

## 2.4.7 Alternative 4

Alternative 4 would increase the amount of Limited Development area compared to the No Action Alternative by converting all Protected areas that do not have an existing license agreement for use of the government shoreline to Limited Development. This alternative represents the end of the range of alternatives that emphasizes private shoreline uses and recreational development opportunities over natural resource conservation. Alternative 4 includes the following main components:

- With the exception of the one specific request to change the existing Protected allocation to Public Recreation, all unencumbered Protected shoreline areas (*i.e.*, areas that are not leased to other agencies or organizations) would be converted to Limited Development regardless of suitability for docks.
- In the MP, only the “wildlife management” classification would remain unchanged and all of the “environmentally sensitive area”, “low density recreation”, “vegetation management” and “future/inactive recreation” would be converted to “low density recreation” (with the exception of the Carlton Landing area, which would be converted to “high density recreation”).
- The vegetation management policies would be changed to apply the baseline buffer vegetation management zone policy.
- MP land use classifications maps would be revised to be consistent with the SMP shoreline allocations.
- The shoreline allocations at Carlton Landing on the north side of Longtown Arm would be changed from Protected to Public Recreation. The similar request by the City of Eufaula to convert a Limited Development area to Public Recreation would also be implemented. A third request to reduce the amount of existing Public Recreation through conversion to Limited Development would be approved.
- The lease request for a marina and other public shoreline recreational facilities at Carlton Landing would be granted.
- A channel through the standing timber in Longtown Arm would be cleared to allow boat access around Roundtree Landing to the southwest side of Carlton Landing and more direct access to the town center.

### 2.4.7.1 Shoreline Allocations and Land Use Classifications

Changing most of the unencumbered Protected shoreline areas to the Limited Development under this alternative would result in an 76 percent increase in shoreline miles in the Limited Development allocation. There would be 480 miles of Limited Development allocated under this alternative.

Protected allocated shoreline miles would be reduced from 431 miles under the No Action Alternative to 217 miles under Alternative 4; a 50 percent decrease. Public Recreation allocated shoreline miles would increase by 8 miles compared to the No Action Alternative for a total of 111 miles under Alternative 4; an eight percent increase. The corresponding High Density Recreation land use allocations would increase by 43 acres at the Carlton Landing area and by a net total of 2 acres with approval of the individual zoning requests. In addition, 258 acres at Carlton Landing which is currently classified as High Density Recreation would no longer be managed as Future/Inactive Recreation as it would be developed with public

recreational facilities. There would be no change to the number of shoreline miles allocated to Prohibited (**Tables 2-7 and 2-8**). **Figures 2-47 through 2-53** illustrate the shoreline allocations proposed under Alternative 4.

Under Alternative 4, which would increase the Limited Development allocated shoreline to 480 miles, there could be a potential maximum of 15,491 docks. While the actual number of docks that could feasibly be constructed would be considerably less due to the physical constraints of the shoreline, this maximum build out scenario illustrates that there is substantial potential for growth in the number of docks under Alternative 4 compared to the existing condition.

Using the projected growth rate in permit applications to project future growth in dock numbers, the maximum potential number of docks allowed under Alternative 4 would be reached in just about 100 years. The potential maximum number of docks under Alternative 3 is almost 78 percent greater than the full build out of the No Action Alternative.

Another limitation on the total number of boat docks and/or the timing at which that number might be reached is the processing time needed to review and approve shoreline permits. Under the projected growth rate in permit applications, the Eufaula Lake Project Office would need to process almost 300 new applications per year during the final decade. This is almost seven times more than the number of new permits that are currently processed annually. The number of staff that would be required to process the new applications in addition to dock renewal permits and required inspections (approximately 20 percent of existing dock permits are renewed each year) would indicate that reaching a milestone of over 15,500 docks in approximately 100 years is unlikely.

#### **2.4.7.2 Vegetation Management Policies**

Vegetation management policies under Alternative 4 would be the same as those described for Alternative 3 and would follow the baseline buffer vegetation management policy summarized in **Table 2-3**. Where high quality habitat occurs that could be impacted by vegetation modification, mowing may be restricted to no more than the first 30- feet of government land immediately adjacent to the private property for fire break purposes only.

#### **2.4.7.3 Proposed Carlton Landing Development (Alternative 4)**

Under Alternative 4, the USACE-owned shoreline along Carlton Landing shoreline and to the north of the proposed development would be changed from Protected to Public Recreation (**Figure 2-49**). The MP classification would remain High Density Recreation and the management practice for the area would change from Multiple Resource Management – Future/Inactive Recreation to High Density Recreation. This change would affect 258 acres and another 43 acres of Low Density Recreation would change to High Density Recreation for a total area of 301 acres. Approximately 5.8 miles of shoreline would be converted from Protected to Public Recreation (including on Roundtree Landing). There would be no changes to the Limited Development-designated areas along the south side of Longtown Arm. Additionally, the associated lease necessary for the construction and operation of a marina and other public shoreline recreational facilities would be approved.

Under Alternative 4, it is anticipated that there would be full build-out of proposed recreational facilities and uses on USACE lands along the shoreline; all of the amenities summarized in **Table 2-5** would be developed, including the proposed 275 to 300 boat slip marina and the nature center. The marina is proposed to begin operations in 2014.

Following the approval of the rezone and issuance of a lease for the use of government land, development of Carlton Landing on adjacent private lands would proceed as proposed. As described under the No Action Alternative, the first stage of development, located in the southeastern corner of the Carlton Landing development area, closest to the town center, began in early 2011 and includes construction of utilities to up to 170 lots. Completion of this first stage of residential development would be anticipated to take five to seven years.

Subsequent stages of development on the adjacent private lands would be anticipated to extend northwest from the shoreline of Eufaula Lake and would eventually include development of the 2,570 homes as summarized in **Table 2-4** on 1,650 acres. As described in Section 2.3.3, full build-out of the planned development would also include a Kindergarten through twelfth grade school, an organic farm, a town center, community pools, public open spaces, and dog parks. Residential and mixed-use development would be expected to be fully constructed and sold at a rate of approximately 79 lots per year over a 25 to 30 year timeframe depending on market demand.

