Swimming Pool Feasibility Study

Otto Township
McKean County, PA

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ACKNOWLEDGMENTS

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Pool Analysis conducted by

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INTRODUCTION

Families today, more than ever before, are placing greater demands on local communities for recreational facilities and programs. Expectations for quality facilities and services are at an all time high. There is little differentiation in expectation, whether a facility is operated as a municipal, nonprofit, or private entity. These changes have a direct impact on those park and recreation facilities that have not been modified to meet the changing needs.

The purpose of this study is two-fold. The first purpose of the study is to determine whether or not it is feasible to operate the pools as a successful community facility. The second purpose is to help the community understand what improvements need be made to the swimming pool that will improve its efficiency, bring it into compliance with current bathing place regulations, provide a safe swimming environment, better meet the needs of area residents, and provide a cost effective facility.

To accomplish this we have:

- reviewed the construction, maintenance, and work history of the swimming pool
- compared the existing swimming pool design with current design standards, guidelines, and regulatory codes, including the Pennsylvania Bathing Code and the Americans with Disabilities Act
- assessed the mechanical, structural, and cosmetic conditions of the pool
- provided opportunities for public input through a series of key person interviews and a public meeting
- analyzed funding and financing demands and opportunities for the pool
- analyzed potential scenarios for ownership and management by the community

Based on this assessment and analysis we have presented conclusions and recommendations for improvements to the pool.

Public Participation

The public input process is a key component in trying to understand the demands, expectations, and concerns of Otto Township area residents. Three venues were used to solicit input; they were: 1) the study committee, serving regularly as the group which met with the consultant; 2) the community-wide public meeting that was held in the fall of 2008; and 3) fifteen key person interviews which were conducted with persons who have a connection to both the pool and the community.

Study Committee

A Study Committee was appointed to lead the community through the process of analyzing the feasibility of constructing a community swimming pool. This committee served to represent the local residents by: providing general community input for the consultant; collecting input concerning the future of the pool from the residents and reporting back to them concerning the actions of the planning committee; publicizing the public meeting; providing the list of recommended key persons for interviews; and providing the base for future support toward implementing the recommendations of the study.
The study committee met two times throughout the process.

**Committee Meetings**

The study committee met for the first time on September 15, 2008. At this meeting Pashek Associates described the feasibility study process, presented an initial overview of the swimming pool analysis, and provided an opportunity to gather input from the committee.

Pashek Associates reported that it is very likely the swimming pool can be rehabilitated rather than having it demolished and rebuilt. The entire filtration and sanitation systems will need to be replaced, but the shell of the pool can be used as the basis for pouring a new concrete pool. Recommendations will likely include: more shallow water; replacing the diving board with a water slide; adding a beach-like gradual entry; creating a wading area in the main pool and eliminating the existing baby pool; and creating additional grassy beach areas by moving the fences further from the pool deck.

The building will need to be renovated to meet current standards of the Americans with Disabilities Act.

In their brainstorming session, the committee identified the following reasons for reopening the swimming pool:

- It is a great community gathering place.
- The pool provides summer employment for high school and college students.
- It serves as the base for most summer activities in the community.
- The pool supports other summer programs such as the schools’ summer recreation, free lunch program, and the Band Boosters fundraiser.
- The pool is a gathering place for adults with children and grandchildren.
- It is the social hub of the summer.
- It complements other facilities in the park.
- Teen parties and baseball and softball gatherings are held at the pool.
- There has been strong coordination with the school board.
- Church picnics in the park depend on the pool.
- The high school senior class has held its community service project at the pool.

The committee believes the pool should and would provide a gathering place for local families and kids. It should provide a place to wade, play, and swim. Swimming opportunities should be available for persons of all ages. It should be set up to allow for the swim team to practice and hold swim meets. The committee wants it to be a place the community can be proud of and one that will attract visitors from other communities. Many people have fond memories of the pool; they want it to be like it was before it closed.

There was unanimous consensus that the biggest obstacle to opening the pool again will be the lack of money for rehabilitation and for operation. The biggest funding source will need to be grants.

The committee acknowledged that the closest pools in Olean, NY and Smethport and Port Allegheny in PA are a significant travel distance for local residents. These pools will not meet the needs for Otto Township residents.
Study committee meeting #2 was held on November 5, 2008, just prior to the public meeting. At this meeting, the committee reviewed the consultant’s analysis and recommendations for rehabilitation and future operation of the pool. This report is comprised of the analysis and recommendations.

**Key Person Interviews**

To gather public input on the Otto Township Pool needs, the consultant conducted fifteen interviews with persons familiar with the pool operation. Persons interviewed had used the pool personally for swimming, had taken their children there to swim, had worked at the pool, or had children who worked at the pool. Each person interviewed was asked the same questions, and their personal responses were recorded for each question asked.

The questions and their individual responses follow. (A number in parentheses indicates the number of persons who gave that response.)

1. **How are you (or how have you been) affiliated with the pool?**
   - I swam at the pool when it was open. (11)
   - My family swam at the pool when it was open. (8)
   - My children were employed at the pool. (4)
   - I took swim lessons there. (4)
   - My children took swim lessons (3)
   - I’m a member of the Save the Pool Committee. (3)
   - I worked at the pool growing up. (3)
   - My children participated in the summer rec. program offered by the local high school and, then, went swimming afterwards.
   - I was on the swim team.
   - My children were members of the swim team.
   - My children attended birthday parties at the pool.
   - I was swim coach for 10 years.
   - I was diving coach for 3 years.
   - I am president of the Otto/Eldred Band Boosters which operates the concession for the pool.
   - I am director of the Otto/Eldred Band which operates the concession for the pool.

2. **What are the strengths (good things) about the pool in the past?**
   - The pool is a fun and positive place. There are not many (out-of-school) recreational destinations for kids in Otto Township. (8)
   - Having public pools offers supervised-safe swimming opportunities. (5)
   - Having swimming lessons available in a local pool helps teach children and could help kids if there is an emergency. (5)
   - It provides a place for adults to swim and meet friends and families, as well as adult swim time. (4)
   - A recreation program that was in the park concluded with going to the pool for fun and more exercise. (3)
   - The pool offers employment for several teenagers per year: lifeguard, cleaning, and maintenance positions. (3)
   - The pool provided for a swim team. (2)
   - It is a place to hang out with friends in the summer. (2)
   - More children participated in outdoor and fitness activities while going to the pool in summer.
   - It’s a good place to have family fun. (2)
When the pool is open, more people rent the pavilions for picnics and reunions and then go swimming; now less people are asking for pavilion rentals. (2)

When people attended the largest local event – the Otto Township Old Home Days – people would also be drawn to use the pool on hot days. (2)

The Otto/Eldred High School-sponsored Senior Service Day enabled kids to help the community by assisting with minor projects at the pool and park. (2)

The Otto/Eldred High School Band Boosters operated the park concession which benefited the band booster’s club needs. (2)

There is nowhere else local to swim.

The community was involved in the initial building of the pool and running it; it’s part of the community.

Babies love the baby pool.

The Search and Rescue Team from Bradford used the pool to demonstrate diving techniques at the Old Home Days event.

3. What are the weaknesses (problems in the past, things that needed changed) through the years at the pool?

- Pool sanitation inside of the pool house is a problem. (4)
- There is a lack of community funds to maintain a project of this size. (4)
- There is poor seating for older adults and adults with small children. (3)
- The baby pool is not open, and when it was open it was not being kept clean. (3)
- Kids are less active in the summer. (3)
- No swimming lessons are being provided locally; kids are not learning how to swim as they used to. (3)
- No handicapped accessibility is available. (2)
- Kids will choose to swim in the unsafe and unsupervised creeks. Creeks also have run-off sewage in it. (2)
- No summer jobs at the pool for a few teenagers each season. (2)
- Children are not participating in the summer recreation and fitness activities in the park, followed by going swimming. (2)
- Otto Township pavilions are not being used like they used to be. (2)
- Though the pool was painted, the old paint chips and dust-bumps were painted over year-after-year, causing injuries.
- No shade is available.
- The pool hours were not extended into the evening.
- The plumbing was awful and lack of light inside became a problem for the cleaning staff.
- I think the drains need to be made child proof
- Kids used to (at least) be able to be bused during school to Olean to take lessons; now it is an after school option, and not well attended.
- Pool supervisors are not trained in CPR, First Aid, AED, and lifeguarding, so they cannot adequately evaluate the guards’ work.
- I have not heard of any major problem areas, other than the decline of the mechanical components of the water treatment system.
- Sometimes parents would leave unruly kids off for the day without their supervision. There may have been some minor problems, but were addressed by the pool staff.
4. What effect has the pool’s closing had on the community?

