

**Transportation Observations,
Considerations, and Recommendations for
Land Between The Lakes National Recreation Area**

Provided by the Interagency Transportation Assistance Group (TAG)

**Golden Pond, KY
July 22-25, 2008**



A field investigation of the current transportation infrastructure and issues at Land Between The Lakes National Recreation Area (LBL) by the interagency Transportation Assistance Group (TAG) was conducted July 22-25, 2008, on behalf of the U.S. Department of Agriculture Forest Service (USFS). This TAG report was prepared subsequent to the site visit and documents the conditions observed, transportation issues and considerations, and recommendations arising from the TAG team's analysis.

The *Federal Lands Alternative Transportation Systems Study*^{*}, a report sponsored jointly by the Federal Highway Administration and Federal Transit Administration and completed in 2003, assessed alternative transportation feasibility at LBL. The study concluded that there were multiple alternative transportation strategies which showed

^{*}*Field Report: Land Between the Lakes National Recreation Area. [Federal Lands Alternative Transportation Systems Study: Summary of Forest Service ATS Needs](#). Prepared by Cambridge Systematics, Inc. for Federal Highway Administration and United States Forest Service. January 2004.*

potential and recommended a more detailed examination. Consequently, USFS staff applied in 2006 for a planning grant from the Alternative Transportation in Parks and Public Lands (ATPPL) program, now called the Paul S. Sarbanes Transit in the Parks Program. That application was unsuccessful, motivating USFS to convene a TAG at LBL to assess the potential for alternative transportation and to recommend next steps.

Background and Existing Conditions

Overview

Land Between The Lakes National Recreation Area encompasses an area of approximately 170,310 acres of wildlife, history, and outdoor recreation opportunities, surrounded by more than 300 miles of undeveloped shoreline. LBL is an approximately 50-mile-long by six-mile-wide peninsula, stretching from Dover, Tennessee to Grand Rivers, Kentucky, and was created by the damming of the Cumberland and Tennessee Rivers by the Tennessee Valley Authority (TVA) in the late 1940s. Management of LBL was transferred from TVA to the Forest Service on October 1, 1999 under the Land Between The Lakes Protection Act of 1998.

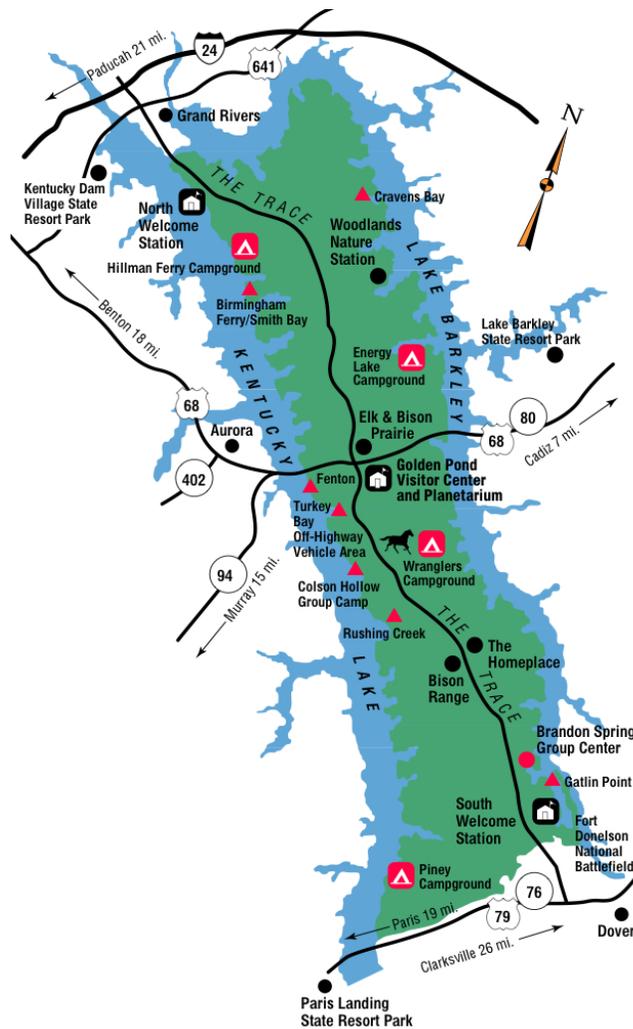


Figure 1: Facility Map of LBL (source: LBL website).

Local staff describe LBL as “the centerpiece of a \$650 million annual tourism industry.” The region is home to a number of federal, state, and local natural, cultural, and historical resources, including Fort Donelson National Battlefield, Cross Creeks National Wildlife Refuge, Lake Barkley State Park, Kenlake State Park, Kentucky Dam Village State Park, Paris Landing State Park, and others.

Gateway communities are located at each of the four primary access points to LBL: Grand Rivers, Kentucky to the north; Cadiz, Kentucky to the east; Dover, Tennessee to the south; and Aurora, Kentucky to the west. All of these communities depend to some degree on tourism, with the most concentrated tourist uses seen in Grand Rivers. Slightly farther away are the larger communities of Clarksville and Paris, Tennessee, and Murray, Kentucky.

Road Network

Access to LBL is predominantly by private automobile. The primary east-west access is provided by the U.S. Route 68/Kentucky Route 80 (68/80) corridor, while the primary north-south access is provided by the historical road known as “The Trace” (also KY 453). The Trace is a state-designated Scenic Byway for both Kentucky and Tennessee and the Forest Service is pursuing National Scenic Byway designation.



