CITY OF WHEATLAND

CITY COUNCIL MEETING
STAFF REPORT

September 28, 2021

SUBJECT: Consideration of Pool Feasibility Analysis

PREPARED BY: Jim Goodwin, City Manager

Recommendation

Accept Pool Feasibility Analysis prepared by Melton Design Group and direct staff to prepare funding application to the Department of Parks and Recreation for submission on November 5, 2021.

Background/Discussion

On October 27, 2020 the City Council approved a contract with Melton Design Group (MDG) for assistance with park design projects and grant applications, including the proposed Wheatland Community Pool.

With assistance from MGD, outreach meetings were held (both live and via Zoom) to receive input from residents about the project. In addition, presentations were made to both the Wheatland School District and the Wheatland Union High School District boards. The City Council's Ad-hoc Committee Members, Bob Coe and Jay Pendergraph were updated regularly on the process. Based on the input received, a conceptual design was developed. The conceptual design was then reworked to define a project the community can afford. The final report is attached for your review and acceptance. Greg Melton will be present in the meeting to discuss the conceptual design and feasibility analysis.

The final report demonstrates the pool project is feasible pending final commitments from partner agencies to participate and an operational commitment from the City of Wheatland beginning in the fiscal year when the pool construction is complete. As outlined in the report, to compete successfully for the $3 million Prop 68 grant, the Creps donation will need to be redirected into pool construction.

Based on these conclusions, staff is requesting the City Council direct staff to prepare the funding application to the State Department of Parks and Prop 68 Rural Recreation and Tourism Program (RRT). Preparation of the application will require receipt of partnership commitments including

operations support and financing for the City of Wheatland's local share. A competitive application will demonstrate the ability of the City of Wheatland to operate the pool for 30 years.

Staff will bring the final package to the City Council for approval on October 26 prior to the November 5 grant application deadline. If awarded, a contract for receipt of the grant funds will come to Council for final approval sometime in 2022.

Alternatives

Receive the report and choose not to direct staff to pursue the $3 million Prop 68 Rural Recreation and Tourism Program grant.

Fiscal Impact

No immediate Fiscal Impact.

Attachments

1. Wheatland Aquatic Center Feasibility Analysis

City of Wheatland

WHEATLAND AQUATIC CENTER FEASIBILITY STUDY

Prepared by

MELTON DESIGN GROUP, Inc. / Arch Pac Sept. 23, 2021

MELTONDESIGNGROUP, INC
LANDSCAPE ARCHITECTS & PLANNERS
CHICO | SACRAMENTO
MELTONDG.COM (530) 899-1616

ARCH·PAC AQUATICS

CITY OF WHEATLAND INC. 1874

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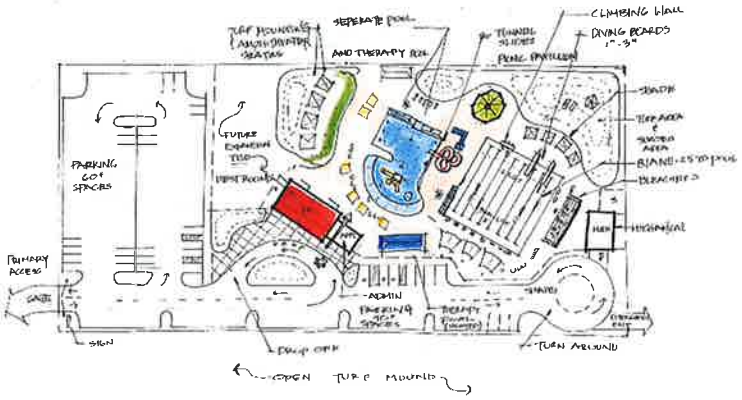
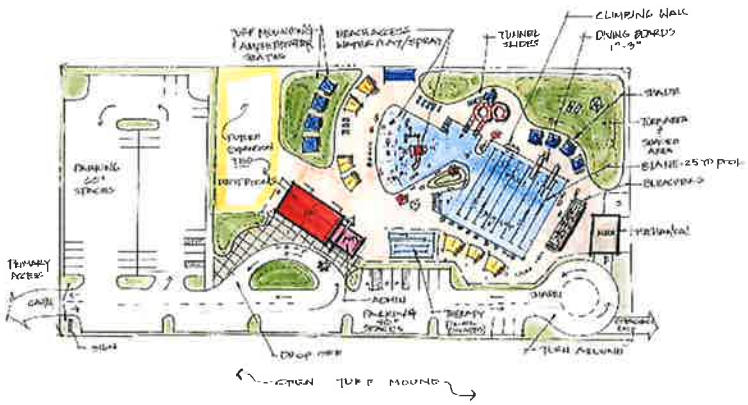




MDG
MELTONDESIGNGROUP INC

820 BROADWAY ST CHICO CA 95928 – 530.899.1616
1930 G ST SACRAMENTO CA 95811 – 916.754.2153
MELTONDG.COM

WHEATLAND AQUATIC FACILITY INTRODUCTION and SUMMARY

INTRODUCTION

The City of Wheatland is a growing community and understands that with growth comes the need for amenities for its people. This aquatic complex project has been active for years in the community with both the City, the schools and the public. One driving force in the project is a donation of one million dollars from a private trust to the City for the ongoing maintenance of a pool facility. This donation twilights after 7 years which leaves us 5 years, so with that and the upcoming State Proposition 68 - Rural Recreation and Tourism Program (RRT), the City has the opportunity to develop Phase 1 of an aquatic center. This fits into the grant intent and works on a piece of property between Wheatland Elementary, Bear River Middle School and Wheatland Union High School. In the vicinity of Wheatland, there are several pools. Yuba City has Gauche Aquatic Park (GAP), which is the most developed with amenities and serves the most people in the surrounding area. Olivehurst, Nicholas, Sutter, Lincoln and Live Oak provide nearby smaller pools.

This document will layout the design of a pool complex on the Wheatland Elementary School District property; a full aquatic design with phases, cost estimates and probable operating costs and revenue generation for the complex. The City will assess this study to determine whether they want to apply for the upcoming grant in November of 2021.

APPROACH - The report will include the following elements:
Project Location and Site Analysis
Needs Assessment and Public Outreach
Market Study
Conceptual Design and Costs
Operating Analysis

PROJECT LOCATION and SITE ANALYSIS

The project site is on Wheatland Elementary School District property and is located east of Wheatland Ranch Road, west of Highway 65 and between the elementary and middle schools. The site itself will connect the schools to the pool areas and take up approximately one half of an acre. It currently is a flat, non-irrigated turf field that is primarily used for recreational soccer. Vehicle access is through the Bear River parking lot and pedestrian access will be from both schools and the subdivision to the north of the site. Pedestrian access from WUHS currently does not exist and this access will be assessed as part of the project study. Utilities are available at the Bear River School site and from Wheatland Ranch Road. Overall, the site offers a great space that is centrally located and is being offered for use at the right price.

NEEDS ASSESSMENT and PUBLIC OUTREACH

Currently, there are pools in several of the communities around Wheatland. Most are aged, small and in need of refurbishing, with the exception of Yuba City's Gauche Facility, which has many of the pool amenities that make up a good aquatic complex. The Wheatland Community has a need to provide swimming lessons, free play and a competitive pool for both the schools and the public. Multiple public outreach meetings have occured and the wants and needs of the community were captured and documented in the conceptual plans.

Primarily, the community wants a competitive pool where they can hold swim meets, play water polo, dive and have fun. They want to be able to teach the youth how to swim while providing recreation and a fun environment. In addiition to the swimming aspect, the City sees the oportunity to use this pool site as a gathering space for our children, for six months in spring, summer and fall. The years to follow the build out will see an increase in population to the tune of approximately a 53% increase. This is a reasonable expectation given the housing developments that are already planned for coming years, plus we've already seen examples of rapid growth in neighboring Plumas Lake and Lincoln.

MARKET STUDY

The service area of the project was studied to assess and examine all the current pool markets and demographics of the proposed project site, along with creating an inventory of the existing pool systems and programs that are provided by other communites that might compete with the proposed project. We found that there are many smaller and older pools that provide minimal services and one large pool that has all the services, but a higher cost, and is 15 miles to the north. We have found that schools in the area need places to swim and compete. There are other organizations such as the Wheatland Fire Authority, First 5 Organization and Yuba Water Agency that can support the pool and bring swim lessons to the masses. There is a need for a pool that upgrades the community and fulfills the desire for a larger competitive recreation/lap pool to teach and train our youth and adults.

The current growth and development in the community and region, and the support of local agencies, demonstrates the ability to support and operate a pool financially and cover future lifecycle costs. There is a need for and support for high quality pools, event space, passive recreation and quality competition water sports.

CONCEPT DESIGN and PROJECT COST

The pool concept captures the community's needs; we listened to pool users... from kids to moms and dads, from schools to swimming and diving clubs. We also considered future users that are moving to the area. We coordinated with both the WESD and WUHSD to discuss the property use, pool and site design, encroachments, fences and access. The One Pool Option includes the 8-lane, 25-yard pool with diving board, size and depth allowing for water polo, shallow area for lessons and additional recreation area incorporating an obstacle course, rope swing, basketball and 1 meter diving board. Phase 2 of the pool incorporates the shallow childrens'/warm up pool for kids lessons and a smaller basketball hoop. Phase 3 includes a beach-entry recreating pool incorporating play equipment and a recreational slide to fulfill the needs of the community. Phase 1 was designed to provide the lowest cost pool version with enough elements to make it fun and cost appropriate, without compromising the configuration of the pool for future uses like water polo.

Estimates ranged from $4.35 million for the one pool option to $5.1 million for two, and to almost $11 million for full build-out. In addition to the pools, an administrative building and bath house was proposed to provide pool management and a secure restroom, changing room and shower structure. A second building was a half indoor/half outdoor mechancial building. The funding of the project will need to relate to the State Grant. To do so, we will need to be green, sustainable, promote health and wellness and invite tourism to the community.

OPERATING ANALYSIS

The project design was studied in relation to operating costs and revenue generation. The City had been gifted $1 million in 2019 and there is a 7-year sunset on that gift. With the desire for the pools to be big enough for swim meets and water polo, there is an increase in operating costs for such a large pool, specifically in respect to utilities and lifeguard needs, among other things. With the additional consideration of a heated pool, we are looking at options for keeping the pool open 4, 5, 6 or 12 months out of the year. Being open less than a full year reduces the operating costs in regard to heating and lifeguards but limits the revenue generating season. The start and end months of the pool operation and the quantity of lifeguards will be a key discussion of the operating budget.

RECOMMENDATIONS

1. The City proceed with the ONE-POOL OPTION. This pool allows for current operations with the ability to grow as the community grows.

2. Start with being open for a 5-month season to establish the management of the pool and maximize the Cost-Revenue ratio, with the option to stretch it out to 6 or 7 months, as the population grows and users increase.

3. Proceed with a project that is to be designed and built with operations costs in mind. This means including things like a pool cover that's easy to apply/remove, using LED lighting and using equipment sized appropriately for ease of operation and cost efficiency, for example a variable frequency drive (VFD) pump, which reduced electrical use considerably.

4. The City should incorporate a SOLAR ARRAY PROGRAM that will offset electrical costs and in the future incorporate electrical heaters to heat the pool instead of the natural gas heaters.

WHEATLAND AQUATIC FACILITY LOCATION and SITE ANALYSIS

The purpose of this Site Analysis is to clarify why the site was chosen, what the conditions are and what will need to be done for the project to be constructed at this site. The WSD provided the 3.18 acre site between Bear River Middle School and Wheatland Elementary School. The High School is also very close, only a few blocks away, and could provide PE classes throughout the spring and fall. The location allows for a full-size pool complex, leaving the District with plenty of room to establish more multi-use fields, track, fitness, etc., as requested. This is the only site available to the City that is large enough to allow for the future growth of Phase 2 and Phase 3. WSD is willing to participate in the process; the access through school property is being worked out with the School District. The site's proximity to the schools, though, as well as being close to the town center and Highway 45, and easy access to utilites, makes this a prime location for the Aquatic Facility. It's also well suited for the Proposition 68 grant, as the aforementioned proximities help fulfill a basic goal of the grant - to aid in reducing greenhouse gases by reducing travel distances/times.

EVALUATION

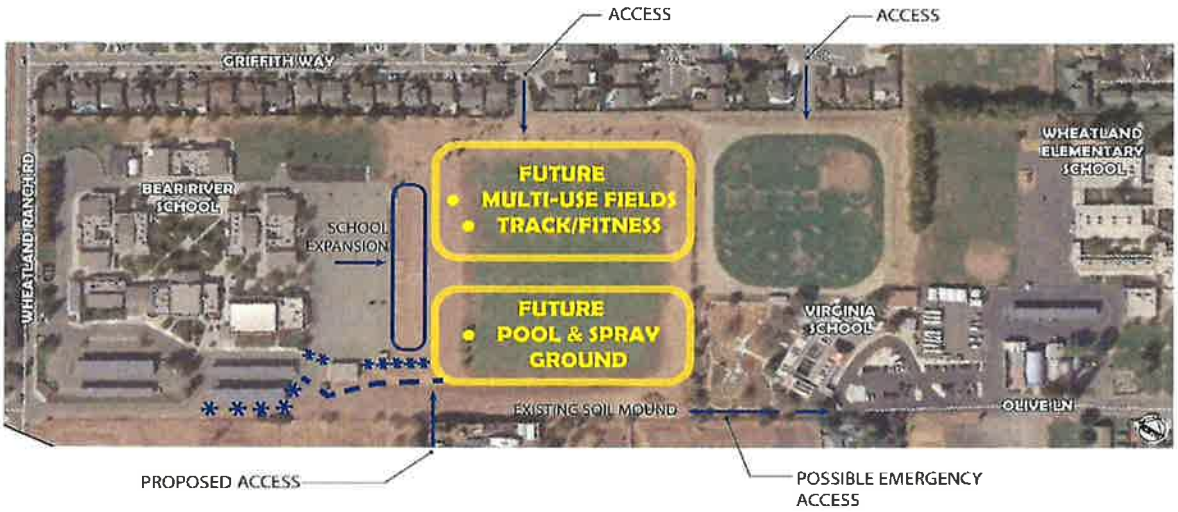
SITE CRITERIA EVALUATED		RATING 1-5 / 5 highest / Weight		
1. Central Location to Key Users - Schools and Community		15	5	3
2. Access to All Needed Utilities		20	4	5
3. Ease of Access for Vehicles, Bicycles and Pedestrians		9	3	3
4. Acquisition Cost		15	5	3
5. Zoning compliance		5	5	1
6. Shared Uses and Costs		9	3	3
7. Access to Parking		15	5	3
8. Neighborhood Rejections or Concerns		12	4	3
9. Safety of Neighborhood		15	5	3
10. Site Readiness		8	4	2
11. Geological Advantages		12	4	3
12. Citizen and Public Perception		10	5	2
TOTAL POINTS AVAILABLE - 170	*TOTAL:*	145		

At 85 percent of the available points, this rating shows that the site is highly desireable and it is recommended to move forward.

The elements that are scoring low can be modified during site design and construction with minimal cost.

One key element of the site is that we allow for the future use of additional recreation for the school fields.

It is integral to the grant that this pool provides significant physical activity for local and regional users.