#### **2.4.7.4 Individual Zoning Requests under Alternative 4**

Individual zoning requests to change Protected shoreline areas to Limited Development allocations may be approved under Alternative 4 if the shoreline area is not encumbered with an existing license agreement with another agency or organization. The following individual zoning requests would be approved under Alternative 4. In addition, the request to change a small area of Limited Development to Public Recreation in Eufaula (Zoning Request #3) and the request to change an area of Public Recreation to Limited Development (Zoning Request #9) would be considered under this alternative. Zoning Requests #4, 5, 6, 7, and 10, which would maintain the existing zoning would be approved. Each request is described in detail in Section 2.3.4.

- **Zoning Request #2 – Dam North Eufaula Cliffs:** This request is to change a Protected shoreline area to Limited Development. This zoning request meets the general conditions for a change of shoreline allocation under Alternative 4. Although this zoning request could be approved under Alternative 4, the same conditions of the endangered species consultation on the American burying beetle would apply to Alternative 4 if it were selected. Under those conditions, the government lands in this area would be needed for beetle habitat protection as described under the Preferred Alternative. Therefore, approval of this zoning request would be infeasible.
- **Zoning Request #3 – Lake Eufaula Association:** This request is to change a Limited Development area to Public Recreation. This zoning change would affect approximately 0.3 miles of shoreline and 9 acres of government land.
- **Zoning Request #8 – Falcon Tree:** This request is to change a Protected shoreline area to Limited Development.
- **Zoning Request #9 – Saltsman’s Orchard:** This request is to change a Public Recreation area to Limited Development. This zoning request would affect approximately 0.1 miles of shoreline and 7 acres of government land.
- **Zoning Request #11 – Stone Ridge Estates:** This request to change the shoreline east of Highway 9 to Stone Ridge Estates from Protected to Limited Development would be approved.

- **Zoning Request #12 – Breckenridge Estates:** This request to change the shoreline between Highway 9 and Highway 69 from Protected to Limited Development would be approved except for the area in the cove immediately east of Highway 69.
- **Zoning Request #13 – Fame Creek:** This request to change the shoreline from Protect to Limited Development would be approved.