Figure 2: "The Trace," the primary north-south roadway within LBL. (7/24/08)

Many of the interior roads were built prior to the creation of LBL and were intended to function primarily as private drives and to provide cemetery and agricultural access for inhabitants. Once inhabitants were relocated and the area became a recreation destination, these existing roads had to be adapted to meet the new needs of tourism and recreation

use while maintaining access to historic sites as required by agreements with former inhabitants. The Trace, once improved and extended north to connect to Grand Rivers via a bridge, became the backbone of LBL's road system, supported by several upgraded roads to major campgrounds, boat ramps, and attractions. Today, most tourism traffic is highly dependent on the few USFS Maintenance Level 4 (single or double lane, aggregate, paved, or dust abated) and 5 (double lane, paved) roads. Due to the intense recreational usage at LBL, all of these paved roadways sustain heavy use by recreational vehicles, trucks, horse trailers, campers, and boats.

68/80 serves both as an access road into LBL for tourism and recreation, as described above, and as a major transportation and commuting corridor for small companies, higher education institutions, and local businesses in Kentucky. In response to these dual roles and the increased demand on the facility, the Kentucky Transportation Cabinet is currently widening and improving 68/80 to increase capacity, address geometric deficiencies and safety issues, and meet current design standards. The project is designed to support the regional planning and economic development goals of western Kentucky while maintaining the unique natural setting of the area. Improvements span eight miles through LBL from the Eggner's Ferry Bridge (Kentucky Lake) to the Lawrence Memorial Bridge (Lake Barkley) and include widening the road from two to four lanes, adding a bicycle facility, and constructing an interchange at US 68 and KY 453 (The Trace). The interchange will replace a two-lane roadway that passes by the U.S. Forest Service administration building and provide direct access between US 68 and The Trace, providing more direct access to the Golden Pond Visitor Center. Ultimately, 68/80 will be improved over 17 miles, from KY 94 in Kenlake State Resort Park to the western terminus of the Cadiz bypass, and will include replacement of the two bridges.



Figure 3: US 68 / KY 20, the primary east-west roadway within LBL, as a two-lane highway (left) and under construction to become a four-lane highway (right) (source: US 68 Land Between The Lakes project website www.us68lbl.com).

Facilities

LBL offers a variety of outdoor recreation and day-use visitor facilities. There are approximately 1,535 campsites in four developed campgrounds, five lake-access areas with primitive camping, and virtually unlimited opportunities for backcountry camping. There are 26 lake access areas with boat ramps, five courtesy docks (accessible loading platforms for cargo and passengers), four fishing piers, and six beaches. LBL contains more than 200 miles of hiking and biking trails (both paved and unpaved) approximately

100 miles of horse and wagon trails, and more than 300 miles of undeveloped shoreline. There are relatively few commercial services available within LBL; private concessions are locally controversial. Major facilities are described below.

Woodlands Nature Station is a wildlife education center with an indoor discovery center, outdoor butterfly garden, and outdoor animal exhibits. The exhibits showcase a variety of native animals unable to survive in the wild due to injury, orphanage, or loss of fear to humans. The Station also runs a captive breeding program for red wolves and offers a variety of hiking trails and education programs to visitors.

The Homeplace is a living history farm museum set in the mid-19th century, with 16 log structures, 14 of which are original, and restored log structures from within 10 miles of the site. The Homeplace provides a glimpse of how life might have been in that historic time to visitors of all ages.

Golden Pond Visitor Center (GPVC), located near the intersection of 68/80 and the Trace, is LBL's primary visitor center. It offers a historical exhibit on LBL as well as a planetarium that offers several shows in its 40-foot dome and an observatory with four telescopes. LBL management is currently working on expansion plans in anticipation of increased demand due to the 68/80 improvements.

The *Brandon Spring Group Camp* is a year-round overnight facility that hosts school groups, church groups, retreats, workshops, meetings, and other overnight groups in eight dormitory-style cabins for a total of 128 beds. The facility offers staff-led environmental education programs as well as a variety of recreation facilities.

Turkey Bay Off-Highway Vehicle Area is a 2,300-acre area designated for off-road vehicle use and camping with over 106 miles of trails.

Elk & Bison Prairie is a 700-acre enclosed area, home to several dozen elk and bison. Visitors can explore the area by buying a \$5 token and driving along an approximately three and a half mile loop in their personal vehicles. Three interpretive stops along the loop tell the story of the changing natural history of the region. The *Bison Range*, adjacent to The Homeplace, provides another opportunity to view bison from the road or from an adjacent trail.

Campgrounds

LBL offers several designated campgrounds as well as back country camping throughout the NRA. The largest campgrounds are Hillman Ferry, Piney, and Wranglers. *Hillman Ferry Campground* is located at the north end of LBL near Grand Rivers, KY, and has 378 campsites capable of handling a variety of camping. *Piney Campground* is located at the south end of LBL near Dover, TN, and has over 384 campsites (281 with electric hookups, 44 with electric, water, and sewer, and 59 primitive sites) as well as nine primitive cabins.