ACCESS
ACCESS
GRIFFITH WAY
WHEATLAND RANCH RD
BEAR RIVER SCHOOL
SCHOOL EXPANSION
FUTURE
• MULTI-USE FIELDS
• TRACK/FITNESS
FUTURE
• POOL & SPRAY GROUND
WHEATLAND ELEMENTARY SCHOOL
VIRGINIA SCHOOL
EXISTING SOIL MOUND
OLIVE LN
PROPOSED ACCESS
POSSIBLE EMERGENCY ACCESS


LOOKING WEST TOWARDS BEAR RIVER SCHOOL
GRIFFITH WAY ACCESS
LOOKING EAST TOWARDS VIRGINIA & WHEATLAND ELEMENTARY SCHOOL
CLOSER
LOOK
LOOKING NORTH WEST

WHEATLAND AQUATIC FACILITY NEEDS ASSESSMENT and PUBLIC OUTREACH

The City of Wheatland community currently travels for their swimming. As previously stated, the Gauche Aquatic Park (GAP) in Yuba City is the prime choice with the most amenities, providing a lap pool, recreation and slides. The E. Nicholas and Olivehurst Public Utility District (OPUD) pools are preferred by many for easy access, lower cost and good for the little ones. After studying all the potential pools and going through the outreach process, a similar pool to the GAP was specified, but with a smaller, more connected feel and additional recreation elements. This will make the Wheatland pool unique to the area and useful for competitive and functional training and recreation. Potential users are the schools, swim clubs and general public from Wheatland and surrounding communities.

Understanding the importance of engaging the public when considering major projects, we fine-tuned and confirmed our concept design for the facility through four public input workshops, both in-person and virtual. We also had a final design review in front of both School Districts and the Wheatland City Council. The design also takes into consideration the National Recreation and Parks Association standards, which recommends approximately 15-25 SF of water surface area per person to accommodate 5% of the local population. With a population estimated to reach 5,791 in 5-10 years, the recommended water surface area would be 7,239 SF. This level of use is met by the proposed Two-Pool Option. With the proposed One-Pool Option, the need would be met once a second pool is constructed during Phase 2.

OUTREACH WORKSHOPS

For each Workshop, the design team presented all aspects of the project to the attendees, so that they could indicate which elements and options they most wanted to see in their ideal aquatic facility. These workshop results helped focus the design of the Aquatic Center on what matters most to the community. Our goals in the design were based on providing all types of water play, swimming lessons and competitive opportunities for all ages, while training for water safety, fitness and fun.

GOALS and OBJECTIVES

1. Educate the community and stakeholders on what is available to them.
2. Convey the advantages of the proposed project location to the community.
3. Provide examples of similar area pools and pools that offer new ideas and elements.
4. Develop a spatial relationship of pools to spectators, access, security and safety.
5. Create a pool concept that provides water for multiple uses and ages.
6. Develop community pride and excellence in water sports while providing benefits.
7. Comply with Proposition 68 requirements regarding Public Outreach.

FINDINGS: COMMUNITY PRIORITIES

1. A competitive pool for learning and competing within many disciplines.
2. Water play and recreation.
3. Water fitness and instruction for water safety.
4. Parent comfort, providing shade and visibility of pools and open recreation areas.
5. Affordable use of the facility and all its features.
6. Themed play with fun features and sprays for daily summer entertainment.

Workshop #1

The first Workshop was offered in-person and via Facebook Live on April 17, 2021. The meeting took place in the parking lot of Bear River Middle School adjacent to the site. This brainstorming session introduced the project to the community and presented a variety of pool types and sizes. We had photos of all the existing pools in surrounding communities. Element Boards provided visual displays for many of the options being discussed and helped participants understand what their Aquatic Center could look like and offer.

Attendance: Approximately nine (9) people were in attendance. All participants were adults, neighbors, contractors and relatives of the donor.

Discussion: The participants engaged in discussions regarding the site, access, parking, effect on neighbors to the north. There was also a discussion regarding the operation of the site and how it would be maintained. The site discussion brought up access from all the schools and how close it is for everyone. We need to get permission for high school kids to cross church property for ease of access during school. Secondly, attendees discussed the parking and were pleased to see many parking spaces to prevent cars parking in the neighborhood. Jim Goodwin, City Manager, stated that a Trust Fund donated $1 million to the City and it would fund operational costs. The donor was the Creps Family, and the one condition of the Trust is that we build the park within seven (7) years. Additionally, a local pool contractor present at the meeting expressed his interest in helping design the mechanics of the pool and highlighting the opportunities that are available to us.

Boards Demonstrated the Following:

1. All pools in the area
2. Site plan showing the surrounding area and access options to the proposed pool site
3. Possible pool and recreational designs
4. Final boards that asked for top five elements
   a. Lap pool for competitions and lessons
   b. Recreational spray pool with a theme
   c. Picnic and viewing area to all pools along with reservations and shade
   d. Support building with restroom, shower, changing room
   e. Unique water play elements in the pool

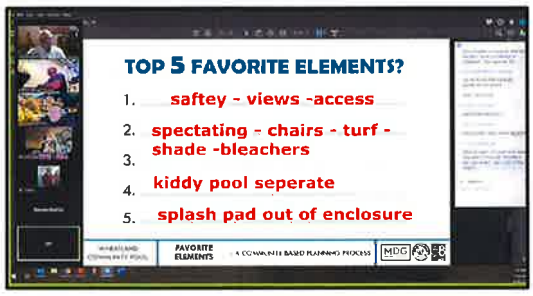
Workshop #2

The second Workshop was a virtual event hosted on April 20, 2021. This second brainstorming session allowed another opportunity for the community to evaluate and provide input on a variety of pool types, sizes and elements.

Attendance: Approximately seven (7) people were in attendance.

Discussion: Element Boards again provided visual displays for options being discussed. The discussion focused more on the **scheduling and programming**. People wanted to understand what would be offered; that it would start small and then grow into a healthy swim program. Separate **therapy pools** were discussed; however, we mentioned that they would just be warm pools and an actual therapist would not be provided. Individuals could do their own excercises in the pool but we could not call it a therapy pool due to insurance requirements. Other items discussed included safety, bleacher spectating, shade areas for watching, a separate kiddy pool and a splash pad, possibly outside in a non-paid area.

Attendees stressed that we need large grass areas for swim meets with shade elements, as well as BBQs and tables for people to gather at the meet. Gender neutral spaces, restrooms and dressing areas were requested, along with family changing areas. The prevailing preferred pool was Sutter Pool, as it's easy to get to and the price is right. The GAP spray area is well liked, as well as its slides and play area. Our site can accommodate a smaller slide and we could do a splash area by itself in town to deal with the recreation and summer heat. A beach-entry pool with sprays and themed play were preferred.

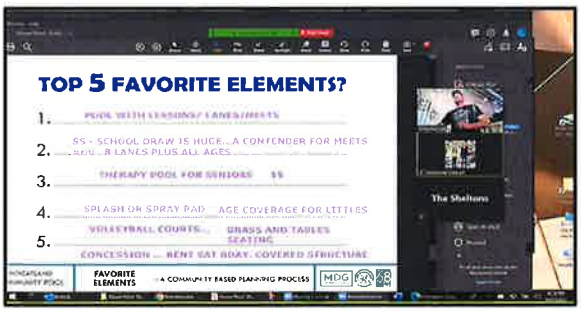


Workshop #3

The Workshop #3 was another virtual event. It took place on April 21, 2021.

Attendance: Approximately seven (7) people were in attendance consisting of a young family, aquatic committee members including a representative from the high school swim team, council members and a senior swimmer.

Discussion: For this third Workshop, the goal was to focus on elements and design suggestions that came from feedback from the first two Workshops. A large, 8-lane lap pool was discussed. With a pool that size, Wheatland schools can have swim meets and be time-efficient with the eight (8) lanes. As the City grows, the draw for meets will grow and the pool will be able to handle the additional demands. Diving and water polo were also requested for the schools. To qualify as a nationally certified pool to host meets, the competition pool needs official automatic touch pads for keeping and recording stops and times for the racers. Recreation space around the pool would also be needed with shade and rentals. Attendees discussed grass play and seating areas for spike ball and volleyball as well.



Workshop #4 Little League Baseball and Girls Softball

Workshop #4 on May 15, 2021, was back to in-person and hosted at the park. The emphasis was on prioritization of park elements from a list that was created during the prior 'focus' Workshop (#3). The goal for the 50+ attendees was to take the narrowed down list and highlight which items and configuration were the priority and preferred for the community's ideal Aquatic Center.

Attendance: 50+ Park users of all ages

Discussion: Attendees were presented with two plans showing a full design of the complex. Both designs had the same elements but were layed out with different configurations, pools together and pools seperate. They were asked to put red and green dots on what option they preferred. The community liked the pools separated so kids not qualified to be in a deeper pool could be in the shallow pool and spectators can be between the pools and keep an eye on their kids. Additionally, the two pools add the benefit of operating the pools seperately. One variable would be price to operate two pools vs. one pool and the additional cost of construction. Photos show the wide range of age and engagement we experienced. Planning commissioners and little league kids were also involved. After selections were made, several of the participants mentioned the balance of having the right pools and accessories and making sure the design is layed out so that all the lifeguards, spectators and parents can see the pools and keep track of children. There was a consensus on having two seperate pools for functionality, which was Option B.

City Council Presentation

On June 8, 2021, the Wheatland City Council was presented with a conceptual design that incorporated what was learned from the four Outreach Workshops. They were given a packet showing the site, the elements and what the public wanted.

The Council had several ideas/concerns:

1. They liked the whole complex design with pools separate or together, but with all the amenities to make it very multi-use and a good return on investment.

2. The Council was concerned about where dollars were coming from to build the project. Options: $3 million from the grant, $2.5 million from other funds, possible preliminary impact fees from development and other donations. The Council requested a project version be designed to be as close to equal to the grant funds as possible, even it meant having only one pool.

3. What is the annual maintenance and operation budget? Can we afford the option we have on the plan? The 6-month plan keeps the pool(s) open for 6 months of the year with a deficit. Donations from local pool advocates and the Creps Trust maintenance fund could reduce that. Reviewing 5-month and 4-month plans was discussed to see what it takes to get into the black.

4. It is important to build what the City can afford. Everyone liked the design and long-term planning "but we can't overdo it" (ie. opt for an initial project that's beyond the City's ability to build and maintain it). As we look at 5-10 year growth in the community, it's clear this should be a 'phased' project. Keep it simple and affordable in Phase 1 without compromising the possibilities for future Phases. The Council directed that a smaller pool be researched with less up-front costs and possibly less months of operation to meet the budget available.

Wheatland School District (WSD)

A virtual meeting was held with the WSD.

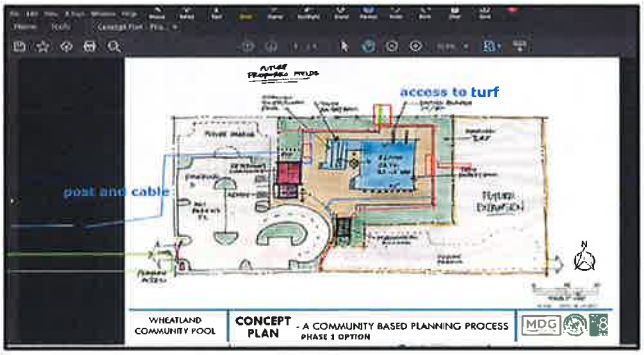
Attendance: Three (3) people were in attendance and Craig Guensler represented the District.

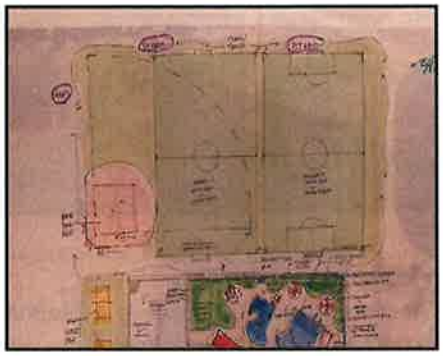
Discussion: Several several items regarding the site were discussed.

1. Property Use: The District provided information that would provide the field property on the south end for the Aquatic Complex at no cost to the City. It was important to show that the remaining fields provided enough space to have future fields, volleyball and soccer play. Access along Olive Street was discussed and the District Manager expressed the concern of Virginia School and the access adjacent to their property. Past discussions have been had regarding the easement on Olive Street and at this time the project does not need the access, but was exploring it for additional accessibility. At this point, the project does not need access from Olive Street and is not planning any access through Virginia School.

2. Vehicular Access to the Pool: The WSD thought the access drive through the Bear River site parking drive could work for pool access if the school was fenced along the north edge of that access and pedestrian access from the schools to the pool was provided.

3. Pedestrian Access: Potentially an easement to allow easy access for the high school to the new pool through Church or Private properties. Fields, security and access onto school grounds during school was a important discussion.





Wheatland Union High School District (WUHSD)

On May 12, 2021 we held a virtual meeting with the District Superintendant, Nicole Newman, and the new Athletic Director.

Discussion: The needs of the high school in regard to the pool and how the school would be able to contribute to the maintenance fees for their use was discussed. They were enthusiastic but needed to get an understanding of operations and how much time they needed to run their competitive swimming program, water polo and diving. These would be brand new programs so Athletic Director pointed out the need to gauge the student interest level. They were also asked to determine if there would be physical education classes that would come to the pool from the high school.

Wheatland National Night Out - Wheatland Police Department

On August 3, 2021, the Wheatland Police Department and the law enforcement agencies in Yuba and Sutter Counties hosted its annual festival.

Attendance: Approximately 29 people participated in our demonstration at the event. Participants were a wide range of moms and dads, kids and school teachers, that were excited about the kids learning to swim, as Wheatland has the Sacramento River close by. Several seniors were there with family and liked the play elements that can be added, like the climbing wall and the rope swing. The event was very family driven with a strong community engagement.

Discussed: Phase 1 and the full build-out of the project were presented with concepts that incorporated all the input from the previous outreach Workshops and Meetings. The participants were shown site designs, enlargements and elements the public requested. POOL and OBSTACLE COURSE: Additionally, we focused on the design of an obstacle course that would be placed in the water. We took a poll on which course was preferred and the circled sketch in the photo below (drawn by a teen at the event) represents the type of course they liked. Several kids and parents engaged in the selection and drew pictures of the combinations of the course they would prefer. The obstacle course was something they had seen on TV and would love to be able to play on and have the water to fall into. DIVING: A diving instructor from the neighboring high school discussed using 1-meter boards primarily, as 3-meter boards are less common. Two women that currently do water aerobics added their input on how a standard 4' pool works great for them. They mentioned that they would only do water aerobics in the warmer months, May-September. The public also asked about cost of use and mentioned that they would consider paying for summer memberships.

WHEATLAND AQUATIC FACILITY MARKET STUDY

This Market Study establishes what is available in the surrounding areas for similar types of aquatic centers and communities with typical usage and fee schedules for their current operation. To accomplish this, we looked at the demographics of Wheatland and surrounding areas, evaluated other available aquatic venues and used this information to predict revenue potential, possible fees and programs and options to aid with determining the feasibility of the project.

AREA DEMOGRAPHICS

Geographic Area of Consideration

The area examined for demographics consisted of an approximate 10-15 mile radius around Wheatland. We would expect this to be a viable service area for the Aquatic Center and we understand that the draw to Wheatland's facility will come from these areas, while it's also possible that we would lose users to the same facilities. With the growth of our community, a centrally located public facility would thrive and the proposed project can continue to grow with it.

Population by Age (2019 Data per CensusReporter.org)

YUBA CITY METRO AREA			
Age	**% of Pop**	**Error Margin**	**Population**
0-9	16.20%	±1.1%	28,364
10-19	12.90%	±1.2%	22,670
20-29	14.60%	±1.2%	25,592
30-39	12.70%	±1%	22,241
40-49	11.3%†	±1.1%	19,764
50-59	10.80%	±0.9%	18,916
60-69	11.70%	±1.1%	20,608
70-79	6.7%†	±0.8%	11,779
80+	3.3%†	±0.6%	5,705
TOTAL			**175,639**

Green Outline = Sutter Co/Black Outline = Yuba Co
"Yuba City Metro Area" encompasses both Cos.

