

FINAL ENVIRONMENTAL IMPACT STATEMENT

**RARITY POINTE COMMERCIAL RECREATION AND
RESIDENTIAL DEVELOPMENT ON TELLICO RESERVOIR**
Loudon County, Tennessee

Lead Agency:
TENNESSEE VALLEY AUTHORITY

Cooperating Agencies:
U.S. ARMY CORPS OF ENGINEERS
TELLICO RESERVOIR DEVELOPMENT AGENCY

JUNE 2003

Direct Comments to:

Richard L. Toennisson
Tennessee Valley Authority
400 West Summit Hill Drive (WT 8C)
Knoxville, TN 37902
Phone: (865) 632-8517
Fax: (865) 632-6855
e-mail: rltoennisson@tva.gov

Proposed project: Rarity Pointe Commercial Recreation and Residential Development on Tellico Reservoir
Loudon County, Tennessee

Lead agency: Tennessee Valley Authority, Knoxville Tennessee

Cooperating agencies: U.S. Army Corps of Engineers, Nashville, Tennessee
Tellico Reservoir Development Agency, Vonore, Tennessee

For further information, contact: Richard L. Toennisson
Senior NEPA Specialist
Tennessee Valley Authority
400 West Summit Hill Drive (WT 8C)
Knoxville, TN 37402
Phone: (865) 632-8517
Fax: (865) 632-6855
e-mail: rtoennisson@tva.gov

Abstract: TVA is considering actions related to the Rarity Pointe project on Tellico Reservoir, including the proposed sale of approximately 118 acres of TVA public land, use of 5 acres of TVA land for a small golf course, and 4 acres for a full service marina. Potential impacts of this proposal are loss of public lands and associated shoreline habitat, recreational opportunities, and the aesthetic and visual impacts of new development. Under the No Action Alternative (Alternative A) TVA would not approve the requests and the land-use plan for Tellico Reservoir would not be modified. Under the Applicants Proposed Alternative (Alternative B), TVA would agree to make the land available for development, and approve the proposed marina and golf course. Under the Partial Land Sale with Mitigation Alternative (Alternative C) and Applicant's Proposal with Mitigation Alternative (Alternative E), the loss of public land, and impacts to aesthetics, public recreation, and terrestrial ecology would be mitigated through a land exchange. Under the No Land Sale Alternative (Alternative D), TVA would approve the use of TVA land for the small golf course and the marina but not make the approximately 118 acres available for sale. Alternative E is TVA's preferred alternative.

SUMMARY

PURPOSE OF AND NEED FOR ACTION

Consistent with its broad mandate to provide for the economic development and social welfare of the Tennessee Valley region, the Tennessee Valley Authority (TVA) has decided to consider a request for use of public land on Tellico Reservoir for enhancement of a commercial recreation and residential development. This request has been proposed by private developers (LTR Properties, Inc. and Rarity Communities, Inc.) (Rarity Communities) on the Tellico Reservoir in East Tennessee (Loudon County). TVA has been asked to take three actions related to the Rarity Pointe development: (1) release the planned use allocation of approximately 47.8 hectares (approximately 118 acres) of federal property above the 250-meter (820-foot) elevation (Parcels 8 and 9) on the Tellico Reservoir from recreation use and natural resource conservation use to make it available for sale and consequent use in constructing a residential resort and golf course community with 1,200 units; (2) approval of the use of about 2 hectares (5 acres) of TVA property, below the 820-foot elevation for a small (par-3) golf course; and (3) approval of a full service marina using 1.6 hectares (4 acres) of TVA property with shoreline stabilization, dredge, and 349 wet and 200 dry storage boat slips. The TVA property would be added to 87.4 hectares (216 acres) of land purchased by Rarity Communities from the Tellico Reservoir Development Agency (TRDA), and 130.7 hectares (323 acres) of private land. The EIS will evaluate not only the impacts associated with the proposed TVA actions but also the impacts associated with development of the non-TVA property that collectively make up the Rarity Pointe project as currently contemplated by Rarity Communities.

