Yadkin Project Relicensing (FERC No. 2197)
Recreation, Aesthetics, and Shoreline Management Issue Advisory Group
May 3, 2005

Alcoa Conference Center
Badin, NC

Draft Meeting Summary

Meeting Agenda

See Attachment 1.

Meeting Participants

See Attachment 2.

Welcome and Introductions

Jody Cason, Long View Associates, opened the meeting with a review of the agenda and introductions. She introduced David Blaha, ERM, who reviewed the results of the Project-Wide Aesthetics Study and the Uwharrie National Forest Aesthetics Study.

Project-Wide Aesthetics Study

David Blaha reviewed the objectives of the Project-Wide Aesthetics Study: 1) to generally characterize the aesthetic character of the Project area, 2) to characterize the aesthetic character of the Project facilities, and 3) to evaluate the effect of existing Project facilities and alternative Project operations on aesthetics (see Attachment 3 – Meeting Presentation). He said that the Project dams, powerhouses, reservoirs, and transmission lines were evaluated. David described the operational alternatives that were evaluated at High Rock Reservoir (Alternative 1: near full pool (within 2 to 3 ft) year-round; Alternative 2: an extended recreation season; and Alternative 3: a greater winter drawdown).

Continuing, David explained that ERM had evaluated 42 Key Observation Points (KOPs) over a range of water levels and seasons (including a 16-ft drawdown at Narrows Reservoir). He said that ERM also had collected data specific to Project aesthetics through the Resident, Private Community Use, and Visitor Use surveys conducted as part of the Recreation Use Assessment.

David defined "Scenic Integrity" as a measure of the degree to which a landscape is visually perceived to be whole, intact, or complete. Scenic integrity is measured as a continuum over five levels: very high (unaltered), high (appears unaltered), moderate (slightly altered), low (moderately altered), and very low (heavily altered) (ERM adapted this system from the US Forest Service methodology). He explained that a completely natural, unaltered landscape is considered the baseline. ERM considered the amount of alteration from the natural state at each of the Project reservoirs and concluded that the High Rock Reservoir area has a low (moderately

altered) scenic integrity, the Tuckertown Reservoir area has a moderate (slightly altered) scenic integrity, the Narrows Reservoir area has a low-moderate (slightly to moderately altered) scenic integrity and the Falls Reservoir area has a high (appears unaltered) scenic integrity.

David explained that the technical analysis evaluated the viewer location, Project feature, setting, viewer group, number of viewers, duration of view, distance zone, orientation, field of view, spatial dominance, scale contrast, and compatibility for each view for each of the 42 KOPs. Photographs of each KOP were also taken during the spring, summer, and winter seasons.

On a scale of 1 to 5 (1 being very unattractive and 5 being very attractive) David said that the respondents to the surveys scored the scenic quality, on average, of High Rock Reservoir as 3.7, Tuckertown as 4.1, Narrows as 4.3, and Falls as 3.8. David acknowledged that he has less confidence in the Falls data because there were such a low number of survey responses. Survey respondents were also asked about detractors from scenic quality at the Project reservoirs. David said that floating debris and muddy water consistently ranked as the two highest detractors from scenic quality across the four reservoirs. Exposed lake bottom was also identified as a significant detractor at High Rock Reservoir.

Greg Scarborough, Salisbury/Rowan Association of Realtors, questioned the 12% of respondents who rated Falls Reservoir as unattractive. David attributed this anomaly to a very low response rate (17 surveys) at Falls Reservoir. David Wright, US Forest Service, said that Falls Reservoir is a very small reservoir with only a few access areas. He thought that any survey respondents accessing the reservoir via the Deep Water Trail Access Area would probably have had a very negative impression of the scenic quality of the reservoir because of the state of the access area.

Based on the technical analysis of the KOPs and the constituent analysis (i.e. survey results), ERM concluded that generally the Project facilities and operations are compatible with the scenic integrity with the following exceptions:

- The seasonal drawdown at High Rock Reservoir is somewhat compatible,
- The transmission lines at the Tuckertown Development are somewhat compatible,
- The transmission lines and the view of Narrows Dam from the Narrows tailwater are somewhat compatible, and
- The transmission lines and Falls Dam at the Falls Development are somewhat compatible.

