

Acme Township Marina Economic Analysis

May 26, 2011

Updated June 9, 2011 to include Combined Phase 1 and 2 Analysis

Acme Township





INTRODUCTION

The determination of feasibility of a municipal marina includes an assessment of the physical feasibility of the proposed location and marina configuration, the environmental feasibility of the proposed configuration and location, and the ability of the proposed marina to generate sufficient revenues to cover construction of revenue generating facilities, ongoing operations, and maintenance.

This report summarizes the financial analysis of four potential phases of marina development in Acme Township. It includes recommendations for phase size, marina configuration, slip size/mix, and slip lease fees to determine revenue generation. Operating costs are estimated for each marina, and the resulting net revenues are identified. An analysis of the funding capacity utilizing revenue bonds based on this net revenue is provided. Finally, the construction costs for each phase are estimated, along with potential partnership funding from MDNR, and an analysis of funding requirements is provided.

ECONOMIC ANALYSIS

Revenue / Cash Flow

Revenues included as part of this income analysis are based on seasonal slip leases, transient slip fees, and boat launch revenues. While there will be potential revenues associated with fuel and boat store sales, these revenues are expected to be minor and are not considered in this analysis.

Proposed Seasonal Rate Structure

Based on analysis of Grand Traverse Bay regional market rates, we recommend rates ranging between standard MDNR rates and the regional average:

- 30' slips: \$67 - \$95lf, or \$2,005 - \$2,850 per year
- 35' slips: \$72 - \$106, or \$2,520 - \$3,710 per year
- 40' slips: \$77 - \$117, or \$3,080 - \$4,680 per year
- 45' slips: \$82 - \$127, or \$3,690 - \$5,715 per year
- 50' slips: \$84 - \$135, or \$4,200 - \$6,750 per year
- 55' slips: \$87 - \$142, or \$4,785 - \$7,810 per year
- 60' slips: \$89 - \$149, or \$5,340 - \$8,940 per year
- 70' slips: \$100 - \$165, or \$7,000 - \$11,550 per year

Proposed Transient Rate Structure

We recommend utilizing standard MDNR Region 2 transient rates:

- 30' slips: \$35 per night
- 35' slips: \$42 per night
- 40' slips: \$49 per night
- 45' slips: \$57 per night
- 50' slips: \$69 per night
- 60' slips: \$100 per night



Propose Boat Launch Rate Structure

We recommend matching the average boat launch rates established at Elk Rapids and Elmwood Township launch facilities:

- Seasonal Launch Pass: \$40 (average of Elk Rapids at \$30 and Elmwood at \$50)
- Individual Day Launch Pass: \$5

Based on documented demand at Elk Rapids, Elmwood Township, and Clinch Marina boat launch facilities, we anticipate an initial demand for 150 seasonal passes and 2500 day pass launches per year generating anticipated yearly launch revenues of \$18,500.

- Seasonal Pass Launch Revenue: \$6,000
- Individual Day Launch Pass Revenue: \$12,500



Expenses

The expenses considered for this marina analysis include construction costs and operational costs.

Construction Costs

Construction costs for the marina include demolition of existing facilities and construction of new revenue producing facilities including gangways, fixed or floating dock structures, anchorage systems, ice suppression, dock amenities, wave attenuation, boater services building, and utilities. Non-revenue producing elements include breakwater structures, dredging, parking infrastructure, park amenities, and fishing piers.

In determining the estimated construction costs for the revenue producing dock systems, actual 2010/2011 construction costs and bid estimates from ongoing projects on Lake Michigan and Lake Ontario were considered and inflated based on our experience in marine construction and anticipated price escalation. For the purposes of the financial analysis, we will use an average cost of \$15,000 per slip. The final design process will determine whether fixed or floating docks will be utilized.

Landside infrastructure elements including roads, parking, utilities, landscape, and park elements were estimated utilizing recent 2011 construction costs and adjusted based on our experience in civil construction and anticipated price escalation.

Operational Costs

Operational expenses for medium size marinas (50-150 slips) generally range between 20% and 40% of gross revenues. The range accounts for differences in services provided, labor and benefit costs, age of facilities, maintenance requirements, and size of the facility (number of slips being the most factor).