Both campgrounds offer the following facilities: swimming beach area, archery range, ball field, bike trails, campfire amphitheater, hiking trails, and two boat launching ramps. The outposts at each campground provide bike rentals and limited supplies. *Wranglers Campground* accommodates campers and their horses in 200 campsites and offers approximately 100 miles of horse and wagon trails, guided horseback riding tours, a public stable, and farrier and blacksmith services.

Visitation

LBL receives approximately 1.7 to 1.8 million visitors each year, with 1,847,420 visitors in fiscal year 2007. While visitation drops off considerably between December and March, the relatively mild climate and hunting opportunities attract many visitors during the other months of the year.

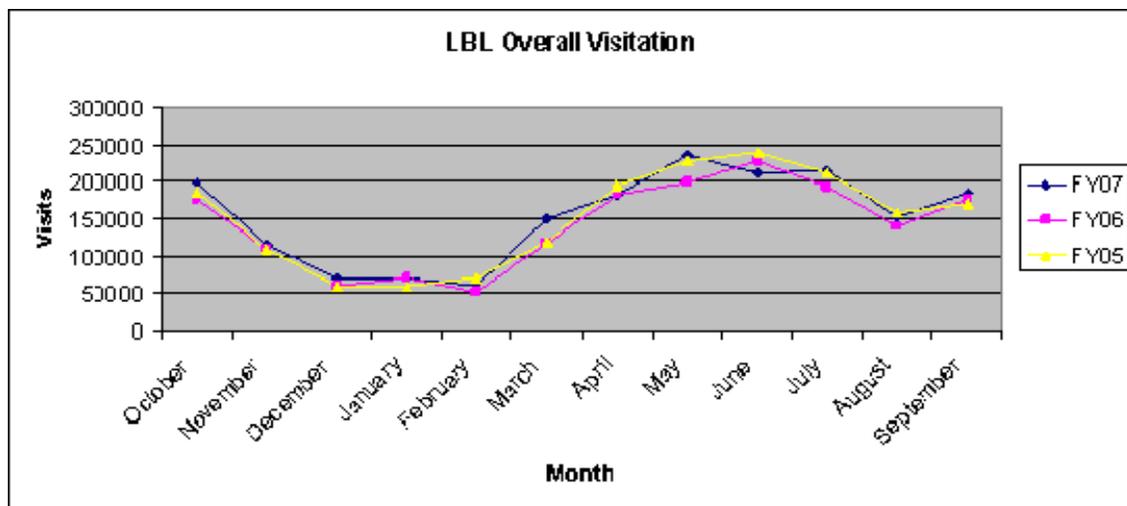


Figure 4: Visitation by month, fiscal year 2005 - 2007 (source: LBL).

The 2002 National Visitor Use Monitoring Survey found that 60% of visitors live between 100-300 miles away, 25-30% live within 100 miles, and 10-15% live more than 300 miles away. In the same survey, visitors ranked their top five recreational activities as fishing (49%), relaxing (48%), viewing wildlife (48%), viewing natural features (35%), and camping (30%). Other activities included hiking or walking (22%), motorized water travel (20%), driving for pleasure on roads (19%), picnicking/family day gatherings (18%), and visiting a nature center, nature trail, or visitor information services (17%).

In terms of overall visitation over the year, the three major campgrounds (Piney, Hillman Ferry, and Wranglers) are the most popular destinations (aside from major special events) followed by the Elk & Bison Prairie.

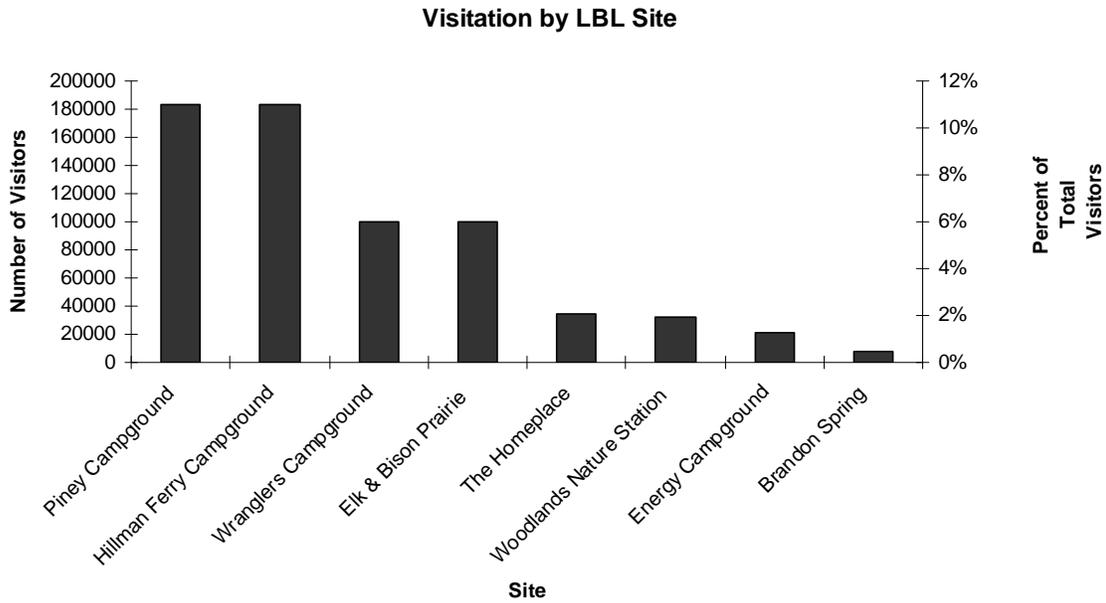


Figure 5: Visitation by site, fiscal year 2007 (source: LBL and Volpe).