- There has been a decline in the use of the park since it doesn’t have the pool facility as a draw. (11)
- Children do not have a supervised and fun place to go to and “hang-out”. (10)
- There is no swimming being offered during the Otto Township Old Home Days. (2)
- No Otto/Eldred High School Senior Community Service Day. (2)
- No Otto/Eldred High School Band Boosters concession stand in the park. (2)
- A social/community area has been closed. (2)
- There is nowhere else for local kids just to go swimming, hang out, or to see friends easily during the summer. (2)
- The Duke Center program through the Otto/Eldred School District, which has been the “spark” in the community, is gone.
- The Otto/Eldred Band Boosters have lost a source of revenue with the closing of the pool and concessions.
- The reason for using the park usually hinged on using the pool; the organizations that had annual picnics would expect to let their children swim.
- The community no longer has a swim team.
- Parents of small children don’t see each other socially like they used to when they sat around the baby pool.
- It has affected the lack of exercise for our community children.
- It has led to a decrease in business in the community.
- It has increased summertime boredom which leads to an increase in mischief.

5. Should the pool be renovated and reopened, and why or why not? If yes, what changes should be made?

- Yes. (15)
- Maintenance plan needs kept up with. (3)
- The pool needs to be able to attract and provide for people of all ages. It has to have options for families, the young, and the old. (2)
- There needs to be better seating for older adults and adults with small children. (2)
- There needs to be an area for younger children to play, similar in nature to the bay pool option. (2)
- Handicapped accessibility should be available. (2)
- New plumbing, lighting, and quality upgrades in and out of the bathhouse are needed. (2)
- The pool needs to be reopened because it provides a form of exercise for the community, a place for the community to meet, and employment for some. (2)
- The pool needs a waterslide and/or a diving board. (2)
- A smoother cement lining is needed.
- It needs a “No or Limited – Slip” deck surface.
- Supervisors need similar training as the guards have.
- More deck space is needed to handle more people and lessen the crowding.
- Shade options are needed.
- All water treatment components need evaluated for replacement.
- Whatever needs renovated should be renovated.
- The pool should be reopened provided that there is the financial support.
- Zero depth entry is needed.
- A mushroom sprinkler is needed.
• New water toys are needed to draw not only community people but residents from surrounding communities.

6. What might be the obstacles to reopening?
• Funding to get it renovated. (14)
• Funding for maintenance and upkeep.
• A lot of work is needed before the pool could reopen.
• Money is a problem; we are the poorest school district in Pennsylvania.
• Needing to replace the pool, instead of being able to renovate it.
• Elderly and lower-income families on fixed incomes would not want their taxes to increase to offset operation costs.

7. Any other comments?
• Please give Otto Pool a chance, it needs to help save our community.
• Let’s go for it!
• Hope this happens.
• As a parent, school employee and community member, I appreciate all the help and research involved in trying to reopen the pool for our children and the community.
• We really feel strongly that a swimming facility is needed in our community, but without some financial help attaining this goal will be impossible.
• Keep the shallow end’s depth for competitive swimming; do not make it zero-depth entry.
• Try to keep a diving board; the youth love it.
• We need a comprehensive study to determine feasible options.
• The baby pool should be separate from the big pool for safety and less congestion.
• Adult swim time is an important option for the community, for exercise and leisure; keep the shallow end, not “0” depth entry.
• I heard that a proposed recreational-beach area might be developed. We need to have a better understanding of who is going to supervise this, and not make a guard watch that and the water at the same time.
• My husband and I both were lifeguards at local pools. Our children both enjoy swimming. Swimming is a large part of our summer activities. The pool was a fun family area for us. We all were able to swim and socialize. When children and families are at the pool activities, they are less sedentary. This results in less obesity, and more fit families. Duke Center needs a park and a pool that can offer a family atmosphere. Duke Center needs a place for the community to enjoy themselves together. Duke Center needs the pool!
• If there is a will, there is a way to reopen the pool. I think that it is in the best interest of the community to do so, plain and simply, to have something for kids to do to help keep them out of trouble.

**Public Meeting**
A standing room only crowd of about 40 people attended the public meeting that was held on November 5, 2008 at the Otto Township Firehall. The purpose of the meeting was to present the findings of the study to Township residents, discuss the recommended options, and hear public comment concerning the study.

The consultant gave a PowerPoint presentation describing the feasibility process, the findings of the analysis, and recommendations for facility improvements and operations plans. A copy of the presentation is included at the end of this report.
Attendees spoke highly of the need for the pool and were very supportive of the recommendations. They seemed to realize that funding would be the biggest issue and that it would take a major effort to raise sufficient funds to both renovate and to operate the swimming pool for the future.
FACILITY ASSESSMENT

A. HISTORY AND PURPOSE

The purpose of this Assessment is to evaluate the existing Swimming Pool facility at the Otto Township Community Swimming Pool, address the problems and deficiencies that currently exist with the facility, and make recommendations and prepare estimates of construction costs to correct these problems and deficiencies. The facility will also be addressed for compliance with the latest American National Standards Institute (ANSI) Standards now referenced by the PA Uniform Construction Code (UCC) and the Uniform Swimming Pool Code.

The Standards referenced above for the design and construction of Swimming Pools have been revised and amended since this facility was constructed. Some of the recommendations to update the facility address areas where liability issues are involved.

Also addressed will be additional features and recommendations for not only correcting deficiencies with the facility, but encourage additional use of the facility, thereby resulting in increased user load and income that help offset operating costs and the operation and management of the facility.

The Pool facility was constructed in 1957/1958; therefore, it is approximately fifty-one (51) years old. The facility consists of a Main Pool, Wading Pool, Bathhouse/Concession/Filter/Chemical Building, concrete decking, fencing, lawn sunbathing area and play area. Each of the referenced components of the facility will be addressed individually in this Assessment.

The facility is owned and operated by Otto Township, but is currently not being used due to excessive leaking and deteriorated equipment.

The normal life-span for pool facilities constructed in this time period is approximately twenty (20) to twenty-four (24) years until some type of major renovating and updating is necessary. Although some of the renovations were undertaken as outlined above, additional renovations and improvements are now required.
B. FACILITY ANALYSIS

1. MAIN POOL

a) Main Pool Structure

The Main Pool is rectangular in shape, comprises a water surface area of approximately 4,000 square feet, and a volume of approximately 144,000 gallons. The Pool shell is constructed of steel floor and walls, and recirculation gutter on top. The walls, floor, and gutter were being painted. The Pool ranges in depth from 2'-6" in the shallow area to approximately 10'-0" at the drains in the deep area.

The following recommendations are made for renovations and improvements to the structure:

1) Experience has recommended that Pools should be sand/water blasted every ten (10) to twelve (12) years to completely remove all existing paint and spalled areas of concrete. Since the existing coating on the Pool is extremely deteriorated, blasting is extremely important. Tests could be taken to determine the structural condition of the steel; however, removal of the existing coatings must be done first. Blasting could also expose problem areas with the steel. Upon completion of blasting, the entire steel structure must be carefully examined.
2) There is only one (1) option to consider for recoating the Pool upon completion of blasting which is repainting the entire interior of the Pool utilizing a chlorinated rubber-base Pool paint that is applied in three (3) coats over the existing steel surface. This procedure will require, at minimum, painting every other year, and possibly yearly painting, thereby resulting in a continuous maintenance expense.

3) The two (2) existing drains in the deep area of the Pool were eliminated and a small (approximately 6" diameter) drain installed. This is an extreme violation of Code and presents an entrapment issue. Current Codes require two (2) drains which must be anti-entrapment approved in accordance with the Federal Virginia Graeme Baker Pool and Spa Safety Act which takes affect on December 19, 2008. **This Act must be complied with prior to opening the Pool in the future.**

4) A diving stand exists at the deep end and **must** be removed since the depth and floor slopes do **not** meet current Codes for 1-meter diving boards. A minimum depth of 12'-0" is required for over 1-meter boards and a minimum of 42'-0" length of the diving area is required. Presently only a 32'-0" length exists.
There are four (4) options for the Township to consider in addressing this situation:

a) Use this area for general swimming; however, the deep water presents a liability situation since visibility is limited when a number of people are using this area.

b) Shallow the deep area to a maximum depth of approximately 6' or 7' deep, thereby providing more usable general swimming area at a lesser depth. These depths also allow off-deck diving, which is prohibited in depths 5'-0" and under.

c) Enlarge this area to meet current Standards for diving. However, this requires removing the back wall of the diving area and extending the length and deepening the area to 12'-0" if a 1-meter board is desired. This will greatly increase the volume of the Pool, thereby requiring a larger filtration system and recirculation pump. This option also involves the greatest cost to implement.

d) Install some type of Slide feature in this area which is discussed later in this Assessment.

Options b) and c) are very difficult and expensive to implement due to the steel construction of the Pool.

b) **Main Pool Recirculation System**

The Main Pool recirculation system consists of the stainless steel gutter, wall return fittings, drain in the deep area of the Pool and piping for each between the Pool and Filter Room.

The following recommendations are made for renovations and improvements to the recirculation system:

1) The gutter should be blasted and painted as recommended under 1), Main Pool Structure.
2) New drains must be installed as previously referenced and new return fittings should also be installed. Although some of the perimeter recirculation piping was previously replaced, all new properly-sized PVC piping should be installed around the entire Pool.

