ALTERNATIVES

The alternatives include four action alternatives and the alternative of no action/continue current management. The major issues related to the visitor center that the action alternatives were designed to address were described in the "Purpose and Need" section. Although the option of continuing current management/no action does not solve these major issues, current conditions are used as the baseline against which the action alternatives are analyzed. Should the No Action Alternative be selected for implementation, the National Park Service would respond to future needs and conditions associated with visitor experience, use, and facilities without major actions or changes from the present course. Key components of this alternative and the existing conditions are described in Table 2.

Table 2 provides a summary of the elements or actions associated with each of the alternatives evaluated in this environmental assessment. The major issues related to the existing visitor facilities that the action alternatives were designed to address were described in the "Purpose and Need" section. This is the context for determining the relative magnitude and intensity of impacts (NPS 2001b). More detailed information on the effects of the alternatives is provided in the "Affected Environment and Environmental Consequences" section.

DEVELOPMENT OF THE ALTERNATIVES

In June 2005, a Value Analysis/Choosing by Advantages workshop was held at Natchitoches, Louisiana. This meeting focused on the review of five potential options developed through internal scoping. An interdisciplinary team comprised of park and heritage area staff and compliance consultants participated in the assessment and evaluation. The team used several criteria to identify a range of alternatives that would effectively meet the project purpose and objectives. The evaluation criteria included:

- Prevent loss of resources;
- Support for partner functions;
- Proximity to national historical park resources;
- Proximity to national heritage area resources;
- Protect public and employee health, safety, and welfare;
- Capability to co-locate the park and heritage area;
- Timeliness of implementation; and
- Provide other advantages to the National Park System.

Using these selection criteria and considering the issues and risk factors, the workshop participants worked to assure the NPS goals and objectives were achieved in a cost-effective manner, assessed consequences and potential impacts of the

options, balanced sustainability and operations efficiency with visitor and interested party expectations, and selected the preferred alternative for the project.

Preliminary development concept site plans for four representative sites were presented at the Choosing by Advantages Workshops, based upon the program requirements for a visitor center for Cane River Creole National Historical Park and Cane River National Heritage Area.

As part of the design analysis and project planning, including a Value Analysis/Choosing by Advantages Workshop, a range of alternatives was considered. Those actions or alternatives that were not realistically feasible or did not adequately meet the project purpose and need were dismissed. A discussion of the actions or alternatives that were eliminated from further consideration follows the description of the No Action Alternative and the four action alternatives.

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TABLE 2: COMPARISON OF THE ELEMENTS OF EACH ALTERNATIVE

Element/Action	Alternative A: No Action/Continue Current Management	**Alternative B: Lime Kiln Road Representative Site**	**Alternative C: Derry Representative Site**	**Alternative D: Waterwell Road Representative Site**	**Alternative E: Waterwell Road Partnership with LaDOTD**
General Concept	Under Alternative A, visitors would still not have a centralized information center for the Cane River National Heritage Area and Cane River Creole National Historical Park. Headquarters for both groups would remain in the city of Natchitoches.	Visitors would have a centralized information center for the heritage area and park, with park and heritage area headquarters also located there.	Visitors would have a centralized information center for the heritage area and park, with only the park headquarters also located there.	Visitors would have a centralized information center for the heritage area and park, with only the park headquarters also located there.	Visitors would have a centralized information center for the heritage area and park, with only the park headquarters also located there. The National Park Service would share a building with the Louisiana Department of Transportation and Development.
Location of Visitor Center	There would be no visitor center under Alternative A.	The visitor center would be located at a representative site at the junction of Highway 6 and Lime Kiln Road.	The visitor center would be located at a representative site in Derry, at the intersection of Highways 1 and 119.	The visitor center would be located just off of I-49 at a representative site on Waterwell Road (Highway 478).	The NPS visitor center would be co-located in a building constructed by the Louisiana Department of Transportation and Development at the junction of I-49 and Waterwell Road (Highway 478).
Access and Entry		Access to the visitor center would be from Highway 6, which runs in-between I-49 and the city of Natchitoches.	Access to the visitor center would be from I-49, Highway I, or Highway 119 in Derry.	Access to the visitor center would be from primarily from I-49.	Access to the visitor center would be from primarily from I-49.

TABLE 2: COMPARISON OF THE ELEMENTS OF EACH ALTERNATIVE

Element/Action	Alternative A: No Action/Continue Current Management	Alternative B: Lime Kiln Road Representative Site	Alternative C: Derry Representative Site	Alternative D: Waterwell Road Representative Site	Alternative E: Waterwell Road Partnership with LaDOTD
Visitor Center Building		The building itself would be constructed in a modified Creole style, with a raised first floor, covered front porch, and a moderate roof pitch. Public areas in the building would include a lobby, exhibit space, auditorium, an all-purpose room and public restrooms.	The building would be the same as Alternative B.	The building would be the same as Alternative B.	The building would be constructed in a modified Creole style by the Louisiana Department of Transportation and Development. A portion would be available for use as a NPS visitor center for the heritage area and park. A shared information/welcome desk would be located at the entrance to the building. Public areas in the building would include a lobby, exhibit space, auditorium, an all-purpose room, and public restrooms located outside with a covered path.
Parking		There would be ten bus/RV parking spaces by the drop off area and approximately 100 auto parking spaces, for visitors and employees.	There would be ten bus/RV parking spaces at the far edge of the main parking lot and approximately 100 auto parking spaces, for visitors and employees.	Two small parking lots would be located on each side of the visitor center, with approximately 100 parking spaces. Across from the drop off area would be 10 bus/RV parking spaces.	Parking for approximately 100 cars would be located along the entry road. Parking for 40 buses, trucks, or RVs would located in a separate, pull-through lot.

TABLE 2: COMPARISON OF THE ELEMENTS OF EACH ALTERNATIVE

Element/Action	Alternative A: No Action/Continue Current Management	Alternative B: Lime Kiln Road Representative Site	Alternative C: Derry Representative Site	Alternative D: Waterwell Road Representative Site	Alternative E: Waterwell Road Partnership with LaDOTD
Zoning and Infrastructure		The visitor center at Lime Kiln Road would be in the city of Natchitoches, and water, gas, electricity, and phone lines would all be available at the site.	The visitor center at Derry would be in Natchitoches Parish, and water, gas, electricity, and phone lines would all be available at the site.	The visitor center at Waterwell Road would be in the city of Natchitoches, and infrastructure would not be available, unless added by the city of Natchitoches as described in their master planning study for the Waterwell Road Corridor.	The visitor center at Waterwell Road would be in the city of Natchitoches, and infrastructure would not be available, unless added by the city of Natchitoches as described in their master planning study for the Waterwell Road Corridor. However, the Louisiana Department of Transportation would meet the appropriate zoning regulations and would obtain the access to water, gas, electricity, and phone lines.

ALTERNATIVE A, NO ACTION/CONTINUE CURRENT MANAGEMENT

Currently, no visitor center exists for either the Cane River National Heritage Area or the Cane River Creole National Historical Park. Under the No Action Alternative, visitors would continue to obtain information on the National Park Service units and the National Heritage Area sites at either the Natchitoches Visitor Center located in downtown Natchitoches or at the specific sites of interest. The main visitor contact for the park units is located at Oakland Plantation. Temporary exhibits, developed at various National Park Service units, would continue to display information about regional historic sites. A small space within the Oakland Plantation would continue to serve as a concessionaire store. Links to community functions and attractions within the Cane River region would also be provided at the sites mentioned above.

