



November 15, 2004

AGENDA ITEM # 4

LAKE JACKSON ECOPASSAGE

REQUESTED BY: MPO Staff

TYPE OF ITEM: Discussion

STATEMENT OF ISSUE

At the June 2004 Metropolitan Planning Organization (MPO) meeting, staff and Kimley-Horn & Associates (KHA) kicked off the Lake Jackson Ecopassage Feasibility Study. Since that time staff has held two public meetings, four advisory committee meetings, and a special Blue Ribbon Committee meeting to gather information from the public and professionals regarding the development of this project. This information was used to produce the *Lake Jackson Ecopassage Feasibility Study: Existing Conditions Technical Memorandum*, shown as **Attachment 1** and the *Lake Jackson Ecopassage Feasibility Study: Alternatives Considered and Preferred Alternative Technical Memorandum*, shown as **Attachment 2**. Staff is seeking approval of both documents and the Preferred Alternative.

RECOMMENDED ACTION

- Option 1: Approve the *Lake Jackson Ecopassage Feasibility Study: Existing Conditions Technical Memorandum*, the *Lake Jackson Ecopassage Feasibility Study: Alternatives Considered and Preferred Alternative Technical Memorandum*, and Alternative 7 – Additional Passageways with the Construction of a Wildlife Wall as the Preferred Alternative.

HISTORY AND ANALYSIS

There are several documents that the Capital Region Transportation Planning Agency (CRTPA) will have to approve for the Lake Jackson Ecopassage Feasibility Study. The first two are the Existing Conditions and Preferred Alternative Technical Memorandums. Each of these documents is described below:

Existing Conditions Technical Memorandum

This document provides a baseline of data to use for developing the *Preferred Alternatives Technical Memorandum*. The topics in this document range from a project overview to historical background of the project area, vegetation, land use, hydrology, wildlife and habitat, floodplains, wetlands, and historical maps. This document is essential to establish the fluctuations in activity occurring with Lake Jackson and the change of conditions over time as well as preparations for the development of potential locations for ecopassage locations and alternatives.

Preferred Alternatives Technical Memorandum

Based on the data from the *Existing Conditions Technical Memorandum*, shown as **Attachment 1**, the public, Kimley-Horn and Associates (KHA), CRTPA staff, and biological professionals developed and refined several alternatives to present as options for the Lake Jackson Ecopassage. To gather the information regarding alternatives and suggested alternatives, KHA and CRTPA staff met with the public on two occasions: August 18, 2004 and October 28, 2004. Additional data and alternatives were developed in conjunction with the Lake Jackson Advisory Committee which includes representatives from various federal, state, and local agencies. Lastly, a "Blue-Ribbon" Committee was utilized to provide additional guidance. Based on this input, eight (8) alternatives were developed. Each of these is briefly described in the *Alternatives Considered and Preferred Alternative Technical Memorandum*, shown as **Attachment 2** and briefly described below:

Alternative 1 – No Action

Just as it sounds, nothing would be done to protect the wildlife or motorists as a component of this alternative. Human and animal conflicts would continue which could lead to the extinction of several animal species in the Lake Jackson area. There is no cost associated with this option for facility improvements. However, the economic cost of the degradation of the wildlife that supports the Lake Jackson ecosystem over time will impact the viability of attraction eco-tourists to the area.

Cost: \$0

Alternative 2 – Re-Route US 27

This alternative would re-establish the ecological connection to Little Lake Jackson through the rerouting of US 27. However, the time and expense of this option makes it difficult to pursue.

Cost: \$25,000,000+

Alternative 3 – Close the Road for Migration Periods

This solution would close US 27 during time of high migration. Due to the 23,000 vehicles a day that utilize the road for traveling purposes, it is unlikely that roads such as Old Bainbridge or Capital Circle would be able to accommodate an increase volume of traffic.

Cost: \$2,500,000

Alternative 4 – Habitat Enhancement Only

This option would implement a Maintenance, Monitoring, and Management Plan for the area that would upkeep vegetation and remove exotic or invasive species of vegetation. This alternative would more than likely be included as a component of the preferred alternative. However, this alternative does not address the issue of wildlife mortality.

Cost: \$50,000

Alternative 5 – Temporary Fences (with and without monitoring)

This alternative offers relief on a temporary basis and only addresses the wildlife concerns during extreme migration periods. During “normal” periods for Lake Jackson the alternative does little to protect wildlife. Lastly, this alternative requires a fair amount of upkeep and maintenance. The option does provide for the opportunity to create educational and eco-tourist activities.

Cost: \$75,000 without monitoring

Cost: \$150,000 with monitoring

Alternative 6 – Use/Replace Existing Culvert and Construct Wall

The option replaces the existing culvert in conjunction with the construction of a five-foot high wildlife wall. This alternative reduces animal-human contact, provides “tunnels” for the animals to traverse between Lake Jackson and Little Lake Jackson, provides for eco-tourism and educational activities, minimizes the opportunities of wildlife/vehicle contact, and provides a permanent solution. However, this alternative only includes one (1) culvert for wildlife crossings that according to animal behaviorists is not an ideal situation. Ideally several culverts should be included to provide multiple crossing opportunities.

Cost: \$2,100,000

Alternative 7 – Additional Passageways with the Construction of a Wildlife Wall

This alternative includes the replacement of the existing culvert, and creates three (3) to four (4) other culverts for wildlife passage. Additionally, this option provides all of the benefits of Alternative 6. The positioning of the additional culverts would be done in coordination with the existing data to provide the highest potential of activity.