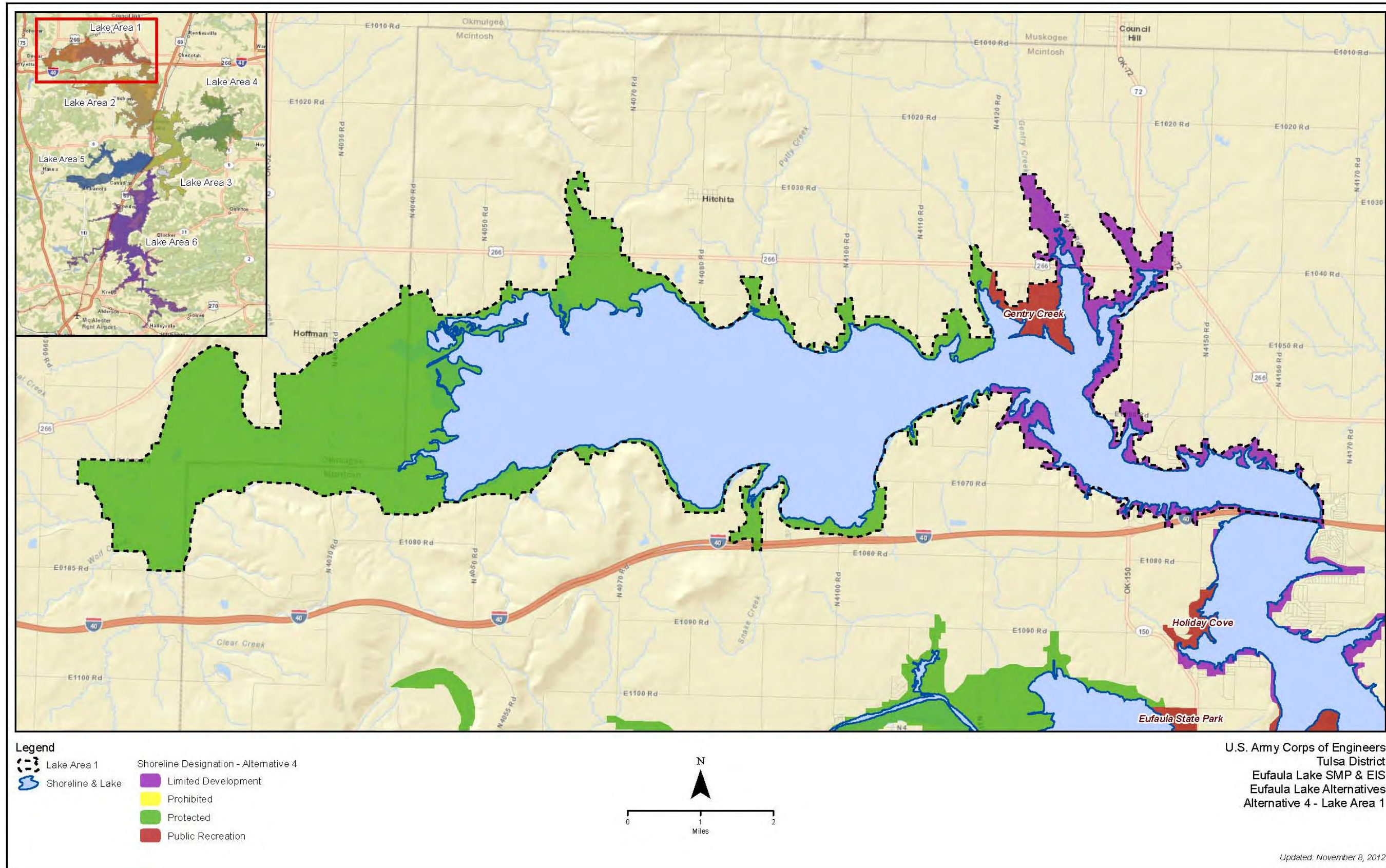


Figure 2-47. Alternative 4 Lake Area 1

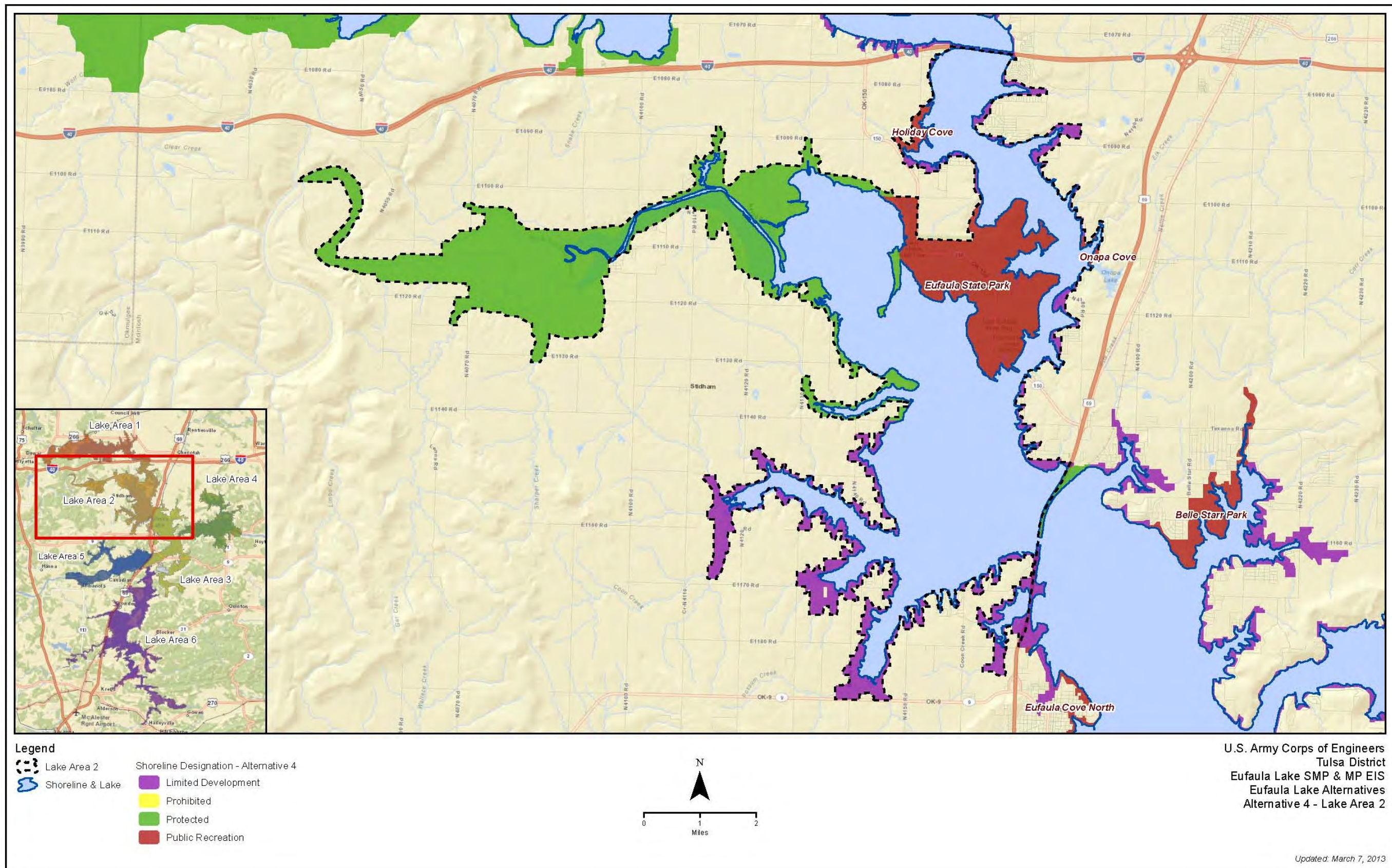
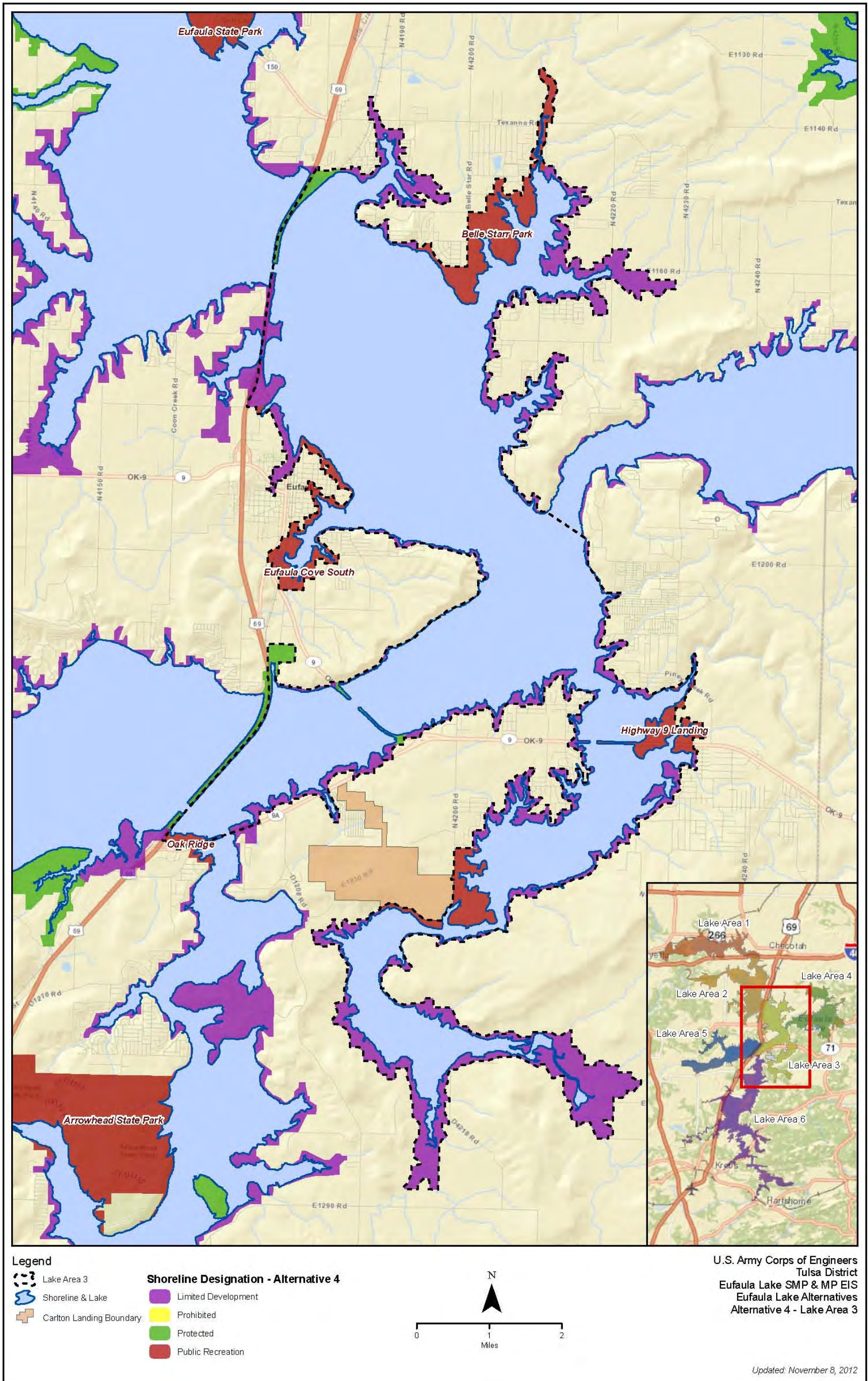