Under the No Action Alternative, both the Cane River National Heritage Area and the Cane River Creole National Historical Park administrative offices would remain at their present locations. The park office is located at the south end of town, near industrial buildings. The national heritage area offices are located in downtown Natchitoches, in the historic district.

The No Action Alternative provides a basis for comparing the management direction and environmental consequences of the action alternatives. Should the No Action Alternative be selected for implementation, the Cane River National Heritage Area Commission and National Park Service would respond to future needs and conditions without major actions or changes in the present course.

ALTERNATIVE B, LIME KILN ROAD REPRESENTATIVE SITE

Alternative B includes development on a representative site in the general location of Louisiana State Highway 6 and Lime Kiln Road (see Figure 1 for location map). This location would be most convenient for visitors leaving the interstate and heading for the city of Natchitoches or returning to the interstate from Natchitoches. However, the site is not located near the park units and only some of the sites in the National Heritage Area.

The area around Highway 6 and Lime Kiln Road is somewhat developed and is likely to become more developed in the future. Along the roadside are non-native lawn grasses; secondary-growth pine forest begins a few hundred feet from either Highway 6 or Lime Kiln Road. The soils of this area are well-drained and well-suited for development.

The Interpretive Visitor Center and Headquarters Complex for Alternative B would serve both Cane River National Heritage Area and the Cane River Creole National Historical Park as a regional information facility. The facility would include visitor orientation and would provide an overview of the area's heritage, its resources, and the ongoing efforts to protect and preserve those resources. The facility also would house administrative headquarters offices for both entities. This alternative would

assume the acquisition of approximately 10 acres of land to construct the visitor center (see Figure 3).

Access/Entry. Access to this representative site would occur off Lime Kiln Road. A new traffic signal on Highway 6 to accommodate left turn movements onto Highway 6 from Lime Kiln Road would be constructed.

FIGURE 3: ALTERNATIVE B, LIME KILN ROAD SITE PLAN

Vehicular Circulation/Parking. Vehicular circulation continues from the access road to a drop-off area at the visitor center. Ten bus/recreational vehicle parking spaces would be located immediately adjacent to the drop-off area. The main access drive would continue to loop around an interior parking area which contains approximately 100 automobile parking spaces, for both visitors and employees.

Pedestrian Circulation. Pedestrian circulation would be accommodated through the visitor parking lot via a series of walkways and paving within the travel lanes of the parking lot. A paved arrival plaza would be located at the vehicular dropoff. Vehicular service to the rear of the visitor center would be accommodated by a separate drive terminating at a turn around area.

Visitor Center Building. The schematic floorplan (see Figure 4) for the visitor center in Alternative B would include an open porch along the front façade in keeping with the context of the regional vernacular style. Within the building, public uses would be focused toward the front of the building, with the office space placed to the rear. The lobby would serve as the primary gathering space, opening to the exhibit space

and auditorium. An all-purpose room and public restrooms would be located adjacent to the entry and lobby, allowing the remaining portions of the building to be secured if these public portions of the building are used for evening community functions.

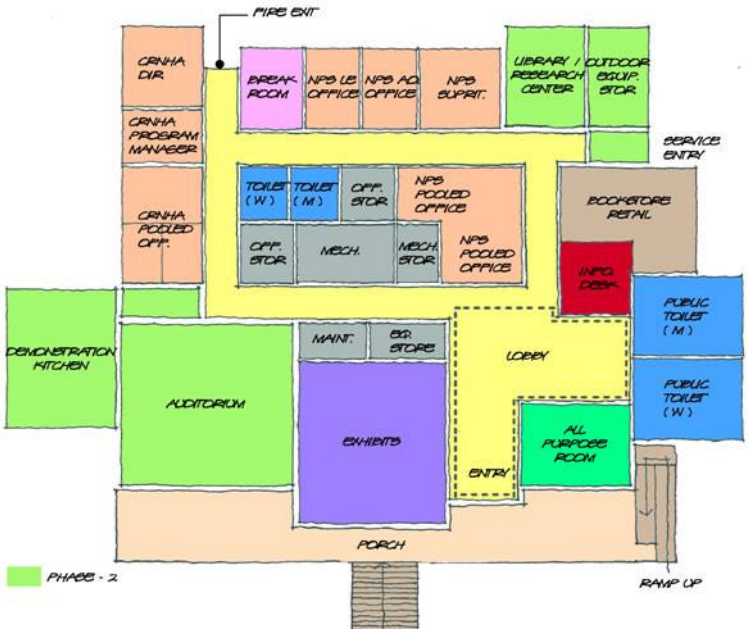

FIGURE 4: ALTERNATIVE B, LIME KILN ROAD BUILDING SCHEMATIC FLOORPLAN

The architectural style of the exterior of the visitor center would reflect the regional Creole influences and would include, a covered front porch along the entire façade of the structure, and a roof with a moderate pitch (see Figure 5).

FIGURE 5: ALTERNATIVE B, LIME KILN ROAD BUILDING CHARACTER IMAGE

Additional Site Amenities. An outdoor classroom would be located onsite next to the visitor center. This area would consist of open lawn area to be utilized for outdoor activities such as group orientation, presentations, and demonstrations. An approximately quarter-mile loop trail would link the arrival plaza and the outdoor classroom, terminating at the eastern edge of the parking lot. To further enhance the visitor experience, the site and building development for Alternative B would strive to limit the removal of mature vegetation.

Utilities/Infrastructure. Electric, sanitary sewers, telephone, and water utility services would be readily available within the general proximity of this representative site and would be extended to service the new visitor center development.

ALTERNATIVE C, DERRY REPRESENTATIVE SITE

Alternative C would involve locating the visitor center in the general location of Louisiana State Highway 119 and Louisiana State Highway 1, near Derry (see Figure 1 for location map). Under this alternative, the visitor center would be located near to the Oakland Plantation and Magnolia Plantation park units and to numerous sites of the national heritage area. However, it would be located further from the city of Natchitoches and its tourism information center.

The area around Highway 1 and Highway 119 south of Natchitoches is primarily agricultural lands in the floodplain of the Red River. Cropland is the primary land type, with some small riparian forests along the river.

The visitor center proposed for Alternative C would be envisioned to serve both Cane River National Heritage Area and the Cane River Creole National Historical Park as a regional information facility that would orient visitors to the Cane River region. It would provide an overview of the area's heritage, its resources, and the ongoing efforts to protect and preserve those resources. This alternative would assume the acquisition of approximately 10 acres of land to construct the visitor center. The facility would house headquarters offices for only the park. Under this alternative, the Cane River National Heritage Area administrative offices would remain in downtown Natchitoches (see Figure 6).

Access/Entry. Access to this representative site would occur off Louisiana State Highway 1. Locating the visitor center building near the Highway 1 and Highway 119 intersection would allow it to be visible to approaching visitors.

Vehicular Circulation/Parking. Vehicular circulation would continue from the access drive along a curved roadway to a drop-off area at the visitor center. The main access drive would loop around an interior parking area that would contain approximately 100 automobile parking spaces for both visitors and employees. Ten bus/recreational vehicle parking spaces would be located on the far edge of this main parking lot. Vehicular service to the rear of the visitor center would be accommodated by a separate drive terminating at a turn around area.

FIGURE 6: ALTERNATIVE C, DERRY SITE PLAN

Pedestrian Circulation. Pedestrian circulation would be accommodated through the visitor parking lot via a series of center island walkways and special paving within the travel lanes of the parking lot. These island walkways would also link the bus/recreational vehicle parking areas to the paved arrival plaza located at the vehicular drop-off.