3) The previously referenced Codes also require design of new Pools and during major renovations to existing Pools, the turnover rate of the Pool not exceed six (6) hours. This means that every six (6) hours all of the water in the Pool passes through the filtration and chemical system. When the Pool was constructed, an eight (8) hour turnover rate was approved by Code. Therefore, the drain line may have to be increased due to the gravity flow of the drain line between the Pool and existing filter system to realize the six (6) hour turnover rate.

c) **Main Pool Deck Equipment**

The Main Pool deck equipment consists of lifeguard chairs and ladders. The following recommendations are made for renovations and improvements:

1) Current Codes require one (1) lifeguard chair per 2,000 square foot of Pool surface, or a minimum of two (2) chairs are required for this facility. Presently there are two (2) permanent style chairs installed around the perimeter of the Pool; therefore, the Pool complies with this Code. However, the existing chairs should be removed and new portable chairs furnished.
2) Current Codes require some form of access into the Pool either by steps or ladders at not more than 75'-0" intervals around the perimeter of the Pool. Currently there are four (4) old steel ladders located around the Pool; therefore, the Pool complies with this Code. However, the ladders are the original galvanized steel and should be replaced with new stainless steel ladders with cycolac treads.

d) **Main Pool Filtration and Chemical Systems**

The Main Pool filtration and chemical systems are located in the basement of the Bathhouse and consists of a pressure diatomaceous earth (D.E.) filter in a steel tank with all piping, valves, etc. The present chemical system consists of liquid chlorine for Pool disinfection, and there is no permanent system in place for pH correction.

The entire filtration system needs to be replaced to include filter, piping, and valves. The present system is extremely corroded.
The following recommendations are made for renovations to the chemical system:

1) Consideration should be given to installing a fiberglass bulk chlorine storage tank incorporating dual-containment with venting to the outside, thereby eliminating the possibility of chlorine vapors escaping in the Filter Room resulting in corrosion to certain equipment, etc. A fiberglass tank with a capacity of either 200 or 300 gallons would be sufficient based on the size and volume of the Pool. Presently, a poly (plastic) tank with removable lid is being utilized, thereby allowing chlorine vapors to escape in the Room. This is evident since the electrical equipment in the Room is severely corroded.

The present chemical feed pump has a capacity of 15 gallons per day, which is very small for the size and volume of the Pool, especially during heavy-use periods. A larger pump with a capacity of 150 plus gallons per day should be installed.

2) An automatic chemical control unit should be installed to monitor the chlorine and pH levels in the Pool. This unit monitors the Pool water chemistry 24-hours a day and automatically activates the feed system for each to ensure that proper chemical levels are maintained. This normally results in a savings of chemicals by ensuring the proper water chemistry and eliminates a potential health problem. Unless the unit is not functioning properly, a new system is not recommended.

3) Installation of a carbon dioxide (CO₂) system for pH correction is recommended and eliminates the use of muratic acid which is a harsh chemical. However, the total alkalinity reading of the make-up water supply should be taken and if this
reading is over 120 parts per million (ppm), then the use of Co₂ would be prohibited.

2. **WADING POOL**

   a) The Wading Pool comprises a water surface area of approximately 687 square feet and a volume of approximately 1,138 gallons. The Pool structure is constructed with steel walls and floor similar to the Main Pool. The Pool is currently leaking.

   ![Wading Pool Image]

   b) The Pool is located outside of the fenced area of the Main Pool and is approximately 3'-0" lower in elevation of the Main Pool. The fence is directly at the edge of approximately a 4'-0" wide bituminous deck; therefore, there is no space for sunbathing, etc. The Pool is presently filtered through the Main Pool, and Code requires a separate system. The recirculation system is completely non-code compliant, and the deck is severely deteriorated.

   c) Due to the location and condition, the Pool should be removed and a new Code compliant Pool constructed.

   d) Another recommendation for eliminating the Wading Pool is addressed under C, ADDITIONAL FEATURES.
3. **CONCRETE DECK**

The existing deck around the perimeter of both Pools is in extremely poor condition and should be completely replaced. However, this is difficult and expensive at the Main Pool since a crawl space exists under the deck around the Pool. The crawl space should be backfilled and eliminated to simplify the placement of the concrete deck.

4. **FENCING AND SUNBATHING AREA**

   a) The fencing around the perimeter of the Pool site meets the minimum 6'-0" height required by Code; however, it is in very poor condition. Therefore, all new vinyl-coated fence should be installed to eliminate future corrosion and maintenance. A decorative-type fence could be considered, but is normally an additional cost.

   b) The amount of deck that is available for sunbathing does not meet the minimum recommendations of current Codes with respect to the size of the water surface area of the Pool and there is no lawn sunbathing area available. There is room to expand the lawn area on the sides of the Pool.
5. **HANDICAP ACCESSIBILITY**

a) The Americans With Disabilities Act (ADA), as well as PA's UCC, requires public facilities to be handicap accessible, including Swimming Pools. This not only includes accessibility to the site and Bathhouse, but also into the Pool(s). Steps and ladders do not meet these requirements; therefore, at minimum, a handicap lift should be installed at the Main Pool.

b) Installation of a handicap lift is the least desirable method of providing handicap accessibility. Consideration could be given to constructing a ramp-type access within the shallow area of the Pool that starts at deck level and provides a complete walk-in access to the Pool. This type of access not only meets handicap accessibility requirements, but also provides a safer access than ladders and steps for persons of all ages and limited disabilities.

c) Handicap access between the Parking Areas and the Bathhouse/Main Pool level does not exist; therefore, a ramp must be constructed to comply with Code. (See NEW SCHEMATIC RENOVATION PLAN.)
C. ADDITIONAL FEATURES

During renovation of municipal Pool facilities, incorporating some type of additional features or designs to encourage increased use of the facility are being implemented and becoming very important. Some of these features result in additional revenues being generated, which are utilized to offset the operational and maintenance costs of the facility. Many communities are supplementing the operational cost of the Pool from general fund budgets. The following features are recommended for this facility:

1. Installation of an enclosed tube Water Slide should be considered and provides a very popular addition to the Pool. A smaller tube-type drop Slide which requires deeper water (minimum 7'-0") could be installed at the present deep area to provide additional use of this area. A 1-, 2- or 3-tube Slide could be installed in this area. (See NEW SCHEMATIC RENOVATION PLAN.)

2. Constructing some form of Zero-Depth Access/Special Purpose Area into Swimming Pools is extremely popular, beneficial and also meets the requirements for providing handicap accessibility into the Pool, as referenced previously. However, this is more difficult to implement with the steel structure.

This would involve constructing a permanent concrete-type divider to allow for access and also not to exceed the minimum floor slopes required for ADA access. (See NEW SCHEMATIC RENOVATION PLAN.)
3. The minimum depth of the Main Pool (2'-6") is too deep for the installation of Water Features in the Main Pool. However, if the recommendation under 2, above, for constructing a Zero-Depth Access/Special Purpose Area is implemented for the Main Pool, the Water Features could be installed in this area. (See NEW SCHEMATIC RENOVATION PLAN.)

4. The Zero-Depth Access/Special Purpose Area could replace the present Wading Pool. Constructing a completely new Code compliant Wading Pool could be considered; however, due to site limitations, the Pool would either be below the level of the Main Pool or a considerable amount of fill would be required. Either way, the Pool should be included in the fenced area of the Main Pool and access between Pools provided, as required.

5. The installation of water playground equipment is very popular with extremely beneficial results. This may include the simple installation of a mushroom-type fountain to a more intensified installation of multiple types of equipment. Experience has found that additional use of the facility is phenomenal. The additional use generates greater revenues which is very beneficial to the overall operation and maintenance of the Pool. This recommendation includes the Main Pool and Wading Pool if a separate Pool is constructed.
6. Many community Pool facilities are installing pool heaters to ensure a constant water temperature in the Pool. This is extremely beneficial during cooler wet summers, and in the beginning of the season.

7. Lighting of Swimming Pools for nighttime use is extremely popular. Presently, there is no lighting installed. The current Code requirement of lighting for nighttime use is thirty (30) foot-candles of coverage over the water surface of the Pool. Utilizing approximately three (3) poles with three (3) to four (4) 1000 watt fixtures per pole would meet this requirement.

Many communities promote reserving the Pool especially beginning from 8:00 p.m. until possibly 10:00 p.m. for parties, special events, etc. which generates additional revenues; consequently, lighting becomes extremely important. Also, when Pool heaters are installed, as well as water slides and other types of playground equipment, the use of these facilities can increase also into the later evening hours, thereby, providing a usable attraction for both young and old.
8. The installation of winterization covers is recommended not only for safety reasons, but also to eliminate yearly draining and cleaning of the Pool. This results in a considerable yearly operational savings and increases the life-span of the Pool surface whether the Pool is painted or plastered. The Pool should be properly winterized and the winterization cover installed immediately after the Pool closes. This procedure allows the cover to be removed in the Spring, the filtration system started, and chemicals added without having to drain the pool for cleaning. Separate winterization covers could be considered for both the Main Pool and Wading Pool if constructed.

