

Beaver Island Transportation Coordination Study Final Report

Submitted to:

Beaver Island Transportation Authority
Board of Directors



Submitted by:

The Corradino Group, Inc.

December 2004

Summary

The Beaver Island Transportation Authority (BITA), with support and funding from the Michigan Department of Transportation (MDOT), has conducted a study over the past several months to assess ferry transportation needs for Beaver Island. The study is being conducted by The Corradino Group with input from residents of and visitors to Beaver Island.

The purpose of the Beaver Island Transportation Coordination Study is to assess the existing ferry system serving Beaver Island and the greater Beaver Island area and “explore the impact or necessity of obtaining and operating an additional ferry to provide transportation.”

Existing Transportation Services

The most common mode of transportation to and from Beaver Island is ferry boat. Different privately-owned ferry boats have provided service between Charlevoix, Mich., and Beaver Island since the late 1800s.

The St. James Township Board created the BITA in 1992 for the purpose of securing government funds for a new ferry boat to serve the island community and the traveling public. Marine capital funding and ferry transportation issues have been overseen by BITA since then. BITA owns the Emerald Isle and the major infrastructure used by the Beaver Island Boat Company (BIBCO). BIBCO owns the Beaver Islander, the terminal building on Beaver Island, and other assets. The State of Michigan provides capital funds to BITA for improvements. The local match for those funds comes from revenues generated on the Emerald Isle. The state provides no operating assistance to the BITA for ferry operations. Other transportation to the Island includes commercial air service provided by Island Airways and private boat and plane.

Table S-1 presents historical passenger data for 1990 and then every year from 1995 through 2000. Table S-2 presents monthly data for 2000 through the middle of 2004. Table S-1 illustrates that passenger activity more than doubled between 1990 and 1998, when the Emerald Isle was placed in service. In 1998, passenger activity increased 34 percent and nearly 30 percent in each of the subsequent two years. This occurred while the population on the island increased by about 35 percent. As can be seen in Table S-2, both passenger and vehicle statistics have trended downward since 2001. This is attributed to several factors, including the September 11, 2001 tragedy, a downturn in the economy, and weather patterns resulting in cool, rainy summers.

**Table S-1
Beaver Island Boat Company
Historical Passenger Activity**

Year	Passengers	% Change ¹	Cumulative % Change ²	Population Beaver Island ³
1990	12,075			409
1995	23,188	92%	92%	479
1996	23,558	2%	95%	493
1997	26,416	12%	119%	507
1998	35,328	34%	193%	521
1999	39,338	11%	226%	535
2000	46,729	19%	287%	551
2001	47,577	2%	294%	580
2002	45,280	-5%	275%	602
2003	43,501	-3.9%	260%	618

¹Numbers are rounded.

²Cumulative change does not equal addition of changes between individual years.

³Population for non-Census years is estimated.

**Table S-2
Beaver Island Boat Company
Passenger and Vehicle Statistics**

Month	2000		2001		2002		2003	
	Pass.	Veh.	Pass.	Veh.	Pass.	Veh.	Pass.	Veh.
January	0	0	0	0	0	5	0	0
February	0	0	0	0	0	0	0	0
March	127	20	0	0	160	27	0	0
April	847	300	774	226	837	219	407	135
May	3,696	601	4,196	729	2,744	695	3,322	702
June	6,349	1,029	6,967	1,010	6,216	1,100	6,053	1,006
July	13,917	1,669	13,650	1,571	13,307	1,589	12,792	1,590
August	12,133	1,514	12,749	1,585	13,211	1,558	12,950	1,597
September	4,685	750	4,211	666	3,764	587	3,910	615
October	2,792	597	2,670	589	2,784	582	2,359	585
November	1,770	458	1,942	545	1,755	504	1,708	468
December	413	165	418	212	502	223	358	201
Total	46,729	7,103	47,577	7,133	45,280	7,089	43,859	6,899

Source: Beaver Island Boat Company

Economic Development Trends Resulting from the Emerald Isle

There has been significant growth on Beaver Island in the past 15 years. Since the mid-1990s, a number of major infrastructure and new retail activities have occurred. These include:

- Construction of new docks to accommodate the Emerald Isle
- Opening of Ace Hardware
- Opening of Dalwhinnies Café
- Paving of Roads in St. James Township
- Opening of Emerald Isle Hotel
- Construction and opening of Deerwood Lodge
- Opening of a number of other businesses such as the car wash, laundromat, Laurain Lodge, B.I. Lumber, and Bulk Propane
- Opening of the Beaver Island Rural Health Care Medical Center
- Increased construction of houses, commercial buildings, and garages.
- Increased property tax revenue for St. James and Peaine Townships.

This economic development has several impacts. It allows for nearly 600 people to live on the Island and make a living there. It also has resulted in the increased frequency of construction of new houses on the Island, many of which are used on a seasonal basis. As expressed during the public meeting held for this study and through surveys conducted in this study, there are concerns about the pace of development and whether an additional boat would cause even more development. Nevertheless, the data assembled for this study indicate to the consultant that ferry passenger activity and development on Beaver Island are influenced by a number of factors including availability of ferry transportation.

Potential for Coordination/Consolidation/Expansion of Services

The key question addressed by this study is: What is the need for a new ferry between Charlevoix and Beaver Island? Following are conclusions drawn from the study:

- Beaver Island is developing at a fairly rapid rate; some say the growth is too fast. As the resident population grows, ferry activity will increase. Likewise, increased tourist activity can be expected as residents create attractions by which to earn a living.
- The freight hauling capacity of the Emerald Isle was one factor in creation of an economic environment that resulted in acceleration of development on Beaver Island, including the paving of roads in St. James village, the construction of a new health center, and much more.
- The passengers on the Emerald Isle spend millions of dollars on both sides of the Lake benefiting the business owners and residents of the Island as well as the City of Charlevoix. As noted in the onboard survey distributed for this study (refer to Appendix A), more than 70 percent of respondents indicated they had spent money on their last trip and, of these, 35 percent spent more than \$100.

- Ridership on the BIBCO service has increased almost 300 percent since 1990. A significant part of this increase was before the Emerald Isle went into service and prompted the need for a larger vessel.
- More than 60 percent of the respondents to the survey indicated a breakdown of the Emerald Isle would cause some level of personal inconvenience.
- Although the BIBCO estimates the probability of a major breakdown of the Emerald Isle at less than five percent because of Emerald Isle maintenance and method of operations (e.g., not in heavy ice conditions); the probability of a breakdown and possible delays in getting parts will increase as the vessel ages. The Beaver Islander has had many breakdowns in its 40 years of service. Chronic engine trouble caused many of them for 22 years before the engines were rebuilt in 1984. A breakdown of the Emerald Isle would be disastrous for the island if it were out for any length of time.

Forecasts of Ferry Use

Passenger and vehicle use projections for the BIBCO service through 2010 are summarized graphically in Figure S-2. These forecasts are based on historical population and boat passenger trends. The data indicate that, in the low range, by 2010 approximately 47,500 passengers and 7,500 vehicles annually would use the ferry service. In the high range, the forecast is that about 53,100 passengers and 8,300 vehicles annually would use the ferry service.

Although passenger activity has been relatively flat and, in fact declined since 2001, population growth, construction of houses and commercial structures on the Island, as well as the continued availability of land, indicate that there will be more rather than less growth in the future. This growth will inevitably stimulate more demand for transportation. Given that the economy has been relatively slow since 2000, and that an eventual upturn will occur, the low range forecast is least likely to occur.

Need for Another Ferry

To evaluate the need for another ferry, a capacity analysis was conducted (Figure S-3). Under the low range forecast of ferry use, capacity (based on current peak service) is exceeded for vehicles in 2008 while in the high range it is exceeded in 2005. On the other hand, passenger capacity for all forecasts falls within the capacity threshold.

These data indicate that planning for additional ferry capacity for vehicles should begin now. The Island's economic vitality is dependent on this capacity. In the near term, operational procedures to address capacity issues should be explored.