Visitation patterns change over the course of the year and by day of the week. According to LBL staff, campgrounds display a stronger seasonality than do other uses, becoming “little cities” on busy weekends, which the USFS reports can have 140-160% occupancy, as opposed to 25% occupancy Monday through Wednesday. Occupancy at Hillman Ferry and Piney may reach 3,000 to 4000 people on the busiest weekends, hosting larger populations than cities in the surrounding counties.

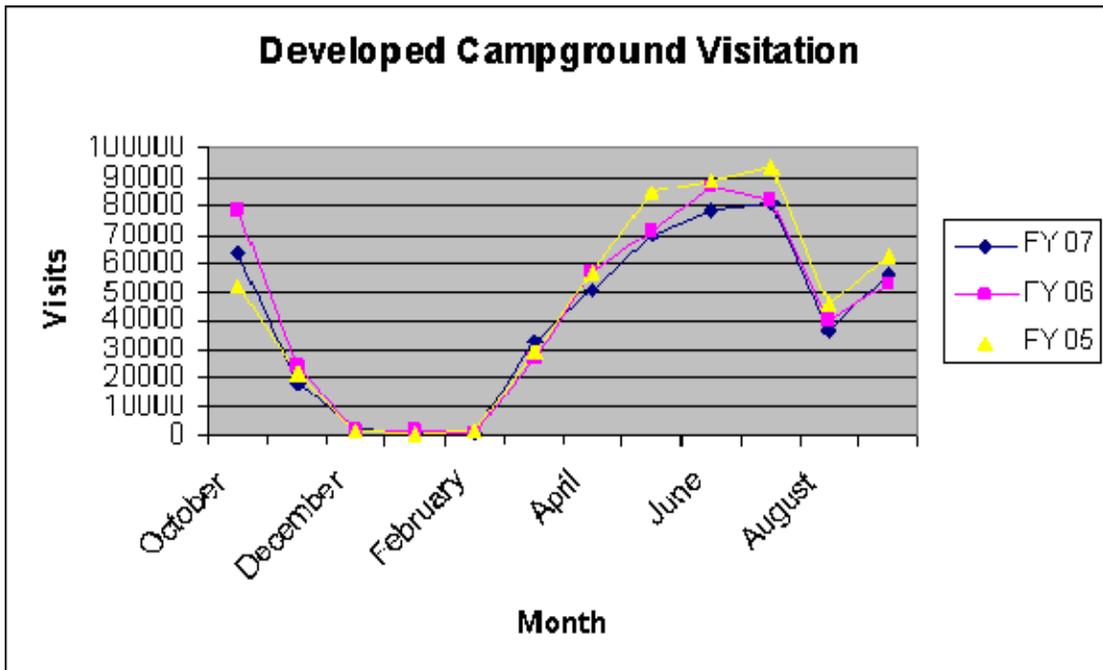


Figure 6: Developed campground visitation by month, fiscal year 2005 – 2007 (source: LBL).

Transportation Issues/Problems

The TAG team reviewed existing conditions at LBL and identified the following transportation issues of importance in analyzing the need for and potential success of solutions involving alternative transportation system.

Visitor Access

Internal circulation

Three main categories of visitors face access issues within LBL due to limited mobility:

- visitors to campgrounds with only a large recreational vehicle or sharing a single vehicle;
- visitors without access to a personal vehicle, including youth and seniors; and
- visitors at the Brandon Spring Group Center

Campground Visitors

Anecdotally, it was reported that visitors arriving in large vehicles, such as recreational vehicles, will tend to leave their vehicle parked at campgrounds during the duration of their stay, due in part to the price of gas. Other visitors may have one or two vehicles available for use but multiple members to their party, so that not all members can access the desired activities on the same day. In addition, several members of the party may not have access to any personal vehicle due to age or disability.

Visitors Without Access to a Personal Vehicle

Any visitors who do have access to a personal vehicle due to age or disability are limited in their ability to access resources both within and without LBL.

Brandon Spring Group Center Visitors

Visiting groups – mainly school, church, and youth groups – to the Brandon Spring Group Center are often dropped off by buses that then return to their normal responsibilities, leaving the groups without transportation for their time at Brandon Spring. This prevents these groups' access to LBL's other environmental education resources, such as the Elk and Bison Prairie and the Woodlands Nature Center.

The distance between activities and attractions within LBL exacerbates the issues above for all visitors.

External connectivity

As mentioned above, visitors to campgrounds may have limited mobility, which affects both their access to resources within LBL and without. Since minimal commercial amenities are available within LBL, campground visitors have limited access to necessities, such as groceries, as well as attractions such as restaurants and entertainment venues. In addition, they have limited access to the number of state and federal resources close to LBL, which, as mentioned above, include Fort Donelson National Battlefield, Cross Creeks National Wildlife Refuge, Lake Barkley State Park, Kenlake State Park, Kentucky Dam Village State Park, and Paris Landing State Park, among others.