Figure 2-48. Alternative 4 Lake Area 2



U.S. Army Corps of Engineers  
Tulsa District  
Eufaula Lake SMP & MP EIS  
Eufaula Lake Alternatives  
Alternative 4 - Lake Area 3

Updated: November 8, 2012

Figure 2-49. Alternative 4 Lake Area 3

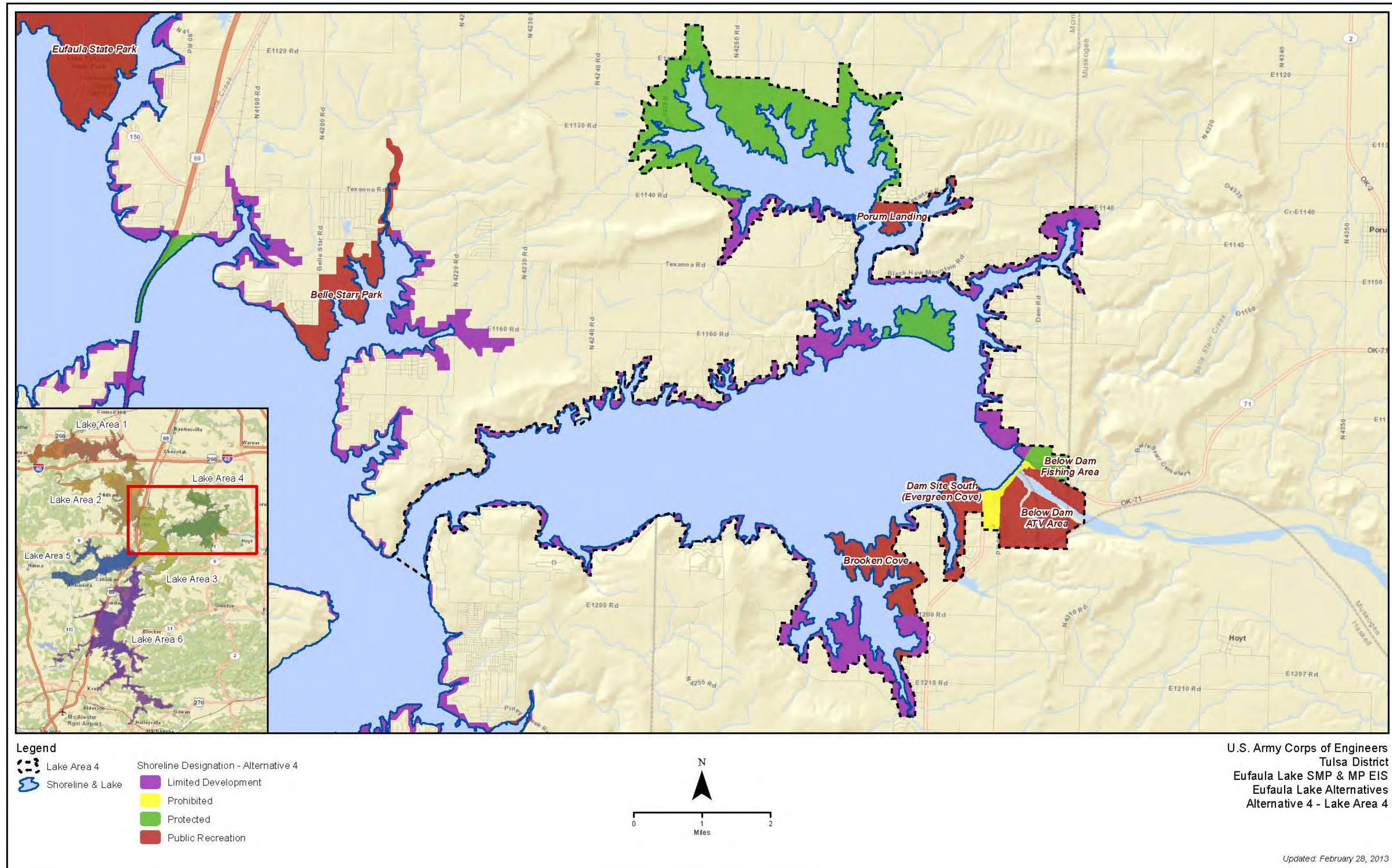


Figure 2-50. Alternative 4 Lake Area 4



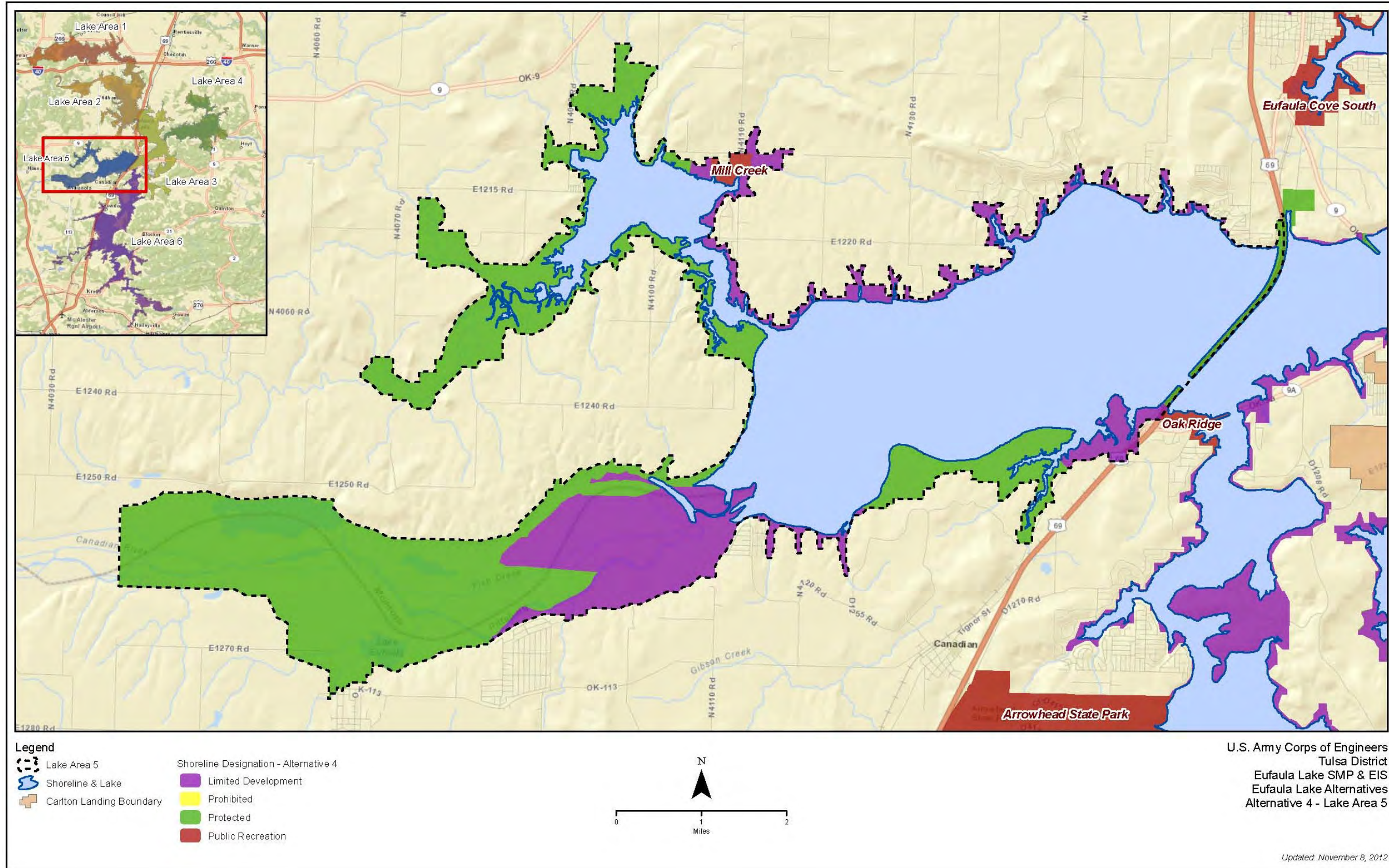


Figure 2-51. Alternative 4 Lake Area 5

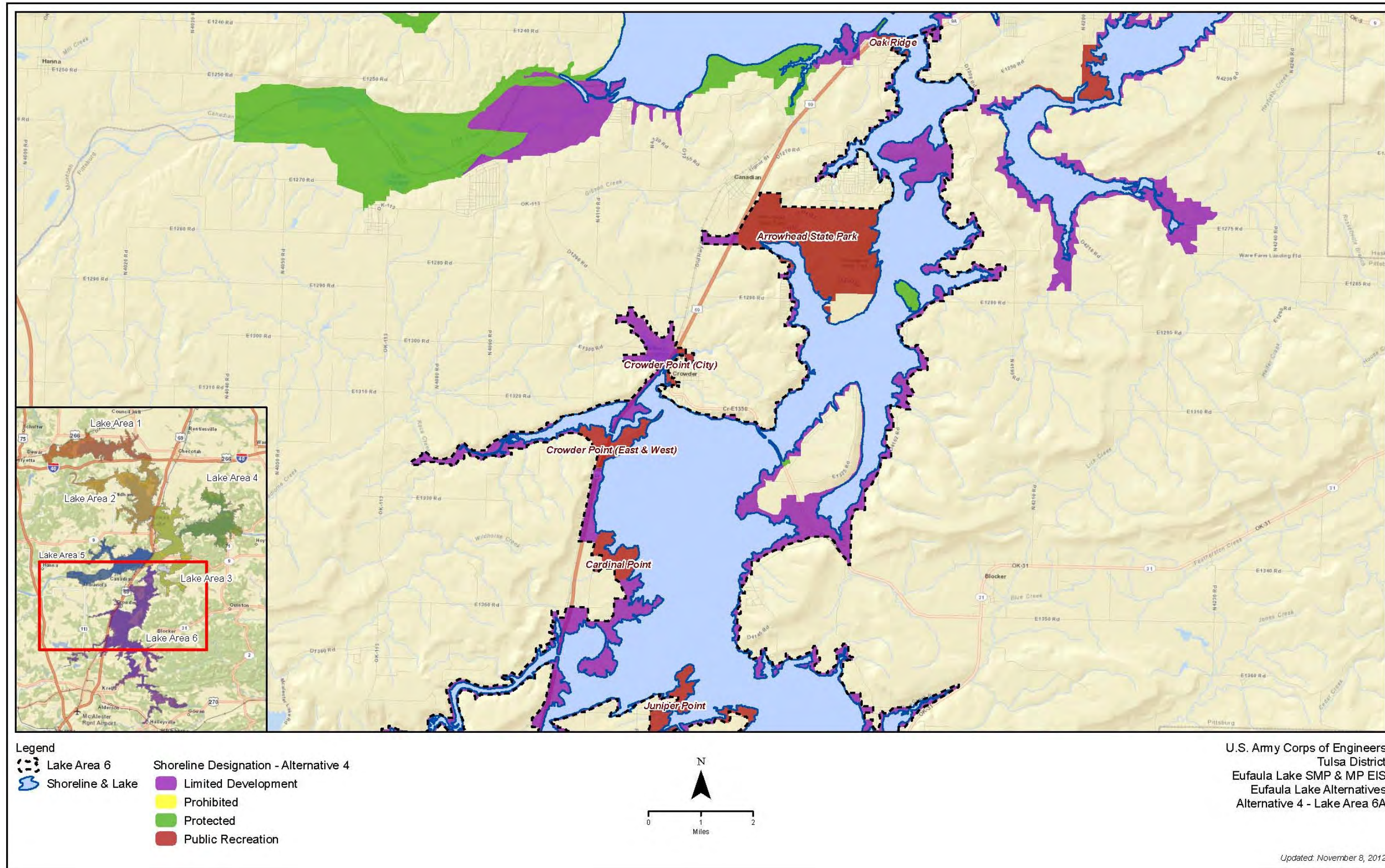
