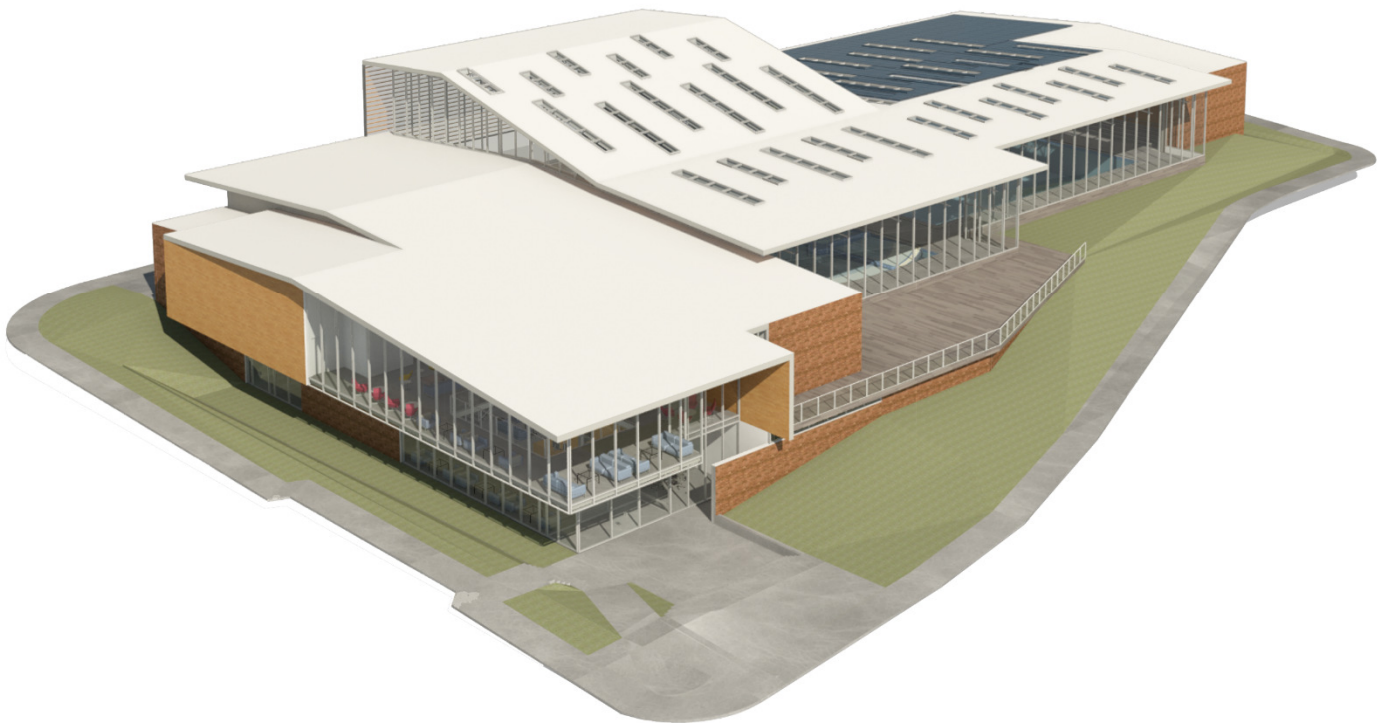




Hood River Valley
Parks and Recreation

AQUATIC CENTER FEASIBILITY STUDY



Opsis Architecture
October, 2017



**Hood River Valley Parks and Recreation
Aquatic Center Feasibility Study**

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PARTICIPANTS

STEERING COMMITTEE

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Mike Schend	Former HRVPRD Bd Member
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DESIGN TEAM

Opsis Architecture	Programming and Planning
Ballard*King	Market and Operational Analysis
Water Technologies	Aquatic Design and Assessment
Catena Engineers	Structural Assessment
Interface Engineers	Mechanical/Electrical Assessment



Hood River Valley Parks and Recreation
Aquatic Center Feasibility Study

1. EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The purpose of this feasibility study was to evaluate the existing Aquatic Center to determine the condition of its systems, the functionality of the facility and its ability to accommodate the current and future needs of the Hood River Valley community.

EXISTING CONDITIONS ANALYSIS

An assessment was conducted to evaluate the pool mechanical systems, the ventilation, heating and structure of the pool enclosure and bath house. The pool systems are in constant need of repair and could experience failures at any time. The replacement of these systems is recommended within the next 3-5 years. The removable pool canopy has exceeded its 10 year life span (currently 20 years old) and needs to have the fabric replaced, or replace the entire structure with a new permanent enclosure. The ventilation unit for the pool also requires replacement due to its age (25 yrs) and poor energy efficiency. The Bath House has been well maintained, but is significantly undersized to serve its current activities and does not comply with code standards for accessibility.

PROGRAM ANALYSIS

A series of focus group interviews were conducted to establish the community needs for the facility. The activities and program spaces that support them became the basis for the development of space programs for a renovated or new facility. The program spaces in the existing facility are undersized for their current use, do not comply with accessibility standards and do not accommodate the diversity of the Center's users. There was a strong desire to have spaces that support community activities, fitness/health and wellness and activity areas for teens. To accompany the program requirements, Ballard*King conducted a market analysis to assess the current and future market needs, services of similar facilities in the region and an operational analysis for each of the program options. The results of this analysis showed strong community support and a positive operational cost recovery model.

SITE ANALYSIS

Four sites were reviewed for their ability to accommodate the required program, provide a central location for community access, have adequate area for future expansion and site ownership/acquisition. The sites under consideration were:

- Existing Aquatic Center
- County Maintenance Yard/Shops
- Morrison Park
- Port of Hood River

The conclusion of the analysis was to develop a space program that could be accommodated on the existing Aquatic Center site. The primary reason for this direction was site ownership (HRVPRD) and its central location.

CONCEPT OPTIONS

Five Concept Options were developed for the existing Aquatic Center Site. These options ranged from maintaining the existing facility (Option 1) to the construction of a new facility on the existing site (Option 4 and 5). The Concept Options were:

Option 1	Upgrade Existing Pool Systems Replace Existing Pool Cover and Mechanical System Existing Bath House to remain
Option 2A	Upgrade Existing Pool Systems Replace Existing Pool Cover and Mechanical System New 2-Story Bath House
Option 2B	Upgrade Existing Pool Systems New Permanent Pool Enclosure and Mechanical System New 2-Story Bath House
Option 3	Upgrade Existing Pool Systems New Permanent Pool Enclosure and Mechanical System New 2-Story Bath House New Recreation Pool added to Existing Competition Pool
Option 4	Complete New Facility New 2-Story Bath House New Recreation and Competition Pools
Option 5	Complete New Facility New 3-Story Bath House New Recreation and Competition Pools

PROGRAM COST OPTIONS

To accompany the Concept Options, a program cost model was developed for each option. The cost model included a cost range for the bath house, natatorium, site development and project soft costs. The average project cost for each option were:

Option 1	\$1,800,000
Option 2A	\$9,200,000
Option 2B	\$13,500,000
Option 3	\$16,600,000
Option 4	\$17,300,000
Option 5	\$20,300,000



Hood River Valley Parks and Recreation
Aquatic Center Feasibility Study

2. EXISTING CONDITIONS ANALYSIS

Aquatic Assessment

Structural Assessment

Mechanical / Electrical Assessment



Aquatic Evaluation Report

Hood River Aquatic Center
Hood River, Oregon

March 6, 2017

Prepared For:

Hood River Valley Parks and Recreation District
1601 May Avenue
Hood River, OR 97031

Prepared By:

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In Conjunction With:

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Executive Summary

WTI has been commissioned by the Hood River Valley Parks and Recreation to report on the current condition of the existing pool located at 1601 May Street. WTI visited the facility on January 25, 2017, toured the pool and related amenities, and met with staff to discuss operations. The enclosed report documents the observations from the site visit and outlines recommended capital and operational changes. Major components of the aquatic amenities have been given a score based on their observed condition, and these scores are weighted and aggregated to provide a total score. Below is a summary outline of the condition scores, recommendations and estimated capital costs.

The Total Aggregated Evaluation Score is shown below, and out of a possible high score of 100, is an indication of the condition of the aquatic amenities.

Total Aggregated Evaluation Score: 44.84

The condition of a facility is a major determination of the effort and cost of maintaining the utility and value of the amenities. A deteriorated facility will demand higher annual operating expenses over time as parts break, systems fail, finishes deteriorate, and structures weaken. There are also efficiencies lost when operating aging systems or equipment which are unable to take advantage of current methods and financially sustainable practices. The usable and efficient lifespan of the aquatic amenities is estimated below. After such time, the cost of operating the aquatic amenities is likely to exceed the amortized cost of recommended improvements.