Road and Facility Design

Several of LBL's roads and day-use facilities are not designed to handle the current tour bus/school bus traffic; for example, there is insufficient space for turning and a lack of designated bus parking at the Woodlands Nature Center. Nevertheless, LBL and local communities have recently established the Lakes Region Tourism Coalition and are targeting tour bus groups with a promotional slideshow and other outreach. These efforts may increase bus and coach traffic and thus increase demands on roads, parking facilities, and access.

Safety

Demands on Law Enforcement

Within LBL, USFS is the primary law enforcement response, though county sheriffs have concurrent jurisdiction and will enter LBL to provide support. This is a legacy of the law enforcement structure under TVA. Consequently, LBL law enforcement officers have more responsibilities than those at other USFS properties. They must deal with traffic violations (driving under the influence, speeding), parking violations, campground violations, emergency response, and search and rescue. Law enforcement officers record information on incidents, but limitations in the database structure make performing meaningful analysis difficult at this time.

Modal Conflicts

Conflicts occur primarily on the Trace, between motorized vehicles and bicycles, and on campgrounds where bicycles, pedestrians, scooters, horses, and motorized vehicles share roads. The Trace is part of the Underground Railroad Bike Route, which runs from Mobile Bay, Alabama to Owen Sound, Ontario, Canada. However, the Trace has relatively narrow lanes and no paved shoulders, forcing pedestrians and cyclists to share the roadway with motor vehicles. In addition, although the posted speed limit is 50 miles per hour, LBL law enforcement reported that many users travel at speeds closer to 60 to 65 miles per hour. Traffic also may back up behind bicycles and there have been reports of cyclists sideswiped by passing vehicles.

Roadway Geometrics

A number of the roads within LBL face challenges in safely accommodating large vehicles and multimodal use. For example, the width and lack of adequate shoulders along FSR-165 to Wranglers Campground have caused a number of accidents with horse trailers overturning. The Trace also experiences congestion and safety issues due to its width and lack of shoulders, especially from bicycle-vehicle conflicts.

Congestion

Localized congestion and delays occur at campground entrances on Fridays and Saturdays as visitors arrive, at boat ramps, and at entrances and parking facilities for special events (see appendix for a list of events throughout the year). Congestion can also occur due to modal conflicts on roads, in particular bicycle use of the Trace and bicycle, scooter, and pedestrian activity on campground roads.



Figure 7: Vehicular congestion at the Elk and Bison Prairie (source: LBL).

Future traffic growth

Two main factors are likely to increase traffic within LBL: improvements to 68/80, and regional population growth, with any accompanying demographic changes. As noted above, changes to 68/80 include widening from two to four lanes, a new bicycle facility, and a new interchange with the Trace. LBL staff anticipate that these changes will increase visitation to the Golden Pond Visitor Center, which will be undergoing expansion of the parking facility and the addition of a snack facility.

Ongoing roadway maintenance funding

When ownership of LBL was transferred from the TVA to USFS, all paved roadways within LBL were designated Forest Highways. However, no additional funding was allocated to Kentucky or Tennessee in response. Consequently, obtaining reliable and sufficient funding for roadway maintenance has been a challenge.

Analysis and Recommendations

After reviewing existing and available documents and data and participating in a two-day site visit, the TAG team discussed implications for alternative transportation at LBL. While the review and observations were necessarily preliminary, due to the time constraints of the TAG, the findings below were used to develop a set of recommendations and next steps.

Findings

Transportation to LBL will likely continue to be by private vehicle and any new service would likely focus on mobility for visitors already onsite. Existing transportation patterns to the site are unlikely to change in the short term. Visitors today overwhelmingly arrive by private vehicle. Many come with significant recreational equipment, such as motor boats, campers, and bicycles, which cannot easily be transported any other way. In addition, LBL's distance from major cities such as Nashville or Memphis, and the relatively low transit usage in those cities, suggests that private motor vehicles will continue to be the dominant form of access.

It should be noted that there is a strong tradition of bus and van travel to Brandon Spring Group Center, especially by youth groups. These groups provide their own transportation to and from LBL. Tour bus traffic is not a significant component today, but could be in the future. However, the transportation needs of these visitors will generally be met by their tour company.

Attractions and activities are widely dispersed. Most potential destinations are separated by at least five miles, which would increase the travel time for an alternative transportation system.

Attractions and activities vary in theme. LBL offers a variety of natural, cultural, and recreational attractions that appeal to a variety of users; such diversity of use and users would increase the difficulty in developing appropriate routes and sufficient ridership for an alternative transportation system.

Transportation patterns and needs change seasonally and through the week. While demand patterns are somewhat predictable, based on special events and historical campground and Brandon Spring Group Center usage, the variability will complicate scheduling of any proposed service. "On-demand" or advanced-booking transportation may be appropriate, particularly for groups staying at Brandon Spring.

Not all potential destinations can be easily served by alternative transportation. While most "internal" destinations such as Golden Pond Visitor Center or The Homeplace are self-contained, the gateway communities vary in the degree to which they can be easily negotiated by a visitor on foot. The separated land use and low density development patterns common to many Southern towns are not pedestrian-friendly in terms of walking distances and conditions. Consequently, an alternative transportation service that relies on concentrated ridership and a single drop-off and pick-up site may not be able to serve such areas adequately. Additionally, service to the Elk and Bison Prairie, which is accessible only by private vehicle, would be difficult to integrate into a fixed-schedule service, as the visitor would need the vehicle to traverse the entire loop rather than simply stopping at the entrance.