We recommend a municipal marina operation that excludes labor intensive activities such as winter storage, lift wells, maintenance, and repair. Based on this approach, we anticipate that the operating expenses for a municipal marina in Acme Township would be as follows:

- Phase One (22 total slips: 11 seasonal, 11 transient): Based on the inherent inefficiencies of a very small marina and the high proportion of transient slips, we anticipate operational expenses of 50% of total gross revenues.
- Phase Two (93 total slips: 82 seasonal, 11 transient): 25% of total gross revenues
- Phase Three A (145 total slips: 134 seasonal, 11 transient): 25% of total gross revenues
- Phase Three B (175 total slips: 164 seasonal, 11 transient): 25% of total gross revenues



Phasing Analysis

The following scenarios assess several phased scenarios with likely phases in the development of new marina facilities in Acme Township. Phase One could be constructed immediately with or without Township acquisition of EBHC facilities, and would be a very good candidate for matching MDNR funding. Phase Two builds on Phase One and reconfigures and modernizes the EBHC facilities to contemporary MDNR standards.

Phase 3A and Phase 3B represent two alternate approaches to the ultimate potential expansion of the marina and are mutually exclusive. Phase 3A is predicated on shifting the outer breakwater further west into the Bay than the current alignment of EBHC facilities, and shifting the current alignment of Highway 31 approximately 60'-80' to the east along the length of the proposed marina. The potential limitation on Phase 3A would be MDEQ and USACE approval of shifting the breakwater alignment to the west, and conceptual approval of this proposal cannot be obtained prior to commencement of preliminary engineering. Based on our experience and preliminary conversations with MDNR, we believe this proposal may be acceptable pending additional environmental and coastal assessment.

Phase 3B is predicated on a significant realignment of Highway 31 along the Mount Hope Road alignment, and expansion of the marina through excavation of a larger inland basin. The internal basin expansion approach will likely encounter a more streamlined environmental review process than Phase 3B, and the realignment of Highway 31 has been reviewed in concept with MDOT. MDOT expressed support for the overall concept, but indicated they have no funding available and prefer an alternate alignment that is three to four times more costly than the alignment originally proposed. Due to the uncertainty of the potential alignment, the costs for relocating Highway 31 are excluded from this summary.



Phase One

This scenario envisions construction of twenty-two slips, a four lane boat launch, boater services building, breakwater, 25 vehicle/trailer parking spaces, 87 car parking spaces, and landside recreational amenities. Operational expenses are 50% due to small number of slips. Seventy-five additional offsite vehicle/trailer spaces are required to provide adequate parking for the boat launch. A typical solution for offsite parking is to share available parking at existing public or private facilities that are typically underutilized at peak boating times rather than constructing new additional spaces. We recommend this approach and have not included construction costs for offsite parking.

Construction Costs

- Total Construction Cost Estimate: \$4,572,000
- Likely DNR Funding Support @ 50%: \$2,286,000
- Anticipated Local Match Costs: \$2,286,000

Revenues (Stable, year three and beyond)

• Seasonal Revenue, 100% occupancy:	MDNR Rates	Regional Average
Four (4) thirty foot (30') slips:	\$ 8,020	\$ 11,400
<u>Seven (7) forty foot (40') slips:</u>	<u>\$ 21,560</u>	<u>\$ 32,760</u>
Seasonal Revenue Subtotal:	\$ 29,580	\$ 44,160
• Transient Revenue, 50% occupancy:		
Four (4) thirty foot (30') slips at \$1,750 per year:	\$ 7,000	
<u>Seven (7) forty foot (40') slips at \$ 2,450 per year:</u>	<u>\$ 17,150</u>	
Transient Revenue Subtotal:	\$ 24,150	
• Boat Launch Revenue:		
Seasonal Pass Revenue:	\$ 6,000	
<u>Day Launch Revenue:</u>	<u>\$ 12,500</u>	
Boat Launch Revenue Subtotal:	\$ 18,500	
Total Gross Revenue:	\$ 72,230	\$86,810
Operational costs at 50% gross revenue per year:	-\$ 36,115	
Net Revenue:	\$ 36,115	\$50,695
Debt service generated at 4% for 30 years:	\$ 624,501	\$ 876,620
Debt service generated at 3.25% for 30 years:	\$ 685,532	\$ 962,288

Revenue Producing Costs Construction cost for 22 slips @ \$15,000 per slip = \$330,000

Construction cost for boat launch elements = \$100,000

Assessment:

Phase I as described generates sufficient revenues in excess of yearly operational costs to support revenue bond funded construction of between \$624,501 and \$962,288 depending on the slip rates charged and



interest rate obtained. The cost of the revenue producing infrastructure in Phase One is \$430,000, so slip revenues can support all revenue producing infrastructure plus an additional \$194,501 and \$532,288.

