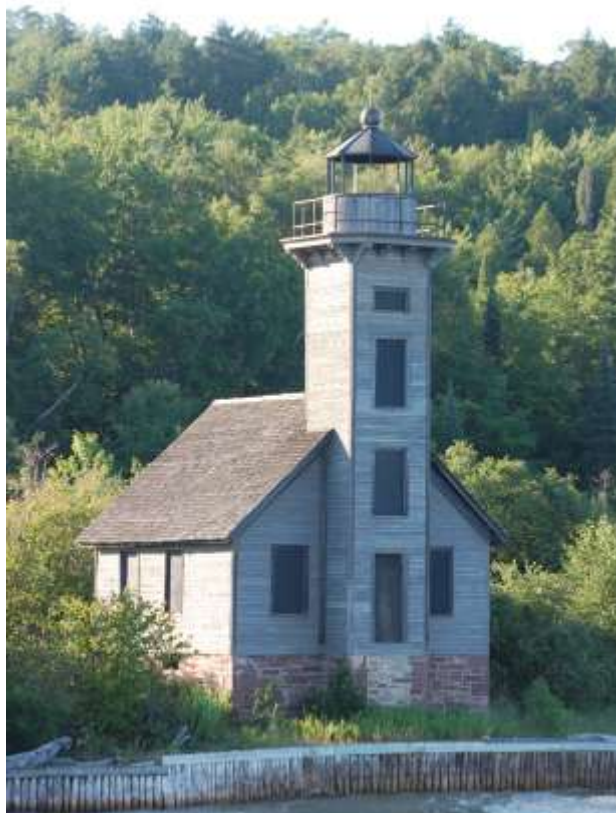


Grand Island National Recreation Area Alternative Transportation Project

December 2011



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FOREWORD

December 2011

We are pleased to present this Partnership Case Study for the Grand Island National Recreation Area Alternative Transportation Project. It is one of many case studies spearheaded by the Paul S. Sarbanes Transit in Parks Technical Assistance Center (TRIPTAC).

Launched in 2009, the TRIPTAC reaches out to federal land managers interested in developing or enhancing alternative transportation options, and provides them with the information, training and guidance they need to make these projects a reality. One element of this approach is to showcase innovative and successful initiatives in other federal land units.

One of the TRIPTAC team's first projects was to identify and conduct case studies to report on partnerships implemented at federal land management units. The case studies focused on federal land units that partnered with other agencies to implement, operate or integrate alternative transportation systems. TRIPTAC team members conducted site visits and developed reports (including this one) that analyze and document effective strategies and lessons learned from these partnership experiences.

We believe that these case studies will serve as instructive models for federal land managers who are new to transportation deployment and management. We also hope that the creative, collaborative strategies highlighted here will inspire other units where alternative transportation projects have been stalled by fiscal, operational, or jurisdictional challenges.

Finally, we'd like to express our appreciation to the Federal Transit Administration for their sponsorship of the TRIPTAC. We also wish to express our appreciation to staff of the National Park Service, the Bureau of Land Management, the U.S. Fish and Wildlife Service, and the USDA Forest Service. We would especially like to thank the Grand Island National Recreation Area staff for their time and input on this case study, as well as everyone else who contributed their time and hard work to these case study reports.



Steve Albert, TRIPTAC Director



Phil Shapiro, TRIPTAC Deputy Director

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EXECUTIVE SUMMARY

Grand Island National Recreation Area (GINRA) is a 13,500-acre island in Lake Superior, located one-half mile from Munising in Michigan's Upper Peninsula. GINRA is managed by the U.S. Department of Agriculture Forest Service (USFS) as part of the Munising Ranger District of the Hiawatha National Forest, and hosts approximately 7,000 visitors annually. These visitors travel to the island to enjoy numerous recreational activities including hiking, biking, camping, fishing, ice climbing and cross country skiing. Managing transportation for an island is challenging and GINRA is no exception.

When the USFS purchased the island from the Cleveland Cliffs Iron Co. in 1990, a public involvement process was initiated to ensure that citizens' concerns were taken into consideration in the general management plan. Private automobile access had historically only been available to those who worked or owned homes on the island. A recurring theme throughout the public involvement process was the issue of transportation. It was determined that an alternative transportation system (ATS) comprised of ferry service and multi-use trails was the best way to resolve the issue and protect the island's resources while continuing to make it available to the public. A bus service would later be added, to offer a more comprehensive transportation system. A local concessionaire began providing ferry service to the island, and use of private passenger vehicles on the island was prohibited, limiting visitors to alternative modes such as hiking, biking, cross-country skiing and snowmobiling.

In 2001 GINRA formed a partnership with Alger County Public Transit (ALTRAN), and the transit provider began offering bus service on the island during the summer season. Today the only motorized vehicles allowed on the island are ALTRAN tour buses, private vehicles belonging to Grand Island homeowners and USFS administrative vehicles. These vehicles are transported between the island and mainland on Mondays and Fridays by the USFS tug and barge. The elimination of most passenger vehicles has helped to enhance the visitor experience and promote resource protection.

Since its inception in 1990, the ATS has grown to encompass an integrated motorized and non-motorized system, consisting of a 32-person passenger ferry, a system of non-motorized hiking and biking trails approximately 25 miles in length, and an on-island gasoline/electric hybrid bus service which offers daily interpretive tours. The ferry service operates between Memorial Day weekend and early October. Bus tours are offered twice daily from June 15th through Labor Day. The interpretive tours last approximately three hours and stop at 12 points, giving visitors the opportunity to explore the island's key features while learning about its rich cultural and natural history. The growth of this system can be attributed to a foundation of strong partnerships between the USFS and its partners, including local businesses such as ALTRAN, Grand Island Ferry Service (GIFS), and the Hiawatha Interpretive Association (HIA), as well as federal agencies such as the National Park Service (NPS) and the Federal Transit Administration (FTA).

GINRA received \$790,000 from the Paul S. Sarbanes Transit in Parks (Transit in Parks) program (formerly the Alternative Transportation in Parks and Public Lands (ATPPL) program) between fiscal years 2007 and 2008. The Transit in Parks program is administered by the FTA in partnership with the Department of Interior and the USFS, and funds capital and planning expenses for alternative transportation. These grants funded a large portion of the ATS enhancements at GINRA. The capital investment from the Transit in Parks grants, in conjunction with the resources provided through partnerships, is helping USFS managers reach the ATS goal for GINRA, which is to offer complete access to the island by creating a transportation system that is safe, sustainable, and provides a positive visitor experience. The ATS project was designed to enhance the existing system in order to increase and diversify visitation, improve customer service, heighten resource protection, and encourage area visitors to “*Cross Over to Adventure.*”

While land managers face unique challenges at every site, it is hoped that by examining the lessons learned through the GINRA partnerships, new ideas will arise that will help land managers as they consider and develop their own ATS.

Lessons Learned — What Worked?

- Engage in pre-planning prior to applying for grants.
- Think broadly to develop a system that addresses regional goals and issues.
- Cast a wide partnership net and get all parties involved early.
- Use public involvement mechanisms to secure community support and buy-in.
- Think clearly about ATS challenges and proposed solutions, including a Plan B.
- Utilize partners or private consultants for technical expertise.
- Look for funds in creative places. Utilize all resources.
- Identify a project champion.
- Work hard as administrators to maintain healthy partnerships.

Lessons Learned — What Could be Improved?

- Be as detailed as possible when estimating a project budget.
- Make potential partners aware of both the rewards and challenges of developing ATS.
- Ask the individuals who deal with ATS components every day for their ideas.
- Keep partners involved from conception to implementation.
- Be patient, as ATS projects take considerable time to develop.
- Make sure the benefits of green technology outweigh the costs.

Future Partnership Activities

Overall, the partners involved in the GINRA ATS project have found the partnership rewarding and useful, and anticipate many future developments. Challenges were encountered and the system continues to grow, but by working hard to maintain healthy and communicative partnerships, the potential of GINRA as a premier recreation

destination is being realized. The partners are eager to see the final product and witness the accomplishment of the ATS goals for the island.



GRAND ISLAND PARTNERSHIP CASE STUDY

INTRODUCTION

Managers of public lands are implementing alternative transportation systems (ATS) in exciting and innovative ways. Learning about those programs can help fellow land managers meet their own

transportation challenges by successfully deploying ATS solutions. Partnerships with local governments, non-profit groups and commercial interests have consistently proven to be vital components in these successful ATS deployments. To expand knowledge about outstanding ATS projects in parks and public lands, the Paul S. Sarbanes Transit in Parks Technical Assistance Center (TRIPTAC) is assembling a set of case studies. Each study will highlight the successes experienced and examine the lessons learned by the land management units. Case study reports, such as this one, describe alternative transportation projects and partnerships that can be used as models by other land agencies interested in implementing ATS in their jurisdictions.

WHAT IS A CASE STUDY?

Case studies are designed to reveal arrangements and actions taken by a land management team in developing ATS systems for their land unit. The studies describe the transportation challenge, the ATS solution and the steps taken to reach the successful outcome, and cover all aspects of organizing, planning, designing, funding, implementing, and sustaining ATS. They pay special attention to the characteristics of successful partnerships, such as those between a public land unit, local friends groups, and non-profit organizations.

WHY WAS THIS CASE STUDY SELECTED?

Case studies are selected based on existing successful programs and partnering arrangements identified by the TRIPTAC, Federal Transit Administration (FTA), federal land management agencies, and a peer group. They are selected based on several criteria. Each selection demonstrates a unique collaboration among federal land agencies, non-profit interest groups, nearby communities, private businesses, and public or private transportation service providers. Other considerations include multimodal integration,

system complexity and funding, intergovernmental cooperation, geographic/topographic setting and regional diversity.