Visitor Center Building. Since a schematic prototype was developed and then adjusted to the representative site conditions, the schematic floorplan of the visitor center at this location, like Alternative B, would also include an open porch along the front façade in keeping with the regional vernacular style. Within the building, the public uses areas would also be focused toward the front of the building, with the office space placed to the rear. The lobby would serve as the primary gathering space, opening to the exhibit space and auditorium. An all-purpose room and public restrooms would be located adjacent to the entry and lobby, allowing the remaining portions of the building to be secured if these public portions of the building were used for evening community functions. Under this alternative, the heritage area offices would not be in the floorplan, leaving only the National Park Service offices in the building. The floorplan would also include space for the Sheriff's Substation, with direct exterior access if necessary (see Figure 7).

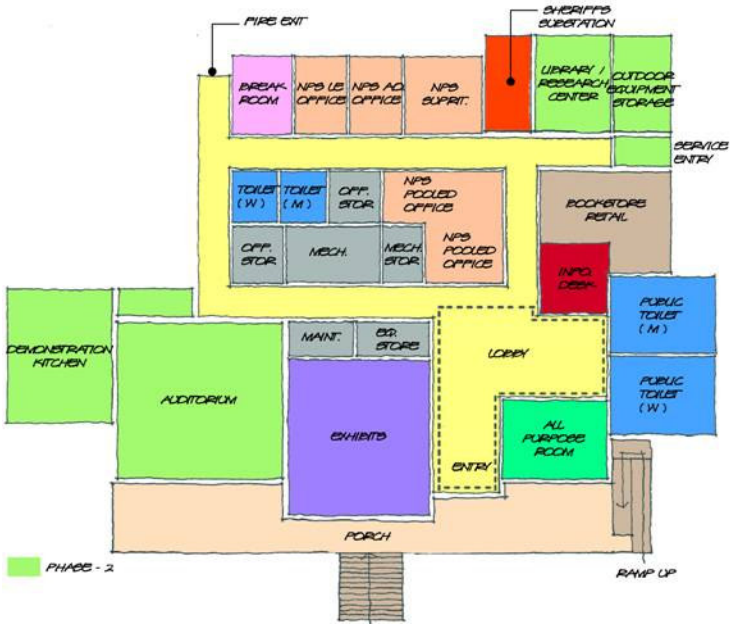

FIGURE 7: ALTERNATIVE C, DERRY VISITOR CENTER SCHEMATIC FLOORPLAN

The architectural style of the exterior of the visitor center would reflect the regional Creole influences and include a raised first floor, a covered front porch along the entire façade of the structure, and a roof with a moderate pitch (see Figure 5, above).

Additional Site Amenities. An outdoor classroom would be located adjacent to the visitor center and parking area. A trail would link the arrival plaza to the outdoor classroom, leading to potential interpretive areas in the adjacent agricultural field.

Utilities/Infrastructure. Electric and telephone services would be available within the general proximity of this site and would be extended to provide service for the new visitor center development. Water would be anticipated to be provided by construction of a new well onsite. The septic sanitary sewer system would need to be either expanded or reconstructed.

In Alternative C, the visitor center site development would occur entirely within the 100-year floodplain. The visitor center structure would be located outside of the floodway as required by Natchitoches Parish Planning and other regulatory agencies. Additional fill would be required by this alternative to raise the finish floor elevation of the building to a minimum elevation of 104.5 feet.

ALTERNATIVE D, WATERWELL ROAD REPRESENTATIVE SITE.

Alternative D includes development of a representative site along Waterwell Road (Louisiana Highway 478) approximately one mile northeast of the Waterwell Road Interchange of I-49 (see Figure 1 for location map).

The area along Waterwell Road is predominantly secondary growth pine forests, with some transitional vegetation along the roadsides. The soils on this site are very slowly permeable.

The Interpretive Visitor Center and Headquarters Complex for Alternative D would serve both Cane River National Heritage Area and the Cane River Creole National Historical Park as a regional information facility that would orient visitors to the Cane River region and provide an overview of the area's heritage, its resources, and the ongoing efforts to protect and preserve those resources. This alternative would assume the acquisition of approximately 10 acres of land to construct the visitor center. It would further assume that a separate LaDOTD information center/rest area would be constructed and occupied by LaDOTD. The interpretive visitor center facility would house headquarters offices for only the National Park Service. Under this alternative, the Cane River National Heritage Area administrative offices would remain in downtown Natchitoches (see Figure 8).

FIGURE 8: ALTERNATIVE D, WATERWELL ROAD SITE PLAN

Access/Entry. Access to this representative site would occur off of Waterwell Road approximately one mile north of the I-49 interchange. Visibility of the visitor center would be improved by the selective clearing of a small portion of the existing trees, in order to direct approaching views toward the visitor center building.

Vehicular Circulation/Parking. Vehicular circulation would continue along a short entry road which would terminate at the drop off area of the visitor center. Two

small parking lots would flank each side of the visitor center, having a combined total of approximately 100 parking spaces for visitors and employees. Both lots would include a generous planted median to reduce the visual impact of the cars. Located directly opposite the drop off/arrival plaza would be a bus/recreational vehicle parking area which could accommodate 10 vehicles. Returning bus/recreational vehicle circulation would be accomplished by a separate one-way loop road. Vehicular service to the rear of the visitor center would be provided by a separate drive terminating at a turn around area.

Pedestrian Circulation. Pedestrian circulation would be accommodated by the placement of center median pathways. Sidewalks along the perimeter edge of the parking lot would collect pedestrians and direct them towards the visitor center building.

Visitor Center Building. Since a schematic prototype was developed and then adjusted to the representative site conditions, the schematic floorplan of the visitor center at this location, like Alternative C, would also include an open porch along the front façade in keeping with the regional vernacular style. Within the building, the public uses would also be zoned toward the front of the building with the office space placed to the rear. The lobby would serve as the primary gathering space, opening to the exhibit space and auditorium. An all purpose room and public restrooms would be located adjacent to the entry and lobby allowing the remaining portions of the building to be secured if these public portions of the building were used for evening community functions. Under this alternative, the Heritage Area offices would be removed from the floorplan, leaving only the National Park Service offices in the building. The floorplan also would include space for the Sheriff's Substation, with direct exterior access if necessary (see Figure 9).

The architectural style of the exterior of the visitor center would reflect the regional Creole influences and would include a raised first floor, a covered front porch along the entire façade of the structure, and a roof with a moderate pitch (see Figure 5, above).

Additional Site Amenities. An outdoor classroom would be located onsite next to the visitor center. This area would consist of open lawn area that would be utilized for outdoor activities such as group orientation, presentations and demonstrations. A loop trail would link the arrival plaza and the outdoor classroom, continuing into the surrounding forest area. To further enhance the visitor experience, the site and building development for Alternative D would strive to limit the removal of mature vegetation.

