 28 Wayside Pull-offs	Access (visual only)				7		
Twenty-Mile Creek Lake Access Area	Launch (unimproved), Access		1	1	4		1
Cheoah Dam Overlook	Access (visual only)				16		
Canoe Portage	Canoe Portage Trail (including take-out, put-in)						
FACILITY TOTAL	7		4	4	74	2	1

Table 16: Calderwood Reservoir Multi-Use Recreation and Access Facilities Available for Public Use

Site	Type	Fee	Ramp	Lane	Park-ing	Boat Temporary Tie-up Docks	Campsites
Magazine Branch Boat Access and Picnic Area	Boat Launch Ramp (one of which is unimproved), Picnicking		2	2	15	1	5
Slickrock Creek Boat-in Campsite	Launch (unimproved), Camping		1	1			1
Cheoah Powerhouse Tailrace Fishing Access	Fishing, Access				15		
Slickrock Creek Trailhead Parking	Access				16		
U.S. Highway 129 Pull-offs	Picnicking				12		
Calderwood Overlook	Access (visual only)				6		
Primitive Campsites	Primitive Campsites						5
Canoe/Kayak Take-out	Canoe Portage (including take-out, put-in)						
FACILITY TOTAL	8		3	2	64	1	11

Table 17: Chilhowee Reservoir Multi-Use Recreation and Access Facilities Available for Public Use

Site	Type	Fee	Ramp	Lane	Park-ing	Boat Temporary Tie-up Docks	Campsites
Calderwood Village Day Use Area	Picnicking					1	
Tab Cat Boat Access Area	Boat Launch Ramp		1	1	11		
Gravel Pile Boat Access Area	Boat Launch Ramp, Picnicking, Accessible Fishing Piers		1	1	11		
Abrams Creek Bridge Pull-off Access Area	Launch (unimproved), Access		1	1			
Happy Valley Boat Access Area	Boat Launch Ramp		1	1	6	1	
Chigger Beach Boat-in Access Area	Launch (unimproved)		1	1			
U.S. Highway 129 Pull-off Day-Use Areas	Access, Bank Fishing, and Picnicking				6		
Pear Tree Boat Access and Camping Area	Boat Launch Ramp, Camping		1	1	20		10

Site	Type	Fee	Ramp	Lane	Park-ing	Boat Temporary Tie-up Docks	Campsites
Canoe Portage	Canoe Portage (including take-out, put-in, and parking)						
FACILITY TOTAL	9		6	6	54	2	10

In addition to continuing to operate and manage existing public access recreation areas, APGI agreed, in the RSA, to add new public recreation facilities and upgrade existing facilities at the access areas. Specifically, APGI made recreational funding commitments for facility enhancements and upgrades to the USFS, NCWRC, and TWRA. APGI has consulted with the USFS, the NCWRC, and TWRA on an annual basis to prioritize recreational enhancements to be implemented for the following year based on funding availability and other relevant considerations. APGI also provides annual funding to support operations and maintenance costs for recreational facilities and related purposes. Additionally, APGI contributes annually, on a cost-share basis, to TWRA for recreational fish stocking in Calderwood Reservoir. Table 18 summarizes the funding provided by APGI from 2006 through 2010 for all recreation facility enhancements and upgrades. In accordance with its FERC license, APGI filed a Recreation Plan with FERC on February 28, 2006, which was supplemented on June 23, 2006. FERC approved the Plan on August 9, 2006. Table 19 summarizes the current status of the recreation facility enhancements and upgrades outlined in the Recreation Plan.

In addition to recreation facility enhancements and upgrades, APGI collected recreation use data at the Tapoco Project to support the development of its most recent Licensed Hydropower Development Recreation Report (FERC Form 80). Required by FERC, the FERC Form 80 provides data on recreational resources at hydropower projects. On March 30, 2009, APGI filed with FERC a revised FERC Form 80 along with a supplemental report describing the methodologies for collecting the recreation use data.