Probably Aquatic Lifespan: 3 to 5 years

Below are the recommended repairs or replacements based on the observed condition of the aquatic components and the associated range of probable capital cost. A detailed description for each repair or replacement is included further in the report.

Replace All Valves and Mechanical Room Piping	\$90,000.00 to \$135,000.00
Replace Vacuum Sand Filter with Regenerative Media System	\$250,000.00 to \$325,000.00
Construct Surge Tanks	\$275,000.00 to \$375,000.00
Replace Pool Plaster Finish	\$80,000.00 to \$125,000.00
Replace Chemical Controllers	\$30,000.00 to \$55,000.00
Install UV Sanitation Systems	\$100,000.00 to \$175,000.00
Total Recommended Repairs or Replacements	\$825,000.00 to \$1,190,000.00

For comparison to the investment necessary to maintain the existing facility, the probable cost to construct new aquatic amenities of similar size is also provided below. This cost amount involves only the pool vessel, pool piping, and pool mechanical equipment, and does not account for site, building, or building mechanical components.

Total Probable Cost of New Construction **\$1,325,000.00 to \$1,775,000.00**

Introduction

The purpose of this evaluation is to review the present condition of the aquatic amenities and aquatic mechanical systems at the existing Hood River Aquatic Center. The evaluation consists of visual examination of the pool(s) and associated mechanical equipment. The report outlines the present condition of the systems, equipment, and components and provides recommendations for repairs or replacements. Each recommendation is given an estimated range for the probable cost to construct, install, or perform the renovation or repair.

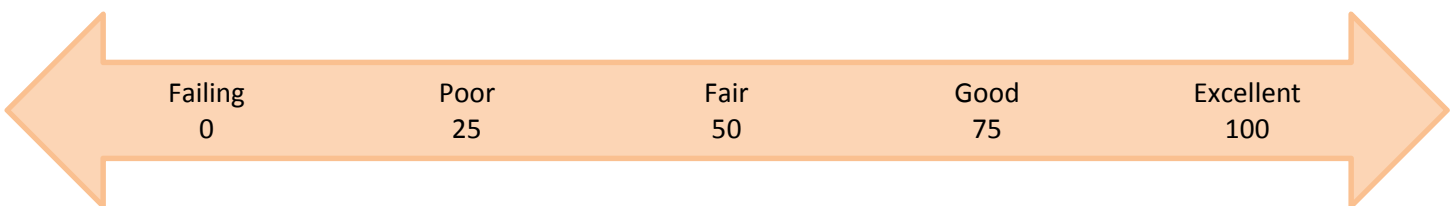
The aquatic center is a stand-alone aquatic facility serving the community of Hood River. The facility holds three pools, or bodies of water: main lap pool, therapy pool, and children's wading pool. The main lap pool is 25 yards by 25 meters, with approximately 6,150 ft² of water surface area, and 281,000 gallons of water. The therapy pool has an approximate water surface area of 1,130 ft² and a water volume of 30,000 gallons. Finally, the children's wading pool is approximately 300 ft² and holds 1,500 gallons of water.

All three pools are enclosed within a removable tension fabric supported on a metal structure. This type of enclosure allows year-round use of the pools and the ability to seasonally open part of the structure. Four of the tension fabric sections are removed on a seasonal basis. The pool has stainless steel gutters and aggregate plaster interior finishes. The main lap pool is filtered using a vacuum sand filter. The therapy pool and children's wading pool are filtered using pressure sand filters. All three pools are disinfected with a sodium hypochlorite, and pH is balanced using carbon dioxide. Pool water heat is provided with heat exchangers on the building boiler system.

Methodology

WTI observed the condition of the aquatic elements at the facility. Aquatic elements include pool vessels, water features, pool filtration systems, pool circulation pumps, piping, valves and controls, and water treatment systems. Observations were conducted in a non-destructive manner and did not involve the removal of any structures or disassembly of any equipment.

Major components of the aquatic systems and structures are categorized in the report and scored based on their observed condition. The condition scores are weighted and aggregated to produce an overall evaluation score. Potential scores range from zero to one hundred, representing the condition descriptions below:



Total evaluation scores for each pool and aquatic amenities are compiled and weighted to create a total aggregated evaluation score. The total aggregated evaluation score provides an indication of the overall condition of the aquatic amenities of the facility.

Included in the report are observations and indications of the condition of the accessible means of pool entry and exit. WTI has endeavored to identify problems with the means of access and potential non-compliance with the Americans with Disabilities Act (ADA). Observations and evaluations included in this report do not constitute certification or verification of compliance with ADA requirements. ADA compliance is a legal opinion, and WTI is not able to anticipate or

guarantee judicial interpretation with respect to a facility's legal compliance. WTI recommendations are based on a current understanding of the technical requirements of ADA regulations on aquatic amenities.

Compliance with Virginia Graeme Baker Pool and Spa Safety Act (VGBA) regulations has not been verified or investigated as a part of this evaluation and report. Any statements regarding drains, suction fittings, or any other component pertaining to VGBA are preliminary observations only, and further inspection to substantiate compliance is necessary.

The cost amounts associated with the provided recommendations are the opinion of WTI based on a professional understanding of market conditions. Cost amounts have not been trade or contractor verified, and are intended to provide guidance for a preliminary aquatic budget.

Main Lap Pool

Below are descriptions of the observations from the site visit for major components of the aquatic amenities. A ranking of the condition of each component is indicated with an associated score.

Observations	Condition Rank	Condition Score	Weight Value	Total Score
Pool Vessel Type/Style: Concrete Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Cracking <input type="radio"/> Spalling <input type="radio"/> Shifting/Movement <input type="radio"/> Groundwater Infiltration <input type="radio"/> Exposed Reinforcement <input type="radio"/> Leaking/Water Loss 	Good	75	0.125	9.38
Pool Finish Type/Style: Special Aggregate Plaster Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Cracking <input checked="" type="radio"/> Spalling <input checked="" type="radio"/> Delamination <input checked="" type="radio"/> Coarse/Rough Surface <input type="radio"/> Softening/Dissolving <input type="radio"/> Staining 	Failing	0	0.050	0.00
Pool Gutter Type/Style: Stainless Steel Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Broken Grating <input type="radio"/> Insufficient Channeling/Flow <input checked="" type="radio"/> Insufficient Rimflow <input checked="" type="radio"/> Flooding/Insufficient Capacity <input type="radio"/> Cracking <input type="radio"/> Spalling <input type="radio"/> Staining <input type="radio"/> Excessive Noise 	Failing	0	0.100	0.00
Pool Accessibility Type/Style: Chairlift Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Not Operable Without Assistance <input type="radio"/> Insufficient Capacity/Lifting Power <input type="radio"/> Not Present at Time of Observation 	Good	75	0.050	3.75
Pool Handrails Type/Style: Stainless Steel Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Staining <input type="radio"/> Corrosion <input type="radio"/> Scale Formation <input type="radio"/> Loose/Insecure 	Good	75	0.025	1.88
Main Drains Type/Style: Dual Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Missing/Broken Cover <input type="radio"/> Unsafe Fitting Condition 	Good	75	0.050	3.75

Return Inlets	Good	75	0.025	1.88
Type/Style:	Wall Inlets			
Issues/Problems:	<input type="radio"/> Broken Fixture <input type="radio"/> Blocked/Non-Functioning			
Piping	Poor	25	0.050	1.25
Type/Style:	PVC			
Comments:	Brittle PVC found near connections indicates deteriorating material			
Issues/Problems:	<input type="radio"/> Leaking <input type="radio"/> Corrosion <input type="radio"/> Metal Components <input type="radio"/> Unnecessary Connections <input type="radio"/> Inefficient Routing			
Filtration	Poor	25	0.100	2.50
Type/Style:	Vacuum Sand			
Comments:	Vacuum sand filtration is an inefficient method of filtration in comparison to other modern methods. In addition, for proper functioning, the vacuum sand filter must periodically halt flow, which impacts circulation and turnover.			
Issues/Problems:	<input type="radio"/> High Operating Pressure <input type="radio"/> Low Operating Pressure <input type="radio"/> Clogs/Debris <input type="radio"/> Biological Growth <input type="radio"/> Insufficient Capacity <input type="radio"/> Insufficient Flow <input type="radio"/> Inoperable Valves <input type="radio"/> Leaking Tank			
Circulation Pump	Good	75	0.050	3.75
Type/Style:	Centrifugal Impeller			
Issues/Problems:	<input type="radio"/> Excessive Motor Heat <input type="radio"/> Excessive Motor Noise <input type="radio"/> Leaking <input type="radio"/> Corrosion <input type="radio"/> Insufficient Flow			
Circulation Valves	Failing	0	0.075	0.00
Type/Style:				
Issues/Problems:	<input type="radio"/> Inoperable - Closed <input checked="" type="radio"/> Inoperable - Open <input checked="" type="radio"/> Limited Flow Adjustment <input type="radio"/> Broken Handle <input type="radio"/> Corrosion <input type="radio"/> Leaking			
Chemical Control	Good	75	0.050	3.75
Type/Style:	Chemtrol ORP and pH Automatic Chemical Controller			
Issues/Problems:	<input type="radio"/> Inaccurate Disinfectant Readings <input type="radio"/> Control Flowswitch <input type="radio"/> Inaccurate pH Readings <input type="radio"/> Alerts			