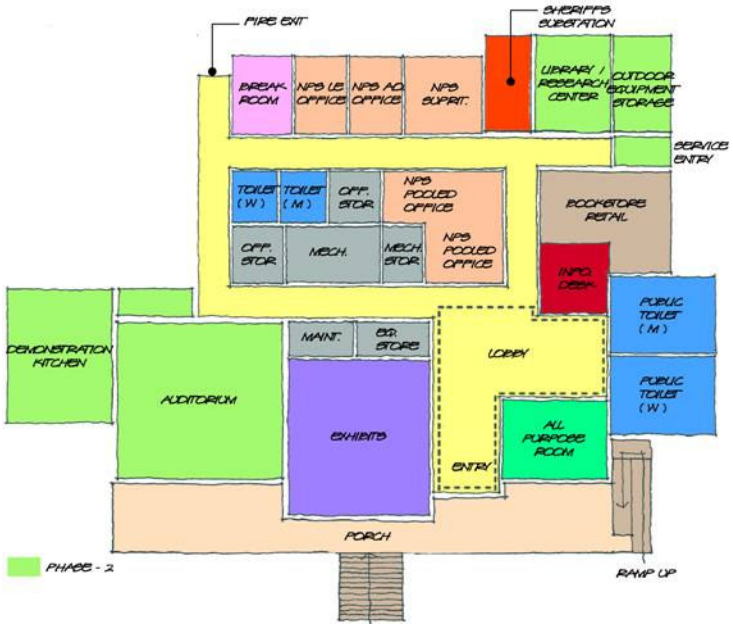

FIGURE 9: ALTERNATIVE D, WATERWELL ROAD VISITOR SCHEMATIC FLOORPLAN

Utilities/Infrastructure. Electric, sanitary sewers, telephone, and water utility services would be anticipated to be extended along Waterwell Road by the city of Natchitoches. In addition, improvements to Waterwell Road would be anticipated to be completed by the city of Natchitoches including road widening and repaving.

ALTERNATIVE E, WATERWELL ROAD REPRESENTATIVE SITE WITH LOUISIANA DEPARTMENT OF TRANSPORATION AND DEVELOPMENT PARTNERSHIP, THE PREFERRED ALTERNATIVE

Alternative E would accomplish the Cane River Creole National Historical Park/ Cane River National Heritage Area visitor center by co-locating within the Natchitoches Rest Area and Information Center (Figure 10), to be constructed by the Louisiana Department of Transportation and Development, at the Waterwell Road interchange of I-49 (see Figure 1 for location map). Impacts to resources and values under Alternative E are analyzed based upon the assumption that the facilities are already constructed by the Louisiana Department of Transportation. See the "General Methodology" section in "Affected Environment and Environmental Consequences" for further explanation.

The Interpretive Visitor Center and Headquarters Complex for Alternative E would serve as a coordinated primary point of visitor contact for the Cane River Creole National Historical Park, Cane River National Heritage Area, and the entire region (see Figure 10). It is planned to meet the needs of all participating partners including the National Park Service, the Cane River National Heritage Area, and the Louisiana

Department of Transportation and Development (LaDOTD). For LaDOTD, it would serve as a highway rest area. For both the National Park Service and the Cane River National Heritage Area, it would serve as a regional information facility that would orient visitors to the Cane River region and provide an overview of the area's heritage, its resources, and the ongoing efforts to protect and preserve those resources. The facility would house headquarters offices for only the National Park Service. Under this alternative, the Cane River National Heritage Area administrative offices would remain in downtown Natchitoches.

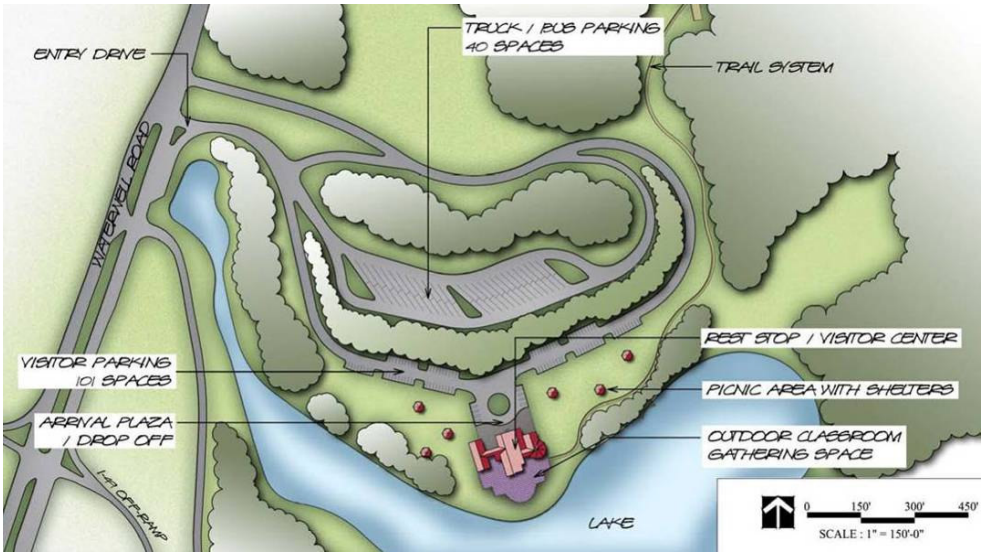

FIGURE 10: ALTERNATIVE E, WATERWELL ROAD/LADOTD PARTNERSHIP SITE PLAN

Access/Entry. Access to the visitor center would occur via a deceleration lane on Waterwell Road, accommodating northbound traffic from I-49. A one-way entrance road would lead visitors to the site. Exiting vehicles would have a separate egress lane. No new signalization would be planned for Waterwell Road at this time.

Vehicular Circulation/Parking. Vehicular circulation would continue a short distance into the site to where the roadway splits, with automobile traffic moving right, and trucks, buses, and recreational vehicles moving left. Parking for approximately 100 cars would be located along the entry drive. Parking for approximately 40 trucks, bus or recreational vehicles would be located in a separate lot with a pull-through configuration. The two separate roadways would converge after leaving the parking area forming a single one-way exit road which would lead to Waterwell Road.

Pedestrian Circulation. Pedestrian circulation would be accommodated through a series of walkways which link both parking areas to the visitor center/rest area building. A paved arrival plaza would be located at the front of the building.

Visitor Center/Rest Area Building. The schematic floorplan (see Figure 11) was developed by adjusting a prototypical LaDOTD rest area building to meet the needs of all the partners. An open porch would be located along the front façade. This porch would be used as a covered connection to the separate public outdoor restroom building serving the needs of the traveling public. An entry lobby would be the hub of the main building, with an exhibit space located to the left. Attached to this exhibit space would be an all-purpose room and a separate small auditorium. The public uses of the building would be focused toward the front of the building, with a separate wing of private office space located at the back of the building. The information/welcome desk would serve as the central point of control and surveillance. A concessioner store would be located adjacent to the welcome desk. A deck attached to the rear of the building, and accessed through the exhibit space, would offer dramatic views of a planned lake located behind the building.