Bill Medlin, Yadkin Pee Dee Lakes Project, asked if timber harvesting is considered part of existing Project operations. David responded that timber harvesting is not Project-related.

Larry Jones, High Rock Lake Association, questioned why the seasonal drawdown at High Rock Reservoir is considered "somewhat compatible" when "exposed lake bottom" is considered a scenic detractor by 49% of the survey respondents. David explained that the baseline for comparing the compatibility of the drawdown at High Rock with the surrounding reservoir area is the existing scenic integrity of the area (rated as low or moderately altered). Given this, ERM concluded that the drawdown is somewhat compatible to the moderately altered landscape around the reservoir (more than 2,000 waterfront homes and piers are concentrated along the

main body of the reservoir). Larry stated that it is wrong to conclude that it is okay (compatible) to draw the reservoir down since there are homes built around it. He questioned why a drawdown at Narrows is considered not compatible when it is just, if not more, developed than High Rock. Larry said that the number of homes per shoreline mile is greater on Narrows than High Rock. David explained that the distinction that he made between development on High Rock and Narrows was that development along High Rock is concentrated near the mainstem portion of the reservoir and Narrows appears less altered because a portion of the shoreline is undeveloped national forest. Larry commented that a drawdown at High Rock Reservoir should be considered incompatible from an aesthetics standpoint.

Continuing, David concluded that the existing operations at High Rock and Alternative 2 (extended recreation season with a 10-ft drawdown) are somewhat compatible with the scenic integrity of the area, Alternative 1 (near full pool year-round) is compatible with the scenic integrity of the area, and Alternative 3 (a larger winter drawdown) is not compatible with the scenic integrity of the area.

David Wright suggested that there is a problem with the compatibility determinations because two significantly different alternatives rated similarly (the existing condition and Alternative 2 both were rated somewhat compatible). He suggested that the compatibility determinations be more direct and specific (possibly month by month), so that the differences in the alternatives and the true impact of the alternatives on scenic quality become clearer (e.g. under existing conditions, there may be five months when Project operations are only somewhat compatible to the scenic integrity versus three months under Alternative 2).

Uwharrie National Forest Aesthetics Study

David Blaha reviewed the objectives of the UNF Aesthetics Study: 1) collect, analyze, and provide information regarding aesthetics at the UNF, 2) evaluate the consistency of existing Project facilities and operational alternatives with the UNF Management Plan, and 3) consider potential auditory effects of Project use on the UNF. David explained that the study methodology for this study was very similar to the Project-wide Aesthetics Study. He said that ERM evaluated 14 of the 42 KOPs that have a view of or from the UNF (9 on Narrows and 5 on Falls). ERM also considered responses from the Visitor Use Survey conducted as part of the Recreation Use Assessment and responses from a Visual Preference Survey administered in the UNF specifically for this study.

David stated that a technical analysis of the KOPs resulted in two facilities receiving low or very low scenic integrity ratings: Narrows Dam viewed from downstream and Narrows Reservoir with an extreme drawdown. The constituent analysis resulted in an average scenic quality rating of the UNF of 4.5 out of 5.0. The Visitor Use Survey asked about detractors from scenic quality and floating debris, eroding shorelines, muddy water, and timber harvesting were identified as the top four detractors. The results of the Visual Preference Survey showed that 85% of the respondents indicated that aesthetics were either a minor consideration or not a consideration when visiting the UNF. Additionally 76% of the Visual Preference Survey respondents consider the scenic quality of the UNF equal to or better than most other areas. Respondents to this survey identified roads, timber harvests, and trash as detractors from scenic quality. All 20 of the Project

photos used in the Visual Preference Survey received positive ratings – the two lowest ratings were of Narrows Dam from downstream and Falls Dam from upstream.

Greg Scarborough asked a specific question about the way the questions were phrased in the survey instrument. David Blaha said that he would append the Visual Preference Survey to the final report.

David concluded his presentation with a discussion of the Project facilities and operations consistency with the UNF Management Plan's desired future condition for the area – "a high level of visual quality and a wide variety of recreational opportunities will be provided". He said that with the exception of an extreme drawdown at Narrows Reservoir and the view of Narrows Dam from downstream, the Project facilities and operations are consistent with the UNF Visual Quality Objectives.