Table 18: Recreation Facilities Funding 2005-2010

Year	Recreational Enhancements (Capital Funding)	Operations and Maintenance (O&M) of Existing Recreation Facilities
2005	$55,000	
2006	$83,000	$85,000
2007	$167,530	$87,735
2008	$384,077	$64,898
2009	$611,500	$93,000
2010	$117,355	$93,000
2005-2010 Total	$1,418,462	$423,633

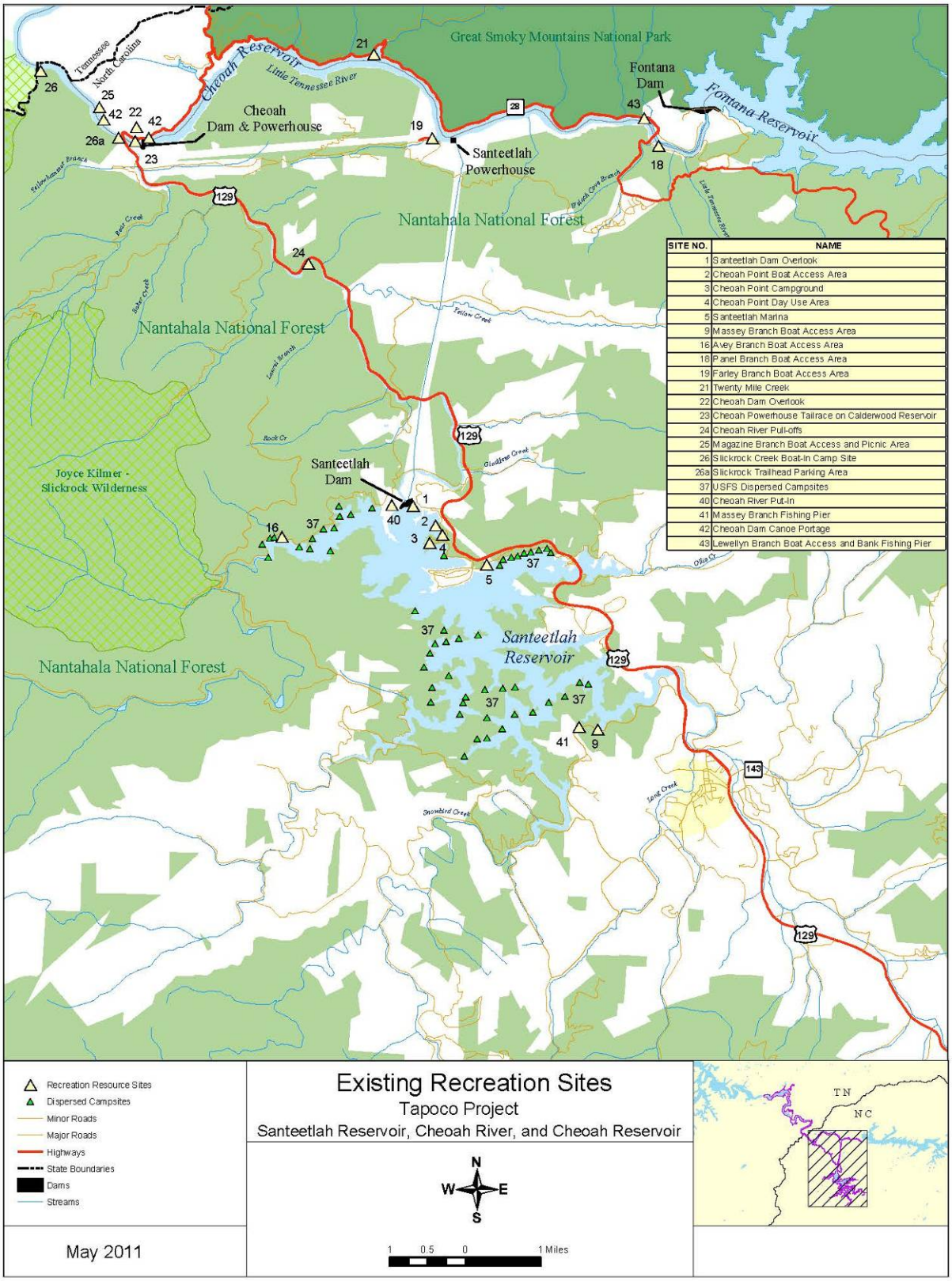
Table 19: Summary of Status of Recreation Facility Enhancements and Upgrades