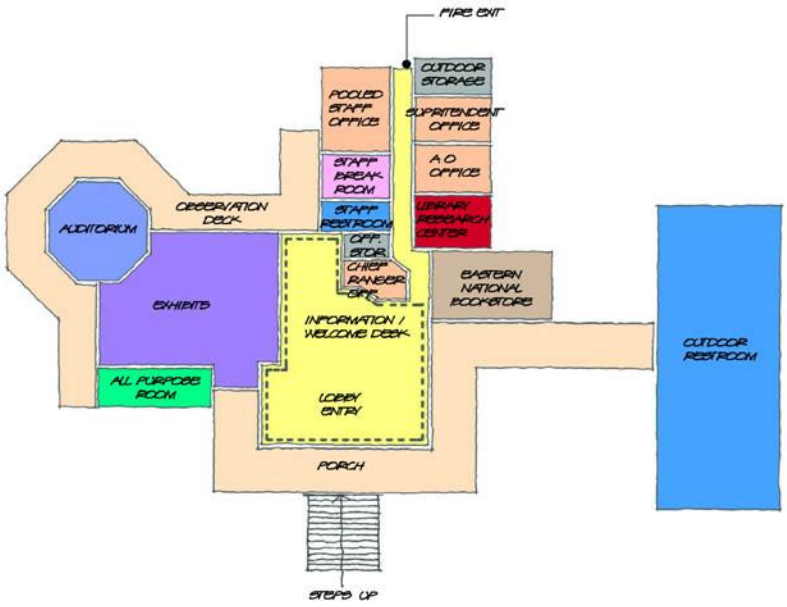

FIGURE 11: ALTERNATIVE E, WATERWELL ROAD/LADOTD PARTNERSHIP REST AREA/VISITOR SCHEMATIC FLOORPLAN

The architectural style of the exterior of the visitor center would be in keeping with the regional vernacular style and would include a covered front porch along the entire façade of the structure and a roof with a moderate pitch in keeping with the regional vernacular style (see Figure 12, which is a photograph of a similar LaDOTD facility in Butte LaRose, Louisiana).

Additional Site Amenities. Alternative E would include the creation of a separate 16-acre lake which would function as an amenity for the facility. The visitor center/rest area building would be oriented to take advantage of views overlooking this lake. A looping trail system would follow the lake edge and continue through the wooded

portions of the site. This system would link to trail systems developed in future phases of the city of Natchitoches master planning study for the area. An outdoor classroom is located toward the rear of the visitor center/rest area building with views of the proposed lake. This area would be intended to be used for outdoor activities such as group orientation, presentations, and demonstrations. Two open lawn picnic areas would flank both sides of the visitor center/rest area building. Included within this area would be stand alone picnic pavilions.

FIGURE 12: ALTERNATIVE E: WATERWELL ROAD/LADOTD PARTNERSHIP BUILDING CHARACTER IMAGE

Utilities/Infrastructure. Electric, sanitary sewers, telephone, and water utility services would be anticipated to be extended along Waterwell Road by the city of Natchitoches.

RESOURCE PROTECTION MEASURES OF THE ACTION ALTERNATIVES

For all action alternatives, best management practices would be used to prevent or minimize potential adverse effects associated with the visitor center project. These practices and measures would be incorporated into the project construction documents and plans to reduce the magnitude of impacts and ensure that major adverse impacts would not occur.

Measures undertaken during project implementation would include, but would not be limited to, those listed in below. The impact analysis in the "Affected Environment and Environmental Consequences" section was performed assuming that these best management practices and mitigation measures were implemented as a part of Alternative E, the Preferred Alternative, and Alternatives B, C, and D.

Practices to Minimize Effects on Cultural Resources

- Ground-disturbing actions would be designed to avoid known archeological sites and historic features.
- Recognizing that there might be a time gap between the Finding of No Significant Impact (FONSI) for this environmental assessment and development of the final construction plans and drawings, additional archeological investigations, as appropriate, would be undertaken in areas potentially affected by project construction. These investigations would be conducted by an archeologist meeting the Secretary of the Interior's standards. Investigations would help determine the levels of previous disturbance and would aid in avoidance of archeological resources.
- Discovered resources would be evaluated for their significance, and, if needed, mitigation measures would be developed in consultation with the Louisiana State Historic Preservation Office. Best management practices would emphasize changes in project design to avoid and protect sites and features and/or could include archeological monitoring of the project and data recovery.
- Resource protective measures would be included in construction documents to ensure that the contractor did not disturb sensitive areas. Areas for contractor activities would be clearly delineated (staked) on the ground to ensure that activities occurred only in designated areas. Construction documents would include stop-work provisions should archeological resources be uncovered, and the contractor would be apprised of these protective measures during the pre-construction conference.
- All project documentation, including but not limited to plans, photographs, and notes, would be permanently retained in the park's museum collection.
- Areas containing sensitive cultural resources would be identified in the construction operations plan. Work limits would be established and clearly marked to protect resources, and all protection measures would be clearly stated in the construction specifications. Workers would be instructed to avoid conducting activities beyond the construction zone and their compliance would be monitored by the project contracting officer's technical representative.
- To reduce unauthorized collecting, construction personnel would be educated about cultural resources in general and the need to protect and report any cultural resources encountered. Work crews would be instructed regarding the illegality of collecting artifacts on federal lands to avoid any potential Archeological Resources Protection Act violations.

Practices to be Implemented following the Discovery of Unknown Archeological Resources or Human Remains

- If previously unknown archeological resources or human remains were discovered, work would be stopped in the area of the discovery and the park would consult with traditionally associated peoples, the National Park Service Southeast Archeological Center, the State Historic Preservation Officer and the Advisory Council on Historic Preservation, as appropriate. Procedures outlined in 36 Code of Federal Regulations 800 and the Native American Grave Protection and Repatriation Act (NAGPRA) would be followed.

Practices to Minimize Effects on Paleontological Resources

- Construction documents would include stop-work provisions should paleontological resources be uncovered, and the contractor would be apprised of these protective measures during the pre-construction conference.
- If paleontological resources were discovered, work would be stopped in the area of the discovery, and resources were either stabilized or collected immediately. Stabilization with appropriate consolidants and then reburial would be an interim measure to retard the erosion process, giving the park and heritage area time to assess the importance of the resource and what actions to take.

Practices to Minimize Effects on Threatened and Endangered Species and Wildlife

- A qualified biologist would identify state-listed plant species that could be affected by the project and investigate the potential for relocating individual plants.
- Other state-listed plants that were present and adjacent to areas affected by the project would be marked and protected with fencing or other means.
- Construction and stabilization activities would not be allowed at night. This would allow birds to roost and forage in areas near the project without disturbance.
- Workers would maintain a defined work area perimeter and would keep all construction-related impacts within the affected area.
- Workers would be educated on the dangers of intentional or unintentional feeding of wildlife and on inadvertent harassment through observation or pursuit.

Practices to Minimize Effects on Visitor Experiences

- All construction areas would be closed to visitor access and appropriately marked and flagged for avoidance.
- Contractor staff would be trained to lessen the adverse effects of construction activities on visitor use and experience, and activities would be monitored to ensure the success of this training.
- Strategies and information would be developed to incorporate the construction activities into the park's interpretive program and would be posted at selected locations to enhance interpretation and visitor understanding of the project.
- All construction equipment would be equipped with mufflers kept in proper operating conditions, and, when possible, equipment would be shut off rather than allowed to idle. Standard noise abatement measures would include a schedule that minimizes impacts to adjacent noise-sensitive areas, use of the best available noise control techniques wherever feasible, and use of hydraulically or electrically powered impact tools when feasible.

Practices to Minimize Effects on Water Quality

- Best management practices would include identifying and staking limits of clearing and grading, installing silt fences, establishing a controlled area for construction material and equipment, and preparing a sediment and erosion control plan to minimize the potential for adverse impacts to floodplain values and resources.
- The storage of construction materials would occur surrounded on edge by silt fencing to prevent siltation from heavy runoff during rainstorms or snowmelt. Stockpiling of materials would occur in areas of previous disturbance, as would storage of other materials with the potential to cause sedimentation. Adequate erosion control or drainage structures would be installed and maintained.
- An adequate hydrocarbon spill containment system would be available onsite, in case of unexpected spills in the project area.