WHEATLAND			
Age	**% of Pop**	**Error Margin**	**Population**
0-9	9.6%†	±2.7%	367
10-19	12.3%†	±3.7%	470
20-29	15.3%†	±4.6%	581
30-39	10.8%†	±3.2%	410
40-49	14.9%†	±4.1%	568
50-59	17%†	±4.3%	648
60-69	9.4%†	±3.3%	357
70-79	7.1%†	±2.7%	270
80+	3.7%†	±1.5%	139
TOTAL			**3,810**

WHEATLAND	10-YEAR GROWTH PROJECTIONS		
Years	**1% Growth per mo.**	**Growth per Development Projections**	**Population Total**
1	38	0	3,848
2	38	420	4,307
3	43	144	4,494
4	45	450	4,989
5	50	48	5,086
6	51	0	5,137
7	51	0	5,189
8	52	0	5,241
9	52	0	5,293
10	53	500	**5,846**
TOTAL at end Year 20 with only 1% growth			**6550**
TOTAL at end Year 30 with only 1% growth			**7349**
TOTAL at end Year 40 with only 1% growth			**8246**

** This Table reflects ~53% growth by end of first 10 years*

YUBA CITY			
Age	% of Pop	Error Margin	Population
0-9	11.8%†	±2.2%	7,924
10-19	13.5%†	±2.2%	9,010
20-29	15.3%†	±2.3%	10,222
30-39	11.7%†	±1.8%	7,840
40-49	12.3%†	±2.2%	8,217
50-59	11.1%†	±1.5%	7,433
60-69	12.6%†	±1.9%	8,448
70-79	7.3%†	±1.3%	4,884
80+	4.5%†	±1.1%	3,031
TOTAL			67,009

OLIVEHURST			
Age	% of Pop	Error Margin	Population
0-9	16%†	±2.2%	2,159
10-19	11.9%†	±2.3%	1,605
20-29	16.6%†	±2.1%	2,231
30-39	15.2%†	±2.1%	2,051
40-49	11.2%†	±1.7%	1,502
50-59	12%†	±1.7%	1,618
60-69	10.2%†	±1.6%	1,373
70-79	4.8%†	±1.1%	652
80+	2%†	±0.7%	273
TOTAL			13,464

PLUMAS LAKE			
Age	% of Pop	Error Margin	Population
0-9	20.40%	±2.7%	1,543
10-19	17.60%	±3.2%	1,330
20-29	12.50%	±2.9%	950
30-39	15.50%	±2.2%	1,172
40-49	15.2	±2.3%	1,153
50-59	9.10%	±1.8%	689
60-69	6.90%	±2.1%	524
70-79	1.80%	±1.2%	133
80+	1%	±0.7%	79
TOTAL			7,573

SUTTER			
Age	% of Pop	Error Margin	Population
0-9	10.10%	±3.8%	302
10-19	16.60%	±4.2%	500
20-29	16.90%	±4.1%	509
30-39	5.10%	±2.3%	154
40-49	17.9	±3.7%	539
50-59	12.90%	±3.5%	388
60-69	10.50%	±3.1%	316
70-79	7.30%	±2.7%	220
80+	3%	±1.3%	77
TOTAL			3,005

MARYSVILLE			
Age	% of Pop	Error Margin	Population
0-9	13.6%†	±2.5%	1,672
10-19	12.3%†	±3%	1,512
20-29	18.6%†	±2.9%	2,288
30-39	16.7%†	±3%	2,055
40-49	8.2%†	±1.9%	1,009
50-59	13.2%†	±2.2%	1,629
60-69	10%†	±1.9%	1,232
70-79	4.3%†	±1.3%	527
80+	3.3%†	±1.1%	403
TOTAL			12,327
LINCOLN			
Age	% of Pop	Error Margin	Population
0-9	13.20%	±1.1%	6,262
10-19	10.70%	±1%	5,053
20-29	9.2%†	±0.9%	4,370
30-39	12.40%	±0.9%	5,864
40-49	12.10%	±0.9%	5,740
50-59	9.80%	±0.9%	4,651
60-69	12.70%	±0.9%	6,008
70-79	13.30%	±0.9%	6,303
80+	6.60%	±0.7%	3,137
TOTAL			47,388

LIVE OAK			
Age	% of Pop	Error Margin	Population
0-9	16.5%†	±2.7%	1,430
10-19	18.2%†	±2.6%	1,578
20-29	13.2%†	±2.6%	1,141
30-39	12.6%†	±2.5%	1,089
40-49	11.8%†	±2.1%	1,026
50-59	12.6%†	±2.2%	1,095
60-69	8%†	±1.6%	694
70-79	4.1%†	±1.2%	357
80+	3.1%†	±0.9%	269
TOTAL			8,679

Economics - Median Income (2019 Data per CensusReporter.org)

YUBA CITY METRO AREA			
Household Income	**% of Pop**	**Error Margin**	**Households**
Under $50K	40.2%†	±4.6%	24,060
$50K - $100K	31.3%†	±3.9%	18,739
$100K - $200K	22.2%†	±2.9%	13,311
Over $200K	6.3%†	±1.5%	3,756
TOTAL			**59,866**

Median Household Income: $61,307
Per Capita Income: $28,757
EMPLOYMENT/WAGE TRENDS: (per Yuba-Sutter Economic Development Corporation)
Yuba City: As of 2021Q1, total employment for the City of Yuba City, CA was 22,427 (based on a four-quarter moving average). Over the year ending 2021Q1, employment declined 7.5%.
The average worker earned $48,199 annually, an increase of 9.9% over the preceding four quarters.

WHEATLAND			
Household Income	**% of Pop**	**Error Margin**	**Households**
Under $50K	25.2%†	±8.1%	354
$50K - $100K	42.4%†	±10.9%	597
$100K - $200K	25.8%†	±8.3%	363
Over $200K	6.6%†	±4.2%	93
TOTAL			**1,407**

Median Household Income: $75,066
Per Capita Income: $34,653
EMPLOYMENT/WAGE TRENDS: (per Yuba-Sutter Economic Development Corporation)
Wheatland: As of 2021Q1, total employment for the City of Wheatland, CA was 787 (based on a four-quarter moving average). Over the year ending 2021Q1, employment increased 4%.
The average worker earned $54,259 annually, an increase of 8.4% over the preceding four quarters.

Wheatland Sphere (95674, 95681, 95692, 95903, 95961): As of 2021Q1, total employment for the City of Wheatland Sphere of influence, CA was 6,871 (based on a four-quarter moving average). Over the year ending 2021Q1, employment declined 2.7% in the region.
The average worker earned $50,482 annually, an increase of 6.8% over the preceding four quarters.

YUBA CITY			
Household Income	**% of Pop**	**Error Margin**	**Households**
Under $50K	41.8%†	±7.3%	10,194
$50K - $100K	28.1%†	±5.7%	6,853
$100K - $200K	24.6%†	±5.3%	5,996
Over $200K	5.5%†	±2.1%	1,350
TOTAL			**24,393**

Median Household Income: $61,773
Per Capita Income: $30,262
EMPLOYMENT/WAGE TRENDS: (per Yuba-Sutter Economic Development Corporation)
Yuba City: As of 2021Q1, total employment for the City of Yuba City, CA was 22,427 (based on a four-quarter moving average). Over the year ending 2021Q1, employment declined 7.5%.
The average worker earned $48,199 annually, an increase of 9.9% over the preceding four quarters.

OLIVEHURST			
Household Income	% of Pop	Error Margin	Households
Under $50K	51%†	±7%	2,223
$50K - $100K	28.3%†	±4.9%	1,233
$100K - $200K	19%†	±4.8%	827
Over $200K	1.8%†	±1.3%	80
TOTAL			4,363

Median Household Income: $48,598
Per Capita Income: $21,272
EMPLOYMENT/WAGE TRENDS: (per Yuba-Sutter Economic Development Corporation)
Olivehurst: As of 2021Q1, total employment for the Olivehurst CDP, CA was 2,077 (based on a four-quarter moving average). Over the year ending 2021Q1, employment declined 3%.
The average worker earned $53,763 annually, an increase of 8.8% over the preceding four quarters.

PLUMAS LAKE			
Household Income	% of Pop	Error Margin	Households
Under $50K	18.9%†	±6.5%	419
$50K - $100K	27.3%†	±7%	604
$100K - $200K	46.1%†	±9%	1019
Over $200K	7.7%†	±3.1%	170
TOTAL			2,212

Median Household Income: $101,995
Per Capita Income: $31,875
EMPLOYMENT/WAGE TRENDS: (per Yuba-Sutter Economic Development Corporation)
Plumas Lake: As of 2021Q1, total employment for the Plumas Lake CDP, CA was 386 (based on a four-quarter moving average). Over the year ending 2021Q1, employment declined 6.6%.
The average worker earned $52,604 annually, an increase of 8.7% over the preceding four quarters.

SUTTER			
Household Income	% of Pop	Error Margin	Households
Under $50K	32.5%†	±10.5%	354
$50K - $100K	38.5%†	±10.5%	419
$100K - $200K	25.6%†	±8.1%	279
Over $200K	3.4%†	±2.7%	37
TOTAL			1,089

Median Household Income: $69,034
Per Capita Income: $28,542
EMPLOYMENT/WAGE TRENDS: (per Yuba-Sutter Economic Development Corporation)
Sutter: As of 2021Q1, total employment for the Sutter CDP, CA was 816 (based on a four-quarter moving average). Over the year ending 2021Q1, employment declined 4.2%.
The average worker earned $46,589 annually, an increase of 9.9% over the preceding four quarters.

MARYSVILLE			
Household Income	% of Pop	Error Margin	Households
Under $50K	53.4%†	±7.5%	2,539
$50K - $100K	31.7%†	±6.6%	1,506
$100K - $200K	14.1%†	±4%	669
Over $200K	0.9%†	±1.1%	42
TOTAL			4,756

Median Household Income: $44,839
Per Capita Income: $22,891
EMPLOYMENT/WAGE TRENDS: (per Yuba-Sutter Economic Development Corporation)
Marysville: As of 2021Q1, total employment for the City of Marysville, CA was 8,033 (based on a four-quarter moving average). Over the year ending 2021Q1, employment declined 6.2%.
The average worker earned $58,838 annually, an increase of 6.3% over the preceding four quarters.

LINCOLN			
Household Income	% of Pop	Error Margin	Households
Under $50K	27%	±2.4%	4,787
$50K - $100K	29.60%	±2.2%	5,249
$100K - $200K	32.50%	±2.2%	5,750
Over $200K	10.9%†	±1.2%	1,934
TOTAL			17,720

Median Household Income: $88,734
Per Capita Income: $41,451
EMPLOYMENT/WAGE TRENDS: (per Yuba-Sutter Economic Development Corporation)
Lincoln: As of 2021Q1, total employment for the City of Lincoln, CA was 8,684 (based on a four-quarter moving average). Over the year ending 2021Q1, employment declined 1.5%.
The average worker earned $64,519 annually, an increase of 12.3% over the preceding four quarters.

LIVE OAK			
Household Income	% of Pop	Error Margin	Households
Under $50K	47.1%†	±8.2%	1,156
$50K - $100K	29.9%†	±5.9%	733
$100K - $200K	20.1%†	±4.8%	494
Over $200K	2.9%†	±1.8%	72
TOTAL			2,455

Median Household Income: $54,792
Per Capita Income: $22,495
EMPLOYMENT/WAGE TRENDS: (per Yuba-Sutter Economic Development Corporation)
Live Oak: As of 2021Q1, total employment for Live Oak, CA was 2,659 (based on a four-quarter moving average). Over the year ending 2021Q1, employment declined 2.2%.
The average worker earned $38,902 annually, an increase of 11% over the preceding four quarters.

Ethnicity (2019 Data per CensusReporter.org)

YUBA CITY METRO AREA			
Race	**% of Pop**	**Error Margin**	**Population**
White	48.90%	±0.1%	85,897
Hispanic	30.70%	±0%	53,831
Black	2.5%†	±0.5%	4,354
Native	0.5%†	±0.3%	898
Asian	11.20%	±1%	19,691
Islander	0.5%†	±0.3%	829
Other	0.1%†	±0.1%	131
Two+	5.7%†	±1.1%	10,008
TOTAL			**175,639**

WHEATLAND			
Race	**% of Pop**	**Error Margin**	**Population**
White	73.40%	±5.7%	2,797
Hispanic	16.2%†	±4.2%	617
Black	0.2%†	±0.2%	6
Native	0.9%†	±1%	36
Asian	1.9%†	±1.5%	71
Islander	1.3%†	±1.7%	50
Other	0%	±0%	0
Two+	6.1%†	±3.2%	233
TOTAL			**3,810**

YUBA CITY			
Race	**% of Pop**	**Error Margin**	**Population**
White	42.50%	±1.1%	28,260
Hispanic	29.80%	±1%	19,833
Black	2.1%†	±0.3%	1,397
Native	0.6%†	±0.2%	423
Asian	19.30%	±1%	12,810
Islander	0.4%†	±0.1%	287
Other	0.2%†	±0.2%	141
Two+	5.1%†	±0.9%	3,365
TOTAL			**66,516**

OLIVEHURST			
Race	**% of Pop**	**Error Margin**	**Population**
White	47.40%	±4.3%	6,381
Hispanic	38.7%†	±4.7%	5,209
Black	1.9%†	±1.4%	251
Native	1%†	±0.6%	140
Asian	6.5%†	±2.8%	872
Islander	0.3%†	±0.3%	44
Other	0%†	±0.1%	4
Two+	4.2%†	±1.5%	563
TOTAL			**13,464**

PLUMAS LAKE			
Race	% of Pop	Error Margin	Population
White	57.30%	±4.3%	4,342
Hispanic	21.40%	±1.5%	1624
Black	4%	±1.4%	299
Native	0.60%	±0.6%	47
Asian	8.20%	±2.8%	620
Islander	0.20%	±0.3%	13
Other	0%†	±0.1%	0
Two+	8.30%	±4.7%	628
TOTAL			7,573

SUTTER			
Race	% of Pop	Error Margin	Population
White	73.70%	±6.2%	2,215
Hispanic	14.9%†	±3.9%	449
Black	0.00%	±0%	0
Native	2%†	±1.6%	61
Asian	3.9%†	±5.4%	116
Islander	0.00%	±0%	0
Other	0.00%	±0%	0
Two+	5.5%†	±3.7%	164
TOTAL			3,005

MARYSVILLE			
Race	% of Pop	Error Margin	Population
White	62.1%†	±6.4%	7,654
Hispanic	29.6%†	±6.6%	3,648
Black	2.1%†	±1.2%	256
Native	0.4%†	±0.4%	45
Asian	1.5%†	±0.8%	188
Islander	0.00%	±0%	0
Other	0.2%†	±0.2%	22
Two+	4.2%†	±2.3%	514
TOTAL			12,327

LINCOLN			
Race	% of Pop	Error Margin	Population
White	67.80%	±2.3%	32,129
Hispanic	21.1%†	±2.2%	10,011
Black	1.6%†	±0.6%	748
Native	0.1%†	±0.1%	48
Asian	6.5%†	±0.9%	3,086
Islander	0.2%†	±0.2%	111
Other	0.2%†	±0.2%	97
Two+	2.4%†	±0.7%	1,158
TOTAL			47,388

LIVE OAK			
Race	% of Pop	Error Margin	Population
White	37.8%†	±5.5%	3,283
Hispanic	50.7%†	±5.2%	4,403
Black	2%†	±2.1%	176
Native	0.5%†	±0.4%	42
Asian	5.8%†	±2.8%	502
Islander	0.1%†	±0.1%	8
Other	0.1%†	±0.2%	7
Two+	3%†	±1.7%	258
TOTAL			8,679

Education (2019 Data per CensusReporter.org)