The Grand Island National Recreation Area (GINRA) alternative transportation project is an example of an up-and-coming transportation system that is the product of a partnership between federal and local agencies, non-profit organizations, private businesses, and private transportation providers. This unique system has grown from a six person passenger ferry and dated diesel tour bus to an integrated motorized and non-motorized system, which is composed of a 32 person passenger ferry, a system of non-motorized hiking and biking trails approximately 25 miles in length, and a gasoline/electric hybrid bus service that offers daily interpretive tours and on-island shuttle service¹. The growth of this system thanks to a strong partnership foundation has enabled the elimination of visitors' private vehicles on the island while increasing user capacity and enhancing visitor experience and resource protection. The map of the island on page 4 highlights the bus and ferry service route. The bus has access to the northwest side of the island; however, the bus tour only runs south of Echo Lake. The timeline on page 5 narrates the evolution of the ATS from when the USFS acquired the island to present day.

It is hoped that by examining and presenting the partnerships that made the GINRA system possible, this case study will provide land managers with instructive lessons and information to consider as they develop their own ATS.

WHAT IS THE PAUL S. SARBANES "TRANSIT IN PARKS" PROGRAM?

The Paul S. Sarbanes Transit in Parks Program (Transit in Parks), formerly the Alternative Transportation in Parks and Public Lands (ATPPL) Program, is a federal financial assistance program that annually awards grants to carry out projects that provide alternative transportation planning, facilities and services that enhance existing transportation systems in national parks and public lands. Alternative transportation means transportation by bus, rail or other conveyance including facilities for pedestrians, bicycles and watercraft.

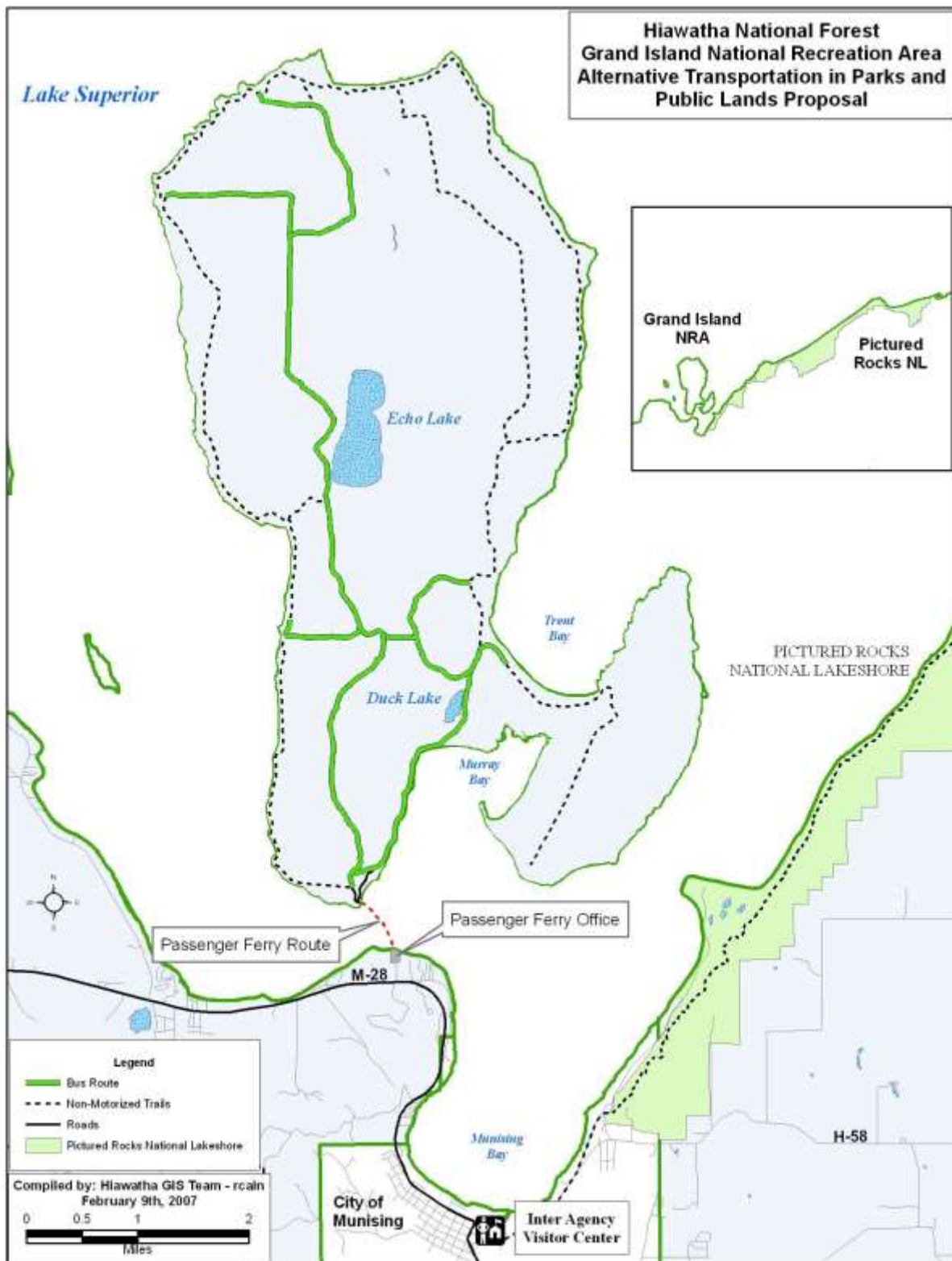
WHAT IS THE PAUL S. SARBANES "TRANSIT IN PARKS" TECHNICAL ASSISTANCE CENTER (TRIPTAC)?

Under the Transit in Parks program, the Federal Transit Administration created the Paul S. Sarbanes Transit in Parks Technical Assistance Center (TRIPTAC). It provides federal land managers with an expanded set of readily-available tools to meet the goals of Transit in Parks, which are to conserve natural, historical and cultural resources, reduce congestion and pollution, and improve visitor access and experience.

The TRIPTAC provides information, training, and technical support on alternative transportation systems (ATS) for federal land managers, offering them a single point of contact and a one-stop shop for desired services. Specific services include person-to-person technical liaisons, a Help Desk (helpdesk@triptac.org or 877-704-5292), website (www.triptac.org), training workshops, a peer mentoring program and an online system to

help public land managers find documents, technical manuals and other resources. This case study represents one of the resources developed for TRIPTAC clients.

MAP OF GRAND ISLAND NATIONAL RECREATION AREA



GINRA ALTERNATIVE TRANSPORTATION SYSTEM DEVELOPMENT TIMELINE

1990	★ Cleveland Cliffs Iron Co. sells Grand Island to the USDA Forest Service (USFS) for \$3.5 million. The tug and barge is acquired for \$75,000 as part of the land purchase. ★ The initial phase of the public involvement process begins and over 2,000 comments are collected. ★ The Grand Island Association (GIA) is formed to help represent homeowners' interests on the island, and the first partnership is formed. ★ The USFS officially begins managing GINRA and a general management plan (GMP) is adopted. The GMP lays the groundwork for transportation on the island. Administrative staff and homeowner vehicles are transported to the island free of charge via the USFS tug and barge on Mondays and Fridays, but visitors are not allowed to have their private vehicles transported to the island. ★ Pictured Rocks Cruises begins providing water transportation between Powell Point and Williams Landing.
1996	★ Glass Bottom Boat replaces Pictured Rocks Cruises as the ferry service concessionaire for GINRA.
1997	★ Grand Island Ferry Service (GIFS) is formed and replaces Glass Bottom Boat as the ferry service concessionaire for GINRA.
2000	★ Hiawatha Interpretive Association (HIA) partners with the USFS to provide interpretive programs and signage on the island.
2001	★ Alger County Public Transit (ALTRAN) begins providing on-island bus service. ALTRAN buses are transported to the island via the USFS tug and barge.
2004	★ The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) commission Cambridge Systematics, Inc. to develop a report documenting alternative transportation needs on USFS lands. GINRA is one of thirty sites evaluated in the report, entitled <i>Federal Lands Alternative Transportation Systems Study: Summary of Forest Service ATS Needs</i> .
2006	★ The USFS applies for Transit in Parks funding to begin ATS improvements. The request is initially denied.
2007	★ GINRA reapplies and is awarded \$575,000 from the Federal Transit Administration (FTA) via the Transit in Parks program. These funds are used to purchase a new hybrid bus and passenger ferry, as well as for dock repairs and enhancements to the passenger waiting areas. ★ GINRA develops a strategic plan, outlining strategies to increase visitation to the island in conjunction with the Central Upper Peninsula travel and tourism industry. ★ GIFS constructs a new ferry service office at the mainland landing.
2008	★ The Hiawatha National Forest receives \$11 million for projects within the forest through the American Recovery and Reinvestment Act (ARRA). A portion of this money is used to fund construction of a new bridge at North Light Creek on the north end of GINRA, and to begin renovations on the Visitor Contact Station located near Williams Landing. ★ An additional \$215,000 is awarded to GINRA via the Transit in Parks program. These funds are allocated for construction of the on-island maintenance and storage facility.
2009	★ The new passenger ferry, the <i>Kitchi Minis</i> , arrives to Munising with minor damages.
2010	★ The gasoline/electric hybrid tour bus is transported to the island via the USFS tug and barge and introduced to the GINRA bus fleet. ★ Repairs are completed on the <i>Kitchi Minis</i> and it begins undergoing sea trials in preparation to take over as the primary passenger ferry. ★ Construction is completed on a new bridge at North Light Creek, as well as on new docks on both the island and mainland. ★ The design is completed and bids are solicited for construction of the on-island maintenance facility and fueling station. ★ Renovations continue on the Visitor Contact Station.