Practices to Minimize Effects on Soils and Vegetation

- Standard erosion control best management practices, including silt fencing, would be used at sand stockpiles to control sediment generation and transport. Construction and contractor billeting activities would be contained within designated boundaries to reduce effects on vegetation. At completion of the project, highly disturbed areas would be restored, which could include soil preparation and reseeding with native vegetation.
- To minimize disturbance to the surrounding soil and vegetation, the construction limits would be marked prior to beginning any work under the proposed contract. Construction limits would remain marked until completion of the contract to ensure no disturbance to native vegetation beyond the narrowly defined area.
- Imported soils and other materials would be specified sterile and weed free. Erosion control would be in the form of sterile matting. To prevent accidental introduction of weed seed, only use of certified weed free straw bales could occur. High pressure washing of heavy equipment used in foundation construction would occur prior to importation to the site, to minimize the potential for weed seed to be spread into the site. Such equipment would also be inspected regularly to ensure that no leaks are present that could result in contamination of the site's environment.

Practices to Minimize Effects to Air Quality

- Contractors shall implement vehicle emissions controls such as keeping equipment properly tuned and maintained in accordance with manufacturers' specifications, and implementing best management construction practices to avoid unnecessary emissions (e.g., engines would not idle).
- To the degree possible, impacts would be mitigated by the use of best management practices to reduce generation of dust (e.g., covering loose soil, watering activities).
- The contractor would be encouraged to use carpooling and other techniques that would minimize the trip generation of the construction activity. Shipment of materials in full loads would also be encouraged, and heavy equipment and vehicles would be maintained to minimize pollution generation.

Practices to Minimize Effects on Park and Heritage Area Operations

- By providing adequate training and orientation for construction personnel, the park and heritage area would be better able to reduce the burden of managing and monitoring work associated with the current project.
- Work would be scheduled during the off-peak visitor use season to reduce the burden on park and heritage area staff and enhance the opportunity for park and heritage area staff to manage and monitor the construction effort.
- The contractor would be required to schedule activities in consultation with park and heritage area staff to minimize conflicts with daily park and heritage area operations and other park projects.

Practices to Minimize Effects on Public Health and Safety

- An accident prevention program would be a required submittal. This plan would include job hazard analyses associated with each major phase of the proposed project and would emphasize both worker and public safety. It would include planning for emergency situations, including fires, cave-ins, slides, explosions, power outages, hurricanes, and windstorms. The plan would also take into consideration the nature of the construction and site conditions, including seasonal weather conditions and the degree of risk or exposure associated with the proposed activity. Regular project inspections and safety meetings would ensure the safety of the premises both to construction staff and visitors.
- All trucks hauling demolition debris and other loose materials that could spill onto paved surfaces would be covered or would maintain adequate freeboard.
- Public safety would be ensured both day and night by fencing of the construction limits during project implementation. Unsafe conditions would be inspected for and corrected as soon as possible to minimize the potential for staff or visitor injury.

ALTERNATIVES CONSIDERED BUT DISMISSED

In total, nine sites were initially considered as representative sites for the visitor center. Location with respect to the park units and heritage area sites, as well as distance from I-49 exits, were considered.

Some sites on Highway 6 besides the Highway 6 and Lime Kiln Road representative site were considered, but then rejected because of availability for purchase, traffic concerns, visibility, and/or accessibility.

A site near the Flora interstate exit (Exit 127) was rejected because of poor visibility, potential for flooding, and traffic concerns.

Another site near Highway 478 and Highway 1 was rejected due to its poor visibility and access.

Two sites, a fish hatchery site and a site near Highway 1 bypass were dismissed because of the potential for archeological resources at the sites.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is the alternative that will best promote national environmental policy expressed in the National Environmental Policy Act. The environmentally preferred alternative would cause the least damage to the biological and physical environment and would best protect, preserve, and enhance historical, cultural, and natural resources.

Section 101(b) of the National Environmental Policy Act identifies six criteria to help determine the environmentally preferred alternative. The act directs that federal plans should:

1. Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.
2. Assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings.
3. Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.
4. Preserve important historical, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice.
5. Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities.
6. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

The environmentally preferred alternative would cause the least damage to the biological and physical environment and would best protect, preserve, and enhance historical, cultural, and natural resources. Alternative E, Waterwell Road Representative Site with Louisiana Department of Transportation and Development Partnership, is the environmentally preferred alternative in its ability to best meet the six national environmental goals.

1. Both the No Action Alternative and Alternative E meet this criterion because neither would introduce new disturbance. Under existing conditions, no new facilities would be sited or developed. Under Alternative E, locating the new visitor center in an existing facility would require no additional disturbance associated with construction (e.g., site preparation, excavation, vegetation removal, and wildlife disturbance) beyond what has been completed by LaDOTD. In addition, by co-locating with the rest area, the visitor center would not generate separate needs for heating, cooling, water supply, and other services that are dependent on non-renewable fuels and infrastructure development.

Alternative B, C, and D would all require site preparation and construction, including the potential for effects to archeology and removal of mature vegetation. In addition, new facilities would increase the park and heritage area's use of non-renewable energy and potable water supplies.

2. Effects to public health and safety would not vary among the alternatives and this criterion was not used to select the environmentally preferred alternative.

3. Alternative E would attain the widest range of beneficial uses of the environment without degradation, health and safety risk, or unintended consequences. By co-locating the visitor center in an existing facility, the cultural and historic resources of the park and heritage area would be better interpreted and protected, without adverse effects to natural resources.

   The No Action Alternative provides no measures to enhance public understanding and appreciation of local cultural and historic resources, and, therefore, does not enhance protection. Alternative B, C, and D introduce long-term disturbance (however limited) and are less preferable than Alternative E.

4. The objective of the project is to interpret important historical and cultural resources to better aid in their understanding and protection. By broadening understanding of the region and its Creole culture, the diversity of our American heritage would be better protected for future generations. Each of the action alternatives would adequately address this criterion. However, the No Action alternative would fail to meet this criterion, as understanding would not be enhanced.

5. The alternatives do not differ in their effect on the balance between population and resource use. This criterion was not used in selection of the environmentally preferred alternative.

6. By using an existing facility, Alternative E best protects renewable resources. This alternative eliminates disturbance and reduces the use of energy for heating and cooling over the long term.

COMPARISON OF ALTERNATIVES

Table 3 shows the ability of the five alternatives to meet the project objectives. This provides a way to quickly compare and contrast the degree to which each alternative accomplishes the purpose or fulfills the need identified in the "Purpose and Need" section above.

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TABLE 3: OBJECTIVES AND THE ABILITY OF THE ALTERNATIVES TO MEET THEM

Objective	**Alternative A: No Action/Continue Current Management**	Alternative B: Lime Kiln Road Representative Site	Alternative C: Derry Representative Site	Alternative D: Waterwell Road Representative Site	Alternative E: Waterwell Road Partnership with LaDOTD
Enhance visitor understanding and appreciation of the Cane River Creole culture as specified in the legislation.	The No Action Alternative would not meet this objective, as visitor understanding and appreciation would remain the same.	Alternative B would fully meet this objective, through offering a visitor center with exhibits, presentations, and outdoor interpretation programs.	Same as Alternative B.	Same as Alternative B.	Same as Alternative B.
Improve visitor wayfinding throughout the park and heritage area	The No Action Alternative would not meet this objective, as wayfinding would remain the same.	Alternative B would improve wayfinding through a conveniently located visitor center near the city of Natchitoches, which would orient visitors to park units and heritage sites in the area, with maps, presentations, exhibits, and park staff on hand.	Same as Alternative B.	Same as Alternative B.	Same as Alternative B.