Cost: \$3,400,000

Alternative 8 – Replace the Existing Bridge

This solution would restore the hydrological connection and wildlife connection between Lake Jackson and Little Lake Jackson at the highest level, would minimize the human-animal conflict, would attract the eco-tourist activity, and would be an obvious visible attraction to the area. However, this option would not solve the animal-human conflict south of the bridge location and therefore the wildlife wall would still need to be constructed.

Cost: \$9,500,000+

Alternative Selection Criteria

There are five criteria used to evaluate each of the alternatives above. They include biological effectiveness, Motorist Safety, Maintenance, Perceived Social Cost, and Monetary Cost. The Perceived

Social Cost is a very difficult measure to quantify but the issue is important to consider for each alternative. The scores for each alternative are presented on **Table 1**.

Table 1
Alternative Selection Criteria

Alternative	Biological Effectiveness	Motorist Safety	Maint.	Perceived Social Cost	Cost	Total Score	Overall Ranking
1 No Action	1	1	5	2	10	19	6
2 Re-Route Road	5	5	5	2	1	18	7
3 Close Road	3	4	4	1	3	15	8
4 Habitat Enhancement	2	1	4	4	9	20	5
5 Temporary Fence	4	4	1	4	8	21	4
6 Existing Culvert with Wall	4	5	3	6	7	25	2
7 Additional Passages with Wall	7	6	3	6	6	28	1
8 Bridge	6	5	4	5	2	22	3

In addition to the individual ranking of projects, the public, Advisory Committee, and Blue-Ribbon Committee ranked the projects as shown on **Table 2**.

Table 2
Alternative Ranking by Group

Alternative	Public	Advisory Group	Blue-Ribbon Committee	Evaluation Criteria	Overall
1 No Action	6	*	7	6	6
2 Re-Route Road	7	**	6	7	7
3 Close Road	8	**	5	8	8
4 Habitat Enhancement	5	*	4	5	5
5 Temporary Fence	4	*	5	4	4
6 Existing Culvert with Wall	3	3	3	2	3
7 Additional Passages with Wall	1	1	1	1	1
8 Bridge	2	2	2	3	2

Preferred Alternative

Based on the application of the criteria and the individual ranking of the alternatives, the recommended Preferred Alternative is Alternative 7 – Additional Passageways with the Construction of a Wildlife Wall.

NEXT STEPS

After approval of the Preferred Alternative, KHA and CRTPA staff will finalize the documentation to complete the reporting phase of the project. Additional follow-through will include the presentation of the project to the Florida Department of Transportation (FDOT) and the Federal Highway Administration (FHWA) to determine whether the project will receive a Categorical Exclusion and not require a complete Project Development and Environment (PD&E) Study. If a Categorical Exclusion is received, staff will proceed with finding a funding source for the project. If a Categorical Exclusion is not received then staff will be seeking funding for a PD&E Study.

ADDITIONAL ISSUES

Below are other issues that KHA and CRTPA staff has been monitoring as this project has progressed.

Summerfield PUD

Directly across from Lake Jackson, Summerfield PUD is a residential development that is in the planning stages with a conceptual PUD approved on October 26, 2004. It is not anticipated that this development will have an impact of the animal activity along the corridor. The main area of conflict for animals and humans is north of this site.

Bicycle and Pedestrian Master Plan/Greenways Master Plan

There are several projects identified along this corridor and around Lake Jackson that connect County Parks to the East and South of the Ecopassage. While these projects are not a component of the study, they can be provided for in the design plans *if* the bike and pedestrian projects have a study completed for the location of the facilities.

US 27 Boat Ramp

The use of the boat ramp on US 27 was brought up at several of the subcommittees as an issue. KHA staff has discussed this issue with the Leon County as it relates to the development of a new County park Southeast of the ecopassage. It is recommended that as the new park is developed for public use, plans should consider moving the boat ramp to that location. This would close an obvious gap in the ecopassage that currently divides the eastern wildlife wall into two sections.

RECOMMENDATIONS FROM SUBCOMMITTEES

Bicycle and Pedestrian Advisory Committee (BPAC)

At their November 1, 2004 meeting, members approved a motion accepting the documents and Alternative 7 as the Preferred Alternative.

Transportation Technical Coordinating Committee (TCC)

At their November 2, 2004 meeting, members approved a motion accepting the documents and Alternative 7 as the Preferred Alternative.

Citizen Advisory Committee (CAC)

At their November 4, 2004 meeting, the CAC did not have a quorum. However, the members that were in attendance recommended approval of the documents and Alternative 7 as the Preferred Alternative. Additionally, the CAC recommended that Matt Aresco be recognized for his hard work and dedication to this effort.

OPTIONS

- Option 1: Approve the *Lake Jackson Ecopassage Feasibility Study: Existing Conditions Technical Memorandum*, the *Lake Jackson Ecopassage Feasibility Study: Alternatives Considered and Preferred Alternative Technical Memorandum*, and Alternative 7 – Additional Passageways with the Construction of a Wildlife Wall as the Preferred Alternative.
- Option 2: Provide other direction.

RECOMMENDED ACTION

- Option 1: Approve the *Lake Jackson Ecopassage Feasibility Study: Existing Conditions Technical Memorandum*, the *Lake Jackson Ecopassage Feasibility Study: Alternatives Considered and Preferred Alternative Technical Memorandum*, and Alternative 7 – Additional Passageways with the Construction of a Wildlife Wall as the Preferred Alternative.

ATTACHMENTS

- Attachment 1: Lake Jackson Ecopassage Feasibility Study: Existing Conditions Technical Memorandum
- Attachment 2: Lake Jackson Ecopassage Feasibility Study: Alternatives Considered and Preferred Alternative Technical Memorandum