The total estimated construction cost for Phase One is 4,572,000. After MDNR 50% matching funding is included, total local 50% matching construction costs are anticipated to be \$2,286,000. After slip revenue construction funds are included, additional local or grant funds of approximately \$1,323,712 - \$1,661,499 will be required. The following funding sources should be considered:

- Michigan Natural Resources Trust Fund Development Grants
- Michigan Land and Water Conservation Fund
- Clean Vessel Act
- Waterways Program Grants
- Great Lakes Fisheries Trust
- Michigan Department of Environmental Quality Grants
- Passport to Recreation Grant Funds
- Boating Infrastructure Grant – “BIG Grant”
- Michigan Habitat Improvement Fund Program Grants
- Grand Traverse Regional Land Conservancy
- Grand Vision Funds
- Other Local Agencies, Organizations, and Philanthropic Sources



Phase Two

This scenario envisions expansion and reconfiguration of the existing EBHC Marina facilities to create 71 new slips in conformance with MDNR standards. Phase Two construction is predicated on completion of Phase One, which provides essentially all necessary landside infrastructure, including parking. Phase Two includes construction of 71 slips, breakwater, and fishing pier amenities. Operational expenses are anticipated to be 25% due to the more efficient marina size, and since Phase One will be incorporated, operational expenses for Phase One will decrease by half. MDNR funding support is not likely for the elements proposed in Phase Two. Consequently, MDNR requirements for additional transient slips will not apply. Based on the market analysis, we recommend that all Phase Two slips be leased on a seasonal basis.

Construction Costs

- Total Construction Cost Estimate: \$5,014,000

Revenues (Stable, year three and beyond)

• Seasonal Revenue, 100% occupancy:	MDNR Rates	Regional Average
Six (6) thirty foot (30') slips:	\$ 12,030	\$ 17,100
Twenty-three (23) thirty-five foot (35') slips:	\$ 57,960	\$ 85,330
Twenty-two (22) forty foot (40') slips:	\$ 67,760	\$102,960
Fourteen (14) forty-five foot (45') slips:	\$ 51,660	\$ 80,010
Six (6) fifty foot (50') slips:	\$ 25,200	\$ 40,500
Seasonal Revenue Subtotal:	\$214,610	\$325,900
Total Gross Revenue:	\$214,610	\$325,900
Operational costs at 25% gross revenue per year:	-\$ 53,652	
Increased Phase One efficiency credit:	\$ 18,058	
Net Revenue:	\$179,016	\$290,306
Debt service generated at 4% for 30 years:	\$3,095,551	\$5,019,981
Debt service generated at 3.25% for 30 years:	\$3,398,067	\$5,510,565

Assessment:

Phase 2 as described generates sufficient revenues in excess of yearly operational costs to support revenue bond funded construction of between \$3,095,551 and \$5,510,565 depending on the slip rates charged and bond interest rate. The cost of the revenue producing infrastructure in Phase Two is \$1,065,000, so slip revenues can support all revenue producing infrastructure plus an additional \$2,030,551 and \$4,445,565.

The total estimated construction cost for Phase Two is 5,014,000, so if Grand Traverse Bay Average rates are charged, all revenue and non-revenue generating elements would be completely paid for. If MDNR standard rates are charged, additional local funds of approximately \$1,918,449 would be required. If the lower interest rate is obtained, a surplus of \$496,565 would be available to offset the cost of Phase I.



Phase One and Two Combined

This scenario envisions construction of Phases One and Two described above as a single phase, resulting in 93 new slips in conformance with MDNR standards. Operational expenses are anticipated to be 25% due to the more efficient marina size. MDNR funding support for the boat launch elements is possible.

Construction Costs

- Total Construction Cost Estimate: \$ 9,386,000
- Likely DNR Funding Support: \$ 2,286,000
- Anticipated Local Match Costs: \$ 7,100,000

Revenues (Stable, year three and beyond)

	MDNR Rates	Regional Average
• Seasonal Revenue, 100% occupancy:		
Ten (10) thirty foot (30') slips:	\$ 20,050	\$ 28,500
Twenty-three (23) thirty-five foot (35') slips:	\$ 57,960	\$ 85,330
Twenty-nine (29) forty foot (40') slips:	\$ 89,320	\$135,720
Fourteen (14) forty-five foot (45') slips:	\$ 51,660	\$ 80,010
<u>Six (6) fifty foot (50') slips:</u>	<u>\$ 25,200</u>	<u>\$ 40,500</u>
Seasonal Revenue Subtotal:	\$244,190	\$370,060
• Transient Revenue, 50% occupancy:		
Four (4) thirty foot (30') slips at \$1,750 per year:	\$ 7,000	
<u>Seven (7) forty foot (40') slips at \$ 2,450 per year:</u>	<u>\$ 17,150</u>	
Transient Revenue Subtotal:	\$ 24,150	
• Boat Launch Revenue:		
Seasonal Pass Revenue:	\$ 6,000	
<u>Day Launch Revenue:</u>	<u>\$ 12,500</u>	
Boat Launch Revenue Subtotal:	\$ 18,500	
Total Gross Revenue:	\$286,840	\$412,710
Operational costs at 25% gross revenue per year:	-\$ 71,710	
Net Revenue:	\$215,130	\$341,000
Debt service generated at 4% for 30 years:	\$3,720,035	\$5,896,583
Debt service generated at 3.25% for 30 years:	\$4,083,580	\$6,472,834