Chemical Storage and Safety	Poor	25	0.050	1.25
Type/Style:	Detached Shed			
Comments:	Chemical containers co-mingled in general mechanical area			
Issues/Problems:	<input type="radio"/> Insufficient Fire Protection <input checked="" type="checkbox"/> Insufficient Spill Protection <input checked="" type="checkbox"/> Lack of Chemical Separation <input checked="" type="checkbox"/> Inoperable Air Evacuation <input type="radio"/> MSDS Not Present <input type="radio"/> Missing/Inoperable Eyewash Station <input type="radio"/> Leaking Containers (Liquids) <input type="radio"/> Missing Personal Protective Equipment <input type="radio"/> Spilled Containers (Powders/Solids) <input type="radio"/> Open Containers / Exposure to Fumes			
Primary Disinfection	Fair	50	0.050	2.50
Type/Style:	Sodium Hypochlorite			
Comments:	Numerous unsecured/unfastened flexible chemical lines			
Issues/Problems:	<input type="radio"/> Hazardous Injection Location <input type="radio"/> Leaking <input type="radio"/> Hazardous Conveyance Methods <input type="radio"/> Lack of Automation			
Supplemental Disinfection	None	0	0.050	0.00
Type/Style:	None			
Chemical Balance	Good	75	0.050	3.75
Type/Style:	Carbon Dioxide			
Issues/Problems:	<input type="radio"/> Hazardous Injection Location <input type="radio"/> Leaking <input type="radio"/> Hazardous Conveyance Methods <input type="radio"/> Lack of Automation			
Pool Water Heating	Good	75	0.050	3.75
Type/Style:	Building Boiler Heat Exchanger			
Issues/Problems:	<input type="radio"/> Corrosion <input type="radio"/> Insufficient Heat <input type="radio"/> Leaking			
Total Pool Score			Weight	Score
Main Lap Pool			1.00	43.13

Therapy Pool

Below are descriptions of the observations from the site visit for major components of the aquatic amenities. A ranking of the condition of each component is indicated with an associated score.

Observations	Condition Rank	Condition Score	Weight Value	Total Score
Pool Vessel Type/Style: Concrete Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Cracking <input type="radio"/> Spalling <input type="radio"/> Shifting/Movement <input type="radio"/> Groundwater Infiltration <input type="radio"/> Exposed Reinforcement <input type="radio"/> Leaking/Water Loss 	Good	75	0.125	9.38
Pool Finish Type/Style: Special Aggregate Plaster Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Cracking <input checked="" type="radio"/> Spalling <input checked="" type="radio"/> Delamination <input checked="" type="radio"/> Coarse/Rough Surface <input type="radio"/> Softening/Dissolving <input type="radio"/> Staining 	Failing	0	0.050	0.00
Pool Gutter Type/Style: Stainless Steel Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Broken Grating <input type="radio"/> Insufficient Channeling/Flow <input checked="" type="radio"/> Insufficient Rimflow <input checked="" type="radio"/> Flooding/Insufficient Capacity <input type="radio"/> Cracking <input type="radio"/> Spalling <input type="radio"/> Staining <input type="radio"/> Excessive Noise 	Failing	0	0.100	0.00
Pool Accessibility Type/Style: Chairlift Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Not Operable Without Assistance <input type="radio"/> Insufficient Capacity/Lifting Power <input type="radio"/> Not Present at Time of Observation 	Good	75	0.050	3.75
Pool Handrails Type/Style: Stainless Steel Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Staining <input type="radio"/> Corrosion <input type="radio"/> Scale Formation <input type="radio"/> Loose/Insecure 	Good	75	0.025	1.88
Main Drains Type/Style: Dual Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Missing/Broken Cover <input type="radio"/> Unsafe Fitting Condition 	Good	75	0.050	3.75

Return Inlets	Good	75	0.025	1.88
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Type/Style: Wall Inlets

Issues/Problems:

- Broken Fixture
- Blocked/Non-Functioning

Piping	Poor	25	0.050	1.25
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Type/Style: PVC

Comments: Brittle PVC near connections indicates deteriorating material

Issues/Problems:

- Leaking
- Corrosion
- Metal Components
- Unnecessary Connections
- Inefficient Routing

Filtration	Good	75	0.100	7.50
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Type/Style: Pressure High-Rate Sand

Issues/Problems:

- High Operating Pressure
- Low Operating Pressure
- Clogs/Debris
- Biological Growth
- Insufficient Capacity
- Insufficient Flow
- Inoperable Valves
- Leaking Tank

Circulation Pump	Good	75	0.050	3.75
-------------------------	------	----	-------	------

Type/Style: Centrifugal Impeller

Issues/Problems:

- Excessive Motor Heat
- Excessive Motor Noise
- Leaking
- Corrosion
- Insufficient Flow

Circulation Valves	Failing	0	0.075	0.00
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Type/Style:

Issues/Problems:

- Inoperable - Closed
- Inoperable - Open
- Limited Flow Adjustment
- Broken Handle
- Corrosion
- Leaking

Chemical Control	Good	75	0.050	3.75
-------------------------	------	----	-------	------

Type/Style: Chemtrol ORP and pH Automatic Chemical Controller

Issues/Problems:

- Inaccurate Disinfectant Readings
- Control Flowswitch
- Inaccurate pH Readings
- Alerts

Chemical Storage and Safety	Poor	25	0.050	1.25
------------------------------------	------	----	-------	------

Type/Style: Detached Shed

Comments: Chemical containers co-mingled in general mechanical area

Issues/Problems:

- | | |
|--|--|
| <input type="radio"/> Insufficient Fire Protection | <input checked="" type="radio"/> Insufficient Spill Protection |
| <input checked="" type="radio"/> Lack of Chemical Separation | <input checked="" type="radio"/> Inoperable Air Evacuation |
| <input type="radio"/> MSDS Not Present | <input type="radio"/> Missing/Inoperable Eyewash Station |
| <input type="radio"/> Leaking Containers (Liquids) | <input type="radio"/> Missing Personal Protective Equipment |
| <input type="radio"/> Spilled Containers (Powders/Solids) | <input type="radio"/> Open Containers / Exposure to Fumes |

Primary Disinfection	Fair	50	0.050	2.50
-----------------------------	------	----	-------	------

Type/Style: Sodium Hypochlorite

Comments: Numerous unsecured/unfastened flexible chemical lines

Issues/Problems:

- | | |
|--|--|
| <input type="radio"/> Hazardous Injection Location | <input type="radio"/> Leaking |
| <input type="radio"/> Hazardous Conveyance Methods | <input type="radio"/> Lack of Automation |

Supplemental Disinfection	Fair	50	0.050	2.50
----------------------------------	------	----	-------	------

Type/Style: Chlor-King Ultraviolet

Issues/Problems:

- | | |
|--|--|
| <input type="radio"/> Broken Bulb | <input type="radio"/> Broken Wiping Mechanism |
| <input type="radio"/> Insufficient Voltage | <input checked="" type="radio"/> Lack of Downstream Strainer |

Chemical Balance	Good	75	0.050	3.75
-------------------------	------	----	-------	------

Type/Style: Carbon Dioxide

Issues/Problems:

- | | |
|--|--|
| <input type="radio"/> Hazardous Injection Location | <input type="radio"/> Leaking |
| <input type="radio"/> Hazardous Conveyance Methods | <input type="radio"/> Lack of Automation |

Pool Water Heating	Good	75	0.050	3.75
---------------------------	------	----	-------	------

Type/Style: Building Boiler Heat Exchanger

Issues/Problems:

- | | |
|---------------------------------|---|
| <input type="radio"/> Corrosion | <input type="radio"/> Insufficient Heat |
| <input type="radio"/> Leaking | |

Total Pool Score			Weight	Score
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Therapy Pool			1.00	50.63
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Wading Pool

Below are descriptions of the observations from the site visit for major components of the aquatic amenities. A ranking of the condition of each component is indicated with an associated score.