GRAND ISLAND NATIONAL RECREATION AREA

GINRA is a 13,500-acre island in Lake Superior, which extends eight miles from north to south and four miles from east to west. The island is essentially two landforms connected by a tombolo, or sandbar, and is located one-half mile from Munising in Michigan's Upper Peninsula. GINRA offers rare wildlife sightings such as black bear, peregrine falcons, bald eagles and sandhill cranes.²



Over 700 athletes attend the Grand Island Marathon annually, running a strenuous course over hilly slopes, sandy beaches, and rugged footpaths. This is a great opportunity to showcase GINRA and introduce visitors to the ATS.

The island's 35 miles of coastline with spectacular cliffs and white sandy beaches serve as a beautiful backdrop for recreation and adventure.³ Designated by Congress as a National Recreation Area in 1990 when the U.S. Department of Agriculture Forest Service (USFS) was deeded the island, GINRA is a part of the Hiawatha National Forest. According to its motto, the Hiawatha National Forest is home of ***Great Islands, Great Lakeshores, Great Lighthouses and Great Snow***^{2,4}.

The gateway community of Munising provides access to both GINRA, which is managed by the USFS, and Pictured Rocks National Lakeshore (PRNL), which is managed by the National Park Service (NPS). Combined, the two attract an annual visitation of more than 450,000.¹ The vast majority of visitors to the Munising area partake in recreation activities within PRNL; however the NPS is helping the USFS promote GINRA in many ways. The two agencies operate out of an Interagency Visitor Center (VC) in downtown Munising and have cross-trained VC staff to direct visitors to the most suitable location to pursue their desired recreational activities.⁵ GINRA offers many opportunities not possible within PRNL, such as year-round hunting (in accordance with Michigan state regulations), accompaniment of domesticated animals in all sections of the recreation area, and unreserved camping throughout the island in accordance with specified guidelines². Reservations are not required for designated single campsites on the island, giving users the opportunity to camp on a first come, first serve basis.⁶ Another attraction to visitors is that biking on single track

trails is permitted at GINRA. These visitor activities make GINRA an attractive destination, and informing the public of these uses is helping to increase visitation.

The natural beauty and rustic nature of GINRA draws recreational users interested in numerous silent sports including biking, hiking, coastal camping, fishing and kayaking. “Silent sports” is a concept used to describe recreational activities that produce a low environmental impact and do not disturb or detract from the experience of others. Grand Island is gaining recognition in the region for offering exceptional silent sporting opportunities. In 2009, the regional magazine *Silent Sports* named GINRA a favorite spot for silent sport enthusiasts.⁷

Biking is among the most popular modes of transportation on the island, with many visitors bringing their own bicycles.⁸ The busiest day of the season occurs in early August when GINRA hosts the Grand Island Trail Marathon. The event attracts more than 750 runners and spectators and brings in over \$250,000 in business to Munising⁹. *Runner’s World Magazine* lists the event as one of the best new marathons in the area and one of the “greenest” marathons in North America.¹⁰ Come winter, adventure seekers travel from the Great Lakes region and across the country to enjoy the winter scenery and hunting opportunities. Many visitors prefer to access the island by way of snowshoe or cross country ski, though the majority uses snowmobiles. During this season PRNL hosts the third largest ice climbing event in the country and climbers often take side trips to experience the ice around Grand Island. This event helps bring visitors to GINRA and local hotels are filled to capacity.⁸

“The Island can support a huge increase in visitation. Even on marathon day with 750 people, the trail system is such that the island still feels fairly remote.” –Owner/Operator, Grand Island Ferry Service

GINRA currently hosts a relatively small number of visitors annually, roughly 5,000 during the summer and fall seasons and 7,000 total. The summer and fall season estimate of 5,000 total visitors is based on daily entrance fees, which are charged when people purchase their ferry ticket. Because the ferry does not operate in the winter, people self-access the island on skis, snowshoes or snowmobiles. For this reason, there is not a strong record of winter visitation. Winter counts are based on fee box revenues; however, they are not as accurate because some people put money in fee boxes on the island, but others do not. One GINRA representative estimated that approximately 2,000 people use the island in the winter, mostly locals, but this is not heavily supported. With the completion of all components of the ATS, land managers project a steady but strong increase in visitation^{2,11}.

One USFS representative commented, “The size of the island and the design of the trails allow for a huge growth in visitation without negatively affecting visitor experience or resource protection. Visitor impact now is incredibly low.”¹¹

Since tourism is the number one industry in Alger County and is vital to the economic stability of the Central Upper Peninsula region, increasing visitation in conjunction with the Central Upper Peninsula travel and tourism industry is a key component of the GINRA Strategic Plan. The five year business plan seeks to manage GINRA as a “niche” site within



Visitors can rent these Fuji mountain bikes at the Grand Island Ferry Service office for \$30 a day.

the central Upper Peninsula tourism market, specifically by providing service improvements through private/public partnerships and by using cooperative marketing strategies to increase visitation. Specific components of the five year plan include promoting the shoulder season through marketing strategies and sponsored festivals, working with private and public

partners to improve service and recreation opportunities, and targeting silent sport participants.²

The tagline “*Cross Over to Adventure*” was developed as part of the GINRA Strategic Plan. It is being used as part of a marketing strategy designed by the Eastern Upper Peninsula Nature Tourism Association (EUPNTA). The tagline carries dual meanings, alluding to both the sense of adventure associated with islands, as well as the opportunity for visitors who may never have tried mountain biking, kayaking, or backcountry camping to experience a new thrill. GINRA has the potential to fill a specific niche within the Central Upper Peninsula tourism market because the recreational opportunities on the island range from those challenging enough to suit sports enthusiasts to those easy enough for “first-time cross-over” tourists.² However, GINRA’s potential cannot be realized without the foundation of an efficient ATS. EUPNTA is a marketing partner in helping GINRA become a greater contributor to recreation and tourism within Alger County, and their alliance with the USFS helped set the stage for ATS improvements.¹

Increased visitation must be accomplished while staying faithful to the suited uses for GINRA as described in the Hiawatha National Forest Land and Resource Management Plan, which include “providing a range of recreational opportunities, while protecting threatened and endangered species and other natural and cultural resources.”¹² GINRA managers do

not anticipate that the island will become a major tourist destination, but by working cooperatively, the region has this potential. The size of the island can afford a large growth in visitation without forsaking the serene experience currently available. GINRA partners and local and regional tourism organizations are implementing marketing strategies to achieve the area's sustainable tourism objectives.²

Utilizing the Recreational Opportunity Spectrum at GINRA

The USFS uses a conceptual framework known as the Recreational Opportunity Spectrum (ROS) as a tool for thinking about recreational opportunities, designating appropriate activities for specific sites, and defining management objectives for those sites. The ROS classifies federal lands into one of six opportunity classes, each defined by three broad categories of factors: physical, social and managerial. The six opportunity classes in order from least to most modified are Primitive, Semi-Primitive Non-Motorized, Semi-Primitive Motorized, Roaded Natural, Rural, and Urban. GINRA is unique in that the ROS class for particular areas of the island shift from summer to winter. In the summer, the main island south of Echo Lake is managed as roaded natural, northwest of the lake is managed as semi-primitive motorized, and northeast of Echo Lake and on the Thumb are managed as semi-primitive non-motorized. In the winter the Thumb remains the same but the main island and tombolo are managed as semi-primitive motorized, which allows for use of snowmobiles¹². During the initial development of the General Management Plan (GMP), public feedback and the island's history were taken into consideration when designating ROS classes. The community was vocal in their desire for the island to remain open to a wide range of recreational activities. Citizens were determined that a solution be reached for the issue of transportation to and on the island. The implementation of shifting ROS classes helps ensure that the suited uses outlined for the island in the GMP are respected and public support is maintained. The ATS helps facilitate the planned ROS by providing the bus service that makes it possible for the north end of the island to be managed as non-motorized during the summer season.

For more information on ROS, visit

<http://www.fs.fed.us/recreation/programs/planning/index.shtml>

HISTORICAL CONTEXT

Per the Hiawatha National Forest Management Plan, an ATS was established for GINRA with the purpose of ultimately eliminating private passenger vehicles on the island. The elimination of private passenger vehicles helps protect the resources and character unique to the recreation area and increase its appeal as a recreation destination.¹² Before the island was managed by the USFS, it was owned by the Cleveland Cliffs Iron Company. A tug and barge was used to transport equipment and staff vehicles to the island, as well

as the vehicles of individuals who owned homes on the island. While many residents accessed the island for recreation via boat, ski, or snowmobile, there was no formal transportation system. As the mining industry in the region downsized, Cleveland Cliff's Iron Co. began selling its timberland stocks to stay viable. In 1990, the company sold Grand Island to the USFS and Congress designated the island as a National Recreation Area. The enabling legislation required the USFS to provide reasonable water transportation from the mainland to the island.¹³ This legislation served as a catalyst for the ATS and subsequent partnerships.

In 1990 a call was put out for public comments and input regarding management of the island.¹⁴ The community was especially sensitive towards the island's management because more than 20 families owned private homes on the island and many local residents had recreated there all of their lives. Many interest groups came forward and 2,000 initial comments were collected. When the Environmental Impact Statement was being put together 800 additional comments were submitted. One recurring theme in the comments was concern over the issue of transportation. The tug and barge was used to transport employees and homeowners, but no formal public transportation system had previously existed on the island, thus there was never a mechanism for transporting private vehicles across. The issue was whether to implement a system that would transport private vehicles to the island, or to design a system where private vehicles would be unnecessary. Ultimately, it was decided that private vehicles would be prohibited. Community support for this decision was strong, primarily because (1) there had never been a way to transport private vehicles, (2) building the infrastructure would have been expensive, and (3) the community enjoyed the primitive nature of the island.⁸



The captain of GIFS helps visitors onto the Seahunt at Powell Point. Until the launch of the new vessel which will utilize the new dock and ramp, this is the only way to board the ferry.