TABLE 3: OBJECTIVES AND THE ABILITY OF THE ALTERNATIVES TO MEET THEM

Objective	**Alternative A: No Action/Continue Current Management**	Alternative B: Lime Kiln Road Representative Site	Alternative C: Derry Representative Site	Alternative D: Waterwell Road Representative Site	Alternative E: Waterwell Road Partnership with LaDOTD
Protect and preserve significant cultural resources related to the Cane River Creole cultural as specified in the legislation	Some cultural resources related to the Cane River Creole culture are protected and preserved under the No Action Alternative, through historic sites, park units, and interpretation of the Creole culture at both park units and heritage area sites.	Alternative B would meet this objective as cultural resources would be better preserved under Alternative B than Alternative A, as the addition of a visitor center for the park and heritage area would provide a central location for information about the Creole culture and interactive cultural activities.	Same as Alternative B.	Same as Alternative B.	Same as Alternative B.
Bring together potential partners to enhance educational opportunities and provide mutual assistance among various agencies.	Alternative A would not include the encouragement of partnerships, because no regional center of information would exist under this alternative. Therefore, this objective would not be met.	Alternative B would meet this objective by actively encouraging formal and informal partnerships with other agencies and organizations.	Same as Alternative B.	Same as Alternative B.	Same as Alternative B, except under Alternative E, a formal partnership with the Louisiana Department of Transportation and Development would occur.

SUMMARY OF IMPACTS

Table 4 briefly summarizes the effects of each of the alternatives on the impact topics that were retained for analysis in this document. More detailed information on the effects of the alternatives is provided in the "Affected Environment and Environmental Consequences" section.

TABLE 4: SUMMARY OF IMPACTS BY RESOURCE TOPIC

Resource Topic	Alternative A: No Action/Continue Current Management	Alternative B: Lime Kiln Road Representative Site	Alternative C: Derry Representative Site	Alternative D: Waterwell Road Representative Site	Alternative E: Waterwell Road Partnership with LaDOTD
Cultural Resources	The No Action Alternative would have no effect on the cultural resources at the representative sites (Lime Kiln Road, Waterwell Road, and Derry). Cumulative effects would be long term, local, minor, and adverse, but Alternative A would make no contribution. Alternative A would not result in impairment of cultural resources.	Only long-term, negligible, adverse impacts to archeological resources would result under Alternative B, and there would be no effects to either cultural landscapes or historic structures. Effects on ethnographic resources would be long-term, moderate, and beneficial. Cumulative effects on cultural resources would be much the same as described for Alternative A. Alternative B would not result in the impairment of cultural resources.	Long-term, negligible to minor, adverse impacts to archeological resources would result under Alternative C. Long-term adverse effects on the area's historic structures and cultural landscapes would be minor. Effects on ethnographic resources would be long-term, beneficial, and moderate. Cumulative effects on cultural resources would be the same as described for Alternative B. Alternative C would not result in the impairment of cultural resources.	Implementation of Alternative D would have no effect on archeological resources, cultural landscapes or historic structures. Effects on ethnographic resources would be long-term, moderate, and beneficial; cumulative effects would be long-term, minor and beneficial. Alternative D would not result in the impairment of cultural resources.	Implementation of Alternative E would have no effect on archeological resources, cultural landscapes or historic structures. Effects on ethnographic resources would be long-term, minor, and beneficial; cumulative effects would be long-term, minor, and beneficial. Alternative E would not result in impairment of cultural resources.

TABLE 4: SUMMARY OF IMPACTS BY RESOURCE TOPIC

Resource Topic	Alternative A: No Action/Continue Current Management	Alternative B: Lime Kiln Road Representative Site	Alternative C: Derry Representative Site	Alternative D: Waterwell Road Representative Site	Alternative E: Waterwell Road Partnership with LaDOTD
Visitor Use and Experience	Effects of continuing current management on visitor use and experience would be long term, moderate, and adverse. Lack of adequate orientation could have an effect on visitor experience. Overall cumulative effects would be long term, regional, minor, and beneficial.	Effects on visitor use and experience from the addition of a centralized visitor center would range from minor to moderate in intensity, and would be long term and beneficial. Cumulative effects would be long term, moderate, and beneficial.	Same as Alternative B.	Same as Alternative B.	Effects on visitor use and experience would range from minor to moderate in intensity, and would be long term and beneficial, except for effects from sharing the national park experience with a rest stop, which would be long term, minor, and adverse. Alternative E would make a long term, minor to moderate, beneficial contribution to cumulative effects, resulting in a total cumulative effect of long term, moderate, and beneficial.

TABLE 4: SUMMARY OF IMPACTS BY RESOURCE TOPIC

Resource Topic	Alternative A: No Action/Continue Current Management	Alternative B: Lime Kiln Road Representative Site	Alternative C: Derry Representative Site	Alternative D: Waterwell Road Representative Site	Alternative E: Waterwell Road Partnership with LaDOTD
Park and Heritage Area Operations	Effects to park and heritage area operations would range from negligible to moderate in intensity and would be long term and adverse. However, the location of the heritage area's headquarters in the city of Natchitoches would have a long term, minor, beneficial effect. The overall cumulative effects would be long term, minor, and adverse.	Effects on park and heritage area operations from a new visitor center and park and heritage area offices would range from minor to moderate in intensity and would be long term and beneficial, except for moving the heritage area headquarters out of town, which would be long term, minor, and adverse. Short term, minor, adverse effects would result from moving offices and directing construction. Overall cumulative effects would be long term, minor to moderate, and beneficial.	Effects on park and heritage area operations would range from minor to moderate in intensity and would be long term and beneficial. The difficult parking situation near the heritage area headquarters would continue to cause negligible, adverse effects. Short term, minor, adverse effects would result from moving offices and directing construction. The overall cumulative effect that would be long term, minor, and beneficial.	Same as Alternative C.	Effects on park and heritage area operations would range from minor to moderate in intensity and would be long term and beneficial. The difficult parking situation near the heritage area headquarters would continue to cause negligible, adverse effects. Short term, minor, adverse effects would result from moving offices. The overall cumulative effect that would be long term, minor, and beneficial.

TABLE 4: SUMMARY OF IMPACTS BY RESOURCE TOPIC

Resource Topic	Alternative A: No Action/Continue Current Management	Alternative B: Lime Kiln Road Representative Site	Alternative C: Derry Representative Site	Alternative D: Waterwell Road Representative Site	Alternative E: Waterwell Road Partnership with LaDOTD
Paleontological Resources	There would be no effect to paleontological resources under Alternative A, as no soils or geology would be disturbed by continuing current management. Alternative A would not result in impairment of paleontological resources.	Effects to paleontological resources would vary from negligible to minor (depending upon if fossils were found in the Cane River Formation) and would be long term and adverse. Cumulative effects would be long term, negligible to minor, and adverse. Alternative B would not result in impairment of paleontological resources.	Alternative C would have no effect on paleontological resources. Cumulative effects of other plans and projects and Alternative C would be the same as described for Alternative A. Alternative C would not result in impairment of paleontological resources.	Effects to paleontological resources would be negligible and adverse under Alternative D. Cumulative effects would be long term, negligible to minor, and adverse. Alternative D would not result in impairment of paleontological resources.	Same as Alternative A.