Observations	Condition Rank	Condition Score	Weight Value	Total Score
Pool Vessel Type/Style: Concrete Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Cracking <input type="radio"/> Spalling <input type="radio"/> Shifting/Movement <input type="radio"/> Groundwater Infiltration <input type="radio"/> Exposed Reinforcement <input type="radio"/> Leaking/Water Loss 	Good	75	0.125	9.38
Pool Finish Type/Style: Special Aggregate Plaster Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Cracking <input type="radio"/> Spalling <input type="radio"/> Delamination <input type="radio"/> Coarse/Rough Surface <input type="radio"/> Softening/Dissolving <input checked="" type="radio"/> Staining 	Poor	25	0.050	1.25
Pool Gutter Type/Style: Stainless Steel Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Broken Grating <input type="radio"/> Insufficient Channeling/Flow <input checked="" type="radio"/> Insufficient Rimflow <input checked="" type="radio"/> Flooding/Insufficient Capacity <input type="radio"/> Cracking <input type="radio"/> Spalling <input type="radio"/> Staining <input type="radio"/> Excessive Noise 	Failing	0	0.100	0.00
Main Drains Type/Style: Dual Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Missing/Broken Cover <input type="radio"/> Unsafe Fitting Condition 	Good	75	0.075	5.63
Return Inlets Type/Style: Wall Inlets Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Broken Fixture <input type="radio"/> Blocked/Non-Functioning 	Good	75	0.050	3.75
Piping Type/Style: PVC Issues/Problems: <ul style="list-style-type: none"> <input type="radio"/> Leaking <input type="radio"/> Corrosion <input type="radio"/> Unnecessary Connections <input type="radio"/> Inefficient Routing 	Poor	25	0.050	1.25

Metal Components

Filtration	Good	75	0.100	7.50
-------------------	------	----	-------	------

Type/Style: Pressure High-Rate Sand

Issues/Problems:

- | | |
|---|---|
| <input type="radio"/> High Operating Pressure | <input type="radio"/> Insufficient Capacity |
| <input type="radio"/> Low Operating Pressure | <input type="radio"/> Insufficient Flow |
| <input type="radio"/> Clogs/Debris | <input type="radio"/> Inoperable Valves |
| <input type="radio"/> Biological Growth | <input type="radio"/> Leaking Tank |

Circulation Pump	Good	75	0.050	3.75
-------------------------	------	----	-------	------

Type/Style: Centrifugal Impeller

Issues/Problems:

- | | |
|---|---|
| <input type="radio"/> Excessive Motor Heat | <input type="radio"/> Corrosion |
| <input type="radio"/> Excessive Motor Noise | <input type="radio"/> Insufficient Flow |
| <input type="radio"/> Leaking | |

Circulation Valves	Failing	0	0.075	0.00
---------------------------	---------	---	-------	------

Type/Style:

Issues/Problems:

- | | |
|--|-------------------------------------|
| <input type="radio"/> Inoperable - Closed | <input type="radio"/> Broken Handle |
| <input checked="" type="radio"/> Inoperable - Open | <input type="radio"/> Corrosion |
| <input checked="" type="radio"/> Limited Flow Adjustment | <input type="radio"/> Leaking |

Chemical Control	Good	75	0.050	3.75
-------------------------	------	----	-------	------

Type/Style: Chemtrol ORP and pH Automatic Chemical Controller

Issues/Problems:

- | | |
|--|--|
| <input type="radio"/> Inaccurate Disinfectant Readings | <input type="radio"/> Inaccurate pH Readings |
| <input type="radio"/> Control Flowswitch | <input type="radio"/> Alerts |

Chemical Storage and Safety	Poor	25	0.050	1.25
------------------------------------	------	----	-------	------

Type/Style: Detached Shed

Comments: Chemical containers co-mingled in general mechanical area

Issues/Problems:

- | | |
|--|--|
| <input type="radio"/> Insufficient Fire Protection | <input checked="" type="radio"/> Insufficient Spill Protection |
| <input checked="" type="radio"/> Lack of Chemical Separation | <input checked="" type="radio"/> Inoperable Air Evacuation |
| <input type="radio"/> MSDS Not Present | <input type="radio"/> Missing/Inoperable Eyewash Station |
| <input type="radio"/> Leaking Containers (Liquids) | <input type="radio"/> Missing Personal Protective Equipment |
| <input type="radio"/> Spilled Containers (Powders/Solids) | <input type="radio"/> Open Containers / Exposure to Fumes |

Primary Disinfection	Fair	50	0.050	2.50
-----------------------------	------	----	-------	------

Type/Style: Sodium Hypochlorite

Comments: Numerous unsecured/unfastened flexible chemical lines

Issues/Problems:

- | | |
|--|--|
| <input type="radio"/> Hazardous Injection Location | <input type="radio"/> Leaking |
| <input type="radio"/> Hazardous Conveyance Methods | <input type="radio"/> Lack of Automation |

Supplemental Disinfection	Failing	0	0.075	0.00
----------------------------------	---------	---	-------	------

Type/Style: None

Chemical Balance	Good	75	0.050	3.75
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Type/Style: Carbon Dioxide

Issues/Problems:

- Hazardous Injection Location
- Hazardous Conveyance Methods
- Leaking
- Lack of Automation

Pool Water Heating	Good	75	0.050	3.75
---------------------------	------	----	-------	------

Type/Style: Building Boiler Heat Exchanger

Issues/Problems:

- Corrosion
- Leaking
- Insufficient Heat

Total Pool Score			Weight	Score
Wading Pool			1.00	47.50

Observations - Total Evaluation Score	Total Pool Score	Weighted Value	Adjusted Score
Main Lap Pool	43.13	0.75	32.34
Therapy Pool	50.63	0.20	10.13
Wading Pool	47.50	0.05	2.38
Total Aggregated Evaluation Score			44.84

Recommendations

The following repairs or replacements are encouraged for immediate improvement of the aquatic center. These recommendations are needed, at a minimum, to allow the facility to operate more efficiently and effectively and provide a safe, healthy, and beneficial experience to facility users.

Aquatic amenities and components have been observed and considered for recommendations for improvement. Elements of the facility beyond the aquatic components, such as site, building, and building mechanical components, are excluded from the analysis of this report.

Replace All Valves and Mechanical Room Piping

\$95,000.00 to \$135,000.00

Staff reports circulation control valves are stuck in place and unable to be adjusted or closed. The adjustment of piping valves is crucial to the operation and maintenance of the pool and pool systems. Without the ability to adjust the circulation valves the flow of water is not able to be optimized and quality of water turnover could be impacted. Further, without the ability to fully close and open valves routine repairs and replacements of equipment and components of the pool systems becomes extremely difficult, and likely impossible without complete shutdown of the pool. All failing piping valves should be replaced with new butterfly circulation valves.

The mechanical room piping should be replaced at the time of valve replacement. Reports of increasing difficulty when tapping or modifying pool mechanical room piping is an indication of deterioration and a potential for future leaking issues.

Replace Vacuum Sand Filter with Regenerative Media System

\$250,000.00 to \$325,000.00

The current lap pool filtration system operates under the principle of pulling the pool water through a bed of sand. Small particles and debris are intended to be trapped and lodged in the small spaces and crevices between grains of sand. The circulation pump is located downstream from the filter; therefore, the bed of sand is on the vacuum side of the pump. This style of filtration is not capable of providing the flow rates of other more modern filtration systems in a comparable footprint in the mechanical room. This filter also requires a periodic halt in the flow of water through the filter, to provide an opportunity for the bed of sand to settle and avoid channeling and other problems. These factors combine to restrict the circulation system from achieving higher flow rates. Overtime as the system encounters problems, pumps grow inefficient, piping restrict flow with scale, or other factors reduce flow the system is more likely to fail to achieve the required turnover rate.