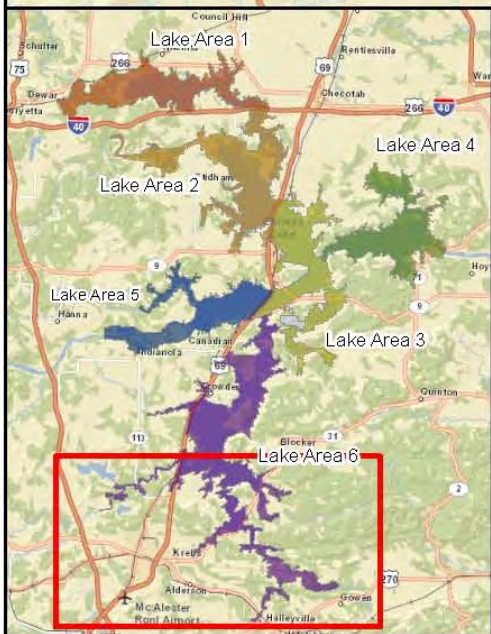
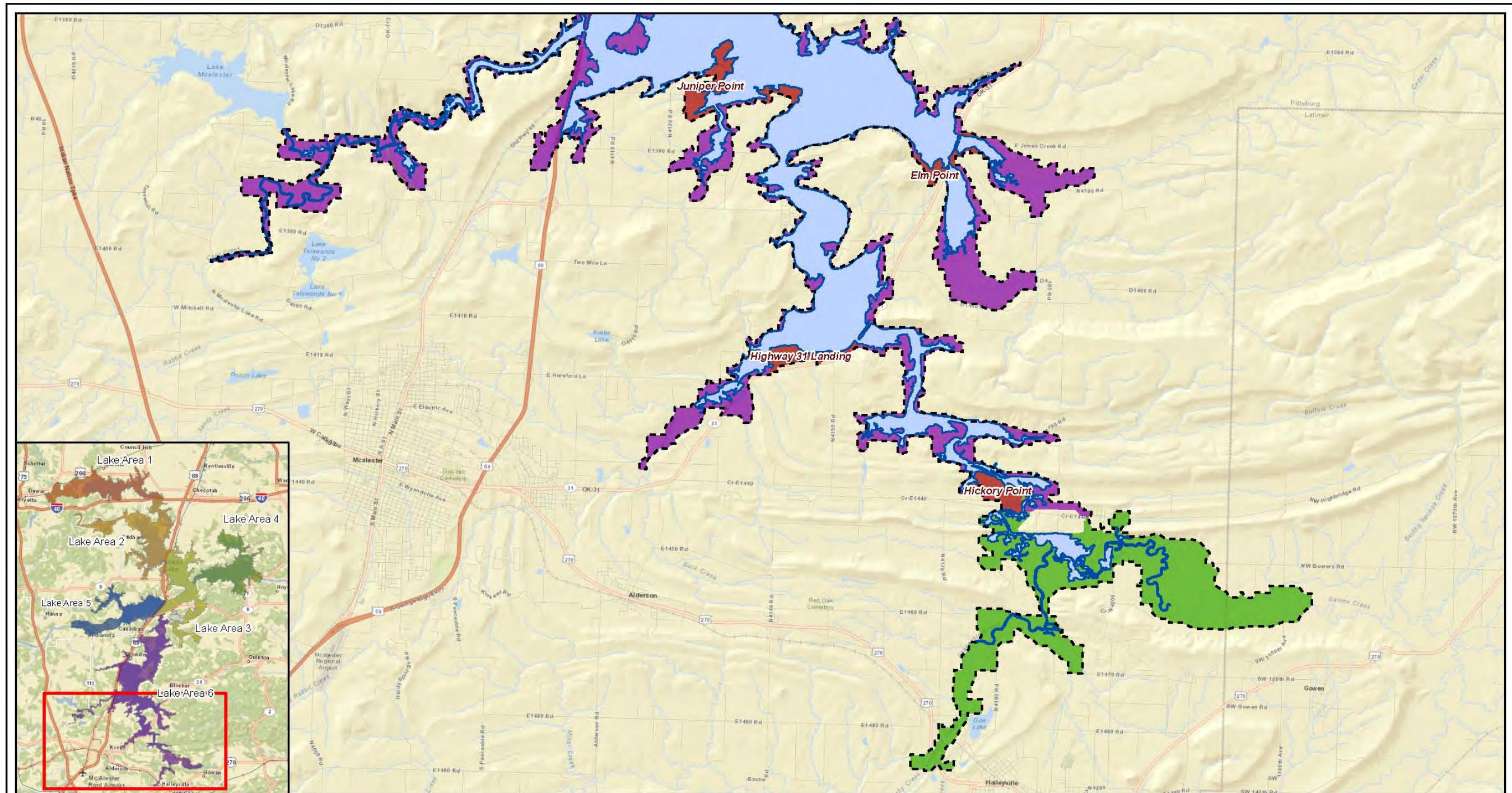


Figure 2-52. Alternative 4 Lake Area 6A



- Legend**
- ⬜ Lake Area 6
  - ⬜ Shoreline & Lake
  - ⬜ Shoreline Designation - Alternative 4
  - ⬜ Limited Development
  - ⬜ Prohibited
  - ⬜ Protected
  - ⬜ Public Recreation

U.S. Army Corps of Engineers  
 Tulsa District  
 Eufaula Lake SMP & MP EIS  
 Eufaula Lake Alternatives  
 Alternative 4 - Lake Area 6B

Updated: June 18, 2012

Figure 2-53. Alternative 4 Lake Area 6B

### 2.4.8 Summary of Potential Impacts by Alternative

**Table 2-14** summarizes the potential impacts by alternative. Alternatives are compared to the No Action Alternative. The existing condition for each resource category is described in Chapter 3. Potential impacts of each alternative are described by resource area in Chapter 4. Potential cumulative effects are described in Chapter 5.