YUBA CITY METRO AREA			
Education	% of Pop	Error Margin	Population
No degree	19.8%†	±2.5%	22,547
High school	24.20%	±2.1%	27,515
Some college	36.40%	±2.9%	41,324
Bachelor's	12.7%†	±1.7%	14,406
Post-grad	6.90%	±1.1%	7,874
TOTAL			113,666

WHEATLAND			
Education	% of Pop	Error Margin	Population
No degree	14.5%†	±5.4%	391
High school	25%†	±5.4%	674
Some college	42.1%†	±6.8%	1,132
Bachelor's	11.7%†	±4.3%	315
Post-grad	6.7%†	±3.4%	180
TOTAL			2,692

YUBA CITY			
Education	% of Pop	Error Margin	Population
No degree	22.5%†	±4.5%	10,100
High school	21%†	±3.2%	9,396
Some college	34%†	±4.2%	15,218
Bachelor's	12.7%†	±2.6%	5,684
Post-grad	9.80%	±2.4%	4,402
TOTAL			44,800

OLIVEHURST			
Education	% of Pop	Error Margin	Population
No degree	26.1%†	±4.1%	2,268
High school	28.8%†	±3.5%	2,502
Some college	36.4%†	±4%	3,159
Bachelor's	7.2%†	±2.2%	625
Post-grad	1.5%†	±0.9%	133
TOTAL			8,687

PLUMAS LAKE			
Education	% of Pop	Error Margin	Population
No degree	8.2%†	±3.7%	346
High school	16.00%	±3.9%	677
Some college	50.70%	±5.1%	2,152
Bachelor's	16.50%	±4%	698
Post-grad	8.7%†	±3%	371
TOTAL			4,244

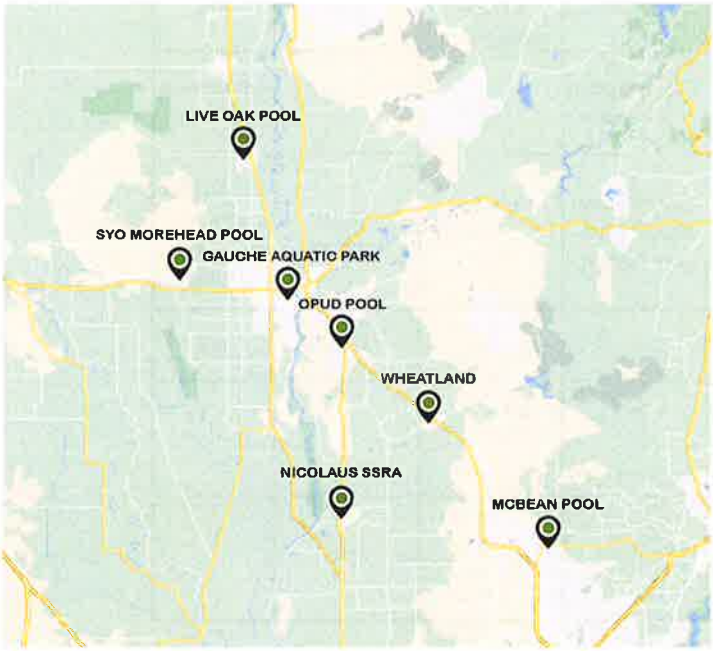
SUTTER			
Education	% of Pop	Error Margin	Population
No degree	9.8%†	±2.5%	197
High school	36.30%	±2.1%	734
Some college	41.50%	±2.9%	838
Bachelor's	8.9%†	±1.7%	180
Post-grad	3.6%†	±1.1%	72
TOTAL			2,021

MARYSVILLE			
Education	% of Pop	Error Margin	Population
No degree	16.2%†	±3.3%	1,322
High school	24.3%†	±4%	1,982
Some college	45.7%†	±5.6%	3,724
Bachelor's	9.7%†	±2.5%	793
Post-grad	3.9%†	±1.5%	321
TOTAL			8,142

LINCOLN			
Education	% of Pop	Error Margin	Population
No degree	7.2%†	±1.1%	2,455
High school	20.40%	±1.6%	6,928
Some college	38.10%	±1.9%	12,951
Bachelor's	21.70%	±1.3%	7,382
Post-grad	12.5%†	±1%	4,246
TOTAL			33,962
LIVE OAK			
Education	% of Pop	Error Margin	Population
No degree	31.4%†	±4.9%	1,570
High school	22.3%†	±3.4%	1,114
Some college	34.8%†	±4.5%	1,742
Bachelor's	8%†	±2.5%	400
Post-grad	3.5%†	±1.5%	175
TOTAL			5,001

OTHER AREA FACILITIES

The availability of other similar water-based facilities plays into both the Needs Assessment and the Market for attendees. The following is a narrow list of just the other public aquatic facilities within an approximate 10-15 mile radius of Wheatland. This does not account for all private pools, nor any residential pools, that may also exist in that same area.



AQUATIC FACILITY FEE COMPARISON					
Facility (mos open)	**Location**	**Daily Fee (Adult/Child)**	**Avg Indiv Season Pass**	**Avg Family Season Pass**	**Avg Lessons (Adult/Child)**
McBean Pool (6 months)	**Lincoln**	$5.00/$3.00	$63.00	$120.00	$80.00
OPUD Pool (2 months)	**Olivehurst**	$5.00/$4.00	$105.00	$210.00	varies
Gauche Aquatic Park (GAP) (12 months)	**Yuba City**	$5.50	n/a	n/a	$60.00
SSRA Small Pool & Adult Lap Pool (3 months)	**E. Nicolaus**	Small Pool: $3.00/$1.00 Lap Pool: $5.00	$75 for 25 uses	n/a	$60.00
SYO Morehead Cmnty Pool (3 months)	**Sutter**	Lap Swim $5	$100 ($140 Lap Season)	$200.00	$70.00
Live Oak Cmnty Pool (3 months)	**Live Oak**	$1.00/ $0.5 (night)	$45.00	n/a	$50.00/$40.00

>> OPUD Season Passes were calculated using the "Monthly" rate x 3 months

AQUATIC FACILITY REVENUE COMPARISON						
Facility (staff count)	**Location**	**Monthly Avg Daily Pass Sales**	**Avg Indiv. Season Pass Sales**	**Monthly Avg Family Season Pass Sales**	**Monthly Avg Lessons Sales**	**Monthly Avg Events Revenue**
McBean Pool (~20 Staff)	**Lincoln**	100/day Rec Swimming	600/6-mo; 150 swim team/4-mo	33 ($120) 4-person passes/6-mo	133	n/a
OPUD Pool (*)	**Olivehurst**	1,835 (all per mo, incl open, lessons, aerobics)	1,650 (~90% in groups)	n/a	88	not allowed per grant
Gauche Aquatic Park (GAP) (1 F/T, 8-10 P/T year-round; 50+ P/T summer)	**Yuba City**	~11,558	7,783 (Season Passes & 10-visit Passes)	n/a	1,220/ summer	~$1,563 for Annual Polar Bear Plunge
SSRA (5 lifeguards)	**Nicolaus**	~670			~37 kids	n/a
SYO Morehead Cmnty Pool (*) #	**Sutter**					
Live Oak Cmnty Pool (~18 lifeguards/ 1 admin)	**Live Oak**	3,200			~75	

(*) Staffing levels not provided by facility
 # Unable to reach anyone to obtain attendance statistics

Facility Information

McBean Pool 61 McBean Park Drive, Lincoln, 916-434-3230
Outdoor 7-lane Pool
http://www.lincolnca.gov/city-hall/departments-divisions/parks-recreation/mcbean-memorial-pool

Olivehurst Public Utility Dist. Pool 1966 9th Avenue, Olivehurst, 530-743-8132
Outdoor L-shaped Pool
https://www.opud.org/swimming-pool-10th-avenue

Gauche Aquatic Park 421 Center Street, Yuba City, 530-822-4655
Outdoor 10-Lap 25x25-Yard Competitive Pool
Wading Pool with Sprayground
25-Foot Water Slide
https://www.yubacity.net/city_hall/departments/parks___recreation/g_a_p_-_gauche_aquatic_park

South Sutter Rec. Area Pool 2408 Palm Street, E. Nicolaus, 530-656-2631
Outdoor 25x14-Yard Primary Pool
Outdoor 14x4.5-Yard Secondary Pool
https://www.ssrapool.com/

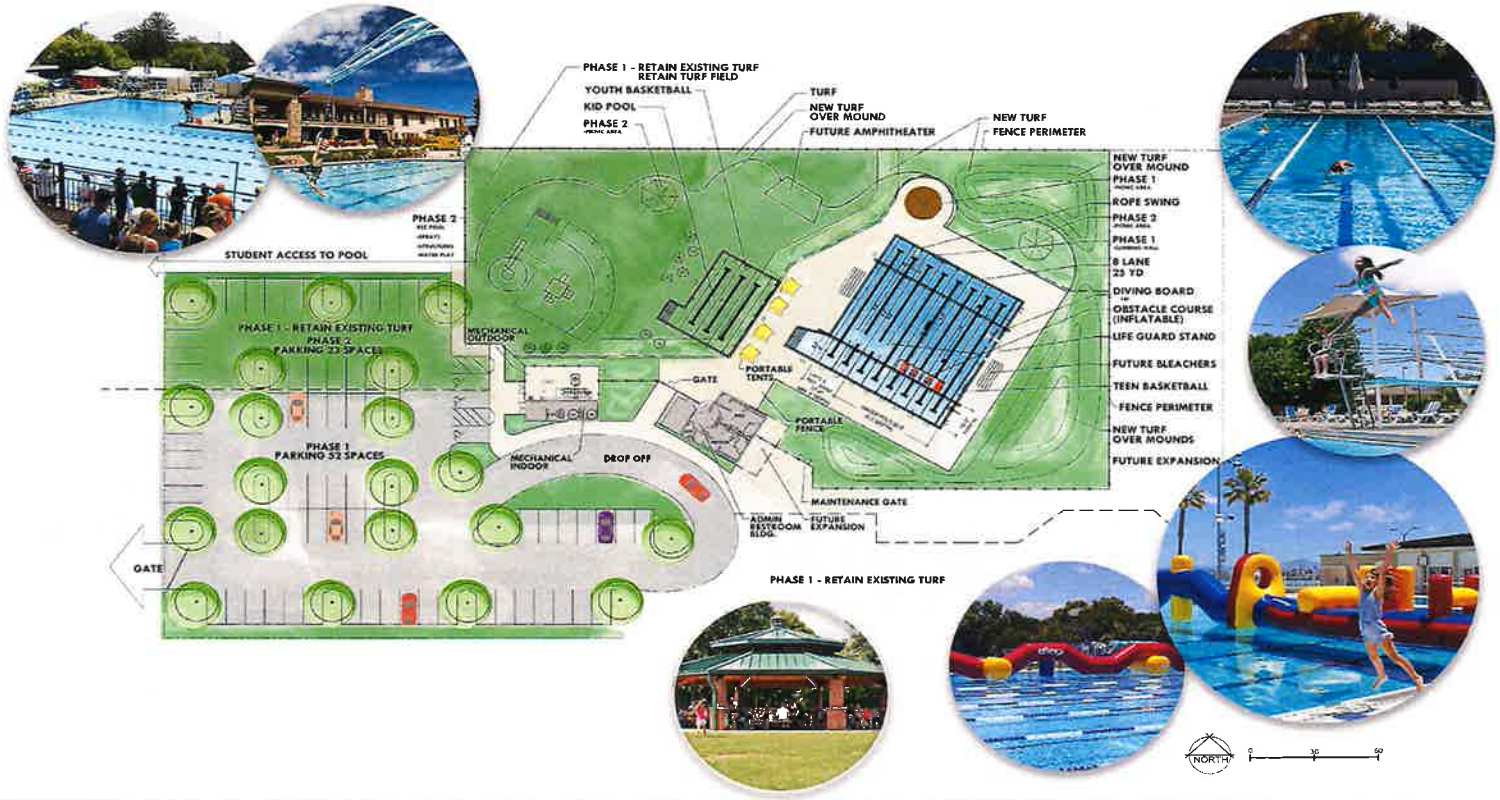
Moorehead Cmnty Pool Sutter Youth Organization (SYO)
7740 Butte House Road, Sutter, 530-673-9002
https://www.sutteryouth.org/resources-1

Live Oak Cmnty Pool Pennington Road & P Street, Live Oak, 530-695-2112
Outdoor 5-Lane Pool
Baby Pool
https://www.liveoakcity.org/departments/parks-recreation/parks-facilities

WHAT OTHER COMMUNITY POOL MIGHT THEY BE USING?

WHEATLAND AQUATIC FACILITY CONCEPT DESIGN and PROJECT COST

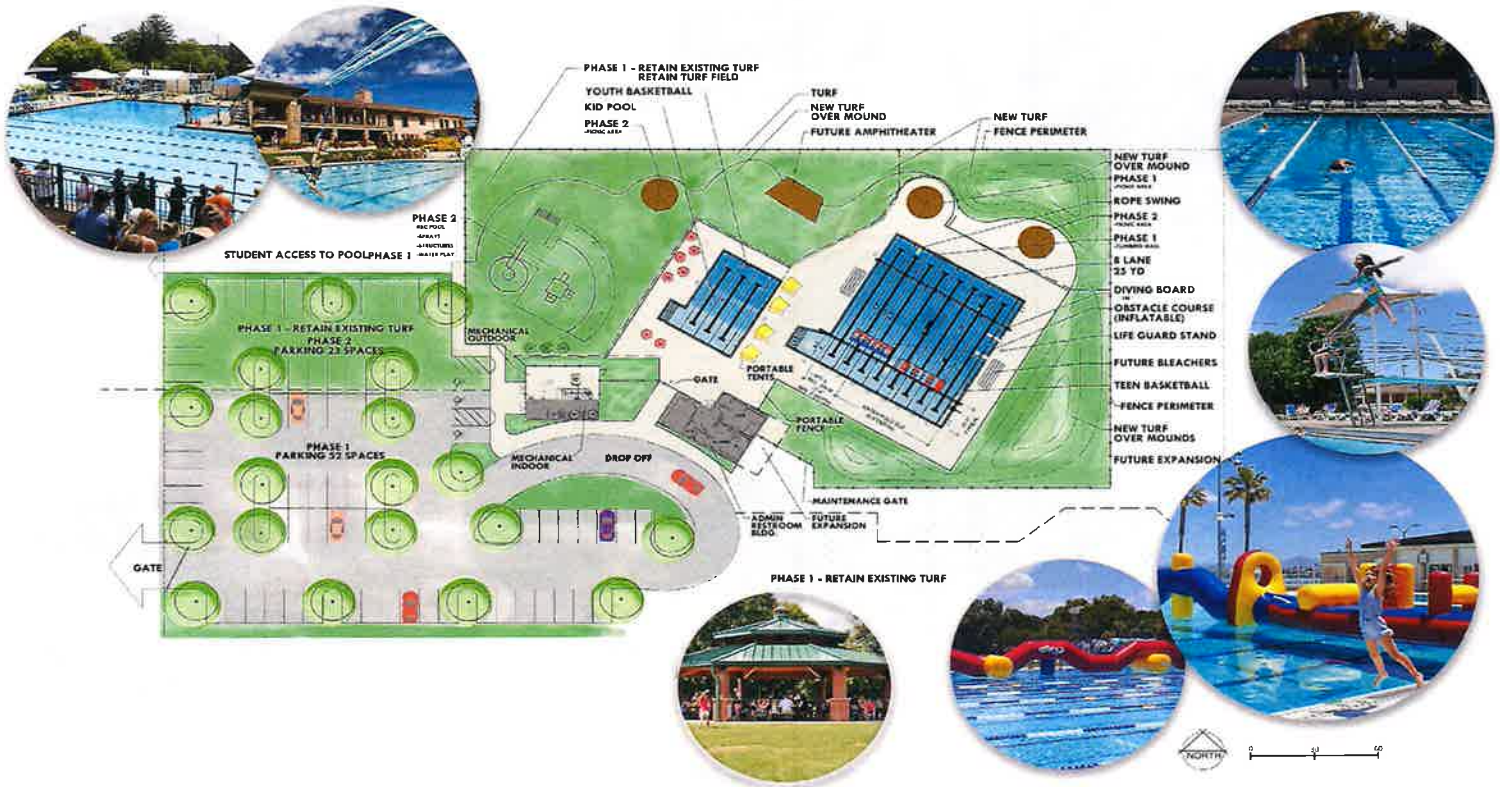
ONE-POOL OPTION



WHEATLAND COMMUNITY POOL

CONCEPT PLAN - A COMMUNITY BASED PLANNING PROCESS
1 POOL OPTION

TWO-POOL OPTION



WHEATLAND COMMUNITY POOL

CONCEPT PLAN - A COMMUNITY BASED PLANNING PROCESS
2 POOL OPTION


WHEATLAND
AQUATIC CENTER

PROJECT COST

Pool Data:	8LBY25Y	Kid / Warm-up
Perimeter: (Linear Feet)	321	
Area: (Square Footage)	5,630	1,450