Water transportation is unlikely to be a significant alternative transportation mode. While its extensive coastline would allow for many opportunities for water-based

transportation, LBL's major facilities are located in its interior. One potential exception noted by the group is Hillman Ferry Campground to Grand Rivers, Kentucky.

Recommendations

The TAG team determined that visitor access and mobility could be improved and local community connections strengthened through several transportation approaches, including the implementation of an alternative transportation system. However, the form that such a system might take will vary depending on the market it is designed to serve and the priorities and goals that are established. Additionally, as noted above, existing visitor travel behavior, relatively large distances between resources, and variable activity patterns mean that a traditional fixed-route fixed-schedule service may be challenging to establish. It is necessary for LBL staff to first carefully consider the goals of alternative transportation at LBL. Consequently, the overall recommendation is to submit an application for a planning grant from the Transit in the Parks Program, after preliminary work to refine the scope and collect relevant data has been completed.

- **Determine transportation priorities and goals and identify the market to be served.** Determining transportation priorities will help narrow the focus of any planning study. Potential priorities to consider include:
 - internal circulation
 - external connections
 - environmental education
 - local economic development

For alternative transportation, service characteristics and marketing decisions may vary greatly depending on the intended riders or users of a system. For example, giving Brandon Springs visitors the opportunity to visit the Elk and Bison Prairie would require a much different service than one that would transport campground visitors to and from the gateway communities. Age, group type, and origin (e.g. local, within 100 miles, within 300 miles) should also be taken into consideration. A set of potential goals and service concepts, used for discussion purposes during the TAG, is attached as an appendix to this report.

- **Take advantage of and strengthen existing partnerships.** Partnerships demonstrate the importance of any proposed service to the region and the preexisting work which has been done at LBL. Partnerships should be documented and should be emphasized in any Transit in the Parks Program application; accompanying letters of support are also encouraged.
- **Encourage partners to take the lead and submit grant applications.** State, tribal, or local governments with jurisdiction over land in the vicinity of the public land, acting with the consent of that federal land management agency, alone or in partnership with other governmental or non-governmental participants, may submit applications directly to the Transit in the Parks Program as long as the application is accompanied by a letter from the affected public land unit.
- **Document existing conditions.** Documenting existing transportation safety, congestion, access issues, and related impacts to natural resources will provide necessary context for any alternative transportation proposal. Examples include

bicycle, pedestrian, wildlife, and motor vehicle crash data; traffic counts; and photographs of facilities under peak conditions. Such documentation would underpin any future study and is a critical component of the Transit in the Parks Program application process.

- **Utilize and build upon existing data.** Consider applying traffic simulation software to existing traffic counts and patterns to assess shuttle route potential, mitigate congestion during peak times, and model future conditions.
- **Continue and expand work with the local tourism efforts.** For example, TAG team members were impressed with the work which has already been done and the collaborative nature of the effort with the Lakes Region Tourism Coalition. Tourism coalitions may provide a forum to begin talking about transportation in the region more broadly.
- **Encourage private sector solutions and learn from their experiences.** While private concessions are somewhat controversial locally, some of the existing access issues, such as connecting campgrounds to the gateway communities, may lend themselves to participation or leadership by the private sector. A major local tourist attraction, Patti's Restaurant in Grand Rivers, already provides shuttle service to nearby marinas and a Kentucky state park. Talking with Patti's staff would likely provide insight into the demand for such service and lessons learned in providing it.
- **Develop and sustain relationship with regional transportation organizations.** For example, the Pennyriple Area Development District coordinates local provision of human service transportation and should be able to provide perspectives on local needs and possibly recommendations on operators, should a private provider be preferred.
- **Participate in long-range transportation planning and safety and congestion pilot projects.** Federal Lands Highway has proposed that LBL serve as a pilot for two new projects: a long-range transportation planning project and a safety and congestion pilot study. If LBL chooses to participate, the data and perspectives generated by these pilots should be helpful in assessing the feasibility of implementing alternative transportation.
- **Create a tour bus management plan.** Today, many of LBL's resources are not easily accessed by tour bus or school bus, due to insufficient turning radii and a lack of dedicated parking. To better serve existing users and accommodate growth, a tour bus management plan is recommended. The plan should consider necessary facility improvements and thresholds and strategies for permitting.
- **Consider sponsoring a transportation intern and / or partnering with Murray State University.** Bringing a graduate student (or students) onsite can be of mutual benefit for both the student and LBL. Students may be able to produce new research, study a concept in detail, and contribute to concept development.
- **Consider travel demand management.** Localized congestion at campground entrances and special event sites may be somewhat mitigated through the implementation of travel demand strategies. One example could be tying arrival times to campground reservations. Such strategies could be integrated into travel information and intelligent transportation systems.

- **Continue to pursue implementation of travel information and intelligent transportation systems.** LBL staff are already working to implement kiosks in gateway communities to expedite campground reservations; this may present an opportunity to begin incorporating travel demand strategies.
- **Continue seeking and implementing Recreation Trails grants from the federal Recreational Trails Program.**
- **Develop an integrated LBL bicycle plan.** The anticipated growth in cycling from the development of a new bicycle facility along 68/80 makes linking LBL efforts to local and state Kentucky and Tennessee bicycle plans, already underway, a high priority.