9. Providing shade structures is also very important and requested. The installation of large umbrellas should be considered and is considerably less expensive than permanent type structures.
D. ESTIMATES OF PROBABLE CONSTRUCTION COSTS FOR THE PROPOSED RENOVATIONS AND IMPROVEMENTS

1. **Main Pool**

   a) Site Preparation and Mobilization $12,000.00  
   b) Sand/Water Blasting $28,000.00  
   c) Drain Renovations $18,600.00  
   d) Preparation and Painting $32,000.00  
   e) New Drain Line $18,500.00  
   f) New Gutter and Return Lines $74,000.00  
   g) New Filtration and Chemical Systems $87,000.00  
   h) Handicap Lift $6,500.00  
   i) New Return Fittings $17,500.00  
   j) Site Restoration $6,000.00  
   k) New Concrete Deck/Eliminate Crawl Space $43,000.00  
   l) Demolition of Existing Wading Pool $6,500.00  

   **Sub-Total** $349,600.00

2. **Handicap Ramp Access Between Bathhouse and Parking Lot** $48,250.00

3. **Overhead, Profit and Contingency** $55,000.00

   **TOTAL NECESSARY POOL RENOVATIONS AND IMPROVEMENTS** $452,850.00

4. **Additional Pool Features**

   a) New Concrete Main Pool Structure (Includes Zero-Depth) (ADD) $145,000.00

   b) New Tube-Type Drop Slide at Main Pool Deep End (ADD) (BUDGET) $11,000.00 to $25,000.00

   c) Water Play Features (BUDGET)

      1) Zero-Depth/Special Purpose Area of Main Pool (ADD) $20,000.00 to $50,000.00

      2) Separate Wading Pool (If Constructed) (ADD) $15,000.00 to $35,000.00

   d) New Wading Pool Complete (ADD) $175,000.00

   e) Main Pool Winterization Cover (ADD) $18,000.00

   f) Shallow Existing Main Pool Diving Area (ADD) $65,400.00

   g) Enlarge Existing Main Pool Deep for Diving Area (ADD) $126,000.00
h) Ramp Access Only to Main Pool (ADD) $ 24,100.00
i) Main Pool Heater (ADD) $ 18,500.00
j) New Pool Lighting (ADD) $ 37,000.00

The above costs were compiled from similar competitive bid projects, reflect the use of Prevailing Wage Rates, and a complete renovation Scope of Work. They also include inflation for one (1) year only from the date of the Assessment. Should a smaller phased Scope of Work such as just the Main Pool structure, filter system, separate new Wading Pool, etc. be undertaken, a twenty-five percent (25%) factor shall be added to these line item amounts.

Approximately 8% for Design and Permitting Fees should be added to the total amount of the Scope of Work selected.
E. GENERAL COMMENTS

1. The total cost for necessary renovations and improvements to both existing Pools of approximately $453,000.00 is certainly feasible when compared to a cost of approximately $825,000.00 to $925,000.00 for constructing completely new comparable size Pool(s), which does not include Bathhouse, decking, fencing, Slides, Water Features, etc. Any improvements to the facility will certainly enhance the overall appearance and preserve the facility for many years in the future.

2. Undertaking all of the recommended necessary renovations and improvements, as well as incorporating any additional features under one (1) project is highly recommended if moneys allow and normally results in a substantial cost-savings. However, if moneys do not allow one (1) complete project, then Phasing of the recommended work should be considered. All of the work recommended to the Main Pool structure, recirculation system, and filtration system must be incorporated as one (1) Phase. Other individual Phases could be the Wading Pool (if maintained), Slides and Water Features. However, all underground piping for Slides and Features should be installed during Main Pool renovations.

The Township should give serious consideration to constructing a new concrete Main Pool structure inside the existing structure to ensure the structural integrity of the Pool for another fifty (50) years and reduce the maintenance required on the current steel structure.

3. Since the Pool facility is utilized over the summer months, it is extremely important that the renovation project start as soon as the Pool closes in September, thereby, allowing work to be completed in the Spring of the following year. Considerable additional costs are realized when trying to complete a major renovation project in the Spring of the year, and also normal Memorial Day opening dates are not realized.
Building Analysis

The only building at the pool houses the admission area, changing rooms, and restrooms on the upper level, and the pools mechanical systems on the lower level. It is a concrete block building approximately forty feet long and twenty-four feet wide.

The lower level is in poor condition, mostly due to corrosion of the steel ceiling beams and piping caused by chemicals used in sanitation of the swimming pool water. While the building does not appear to have deficiencies, the Township should hire a structural engineer to evaluate the building before proceeding with rehabilitation. In addition to any required structural repairs, the lower level will need to be brought into compliance with the Uniform Construction Code for public buildings.

Estimated costs are: $12,000 for the building analysis; additional costs for rehabilitation will be determined from that analysis.

The upper level is in fair condition with modifications needed to bring it into compliance with current building codes. Plumbing and electrical upgrades will be required to meet current standards.

It does not meet compliance standards for the Americans with Disabilities Act (ADA). A number of actions need to be taken to bring it into compliance. Sinks, urinals, and toilets will need to be modified to meet height and spacing requirements; grab bars and appropriate handles will need to be installed; stall sizes will need to be expanded; floor surfaces will need to be ramped to eliminate steps; doors and entries will need to be widened; and a ramp will need to be installed to provide access from the parking area to the building. The Township should consult with a building design engineer to ensure all renovations comply with the Uniform Construction Code and the Americans with Disabilities Act.

Estimated costs for renovations to the upper level - $60,000 - $150,000
Estimated cost for installation of the entrance ramp - $48,000
Management and Operations

Swimming Pool Usage Analysis

Pool Capacity
Based on the PA Swimming Pool standards, the existing Otto Township Swimming Pool has a capacity to hold over a maximum of 265 people at any given time. This includes up to 234 at the main pool and 31 at the wading pool. According to the swimming pool manager the maximum daily attendance in recent years has been about 100, with an average daily attendance of 35 users.

In addition to the patrons actually in the pool, the PA Bathing Code allows for additional usage of the pool based on the following criteria:

- one patron per 50 sq. ft. of deck surface in excess of the minimum required by the Bathing Code
- one patron per 100 sq. ft. of picnic or play area

The design recommendations in this study will slightly reduce the current surface area of the pool, thereby slightly reducing the bather load as well.

Pool Usage
The consultant was unable to conduct an analysis of usage of the Otto Township Pool to determine who uses the swimming pool and to understand community demand for the pool because attendance figures were not available. In an interview with the pool manager, she indicated that the pool averages about 35 users per day. Cooler days draw fewer and warmer ones draw more. Additionally, she said that the peak attendance during her time as manager has been about 100. A daily sign-in registration book is kept for all who use the pool, recording season pass holders and daily paid admissions. The continuance of this effort will allow for the tracking of usage in years to come.

Recommendation
It is important to track the number of users to be able to provide justification for future expenditures on the pool. Records should include the following:

- Payment method – daily admission or season pass
- Municipality of residence
- Family name
- Age group – youth or adult
- Time of entry and exit

Records should be kept daily in order to be able to analyze future trends concerning days of the week with higher or lower attendance; early and late season uses; monthly usage; and weekend use vs. week day use. Having this kind of information will allow the pool to better plan season opening and closing dates, daily open and close times, staffing needs, opportunities for promoting additional usage, and more.
### Comparison to Other Swimming Pools in the Region

The consultant identified four municipal swimming pool facilities in the Otto Township region. They are located in the City of Bradford, Coudersport, Port Allegany, and Smethport. The following chart compares each of these facilities with the Otto Township Pool.