ONE POOL OPTION

	PHASE ONE AREA/ QTY	UNIT	UNIT PRICE	PHASE ONE COST	PHASE TWO AREA/ QTY	UNIT	UNIT PRICE	PHASE TWO COST
SITEWORK:								
Excavation & Grading on Site	1,800	CY	$35	$63,000	1000	CY	$35	$35,000
Road Access To Site Parking from closest parking	6,400	SF	$9	$57,600		SF	$9	$0
Parking, driveway, turn around on site	31,600	SF	$9	$284,400	26,000	SF	$9	$234,000
ADA access parking and signage	1	LS	$7,500	$7,500	0	LS	$7,500	$0
Entry Vehicle Gate	1	LS	$4,200	$4,200	0	LS	$4,200	$0
Landscape Trees / irrigation	18	EA	$200	$3,600	20	EA	$200	$4,000
Turf renovation around pool (seed)	17,800	SF	$1.25	$22,250	8000	SF	$1.25	$10,000
Landscape in parking	4,800	SF	$2.00	$9,600	6000	SF	$2.00	$12,000
Irrigation in parking	5,880	SF	$2.25	$13,230	3000	SF	$2.25	$6,750
Irrigation retrofit of Turf grass within fence	17,800	SF	$1.75	$31,150	8000	SF	$1.75	$14,000
Decomposed Granite	800	SF	$4	$3,200	0	SF	$4	$0
Signage	1	LS	$7,500	$7,500	0	LS	$7,500	$0
Sports Lights - LED on 50'-0" poles / sleeves	1	EA	$35,000	$35,000	3	EA	$35,000	$105,000
Fence & Gates - chain link	840	LF	$150	$126,000	0	LF	$150	$0
Fence to School	360	LF	$95	$34,200	0	LF	$95	$0
Extend Utilities to Site (elect, sewer, water)	1	LS	$50,000	$50,000	0	LS	$50,000	$0
Accessible gates / hardware & signs	2	GATE	$6,000	$12,000	0	EA	$6,000	$0
RPBFP	1	EA	$5,000	$5,000	0	EA	$5,000	$0
Bleachers (Tip & Rolls)	1	EA	$6,000	$6,000	1	EA	$6,000	$6,000
SUBTOTAL SITEWORK				**$775,430**				**$426,750.00**
BUILDING:								
Pool Bath House (portable)	1,200	SF	$350	$420,000	0	SF	$350	$0
Mechanical building - chemical storage / storage	400	SF	$260	$104,000	0	LS	$0	$0
Mechanical building - fenced enclosure / mechanical	800	SF	$100	$80,000	0	LS	$0	$0
Bleacher cover	0	EA	$2,000	$0	2	EA	$2,000	$4,000
Amphitheater	0	LS	$275,000	$0	1	LS	$275,000	$275,000
Picnic Shelter	1	EA	$60,000	$60,000	2	EA	$60,000	$120,000
Pool Deck with Storm Drain System	10,078	SF	$18	$181,404	13,200	SF	$18	$237,600
Bonding & Grounding	1	LS	$2,000	$2,000	0	LS	$2,000	$0

SUBTOTAL BUILDING				$847,404				$636,600
POOLS:								
Competitive Pool	5,630	SF	$240	$1,351,200	0	SF	$240	$0
Kid pool / access	0	SF	$240	$0	1,430	SF	$240	$343,200
Pool Chemical Stor. & Safety Equip (acid & chlorine)	1	EA	$6,000	$6,000	1	EA	$6,000	$6,000
Recreation pool / beach entry	0	EA	$240	$0	3,400	SF	$240	$816,000
Fun Spray Ground - Nozzles	0	EA	$10,000	$0	10	EA	$18,000	$180,000
Play Structure and Plumbing	0	LS	$145,000	$0	1	LS	$145,000	$145,000
LED Underwater lights	4	EA	$1,750	$7,000	10	EA	$1,750	$17,500
Automated Vacuum & Maintenance Equipment	1	LS	$20,000	$20,000	0	LS	$20,000	$0
Pool Covers with Reels (both pools)	5,630	SF	$3	$16,890	1,430	SF	$3	$4,290
Starting Blocks	8	EA	$3,500	$28,000	2	EA	$3,500	$7,000
Climbing Wall	0	LS	$45,000	$0	1	LS	$45,000	$45,000
Basketball basket	2	EA	$500	$1,000	0	EA	$500	$0
Security Lighting	1	LS	$30,000	$30,000	1	LS	$15,000	$15,000
Slide Structure	0	LS	$180,000	$0	1	LS	$180,000	$180,000
Obstacle Course (Aflex Inflatables-Buccaneer Assault)	1	LS	$11,000	$11,000	1	LS	$11,000	$11,000
Rope Swing	1	LS	$10,000	$10,000	0	LS	$10,000	$0
Water Polo Goals (pairs)	0	EA	$6,000	$0	2	EA	$6,000	$12,000
SUBTOTAL POOLS				$1,481,090				$1,781,990
SUMMARY OF COSTS:								
SITE WORK				$775,430				$426,750
BUILDING				$847,404				$636,600
POOLS				$1,481,090				$1,781,990
TOTAL HARD COSTS				$3,103,924				$2,845,340
CONTINGENCY	6.50%			$201,755	10.00%			$284,534
CONTRACTOR OVERHEAD	12.00%			$396,681	12.00%			$375,585
CONTRACTOR PROFIT	8.00%			$264,454	8.00%			$280,437
A/E FEE AND PERMITTING (By City)	7.50%			$277,677	7.00%			$245,382
BONDS & INSURANCE	2.75%			$109,087	2.75%			$104,112
PHASED TOTAL:				$4,353,579				$4,135,390

GRAND TOTAL $8,488,969

TWO POOL OPTION

	PHASE ONE AREA/ QTY	UNIT	UNIT PRICE	PHASE ONE COST	PHASE TWO AREA/ QTY	UNIT	UNIT PRICE	PHASE TWO COST
SITEWORK:								
Excavation & Grading on Site	2,500	CY	$35	$87,500	1000	CY	$35	$35,000
Road Access To Site Parking from closest parking	6,400	SF	$9	$57,600		SF	$9	$0
Parking, driveway, turn around on site	31,600	SF	$9	$284,400	26,000	SF	$9	$234,000
ADA access parking and signage	1	LS	$7,500	$7,500	0	LS	$7,500	$0
Entry Vehicle Gate	1	LS	$4,200	$4,200	0	LS	$4,200	$0
Landscape trees / irrigation	18	EA	$400	$7,200	20	EA	$400	$8,000
Turf renovation around pool (seed)	8,100	SF	$1.25	$10,125	8000	SF	$1.25	$10,000
Landscape in parking	5,880	SF	$1.50	$8,820	6000	SF	$1.50	$9,000
Irrigation in parking	5,880	SF	$2.25	$13,230	3000	SF	$2.25	$6,750
Irrigation retrofit of Turf grass within fence	8,100	SF	$1.75	$14,175	8000	SF	$1.75	$14,000
Decomposed Granite	800	SF	$4	$3,200	0	SF	$4	$0
Signage	1	LS	$7,500	$7,500	0	LS	$7,500	$0
Sports Lights - LED on 50'-0" poles / sleeves	0	EA	$35,000	$0	2	EA	$35,000	$70,000
Fence & Gates - chain link	840	LF	$150	$126,000	750	LF	$150	$112,500
Fence to School	360	LF	$95	$34,200	0	LF	$95	$0
Extend Utilities to Site (elect, sewer, water)	1	LS	$50,000	$50,000	0	LS	$75,000	$0
Accessible gates / hardware & signs	2	GATE	$6,000	$12,000	0	GATE	$6,000	$0
RPBFP	1	EA	$5,000	$5,000	0	EA	$5,000	$0
Bleachers (Tip & Rolls)	1	EA	$6,000	$6,000	1	EA	$6,000	$6,000
SUBTOTAL SITEWORK				**$738,650**				**$505,250**
BUILDING:								
Pool Bath House	1,200	SF	$450	$540,000	0	SF	$450	$0
Mechanical building - chemical storage / storage	400	SF	$375	$150,000	0	LS	$0	$0
Mechanical building - fenced enclosure / mechanical	800	SF	$150	$120,000	0	LS	$65,000	$0
Bleacher cover	0	EA	$2,000	$0	4	EA	$2,000	$8,000
Amphitheater	0	LS	$275,000	$0	$1	LS	$275,000	$275,000
Picnic Shelter	0	EA	$60,000	$0	2	EA	$60,000	$120,000
Pool Deck with Storm Drain System	13,700	SF	$18	$246,600	8,500	SF	$18	$153,000
Bonding & Grounding	1	LS	$2,000	$2,000	0	LS	$2,000	$0
SUBTOTAL BUILDING				**$1,058,600**				**$556,000**
POOLS:								
Competitive Pool	5,630	SF	$240	$1,351,200	0	SF	$240	$0
Kid pool / access	1,450	SF	$200	$290,000	3,400	SF	$200	$680,000
Pool Chemical Storage & Safety Equip (acid & chlorine)	1	EA	$6,000	$6,000	1	EA	$6,000	$6,000
Recreation pool / beach entry	0	EA	$220	$0	3,000	SF	$220	$660,000
Fun Spray Ground Nozzles	0	EA	$18,000	$0	10	EA	$18,000	$180,000

Play Structure and Plumbing	0	LS	$160,000	$0	1	LS	$160,000	$160,000
LED Underwater lights	0	EA	$1,750	$0	14	EA	$1,750	$24,500
Automated Vacuum & Maintenance Equipment	1	LS	$20,000	$20,000	0	LS	$20,000	$0
Pool Covers with Reels (both pools)	7,500	SF	$3	$22,500	0	SF	$3	$0
Starting Blocks	8	EA	$3,500	$28,000	2	EA	$3,500	$7,000
Climbing Wall	0	LS	$45,000	$0	1	LS	$45,000	$45,000
Basketball basket	2	EA	$500	$1,000	2	EA	$500	$1,000
Security Lighting	1	LS	$30,000	$30,000	0	LS	$30,000	$0
Slide Structure	0	LS	$180,000	$0	1	LS	$180,000	$180,000
Obstacle Course (Aflex Inflatables-Buccaneer Assault)	1	LS	$11,000	$11,000	1	LS	$11,000	$11,000
Rope Swing	1	LS	$10,000	$10,000	0	LS	$10,000	$0
Water Polo Goals (pairs)	0	EA	$6,000	$0	2	EA	$6,000	$12,000
SUBTOTAL POOLS				**$1,769,700**				**$1,966,500**
SUMMARY OF COSTS:								
SITEWORK				$738,650				$505,250
BUILDING				$1,058,600				$556,000
POOLS				$1,769,700				$1,966,500
TOTAL HARD COSTS				**$3,566,950**				**$3,027,750**
CONTINGENCY	8.00%			$285,356	10.00%			$302,775
CONTRACTOR OVERHEAD	12.00%			$462,277	12.00%			$399,663
CONTRACTOR PROFIT	8.00%			$345,167	8.00%			$298,415
A/E FEE AND PERMITTING	6.00%			$258,875	7.00%			$261,113
BONDS & INSURANCE	2.75%			$128,143	2.75%			$110,787
PHASED TOTAL:				**$5,046,767**				**$4,400,503**

GRAND TOTAL **$9,447,270**

WHEATLAND AQUATIC FACILITY LIFE CYCLE COST ANALYSIS

This life cycle cost analysis is based on a full pool build out and includes all pools, pumps and internal pool surfaces but not external play equipment or attached elements. It includes operations for 12 months of the year.

LIFE CYCLE COST ESTIMATE FOR: WHEATLAND. POOL

11-Jun-2021

ITEM	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11	YEAR 12	YEAR 13	YEAR 14	YEAR 15	YEAR 16	YEAR 17	YEAR 18	YEAR 19	YEAR 20	TOTAL
OPERATIONS	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$310,933.42	$6,216,668.40
FROM OPERATIONS SPREADSHEET																					$6,216,668.40
TYPICAL PLANNED REPLACEMENT ITEMS (LIFE CYCLE COST):																					
POOL RECIRCULATION PUMP IMPELLORS							$20,000.00							$20,000.00						$12,000.00	$52,000.00
METERING PUMPS					$4,000.00					$8,000.00			$8,000.00						$8,000.00		$24,000.00
SENSORS ON AUTOMATED CONTROL		$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$19,000.00
FILTER SAND												$1,500.00									$1,500.00
HEATER MAINTENANCE & CLEAN	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$4,000.00	$80,000.00
REPLACE HEAT EXCHANGER						$40,000.00													$40,000.00		$80,000.00
REPLACE HEATERS												$180,000.00									$180,000.00
GENERAL REPAIRS	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$20,000.00	$400,000.00
REPLASTER, RETILE & DOWN TIME										$225,000.00											$225,000.00
TOTAL TO MAINTAIN	$24,000.00	$25,000.00	$25,000.00	$25,000.00	$33,000.00	$45,000.00	$25,000.00	$25,000.00	$25,000.00	$250,000.00	$25,000.00	$206,500.00	$25,000.00	$25,000.00	$33,000.00	$25,000.00	$25,000.00	$25,000.00	$53,000.00	$37,000.00	$1,021,500.00
Average yearly budget - plaster/tile	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$11,250.00	$225,000.00
Anticipated monthly budget - Plaster/tile	$937.50	$937.50	$937.50	$937.50	$937.50	$937.50	$937.50	$937.50	$937.50	$937.50	$937.50	$937.50	$937.50	$937.50	$937.50	$937.50	$937.50	$937.50	$937.50	$937.50	
TOTAL BUDGETED PLANNED LIFE CYCLE REPLACMENT FOR 20 YEAR HORIZON																					$1,021,500.00

WHEATLAND AQUATIC FACILITY OPERATING ANALYSIS

The purpose of this operating analysis is to project the probable cost to operate the new Aquatic Center and possible revenue options to be gained from its operation. We will look at anticipated or expected hours of operation, staffing, fees, programming, scheduling priorities, etc. The City and community goals and objectives are the foundation for this study and data. We looked at future growth of the community and saw that estimated growth can be counted on for future revenue towards the pool. The Marketing Study shows the growth of the community based on a 10-year span of known development and that alone raised the population considerably and with that the amount of users increased and additional monies became available based on just increase in population.

RECOMMENDATIONS and OPTIONS

It is our recommendation that the City attempt to be open as many months as possible in the high use month,s which are the summer months of June, July and August. Working both in front of and after the summer allows the pool to be open in April and May in the spring and September and October in the fall. It is clear that operating costs go up drastically when attempting to heat the pools in these edge months but it also allows the pool to be open longer allowing for more income. It is common that pools will shut down once the weather gets cold to save on high heating costs. Once the City has operated the pool for a few seasons, it will be clear what the most efficient cutoff date is in the spring and fall. As populations grow and teams get larger, numbers of users grow, and we can then consider at **year 10** if it is profitable to open up in April and/or October.