After consideration of potential effects, it was determined that there would be minimal to no effect on a number of resource categories. These resource categories are listed below and are not included in **Table 2-14**, nor are they discussed in either Chapter 3 or Chapter 4. The detailed descriptions of the existing condition for these resource categories and the analysis of potential effects are found in Appendix H of the Final EIS.

- Agricultural Lands
- Air Quality
- Climate Change and Greenhouse Gas Emissions
- Water Supply, Flood Storage, and Operation
- Hazardous Materials
- Navigation
- Energy
- Land Use Compatibility
- Public Infrastructure and Utilities
- Social Services and Community Facilities
- Environmental Justice

Although there were no significant effects identified related to socioeconomics and demographics, issues were raised during scoping related to socioeconomic concerns. The issues raised during scoping were primarily related to honoring the expectations of property owners who had purchased land adjacent to the lake with the expectation that they would be able to construct new or maintain existing private docks. Since socioeconomics and demographics were raised as a scoping issue, they are discussed in Chapter 3, Affected Environment and Chapter 4, Environmental Consequences of the Final EIS. Since there are no identified effects, this issue is not included in **Table 2-14**.

Table 2-14. Summary of Impacts by Alternative

Resource Category	No Action	Preferred Alternative	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Unavoidable Impacts
Vegetation, Wetlands, and Aquatic Habitats	Loss of terrestrial vegetation types, especially forest cover due to increase in potential development and recreation; potential for disruption of natural hydrology, increase in sediment and nutrient input; introduction and dispersal of invasive species; and/or impact existing populations of rare, unique and imperiled vegetation.	Loss of terrestrial vegetation types, especially forest cover due to increase in potential development and recreation; potential for disruption of natural hydrology, increase in sediment and nutrient input; introduction and dispersal of invasive species; and/or impact existing populations of rare, unique and imperiled vegetation.	None – beneficial effect	Not significant	Loss of terrestrial vegetation types, especially forest cover due to increase in potential development and recreation; potential for disruption of natural hydrology, increase in sediment and nutrient input; introduction and dispersal of invasive species; and/or impact existing populations of rare, unique and imperiled vegetation.	Loss of terrestrial vegetation types, especially forest cover due to increase in potential development and recreation; potential for disruption of natural hydrology, increase in sediment and nutrient input; introduction and dispersal of invasive species; and/or impact existing populations of rare, unique and imperiled vegetation.	Loss of terrestrial habitats on adjacent private lands would be significant under the Preferred Alternative and Alternatives 3 and 4.  See Section 4.1.8 for potential mitigation measures.
Fish and Wildlife	Not significant	Adverse impact on American burying beetle at Carlton Landing. Removal of 43 acres of standing timber in the lake at Carlton Landing would adversely affect fisheries.	None – beneficial effect	Not significant  Vegetation buffers may provide localized beneficial effects for some species and maintain habitat connectivity.	Loss of terrestrial and aquatic habitat due to increased potential development and recreation.  Vegetation buffers may provide localized beneficial effects for some species and maintain habitat connectivity.	Loss of terrestrial and aquatic habitat due to increased potential development and recreation.  Adverse impact on American burying beetle at Carlton Landing. Removal of 43 acres of standing timber in the lake at Carlton Landing would adversely affect fisheries.  Vegetation buffers may provide localized beneficial effects for some species and maintain habitat connectivity.	Alternatives 3 and 4: Loss of terrestrial habitats on adjacent private lands would be significant. Preferred Alternative and Alternative 4 would have an adverse impact on American burying beetle and Fisheries at Carlton Landing.  See Section 4.2.9 for potential mitigation measures.

Resource Category	No Action	Preferred Alternative	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Unavoidable Impacts
Water Quality	Increases in development and recreation within existing land use designations would continue to degrade water quality through erosion, nutrient transport, and decreased dissolved oxygen	Increases in development and recreation within existing land use designations would continue to degrade water quality through erosion, nutrient transport, and decreased dissolved oxygen  Additional potential for localized increases pollutant loading from shoreline recreational development and use at Carlton Landing.  Vegetation buffers would provide considerable water quality benefits.	None – potential pollutant loading reduced.  Vegetation buffers would provide considerable water quality benefits.	None – potential pollutant loading reduced.  Vegetation buffers would provide considerable water quality benefits.	Pollutant loads would increase due to increased potential levels of development and recreation; potential for further degradation of water quality through increased erosion, nutrient transport, and turbidity.  Vegetation buffers would provide considerable water quality benefits.	Pollutant loads would increase due to increased potential levels of development and recreation; potential for further degradation of water quality through increased erosion, nutrient transport, and turbidity.  Additional potential for localized increases in pollutant loading from shoreline recreational development and use at Carlton Landing.  Vegetation buffers would provide considerable water quality benefits.	Mitigation measures would be required under the Preferred Alternative and Alternatives 3 and 4.  Vegetation buffers under the action alternatives provide considerable mitigation.  See Section 4.3.9 for potential mitigation measures.
Geology, Soils, and Mineral Resources	Potential for erosion and soil loss due to increased development and recreational use.	Potential for erosion and soil loss due to increased development and recreational use.	Not significant.  Vegetation buffers would provide some erosion control benefits.	Potential for erosion and soil loss due to increased development and recreational use.  Vegetation buffers would provide some erosion control benefits.	Potential for erosion and soil loss due to increased development and recreational use.  Vegetation buffers would provide some erosion control benefits.	Potential for erosion and soil loss due to increased development and recreational use.  Vegetation buffers would provide some erosion control benefits.	See Section 4.4.9 for potential mitigation measures.  Vegetation buffers under the action alternatives provide considerable mitigation.
Aesthetics and Visual Resources	Not significant	Visual Impact Assessment Rating “unacceptable” due to loss of forest cover.	Not significant	Not significant	Visual Impact Assessment Rating “unacceptable” due to loss of forest cover.	Visual Impact Assessment Rating “unacceptable” due to loss of forest cover.	Available mitigation measures would not completely address impacts.  See Section 4.5.11 for potential mitigation measures.
Cultural and Historic Resources	145 known sites located along Limited Development shorelines. Mitigation required to avoid impacts.  No effect at Carlton Landing.	145 known sites located along Limited Development shorelines. Mitigation required to avoid impacts.  No effect on USACE lands at Carlton Landing.	6 known sites located along Limited Development shorelines. Mitigation required to avoid impacts.  No effect at Carlton Landing.	106 known sites located along Limited Development shorelines. Mitigation required to avoid impacts.  No effect at Carlton Landing.	196 known sites located along Limited Development shorelines. Mitigation required to avoid impacts.  No effect at Carlton Landing.	243 known sites located along Limited Development shorelines. Mitigation required to avoid impacts.  No effect on USACE lands at Carlton Landing; potential effect on unknown resources on private lands.	Unknown sites on USACE lands would require mitigation to avoid impacts. Unknown sites on adjacent private lands would potentially be affected by indirect impacts.