<table>
<thead>
<tr>
<th>Outdoor Pools</th>
<th>Bradford</th>
<th>Coudersport</th>
<th>Port Allegany</th>
<th>Smethport</th>
<th>Otto Township</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity in Gallons</td>
<td>252,000 gal. main pool 5,000 gal. wading pool</td>
<td>176,563 gal. main pool 12,865 gal. wading pool</td>
<td>250,000 gal. main pool 180,000 gal.</td>
<td>144,000 gal. main pool 1,138 gal. wading pool</td>
<td></td>
</tr>
<tr>
<td>Water Surface</td>
<td>2,100 sq. ft. main pool 900 sq. ft. wading pool</td>
<td>3,661 sq. ft. main pool 1,376 sq. ft. wading pool</td>
<td>12,375 sq. ft. main pool 250 sq. ft. medium pool 225 sq. ft. kiddie pool</td>
<td>4,000 sq. ft.</td>
<td>4,000 sq. ft. main pool 687 sq. ft. wading pool</td>
</tr>
<tr>
<td>Amenities</td>
<td>Low dive in main pool 20’ slide in wading pool Wheel chair ramp Concession Locker rooms</td>
<td>3’6’’ to 8’6’’ main pool 1’’ to 1’6’’ wading pool 1 meter diving board 6 lap lanes Bath house Grass beach Cement beach Bleachers</td>
<td>Wheel chair ramp into main pool 13’ diving well Concession w/ ticket booth Locker rooms next door at High School Picnic tables Swings, slide &amp; pavilion outside of the fence next to the pool</td>
<td>1 meter diving board Concession stand</td>
<td>Bath house Diving board PA system Five swim lanes</td>
</tr>
<tr>
<td>Season of Operation</td>
<td>1st week of June to 3rd weekend of August</td>
<td>Memorial Day to Labor Day</td>
<td>2nd week of June – middle of August</td>
<td>June (day after school gets out) until the Friday or Saturday before school resumes</td>
<td>June, July, August</td>
</tr>
<tr>
<td>Typical Hours of Operation</td>
<td>M-Sun. 1:00-4:00 pm &amp; M-Sat. 6:30-8:30 pm (Swim team 4:00-6:30 pm) Closed Sunday nights</td>
<td>12:00 pm - 7:00 pm daily</td>
<td>M,W,F 1:00-5:00 pm and 6:00-8:00 pm T &amp; Th. 1:00-5:00 pm Sat &amp; Sun 1:00-7:00 pm</td>
<td>M-Sun. 1:00 to 6:00 pm Adult swim 10 minutes every hour and 1 hour in the evenings</td>
<td>M-Sat. 1:00-5:00 pm Sun. 2:00-6:00 pm Tue. &amp; Thu. night 6:00-8:00 pm</td>
</tr>
<tr>
<td>2008 Resident Season Pass Fees</td>
<td>Family - $175.00</td>
<td>Family $150</td>
<td>Family - $140.00</td>
<td>Family pass - $125.00</td>
<td>Family - $100.00</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------</td>
<td>-------------</td>
<td>------------------</td>
<td>----------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Pass Fees</td>
<td>Adult - $65.00</td>
<td>Youth $50</td>
<td>Adult - $90</td>
<td>Adult pass - $80.00</td>
<td>Over 18 - $75.00</td>
</tr>
<tr>
<td></td>
<td>Student - $50.00</td>
<td>Adult $90</td>
<td>Monthly pass $50</td>
<td>Single- $80.00</td>
<td>Under 18 - $65.00</td>
</tr>
<tr>
<td></td>
<td>Two Students -$90.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Senior Citizen - $50.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008 Non-Resident Season Pass Fees</td>
<td>Same as Resident Fee</td>
<td>Same as Resident Fee</td>
<td>Same as Resident Fee</td>
<td>Same as Resident Fee</td>
<td>Same as Resident Fee</td>
</tr>
<tr>
<td>Daily Admission Fees</td>
<td>Adult - $4.00</td>
<td>Adult $5.00</td>
<td>Adult &amp; Child daily rate: $4.00</td>
<td>Adult &amp; Child daily rate: $4.00</td>
<td>Under 18 - $2.00</td>
</tr>
<tr>
<td></td>
<td>Student - $3.00</td>
<td>Youth $4.00</td>
<td></td>
<td></td>
<td>Over 18 - $3.00</td>
</tr>
<tr>
<td></td>
<td>Senior Citizen - $3.00</td>
<td></td>
<td></td>
<td></td>
<td>Under 5 free</td>
</tr>
<tr>
<td>Other Admissions</td>
<td>Rentals - $80.00 hr.</td>
<td>None</td>
<td>After-pool-hours pool party $100.00 per hr., plus $15.00 per hr. per guard</td>
<td>Adult swim only season ticket: $55.00</td>
<td>Pool Rentals: (cost per persons) $40.00 up to 25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Water aerobics season ticket: $55.00</td>
<td>$70.00 up to 50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pool parties are scheduled by private persons at a rate of $25/hour for 20 and under patrons, $35/hr for over 20 patrons</td>
<td>$100.00 over 50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pool rentals</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Night swims</td>
<td></td>
</tr>
<tr>
<td>Programming</td>
<td>Swim lessons</td>
<td>Red Cross swimming lessons</td>
<td>Swimming lessons included with pool pass W/o pass - $20.00 for 2 weeks</td>
<td>Swimming lessons (2 week sessions) one session in June &amp; another in August Pool parties scheduled by private persons</td>
<td>Swim team Swim lessons Pool rentals Night swims</td>
</tr>
</tbody>
</table>
Observations of Swimming Pool Comparisons

Otto Township Swimming Pool is smaller than other swimming pools in the area. It is typically sized for a community of like population, has fewer amenities, operates with a comparable season and hours of operation, charges similar fees, and has programs which are like those of other pools. There is nothing strikingly different from other swimming pools in the region.

Swimming Pool Service Area

For purposes of analysis, a service area must be identified. The service area is defined as the area from which the pool attracts its users, or the area it intended to serve. For the Otto Township Pool, the area consists of Otto Township, Eldred, Township, and Eldred Borough. The analysis that follows is based on data from these municipalities.

Demographic Analysis

The Otto Township Swimming Pool is a rural swimming pool that lies in Duke Center, a village within Otto Township, McKean County. The surrounding area includes sparsely populated Eldred Township and Eldred Borough.

For purposes of this study, we have analyzed the US Census Bureau 2000 demographic statistics for the three municipalities in the Otto Township region. These municipalities include Otto Township, Eldred Township, and Eldred Borough. Comparisons of these demographics are made with McKean County and the Commonwealth of Pennsylvania.

<table>
<thead>
<tr>
<th></th>
<th>Service Area*</th>
<th>McKean County*</th>
<th>Pennsylvania*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Population</strong></td>
<td>4,292</td>
<td>45,936</td>
<td>12,281,054</td>
</tr>
<tr>
<td><strong>Residents under the age of 18</strong></td>
<td>1,117</td>
<td>10,898</td>
<td>2,922,221</td>
</tr>
<tr>
<td><strong>Average Household Size</strong></td>
<td>2.50</td>
<td>2.40</td>
<td>2.31</td>
</tr>
<tr>
<td><strong>Median Age</strong></td>
<td>38.0</td>
<td>38.7</td>
<td>38</td>
</tr>
<tr>
<td><strong>Median Household Income</strong></td>
<td>$31,119</td>
<td>$33,040</td>
<td>$40,106</td>
</tr>
</tbody>
</table>

*US Census Bureau 2000

Relevancy of Demographic Data

While no single demographic category will ensure either the success or failure of the Township swimming pool, all are indicators that should be considered.

Overall, the demographics suggest that the Otto Township Swimming Pool, while not likely to be self-sufficient, could be successful. Based on the demand analysis shown later in this chapter, the size of the pool is appropriate for the population of the area. It will always require a financial subsidy to maintain its operations.

Total Population – National Recreation and Park Association standards suggest that one swimming pool should be available for every 20,000 residents. Additionally, most successful pools are located in areas of dense population and supported by outlying areas of a more sparse population. However, this must be
balanced by the demand and analysis of the local area. A service area population of 4,292, with a small population center such as Duke Center, would not normally support a municipal swimming pool to allow it to be self-sufficient. This indicates that the pool will need to rely on users from outside the immediate area to support its operations and to help make it financially successful. New marketing strategies for, and upgrades to, the existing pool making it safer and more user friendly may help to draw the additional attendance needed. Even then, it will not likely be able to produce sufficient revenues to cover its operating expenses.

Residents under age 18 – It is typically the youth that utilize swimming pools the most. The area must have a sufficient number of youth to support the operation of a swimming pool. A youth population over 25% is desirable to adequately support a local swimming pool. The service area falls slightly under that percentage. More importantly, it is essential to recognize that there are just 1,117 people in that age bracket. While this does not mean that the pool will not be successful, it does mean that extra effort will need to be made to draw an adequate attendance at the pool.

Average household size – This is another indicator of the typical age of families. The lower the household size, the less likely it is to have children to use the swimming pool. The average household size in the service area is 2.5 persons. This is slightly above the average of 2.3 for the state.

Median age – This is yet another indicator of the typical age of the population for the area. The median age of 38 is on target for an area needing to support one swimming pool.

Median household income – This is an indicator of the resident’s ability to pay for recreational services. As can be seen in the chart above, the median income of the service area is below that of the Commonwealth. This would indicate the population has less discretionary funds available for support of such recreational facilities.

*The demographic analysis indicates that it is unlikely that the residents of the area are able to support the swimming pool and to keep it financially self-sufficient. The pool will require an outside financial subsidy to operate.*

**Demand Analysis**

There are many communities with populations of four or five thousand that have tremendously successful swimming pool operations. There are also communities of 50,000 and more that are struggling significantly to keep their swimming pools successful.

In 1995, NRPA published a new facility guideline that suggested it is more important to consider local conditions and demand rather than to use a simple number per thousand persons. Specialized facilities, such as swimming pools, should be developed in response to a known need or desire to encourage better use of leisure among municipality residents. A level-of-service formula should be utilized to fit the needs of each specific community.