New and/or Upgraded Recreation Facilities	Primary Agency Responsible	Location Sited?	Construction Begun?	Anticipated Beginning of Construction	Anticipated Completion of Construction
Santeetlah Reservoir					
Massey Branch Boat Launch	USFS / NCWRC	Yes	No	Uncertain	By March 2020
Cheoah Point Boat Access	NCWRC / USFS	COMPLETE	COMPLETE	COMPLETE	COMPLETE
Cheoah Point Campground	USFS	COMPLETE	COMPLETE	COMPLETE	COMPLETE
USFS Dispersed Campsites	USFS	COMPLETE	COMPLETE	COMPLETE	COMPLETE
Avey Branch Boat Launch	USFS / NCWRC	Yes	No	Uncertain	By March 2020
Bank Fishing Areas	APGI / USFS	COMPLETE	COMPLETE	COMPLETE	COMPLETE
Cheoah River					
US 129 Access Areas and Additional Parking	USFS	Yes	No	Uncertain	By March 2020
Cheoah River Trail	USFS	No	No	Uncertain	By March 2020
Shoreline Fishing Facility	NCWRC / USFS	Yes	No	Uncertain	By March 2020
Boater Put-in/Take-out Facilities	USFS	COMPLETE	COMPLETE	COMPLETE	COMPLETE
Cheoah Reservoir					
Canoe Portage	APGI	COMPLETE	COMPLETE	COMPLETE	COMPLETE
Bank Fishing Facilities	APGI	COMPLETE	COMPLETE	COMPLETE	COMPLETE
Panel Branch Boat Access Relocation to Lewellyn Branch	NCWRC	COMPLETE	COMPLETE	COMPLETE	COMPLETE
Calderwood Reservoir					
Primitive Campsites	APGI / USFS	COMPLETE	COMPLETE	COMPLETE	COMPLETE
Canoe/Kayak Take-out	APGI	COMPLETE	COMPLETE	COMPLETE	COMPLETE
Fish Delivery Chute	APGI	COMPLETE	COMPLETE	COMPLETE	COMPLETE
Chilhowee Reservoir					
Canoe Portage	APGI	COMPLETE	COMPLETE	COMPLETE	COMPLETE
Accessible Fishing Piers	TWRA	COMPLETE	COMPLETE	COMPLETE	COMPLETE
US 129 Day-use Areas	APGI / TWRA	COMPLETE	COMPLETE	COMPLETE	COMPLETE

Calderwood Dam Portage Trail (upstream of dam)

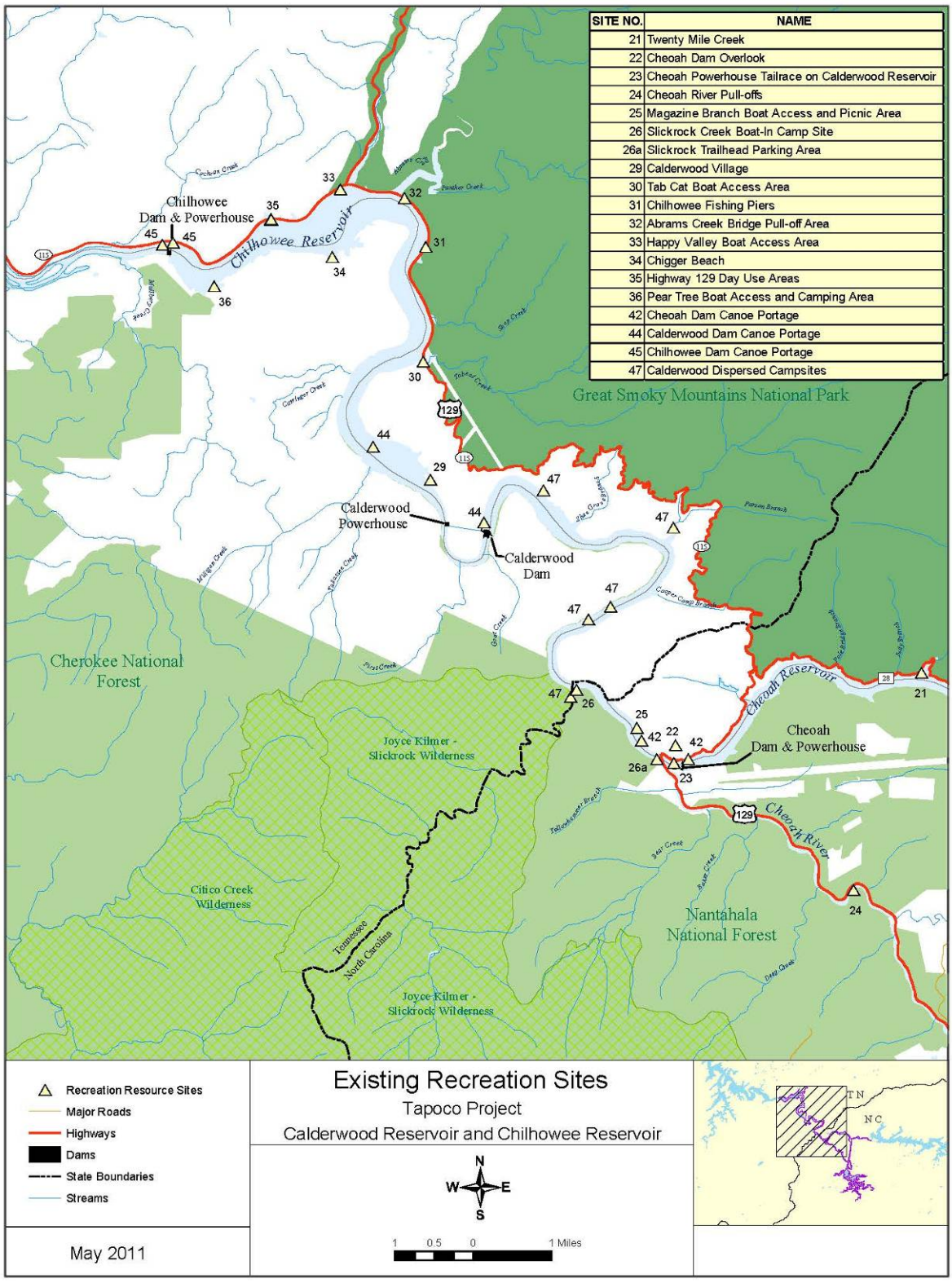
Primitive Campsite at Calderwood Reservoir