For this study we see that the 5-month operating season is the best option for opening the pool. As operations are later completely understood, the City can look at stretching to a 6-month open season.
For the grant we are pursuing, it is optimal to be open as much as possible and charge as little as possible. In this case, we will have to settle for a few less points in that section of the grant, as we need to charge $5 per user.

The following options will demonstrate the costs for operating 4, 5, 6 and 12 months. Each has additional expenses and increased profits but it becomes clear what is the best option at this early stage of the project and how to meet the grant requirement of operating for 30 years.

ESTIMATED OPERATING COSTS

MAJOR EXPENSES

STAFF

Staffing related costs like wages, taxes, benefits, etc. represent 50-53% of the operating cost of the Facility. Good staff will improve user experiences and thereby increase revenue.

UTILITIES

For aquatic centers like the one planned for Wheatland, utilities are the second largest expense and are often 20-25% of the total operating cost. The design will employ energy efficiency in the design, along with solar use, to minimize the cost of electricity, gas, water and sewer, wherever possible. The City's standard utility rates were used to predict the cost of the new facility. It is important to keep costs down, have the City negotiate a rate with the Natural Gas provider and always put the pull covers on the pool.

MATERIALS and SUPPLIES

Supplies needed to operate and maintain the facility include things like pool maintenance supplies, office cleaning supplies, breakroom/restroom products, administrative office supplies, etc.

REPAIRS and MAINTENANCE

Repairing damaged parts due to use, accidents or vandalism; cleaning up graffiti; regular replacement of mechanical parts as well as unexpected parts wear; regular cleaning of filters; etc.

This is a large expense for any project of this nature. This study assumes that facility operations personnel will be able to perform many of the services. It also assumes that the City will employ Pool Maintenance staff, trained in the operation of pools and pool building systems.

Maintenance and repairs costs should be lower for the first year when systems and equipment are new and under warranty, so any costs associated with this section are more reflective of the expected costs for Years 2 and 3 and unexpected damage during Year 1.

MARKETING and PROMOTIONS

The City will want to entice and drive users to the new facility to increase revenue. Promoting events, party packages, the facility itself, will be necessary. This would include advertising, brochures, pamphlets, event materials, signage, etc.

BUILDING and MAINTENANCE RESERVE

It's advisable to set aside money into a reserve account. One percent of the project construction cost is recommended. This would cover major repairs and parts replacements in the future. See the Life Cycle Cost Analysis for details of maintenance and deferred cost that will occur over the lifetime of the pool.

PHASE 1 OPERATING COSTS BROKEN DOWN

Pool chemical and utility operating costs have been calcualted for different day uses from 12 months to 4 months. These alternatives allow you to see the costs at the different days of operation. The reductions are based on reducing the heating of the pool for the months shown but keeping all the other chemicals and utilities operating year round.

COST BASE ASSUMPTIONS:

1. These costs do not include maintenance and operation labor costs
2. 51" annual evaporation in Wheatland, CA
3. Total electrical operation is 18 hours per day
4. Back Wash will occur weekly
5. Natural gas at 1.5 cost per therm / 35 F degree air temperature / 5 mph wind and 80 degree water
6. 100% use of pool covers and City to negotiate price with natural gas supplier
7. Use of regenerative filters
8. Chemicals to be purchased in bulk and super chlorination to occur twice annually and maintain 1.1 to 1.5 ppm at a ph of 7.2-7.4

OPERATING COSTS - OPTION 1: One-Pool Option				
UTILITY COSTS DETAIL	4-MO	5-MO	6-MO	12-MO
Electricity	$27,714	$27,714	$27,714	$27,714
Natural Gas	$4,985	$14,815	$29,550	$157,200
Water/Sewer	$816	$995	$1,173	$2,247
UTILITY COSTS TOTAL	**$33,515**	**$43,524**	**$58,438**	**$187,160**

ANNUAL ESTIMATED OPERATING COSTS	LOW	MID-LOW	MID-HIGH	HIGH
Full-Time Staff ($70,000 annual + payroll taxes)	$85,400	$85,400	$85,400	$85,400
Part-Time Staff (avg 12 Lifeguards/20 hrs per wk/$15 per hr) (includes employer paid payroll taxes)	$74,880	$93,600	$112,320	$224,640
Administrative Benefits/Overhead	$20,000	$20,000	$20,000	$20,000
Staff Uniforms, Training and Background Checks (Ellis and Assoc. vs Red Cross Training)	$20,000	$20,000	$20,000	$20,000
Marketing	$2,500	$2,500	$2,500	$2,500
Communication and Technical Services	$3,000	$3,000	$3,000	$3,000
Supplies: Building and Administrative	$6,000	$6,000	$6,000	$6,000
Repair and Maintenance (Staff & non-Chemical Materials)	$15,000	$15,000	$15,000	$15,000
Pool Chemicals	$18,639	$18,639	$18,639	$18,639
(*)Utilities	$33,515	$43,524	$58,438	$187,160
Insurances, Legal	$3,000	$3,000	$3,000	$3,000
Contingency	$9,730	$12,165	$14,600	$29,200
Loan Payments ($350,000 deferred for first 10 years)	$0	$0	$0	$0
OPERATING EXPENSE TOTAL	**$291,664**	**$322,828**	**$358,897**	**$614,539**
**Building and Maintenance Reserve Fund (6%)	$17,500	$19,370	$21,534	$36,872
TOTAL OPERATING EXPENSE with BUILDING RESERVE	**$309,164**	**$342,198**	**$380,431**	**$651,412**
(*) Solar Deduction if Citywide Array, deduct $27,714				

OPERATING COSTS - OPTION 2: Two-Pool Option				
UTILITY COSTS DETAIL	**4-MO**	**5-MO**	**6-MO**	**12-MO**
Electricity	$31,425	$31,425	$31,425	$31,425
Natural Gas	$6,001	$17,864	$35,647	$189,715
Water/Sewer	$884	$1,080	$1,276	$2,453
UTILITY COSTS TOTAL	**$38,310**	**$50,369**	**$68,348**	**$223,593**

ANNUAL ESTIMATED OPERATING COSTS	LOW	MID-LOW	MID-HIGH	HIGH
Full-Time Staff ($70,000 annual + payroll taxes w/ half salary expensed to pool)	$85,400	$85,400	$85,400	$85,400
Part-Time Staff (avg 12 Lifeguards/20 hrs per wk/$15 per hr) (includes employer paid payroll taxes)	$74,880	$93,600	$112,320	$224,640
Administrative Benefits/Overhead	$20,000	$20,000	$20,000	$20,000
Staff Uniforms, Training and Background Checks (Ellis and Assoc. vs RC Training)	$20,000	$20,000	$20,000	$20,000
Marketing	$2,500	$2,500	$2,500	$2,500
Communication and Technical Services	$3,000	$3,000	$3,000	$3,000
Supplies: Building and Administrative	$6,000	$6,000	$6,000	$6,000
Repair and Maintenance (Staff & non-Chemical Materials)	$15,000	$15,000	$15,000	$15,000
Pool Chemicals	$22,500	$22,500	$22,500	$22,500
(*)Utilities	$38,310	$50,369	$68,348	$223,593
Insurances, Legal	$3,000	$3,000	$3,000	$3,000
Contingency	$9,730	$12,165	$14,600	$29,200
Loan Payments ($1.5 million @ 2.25% for 40 years)	$56,775	$56,775	$56,775	$56,775
OPERATING EXPENSE TOTAL	**$357,095**	**$390,309**	**$429,443**	**$711,608**
Building and Maintenance Reserve Fund (6%)	$21,426	$23,419	$25,767	$42,696
TOTAL OPERATING EXPENSE with BUILDING RESERVE	**$378,521**	**$413,728**	**$455,210**	**$754,304**
(*) Solar Deduction if Citywide Array, deduct $31,425				

PROJECTED REVENUE SOURCES

Everything associated with pricing should be reflective of the market tolerances, commensurate with the amenities at the facility and considering the revenue needed to operate the Center. Fee structures, events, etc. should be established and marketed to reach the largest and broadest range of visitors in order to offset expenses.

PROPOSED FEES	DAILY ADMISSION	SUMMER (30-USE) PASS	ANNUAL (unlimited) PASS
Child (2-6)	$3	$48	$80
Youth (7-18)	$3	$72	$120
Adult (18-67)	$5	$120	$200
Senior (65+)	$4	$96	$160
Family (4)	$14	$336	$550

FACILITY USE REVENUE POTENTIAL	LOW	HIGH	MONTHLY USERS AVG	AVG MO INCOME
(*)Individuals - Prime Season (Jun-Aug)	$3	$5	2250	$9,000
(^)Individuals - Off-Season	$3	$5	700	$2,800
Lessons	$60	$85	85	$6,163
(*)Memberships (ie Season Passes)	$80	$200	17	$2,338
Classes, Camps, Activities	$60	$85	7	$508
Rentals, Parties, Field Trips (2-hour Sessions)	$350	$750	6	$3,300
#(*)High School Swim Team use (50 users - 5 days/week)	$3	$4	1083	$3,791
#(*)High School Diving Team use (6 users - 5 days/week)	$3	$4	130	$455
#(*)High School Water Polo use (40 users - 5 days/week)	$3	$4	866	$3,031
Public Events	$500	$500	2	$1,000
#(*)Swim Club Rental (teens) (60 users - 3 days/week)	$3	$4	780	$2,730
#Swim Club Rental (adults) (30 users - 5 days/week)	$3	$4	650	$2,275
#(*)Swim Club Rental (youth) (60 users - 3 days/week)	$3	$4	780	$2,730
Competitive Club/HS Meets (1/month)	$1,000	$1,000	3	$3,000
MONTHLY REVENUE THAT'S COLLECTED ANY MONTH THE FACILITY IS OPEN - TOTAL:				**$13,245**
MONTHLY REVENUE THAT'S COLLECTED IN SUMMER MONTHS ONLY - TOTAL:				**$27,075**
MONTHLY REVENUE THAT'S COLLECTED IN NON-SUMMER MONTHS ONLY - TOTAL:				**$2,800**

 # Given a special group rate per individual

(*) Revenue collected during 3 summer months only

(^) Revenue collected during any month other than Jun, Jul or Aug

Projected user numbers assume users from Wheatland plus a percentage of users from surrounding area

Revenue - Annual (open 4 months)	*$137,004*
Revenue - Annual (open 5 months)	*$153,049*
Revenue - Annual (open 6 months)	*$169,094*
Revenue - Annual (open 12 months)	*$265,364*

FEES and PROGRAMS PER PHASE

Core programs to be offered at the Wheatland Aquatic Center with completion of Phase 1 will include recreational swimming day and night; competitive swimming for all ages; swim club organizations; lessons and classes on swimming and water related elements, such as lifeguard training and Fire and Police swift water training; water aerobics; masters swimming and High School sports such as swimming, water polo and diving. Additional elements for recreations enjoyment include the pool obstacle course, basketball hoops and rope swing. Open turf and group picnic areas and shades around the pool can be used by individuals and also reserved by groups for special events.

Additional activities can be added once Phase 2 is completed and the childrens'/warm up pool is added. This pool will add more lessons, more youth recreation swimming, fitness and aerobic classes, Red Cross training, etc.

The City will want to maximize summer revenue with swim lessons, extended season passes, summer swim programs and daily admissions. Phase 3 will bring the dedicated recreation pool with zero elevation beach entry and a large, themed play structure and water play nozzles. If the City opts for the 5- or 6-month operating season with the heated pool, they can also market off-summer swimming activities into April-May and September-October, when other surrounding facilities are closed.

Fee suggestions are based on an evaluation of rates currenlty being charged at more that six (6) similar facilities in the region and are within community tolerances. (See the Market Study section showing the comparitive rates from other regional facilities.) As you will see with the 10-year projections, we anticipate increased use fees due to inflation along with an expected increase in the number of users. Additional funds will allow the City to consider being open for additional months throughout the year, which contributes more toward the larger of the maintenance costs such as re-plastering and heater replacement at year 12-15.

EXAMPLE SCHEDULE SHOWING REVENUE POTENTIAL:

** Grid layout of schedules included in the Appendix*
** All sessions to have a 10-15 break between sessions for lifeguards*

PROGRAM USE - SUMMER SCHEDULE	USE TIMES
1. Open Recreation Swim Day Swim times (Sat/Sun - all	11am - 2pm / 3pm - 6pm / 3 hr sessions
(Mon - Fri all afternoon sessions plus evening on Friday)	3pm – 6pm / 7pm-9pm
2. Open Recreation Swim Night swim (Sat/Sun - all sessions)	6pm - 9pm
(Evening on Friday)	
3. Swim Classes – early training (Mon - Sat)	7am - 11am / 2pm - 3pm / 45 min sessions
4. Open Lap Pool / Water Aerobics / Masters	6am - 8am / 11am - 1pm / 5pm - 9pm /
(Mon - Fri)	45 min sessions
5. Swim Team (Mon - Sat)	6am - 11am

PROGRAM USE - SPRING / FALL SCHEDULE	USE TIMES
1. Highschool Swim Teams (Mon – Fri)	6am - 7am
2. Open Lap Pool / Water Aerobics / Masters (Sat/Sun - all	6am - 8am / 11am - 1pm / 5pm - 9pm /
sessions)	1 hr sessions
(Mon - Fri all day sessions plus evening on Friday)	
3. High School PE classes (Mon - Fri) TBD	8am - 11:30am / 45 min sessions
4. High School Dive Team (Mon - Fri) TBD	2pm - 3pm or 3pm - 4pm / 45 min sessions

5. Swim Classes - Training Lessons (Mon - Fri) — 8am - 11am / 4pm - 6pm / 45 min sessions
6. Swim Classes - Training Lessons (Sat) — 8am - 11am / 4pm - 6pm / 45 min sessions
7. Swim Meets TBD — 7am - 3pm (Times TBD)

OTHER FUNDING SOURCES	MONTHLY	ANNUAL	OTHER
First 5 Grant		$17,500	
Yuba Water Agency (YWA) (10 yrs + two 10-yr extensions)		$65,000	
Wheatland Fire Authority		$5,000	
City of Wheatland General Fund (cover Overhead + Addtnl)		$52,000	
Community Facilities District (CFD) (145 lots)		$50,000	
OTHER FUNDING SOURCES TOTAL	**$0**	**$189,500**	**$0**

RECOVERING COSTS: Cost vs Revenue

In order to plan for the potential lows and highs of recovering costs, we've broken it down into the best, worst and average case scenarios. The initial years after opening are likely to be the 'best', as excitement for a new activity center is at a peak and some expenses like repairs and maintenance are low while everything is new. It's also assumed that the City will do a higher level of marketing for the new Center than they will as the years progress. However, dollar output from the City is also likely higher during initial years because supplies have to be initially purchased and reserves built-up, along with the aforementioned marketing push. Anything that can increase revenue and decrease operating costs and start-up costs, will increase the "cost recovery" pace for the City.