The formula used to estimate swimming pool attendance projects use of the Otto Township Swimming Pool at three frequencies of use, as well as four projected levels of use. The formula uses the population of the anticipated service area for the calculations.
Frequencies of use are intended to classify persons into groups by how often they will use the pool. Frequent users will use the pool approximately twenty-five times per season; regular users fifteen times per season; and occasional users about four times per season.

Levels of potential use estimates total use of the pool in four categories - minimum use, probable use, optimum use, and maximum use. Within the levels of use, frequent users are projected to range from 1.0% to 1.5% of the area’s population; regular users 2.0% to 4.0%; and occasional users 2.0% to 4.0% of the area’s population.

Projected average daily attendance of the pool ranges from 32 for minimum use to 61 for maximum use of the pool. Peak use is the greatest number of users on any given day. It is based on 3 times the average daily use. Estimated peak use ranges from 95 to 183 users.
## Otto Township Swimming Pool
### Potential Usage Analysis

#### General Swim Time

<table>
<thead>
<tr>
<th>Level of Use</th>
<th>Minimum Use</th>
<th>Probable Use</th>
<th>Desirable Use</th>
<th>Maximum Use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Multiplier</td>
<td>Users</td>
<td>Multiplier</td>
<td>Users</td>
</tr>
<tr>
<td><strong>Frequent users</strong></td>
<td>1.0%</td>
<td>43</td>
<td>1.0%</td>
<td>43</td>
</tr>
<tr>
<td>Average uses per year</td>
<td>25</td>
<td></td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Total regular uses</td>
<td>1,073</td>
<td></td>
<td>1,073</td>
<td>1,610</td>
</tr>
<tr>
<td><strong>Regular users</strong></td>
<td>2%</td>
<td>86</td>
<td>3%</td>
<td>129</td>
</tr>
<tr>
<td>Average uses per year</td>
<td>15</td>
<td></td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Total Occasional uses</td>
<td>1,288</td>
<td></td>
<td>1,931</td>
<td>2,253</td>
</tr>
<tr>
<td><strong>Occasional users</strong></td>
<td>2%</td>
<td>86</td>
<td>2%</td>
<td>86</td>
</tr>
<tr>
<td>Average uses per year</td>
<td>4</td>
<td></td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Total Occasional uses</td>
<td>343</td>
<td></td>
<td>343</td>
<td>429</td>
</tr>
<tr>
<td><strong>Grand Total Uses</strong></td>
<td></td>
<td>2,704</td>
<td>3,348</td>
<td>4,292</td>
</tr>
</tbody>
</table>

| Days open per year    | 85          |              | 85            | 85          | 85          |             |             |             |
| Average Daily Use     | 32          |              | 39            | 50          | 61          |             |             |             |
| Peak Usage            | 3           | 95           | 3             | 118         | 3           | 151         | 3           | 183         |

### Description of Levels of Use

- **Minimum use** - minimum expected use. Budgeting is based on these numbers.
- **Probable use** - projects the attendance that will probably occur at the pool.
- **Optimum use** - shows the attendance that would provide the best balance between use, revenues, and expenses.
- **Maximum use** - projects the estimates for maximum attendance for the size of the pool.
Facility Management and Operations

Publicity and Public Relations

Recommendation
If Otto Township is to make significant improvements to its pool, it will need to find ways to inform potential users of the upgrade and improvements. Such marketing strategies will assist in boosting both attendance and revenues. Though marketing may be an unusual concept to a community pool, a more business-like approach such as this will likely produce good financial results. General marketing standards suggest that a new user needs to see or hear about your product three to six different times, and in more than one media. Marketing strategies could include:

- setting a goal as to how many season passes you want to sell, what you want the average daily attendance to be, or total summer admissions
- preparing a marketing brochure featuring the newly expanded amenities and improvements at the pool
- sending a mass mailing to the entire region
- submitting a press release to all local newspapers
- holding a “kick-off party” to celebrate the opening of the “new” pool
- distributing passes that are good for one free daily admission
- inviting all area residents to a swim-for-free day
- using attention grabbers to invite local youth sports organizations, such as a free evening swim for little league, soccer, and girls softball

The object in the first couple years is to get people who have never used the pool to come. A free admission will get a person there once, and, hopefully, they will enjoy themselves enough to return as a paying patron. The Township should be creative in its attempts to get people to use the pool.

Concessions
The pool does not have a concession stand and receives no income from a concession stand that is adjacent to it in the park. When the park concession was open, it was operated by the Otto-Eldred Band Boosters, and all sales revenue went to the Boosters to support the band.

With the limited attendance expected at the pool, it would probably be best to continue to have the Band Boosters or another non-profit organization operate the concession stand. It is not likely that a profit could be made at the stand if it were staffed by paid employees. However, a volunteer group would be able to raise funds for their organization.

Recommendation
An alternative would be to use one or more vending machines. Vending machines tend to produce a lower profit, but there is better control of the inventory and monies received. Vending machines would also reduce the number of staff required at the counter. Typically, the vendor stocks the machines and provides the pool with a predetermined percent of the revenue. The money received is nearly all profit for the pool.
Recommendation

If the concession stand is to be operated by the swimming pool, it should focus on becoming a profit center for the pool. Most products sold at the concession stand should be high profit items such as premix pop, popcorn, Sno-Cones, and Popsicles. This should be supplemented with mid-profit items such as candy bars, pizza slices, ice cream bars, and canned drinks. Low profit items such as hotdogs, nachos, and hot pretzels should be avoided. Sale of penny candy should be avoided, as well, due to problems with inventory control and low profitability.

Product pricing should be set to return an adequate profit while not exploiting pool patrons. Prices should be competitive with other locations its users frequent. The purpose of the concession stand should be to earn a profit for the pool while providing a service to its patrons.

Inventory and financial controls should be of utmost importance. Typical business practice should be adopted to assure that all money and inventory are accounted for on a daily basis.

The concession stand should earn a profit every year. The profit should be at least 10% of operating expenses with a target profit of 20%. Staffing, product selection, pricing, and inventory control must be appropriately managed to ensure profitability.

Staffing

The swimming pool has been closed in recent seasons, so there is little value in comparing past numbers of lifeguards or wage rates.

The Pennsylvania Bathing Place Manual provides basic standards concerning the number of lifeguards needed at any swimming pool. The current staff meets these regulations.

Staff wages need to be set competitively so as to be able to draw a sufficient number and quality of staff. The new PA Minimum Wage Law requires that the minimum wage paid to employees is $7.15 per hour. In July 2009 that rate will increase to $7.25 per hour. This rate affects all staff hired to work at the swimming pool.

Life guarding is a job that requires special skill and training. Wage rates must be paid accordingly to assure that a sufficient number of lifeguards are available. Sometimes that requires paying lifeguards higher than minimum wage.

Summary of Lifeguard Regulations

- Lifeguards must be certified by one of three agencies: the American Red Cross, YMCA, or Jeff Ellis and Associates.
- At least one certified lifeguard is required for every 4,000 square feet of water surface area of the pool, plus one guard for any fraction thereof, equal to or greater than 1,000 square feet.
- The required number of lifeguards must be at waterside at all times during all times the pool is open to the general public for recreational swimming.
- If a lifeguard does not have an unobstructed view of, and immediate access to, any wading pool an additional lifeguard must be assigned to the wading pool.
- During periods of special events and instructional periods, where the pool use is restricted in use to only those participating in the special event, at least one lifeguard must be at waterside at all times.
- A lifeguard must be stationed within fifty feet of any diving or waterslide area.
- While on duty to watch swimmers, a lifeguard may not be assigned other tasks that may divert his attention from the swimmers.
The following recommends staffing standards and pay requirements.

Recommendation
If the swimming pool is renovated as proposed in this plan, it would require the following daily staff.
- Swimming Pool Manager/Head Lifeguard
- Three lifeguards (two on duty at a time)
- One admissions cashier

All could be lifeguards.

The Pool Manager should be certified as an Aquatic Facility Operator (AFO) and must hold a current Pesticide Applicators license. All lifeguard staff must hold current certifications in approved Lifesaving, CPR, and First Aid.

Lifeguard Employment and Retention
In many communities it is difficult to recruit and retain lifeguards. It is no different for the Otto Township Pool. Factors to be considered in lifeguard employment include:

- Wages – Lifeguards need to be paid a wage that will encourage them to want to be employed by the pool. It is very common for guards to be paid more than minimum wage. However, such a decision should be balanced with other budgeting factors.
- Work Conditions – The Township needs to make working at the pool fun and safe. It should be a place lifeguards want to work.
- Training – The swimming pool should be providing lifeguard training or at least facilitating it through the local Red Cross and/or YMCA. One of the best ways to recruit lifeguards is to encourage your local swimmers to become certified lifeguards.
- Ongoing safety training should take place at the pool several times each summer. Such training should include CPR recertification, Water Safety Instructor or Assistant (WSI/WSA) training, and skills training in lifeguard water requirements.
- Job Security – When lifeguards accept a job for the summer, they have expectations of working regular hours and earning a standard weekly paycheck. However, the weather can dramatically affect the hours a lifeguard is needed. Unfortunately, if a lifeguard is sent home too many hours this summer, it is likely that they will find a more secure job next summer. Management needs to be able to create a balanced way to assure lifeguards of regular paychecks to keep them coming back.