David Wright questioned the application of the UNF Visual Quality Objectives to the Project facilities and operations. He clarified that the Visual Quality Objectives alone do not recognize elements as part of the landscape. For example, the Narrows and Falls reservoirs, at full pool, add significantly to the landscape character. Without the reservoirs, the landscape character would not be as high quality. He thought that it would be more appropriate to apply the Scenic Integrity Ratings to the Project facilities and operations and then make the determination about whether the rating is compatible with the Visual Quality Objectives. Additionally, David thought the reason why the dams themselves received positive ratings was because the dams predate the national forest and people are used to seeing them and are comfortable with them as part of the landscape.

Larry Jones said that the same argument could be made about homes around the reservoirs. He stated that aesthetics is very subjective (i.e. beauty is in the eye of the beholder). He questioned how the winter drawdown at High Rock Reservoir could be considered somewhat compatible. David Blaha agreed to look at the impact of Project facilities and operations on aesthetics in more detail.

Closing

Jody Cason asked that any additional comments on the draft study report be submitted by June 2, 2005. The meeting adjourned at about 3:00 p.m.

Attachment 1 – Meeting Agenda

Yadkin Project
(FERC No. 2197)
Communications Enhanced Three-Stage Relicensing Process

Recreation, Aesthetics and Shoreline Management Issue Advisory Group Meeting

Tuesday, May 3, 2005
Alcoa Conference Center
Badin, North Carolina

1:00 PM – 4:00 PM

Preliminary Agenda

1. Introductions, Review Agenda
2. Review and Discuss Project-wide Aesthetic Study Draft Report
3. Review and Discuss Uwharrie National Forest Aesthetic Study Draft Report
4. Wrap-up and Next Steps

Attachment 2 – Meeting Participants

Name	Agency/Organization
Bill Medlin	Yadkin Pee Dee Lakes Project
Chip Conner	Uwharrie Point Community Association
David Wright	US Forest Service
Donley Hill	US Forest Service
Gene Ellis	APGI Yadkin Division
Greg Scarborough	Salisbury/Rowan Association of Realtors
Jody Cason	Long View Associates
Larry Jones	High Rock Lake Association
Wendy Bley	Long View Associates

Attachment 3 – Meeting Presentation

Yadkin Aesthetic Studies

Draft Reports

May 3, 2005

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Project-wide Aesthetics Study - Objectives

- **Generally characterize the aesthetic character of the Project area**
- **Characterize the aesthetic character of the Project facilities**
- **Evaluate the effect of existing Project facilities and alternative Project operations on aesthetics**

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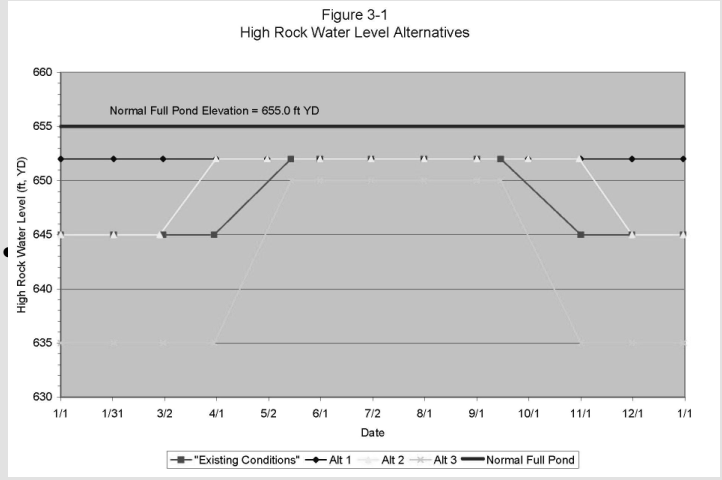
Project Facilities

- **Dams**
- **Powerhouses**
- **Reservoirs**
- **Transmission lines**

Operational Alternatives

Figure 3-1
High Rock Water Level Alternatives



Methodology

- **42 Key Observation Points**
  - High Rock – 12
  - Tuckertown – 8
  - Narrows – 16
  - Falls – 6
  - evaluated each KOP over a range of water levels and seasons (including 16-foot drawdown at Narrows Reservoir for relicensing studies
- **Resident Use Survey – 1,650 responses**
- **Private Community Use Survey – 110 responses**
- **Visitor Use Survey – 946 responses**