Map of Recreation Sites at Santeetlah Reservoir, Cheoah River, Cheoah Reservoir



SITE NO.	NAME
1	Santeetlah Dam Overlook
2	Cheoah Point Boat Access Area
3	Cheoah Point Campground
4	Cheoah Point Day Use Area
5	Santeetlah Marina
9	Massey Branch Boat Access Area
16	Avey Branch Boat Access Area
18	Panel Branch Boat Access Area
19	Farley Branch Boat Access Area
21	Twenty Mile Creek
22	Cheoah Dam Overlook
23	Cheoah Powerhouse Tailrace on Calderwood Reservoir
24	Cheoah River Pull-offs
25	Magazine Branch Boat Access and Picnic Area
26	Slickrock Creek Boat-In Camp Site
26a	Slickrock Trailhead Parking Area
37	USFS Dispersed Campsites
40	Cheoah River Put-In
41	Massey Branch Fishing Pier
42	Cheoah Dam Canoe Portage
43	Lewellyn Branch Boat Access and Bank Fishing Pier

Map of Recreation Sites at Calderwood Reservoir and Chilhowee Reservoir



Section H – Facilities Recommended for Removal

H.1 Is there a Resource Agency Recommendation for removal of the dam associated with the Facility?

No, Pass, Facility is Low Impact

None of the local, state, or federal resource agencies have formally requested that any of the four Project developments be removed. The comments and Terms and Conditions filed with FERC in September 2003 by the resource agencies support this.

Attachment 3
Summary of Annual Reports and Filings with FERC and Project Stakeholders

APGI has a number of annual commitments for annual reports/filings with FERC, consultations, and meetings. The table below summarizes those annual tasks and includes links to recent examples on the enclosed CD.