Recommendation

<table>
<thead>
<tr>
<th>Otto Township Swimming Pool</th>
<th>Required Staffing Levels and Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff</td>
<td>Number</td>
</tr>
<tr>
<td>Pool Manager</td>
<td>1</td>
</tr>
<tr>
<td>Lifeguard</td>
<td>3</td>
</tr>
<tr>
<td>Cashiers</td>
<td>1</td>
</tr>
<tr>
<td>Payroll Taxes, etc.</td>
<td></td>
</tr>
<tr>
<td>Total Staffing</td>
<td>4</td>
</tr>
</tbody>
</table>
Season and Hours of Operation
In recent years the pool has been open Monday through Saturday from 1:00 pm to 5:00 pm, and Sunday 2:00 pm to 6:00 pm. They have also extended hours on Tuesday and Thursday evenings from 6:00 pm to 8:00 pm. These hours are appropriate and should be continued.

Additionally, time should be scheduled in the evening hours for various pool programs, such as water aerobics, pool parties, and rentals. This may require closing the pool early on certain days. Some pools have shorter hours a couple days per week, to allow time for these types of programming.

The current season runs from June through about the third week of August. This is similar to that of other pools in the area.

Programming
Programs offered at the Otto Township pool are Red Cross swimming lessons, swim team, water aerobics, adult swim night, and private parties.

Many communities rely on a variety of programming to boost revenues and attract additional users to their swimming pools. Such events should be priced at a minimum to offset the operating cost for the event; and many can produce additional revenue for the pool. Additionally, by increasing the population segment that is brought into the pool, the Township would be increasing its opportunities to attract those users as regular customers of the pool.

Basic programs offered by most municipalities include:
- swimming lessons
- elementary and teen pool parties
- water aerobics
- swim team
- water special events
- rental opportunities for pool parties
- water carnival

User Friendliness
One of the issues that almost always affects user friendliness is liability. Swimming pools are facilities that have many risk factors. The issue for municipalities and pool managers becomes trying to balance the safety issues with the demands and expectations of the residents.

Safety and liability concerns must certainly be a high priority in the operation of any swimming pool. However, in recent years the trend has been toward looking for a balance between maintaining a safe pool environment and meeting the needs of the patrons.

The recommendations of this Plan provide for a new design of the swimming pool that is much more inviting to swimmers. The layout of the swimming facility combines the former wading pool and main pool into one facility. It adds a number of water features including a beach-like gradual entry, water play equipment in the children’s areas, a large flume water slide, and two drop-slides. Amenities outside the pool include a new ADA compliant access, additional lawn areas, and shade umbrellas.

The Township should consider moving the fence back on all sides of the pool to create a much more open environment, which would allow for grass areas for lounging and family comfort. The Township may
want to consider the use of some types of flotation devices at the pool. While patrons desire the ability to bring flotation devices into public swimming pools, insurance companies are concerned with the liability they present. Flotation devices tend to give the non-swimmer or weak swimmer a false sense of security in water depths where they shouldn't be. Serious accidents can occur if the flotation device is lost, deflated, etc. Also, on larger flotation devices there is the risk of a swimmer getting stuck underneath the device.

Many pools have developed new policies that have reached a balance between maintaining a safe swimming environment and meeting the desires of patrons. Such a policy could include allowing flotation devices in limited sections of the pool, limiting the size of flotation devices, limiting the number of them in the pool at any given time, posting additional lifeguard staff in the areas where they are permitted, etc.

Parking improvements need to be considered for this pool. The parking lot is the first experience users encounter as they come to the pool. The current lot is not well defined, does not identify specific parking spaces, and does not have sufficient parking for the number of patrons that use the pool. To avoid frustration on the part of pool users and to enhance the safety of the lot, the parking lot needs to be re-designed to better accommodate pool users.

There are many other things that impact user satisfaction at a swimming pool. These may include cleanliness, adequate restroom facilities, family changing rooms and restrooms, friendly staff, and much more. The Township should be aware of these issues as they operate the pool and make accommodation for improvements when possible.

**Recordkeeping**

The following indicates an analysis of reporting forms that should be kept at the swimming pool. It is not intended to be an all-inclusive list but, rather, an indication of some of the more important recordkeeping necessary for safe and efficient operation of the pool. There needs to be an awareness of recordkeeping items required by the many agencies that may have governance over municipal swimming pools.

**Recommendation**

<table>
<thead>
<tr>
<th>Records and Purpose</th>
<th>What is expected or required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Attendance</td>
<td>Records should provide a detailed listing of daily attendance classified by payment method, youth or adult, resident or non-resident. Some pools track attendance by the time of day in order to accurately determine user loads.</td>
</tr>
<tr>
<td>Track usage of the pool to assist in staffing, financial, marketing, and programmatic decision-making; meet DEP regulations</td>
<td></td>
</tr>
<tr>
<td>Swimming Lesson Records</td>
<td>Listing of name, address, and phone number for all participants Progressive reports for each participant showing swimming level completed Required Red Cross or YMCA documentation</td>
</tr>
<tr>
<td>Help staff understand the swimming level of young patrons; provide records in case of accidents; provide certification documents for Red Cross or YMCA</td>
<td></td>
</tr>
<tr>
<td>Season Ticket Information</td>
<td>Name, address, phone number, medical conditions, swimming levels for all pass holders</td>
</tr>
<tr>
<td>Provide marketing information; track repeat users; allow knowledge of your users</td>
<td></td>
</tr>
<tr>
<td>Water Quality Reports</td>
<td>Records of each water test conducted including time, chlorine and PH levels, air and water temperatures, weather conditions, and attendance.</td>
</tr>
<tr>
<td>Meet DEP and Department of Health regulations</td>
<td></td>
</tr>
</tbody>
</table>
Also record corrective actions taken for deficient readings

<table>
<thead>
<tr>
<th>Emergency Procedure</th>
<th>A written procedure that details what to do in case of an emergency at the pool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety and liability</td>
<td>Record observations of potential safety hazards and create a record of action for all deficiencies.</td>
</tr>
<tr>
<td>Safety Inspection Records</td>
<td>Record personal, incident, and response data for all incidents at the pool.</td>
</tr>
<tr>
<td>Maintain safety</td>
<td>Record personal, accident, and response data for all accidents at the pool.</td>
</tr>
<tr>
<td>Incident Report</td>
<td>Record personal, accident, and response data for all accidents at the pool.</td>
</tr>
<tr>
<td>Accident Report</td>
<td>Checks and balances that assure an accurate accounting of all funds handled by pool staff</td>
</tr>
<tr>
<td>Daily Financial Records</td>
<td></td>
</tr>
</tbody>
</table>
a) Certifications/Requirements/Standards of Employment
b) Pre-season Testing and Training
c) Training Manual
d) Work Schedule and Hours
e) Training
f) Dress Code
g) Uniforms
h) Swim Suits
i) Outer Clothing
j) Tattoos and Body Piercings
k) Absenteeism and Tardiness
l) Tobacco, Alcohol, and Drugs
m) Purchase of Concessions
n) Acquisition of Supplies
o) Performance of First Aid
p) Housekeeping Duties
q) Visitors and Phone Calls
r) Personal Use of Facilities and Equipment
s) Care of Facilities and Equipment

5) Lifeguarding

6) Safety, Accident, and Emergency Policies and Procedures
   a) Emergency Plan
   b) Accident Procedures and Reports
   c) Incident Procedures and Reports
   d) First Aid Room Recordkeeping
   e) Sun Exposure
   f) Patron Rules
   g) Disciplinary Procedures
   h) Fecal Incidents
   i) Missing Person
   j) Inclement Weather Policy
   k) Lightning Policy
   l) Emergency Closings of The Pool

7) Employment Policies
   a) Work Schedule and Hours
   b) Breaks
   c) Payroll
   d) Timesheets
   e) Overtime
   f) Lifeguard Audits
   g) Lifeguard Rotations
   h) Employee Discipline
   i) Staff Evaluations

8) Financial

9) Programming
10) Daily Operations
   a) Opening and Closing of the Pool
   b) Admission Procedures
   c) Season Tickets
   d) Tracking Attendance
   e) Concession Procedures

11) Seasonal Opening and Closing of The Pool

12) Management Policies and Procedures
   a) Recordkeeping Matrix
   b) Public Relations/Publicity
   c) News Media Relations
   d) Music Devices – Radios, CD Players, Boom Boxes
   e) Photographs and Cell Phone Cameras

13) Mechanical and Maintenance Drawings, Manuals, and Plans
   a) List of drawings and manuals available and location of each

14) Mechanical and Maintenance Procedures and Information
   a) Handling of Chemicals
   b) Material Safety Data Sheets (MSDS)
   c) Maintenance Procedures Checklists – daily, weekly, monthly, occasional, etc.
   d) Meeting PA Bathing Code Standards

15) Originals of All Recordkeeping Documents

16) Swimming Pool Governing Regulations
   a) PA Bathing Code
   b) PA Bathing Place Manual
   c) DCNR Swimming Pool Management Manual
   d) Local Ordinances Governing Pool Operations

17) Other Items Pertinent to Pool Operations
**Financial Analysis**

All aspects of pool operation affect the financial position of the pool. Swimming pools in small communities have traditionally been subsidized by local tax dollars. Based on the demographics described earlier in this chapter, it is pretty certain that the Township or other organization will need to subsidize the pool on an annual basis. However, by operating in more of a business fashion rather than strictly as a municipal service, there are ways to better balance funding between users and taxpayers. Many of the operational issues previously described, such as staffing, concessions, user friendliness, programming, publicity, season and hours of operation, and recordkeeping, encourage a more business-like approach to operations. Adopting these principals will help increase revenues and reduce expenses.