Appendix: Potential Alternative Transportation Goals and Concepts

During the site visit, the TAG team discussed several proposals for alternative transportation service at LBL. As noted in the main report, a primary recommendation is for LBL staff to think through the priorities and potential market for such a service, so as to focus in on an appropriate service concept.

The TAG team developed a set of potential goals and concepts, based on input from LBL staff and their experience during the site visit. These are described below.

Potential Alternative Transportation Goals

1. Increase safety for cyclists and improve non-motorized access.
2. Strengthen local economy and improve visitor experience.
3. Increase access to LBL resources.
4. Enhance environmental education.
5. Reduce LBL's carbon footprint.

Potential ATS Concepts

- **North-South bicycle route.** This concept would parallel The Trace and provide cyclists with a dedicated facility to connect the major resources at LBL. It would connect to the new 68/80 bicycle facility, opening up LBL to cyclists. It would reduce modal conflicts and improve safety for all by separating cyclists from motor vehicle traffic.
- **External shuttle.** An external shuttle could connect campgrounds with services and attractions in gateway communities as well as bringing in visitors from the surrounding state parks. Potential origins and destinations include:
 - North to Grand Rivers
 - Hillman Ferry to Grand Rivers water taxi
 - South to Dover (Piney to Fort Donelson to Dover to Cross Creeks NWR)
 - State parks
 - Marinas
- **Internal shuttle.** Visitors to Brandon Springs Group Center are often dropped off by school bus or motor coach and have no means of accessing the environmental education resources at LBL, such as The Homeplace, Woodlands Nature Station, Golden Pond Visitor Center and Planetarium, and the Elk and Bison Prairie. Similarly, campground visitors may also need internal transportation. They may have arrived in large parties with a single vehicle or in a recreational vehicle that they prefer not to move once they have reached their campsite.
- **Employee shuttle.** TVA formerly sponsored an employee shuttle, which, apart from initial capital costs, was operated and maintained by the employees through a monthly fee. The shuttle picked up employees in the gateway communities and brought them into LBL.
- **Grease power partnership with local restaurants.** Local restaurants could be asked to donate their cooking grease to fully or partially power a shuttle bus or van. In return, they might be given the opportunity to advertise on the vehicles.

Goals – Concepts Comparison

The table below outlines how the concepts discussed might support the various goals.

Goal	Concepts
Increase safety for cyclists and improve non-motorized access.	North-South bicycle route
Strengthen local economy and improve visitor experience.	External shuttle
Increase access to LBL resources.	External shuttle Internal shuttle
Enhance environmental education.	Internal shuttle
Reduce LBL's carbon footprint.	North-South bicycle route Employee shuttle Grease power partnership with local restaurants

Appendix: 2008 LBL Calendar Highlights

Jan. 6, 21, & 27	Day with the Eagles Van Tours	Woodlands Nature Station
Jan. 12, 13	Day with the Eagles Boat Cruises	Kenlake State Resort Park Marina
Feb. 9, 10	Day with the Eagles Van Tours	Woodlands Nature Station
Feb. 2	Fort Henry Anniversary Walk	Ft. Henry Trail Parking Lot/The Homeplace
Feb. 14	Valentine's Day Eagle Boat Cruise	Kenlake State Resort Park Marina
Feb. 17	Presidents' Weekend Elk & Bison Prairie Van Tour	Elk & Bison Prairie
Feb. 18	Presidents' Day Eagle Van Tour	Woodlands Nature Station
Mar. 19-Apr. 11	Kids Spring Break Programs	Woodlands Nature Station
Apr. 12	Folk Medicine	The Homeplace
Apr. 12-13	<i>Spring Wildflower Weekend</i>	Woodlands Nature Station & The Homeplace
Apr. 17	<i>Broom Making</i>	The Homeplace
Apr. 19	Junior Explorer Day	Woodlands Nature Station
Apr. 19-20	<i>White Lightning Mountain Bike Race</i>	North Welcome Station Trailhead
Apr. 26	<i>Nature Photography Mini-workshop</i>	Woodlands Nature Station
Apr. 26	<i>Quilt Show</i>	The Homeplace
May 2-3	<i>Jeep Jamboree</i>	Turkey Bay OHV Area
May 3	<i>Sheep Shearing</i>	The Homeplace
May 10	National Astronomy Day	Golden Pond Planetarium & Observatory
May 10	<i>Migration Celebration</i>	Woodlands Nature Station
May 24-26	<i>River Days</i>	Woodlands Nature Station & The Homeplace
May 30 & 31	<i>Summer Nights</i>	Golden Pond Planetarium
June 6-8 & 28-29	<i>Drag Boat Race #1 & #2</i>	Pisgah Bay
June 7	<i>National Trails Day</i>	Trails Throughout LBL
June 7, 14, 21, 28	<i>Summer Nights</i>	Golden Pond Planetarium
June 14	<i>Special Pops Fishing Tournament</i>	Honker Lake
June 14-15	<i>Pickin' Party</i>	The Homeplace
June 28	<i>Nature Arts Day</i>	Woodlands Nature Station
July 4	<i>Independence Day Celebration</i>	The Homeplace
July 5, 12, 19, 26	<i>Summer Nights</i>	Golden Pond Planetarium
July 12	<i>Cool & Crawly Critters Day</i>	Woodlands Nature Station
July 18-19	<i>Wranglers Rodeo & Grand Jubilee</i>	Wranglers Campground
July 26-27	<i>Drag Boat Race #3</i>	Pisgah Bay
Aug. 1-3	<i>Hummingbird Festival</i>	Woodlands Nature Station
Aug. 2, 9, 16, 23, 30	<i>Summer Nights</i>	Golden Pond Planetarium
Aug. 16	<i>Children's Festival</i>	The Homeplace
Aug. 30-Sept. 1	<i>Summer Finale</i>	Woodlands Nature Station & The Homeplace
Sept. 13	<i>1850's Agricultural Fair</i>	The Homeplace
Sept. 13-14	<i>LBL 200 Motorcycle Ride</i>	Energy Lake Campground
Sept. 17-21	<i>Camper's Fair</i>	Piney Campground
Sept. 19-24	<i>National Trail Riders Reunion</i>	Wranglers Campground
Sept. 20	<i>12 Hours of the Canal Loop Mountain Bike Race</i>	Kenlake State Resort Park Drive
Sept. 27	<i>Elk & Bison Prairie (EBP) Celebration</i>	Golden Pond Visitor Center & EBP
Oct. 4	<i>Campfire Tales</i>	Woodlands Nature Station
Oct. 4-5	<i>Autumn Nature Celebration</i>	Woodlands Nature Station & The Homeplace
Oct. 18	<i>Homeplace 1850's Wedding</i>	The Homeplace
Oct. 19	<i>Race to the Canal Mountain Bike Race (formally Bald Eagle)</i>	North Welcome Station Trailhead