A local boat tour company, Pictured Rocks Cruises, began providing ferry service between the mainland and the island (Grand Island Ferry Service (GIFS) has since taken over as the ferry service concessionaire). With the implementation of the GMP and the introduction of a ferry service, motorized transportation was prohibited on the north end of the island year



ALTRAN offers 3 hour interpretive bus tours twice daily, 7 days a week. The original Ford Cutaway shown above must be turned off at each tour stop due to excessive noise.

round, and limited to administrative staff and island homeowners on the south end.¹ These restrictions continue to be enforced. Alger County Public Transit (ALTRAN) joined as a concessionaire in 2001 and began offering on-island bus service, providing an additional service for GINRA visitors. ALTRAN buses and homeowner and administrative vehicles are transported to the island via the USFS tug and barge.

The USFS acquired the tug and barge in 1990 as part of the Grand Island land purchase. It was originally used by Cleveland Cliffs Iron Co. to carry logs over to the mainland, and is now operated by GIFS to shuttle administrative and homeowner vehicles between the island and mainland on Mondays and Fridays. Additional trips are made when necessary, as when construction is occurring and heavy equipment must be transported. This service is free to homeowners, although a fee is negotiated when additional trips are requested. The barge remains in the water during the winter, and the tug is stored at a marina in Munising. Service is then unavailable until the spring when the tug is returned to the water.¹⁵

Banning private vehicles has allowed land managers to “control” where visitors can recreate, reducing the potential spread of non-native invasive species and eliminating random parking and the use of four wheel drive vehicles on beach areas.³ “We want to keep the big picture of recreation experiences in mind,” commented one USFS official. “Without these business partnerships we might be forced to have private vehicles on the island, and that would have a negative impact on the resources and recreation experience. These partnerships are a key part of the management plan.”¹¹

While the initial bus and ferry system have helped the USFS provide adequate transportation without use of private vehicles, the system has been unable to support a growing base of visitors. The six person passenger ferry, the *Seahunt*, was purchased in 1996 and is often unable to make trips in inclement weather due to its small size, sometimes stranding visitors on the island until conditions improve.¹ Often several trips are required in addition to those regularly scheduled to transport all passengers between the

island and the mainland. The ferry is small and equipment such as bikes further crowds the boat.

The antiquated 1999 Ford Cutaway diesel bus traditionally used for daily tours produces excessive noise and air pollution, making it necessary for drivers to turn off the engine at each point of interest in order for passengers to hear the presentation. Lack of an on-island maintenance and storage facility make it necessary for fuel to be transported to the island via the ferry in five gallon portable containers, which can result in minor amounts of spillage with potential for a much larger fuel spill into Lake Superior during crossing.^{1,3} Due to lack of accessible ferry loading facilities, disabled persons have to be physically helped on and off the ferry at both the mainland and island landings. All of these system limitations are being resolved and several other components of the transportation system have already been updated.³

The barge docks on the mainland and island were in need of repair as well as the associated sheet pile sea walls, which were in such poor condition as to cause unacceptable levels of erosion to occur into Lake Superior. Age, capacity and deterioration of the docking facilities rendered the system unable to meet anticipated demands. Even the popular 23 mile rim trail, used frequently by hikers and bikers, exhibited severe degradation in several locations. Culverts were needed on the rim trail around the island to bring the trail up to USFS standards.¹ North Light Creek Bridge, which provides the only river crossing on the north end of the island, had deteriorated to a point that it was unsafe to cross, forcing managers to develop an alternative trail on the beach. This alternate trail required visitors to wade through North Light Creek.¹⁵

The potential of GINRA as the premier recreation area of the Hiawatha National Forest was evident to forest managers, but it was obvious that ATS improvements were necessary to realize the full range of recreation opportunities available. The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) commissioned Cambridge Systematics, Inc. out of Cambridge, Massachusetts to develop a report documenting alternative transportation needs in lands managed by the USFS. GINRA was one of thirty sites selected for evaluation in the study. Cambridge Systematics, Inc. published the report in January 2004 and identified the need for an upgraded boat and tour bus to fit with the setting and historic theme of the island. The report also identified the need for dock replacement, repairs to the seawall, and construction of a maintenance and storage facility.¹⁶ This study planted the seed for ATS improvements and provided valuable information to GINRA managers about the potential costs and lifespan of the ATS. USFS staff began working with existing partners to formulate solutions to the transportation problems outlined in the report, and to achieve the ATS goals envisioned for the island.

EVOLUTION AND FEATURES OF THE CURRENT ALTERNATIVE TRANSPORTATION SYSTEM (ATS)

GINRA's alternative transportation goal is to offer complete access to the island by creating an ATS that is safe, sustainable, and provides a positive visitor experience. The ATS project was designed with the intention of providing enhancements to the existing system in order to increase and diversify visitation, improve customer service, promote resource protection and, as stressed in the GINRA Strategic Plan, encourage area visitors to "*Cross Over to Adventure*^{1,7}."

FERRY SERVICE

Enhancements to the ATS began in 2007, made possible by a grant from the Transit in Parks program. The first of these updates can be seen at Powell Point (the mainland landing), where users can purchase a ticket for the short ferry ride to the island (Note that in Figure 1 the schedule is the same for the mainland and island. This is because the ferry takes only five minutes to travel between the island and mainland, and is visible to users at all times from both landings).

Water transportation is provided by Grand Island Ferry Service (GIFS), a major partner and concessionaire on the ATS project. Passenger ferry service operates between Memorial Day weekend and early October, with peak visitation occurring between July 1st and Labor Day. Tickets can be purchased for \$15 per adult or \$10 per child 6-12 years of age. Children under six ride for free, and there is a \$5 charge for bicycles. Through the Recreation Enhancement Act, a standard amenity fee of \$2 per person is charged to island visitors and is included in the passenger ferry fee.^{6,17}

While many local residents access the island via private motorboat, the majority of non-local users access GINRA by kayak or by way of the ferry service at Powell Point. GIFS averages 70 ferry customers daily during the peak season.¹⁸ To accommodate these users, the passenger waiting area at Powell Point was updated to create an intermodal terminal serving as the primary entrance to GINRA. Additional picnic tables, a new patio, and landscaping were added to comfortably accommodate passengers waiting to be transported to the island. The sheet pile seawall was extended inland 50 feet to mitigate erosion. The wooden loading



The ferry service office at Powell Point serves as the primary access to GINRA. Parking is available at this location and visitors can purchase tickets for the ferry or bus tour, as well as rent bicycles and kayaks.

docks critical to providing administrative and passenger ferry access were upgraded and reinforced with 12" x 12" horizontal timbers to strengthen the dock against rough seas. Most importantly, concrete ramps with adjustable gangways were constructed on both the island and mainland to provide accessible ramps for loading and unloading passengers and to allow for fluctuations in water level.¹¹ These improvements were funded by the Transit in Parks program, and dually achieve resource protection and full accessibility as well as mitigate damage from erosion to existing equipment such as kiosks and electrical panels.¹ The USFS is responsible for maintenance of these new facilities.

The original ferry, the *Seahunt*, is still in operation, but a new fully accessible 32 person 38 foot catamaran, christened the *Kitchi Minis*, has arrived at Powell Point and made its maiden voyage after completing sea trials and certification by the Coast Guard. This occurred in the summer 2011 season. The name *Kitchi Minis* was used by early Ojibwa Islanders and translates to Grand Island. It has deep historic significance and is a fitting name for the vessel.¹⁸ The size of the ferry allows for increased visitor capacity, increased comfort while traveling, and easy transport of visitors' gear and bicycles. This new ferry will often eliminate the need for multiple trips at designated departure times and alleviate wait times for visitors at the dock.³

Departure Point	Memorial Day Weekend - June 30	July 1 - Labor Day	Labor Day - Oct 9
Grand Island Landing (on mainland)	9:00am, Noon, 3:30pm	9am, 10am, 11am, 12pm, 3:30pm, 4:30pm, 5:30pm, 6:30 pm July 4, closed at noon	9:00am, Noon, 3:30pm
William's Landing (On Grand Island)	9:00am, Noon, 3:30pm	9am, 10am, 11am, 12pm, 3:30pm, 4:30pm, 5:30pm, 6:30 pm July 4, closed at noon	9:00am, Noon, 3:30pm

Figure 1 Passenger Ferry Service Schedule¹⁹

BUS SERVICE

ALTRAN provides ground transportation services on the island from June 15th through Labor Day.³ ALTRAN operates under a special use permit issued for 5 years by the USFS, and will reapply when the permit expires at the end of 2011.²⁰

Using the Transit in Parks grant provided by the FTA, the USFS purchased a 2009 fully accessible 20 person electric/gasoline E-450 *Ford FuelFlex* hybrid tour bus, complete with bike racks, which is now in operation. Though operated and maintained by ALTRAN, the hybrid is only available for use within GINRA. Three buses are allowed on the island at any one time, but the hybrid will now serve as the primary tour bus and only one additional bus will be kept on the island as a spare. The Hiawatha Interpretive Association (HIA) is working with the USFS on graphics for the hybrid bus. The graphics application will be funded by ALTRAN.⁸

Benefits of the electric/gasoline hybrid bus include reduced air and noise pollution and better efficiency. Hybrid buses offer up to a 20% increase in fuel economy and up to 90% reduction in particulate matter as compared to standard diesel engines.¹ As the bus operates from six to seven hours per day during peak season, roughly 22 miles a day, this provides a significant decrease in emissions.⁸ Passengers also enjoy a smoother, quieter ride allowing them to better enjoy the island. Another major advantage of the hybrid is that at slow speeds or stops it is powered by electricity. Electric operation is quiet, allowing tour guides to present their program without the din of a diesel motor.¹¹