The main lap pool, with the largest volume of water in the facility, would benefit from the use of a regenerative media system. Regenerative media filters are located on the pressure side of the circulation pump and push water through perlite media. Perlite media is an excellent filtration material and can be commonly found in the beverage industry. The automated "bump" cycle of the system regenerates the used media to extend the lifespan of a media cycle. This process greatly reduces the amount water consumed to flush the system, and cost savings due to this lower water consumption are seen in water, chemical and heating expenses. Regenerative media filters typically represent a higher capital cost than sand filtration methods. Lower annual operating expenses offset these capital costs.

Construct Surge Tanks

\$275,000.00 to \$375,000.00

The function of pool perimeter gutters is one of the most important aspects of pool design. Gutters are intended to skim only the very top of the pool water from the rest of the pool. The majority of the contamination and unwanted material in a pool, such as body oils, greases and bacteria, reside at the surface of the water. Continuously removing this part of the water and sending it to the filtration and water treatment systems is crucial to maintaining a clean and healthy pool.

The current pool perimeter gutters are intended to be “surge” gutters. The function of this type of gutter is to skim the water surface and remove it from the rest of the pool, and to provide surge capacity for changes in the water level of the pool. There is little to no surge capacity in any other area of the pool systems. When numerous swimmers enter the pool or there is a highly dynamic activity in the pool, the gutters are flooded and do not function properly as a skimming mechanism or even a water removal system. Pool water traverses over the perimeter gutters and spills across the pool deck. The pool deck drains carry this water to waste, and the expense of chemical treatment and heating this water is wasted as well. Flooded pool gutters are a common occurrence at the facility and represents a non-functioning gutter system.

The three pool systems should operate with the capacity to hold enough surge water from high use in the pool to prevent the failure of the perimeter gutters. Construction of surge tanks will allow the water from the gutter to flow to a holding tank with enough excess volume to accommodate the usage of the pool at maximum capacity. These surge tanks will be regulated with automatic valves and prevent excess water from remaining in the gutters.

Replace Pool Plaster Finish

\$80,000.00 to \$125,000.00

The current pool aggregate plaster finish is badly deteriorated in all areas of the pool. The plaster is discolored, chipping, and spalling. Given the young age of the plaster, errors in application may be responsible for the current condition.

The plaster will continue to deteriorate over time. Aside from an unsightly appearance, chipping and cracking plaster may develop rough or sharp surfaces. Removal of the failing plaster and application of a new plaster finish is required to restore the pool to its proper condition.

Replace Chemical Controllers

\$30,000.00 to \$55,000.00

Staff reports difficulty maintaining some chemical levels, and, in particular, the system has been known to overfeed. This is indicative of issues is a lack of control of the chemical automation system. Responsiveness of the chemical control, or possibly accuracy of the chemical probes, is a likely concern. Further, staff would be greatly assisted with an improved ability to set alert levels and be notified remotely of high or low indicators, equipment failures, and other alarms. New chemical control units provide greatly enhanced features giving facility operators improved control over the function and monitoring of the pool water chemistry.

Install UV Sanitation Systems

\$100,000.00 to \$175,000.00

Currently only one of the three pool systems, the therapy pool, incorporates ultraviolet light as a supplementary sanitation method. Supplementary sanitation, a secondary method of disinfecting the pool water beyond maintaining a residual of chlorine in the water, is growing in importance. The resistance of bacteria and other pathogens to traditional disinfection methods is growing and a greater understanding of the contaminants in pool water is calling for secondary disinfection methods.

Complete Pool Replacement

The previously discussed recommendations are necessary to maintain the aquatic components of the facility in proper working order. When a significant capital investment is considered for components of an asset, the cost to replace the complete asset is often a valuable comparative consideration. Therefore, an estimated range of probable construction cost for the replacement of the all pools and associated pool systems with newly constructed pool vessels, pool piping and pool mechanical systems is provided below. For cost purposes, newly constructed pool vessels are assumed to be of the same type and size as the existing pool vessels and are supported by modern filtration and water treatment systems.

New 25-Yard by 25-Meter Competition Pool	\$920,000.00 to \$1,200,000.00
New Warm Water Therapy Wellness Pool	\$280,000.00 to \$400,000.00
New Children's Wading Pool	\$125,000.00 to \$175,000.00
Total Probable Cost of New Construction	\$1,325,000.00 to \$1,775,000.00

Appendix:

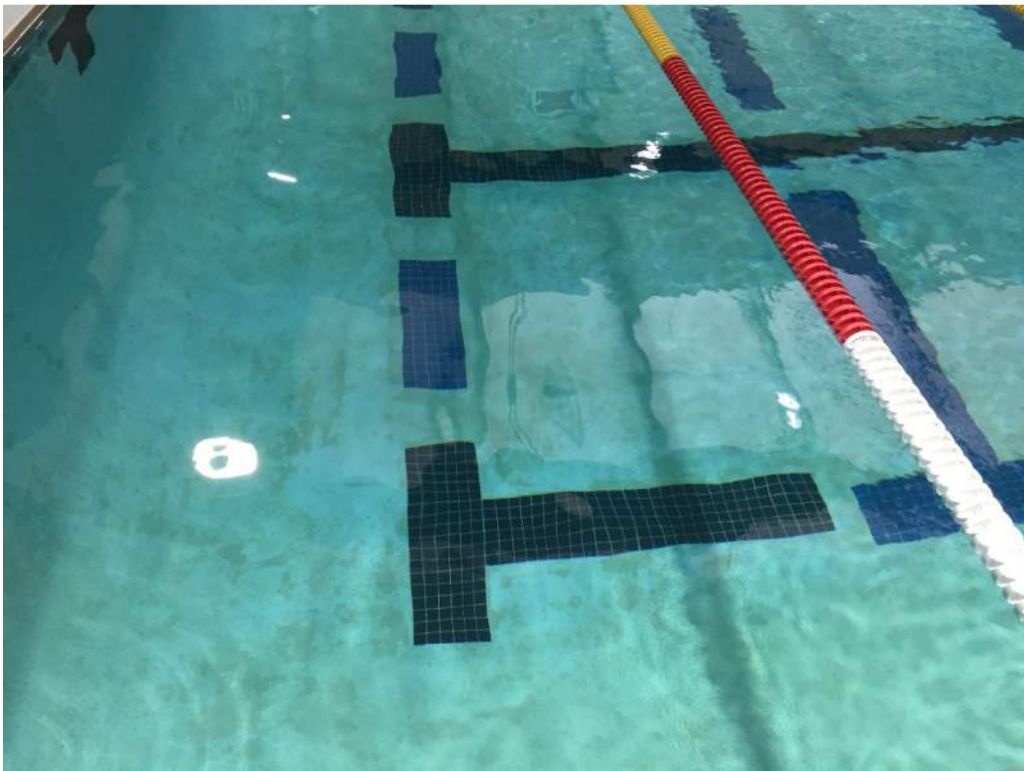
Site Observation Images

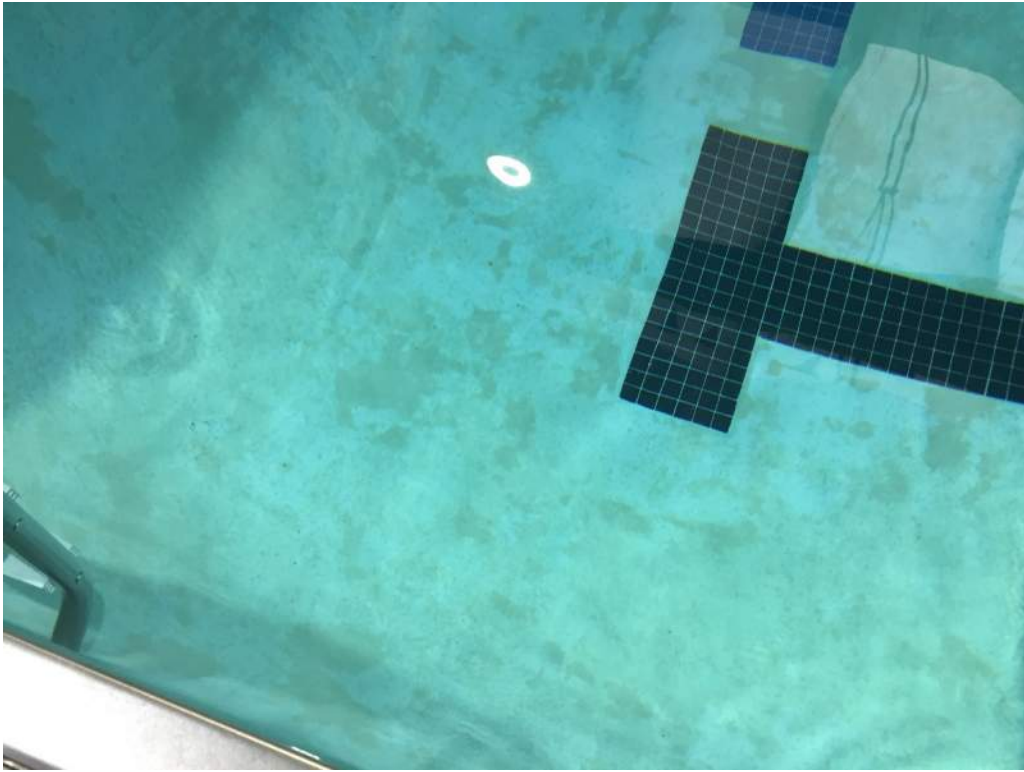
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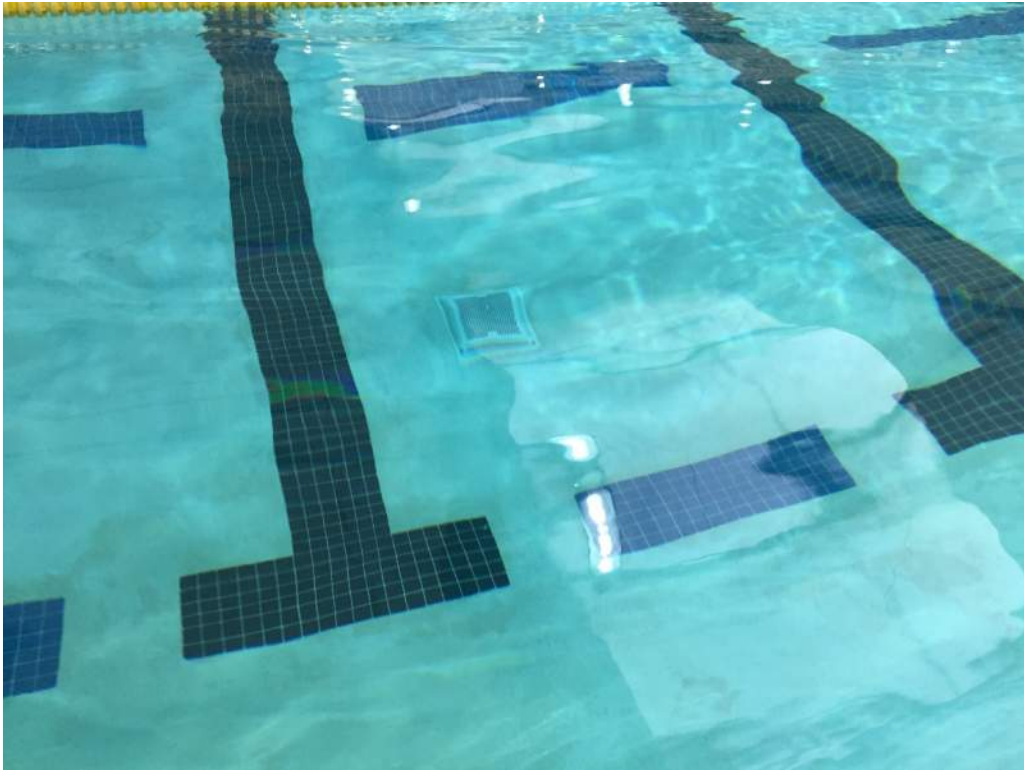








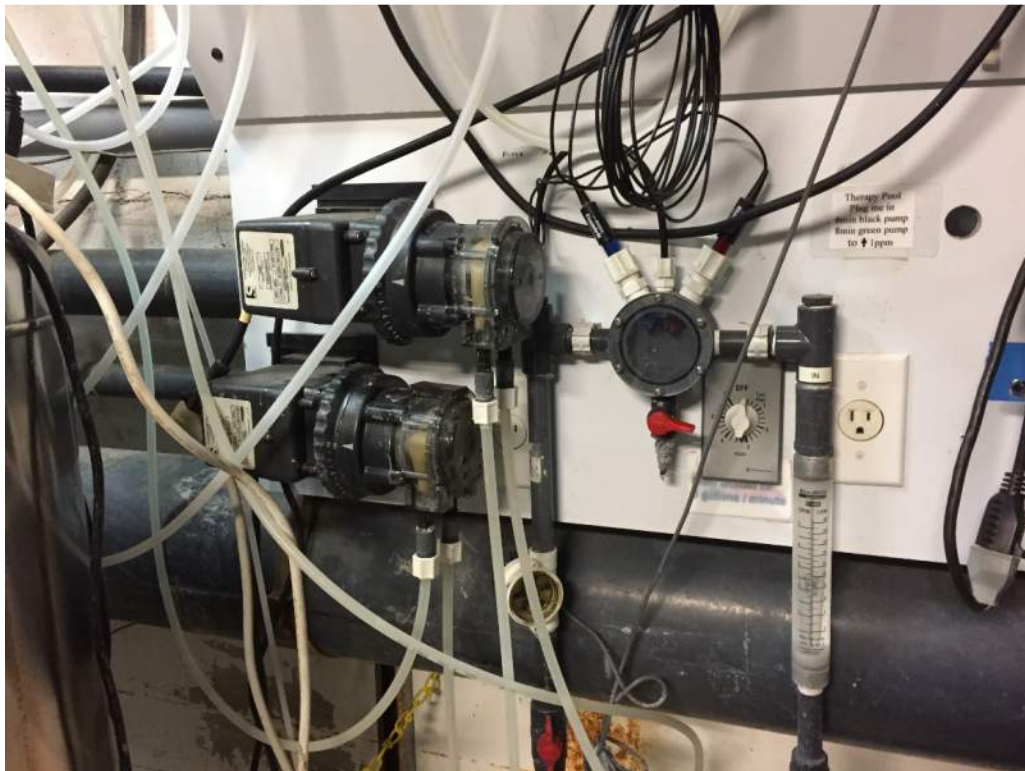
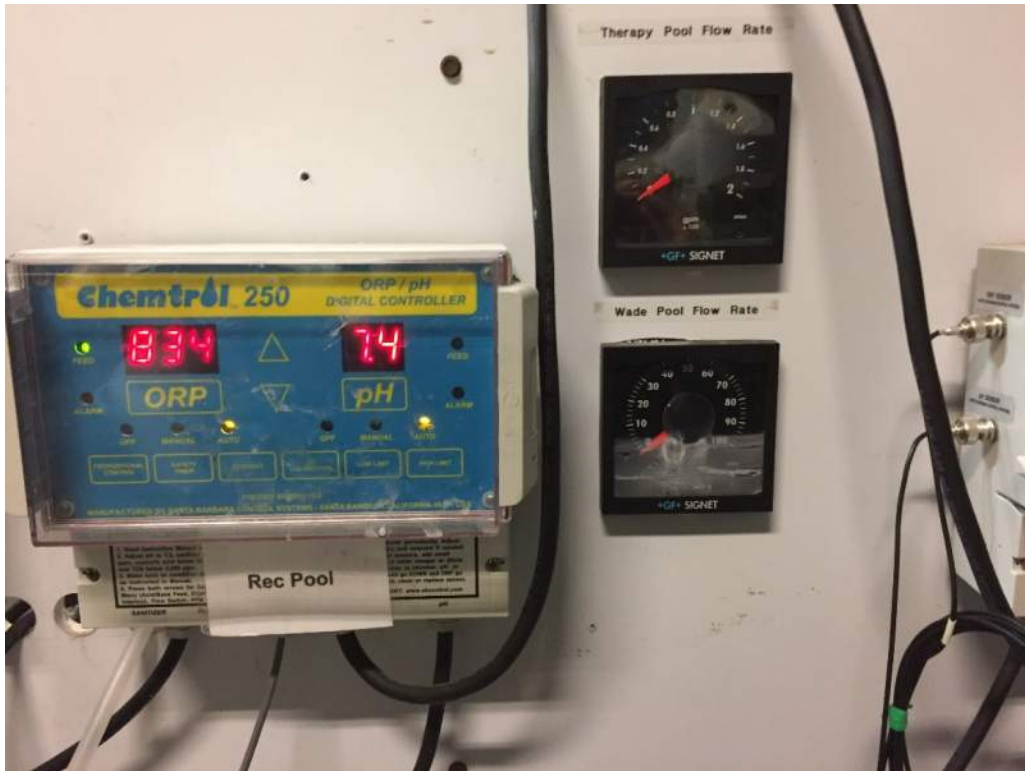