This financial analysis shows how the pool has done historically in that balance and how it compares to other swimming pools throughout the state.

In general terms, typical small outdoor pools across the Commonwealth spend between $40,000 and $120,000 to operate their swimming pools on an annual basis. Otto Township has spent far less than that each year.

A basic analysis of revenue versus expenses for the Otto Township Pool shows that over the most recent three years of operation (2004-2006) the Township has spent an annual average of $5,700 in excess of revenues to operate the swimming pool. The greatest loss was in 2006 when expenses exceeded revenues by $9,052, while the lowest amount of expense over revenue was in 2004 at $1,156. This trend shows that the financial loss at the swimming pool has increased dramatically each of the last two years it was open.

<table>
<thead>
<tr>
<th>Year</th>
<th>Operating Revenue</th>
<th>Operating Expense</th>
<th>Operating Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>$9,753.80</td>
<td>$10,910.46</td>
<td>($1,156.66)</td>
</tr>
<tr>
<td>2005</td>
<td>$7,641.57</td>
<td>$14,534.85</td>
<td>($6,893.28)</td>
</tr>
<tr>
<td>2006</td>
<td>$6,980.75</td>
<td>$16,033.35</td>
<td>($9,052.60)</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>$8,125.37</strong></td>
<td><strong>$13,826.22</strong></td>
<td><strong>($5,700.85)</strong></td>
</tr>
</tbody>
</table>

**Operating Budget**

The operating budget for the Otto Township Swimming Pool is included in the Township’s general fund. Separate line items are shown for a variety of typical budget categories’ expenses. This allows for easy comparison from year to year. Revenues are not broken into categories to show individual sources.

**Recommendation**

In future years the Township should categorize revenues as follows: daily admissions, season passes, concessions, programs, donations, grants, and miscellaneous. This will allow for the Township to better understand revenue sources and how each affects the overall income for the pool.
The following chart depicts a three-year history of the revenues and expenses of the Otto Township Swimming Pool.

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2004</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td></td>
</tr>
<tr>
<td>Advertising</td>
<td>$59</td>
</tr>
<tr>
<td>Bank Fees</td>
<td>$71</td>
</tr>
<tr>
<td>Equipment</td>
<td>$243</td>
</tr>
<tr>
<td>Maintenance</td>
<td>$1,672</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>$527</td>
</tr>
<tr>
<td>Payroll</td>
<td>$7,351</td>
</tr>
<tr>
<td>Supplies</td>
<td>$987</td>
</tr>
<tr>
<td>Start-up</td>
<td>$0</td>
</tr>
<tr>
<td>Swim Certificates</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>$10,910</td>
</tr>
</tbody>
</table>

| **Revenues**                |       |       |       |                |                                  |
| Miscellaneous               | $472  | $0    | $0    | $157           | -$472                           |
| Daily Admissions            | $3,075| $4,660| $3,969| $3,901         | $894                            |
| Interest                    | $0    | $1    | $2    | $1             | $2                              |
| Refunds                     | $22   | $0    | $0    | $7             | -$22                            |
| Season Tickets              | $1,530| $2,616| $2,575| $2,240         | $1,045                           |
| Swim Lessons                | $0    | $365  | $435  | $267           | $435                            |
| **Total Revenues**          | $9,754| $7,642| $6,981| $8,125         | $1,882                           |

| **Revenue Minus Expense**   | -$1,157| -$6,893| -$9,053| -$5,701        |

Source: Otto Township Recreation Park Profit & Loss (Provided by the Township Secretary)

**Daily Admission and Season Pass Rates**

Daily admission rates have not changed significantly in recent years. Setting fees is a balancing act between keeping them high enough to produce sufficient revenue to cover a reasonable portion of the pool’s expenses and keeping them low enough to keep people using the pool. Setting fees too high drives away customers, but setting them too low does not pay the bills.
The current fee structure for the pool is shown in the following chart.

<table>
<thead>
<tr>
<th>Season Passes</th>
<th>Daily Admission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident</td>
<td>Non-Resident</td>
</tr>
<tr>
<td>Family Pass</td>
<td>$100.00</td>
</tr>
<tr>
<td>Over 18 (Adult)</td>
<td>$75.00</td>
</tr>
<tr>
<td>Under 18 (Youth/Child)</td>
<td>$65.00</td>
</tr>
</tbody>
</table>

**Future Financial Projections**

Based on the proposed changes to the swimming pool, the following chart depicts projected revenue figures for the first five years of operations. It is not anticipated that, with the size of the community, revenues will be able to cover expenses in any year. It is anticipated, however, that the renovations will sufficiently increase revenues and decrease expenses to keep the subsidy at a minimum. This, of course, will be dependent upon operating procedures, marketing, anticipated weather conditions, and numerous other variable factors.

Expenses are based on the changes brought about by the renovations to the swimming pool, as well as incremental increases in basic costs. After the first year, costs are anticipated to increase by about three percent per year.

Revenue increases should be brought on by an enhanced facility. In the early years of operations, daily admissions are likely to increase the most dramatically as people come to “try out” the new pool. As they find that it meets their needs and desires, daily admissions will level off while season passes sales will likely increase.

<table>
<thead>
<tr>
<th>Otto Township Swimming Pool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget Projection for Future Operations</td>
</tr>
<tr>
<td>------------------------------</td>
</tr>
<tr>
<td>Expenses</td>
</tr>
<tr>
<td>Advertising</td>
</tr>
<tr>
<td>Equipment</td>
</tr>
<tr>
<td>Maintenance</td>
</tr>
<tr>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Payroll</td>
</tr>
<tr>
<td>Supplies</td>
</tr>
<tr>
<td>Start-up</td>
</tr>
<tr>
<td>Total Expenses</td>
</tr>
<tr>
<td>Revenues</td>
</tr>
<tr>
<td>Description of rates</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>Family Rate</td>
</tr>
<tr>
<td>Adult</td>
</tr>
<tr>
<td>Youth</td>
</tr>
<tr>
<td>Senior</td>
</tr>
<tr>
<td>Free</td>
</tr>
</tbody>
</table>
Appendix
Otto Township Swimming Pool
Feasibility Study

Sometimes you feel like you’re diving into no man’s land.

Your pool ready to do its own belly flop.

Struggling to keep your head above water.

Swimming pools today are facing tremendous challenges.
The Otto Township Pool was built in 1957 or 58

That means.....its fifty years old!!!
We Conduct a Swimming Pool Feasibility Study

Three Components of a Feasibility Study

- Facility Assessment
- Public Input and Community Analysis
- Financial Analysis

Like Pieces of a Puzzle

Everything Must Fit Together
Community Analysis

- Strong Community Support
- Small community
  - Otto Township - 1,738
  - Otto-Eldred School District - 4,292
- Rural area w. small community hub
- Municipalities have limited ability to assist

Facility Analysis

Main Pool Structure

- Pool Shell
- Main Drain
- Diving Well
- Deck Equipment
- Filtration and Chemical System
Facility Analysis
Main Pool Structure
Filtration and Chemical System

Facility Analysis
Wading Pool

Facility Analysis
Main Pool Structure
Concrete Deck

Facility Analysis
Main Pool Structure
Fencing and Deck Area

Financial Analysis
Basic Renovations - $400,000
New Wading Pool - $150,000
Building Upgrades - $80,000

Potential Additional Features
Additional amenities
New concrete of main pool w zero depth entry - $145,000
New drop slide - $20,000
Water Play equipment - $65,000
Deepen the diving area - $126,000

Potential Funding Sources
• DCNR – up to $300,000
• CDBG – Assistance with ADA compliance
• Legislative Initiative Grants – up to $50,000
• Private and business donations
• Local fundraising

Can Our Old Pool Survive?!

Everything Must Fit Together

Questions and Comments