Interpretive bus tours are offered twice daily, at noon and 3:30, seven days a week. The tour



The new gasoline/electric hybrid provides access for visitors with limited mobility, allowing them to explore areas of the island that would otherwise be unreachable.

travels the southern part of the island and last approximately three hours. Passengers have the opportunity to get out of the bus and explore key island features at 12 different sites along the route, while learning about Grand Island's rich natural and cultural history via a tour guide and interpretive signage.²¹ Tour bus drivers are employed by ALTRAN. ALTRAN pays and trains three employees to guide GINRA tours, while historical and interpretive training material is developed

with the help of the USFS. Approximately 28 visitors per day utilize this tour service.²⁸ This

recreation opportunity is still being established and currently does not significantly contribute to tourism on the island or in the area. With the introduction of the new shuttle however, managers anticipate that the interpretive tours will begin to attract visitors primarily interested in that service. An agreement exists between ALTRAN and GIFS so that bus tour tickets can be purchased at the GIFS office, eliminating the burden on bus drivers of dealing with cash.⁸ A \$22 package includes the ferry ride, bus tour, and standard amenity fee. The same package is available to children for \$11.²²

Construction began in 2011 on a 36 x 48 foot on-island maintenance facility and fueling station to support GINRA's alternative transportation system. This facility will make safe and professional fuel transfer possible. The USFS tug and barge will transport a fuel truck to the island once per season to fill two twin fuel tanks, which will each hold 250 gallons. This will supply fuel for the tour buses for the entire season. Land managers anticipate that maintenance costs will decrease over time as the hybrid bus will be stored out of the elements and will only have to be transported to the mainland for winter storage and major repairs. ALTRAN employs a mechanic capable of maintaining the hybrid and troubleshooting, and minor upkeep will be possible in the new facility.¹¹

Other benefits of the maintenance facility and fueling station include elimination of a parking compound that is used to store USFS vehicles and equipment. This compound is located near the main access road and is visible to both hikers and bus tour users, detracting from the natural experience of the island. The new facility will be located farther off the trail and will not be visible to visitors. The facility will have the capacity to house the new electric/gasoline hybrid and the spare tour bus, and once complete these vehicles will be stored in the building every night. There will also be space for fueling and maintenance within the facility. The buses will be transported back to the island for the winter via the tug and barge, and stored at ALTRAN's garage. The USFS will then use the space to store an administrative truck and the ATV's used to travel around the island in the winter.

The existing compound area will be re-vegetated with native plant species.¹¹ An additional small lot has already been added near the location of the new storage facility for USFS vehicles when on the island. A small lot was also added away from the trail so that island residents can keep their vehicles out of sight. With these new additions, the compound area can be re-vegetated. This will have a positive impact on the visitor experience by greatly improving the natural conditions and aesthetics of the area.

The Interpretive Bus Tour: Highlighting Grand Island's Cultural and Natural History

Grand Island is more than just a beautiful place to explore and recreate, it also offers a myriad of opportunities to learn about the cultural and natural history of the Lake Superior region and Michigan in general. GINRA is one of the richest areas in the Hiawatha National Forest when it comes to National Heritage Sites, and the interpretive bus tour was created to share that rich history with the public.¹ The island was first inhabited by Ojibwa, or Chippewa, Indians. The University of Illinois, in conjunction with the USFS and the Sault Tribe of Chippewa Indians, conducts a yearly archeological field school for the benefit of students and public education.⁸ The Hiawatha Interpretive Association sponsors a Youth Archeology Program each summer, giving local kids the chance to learn about native customs as they help unearth beads and chert arrowheads. Jesuits and early voyageurs also found their way to Grand Island, the most indelible of these explorers being a man named Abraham Williams who settled with his family on the island in 1840.²⁰ Williams left not only his name all over the island, but a large home and a number of rustic cabins. Under the ownership of the Cleveland Cliffs Iron Company in the early 1900's, company president William G. Mather turned the Williams home and surrounding buildings into a high class resort, hosting several of the era's most prominent socialites. Mather rewarded friends and associates by inviting them to build summer homes on the island, and the majority of these homes remain, having been passed down through the generations.²⁴ This history is covered on the interpretive tour, and several of these sites are visited. In addition to information about this vibrant cultural history, guides also highlight the island's unique natural history, such as its claim to one of the largest lakes created by a beaver dam in the lower 48 states, and the geological processes that formed the colorful layers of rock visible on the island's rocky cliffs.¹

HIKING AND BIKING TRAILS

The third leg of the ATS consists of the biking and hiking trails. Approximately 25 miles of



Construction of a new bridge at North Light Creek was funded through the American Recovery and Reinvestment Act (ARRA). With the old bridge damaged beyond repair, bikers and hikers were forced to re-route and cross at the beach below.

single-track and carriage road trails are available for biking and hiking, including the 23 mile perimeter trail. Most of the hiking and mountain biking trails lie on old road beds, cross a variety of terrain and provide views of the rugged shoreline. Bicycling off of roads and trails is not allowed. GINRA trails offer unique social benefits as they are only open to non-motorized use in the summer months, which eliminates conflicts with motorized users.⁶

Biking is the primary and preferred method of travel by summer visitors wishing to explore beyond the southern end of the island. GIFS operates a bike concession out of the ferry service office at Powell Point, which is authorized by the USFS through a special use permit. They offer 20 Fuji Mountain Bikes for rent at \$30 per day, although the majority of visitors bring their own bikes. Bikes are available for rent during regular ferry service operation and are stored near the ferry drop-off at Williams Landing for easy access by users.⁶

As part of the ATS improvements, several culverts were replaced on the east side of the island to ease passage. Construction is now complete on the North Light Creek Bridge replacement. This bridge replacement was funded through the American Recovery and Reinvestment Act (ARRA). The narrow width of the bridge intentionally eliminates the possibility of passenger vehicular traffic at the north end of the island. A hiking-only trail has been designated in the northeast part of the island, and the eastern most section (designated the “Thumb” because of its shape) is reserved for hiking-only use. These trails were created in accordance with ROS guidelines, which recognize the areas as primitive. They are managed accordingly.¹² There are many hiking and biking opportunities along the island’s perimeter as well as its interior, providing a relatively secluded setting for hikers seeking a measure of solitude.³ Trails on GINRA are open to the public for hiking and biking year round, however, during the snowy season skiers and snowmobilers dominate the trails.

ATS OPERATIONS AND PARTNERSHIPS

The key to the success of the GINRA ATS project is the existence of partnerships that provided the resources and support necessary to carry the project from conception to implementation. The USFS recognized that being a “partnership agency” would help them provide improved service on the island.² It is through these partnerships that the USFS is able to provide transportation to a growing body of visitors while moving towards a more environmentally friendly and sustainable operation. The key private and public partners associated with the GINRA ATS project are:

- Alger County Public Transit (ALTRAN)
- Grand Island Ferry Service (GIFS)
- Grand Island Association (GIA)
- Federal Transit Administration (FTA)
- Hiawatha Interpretive Association (HIA)
- The National Park Service (NPS)
- Eastern Upper Peninsula Nature Tourism Association (EUPNTA)



This new 32 person catamaran will replace the original ferry, greatly improving service by reducing wait time and increasing comfort. In the future, short interpretive tours highlighting Murray Bay and its historic district will be offered.

The first partnership began in the early 1990s when the island was purchased for 3.5 million dollars from the Cleveland Cliffs Iron Company, with the Trust for Public Lands acting as an intermediary. Some 20-plus private structures remain on the island and while the majority of the land was deeded to the USFS, the structures remain in the ownership of the original residents.

This relationship is managed by the USFS through use of recreational residence special use permits. To more effectively deal with the USFS, the Grand Island homeowners formed the **Grand Island Association**. GIA members pay yearly fees for recreation residence permits. GIA has helped design signage for the island telling the story of the island’s residents, and helped secure funding for renovation of historic structures on the island that are visited along the interpretive tour route.¹¹

Grand Island Ferry Service is responsible for maintaining their building and equipment. They own the original *Seahunt* ferry and fund all aspects of ferry service operation from staffing and fuel to insurance and maintenance.¹⁷ Because the new 32 person ferry is owned by the USFS, they are responsible for major repairs, despite the fact that it will be operated by GIFS as Government furnished materials.

GIFS operates under a special use permit issued by the USFS. Special use permits are issued for 5 years, with a 5 year renewal with satisfactory performance. The USFS advertises business opportunities such as ferry and bus service, and proposals are evaluated based on certain criteria. GIFS's special use permit expires at the end of 2011 and at that time they will reapply for a 5 year renewal.²³

The owner of GIFS provided vital technical expertise during the purchase of the new ferry and on the design of the new dock to accommodate the larger vessel and increased accessibility. Despite Coast Guard requirements calling for an additional deck hand on the new ferry, managers do not anticipate an increase in cost for GIFS as they will be utilizing employees already on hand. The USFS is working with GIFS, and all other business partners, to ensure that the ATS creates profitable business opportunities.²⁶ By doing so, the USFS is able to stay committed to their mission and utilize private businesses such as GIFS for their service and technical support.