Oct. 19-25	<i>Wolf Awareness Week</i>	Woodlands Nature Station
Oct. 24	<i>Snap Apple Night</i>	The Homeplace
Oct. 25	<i>Howl-O-Ween</i>	Golden Pond Visitor Center
Nov. 8-9	<i>Fall Frolic</i>	Woodlands Nature Station
Nov. 29	<i>Christmas in 1850</i>	The Homeplace
Dec. 1-14	<i>'Tis the Season</i>	Golden Pond Planetarium
Dec. 6	<i>Welcome Back, Eagles Van Tour</i>	Woodlands Nature Station
Dec. 6 & 13	<i>A Christmas Eve at The Homeplace</i>	The Homeplace

TAG Participants

Transportation Assistance Group (TAG)

- Robert Harmon, Region 8, U.S. Forest Service
- Jim Kozik, Region 8, U.S. Forest Service
- Matthew Lesh, Federal Transit Administration
- Ellen LaFayette, Transportation System Development, U.S. Forest Service
- Elizabeth Machek, Volpe National Transportation Systems Center
- Lindsey Morse, Volpe National Transportation Systems Center
- Mark Rommel, Eastern Federal Lands Highway Division, Federal Highway Administration
- Makayah Royal, Eastern Federal Lands Highway Division, Federal Highway Administration

U.S. Forest Service: Land Between The Lakes National Recreation Area

- Greg Barnes
- Arthur Burbank
- Duane Cameron
- Barry Haley
- Kathryn Harper
- Gary Hawkins
- Michael Johnson

Other Participants

- Terry Crutcher, Stewart County Chamber of Commerce
- Kim Kraemer, Grand Rivers / Livingston County Tourism
- James LeFevre, Kentucky Transportation Cabinet
- Steven McCoy, Fort Donelson National Battlefield
- Bill Stevens, Trigg County Tourism

Supporting Documents

1. *Land Between The Lakes National Recreation Area Engineering Study for Roads and Bridges*, June 2002. Prepared by Federal Highway Administration Eastern Federal Lands Highway Division for the USDA Forest Service Southern Region.
2. *An Analysis of Promotion and Positioning Effectiveness*. Prepared for Land Between The Lakes National Recreation Area by James F. Petrick and Xiang (Robert) Li, Department of Recreation, Park and Tourism Science, Texas A&M University. September 2006.
3. *Monitoring and Evaluation Report: Fiscal Year 2007*. Land Between The Lakes National Recreation Area.
(www.lbl.org/ADMIN/07_LBLMonitoring_Evaluation_Report.pdf).
4. *Field Report: Land Between The Lakes National Recreation Area. Federal Lands Alternative Transportation Systems Study: Summary of Forest Service ATS Needs*. Prepared by Cambridge Systematics, Inc. for Federal Highway Administration and United States Forest Service. January 2004.
5. *Road Analysis Report: Land Between The Lakes NRA*. July 2003.
(www.lbl.org/ADMIN/LBLFinalRoadsAnalysis.pdf).
6. Land Between The Lakes website (www.lbl.org).
7. Master Plan for Environmental Education At USDA Forest Service Land Between The Lakes NRA. 2007. (www.lbl.org/07EE-Masterplan.pdf).
8. Historical visitation data provided by LBL staff.
9. US 68 Land Between The Lakes project website (www.us68lbl.com/).

NOTICE

This Transportation Assistance Group (TAG) was convened at the request of the U.S. Forest Service. The TAG is an agency-independent effort that is intended to provide technical assistance in support of federal lands transportation and federal lands transportation programs, and does not imply, preference, or guarantee programmatic funding or project support, or further assistance of any kind. This document is disseminated in the interest of information exchange. The recommendations found herein reflect the collective expertise and consensus of the individual TAG members, do not represent regulatory or programmatic requirements, and do not in any way reflect the official opinion of any federal agency. The United States Government assumes no liability for the contents of this document or use thereof.