SCOPING

TVA began the NEPA review for the proposed action on Tellico Reservoir after receiving Rarity Communities' request in May 2002. On June 24, 2002, TVA issued a Notice of Intent (NOI) to prepare an Environmental Assessment (EA) or EIS on the Rarity Pointe proposal. Comments were received by letter, e-mail, and at a TVA public scoping meeting held on July 26, 2002 in Loudon, Tennessee. In response to public requests, TVA extended the comment period until August 16, 2002. In addition, from July to September, TVA met with or participated in meetings with several local groups of interested people such as property owners, homeowners, and lake users associations. Both the U.S. Army Corps of Engineers and the Tellico Reservoir Development Agency have proposed actions related to the proposal and are cooperators on the EIS.

PUBLIC PARTICIPATION

TVA received over 500 comments on the Rarity Communities proposal responding to the June 24, 2002 Notice of Intent and from the July 16, 2002 public meeting in Loudon, Tennessee (400 plus attendees). The comments focused on opposition to using public lands for private residential and commercial development and the associated environmental impacts such as the loss of visual and recreation opportunities and terrestrial habitat that could occur. Also expressed were concerns about the lack of public infrastructure to support the proposal, water quality, terrestrial and aquatic ecology. Commenters also asserted that there was no economic need for the proposal, that the 2000 Tellico Reservoir Land Management Plan (2000 Land Plan) should not be modified, that TVA was

disregarding public opinion, and that TVA was setting a precedent for future land management decisions.

Following release of the DEIS, TVA held an information meeting at Loudon, Tennessee on April 10, 2003 where 95 people attended. Comments were received at that meeting and in writing through May 12, 2003. Approximately 112 sets of written and oral comments were received from 99 individuals, 4 organizations, and 6 interested agencies. TVA has reviewed all of the comments. More than half of the comments received on the DEIS had non environmental themes such as alternative selection, land use plans and policy, the NEPA process, public and private land, and trust in TVA. The character of these comments was very similar to those previously provided for during scoping. The rest of comments on the DEIS raised questions and provided comments on all of the identified environmental issues except for air quality. These comments were primarily concerned with impacts to the environment such as socioeconomic concerns, recreation for Tellico Reservoir and the proposed resort, and impacts to wildlife, plants, visual resources, water quality, wetlands, and floodplains. In response to these comments, TVA revised the EIS to clarify issues raised.

ALTERNATIVES

TVA identified five potential alternatives for responding to the Rarity Pointe request.

(A) No Action - No TVA approval for any requested action.

(B) Applicants Proposal - TVA would modify the current land management plan and make the requested land available for sale and development. TVA would approve the marina plans, and allow the construction of the par-3 golf course on TVA land.

(C) Partial Land Sale with Mitigation - TVA would approve the new marina plans, allow the construction of the par-3 golf course on TVA land, and modify the current land management plan to allow the sale of part of the requested land (about 49 acres total) for development of the golf course, but with enhanced mitigation measures including at least a 60 acre land exchange.

(D) Small Golf Course and Marina with No Land Sale - TVA would approve the marina plans, and allow the construction of the par-3 golf course on TVA land, but not make the requested land available for sale.

(E) Applicant's Proposal with Mitigation - TVA would approve the new marina plans, allow the construction of the par-3 golf course, and modify the current land management plan to allow the sale of the requested land for development as described under Alternative B, but with enhanced mitigation measures including a 256 acre land exchange.

Under any alternative, construction and operation of a commercial recreation and residential project is likely on the 539 acres of private land already owned by Rarity Communities. TVA has no control over this property and Rarity Communities has informed TVA that it will develop the property regardless of the decisions TVA may make respecting its requests. However, this EIS evaluates the impacts associated with the development of the entire property in order to provide a better comparison of the impacts of TVA's decision.

AFFECTED ENVIRONMENT

The EIS includes discussion of the potential effects of alternatives on the following resources: visual resources, cultural resources, threatened and endangered species, terrestrial ecology, wetlands, recreation (including boating increases), water quality, aquatic ecology, air quality, and socioeconomics.

The Tellico Reservoir offers a variety of natural characteristics ranging from gently rolling valleys to mountains, and from the clear-stream entrance that the Little Tennessee makes below Chilhowee Dam to the large flat lake behind Tellico Dam. Rarity Pointe project lands are located in east-central Loudon County just south of the confluence of the Tennessee and Little Tennessee Rivers, on the east side of Tellico Reservoir at Lower Jackson Bend. The project lands are a peninsula with steep to moderate forested hills on the up-stream side graduating to lower and flatter terrain on the down-stream side with an interior of forests and old fields.