Annual Compliance Task	Due Date	File Name / Hyperlink
Section A - Flows		
Annual High Flow Event Schedule Filing - APGI must annually file and distribute the schedule of proposed high flow events (providing 12-month prior notice) to FERC, U.S. Fish and Wildlife Service (USFWS), USFS, North Carolina Wildlife Resources Commission (NCWRC), North Carolina Department of Environment and Natural Resources (NCDENR), Eastern Band of Cherokee Indians (EBCI), and Graham County	January annually	2011 High Flow Event Schedule Filing
High Flow Event Notification Procedure Annual Update - APGI must annually verify all contact information for High Flow Event Notification Procedure	January annually	2011 High Flow Event Notification Procedure Contact Update
Cheoah River Flow Planning Meeting - APGI must schedule and attend annual Cheoah River flow planning meeting (participants to include USFWS, USFS, NCWRC, NCDENR, EBCI, and Graham County)	Early October annually	October 2010 Meeting Summary
Consultation on High Flow Events for Whitewater Boating - APGI must annually consult with agencies (USFWS, USFS, NCWRC, NCDENR, Graham County) and EBCI on high flow events for whitewater boating and file with FERC any request 60 days prior to additional high flow events	Annually starting in October 2010 (in conjunction with the Cheoah River flow planning meeting)	October 2010 Meeting Summary
Section C - Fish Passage and Protection		
Annual Fish Passage Translocation Plan Report and Annual Meeting with the USFWS - APGI must meet annually with the USFWS to discuss implementation of the Fish Passage Translocation Plan and annually file with FERC (after providing the USFWS a 30-day comment period) a summary report under the Fish Passage Translocation Plan of the previous year's fish translocation effectiveness studies along with the proposed	Meeting due annually in the winter; report due by March 15 annually	2011 Fish Passage Translocation Plan Report

Annual Compliance Task	Due Date	File Name / Hyperlink
studies and schedule for the upcoming year		
Section D – Watershed Protection		
Annual Tallassee Fund Implementation Report - APGI must annually file with FERC the Tallassee Fund annual implementation report developed by fund managers	June 30 annually	2011 Tallassee & NC Fund Report
Annual North Carolina Fund Implementation Report - APGI must annually file with FERC the North Carolina Fund annual implementation report developed by fund managers	June 30 annually	2011 Tallassee & NC Fund Report
Annual Tallassee Fund Meeting – APGI will participate, if possible, in annual planning meeting for Tallassee Fund	4th quarter annually	2011 Tallassee & NC Fund Report (includes meeting summary for Fund)
Annual North Carolina Fund Meeting – APGI will participate, if possible, in annual planning meeting for North Carolina Fund	4th quarter annually	2011 Tallassee & NC Fund Report (includes meeting summary for Fund)
Annual Conveyance Report – APGI must annually file a report with FERC describing each conveyance made during the prior calendar year for easements or rights-of-way across, or leases of project lands (no report is required if no conveyances were made in the prior calendar year)	January 31 annually	2008 Conveyance Report
Annual USFS 4(e) Consultation and Evidence of Consultation Report – APGI must annually consult with the USFS with regard to measures stipulated to ensure the protection and utilization of National Forest System lands directly affected by the operation of the project and file evidence with FERC of the consultation	Consultation due annually between January 1 and February 29; filing is due annually within 60 days following the consultation	2011 USFS 4(e) Consultation Report
Section E – Threatened and Endangered Species Protection		
Annual Endangered Species Management Plan (ESMP) Report - APGI must annually file with FERC a report with FERC summarizing activities conducted under the ESMP (no report is required if no consultation was conducted)	March 31 annually	2011 ESMP Report
Annual Fish Passage Translocation Plan Report and Annual Meeting with the USFWS - APGI must meet	Meeting due annually in the	2011 Fish Passage Translocation Plan