Assessment:

Phase I and 2 Combined as described generates sufficient revenues in excess of yearly operational costs to support revenue bond funded construction of between \$3,720,035 and \$6,472,834 depending on the slip rates charged and bond interest rate. The cost of the revenue producing infrastructure in Phase Two is \$1,395,000, so slip revenues can support all revenue producing infrastructure plus an additional \$2,325,035 to \$5,077,834.



The total estimated construction cost for the combined Phases One and Two is 9,386,000. After possible MDNR support of \$2,286,000, remaining local costs would be \$7,100,000. If Grand Traverse Bay Average rates are charged, all revenue generating elements would be completely paid for, and all but \$627,166 of non-revenue generating elements would be covered.



Phase Three A

This scenario envisions expansion and reconfiguration of the existing EBHC Marina facilities to create an additional 52 slips, for a total of 145 slips. Phase Three A includes construction of 52 slips, shifting Highway 31 approximately 60'-80' to the east, construction of 75 vehicle/trailer parking spaces, 75 additional car parking spaces, and breakwater and fishing pier amenities. Operational expenses are anticipated to be 25% due to the more efficient marina size. MDNR funding support is not likely for the elements proposed in Phase Two. Consequently, MDNR requirements for additional transient slips will not apply. Based on the market analysis, we recommend that all Phase Three A slips be leased on a seasonal basis.

Construction Costs

- Total Construction Cost Estimate: \$7,340,000

Revenues (Stable, year three and beyond)

	MDNR Rates	Regional Average
Seasonal Revenue, 100% occupancy:		
One (1) thirty foot (30') slips:	\$ 2,005	\$ 2,850
Twenty-one (21) thirty-five foot (35') slips:	\$ 52,920	\$ 77,910
Eighteen (18) forty foot (40') slips:	\$ 55,440	\$ 84,240
Five (5) forty-five foot (45') slips:	\$ 18,450	\$ 28,575
Four (4) fifty foot (50') slips:	\$ 16,800	\$ 27,000
Three (3) seventy foot (70') slips:	\$ 21,000	\$34,650
Seasonal Revenue Subtotal:	\$166,615	\$255,225
Total Gross Revenue:	\$166,615	\$255,225
Operational costs at 25% gross revenue per year:	-\$ 41,654	
Net Revenue:	\$ 124,961	\$213,571
Debt service generated at 4% for 30 years:	\$2,161,000	\$3,693,000
Debt service generated at 3.25% for 30 years:	\$2,372,000	\$4,053,987

Assessment:

Phase 3A as described generates sufficient revenues in excess of yearly operational costs to support revenue bond funded construction of between \$2,161,000 and \$4,053,987 depending on the slip rates charged and interest rate obtained. The cost of the revenue producing infrastructure in Phase Three A is \$780,000, so slip revenues can support all revenue producing infrastructure plus an additional \$1,381,000 and \$3,273,987.

The total estimated construction cost for Phase Three A is \$7,340,000, so if Grand Traverse Bay Average rates are charged, all revenue generating elements would be completely paid for, and an additional \$3,286,013 would be needed to cover all remaining non-revenue generating elements. If MDNR standard rates are charged, additional local funds of approximately \$1,892,987 would be required.



Phase Three B

Phase Three B is predicated on a realignment of Highway 31 to the east of its current alignment. At this time, a preferred alignment has not been established by MDOT, and the cost of this realignment is not included in the estimate. This scenario envisions expansion and reconfiguration of the existing EBHC Marina facilities to create an additional 82 slips, for a total of 175 slips. Phase Three B includes construction of 82 slips, connecting the former Highway 31 alignment to the east along the existing Mount Hope Road alignment, excavation of an expanded internal marina basin, construction of 100 vehicle/trailer parking spaces, 125 additional car parking spaces, and breakwater and fishing pier amenities. Operational expenses are anticipated to be 25% due to the more efficient marina size. MDNR funding support is not likely for the elements proposed in Phase Three B. Consequently, MDNR requirements for additional transient slips will not apply. Based on the market analysis, we recommend that all Phase Three A slips be leased on a seasonal basis.