The proposed project lands were surveyed for botanical and animal resources. Approximately 88 percent of the project lands can be described in terms of three broad vegetation types: old fields, riparian zones, and upland woodlands. Vegetation types on the property include moderate sized hardwoods, occasional pine groves, and pines with beetle damage intermixed hardwood with cedar and substantial deciduous undergrowth. The remaining 12 percent was cleared of all vegetation prior to the initiation of botanical surveys. No uncommon plant communities or otherwise sensitive plant habitats were observed during field surveys of the proposed project lands. There are no federally-listed and five Tennessee state-listed plant species known from within five miles of the proposed project lands. Surveys for botanical resources conducted on project lands indicated that no state- or federal-listed plant species are present.

Terrestrial animal species found within the project lands are generally common and have widespread distributions. No uncommon wildlife communities were observed within the project lands during field investigations. Grazing has greatly reduced the amount of understory vegetation that is important to many wildlife species, including songbirds. Wildlife in the project lands includes species commonly found in deciduous woodlands, pine and cedar woodlands, and early successional habitats. No uncommon wildlife communities were observed within the project lands during field investigations. With the occasional exception of wintering bald eagles, no federally-listed terrestrial animals have been reported from areas within three miles of the project lands or from Loudon County, Tennessee. Four protected terrestrial animal species, which have not been previously reported from the vicinity, may find suitable habitat on project lands. These are the bald eagle, which is federally-threatened, the Indiana bat, which is federally-endangered, and the southeastern shrew and sharp-shinned hawk, which are listed as In Need of Management in Tennessee. No additional protected animals are known or are expected to occur on the mitigation lands involved in this proposal.

Tellico Reservoir resembles mainstream reservoirs in depth and average annual drawdown, but Tellico's cold water inflows and greater retention time (compared to mainstream reservoirs) encourage thermal stratification, which occurs throughout much of the reservoir during the summer months. Most of the discharge from Tellico Reservoir flows through the navigation canal into Fort Loudon Reservoir. Therefore, only the warmer surface layers are discharged and water below about 25 feet is trapped, in the forebay, by thermal stratification and becomes anoxic during much of the summer.

Rarity Pointe Commercial Recreation and Residential Development on Tellico Reservoir

The ecological health of Tellico reservoir was rated poor by TVA in 2001. The low flows resulting from the extended drought contributed to lower than usual dissolved oxygen (DO) concentrations and higher chlorophyll concentrations. In addition, bottom-dwelling organisms rated poor and the fish community rated fair. The most notable trend for Tellico Reservoir is increase in chlorophyll levels, which suggest increased nutrient loading to the reservoir. Much of the shoreline of Tellico Reservoir is surrounded by residential and industrial areas, and the immediate watershed has significant amounts of agricultural land and dispersed residential area, resulting in relatively high pollutant loadings. Most of the site of the planned development is wooded. The state of Tennessee has designated Tellico Reservoir as not supporting its designated uses, because of sediments contaminated by polychlorinated biphenyls (PCB) which is a carcinogen. The state advises against eating catfish from Tellico because of PCB contamination.

Aquatic habitats in the reach fronting the Rarity Pointe development vary from the moderately steep with scattered small bluffs near the river channel, to typically shallower coves in areas further from the river channel, and the northern reach of shoreline in the vicinity of the proposed par-3 golf course. The deeper, western shoreline of project lands is wooded. In areas where the shoreline is presently undeveloped and therefore mostly wooded, fallen trees and brush provide woody cover. Rock is an important constituent of the littoral aquatic habitat over much of the Lower Jackson Bend shoreline, in either the form of bedrock outcrops or a mixture of rubble and cobble on steeper shorelines or gravel along shallower shorelines.

The overall average shoreline aquatic habitat index (SAHI) score at Tellico was 22.2 (out of a possible 35), which indicates generally "fair" shoreline aquatic habitat within the reservoir. The shoreline along the west side of the peninsula rated "good", as did the entire shoreline of Parcel 8. The shoreline of Parcel 9 rated "good" along the cove where it joins Parcel 8, and "fair" from the mouth of that cove to the eastern end of the area of Parcel 9 proposed for sale.

The Little Tennessee River historically supported a diverse group of fish, mussels, and other aquatic life, including several State- and Federal-listed species. However, none of these species are likely to occur in this portion of the Little Tennessee River as no suitable habitat for these species currently exists within the impounded area of Tellico Reservoir or on the project lands.