TABLE 4: SUMMARY OF IMPACTS BY RESOURCE TOPIC

Resource Topic	Alternative A: No Action/Continue Current Management	Alternative B: Lime Kiln Road Representative Site	Alternative C: Derry Representative Site	Alternative D: Waterwell Road Representative Site	Alternative E: Waterwell Road Partnership with LaDOTD
Vegetation	The No Action Alternative would have no effect on the vegetation of the representative sites. Cumulative effects would be long term, local, minor, and adverse, but Alternative A would not result in the impairment of vegetation.	Overall, effects to vegetation would be long term, local, minor, and adverse. Cumulative effects would be long-term, local, minor, and adverse. Alternative B would not result in the impairment of vegetation.	Effects to vegetation would be similar to Alternative B (long term, local, minor, and adverse), although they would occur to row crops instead of a forest. Cumulative effects would be the same as for Alternative B. Alternative C would not result in the impairment of vegetation.	Effects to vegetation would be similar to Alternative B (long term, local, minor, and adverse). Cumulative effects would be the same as for Alternative B. Alternative D would not result in the impairment of vegetation.	There would be no effect to vegetation under Alternative E, as no new facilities would be constructed. Cumulative effects, would be long term, local, minor, and adverse. Alternative E would not result in the impairment of vegetation.

TABLE 4: SUMMARY OF IMPACTS BY RESOURCE TOPIC

Resource Topic	Alternative A: No Action/Continue Current Management	Alternative B: Lime Kiln Road Representative Site	Alternative C: Derry Representative Site	Alternative D: Waterwell Road Representative Site	Alternative E: Waterwell Road Partnership with LaDOTD
Wildlife	There would be no effect to wildlife under Alternative A, because wildlife species and populations would not change on any of the three representative sites. Cumulative effects would be long term, local and regional, minor, and adverse. Alternative A would not result in impairment of wildlife.	Effects to wildlife would be long term, local, minor, and adverse. Loss of individual animals could occur during construction; habitats in the 10-acre site would be altered permanently. Overall cumulative effects would be long term, local and regional, minor, and adverse in nature. Alternative B would not result in impairment of wildlife.	Effects to wildlife would be long term, local, negligible, and beneficial by increasing vegetation diversity and strata, but cropland-preferring species would lose some habitat, resulting in long-term, local, minor, adverse effects. Cumulative effects would be the same as described for Alternative B (long term, local, minor, adverse). Alternative C would not result in impairment of wildlife.	Effects would be the same as for Alternative B in upland habitats. Effects to wildlife species dependent upon scrub/shrub and emergent wetland habitats would be long term, local, and adverse and would range from minor to moderate in intensity. Cumulative effects would be the same as described for Alternative B. Alternative D would not result in impairment of wildlife.	Negligible, adverse effects would occur because of the increased presence of humans near the visitor center. Cumulative effects would be the same as described for Alternative B, except Alternative E would not make a contribution to cumulative effects. Alternative E would not result in impairment of wildlife.

TABLE 4: SUMMARY OF IMPACTS BY RESOURCE TOPIC

Resource Topic	Alternative A: No Action/Continue Current Management	Alternative B: Lime Kiln Road Representative Site	Alternative C: Derry Representative Site	Alternative D: Waterwell Road Representative Site	Alternative E: Waterwell Road Partnership with LaDOTD
Threatened and Endangered Species	Alternative A would have no effect on threatened and endangered species and would make no contribution to cumulative effects, which would be long term, local and regional, minor, and adverse. Alternative A would not result in impairment of threatened and endangered species.	Because this site is previously disturbed, small in size, and low in quality, effects to the red-cockaded woodpecker would be long term, local, minor, and adverse (*may affect/not likely to adversely effect*). Were state-listed plant species to be discovered onsite, effects would be long-term, local, minor, and adverse. Overall cumulative effects would be long term, local and regional, minor, and adverse. Alternative B would not result in the impairment of threatened and endangered species.	Alternative C would have no effect on threatened and endangered species, as actions would be taken only in agricultural land. Cumulative plans and projects would result in long-term, local and regional, minor, adverse impacts to wildlife, with no contribution of effects from Alternative C. Alternative C would not result in impairment to threatened and endangered species.	Effects to the red-cockaded woodpecker would be the same as for Alternative B. Effects to the Southern redback salamander would be negligible and adverse. Were state-listed plant species to be discovered onsite, effects would be long-term, local, minor, and adverse. Overall cumulative effects would be long term, local and regional, minor, and adverse in nature. Alternative D would not result in impairment to threatened and endangered species.	There would be no effects to threatened and endangered species under Alternative E because no new construction activities would occur. Cumulative effects would be the same as described for Alternative C. Alternative E would not result in impairment to threatened and endangered species.

TABLE 4: SUMMARY OF IMPACTS BY RESOURCE TOPIC

Resource Topic	Alternative A: No Action/Continue Current Management	Alternative B: Lime Kiln Road Representative Site	Alternative C: Derry Representative Site	Alternative D: Waterwell Road Representative Site	Alternative E: Waterwell Road Partnership with LaDOTD
Soils	There would be no effects to soils under Alternative A. Alternative A would make no contribution to the cumulative effect of long term, local, minor, and adverse. Alternative A would not result in impairment of soils.	Long-term effects to soils would be local, minor, and adverse. Soil character would be changed for the long-term in areas not paved over, resulting in minor, local, adverse changes. Short-term disturbance effects would still be local, minor, and adverse. Overall cumulative effects would be long term, local, minor, and adverse. Alternative B would not result in impairment of soils.	Same as Alternative B.	Same as Alternative B.	There would be no effect to soils under Alternative E, because no new facilities would be constructed. Cumulative effects would be the same as described for Alternative B (long term, local, minor, and adverse), although Alternative E would make no contribution to cumulative effects. Alternative E would not result in impairment of soils.

TABLE 4: SUMMARY OF IMPACTS BY RESOURCE TOPIC

Resource Topic	Alternative A: No Action/Continue Current Management	Alternative B: Lime Kiln Road Representative Site	Alternative C: Derry Representative Site	Alternative D: Waterwell Road Representative Site	Alternative E: Waterwell Road Partnership with LaDOTD
Wetlands and Floodplains	Continuing current management would have no effects on wetlands or floodplains. Cumulative effects to wetlands would be long term, local, moderate, and adverse. Cumulative effects to floodplains would be long term, regional, moderate, and beneficial. Alternative A would not result in impairment of wetlands and/or floodplains.	Alternative B would have no effect on wetlands. Activities under Alternative B would have no effect on floodplains, as the representative site is not in the floodplain. Cumulative effects to wetlands and floodplains would be the same as described for Alternative A. Alternative B would not result in impairment of wetlands and floodplains.	Because no wetlands occur at the Derry representative site, no effects to wetlands would occur. As the entire Derry site is in the 100-year floodplain, effects to the floodplain would be small and local, resulting in long term, minor, adverse effects to floodplains under Alternative C. Cumulative effects to wetlands would be the same as described for Alternative A. Cumulative effects to floodplains would be long term, minor, and beneficial. Alternative C would not result in impairment of wetlands and/or floodplains.	Effects to wetlands would be negligible and adverse, due to construction activities near a large wetland complex. No effects to floodplains would occur, as construction could be sited outside of the 100-year floodplain. Cumulative effects to wetlands and floodplains would be the same as described for Alternative A. Alternative D would not result in impairment of wetlands and/or floodplains.	No effects to either wetlands or floodplains would occur under Alternative E. Cumulative effects would be the same as described for Alternative A. Alternative E would not result in impairment of wetlands and/or floodplains.