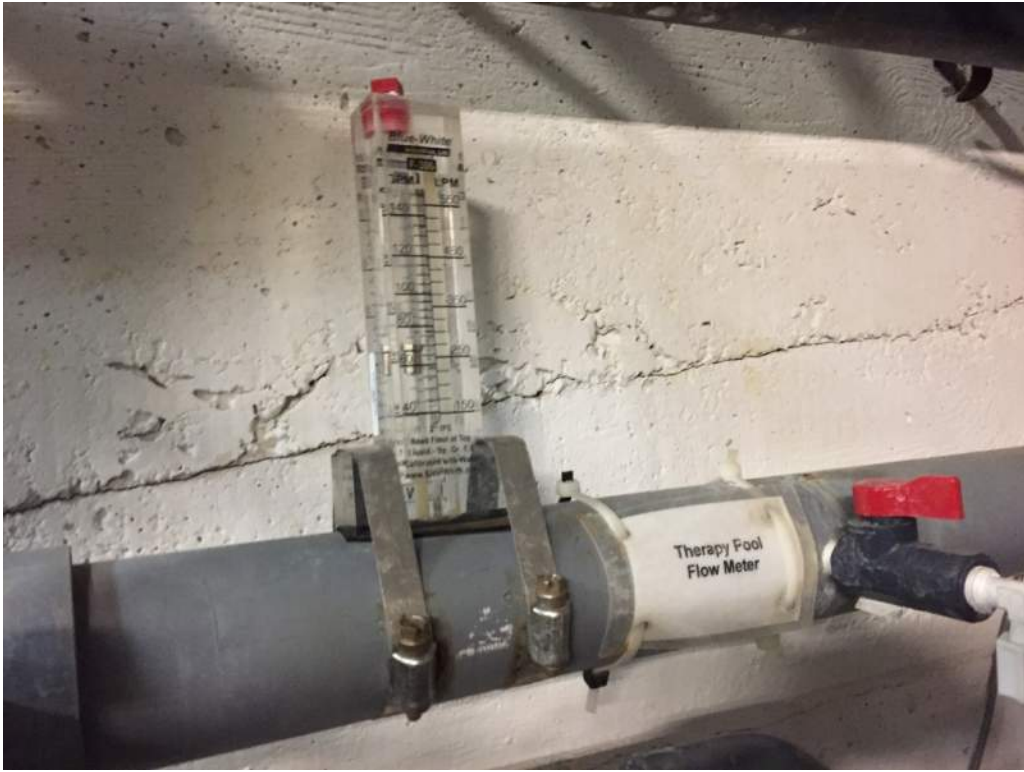












Site Assessment/Report

Hood River Pool Study
2017-0067

Prepared for:

Opsis Architecture

Prepared by:

Andy Frichtl, PE, LEED AP
David Chesley, PE

February 24, 2017

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Mechanical

HVAC

- Lockers are served by gas furnaces but they are not operational. Mini split heat pumps provide heating/cooling for the lockers but they do not have code required outside air and exhaust. Doors are kept open to provide natural ventilation as a stop gap measure.
- Upper office has split gas furnace/AC unit which is on the verge of failing any time.
- The lobby gas furnace is operating but the controller has failed.
- There is a mix of programmable thermostats and Johnson Metasys controls for the building.
- The pool HVAC unit has an air handler with heat wheel and gas furnace injection with four stages. One stage has failed and the pool enclosure gets cold.
- Attic areas have had moisture issues with water accumulation so attic exhaust fans run 24/7 to remove some moisture.
- Manual pool covers are installed every night for energy/water conservation.

Fire Sprinkler

- The facility has sprinklers in the pool only and is combined with the domestic supply. That does not meet current fire codes.

Plumbing

- Water piping is corroding, causing valves to stick open.
- Pool hot water is provided from a gas fire boiler with storage tank, supplemented by solar thermal panels. Heat exchangers for each of the pools and spas are provided. The boiler is old and very inefficient.
- Domestic hot water is provided by a gas fire water heater.

Electrical

Electrical

- Covered structure is served by an outdoor padmount transformer to a 480Y/277-volt, 3-phase, 4-wire switchboard that has a UL Class L fused main, with breakers for serving panelboards and large HVAC loads. It is located on the west exterior face of the building. There are signs of rust on the surface cover of the switchgear, as well as around the breakers. The breakers should be tested to confirm they will operate properly during a fault, as they have been exposed to varying temperature and moisture during their 20+ years of service. The integrity of the grounding electrode system should be tested as well.
- In the pool equipment room on the east side of the building there is a 400-amp, 208Y/120-volt power panelboard used to supply power to the pumps, burners, and other equipment within the space, and served the main switchgear via a padmount 75kVA dry-type transformer located outside the building. The panel appears to be in good condition, and was installed in 1995.
- Lighting in the office area, attic level conference room and in the lockers are fluorescent-based and appear dated but in good condition. Controls in most places are by wall switch and predates occupancy sensor control.
- Next to the outdoor switchboard there is a lighting contactor box that previously contained the ballasts of the former HID high bays used in the indoor pool; they have since been replaced with LED-based high bays and are in great condition.

- Phone and telecom service comes in from north side of the building on an aerial messenger wire, terminated at network boxes on the outside of the building outside the office area.
- There are anecdotal reports of building occupants feeling a shock when they are using the pool. The impedance of the grounding system of the pool must be tested for compliance with the grounding and bonding rules of NEC Article 680 for swimming pools, and must be upgraded to eliminate risk of electric shock. Ground fault outlets and GFCI devices must be tested for UL compliance, and any devices not operating properly should be replaced.
- Emergency lighting consists of wall packs over exit signs. Two concerns are that the batteries are likely at the end of their operational life, and also that emergency lighting is limited to around the exits. In other words, there is no overhead emergency lighting to provide one footcandle of illumination along walkways around the pools.
- We recommend that a central battery or small diesel generator be considered for emergency power so that overhead lighting may be on central backup, and one footcandle of lighting can be provided along the walkways for safety.
- Fire alarm headend: addressable Simplex 4002 fire alarm control panel with Silent Knight autodialer. Most notification appliances have been upgraded to ADA strobes, though some do require replacement to meet current code.
- Pricing should be provided for a music-level quality speaker system for the swimming area.

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April 26, 2017

Mr. Mark Stoller
opsis architecture LLP
920 NW 17th Avenue
Portland, OR 97209

Project: Hood River Pool Study
catena project number: 2017020.00

Dear Mark:

We conducted a review of the Hood River Pool facility located at 1601 May Street in Hood River, Oregon. We reviewed the general condition of the existing. It is our understanding that the Hood River Valley Parks & Recreation District may expand the facility or find another site suitable for a larger facility.

Our report is based on a site walkthrough conducted February 15, 2017 and review of the available original structural drawings. The following drawings were available at the time of our evaluation:

- Outdoor Pool Renovation drawings A-2 through A-6 and S-1 through S-2 dated August 16, 1993 by Arthur Larsen Architect and VLMK Engineers.
- Pool Cover Building drawings A-0 through A8.1 and S1.1 through S2.2 dated November 22, 1994 by Arthur Larsen Architect and Endex Engineering.

Building Description

The Hood River Pool facility consists of a two-story lobby and locker room facility above a basement pool equipment room and adjacent to the pool arena. The pool arena is enclosed by a fabric pool cover supported by pre-manufactured aluminum frames. Original structural drawings for the pool cover are unavailable. The arena measures 145' x 128' in plan. The lobby measures 128' x 45' in plan. The lobby is constructed of typical wood framed construction. Original lobby structural drawings are unavailable. The pool equipment room appears to have been constructed in the early 20th century. Original pool equipment room structural drawings are unavailable.

The majority of the floor is a concrete slab-on-grade. The floor above the pool equipment room is cast-in-place concrete and pan joists per discussions with staff on site. The structure was not visible during the walkthrough and limited information is contained in the available drawings.

a connected series of related elements

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Summary

The following items were observed during our walkthrough and document review of the building:

1. Basis of design for the pool arena and pool cover is the 1988 Uniform Building Code.
2. CMU separation wall has limited anchorage to the building structure and cantilevers above the lobby roof.
3. Water intrusion apparent at the intersection of the lobby roof and CMU wall. See Photo 1.
4. Corrosion apparent at the base conditions of the aluminum frames. See Photo 2.
5. Missing nuts and washers anchoring the aluminum frames to their foundations. See Photo 2.
6. Corrosion apparent within the pool equipment room.
7. Fabric cover has exceeded its life per pool staff. Fabric is torn and sagging in multiple locations. See Photo 3 and 4.
8. Entry points to the pool arena allow weather to easily migrate into the enclosure.