Ten small wetlands were identified in the Rarity Pointe project area with a total acreage of 1.25 acres. With the exception of two former farm ponds, these are jurisdictional and alterations would be subject to permitting requirements under Section 404 of the Clean Water Act.

The reservoir receives substantial boating use as a result of the 14 existing public access areas, private residential docks, community docks, and two commercial marinas. There are four commercially operated campgrounds and four privately owned 18-hole golf courses available for public use. Also available for recreation are the Fort Loudoun State Historic Park, Tellico Blockhouse State Historic area, the Tanasi Memorial recreation area, a local park at Vonore, and a newly completed day use area at the Tellico Dam Reservation. No overnight lodging exists at any reservoir recreation area and TVA's land serves as the major provider of public open space. Overnight lodging is available at nearby cities and towns, including Lenoir City and Vonore.

The 2000 Land Plan allocates two properties for commercial recreation which are currently undeveloped: a tract in Vonore (Monroe County), Tennessee and an area at Bat Creek which belongs to TRDA. TVA is considering a proposal from EPCI for the Vonore tract. Also a greenway was designated by TVA on the eastern shore of the Reservoir which was intended to create an interconnecting trail system with day use areas and access nodes at appropriate intervals, on nine tracts of TVA Land, including the land requested. The approximately 118 acres of requested land is part of a contiguous block of TVA eastern shore land allocated for public use. Typical activities allowed include camping, hiking, bird watching, bank fishing, and wildlife viewing. The coves fronting the eastern shore property provide protected, undeveloped areas for boaters. These parcels are accessible by boat and foot.

The 216 acres of former TRDA property allocated for commercial recreation use in anticipation of being developed as a commercial recreation resort and now owned by Rarity Communities is restricted by deed to be used only for commercial recreation purposes. Allowable uses include a lodge, spa, golf course, vacation homes, and restaurants. Facilities constructed on this property cannot be used for primary residences.

A 68-slip marina was previously located on the 4-acre proposed marina site in 1987 and remained in existence until 2001, when all docks and others facilities were removed. The par-3 golf course is proposed on 5 acres of TVA land between the 820-foot contour and adjacent waters of Tellico Reservoir. Both of these proposals are consistent with the allocated land uses and existing rights.

No archaeological resources eligible or potentially eligible for listing in the National Register of Historic Places were identified on the Lower Jackson Bend tract. However, a Mid-19th century cemetery, Wyly Cemetery, was recommended for avoidance. The Tennessee State Historic Preservation Officer (SHPO) concurred with these findings.

The visual landscape surrounding the project area is a rural ridge and valley countryside where the reservoir is the dominant scenic feature. The east bank is forested with one rock bluff just downstream of the project site. The back-lying lands have a pastoral character where woodlands are seen intermixed with farmsteads, pastures, and scattered homes. It is a notable contrast to the suburban character of residential areas in Tellico Village on the west bank.

The approximately 118 acres of requested TVA land are moderately sloping woodland ridges that form peninsulas along the eastern bank of Lower Jackson Bend. The natural woodland character of this land has pleasing attributes but no uniquely distinct physical features.

The 2000 Land Plan identified the requested sale property as a major residential viewshed. In the 2000 Land Plan, Parcel 9 was allocated to protect the Tellico Village viewshed and undisturbed woodland coves, and was considered a suitable scenic greenway corridor along the east side of the reservoir. The plan also indicates Parcel 8 would be managed for activities such as picnicking and hiking rather than commercial development, and that regardless of use the visual values would receive a high priority.

The former TRDA property (216 acres) is a prominent peninsula about a mile long and bordered by TVA lands on each side with a series of moderately sloping woodland ridges similar to the TVA parcels upstream. The wooded shoreline and coves along the west side

are similar to those along the TVA parcels. Tree cover on the tract was about 40 percent moderate sized hardwood, with the balance consisting of relatively young pine and a few small meadow areas. The overall visual character is in transition because project construction has begun. Trees have been removed in several large areas and exposed earth slopes and heavy equipment operations are visible in the planned lodge, marina, and residential areas. The natural character of this tract has typical reservoir landscape attributes but no unique physical features, so the scenic attractiveness is common. Due to construction, the attractiveness is declining along with visual tranquility and harmony. Scenic integrity has been moderately high, but is declining at the same pace as the expanding construction and development alterations. Visual sensitivity is high and the overall scenic value class has been good but is declining.