GIFS made a major contribution to the system in 2007 by replacing the original 10 foot by 16 foot storage shed with a newly constructed passenger ferry office.¹ This new building and gift shop is owned and maintained by GIFS and is where the majority of users begin their trip. GIFS also captains, under a separate contract, the tug and barge owned by the USFS. The tug and barge is used to shuttle administrative and homeowner vehicles, materials and supplies between the island and mainland on Mondays and Fridays, and returns the bus to the mainland when maintenance is required.¹¹

"When a partner like Altran provides on-island transportation, it in turn keeps public vehicles off the island which is a perk for users interested in biking and hiking. That was the whole idea behind making the southern part of the island motorized and the northern part and the thumb non-motorized." –Hiawatha National Forest, Recreation Program Manager

ALTRAN is the Forest's critical partner in providing the bus service on the island. As ALTRAN was already offering public transportation throughout Alger County when the USFS purchased Grand Island, they were an obvious appropriate partner. ALTRAN operates and funds all motorized public transportation on the island through a special use permit with the USFS. Although the new hybrid bus is owned by the USFS, ALTRAN operates it as Government furnished material. The original buses were purchased by ALTRAN for use on its county wide transit system and transferred to the island via the tug and barge in 2001,

when they were awarded the special use permit and tours began.⁸ Another indispensable contribution by ALTRAN is their staffing of well-trained and enthusiastic drivers who are trained by ALTRAN and the USFS as interpretive guides. These guides shape the visitor experience.

ALTRAN also provides transportation for GINRA work crews and private tours, as well as \$20 Express Service for hikers and bikers who wish to take the bus to the north end of the island loop road and hike or bike back to the ferry landing. ALTRAN operates 15 buses in Alger County and provides drop-off at Powell Point (the mainland ferry landing). Currently ALTRAN serves Tourist Park in Munising, a city RV campground, by offering call-in service for transportation from the campground to the ferry. The cost of this service is \$2. This service is proving to be very useful as parking at Powell Point is limited. As the ATS grows and visitation increases, pick-up services may be offered to transport visitors from other lodging to the ferry service, helping to mitigate parking issues. Additionally, ALTRAN currently pays for commercial advertisement in Michigan, Northern Wisconsin and Minnesota, and the Grand Island tour bus is featured in these commercials. ALTRAN is already seeing an increase in ridership since the commercials began airing.⁸

The Executive Director of ALTRAN has been a leader in promoting tourism and economic development not only for GINRA but also for the greater Munising area. Her commitment to the community and to the mission of GINRA has been instrumental in the success of the ATS. Under her supervision ALTRAN provided guidance for purchase of the hybrid bus. Though originally a diesel hybrid was being considered, the final decision was to purchase a gasoline hybrid, as gasoline hybrid technology is currently more advanced than diesel for the size of the bus needed on the island. ALTRAN has also been integral in obtaining grant funds for further enhancements and upkeep to the ATS.¹¹

Hiawatha Interpretive Association is a non-profit organization, similar to a “Friends” group in design and function, which distributes funds exclusively for projects within the Hiawatha National Forest.²⁴ Membership consists of a wide range of individuals from FLMA staff to retired teachers and business leaders, and the organization is managed by a board of directors drawn from Michigan’s Upper Peninsula. HIA is a major partner in



Signage such as this, funded by HIA, provides historical information near popular points of interest on the island.

delivering interpretive and conservation education programs on the island, from teaching Leave No Trace principles to promoting wise stewardship of National Forest Lands. HIA operates a gift shop that is located within the Interagency VC in downtown Munising. Using the proceeds from gift shop sales, private contributions, and membership fees, the organization has donated upwards of \$200,000 for production of interpretive signage and development of programs within the Hiawatha National Forest. Portions of these funds have been used to fund 90% of the interpretive signage on the island.⁵

HIA also funded nearly all of the \$30,000 welcome video that is played at the Interagency VC. The video provides information concerning recreational opportunities within the Hiawatha National Forest, GINRA, and PRNL. HIA also hires and funds three seasonal interpretive interns a year. Interns work in the VC and conduct interpretive programs on botany, tree and mammal identification, lighthouses and more. Most interpretive programs are hosted on the mainland as it is difficult to coordinate events on the island. Attempts are being made to coordinate with large groups for events on the island, and to conduct interpretive programs at Williams Landing, through which all visitors pass. Interns are very useful due to the lack of full-time interpretive staff within the USFS.⁵

The president of HIA described the good nature of the partnership in a letter of support for funding through the Transit in Parks program. “We feel the Grand Island National Recreation Area offers one of our best opportunities to interpret natural and cultural features for the visiting public,” she wrote. “Grand Island is a special place and we are proud to be a partner with the USFS in helping deliver interpretive programming.”²⁵

The **Eastern Upper Peninsula Nature Tourism Alliance (EUPNTA)** is a five-county coalition of business, government and visitor bureaus. EUPNTA’s role as a partner will continue to grow, as their mission is to utilize the natural assets of the region to attract visitors with the long-term goal of developing a sustainable nature-based tourism market. When developing the GINRA Strategic Plan, improved marketing and regional tourism were identified as goals. The USFS formed a partnership with EUPNTA in 2007 to achieve these goals through cooperative marketing strategies. This alliance helped set the stage for ATS enhancements by calling attention to the need for an improved transit system to support a growing body of visitors.²

EUPNTA is using a number of marketing strategies to promote the eastern part of Michigan’s Upper Peninsula. One of these strategies was the creation of the *Great Waters* brand as a means to developing the region into a nationally recognized visitor destination. The goal is to work the *Great Waters* brand into popular discourse, so when people hear the term they will automatically think of Michigan’s eastern Upper Peninsula.¹¹ GINRA is a designated way point on the “*Great Waters*” Lake Superior trail, which is one of three Great Lakes trails developed by EUPNTA.⁴ These trails were developed as a further strategy for generating recreation interest in the region.

The alliance is considered a marketing partner in helping GINRA and PRNL become greater contributors to recreation and tourism in Alger County. The current marketing strategy

appears to be paying off, as Michigan was one of only a few states in the country to see an increase in tourism in 2009.³ Another strategy that will be focused on more in the future is to tap into the European market by offering large group bus tours that will travel throughout the eastern part of the Upper Peninsula. These potential tours would keep with the theme of developing opportunities that benefit the entire region. GINRA will be one of several stops on the bus tour route.⁸

The **National Park Service (NPS)** not only assists the USFS by promoting GINRA at the Interagency VC, but on other tasks as well. The NPS has partnered with the USFS in the past on trainings and on the welcome video that was funded by HIA. GINRA is home to a number of black bears that tend to congregate around the tour bus parking area, and the NPS has been a tremendous help in managing black bears on the island, as well as educating visitors about black bears and how to protect and avoid them.^{2,5} Many of the current transportation needs found in America's parks and public lands will require cooperation between the NPS and the USFS to be effectively and sustainably resolved. As demand for recreation in Alger County increases, an existing symbiotic partnership between the two agencies will no doubt prove valuable.

The **Federal Transit Administration (FTA)** made a substantial investment in the ATS through the Transit in Parks program. Funds in the amount of \$790,000 were awarded for the purchase of the hybrid bus and passenger ferry, dock and waiting area improvements, and the construction of the critical on-island maintenance/storage facility and fueling station.^{1,3} The Transit in Parks program is administered by the FTA in partnership with the Department of Interior and the USFS, and funds capital and planning expenses for alternative transportation systems.

INSTITUTIONAL ARRANGEMENTS

FUNDING

CAPITAL COSTS

In 2006, the USFS applied for an implementation grant through the Transit in Parks program. The proposal was initially denied, but after reapplying in 2007 the USFS and ALTRAN were granted \$575,000 to begin phase I of the ATS enhancements. In 2008 the USFS received an additional \$215,000 from the Transit in Parks program to support phase II of the project.^{1,3} An additional \$70,000 in appropriated funds was provided by the USFS, and together these funds were used for the following purposes:

- Purchase of the new hybrid bus (Phase 1)
- Purchase of the new passenger ferry (Phase 1)
- Passenger waiting area improvements including accessible loading dock and sea wall repairs (Phase 1)
- Construction of the on-island maintenance facility and fueling station (Phase 2)

In 2009 the USFS received \$11 million through the American Recovery and Reinvestment Act (ARRA) for various projects within the Hiawatha National Forest. Portions of these funds were used to cover construction costs for replacement of the North Light Creek Bridge, replacement of culverts on the perimeter trail, and renovation of the Visitor Contact Station on the island. The culvert and bridge replacement projects are complete and the Visitor Contact Station renovations are currently underway. A breakdown of capital costs can be found in the table titled *GINRA Capital Expenditures for Transportation System and Visitor Services* located in Appendix A. In addition, HIA is currently working closely with the USFS to design additional interpretive signs which will be placed at the 12 designated tour stops, as well as inside the Visitor Contact Station. The full cost of these signs will be covered by HIA.¹¹

OPERATIONS AND MAINTENANCE COSTS

Due to the nature of the special use permits under which both ALTRAN and GIFS operate, the USFS does not pay the maintenance or operations costs of either the ferry or the tour bus, with the exception of any major repairs that may be necessary on the *Kitchi Minis*. Two sources of funds are available should major repairs be needed. The first is money collected by the USFS from special use permits. The second is money collected via the Recreation Enhancement Act. Both sources are discussed in the “Revenue” section below. ALTRAN pays for all bus maintenance and operations.¹⁵

Maintenance of vehicles, fuel purchases and other operational costs such as insurance, training, and staff salaries are paid by the respective concessionaires.^{17,21} The ferry service office is owned by GIFS, and they are responsible for building upkeep, overhead and maintenance. The USFS continues to work with ALTRAN and GIFS to maintain these operations as viable business opportunities. Routine maintenance of terminal facilities, docks, loading ramps, trails and designated campsites are carried out by the USFS and covered by funds retained from standard amenity fees through the Recreation Enhancement Act and appropriated funds.¹⁵

REVENUE

Revenue is generated by ferry service tickets sales, gift shop merchandise, and bus tour sales. In 2009 GIFS grossed roughly \$80,000 from ticket and merchandise sales. GIFS returned \$1,582.88 to the USFS in 2009, approximately 2% of their gross revenue, to be used for enhancements to the system (such as road repairs and dock maintenance), per the conditions of their special use permit.¹⁷ ALTRAN pays \$200 annually for their special use permit and at this time none of their gross income, as they are currently breaking even from bus tour operations.⁸ Under the Granger-Thye authority, fees for special use permits are retained on the forest for use by the USFS for improvements and maintenance of terminal facilities, including major repairs to the *Kitchi Minis*, as described above under “Operations and Maintenance Costs,” or the concessionaire may reduce their fee by the value of work performed.^{17,21} ALTRAN and GIFS continue to invest in the system with the belief that as the system grows to provide more access to visitors, revenue will increase.