OTHER POTENTIAL FUNDING SOURCES

There are other as-yet untapped sources for funding of capital and operating costs in the region. Two areas that have been successful in surrounding communities are the medical or medical support fields. Some potential organizations to approach are:

City of Yuba City Department of Public Works
Local Hospitals - Adventist Health, Marysville
First - 5 Organizations
Yuba Area Health Department - Mitigation dollars

COST vs REVENUE COMPARISON - OPTION 1: One-Pool Option			
ANNUAL OPERATING COST vs REVENUE POTENTIAL	REVENUE	EXPENSE	TOTAL
Revenue - Annual (open 4 months)	$137,004		
Revenue - Annual (open 5 months)	$153,049		
Revenue - Annual (open 6 months)	$169,094		
Revenue - Annual (open 12 months)	$265,364		
Expenses - Annual (open 4 months)		$309,164	
Expenses - Annual (open 5 months)		$342,198	
Expenses - Annual (open 6 months)		$380,431	
Expenses - Annual (open 12 months)		$651,412	
Revenue - Annual From Other Sources	$189,500		
NET TOTAL IF OPEN FOR 4 MONTHS (recovery rate 106%)			**$17,340**
NET TOTAL IF OPEN FOR 5 MONTHS (recovery rate 102%)			**$351**
NET TOTAL IF OPEN FOR 6 MONTHS (recovery rate 98%)			**($21,837)**
NET TOTAL IF OPEN FOR 12 MONTHS (recovery rate 77%)			**($196,548)**

COST vs REVENUE COMPARISON - OPTION 2: Two-Pool Option			
ANNUAL OPERATING COST vs REVENUE POTENTIAL	REVENUE	EXPENSE	TOTAL
Revenue - Annual (open 4 months)	$137,004		
Revenue - Annual (open 5 months)	$153,049		
Revenue - Annual (open 6 months)	$169,094		
Revenue - Annual (open 12 months)	$265,364		
Expenses - Annual (open 4 months)		$378,521	
Expenses - Annual (open 5 months)		$413,728	
Expenses - Annual (open 6 months)		$455,210	
Expenses - Annual (open 12 months)		$754,304	
Revenue - Annual From Other Sources	$189,500		
NET TOTAL IF OPEN FOR 4 MONTHS (recovery rate 87%)			**($52,017)**
NET TOTAL IF OPEN FOR 5 MONTHS (recovery rate 85%)			**($71,179)**
NET TOTAL IF OPEN FOR 6 MONTHS (recovery rate 82%)			**($96,616)**
NET TOTAL IF OPEN FOR 12 MONTHS (recovery rate 66%)			**($299,440)**

10-YEAR COST vs REVENUE COMPARISON - OPTION 1: One-Pool Option			
YEAR 10 PROJECTED COST vs REVENUE (*selective 53%	REVENUE	EXPENSE	TOTAL
Projected Revenue - Annual (open 4 months)	$353,556		
Projected Revenue - Annual (open 5 months)	$395,767		
Projected Revenue - Annual (open 6 months)	$437,979		
Projected Revenue - Annual (open 12 months)	$691,251		
Projected Expenses - Annual (open 4 months)		$426,446	
Projected Expenses - Annual (open 5 months)		$551,604	
Projected Expenses - Annual (open 6 months)		$614,492	
Projected Expenses - Annual (open 12 months)		$1,000,754	
Revenue - Annual From Other Sources (open 4 months)	$258,698		
Revenue - Annual From Other Sources (open 5 months)	$297,497		
Revenue - Annual From Other Sources (open 6 months)	$316,993		
Revenue - Annual From Other Sources (open 12 months)	$436,734		
NET TOTAL IF OPEN FOR 4 MONTHS			**$185,808**
NET TOTAL IF OPEN FOR 5 MONTHS			**$141,660**
NET TOTAL IF OPEN FOR 6 MONTHS			**$140,480**
NET TOTAL IF OPEN FOR 12 MONTHS			**$127,231**

ASSUMPTIONS FOR 10-YEAR PROJECTIONS:

** Need for 18 Lifeguards*

** Percent of User Growth selectively mirrors the projected Wheatland population growth of 53% shown in the Market Study*

** Fee increases are annual 1-2% for inflation.*

** Utilities were increased 30%, which is lowest increase expected for electricity or natural gas per revel-energy.com and*

** Administrative Benefits/Overhead was increased 5% annually due to regular increases in insurance rates*

** $17,857 was added to Expenses for interest on a YWA loan ($350,000 at 3% interest for 30 years)*

** YWA Annual Pledge reduces by 20% at 10 years (and 20 years)*

** CFD Annual Pledge at 10 years will equal 31% of Operating Cost (which is dependent on # of open months)*

10-YEAR COST vs REVENUE COMPARISON - OPTION 2: Two-Pool Option			
YEAR 10 PROJECTED COST vs REVENUE (at 53% growth)	REVENUE	EXPENSE	TOTAL
Projected Revenue - Annual (open 4 months)	$353,556		
Projected Revenue - Annual (open 5 months)	$395,767		
Projected Revenue - Annual (open 6 months)	$437,979		
Projected Revenue - Annual (open 12 months)	$691,251		
Projected Expenses - Annual (open 4 months)		$437,047	
Projected Expenses - Annual (open 5 months)		$565,003	
Projected Expenses - Annual (open 6 months)		$632,076	
Projected Expenses - Annual (open 12 months)		$1,054,540	
Revenue - Annual From Other Sources (open 4 months)	$258,698		
Revenue - Annual From Other Sources (open 5 months)	$297,497		
Revenue - Annual From Other Sources (open 6 months)	$316,993		
Revenue - Annual From Other Sources (open 12 months)	$436,734		
NET TOTAL IF OPEN FOR 4 MONTHS			**$175,207**
NET TOTAL IF OPEN FOR 5 MONTHS			**$128,261**
NET TOTAL IF OPEN FOR 6 MONTHS			**$122,896**
NET TOTAL IF OPEN FOR 12 MONTHS			**$73,445**

ASSUMPTIONS FOR 10-YEAR PROJECTIONS:

** Need for 18 Lifeguards*

** Percent of User Growth selectively mirrors the projected Wheatland population growth of 53% shown in the Market Study*

** Fee increases are annual 1-2% for inflation.*

** Utilities were increased 30% from current, which is lowest increase expected for electricity or natural gas per revel-*

** Administrative Benefits/Overhead was increased 5% annually due to regular increases in insurance rates*

** $17,857 was added to Expenses for interest on a YWA loan ($350,000 at 3% interest for 30 years)*

** YWA Annual Pledge reduces by 20% at 10 years (and 20 years)*

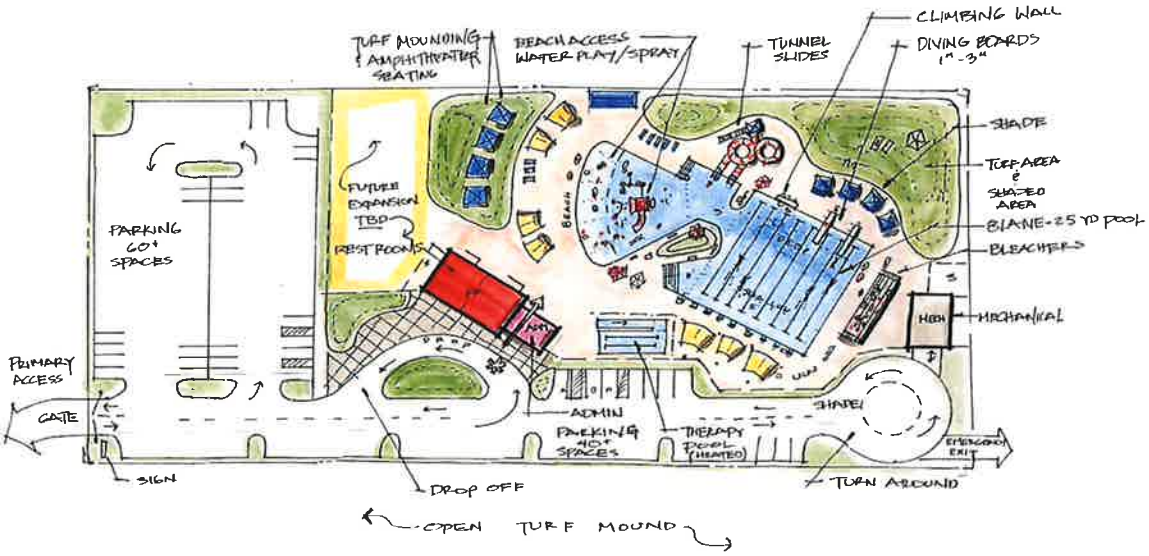
** CFD Annual Pledge at 10 years will equal 31% of Operating Cost (which is dependent on # of open months)*

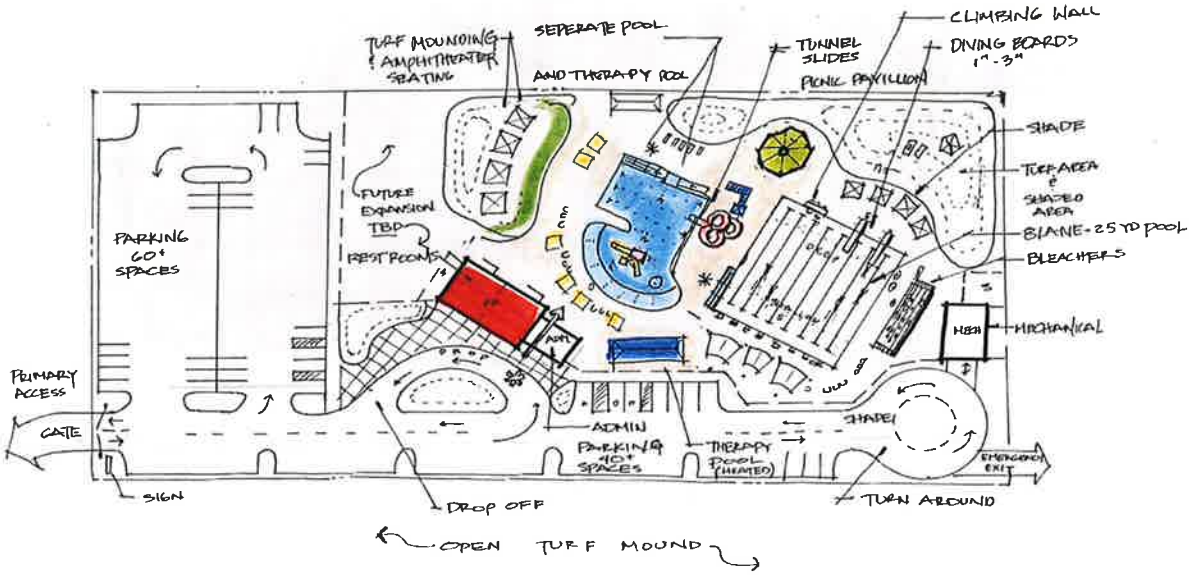
IMPROVING ON COST RECOVERY OPTIONS

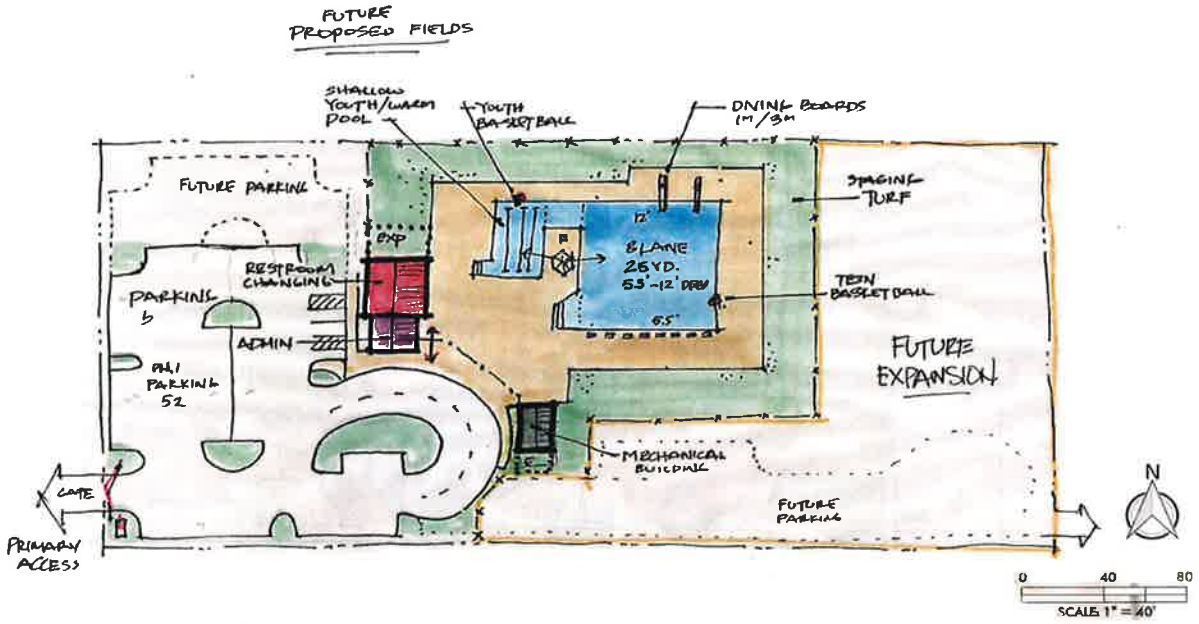
MORE OPPORTUNITIES TO IMPROVE COST RECOVERY
Review fees and increase appropriately
Schedule operations for options less than 12 months
Turn off the pool heater during lesser months
Solar Power Deductions
Add additional team programs
** Synchronized Swimming*
Develop niche water exercise program
Purchase inflatables for competition pool to use during recreation swim time
Increase special event offerings
Establish training programs for athletes
** Triathlons*
Install lights to increase programming time
Pursue partnerships
** Financial partnerships*
** Shared services partnerships*
Concession Stand