Concept of Scenic Integrity

- **Scenic Integrity is a measure of the degree to which a landscape is visually perceived to be whole, intact, or complete.**
- **Measured as a continuum over 5 levels**
  - Very High – unaltered
  - High – appears unaltered
  - Moderate – slightly altered
  - Low – moderately altered
  - Very Low – heavily altered

Existing Aesthetic Character

- **Completely natural, unaltered landscape considered baseline with scenic integrity ratings corresponding to degree of alteration from a natural setting**
- **High Rock Reservoir Area – Low (moderately altered)**
- **Tuckertown Reservoir Area – Moderate (slightly altered)**
- **Narrows Reservoir Area – Low-Moderate (slightly to moderately altered)**
- **Falls Reservoir Area – High (appears unaltered)**

Technical Analysis of KOPs - Illustrative

View Description										Modifier Rating		
KOP	Viewer Location	Project Feature	Setting	Primary Viewer Group	Number of Viewers	Duration of View	Distance Zone	Orientation	Field of View	Spatial Dominance	Scale Contrast	Compatibility
HR 8	NC 8 Bridge over Flat Swamp Creek facing Flat Swamp SwimAccess Area	High Rock Reservoir and Flat SwampSwim Access	View from bridge of Flat Swamp Swimming area andbeach.	Recreational users, motorists, boaters, anglers	High	Shortmotorists Long-anglers/boaters, rec. users	Foreground	Indirect- motorists, Direct-boaters/anglers, rec. users	Wide	Co-Dominant	Moderate	Compatible, Somewhat compatible in winter, but area not used at that time

Technical Analysis of KOPs - Illustrative

February

April

August

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Constituent Analysis – Scenic Quality

Reservoir	# of Respondents	Average Score	Ratings/Scores 1 Very Unattractive	2 Somewhat Unattractive	3 Average	4 Somewhat Attractive	5 Very Attractive
High Rock	1,559	3.7	4%	5%	36%	29%	26%
Tuckertown	215	4.1	1%	2%	29%	18%	49%
Narrows	915	4.3	5%	2%	15%	20%	58%
Falls	17	3.8	0%	12%	29%	29%	29%

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Constituent Analysis - Detractors

Detractors	High Rock		Tuckertown		Narrows		Falls	
	# of Responses	Response Rate	# of Responses	Response Rate	# of Responses	Response Rate	# of Responses	Response Rate
Floating Debris	996	75%	32	52%	323	54%	5	71%
Muddy Water	888	67%	19	31%	211	35%	4	57%
Exposed Lake Bottom	654	49%	2	3%	85	14%	0	0%
Eroding Shoreline	314	24%	13	21%	125	21%	5	71%
Timber Harvesting	124	9%	5	8%	157	26%	1	14%
Electric Transmission Lines	87	7%	8	13%	37	6%	1	14%
Project Dams	12	1%	3	5%	10	2%	1	14%
Docks/Piers	99	7%	2	3%	71	12%	1	14%
Waterfront Housing	71	5%	2	3%	47	8%	1	14%
Reservoirs	7	<1%	0	0%	6	1%	1	14%
Lack of Landscaping	103	8%	3	5%	63	11%	0	0%
Bulkheads/ Rip Rap	32	2%	2	3%	21	4%	0	0%
Roads	25	2%	1	2%	25	4%	0	0%
Other	56	4%	5	8%	38	6%	0	0%
None	26	2%	1	2%	26	4%	0	0%

Conclusions – Existing Facilities / Operations

- **Generally facilities and operations are compatible with scenic integrity, except:**
- **High Rock Development**
  - Seasonal drawdown - somewhat compatible
- **Tuckertown Development**
  - Transmission lines – somewhat compatible
- **Narrows Development**
  - Transmission lines – somewhat compatible
  - Narrows Dam (from tailwaters) – somewhat compatible
- **Falls Development**
  - Falls Dam – somewhat compatible
  - Transmission lines – somewhat compatible

Conclusions – HR Operational Alternatives

Alternatives	Number of Viewers	Magnitude of Maximum Seasonal Drawdown	Duration of Maximum Seasonal Drawdown	Percent of Rec Days Affected by Seasonal Drawdown	Compatibility
Existing Conditions	Large (over 2,000 households and 1.2 million recreation days)	3 -12 feet	5 months	37%	Somewhat Compatible
Alternative 1	Large (over 2,000 households and 1.2 million recreation days)	3 feet	0 months	0%	Compatible
Alternative 2	Large (over 2,000 households and 1.2 million recreation days)	3 – 12 feet	3 months	8%	Somewhat Compatible
Alternative 3	Large (over 2,000 households and 1.2 million recreation days)	5 – 20 feet	5 months	37%	Not Compatible