The remaining project lands (323 acres) are back-lying properties with a rolling pastoral area of moderately steep ridges separated by gently sloping drainages that border the TVA parcels and extend east to U. S. Highway 321. About a third of the tract is open meadow and the balance is a mix of hardwood and pine stands with a few farmstead buildings remain on the tract. The landscape character of the back-lying land is typically pastoral with no uniquely distinct physical features, so the scenic attractiveness is common. Scenic integrity is moderate since human alteration is noticeable but not dominant. Visual sensitivity is moderate and the overall scenic value class is fair.

Loudon County, Tennessee had an estimated 2000 population of 39,086. Loudon County population has been growing much faster than the labor market area (LMA), the state, and the nation in the previous decade. In 2000, the County had an average labor force of 21,280 workers, of which 740 (3.5 percent) were unemployed, which is below the LMA (3.6 percent), the state (4.5 percent), and the nation (4.8 percent). The County has a far greater share of farming employment than the LMA, the state, and the U.S. Manufacturing employment share in Loudon County also exceeds that of the LMA, the state, and the U.S. In contrast, services account for a smaller share of employment. Per capita personal income in 2000 was 26,241 dollars, just above the state figure (25,946 dollars), but below the national figure (29,469 dollars). Between 1990 and 2000, the county gained ground on the nation in terms of per capita income, increasing from 80.1 percent to 89.1 percent of the national average.

The 2000 population of Loudon County consists of 4.8 percent minorities, less than the LMA (9.5 percent), and far less than the state (20.8 percent) and the nation (30.9 percent). The poverty rate was 10.0 percent, again, less than the LMA (12.5 percent), state (13.5 percent), and nation (12.4 percent). The poverty rate for the census tract containing the proposed development is 7.3 percent.

There are two Prevention of Significant Deterioration Class I areas within 62 miles of Tellico Reservoir. The Great Smoky Mountains National Park is 19 miles to the southeast of the Rarity Pointe location, and the Joyce Kilmer/Slickrock Wilderness Area is 26 miles to the southeast. Currently there are no designated National Ambient Air Quality Standards nonattainment areas at or near the proposed development location.

ENVIRONMENTAL CONSEQUENCES

Under the **No Action Alternative**, a development would still be constructed on the private property and former TRDA property at lower Jackson Bend. The facilities would likely be the same but would be concentrated on Rarity Communities existing property. The TVA

land would continue to be available for the uses described in the 2000 Land Plan including the greenway and trail. Although there would be no loss of public land, there would continue to be a significant loss of visual resources and degradation of terrestrial ecology, wetlands, water quality, and aquatic ecology by the likely continued development of private project land. There would be a potential loss of habitat for two sensitive species. The small par-3 golf course and marina with dredge would not be permitted; however, other recreation opportunities would continue, including a full sized regulation golf course. The overall socioeconomic benefits associated with the continued development of the site on the existing privately owned land would occur with slightly fewer jobs and tax revenue.

Under **Alternative B**, the recreational resort community would be constructed as proposed with a full service marina with dredge including dry storage and restaurant, an 18-hole and a par-3 golf course, and lodge guest accommodations. The socioeconomic benefits resulting from the Rarity Pointe Development would be slightly enhanced with the sale of TVA property. However, there would be a notable loss of visual quality and adverse impacts to terrestrial ecology, wetlands, water quality, and aquatic ecology to both the involved public and private project land. There would be a loss of recreation opportunities. A greenway and trail would not be established on the sold public land. There would be a potential loss of habitat for two sensitive species and cumulative terrestrial habitat loss due to the loss of public land on Tellico reservoir. The potential loss of function and values of jurisdictional wetlands; and some water quality, aquatic and terrestrial ecology impacts would be mitigated. Overall Alternative B achieves the applicant's purpose and need with the least cost to the applicant, but has the greatest environmental impact on natural resources.