Under the Recreation Enhancement Act visitors pay a \$2 standard amenity fee either as part of their ferry service ticket, or by placing their money in a drop box on the island if they travel to the island by a means other than the ferry. All fees collected in this way within the Hiawatha National Forest go into one fund, and are used where needed within the forest. The USFS usually directs the money back to the site where it was collected for improvements and upkeep there, but funds are also prioritized and directed to where they are most needed. Based on this management technique, with approximately 5,000 visitors to GINRA in 2008, \$10,000 was collected via standard amenity fees to be used for improvements and maintenance within the Hiawatha National Forest, specifically at GINRA. This is one of the two sources of funding available should major repairs to the *Kitchi Minis* be needed in the future. If necessary, additional funds could be allocated from other standard amenity fees collected within the Hiawatha National Forest.

Additionally, HIA has provided \$200,000 from merchandise sold at the Interagency VC for use on projects within the Hiawatha National Forest. Portions of this money have been used to fund 90% of the interpretive signage within GINRA. HIA will continue to assist on interpretive projects in the future.³

LESSONS LEARNED

Every ATS project on federal lands comes with a unique set of circumstances. Not all factors that made for successes or challenges at GINRA can be related to other ATS projects on federal lands. Grand Island is particularly challenging to manage simply because developing transportation for an island involves numerous components and considerations.⁷ This being said, a close examination of the partnerships that make the GINRA ATS possible does offer a number of lessons that may be useful to other FLMAs as they develop, implement, and grow systems of their own.

WHAT WORKED?

- **Engage in pre-planning prior to applying for grants.** The catalyst for GINRA managers moving forward with the Transit in Parks grant application was the report addressing ATS needs conducted by Cambridge Systematics, Inc. The study clearly identified transportation areas that



Views such as this are experienced along the island's perimeter hiking/biking trail.

could be improved to create growth and financial sustainability for the system, giving GINRA managers the information necessary to develop a solid grant proposal.¹⁶ The GINRA Strategic Plan also served as a tool for focusing in on potential ATS projects for the island.

- Partnering with EUPNTA was also an essential pre-planning step. The alliance worked to increase awareness of the island through basic marketing, helping to add to the tourism mix of the Central Upper Peninsula.² Thinking broadly and developing a strategic plan with regional tourism in mind, rather than narrowly focusing in on the island, has helped the USFS design a system that will be as effective in the future as it is now. The steps outlined in the Strategic Plan and the marketing approach implemented by EUPNTA set attainable goals for GINRA that can be achieved incrementally, allowing room for the ATS to grow as regional tourism increases.² These types of pre-planning helped managers identify viable and attainable ATS enhancements that were not just reactive, but proactive. Another lesson that can be learned from this is to **think broadly and develop a system that addresses regional goals and issues.**
- **Cast a wide partnership net and get all involved parties around the table early on.** In a project with a limited budget, there is no substitution for highly involved partners with access to much needed capital and resources. In the case of GINRA, appropriated funds simply would not cover the cost of a sustainable transit system. By involving several local, state, and federal partners, GINRA was able to provide transportation to visitors without having to solely secure all funds. In order to take advantage of every opportunity available within the community, it is critical that partners be involved early on in the design process.¹⁸ When asked about wisdom to share with those considering developing an ATS, one partner responded, “Involve partners and involve them early.”



An ALTRAN guide stops at one of GINRA's many historic structures, giving the tour group a chance to look inside the cabin and get a feel for early life on the island.

- **Use public involvement mechanisms to secure community support and buy-in.** If the community is not in support of a proposed transportation project, there is very little chance that the project will succeed. The USFS was well aware of this and engaged in several public involvement projects to bring the community on board, including the call for public comments and

input that generated nearly 3,000 comments.²⁶

The USFS also used a series of news releases locally and regionally to inform the community of the management changes on the island. A mailing list was developed of people who had shown interest in the island's management; they were sent a quarterly publication entitled "Full Circle," to keep them involved and informed in the planning process.¹¹

The USFS also partnered with Pictured Rocks Cruises, a local boat tour provider, to offer two free public boat tours around the island so that the USFS could hear citizens' concerns, showcase the area, and start conversations about management. Through these forums and events the USFS was able to work with the community and frame the issues surrounding management of the island. From this discourse, it was decided that it was necessary to eliminate private vehicles on the island. Pictured Rocks Cruises joined the partnership and began providing ferry service (to later be replaced by GIFS). In 2001 ALTRAN began offering bus service and further improved the island's transportation system. By listening to the concerns of local citizens and considering those concerns while developing a solution, the USFS garnered support from the community, rather than encountering opposition.¹¹

- **Think clearly about ATS challenges and proposed solutions, including a Plan B.** No project will go exactly according to plan. The best way to prepare for this reality is to discuss with partners any potential problems and how to address them. Examining additional options and being open to an alternative proposal can truly expedite the implementation process. For example, one of the critical project champions from the USFS stated, "We wanted to go as green as we could in today's world, so we were looking into a diesel hybrid but we ended up with a gasoline hybrid. ALTRAN helped us research diesel hybrids and it turns out that at this time they simply are not as advanced as gasoline hybrids for the size of vehicle needed on the island. We needed a durable bus." GINRA had to alter their original plan to make the best decision for their specific geographical location. In the end, using the input of ALTRAN, they settled on a gasoline/electric hybrid.^{7,8}
- **Utilize partners or private consultants for technical expertise.** Partners with technical expertise will be the linchpin for any ATS project. Most FLMA's lack experience when it comes to purchasing advanced equipment such as hybrid buses. In these situations technical expertise may be the most valuable resource a partner can offer.¹¹ In the case of GINRA, ALTRAN and GIFS provided invaluable expertise and were major assets during the researching and purchasing phase for the hybrid bus and passenger ferry. "We're not in the boat buying business," one USFS Ranger confessed. "That's part of the reason why partnering was so critical."¹¹ Whether from a transit provider, state Department of Transportation, or private consultant, technical expertise is vital when designing a sustainable system.

- **Look for funds in creative places. Utilize all resources.** As a unit of the USFS, GINRA operates on a tight budget and the appropriated funds received must be used for projects on the entire Hiawatha National Forest. In order to make ATS improvements possible, several funding sources had to be considered. “Recreation opportunities on the



The Seahunt pulls into the newly constructed accessible ramp on the mainland at Powell Point.

island are simply not possible without transportation, and the infrastructure of a grant,” commented one USFS Manager.⁴ Hiawatha National Forest Staff offer to host Regional and National USFS officials on the island whenever possible so as to keep GINRA in their conscience, with the hope that they would be informed of any grant

opportunities which could benefit the island ATS. Their vigilance paid off when in 2006 they were informed of the Transit in Parks program by a USFS representative from the national level. The information needed to secure a major funding source is often acquired in this way, trickling down from the national and regional level. This makes networking and encouragement of strong relationships within federal agencies all the more important. Utilizing grant moneys secured in this way, as well as the resources of every partner involved, has made the ATS viable.¹¹

- **Identify a project champion.** As there is no dedicated program manager for GINRA, the USFS has to allocate time from other projects to accommodate the ATS project. Ideally each project will have home grown project champions whose



Two USFS employees, Dick Anderson and Ted Schiltz, took the lead on ATS planning and management at GINRA.

passion and dedication makes them a natural fit for the role. This person or persons will raise public support, dedicate time and energy to accomplishing tasks, and help acquire critical resources for developing and implementing the ATS. However, some agencies may not have the resources to dedicate a full-time staff member to such a position.

In the case of GINRA, two USFS managers share the duties of project champion. These managers brought vital energy to the project and through a combined effort were able to perform all of the duties of a good project champion. When additional resources were needed, various other USFS employees were utilized from engineers to technicians to keep the project moving forward. Here again partnerships were beneficial in keeping the project on course. Through creative planning, cooperation and delegation GINRA has succeeded by using multiple individuals to fill the role of project champion for the ATS project, though one manager commented that having a full-time dedicated champion would have been “indescribably beneficial.”¹¹

- Most importantly, **administration must work hard to maintain good relationships with partners and permit holders to enable current and future developments.** It cannot be emphasized enough how key partnerships are to planning and implementing ATS on federal lands. Keeping partnerships healthy and thriving will open the door to countless projects and improvements in the future. “Our partners on the island do more than just provide motorized transportation or signage,” offered a Forest representative. “They assist in numerous ways on day to day tasks.” Clear and open communication is what helps GINRA maintain good relationships with partners.⁷

WHAT COULD BE IMPROVED?