Annual Compliance Task	Due Date	File Name / Hyperlink
annually with the USFWS to discuss implementation of the Fish Passage Translocation Plan and annually file with FERC (after providing the USFWS a 30-day comment period) a summary report under the Fish Passage Translocation Plan of the previous year's fish translocation effectiveness studies along with the proposed studies and schedule for the upcoming year	winter; report due by March 15 annually	Report
Section F – Cultural Resource Protection		
Annual Historic Properties Management Plan (HPMP) Report - APGI must annually file with FERC, the State Historic Preservation Offices (SHPOs), EBCI Tribal Historic Preservation Office (THPO), Bureau of Indian Affairs (BIA), USFS, and Great Smoky Mountains National Park (GSMNP) a report of activities conducted under the HPMP	February 25 annually	2012 HPMP Report
Biannual Inspections - APGI staff must inspect NRHP-eligible and potentially eligible sites at Santeetlah, Calderwood, and Chilhowee reservoirs twice a year	Twice annually	2012 HPMP Report
Section G – Recreation		
Annual Recreation Plan Report - APGI must annually file with FERC a report describing the previous year's recreation related activities	1st quarter annually	2011 Recreation Plan Report
Annual Recreation Planning Meeting – APGI must schedule and attend annual Recreation Planning Meeting	Annually in July	2011 Recreation Planning Meeting Summary
Santeetlah Dam High Flow Event Safety Plan Review - APGI and USFS must review and update the Santeetlah Dam High Flow Event Safety Plan (discussed at Recreation Planning Meeting)	Annually	2011 Recreation Planning Meeting Summary
Safety Devices - APGI must Inspect the safety devices under the Santeetlah Dam High Flow Event Safety Plan and repair or modify them as required (discussed at Recreation Planning Meeting)	Annually	2011 Recreation Planning Meeting Summary
Cheoah River Put-in Facility Safety Plan - APGI and USFS must review and update the Cheoah River Put-in Facility Safety Plan (discussed at Recreation Planning Meeting)	Periodically	2011 Recreation Planning Meeting Summary
Annual High Flow Event Schedule Filing - APGI must annually file and distribute the schedule of	January annually	2011 High Flow Event Schedule

Annual Compliance Task	Due Date	File Name / Hyperlink
proposed high flow events (providing 12-month prior notice) to FERC, U.S. Fish and Wildlife Service (USFWS), USFS, North Carolina Wildlife Resources Commission (NCWRC), North Carolina Department of Environment and Natural Resources (NCDENR), Eastern Band of Cherokee Indians (EBCI), and Graham County		Filing
Cheoah River Flow Planning Meeting - APGI must schedule and attend annual Cheoah River flow planning meeting (participants to include USFWS, USFS, NCWRC, NCDENR, EBCI, and Graham County)	Early October annually	October 2010 Meeting Summary
Consultation on High Flow Events for Whitewater Boating - APGI must annually consult with agencies (USFWS, USFS, NCWRC, NCDENR, Graham County) and EBCI on high flow events for whitewater boating and file with FERC any request 60 days prior to additional high flow events	Annually starting in October 2010 (in conjunction with the Cheoah River flow planning meeting)	October 2010 Meeting Summary
Other Annual Compliance Tasks		
Relicensing Settlement Agreement (RSA) Appendix D - APGI must annually update Appendix D of the RSA (List of Parties and Primary Contacts)	April - June annually	2011 RSA Appendix D Update
LIHI Form - APGI must annually complete form to confirm compliance with LIHI certification criteria for preceding year	Annually upon receipt of form	2011 LIHI Form

Attachment 4
Capacity by Development and Generator

Development and Generator	Capacity (MW) Under 2005 FERC License	Capacity (MW) as of 2/1/2012	Capacity (MW) Projected by 12/31/2013	Modernization Date
Santeetlah 1	23.5	20.2	20.2	Mar-2008
Santeetlah 2	23.5	20.2	20.2	Aug-2008
Total Santeetlah	**47.0**	**40.4**	**40.4**	
Cheoah 1	27.5	22.0	27.5	June-12
Cheoah 2	27.5	22.0	27.5	June-12
Cheoah 3	27.5	22.0	27.5	Apr-13
Cheoah 4	27.5	22.0	27.5	Oct-12
Cheoah 5	34.7	30.0	30.0	*est. 2023*
Total Cheoah	**144.7**	**118.0**	**140.0**	
Calderwood 1	46.8	46.8	46.8	Jun-2006
Calderwood 2	46.8	46.8	46.8	Sep-2005
Calderwood 3	46.8	46.8	46.8	Jul-2002
Total Calderwood	**140.4**	**140.4**	**140.4**	
Chilhowee 1	16.0	17.4	17.4	*est. 2019*
Chilhowee 2	16.0	17.4	17.4	*est. 2019*
Chilhowee 3	16.0	17.4	17.4	*est. 2020*
Total Chilhowee	**48.0**	**52.2**	**52.2**	
Total Tapoco	**380.1**	**351.0**	**373.0**	

Note: FERC Capacity is based on optimal operating efficiency and not maximum or actual capacity

Attachment 5
Letters of Support from Resource Agencies

U.S. Fish and Wildlife Service

Tennessee Wildlife Resources Agency

United States Forest Service

North Carolina Department of Environment and Natural Resources

Tennessee Department of Environment and Conservation