Under **Alternative C**, a recreational resort community would be constructed as proposed with the exception that the residences proposed on TVA land would be placed on existing private land. The socioeconomic benefits would be the same as Alternative B. However, there would be a loss of visual resources and adverse impacts of terrestrial ecology, wetlands, water quality, and aquatic ecology to both the involved public and private project land. The proposed land exchange at Wildcat Rock (60 acres) would result in a minor loss of industrial land with an increase in the amount of public land on Tellico Reservoir, but it would not completely mitigate for the loss of terrestrial habitat or lost recreation opportunities. A loss of some recreation opportunities would be somewhat offset by the provision of vehicle access to the remaining TVA land on Parcel 8 and 9 where a greenway and trail could be considered. There would be less loss of potential habitat for two sensitive species and there would be cumulative terrestrial habitat loss due to the loss of public land on Tellico reservoir, although these losses would not be as severe as with Alternative B. Impacts to jurisdictional wetlands; and some of the water quality, aquatic and terrestrial ecology impacts would be mitigated. Alternative C achieves most of the applicant's purpose and need but with less environmental impact on natural resources than Alternative B.

Under **Alternative D**, a recreational resort community would be constructed as proposed except that the residences and parts of the large golf course would be placed on existing private land. The socioeconomic benefits would be the same as Alternatives B and C. However, there would be a loss of visual quality and adverse impacts to terrestrial ecology, wetlands, water quality, and aquatic ecology to both the involved public and private project land. There would not be a loss of TVA land but also there would not be vehicular access to Parcels 8 and 9. There would be less loss of potential habitat for two sensitive species and no terrestrial habitat loss on Tellico reservoir. Impacts to jurisdictional wetlands; and some water quality, aquatic and terrestrial ecology impacts would be mitigated. Overall

*Rarity Pointe Commercial Recreation and
Residential Development on Tellico Reservoir*

Alternative D partially achieves the applicant's purpose and need with less environmental impact on natural resources than Alternative B and C.

Under **Alternative E**, the recreational resort community could be accomplished as proposed. The socioeconomic benefits would be similar to Alternative B. However, there would be a loss of visual quality. Although there would be some adverse impacts to terrestrial ecology, wetlands, water quality, and aquatic ecology to both the involved public and private project land, these impacts would be offset by the proposed land exchange at Wildcat Rock (256 acres). The net result would be an increase in public lands on the Tellico Reservoir and a minor loss of industrial land. There would still be impacts to the residential viewshed of Tellico Village. There would be increased recreation opportunities with the exchanged land and the creation of a trail terminal on Parcel 6 and pedestrian access across Rarity Pointe property which could provide continuation of the greenway and trail along the eastern shore of Tellico Reservoir. There would be a loss of potential habitat for two sensitive species. Impacts to jurisdictional wetlands; and some water quality, aquatic and terrestrial ecology impacts would be mitigated. Overall Alternative E achieves the Applicant's purpose and need with the least environmental impact to natural resources while providing a net increase of land under public control and more recreation opportunities. TVA has selected Alternative E as its preferred alternative in the EIS.

TABLE OF CONTENTS

1.	PURPOSE OF AND NEED FOR ACTION	1
1.1.	Purpose	1
1.2.	Background	3
1.3.	Permits and Approvals Needed.....	5
1.4.	Other Pertinent Environmental Reviews or Documentation.....	5
1.5.	The Scoping Process	6
1.5.1.	Important Environmental Issues to Be Addressed In Detail.....	8
1.5.2.	Probable Non-Significant Environmental Issues	9
1.5.3.	Responses to Comments on the DEIS.....	9
2.	ALTERNATIVES INCLUDING THE PROPOSED ACTION.....	11
2.1.	The Proposed Action	11
2.2.	Alternatives	11
2.2.1.	Alternative A – The No Action	13
2.2.2.	Alternative B – Applicant’s Proposal.....	13
2.2.3.	Alternative C – Partial Land Sale with Mitigation.....	18
2.2.4.	Alternative D – Small Golf Course and Marina with No Land Sale	18
2.2.5.	Alternative E – Applicant’s Proposal with Mitigation.....	21
2.3.	Alternatives and Mitigation Eliminated From Detailed Consideration	21
2.4.	Comparison of Alternatives	24
2.5.	The Preferred Alternative	26
3.	AFFECTED ENVIRONMENT	29
3.1.	Terrestrial Ecology.....	29
3.2.	Aquatic Ecology.....	33
3.3.	Threatened and Endangered Species.....	36
3.4.	Water Quality	39
3.5.	Wetlands and Floodplains	41
3.6.	Recreation	43
3.7.	Cultural Resources	47
3.8.	Visual Resources.....	48
3.9.	Socioeconomics	55
3.10.	Air Quality	58
4.	ENVIRONMENTAL CONSEQUENCES.....	59
4.1.	Terrestrial Ecology.....	59
4.2.	Aquatic Ecology.....	66
4.3.	Threatened and Endangered Species.....	70