Construction Costs

- Total Construction Cost Estimate: \$16,060,000

Revenues (Stable, year three and beyond)

	MDNR Rates	Regional Average
Seasonal Revenue, 100% occupancy:		
Five (5) thirty foot (30') slips:	\$ 10,025	\$ 14,250
Zero (0) thirty-five foot (35') slips:	\$	\$
Two (2) forty foot (40') slips:	\$ 6,160	\$ 9,360
Thirty-six (36) forty-five foot (45') slips:	\$132,840	\$205,740
Eleven (11) fifty foot (50') slips:	\$ 46,200	\$ 74,250
Twelve (12) fifty-five foot (55') slips:	\$ 57,420	\$ 93,720
Thirteen (13) sixty foot (60') slips:	\$ 69,420	\$116,220
Three (3) seventy foot (70') slips:	\$ 21,000	\$ 34,650
Seasonal Revenue Subtotal:	\$343,065	\$548,190
Total Gross Revenue:	\$343,065	\$548,190

Operational costs at 25% gross revenue per year:	-\$ 85,766	
Net Revenue:	\$ 257,299	\$462,424

Debt service generated at 4% for 30 years:	\$4,449,000	\$7,996,250
Debt service generated at 3.25% for 30 years:	\$4,884,000	\$8,777,700

Assessment:

Phase 3B as described generates sufficient revenues in excess of yearly operational costs to support revenue bond funded construction of between \$4,449,000 and \$8,777,700 depending on the slip rates charged and interest rate obtained. The cost of the revenue producing infrastructure in Phase Three B is \$1,230,000, so slip revenues can support all revenue producing infrastructure plus an additional \$3,219,000 and \$7,547,700.



The total estimated construction cost for Phase Three B is \$16,060,000, so if Grand Traverse Bay Average rates are charged, all revenue generating elements would be completely paid for, and an additional \$7,282,300 would be needed to cover all remaining non-revenue generating elements. If MDNR standard rates are charged, additional local funds of approximately \$4,328,700 would be required.



SUMMARY ANALYSIS

In all cases described above, the marinas proposed generate sufficient revenues to cover the cost of all revenue generating infrastructure, ongoing operational expenses, and contribute towards the cost of non-revenue generating infrastructure. The market analysis has clearly documented demand more than three times greater than the initial two phases proposed in this study, and nearly double the most ambitious concept considered. The ongoing success of the existing marina, preliminary assessment and analysis of the physical and coastal conditions, and conversations with MDNR, MDEQ, and MDOT indicate that a marina in this location is both physically and environmentally feasible. Therefore, all four phases described herein may be considered feasible by industry standards.

Based on the feedback received during the community outreach process, the majority of participants support the improvement of the waterfront and construction of a municipally operated marina, so long as it is financially self-supporting. The design of the marina and surrounding waterfront must consider views of the Bay and be complementary to the goals of the Shoreline Preservation Initiative. Traffic considerations must be resolved, and views of parking west of Highway 31 minimized. Widespread public support exists for the marina as a catalyst for the transformation of downtown Acme Township, and the marina will contribute to the creation of a sense of place in downtown Acme Township, draw more people and businesses to the community, and facilitate sustained economic growth and shoreline restoration.

Should the leaders of Acme Township decide to proceed with the next step in the development of a municipal marina in Acme Township, the next steps in the process commence during “preliminary engineering”. Preliminary Engineering is a defined process that develops the concepts reviewed in the feasibility study to a higher level of detail. Tasks include:

- Survey / Bathymetry / Geotechnical
- Preliminary Engineering design and calculations
 - Initial Marine Engineering Analysis
 - Initial Structural Engineering Analysis
 - Initial Geotechnical Analysis
 - Initial Site / Civil / Accessibility Analysis
 - Refined Cost Estimate
- Permit Application / Environmental Assessment (MDEQ and USACE)
- Permit Processing
- Specialized Studies that may be required by Environmental Assessment:
 - Wind/Wave Analysis
 - Archeological Assessment / Historic Preservation Assessment
 - Threatened and Endangered Species

MDNR often provides matching funding to help cover the costs of preliminary engineering and have indicated that funds would likely be available to Acme Township if requested. While this feasibility study has identified likely sources of initial grant funding, a more comprehensive assessment of potential funding sources and development of a funding plan for non-revenue generating elements that are not covered by MDNR participation or slip revenues is also needed.