UNF Aesthetics Study - Objectives

- **Collect, analyze, and provide information regarding aesthetics at the Uwharrie National Forest.**
- **Evaluate the consistency of existing Project facilities and operational alternatives with the UNF Management Plan.**
- **Consider potential auditory effects of Project use on the UNF.**

Methodology

- **Evaluation of 14 KOPs**
  - Narrows Reservoir – 9 KOPs
  - Falls Reservoir – 5 KOPs
- **Responses from VUS**
  - 104 responses
- **Responses from Visual Preference Survey**
  - 44 responses

Technical Analysis of KOPs

- **2 facilities received low or very low scenic integrity ratings:**
  - Narrows Dam viewed from downstream
  - Narrows Reservoir with an extreme drawdown

Constituent Analysis - VUS

- **Average Scenic Quality Rating – 4.5 out of 5.0**
- **Scenic Quality Detractors (% of respondents)**
  - **floating debris/trash – 50%**
  - **eroding shorelines – 39%**
  - **muddy water – 29%**
  - **timber harvesting – 21%**
  - **transmission lines – 11%**
  - **exposed lake bottom – 8%**
  - **Project dams – 8%**
  - **Project reservoirs – 5%**

Constituent Analysis - VPS

- **85% of respondents indicated that aesthetics were either a minor consideration or not a consideration in deciding to visit the UNF**
- **76% consider the scenic quality of the UNF equal to or better than most other areas**
- **Roads, timber harvests, and trash received the highest negative visual reactions**
- **All 20 of the Project photos received positive ratings – lowest ratings (+0.9) were**
  - **Narrows Dam from downstream**
  - **Falls dam from upstream**
- **Few respondents have "special ties" to the Project area**

UNF Management Plan VQOs

- **Desired Future Condition – "A high level of visual quality and a wide variety of recreational opportunities will be provided."**
- **Standard – meet Moderate Scenic Integrity Level (slightly altered)**

Consistency with UNF Management Plan

Project Feature	Technical Rating (Scenic Integrity[1])	Constituent Rating	UNF VQO[1]	Compatibility	Comments
Narrows Reservoir (normal max drawdown ~ 3 ft)	Moderate	Moderately positive	Partial Retention	Yes	Both technical and constituent ratings indicate that Narrows Reservoir at near full pool is perceived as an aesthetic amenity.
Narrows Reservoir (extreme drawdown ~16 ft)	Very Low	not rated	Partial Retention	No	Technical analysis of KOPs indicates that the aesthetics of the UNF is adversely affected by extr eme drawdowns (~16 feet)
Narrows Dam (viewed from upstream)	Moderate	Slightly positive	Partial Retention	Yes	Narrows Dam as viewed from upstream does not dominate the view and is compatible in scale with the surrounding landscape. It is actually perceive d by users as slightly positive aesthetically.
Narrows Dam (view from downstream)	Low	Slightly positive	Partial Retention	Mixed Results	Narrows Dam as viewed from downstream is a large imposing structure. A non-integral powerhouse, access road and bridge, and overhead transmission lines further complicate the view. Overall, the technical analysis resulted in a Scenic Integrity Rating of Low. This is somewhat inconsistent with the results of the constituent surveys, which rated this view as slightly positive.
Falls Reservoir (Normal max drawdown ~1 ft)	High	Moderately positive	Partial Retention	Yes	Both the technical and constituent ratings indicate that Falls Reservoir is perceived as an aesthetic amenity and that current operations do not adversely a ffect aesthetics.
Falls Dam (view from upstream)	Moderate	Slightly positive	Partial Retention	Yes	Falls Dam as viewed from upstream does not dominate the view and is compatible in scale with the surrounding landscape. It is actually perceived by users asslightly positive aesthetically.
Falls Dam (view from downstream)	Moderate	Slightly positive	Partial Retention	Yes	Falls Dam as viewed from downstream does not dominate the view and is compatible in scale with the surrounding landscape.