Rarity Pointe Commercial Recreation and Residential Development on Tellico Reservoir

4.4.	Water Quality	73
4.5.	Wetlands and Floodplains	77
4.6.	Recreation	80
4.7.	Cultural Resources	89
4.8.	Visual Resources	90
4.9.	Socioeconomics	97
4.10.	Air Quality	102
4.11.	Unavoidable Adverse Effects	103
4.12.	Relationship of Short-Term Uses and Long-Term Productivity.....	103
4.13.	Irreversible and Irretrievable Commitments of Resources	103
4.14.	Energy Resources and Conservation Potential	103
4.15.	Proposed Mitigation Measures.....	103
5.	LIST OF PREPARERS.....	107
6.	LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS TO WHOM COPIES ARE SENT.....	111
7.	SUPPORTING INFORMATION.....	119
7.1.	Literature Cited	119
7.2.	Glossary of Terms	123
7.3.	Index.....	127

LIST OF APPENDICES

APPENDIX A – APPLICANT’S PROPOSAL	A-1
APPENDIX B – PUBLIC INVOLVEMENT AND RESPONSES TO COMMENTS.....	B-1
APPENDIX C – WETLAND INFORMATION AND MITIGATION PLAN	C-1
APPENDIX D – TERRESTRIAL ECOLOGY INFORMATION	D-1
APPENDIX E – CORRESPONDENCE	E-1
APPENDIX F – WATER QUALITY INFORMATION.....	F-1
APPENDIX G -- RECREATION INFORMATION.....	G-1

LIST OF TABLES

Table 2-1.	Comparison of Alternatives.....	25
Table 3-1.	Major Land Cover Types for Rarity Pointe Project Lands	31
Table 3-2.	Federal and State Listed Plant Species - Reported From Within Five Miles of the Proposed Project Lands, in Loudon County, Tennessee	36
Table 3-3.	Federal and State Listed Aquatic Animals - Reported From the Little Tennessee River, Loudon and Monroe Counties, Tennessee.....	39
Table 3-4.	Wetlands in and Adjacent to Rarity Pointe Assessment Area	42
Table 3-5.	Boating Accidents in Tennessee	47
Table 3-6	Criteria for Visual Resource Evaluation and Classification	49-51
Table 3-7.	Population	55
Table 3-8.	Unemployment, 2001 (annual average)	56
Table 3-9.	Employment by Industry, 2000 (Full-time and Part-time Workers).....	56
Table 3-10.	Per Capita Personal Income.....	57
Table 3-11.	Minority and Low-Income Population	58
Table 4-1.	Land Cover Data for Area Within One-fourth Mile of Tellico Reservoir, Upstream to Chilhowee Dam	65
Table 4-3.	Estimated Vessels at One Time From Various Reservoir Facility Types in the Boating Use Zone.....	83
Table 4-4.	Scenarios Representing Different Use Levels in the Boating Use Zone by Weekend Day and Holiday Weekend Day and Number of Acres per Vessel	84
Table D-1.	Land Cover Types Present on the TVA Lands and Mitigation Lands.....	D-11
Table D-2.	Relative Quality of Terrestrial Ecology Resources Present on TVA Lands and Mitigation Lands.....	D-12

LIST OF FIGURES

Figure 1-1. Tellico Reservoir and Vicinity	2
Figure 2-1. Rarity Pointe Proposal.....	12
Figure 2-2. Alternative A - No Action	14
Figure 2-3. Alternative B - Applicant's Proposal	15
Figure 2-4. Alternative C - Partial Land Sale with Mitigation	19
Figure 2-5. Alternative D - Small Golf Course and Marina with No Land Sale	20
Figure 2-6. Alternative E - Land Sale with Mitigation.....	22
Figure 2-7. Morganton Cemetery Mitigation Site	23
Figure 3-1. Shoreline Aquatic Habitat Index Ratings for Rarity Pointe.....	35
Figure 4-1 Shoreline Aquatic Habitat Index Ratings for Wildcat Rock	69
Figure 4-2 Rarity Pointe Boating Zones.....	81
Figure G-1 Wildcat Rock Proposed Land Use Allocations	G-1
Figure G-2 Conceptual Site Plan for Greenway Trailhead	G-2