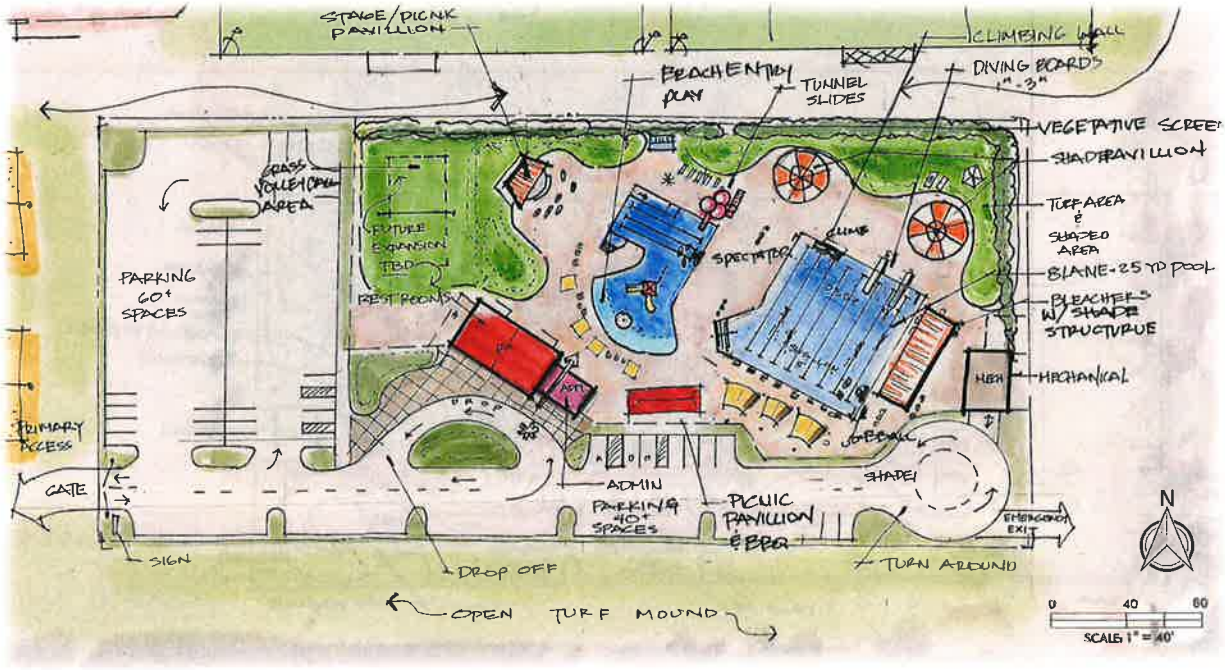
WHEATLAND AQUATIC FACILITY APPENDIX

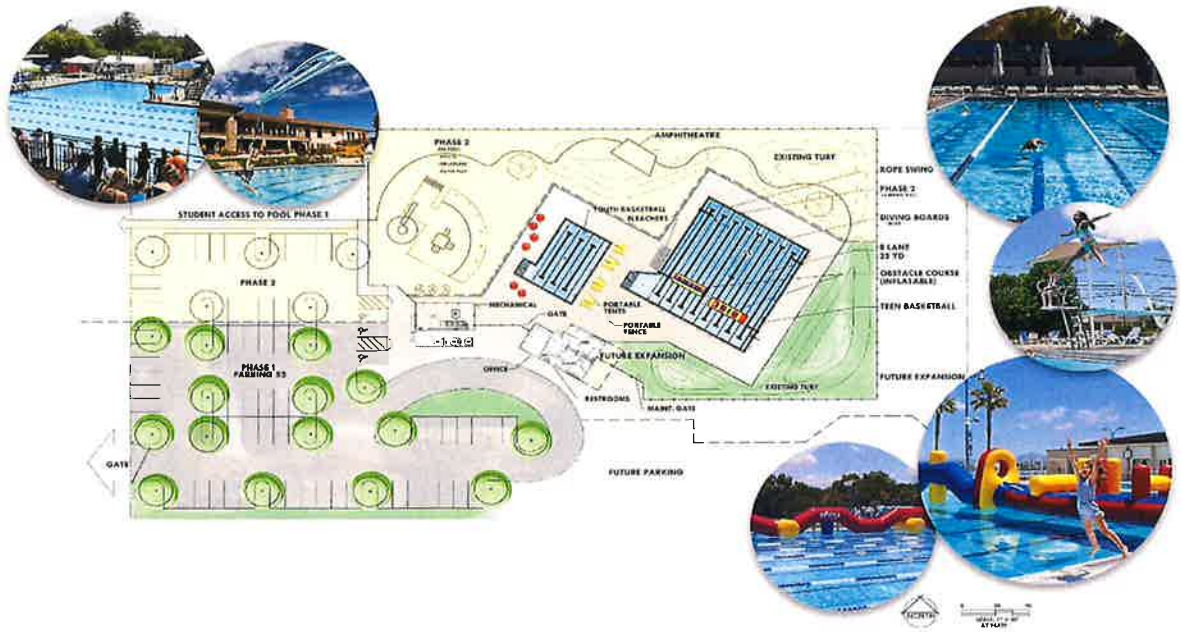
You can follow the path of the various conceptual design options that led to the final design of the Wheatland Aquatic Center.






FUTURE PROPOSED FIELDS
SHALLOW YOUTH/WARM POOL
YOUTH BASKETBALL
DIVING BOARDS 1M/3M
FUTURE PARKING
STAGING TURF
EXP
8 LANE 25 YD. 5.5'-12' DEEP
RESTROOM CHANGING
PARKING 5
TEEN BASKETBALL
ADMIN
PHI PARKING 52
FUTURE EXPANSION
MECHANICAL BUILDING
GATE
FUTURE PARKING
PRIMARY ACCESS
N
0 40 80
SCALE 1" = 40'


STAGE/PICNIC PAVILLION
CLIMBING WALL
BEACH ENTRY PLAY
TUNNEL SLIDES
DIVING BOARDS 1'-3'
VEGETATIVE SCREEN
SHADE PAVILLION
GRASS VOLLEYBALL AREA
TURF AREA & SHADED AREA
FUTURE EXPANSION TBD
SPECTATOR
CLIMB
PARKING 60+ SPACES
REST ROOMS
8 LANE-25 YD POOL
BLEACHERS W/ SHADE STRUCTURE
MECHANICAL
PRIMARY ACCESS
GATE
ADMIN
SHADE
PARKING 40+ SPACES
PICNIC PAVILLION & BBQ
EMERGENCY EXIT
SIGN
DROP OFF
TURN AROUND
OPEN TURF MOUND
N
0 40 80
SCALE 1" = 40'



WHEATLAND COMMUNITY POOL | **CONCEPT PLAN** - A COMMUNITY BASED PLANNING PROCESS PHASE 1

EXAMPLE SCHEDULE SHOWING REVENUE POTENTIAL

PROGRAM USE - SUMMER SCHEDULE (Mon-Fri)	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 AM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM
Open Recreation Swim Day (Mon-Fri) 3 hr sessions						11 am- 2 pm					3-6 pm			7-9 pm	
Open Recreation Night Swim (Fri) 3 hr sessions														6-9 pm	
Swim Classes - Early Training (Mon-Fri) 45 min sessions			7-11 am						2-3 pm						
Open Lap Pool/Water Aerobics/Masters (Mon-Fri) 45 min sessions		6-8 am				11 am-1 pm							5-9 pm		
Swim Team (Mon-Fri)			6-11 am												

PROGRAM USE - SUMMER SCHEDULE (Sat-Sun)															
Open Recreation Swim Day (Sat/Sun) 3 hr sessions						11 am- 2 pm					3-6 pm				
** 1 hr lunch break for lifeguards*															
Open Recreation Night Swim (Sat/Sun) 3 hr sessions														6-9 pm	
** 1 hr lunch break for lifeguards*															
Swim Classes-Early Training (Sat) 45 min sessions			7-11 am						2-3 pm						
Swim Team (Sat)			6-11 am												

PROGRAM USE - SPRING / FALL SCHEDULE (Mon-Fri)															
High School Swim Teams (Mon-Fri) 1 hr sessions	6-7 am														
Open Lap Pool/Water Aerobics/Masters (Mon-Fri) 1 hr sessions		6-8 am				11 am-1 pm							5-9 pm		
High School PE Classes (Mon-Fri) 45 min sessions				8-11:30 am											
High School Dive Team (Mon-Fri) 45 min sessions									2-3pm or 3-4pm						
Swim Classes/Training Lessons (Mon-Fri) 45 min sessions			8-11 am								4-6 pm				
Swim Meets (Times TBD)					7 am-3 pm										

PROGRAM USE - SPRING / FALL SCHEDULE (Sat-Sun)															
Open Lap Pool/Water Aerobics/Masters (Sat/Sun) 1 hr sessions		6-8 am				11 am-1 pm							5-9 pm		
Swim Classes/Training Lessons (Sat) 45 min sessions				8-11 am							4-6 pm				
Swim Meets (Times TBD)					7 am-3 pm										

** All sessions to have a 15 min break between for lifeguards*

ONE-MONTH SNAPSHOT ALTERATION OF ORIGINAL UTILITY CALCULATIONS TO REFLECT ADJUSTED POOL SFs

(Original Utilities Assessment shown on next page)

Overall Assumptions:

Original Large Pool SF of 5231 SF should have been 5700 SF (=1.09%)
Original Small Pool SF of 3873 SF should have been 1600 SF (=.41%)

ELECTRICITY	Orig #s	Corrected #s - 2 pool option	Corrected #s - 1 pool option
equip-lg pool	$ 114.00	$ 124.26	$ 124.26
equp-sm pool	$ 86.00	$ 35.26	$ -
kwh-lg pool	12529.94	13657.63	13657.63
kwh-sm pool	4176.65	1712.43	0
cost/hour	$ 0.16	$ 0.16	0.16
MO TOTALS	**$ 2,873**	**$ 2,619**	**$ 2,309**
ANNUAL TOTALS	**$ 34,477**	**$ 31,425**	**$ 27,714**

Electrical Assumptions:

Monthly KWh for large pool if 5231 SF is 12529.94 (as noted in Arch*Pac Aquatics original Op Cost Analysis)
Monthly KWh for small pool if 3873 SF is 4176.65 (as noted in Arch*Pac Aquatics original Op Cost Analysis)
Cost per hr is $0.16
That original monthly $$ calculation using monthly total KWh (16706.58) at $0.16/KWh was totalled incorrectly (should have been $2673, not $2004)
Pumps run 18 hrs/day (as noted in Arch*Pac Aquatics original Op Cost Analysis)

NATURAL GAS	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	ANNUAL TOTALS	
Orig Amt 2 pools	$ 39,474.00	$ 39,474.00	$ 31,579.00	$ 23,684.00	$ 7,895.00	$ -	$ -	$ -	$ 15,790.00	$ 23,684.00	$ 31,579.00	$ 39,474.00	**$ 252,873.00**	
Corrected Amt 2 pools	$ 29,625.50	$ 29,625.50	$ 23,704.25	$ 17,783.00	$ 5,941.25	$ 20.00	$ 20.00	$ 20.00	$ 11,862.50	$ 17,783.00	$ 23,704.25	$ 29,625.50	**$ 189,714.75**	2 pools
Corrected Amt 1 pool	$ 24,545.20	$ 24,545.20	$ 19,640.03	$ 14,734.87	$ 4,925.16	$ 20.00	$ 20.00	$ 20.00	$ 9,830.33	$ 14,734.87	$ 19,640.03	$ 24,545.20	**$ 157,200.88**	1 pool

Natural Gas Assumptions:

There is a $20 monthly service charge for Natural Gas (per ArchPac analysis)

CHEMICALS	Orig Amt 2 pools	Corrected Amt 2 pools	Corrected Amt 1 pool
MO TOTAL	**$ 2,500.00**	**$ 1,875.00**	**$ 1,553.25**
ANNUAL TOTALS	**$ 30,000.00**	**$ 22,500.00**	**$ 18,639.00**

City of Wheatland
Aquatic Center Feasibility Study

WATER	Orig Amt 2 pools	Corrected Amt 2 pools	Corrected Amt 1 pool
Gallons/Pools as Monthly Amt (326,776 total original)	27231	20423.25	16918.62
Bkwsh Gallons/Mo for orig 2 Pools	23989	17991.75	14904.37
Total Gallons conv to CF	6848.11	5136.09	4254.73
Cost per CF = $.0195)	$ 133.54	$ 100.15	$ 82.97
Meter Charge	$ 95.92	$ 95.92	$ 95.92
TOTALS	**$ 229.46**	**$ 196.07**	**$ 178.89**

Calculation amounts:
% of original merged numbers that was for the larger pool at orig SF = 57%
% of original merged numbers that was for the smaller pool at orig SF = 43%

ORIGINAL UTILITIES ASSESSMENT (Prior to Pool Size Adjustment)

10-Jun-2021
Page 1 of 1

WHEATLAND AQUATIC CENTER

Facilty Operation Cost

25yd by 8 lane Pool Data:

Perimeter:	290 Lineal Feet	301 Lineal Feet	Warm & Play
Area:	5,231 Square Feet	3,873 Square Feet	
Volume:	254,332 Gallons	72,444 Gallons	
Turnover:	706 gpm	202 gpm	

ARCH PAC AQUATICS

760 724 1000

			Winter Jan	Feb	Mar	Spring Apr	May	June	Summer July	Aug	Sept	Fall Oct	Nov	Dec		Total:
ELECTRICITY:																
1-ph	Misc. Equipment		$200.00	$200.00	$200.00	$200.00	$200.00	$200.00	$200.00	$200.00	$200.00	$200.00	$200.00	$200.00		$2,400.00
3-ph	8 lane Circ Pump 15 BHP		12,529.94	12,529.94	12,529.94	12,529.94	12,529.94	12,529.94	12,529.94	12,529.94	12,529.94	12,529.94	12,529.94	12,529.94	KWh	
3-ph	Warm-up Circ Pump 5 BHP		4,176.65	4,176.65	4,176.65	4,176.65	4,176.65	4,176.65	4,176.65	4,176.65	4,176.65	4,176.65	4,176.65	4,176.65	KWh	
	Total KWH		16,706.58	16,706.58	16,706.58	16,706.58	16,706.58	16,706.58	16,706.58	16,706.58	16,706.58	16,706.56	16,706.58	16,706.58		
	Cost per Hr.		$0.160	$0.160	$0.160	$0.160	$0.160	$0.160	$0.160	$0.160	$0.160	$0.160	$0.160	$0.160		
	Subtotal Cost:		$2,004.79	$2,004.79	$2,004.79	$2,004.79	$2,004.79	$2,004.79	$2,004.79	$2,004.79	$2,004.79	$2,004.79	$2,004.79	$2,004.79		$24,057.48
	Cost	assume pumps run 16 hrs day (off from 11:00PM - 00AM) - see pump efficiency calcurbons below														**$26,457.48**
NATURAL GAS:		5,231	3,000,000 BTU, T-delta = 35 degrees F, wind at 5 mph					3,873 2,100,000 BTU, T-delta = 35 degrees F, wind at 5 mph				(100,000 BTU =1-Therm)		**6,100,000 BTU**		
	Pool Heater: BTU/month		25,500.00	25,500.00	20,400.00	15,300.00	5,100.00	0.00	0.00	0.00	10,200.00	15,300.00	20,400.00	25,500.00		
	Cost per Therm:		1.548	1.548	1.548	1.548	1.548	1.548	1.548	1.548	1.548	1.548	1.548	1.548		
	Subtotal Cost:		$39,474.00	$39,474.00	$31,579.20	$23,684.40	$7,894.80	$0.00	$0.00	$0.00	$15,789.60	$23,684.40	$31,579.20	$39,474.00		$252,633.60
	Service Fee:		$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00	$20.00		$240.00
	Cost	assume pool covers are utilized - winter time run approx 5 hrs daily and District has negotiated bulk price on natural gas														**$252,873.60**
CHEMICALS:		Cost/Gallon														
Gal	Chlorine	**$1.75**	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00		$21,000.00
Gal	Acid 15%	**$2.50**	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00		$9,000.00
	Cost	assume purchase in bulk with super chlorination twice annually														**$30,000.00**
WATER:		**Volume of pools 326,776 Gallons, Area of pools = 9,104 FT2**				(8-lane pool backwash = 4,344 gals)			(warm-up pool backwash = 1,244 gals)							326,776.00
	Backwash per month:		21,152.00	21,152.00	21,152.00	21,152.00	21,152.00	21,152.00	21,152.00	21,152.00	21,152.00	21,152.00	21,152.00	21,152.00		
	Evap 1/2" mo		2,837.00	2,837.00	2,837.00	2,837.00	2,837.00	2,837.00	2,837.00	2,837.00	2,837.00	2,837.00	2,837.00	2,837.00		
	Total Gallons Per Month		23,989.00	23,989.00	23,989.00	23,989.00	23,989.00	23,989.00	23,989.00	23,989.00	23,989.00	23,989.00	23,989.00	23,989.00		287,868.00
	Meter charge 2" dia		$95.92	$95.92	$95.92	$95.92	$95.92	$95.92	$95.92	$95.92	$95.92	$95.92	$95.92	$95.92		$1,151.04
	Total Gallons Year															614,644.00
	CF of water per Year															82,171.66
	Cost per CF															$0.01950
	Cost	assume use of regenerative filter with 40 TDH and 800 gallon backwash														**$1,602.35**
TOTAL COST TO MAINTAIN AND OPERATE 50M POOL ANNUALLY:																**$310,933.42**
PUMP ANALYSIS:	8L by 25 yd				GPM	Head	factor	HP	EFFICIENCY							
HRS Filter	HORSEPOWER			15	706	60	3,960.00	15.00	77.55%							
	Watt conversion			0.7460												
					Hours/month											
			KW	10,742	540.00	5,800,896.00	5,800.90	KWh	69,610.75	$0.180	$12,529.94	assume use of HRS filter with 60 TDH				
PUMP ANALYSIS:	Warm-up & Play Pool															
HRS Filter	HORSEPOWER			5	202	60	3,960.00	5.00	75.57%							
	Watt conversion			0.7460												
					Hours/month											
			KW	3,581	540.00	1,933,632.00	1,933.63	KWh	23,203.58	$0.180	$4,176.65	assume use of HRS filter with 60 TDH				