- **Be as detailed as possible when estimating a project budget.** GINRA was up against a deadline when applying for Transit in Parks funding after being denied in their first attempt. The project budget had to be estimated quickly. When the actual bids for construction costs and purchases of new equipment came in, the Transit in Parks grant was not enough to cover all expenses. Contract work is automatically



Several groups provide the funds and staff necessary for the annual Youth Archeology Program, including HIA, Illinois State University, and the Sault Tribe of Chippewa Indians.

increased by 30% for an island, which also needed to be considered.⁷ Thankfully, appropriated funds were available to cover the remaining costs but had this option not been available it might have been a major setback for the ATS project. The Hiawatha National Forest recreation program manager commented, “We knew we needed a ferry and a bus and dock repairs, however, if I had to do it again I would have done more research and actually gotten quotes on the bus and ferry. Dock construction would have been a little more difficult to estimate up front, but we could have spent more time on costing and researching.”¹⁵

In future grant endeavors GINRA managers plan to factor in costs of potential minor repairs and setbacks as well as seek estimates for goods and services so as to make the proposed budget as solid as possible. Every cost should be considered including transportation, staff, insurance, maintenance, storage, repairs, and design schemes. If possible, meeting with partners before submitting a proposal and determining exactly what equipment will be the most appropriate will allow managers to include exact costs in their proposal, ensuring that the funds will be adequate.¹¹

- **When involving partners in a project, make them aware of both the rewards and challenges associated with ATS.** In the excitement of developing a new ATS, it is easy to get caught up in the rewards of the project without fully disclosing potential challenges. Every partner interviewed for this case study expressed that they believe partnerships have been beneficial to the project and that ultimately the hard work will be rewarded by the final product. There have certainly been challenges however in designing a system to meet all needs and expectations, and completing each phase of the project in a timely manner. The captain of GIFS summarized his feeling towards the project by saying, “When the entire project is done, it will be a good thing. It’s just the process of getting it done that’s frustrating.”¹⁸

The partners involved in the GINRA ATS project dealt with several small setbacks which have delayed the launching of the completed system. The *Kitchi Minis* arrived at Munising with slight damages, forcing the vessel to be returned for repairs. The total time necessary for repairs set the launch of the ferry behind a complete year.¹¹ Obstacles of this nature are possible and likely for any project. This fact makes it all the more vital that partners be practical and candid with each other when developing a proposal and designing a time frame for completion. Simply being aware of potential setbacks can greatly ease tension between partners and prepare all parties for the possible challenges associated with partnering. Thankfully, the GINRA ATS partners communicated openly enough that they were able to overcome these setbacks.

- **Ask the individuals who deal with ATS components everyday what their ideas are, as they are usually the most familiar with the needs of the ATS.** As a National Recreation Area with no dedicated full-time staff, GINRA ATS partners spend more time working intimately with the system and interacting with users than many USFS staff.

The USFS is responsible, but the partners make day-to-day operations possible. Rather than engage in a power struggle, the USFS tried to recognize when a partner had more knowledge or expertise. Many decisions concerning design and function of the ATS were made using information and ideas presented by the partners on the ground, from what boat would be the most economical to what information should be presented on interpretive signs.¹¹

- One challenge for GINRA was addressing the opinions of all partners when designing the new dock on the mainland. GIFS operates the site daily and was unhappy with some aspects of the final design by USFS engineers. The parties have recognized this challenge and are working together to find a solution to the problem. Another lesson that can be learned from this example is **when involving partners in a specific aspect of an ATS project, keep them involved from design to implementation.** If a partner is invested in a particular component of the project, keep communication open with them so that the original idea can be followed through to completion. Involving appropriate partners in this way is an insurance policy for a successful system. The captain of GIFS summarized this thought, saying, “When you operate something every day, you know how it can operate better.”¹⁸
- **Be patient, as ATS projects are not completed overnight.** Taking an ATS from the drawing board to the forest floor requires time for design and implementation, and for working out the kinks of a new system. These are multi-year projects that require numerous steps, agencies, partners, and patience. One USFS Ranger confirmed this lesson, stating, “When the money arrives, there is a lot of work to be done. It’s only the beginning.”¹¹

The time necessary to work out the kinks of the new tour bus is an example of how lengthy the ATS implementation process can be. The new bus has suffered technical difficulties due to the island environment, including a flat tire and overheating. The hybrid technology requires an internet connection to trouble shoot the mechanical problems and internet access is not available on the island.²⁵ Therefore, the bus needed to be returned to the mainland to diagnose the initial problems, but dock construction was occurring, which prohibited the bus from being transferred for 28 days. Complications of this sort are inevitable. Forward thinking is essential to mitigating such issues as soon as possible, as well as a healthy dose of patience for when waiting is unavoidable. It is also important to note that maintenance of hybrid vehicles requires special tools and skills. When considering a hybrid, make sure a qualified mechanic will be able to maintain the vehicle. ALTRAN’s mechanic is properly qualified for this task.

- **When considering green technology, make sure the benefits are worth the cost.** A great way to ensure a sustainable system is to consider green technology. It is vitally important however, to carefully research such technology, as what might work for one location may be a bad choice for another. As demonstrated earlier on, GINRA considered

a diesel hybrid but ultimately settled on a gasoline hybrid. The primitive nature of the island can be very wearing on equipment and after careful consideration it was determined that a gasoline hybrid was more likely to operate smoothly given the conditions. GINRA managers feel that the gasoline/electric hybrid was the best choice, however they were disappointed to discover that the electric mode only kicks in when the bus is operating below 12mph. Given the average speed of the bus, the electric mode is not being fully utilized.^{8, 25} Having accurate information regarding mechanical specifications such as this is very important when considering green technology.

An ALTRAN mechanic speculated that a larger hybrid bus might tolerate the rugged island roads better, but the General Management Plan indicates a 21 foot restriction for motorized vehicles.¹² As visitation increases, more buses may potentially be added to the fleet, and the management plan may be revisited to determine whether a larger bus would be appropriate for the island.²⁵

FUTURE PARTNERSHIP ACTIVITIES

Overall, the partners involved in the GINRA project have found the partnership rewarding and useful, and anticipate many future developments. Challenges were encountered, however, and issues continue to be dealt with as work continues on the project. The partners are eager to see the final product in action and witness the realization of the ATS goals for the island.

Already, ideas are being hatched for future projects. GIFS is considering offering a once daily extended interpretive ferry tour. The *Kitchi Minis* will travel to East Channel Lighthouse located on the south east side of the island and then follow the shoreline of Murray Bay, highlighting historic features such as island homes and a nearby shipwreck, before arriving at Williams Landing. This tour will most likely occur in the evening and will last approximately one hour. The tour would fill a niche by providing a new possibility for visitors who only have a few hours to spend in the area. As an alternative to the longer, more expensive boat tours currently offered in Munising, GIFS and the USFS believe the Grand Island tour could be very successful. Additionally, GIFS began construction in the summer of 2011 on two new cabins on the island which will be available for winter rental. These cabins will also operate under a special use permit.^{11,18}

As visitation increases, ALTRAN will also take on further partnership roles. The parking area at Powell Point (where the ferry service office is located) has 60 parking spaces and no potential for expansion as it is surrounded on both sides by private land. Parking is quickly becoming an issue and with the deployment of the completed ATS, as well as the opening of a local highway, the situation may require attention in the near future. The USFS is exploring the option of utilizing 50 spaces at a nearby hotel, as well as the possibility of hotel pick-up via ALTRAN. If this plan is implemented visitors will have the option of leaving their cars at their lodging and using ALTRAN to get to the ferry landing. ALTRAN

already provides pick-up at a nearby campground and may conduct trials to see if there would be a demand for extended service.^{8,11}

HIA is currently helping with a design scheme for the on-island bus that will be applied to the exterior and will reflect the historical and cultural feel of the island. In the summer of



This intermodal waiting area at William's Landing is the place where most visitors first enter the island. The Visitor Contact Station seen in the background will be redesigned with the help of HIA, and will provide shelter for visitors during inclement weather.

2011 HIA began assisting in the interior designing of the Visitor Contact Station located on GINRA. This facility will be extremely useful for providing information to visitors when a USFS representative is not available. Currently two seasonal employees and two volunteers interact with

visitors on the island during the week, helping them prepare for their desired recreation activity and informing them of the bear issue within GINRA. These USFS representatives are not always able to greet visitors at Williams Landing. The Visitor Contact Station, though unmanned, will be open at all times and will have panels and exhibits to educate users on the history of the island, warn them about bears and the changing weather patterns, and offer various learning tools concerning island plants, animals, recreation and guidelines. The facility will also function as a safe place for visitors to await transport or seek shelter during inclement weather.^{5,11}

EUPNTA conducted visitor surveys as part of its *Great Waters* campaign at the close of the summer 2010 season. The information from these surveys will be used to determine further ways of promoting GINRA, including the ATS.⁵ This initial survey is part of a larger effort to collect customer service demographic information, as customer focused management was identified as a goal in the GINRA Strategic Plan. Collection, analysis and utilization of customer feedback will create an inherent feedback loop, ensuring that the USFS and their partners provide the experience visitors desire.²

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ADDITIONAL CASE STUDY RESOURCES

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APPENDIX A: GINRA CAPITAL EXPENDITURES FOR TRANSPORTATION SYSTEM AND VISITOR SERVICES

Improvement	Cost	Funding Source
Dock Rehabilitation and Visitor Area Design	\$49,861	FTA Grant
Dock Rehabilitation and Visitor Area Construction	\$396,254	FTA Grant
	\$88,600	USDA Forest Service Appropriated
Passenger Ferry Purchase	\$128,760	FTA Grant
Island Hybrid Bus Purchase	\$125,000	FTA Grant through ALTRAN
Bus Maintenance Facility Design	\$25,000	USDA Forest Service Appropriated
Bus Maintenance Facility Construction	\$178,739	FTA Grant
Bus Maintenance Facility Amenities	\$36,261	FTA Grant
North Light Trail Bridge Construction	\$266,380	ARRA
Visitor Center Rehabilitation Construction	\$67,854	ARRA
Grand Island Trail Culvert Replacement	\$40,760	ARRA
Total Capital Investments	\$1,403,469	