Resource Category	No Action	Preferred Alternative	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Unavoidable Impacts
Recreation	Boat carrying capacity of the lake would be exceeded.	Boat carrying capacity of the lake would be exceeded.  Localized increase in opportunities for land-based public recreation at Carlton Landing.	Not significant	Boat carrying capacity of the lake would be exceeded.	Boat carrying capacity of the lake would be exceeded.	Boat carrying capacity of the lake would be exceeded.  Capacity of some land-based recreation facilities also exceeded.  Localized increase in opportunities for land-based public recreation at Carlton Landing.	Mitigation measures required for the Preferred Alternative and Alternatives 2, 3, and 4. Mitigation measures may address safety but also result in degradation of recreational experience.  See Section 4.7.8 for potential mitigation measures.
Noise	Increased boating use could create noise levels out of character for rural setting at some times in some locations.	Increased boating use could create noise levels out of character for rural setting at some times in some locations.	Not significant	Increased boating use could create noise levels out of character for rural setting at some times in some locations.	Increased boating use could create noise levels out of character for rural setting at some times in some locations.	Increased boating use could create noise levels out of character for rural setting at some times in some locations.	Vegetation buffers and no wake zones implemented under the action alternatives may provide some mitigation but some impacts likely remain.  See Section 4.8.9 for potential mitigation measures.
Transportation	Not significant	Transportation improvements to Highway 9A and potentially Highway 9 would be needed for safety of turning movements at Carlton Landing in 25-30 years.	Not significant	Not significant	Not significant	Transportation improvements to Highway 9A and potentially Highway 9 would be needed for safety of turning movements at Carlton Landing in 25-30 years.	Under the Preferred Alternative and Alternative 4, construction of highway improvements would mitigate traffic impacts; coordination with county and state transportation agencies required.  See Section 4.9.9 for potential mitigation measures.
Public Lands and Access	Not significant	Not significant	Minimal increase in new docks may limit access to lake and result in potential overcrowding at public access points.	Not significant	Not significant	Capacity of some land-based recreation facilities exceeded.	Mitigation under Alternative 4 would require construction of new facilities.  See Section 4.10.9 for potential mitigation measures.

## 2.5 Alternatives Eliminated from Further Analysis

Alternatives eliminated from further consideration were determined to not comply with existing applicable regulations (defined in 36 CFR 327.30) and to not meet the purpose and need. These alternatives are described in more detail in the following sections.

### 2.5.1 Change All Limited Development to Protected (Alternative A)

Under this alternative, all Limited Development designated shorelines would be reallocated to Protected. This alternative was eliminated from further consideration because it does not meet the Purpose and Need as defined in Chapter 1. Specifically, this alternative does not:

- Assure compliance with applicable regulations (36 CFR 327.30(d)(1)).
- Improve recreational opportunities for the public at Eufaula Lake.
- Achieve a balance between private uses and the conservation of natural and cultural resources.
- Provide for the protection of private investments and honor commitments such as permits for floating facilities and existing leases to other agencies or organizations.
- Provide adequate area for future recreational facilities in areas classified as Limited Development shoreline.

This alternative was further determined to be impracticable because it would require all of the docks that currently exist on the lake to be protected under the grandfather clause of 36 CFR 327.30, which could lead to arbitrary and inconsistent interpretation of the regulations.

### 2.5.2 Change All Protected to Limited Development (Alternative B)

Under this alternative, all Protected designated shorelines would be reallocated to Limited Development even those that are currently encumbered with leases granted to other agencies or organizations. Similar to Alternative A, Alternative B was eliminated from further consideration because it does not meet the Purpose and Need as defined in Chapter 1. Specifically, this alternative does not:

- Assure compliance with applicable regulations requiring protection of the environment (36 CFR 327.30(d)(1)).
- Maintain the aesthetic and environmental characteristics of Eufaula Lake.
- Achieve a balance between private uses and the conservation of natural and cultural resources.
- Provide for the protection of public lands and honor commitments such as current license agreements.

This alternative was determined to be impracticable because, by definition, lands that are licensed for fish and wildlife management uses should be classified under the MP classification of Wildlife Management. This land classification is appropriately associated with Protected shoreline allocations under the SMP. If the Protected shorelines were changed to Limited Development, these areas would be inappropriately classified under the MP.



### **2.5.2.1 Individual Zoning Request under Alternative B**

Zoning Request #1 – Duchess Creek Acres I and II – is a request to change a Protected area to Limited Development. This individual zoning request was eliminated from further consideration in this EIS because the shoreline in this area is encumbered by long-term license to ODWC. The request is described in detail in Section 2.3.4.