In our opinion, the building is structurally acceptable to remain as pool facility. The observed deterioration is typical of a building of this vintage and construction. The items identified can be corrected through established maintenance and upkeep. Any addition or modification to the building structure will likely require strengthening of the structural elements. The building code has changed significantly since the building's original construction. Code changes will likely trigger strengthening of the existing structure should an addition or modification occur to the original building.

April 26, 2017

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catena project number: 2017020.00

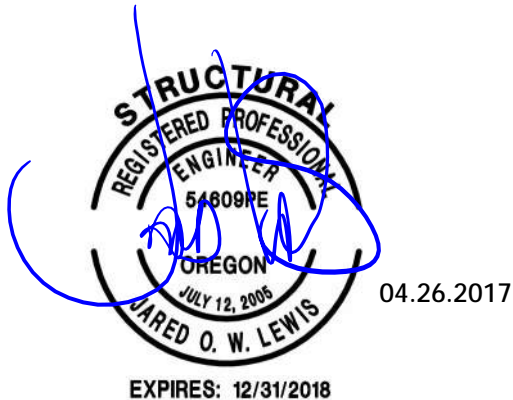
Limitations

The opinions and recommendations presented in this report were developed with the care commonly used as the state-of-practice of the profession. No other warranties are included, either expressed or implied, as to the professional advice included in this report. This report has been prepared for Opsis Architects to be used in developing a due diligence report for the Hood River Valley Parks & Recreation District. This report has not been prepared for use by other parties and may not contain sufficient information for purposes of other parties or uses.

If you have any comments or questions, please call.

Sincerely,

catena consulting engineers



Jared O. W. Lewis, SE, PE
Principal

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April 26, 2017

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Photo 1: Moisture intrusion at the intersection of the lobby roof and CMU wall.

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Photo 2: Corrosion and missing fasteners.

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Photo 3: Damaged and repaired pool cover.

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catena project number: 2017020.00



Photo 4: Stretched and sagging pool cover.

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Hood River Valley Parks and Recreation
Aquatic Center Feasibility Study

3. PROGRAM ANALYSIS

Focus Group Interviews

Ballard * King Market Review

Program Options

MEETING MINUTES

Meeting Name: Focus Group 1 – Water Aerobics / Therapy Pool Users / Physical Therapists

Project Name: HRVPRD Aquatic Study

Project Number: 4677-01

Submitted By: Mark Stoller

Meeting Date: 01.25.17

Attendees: **Hillsboro Parks and Recreation District**
 Mark Hickok, HRVPRD Director
 Marcie Wily, HRVPRD Assist. Director
 Donna Hollen, Water Aerobics
 Elaine Simpson, Water Aerobics
 Carolou Hurlbert, Water Aerobics
 Thomas Fuss, Physical Therapist and Kayak Inst.
 Annette Broddie, Physical Therapist

Opsis Architecture
 Jim Kalvelage
 Mark Stoller

Ballard*King
 Kenn Ballard

Water Tech Inc
 Ryan Nachreiner

Distribution: All Attendees

Attachments:

This represents my understanding of the discussions during the Meeting. Revisions by participants should be communicated to Opsis Architecture.

The purpose of the **Focus Group 1- Water Aerobics/Therapy Pool Users/Physical Therapists** was to review how each group uses the pool, what currently works well and what improvements they would recommend.

Program Info:

- Aerobic Classes
 - M,W,F 30 swimmers in therapy and lap pool
 - T, Th 10-20 swimmers in therapy pool

Adequate function of current pool:

- Access to therapy pool.
- Shallow depth (3'-0" – 4'-0") works well of youth swim lessons.
- Central location.
- Open air in summer with views, but needs sun protection.
- Therapy pool warm water for kids.

Improvements for Aquatic Activities:

- New roof cover
- Water temp in lap pool could be warmer.
- Bench in therapy pool for exercises and general sitting.

- Ramp into therapy pool and better lift access.
- Motorized massage table at pool side for therapy activities.
- Locker rooms too small and limited privacy – need individual changing rooms.
- Pool side storage for therapy gear.
- Parking.
- Power assist entry doors.

Improvements / Additions of Non-Water Activities (Dry-side):

- On-Deck area for physical therapy adjacent to pool.
- Additional party room.
- After swim gathering areas for coffee – existing lobby too small.
- Mirrors at pool edge for whitewater roll classes.
- Spin Bike area for triathlete training.

Location of Facility:

- Current location is very central to Hood River and works well for K-12 programs.
- Many travel from The Dalles and Washington for programs.
- Parking could be improved with alternative facility location.

End of Meeting Minutes

MEETING MINUTES

Meeting Name: Focus Group 2 – High School and Club Use

Project Name: HRVPRD Aquatic Study

Project Number: 4677-01

Submitted By: Mark Stoller

Meeting Date: 01.25.17

Attendees: **Hillsboro Parks and Recreation District**
Mark Hickok, HRVPRD Director
Marcie Wily, HRVPRD Assist. Director
Kellie Dunn, HRVHS Water Polo Coach
Shelly Rawding, HRV Swim Team Coach
David Cameron, HRV Water Polo Couch

Opsis Architecture
Jim Kalvelage
Mark Stoller

Ballard*King
Kenn Ballard

Water Tech Inc
Ryan Nachreiner

Distribution: All Attendees

Attachments:

This represents my understanding of the discussions during the Meeting. Revisions by participants should be communicated to Opsis Architecture.

The purpose of the **Focus Group 2- High School and Club Use** was to review how each group uses the pool, what currently works well and what improvements they would recommend.

Program Info:

- High School Water Polo – Boys and Girls
 - Fall Sport – Mid-Aug. to Mid-Nov.
 - 60 students.
 - 1 home and 1 away match weekly during season.
 - Practice during season – M,W, F
 - Both bleacher full for home matches.

- HRV Water Polo Club – Boys and Girls
 - Club is 4 years old and growing.
 - Coed 14 yrs and younger – 100 kids in program.
 - Season – January thru May.
 - K-8 practice during high school season.
 - Compete with clubs from Tualatin Hills, Newberg, MHCC, Empire.

- HRV Swim Club
 - HRV Swim Team.

- Columbia Gorge Masters – 50 swimmers.
- Fall swim meet – 350 participants.
- Spring swim meet – 225 participants.
- Master swim meet – 90-100 participants.

Adequate function of current pool:

- 25 meter x 25 yrd pool size.
- Deep water for polo.
- Open air in summer – lap swimmers pick sun lanes first.
- Good ventilation.

Improvements for Aquatic Activities:

- Parking for swim meets.
- Pool side storage. – too much equipment on pool deck.
- Interior and exterior lighting.
- More deep water for polo and diving – 6'-0" required to teach diving for swim teams.
- Additional deck space for meets.
- Spectator seating needs to be on the sides of pool, not at the ends.
- Power outlets at pool side.
- Flip location of lap pool and therapy pool - therapy pool should be closer to locker rooms for kids and seniors. This would also help reduce the number of nets required to protect swimmers from water polo balls.
- Larger locker rooms - very congested during swim meets.
- More visible scoreboard for polo.
- Acoustics – very loud during practice and swim meets.

Improvements / Additions of Non-Water Activities (Dry-side):

- Room for weight training – Juniper Pool in Bend is good example.
- Larger lobby and a faster payment system – lobby get very congested.

Location of Facility:

- Current location is very central to Hood River.
- High School could use their own pool.
- Closing pool for renovation would create significant programming challenges and extra travel time to other pools in The Dalles or Washington.

End of Meeting Minutes

MEETING MINUTES

Meeting Name: Focus Group 3 – Family Users and Regular Lap Swimmers

Project Name: HRVPRD Aquatic Study

Project Number: 4677-01

Submitted By: Mark Stoller

Meeting Date: 01.25.17

Attendees: **Hillsboro Parks and Recreation District**
 Mark Hickok, HRVPRD Director
 Marcie Wily, HRVPRD Assist. Director
 Scott _____, Swimmer
 Leah Cain, Parent and Swimmer
 Stephanie Kunkler, Parent and Swimmer
 Stacy Claws, Parent and Swimmer
 Angelica Sanchez, Parent and Swimmer

Opsis Architecture
 Jim Kalvelage
 Mark Stoller

Ballard*King
 Kenn Ballard

Water Tech Inc
 Ryan Nachreiner

Distribution: All Attendees

Attachments:

This represents my understanding of the discussions during the Meeting. Revisions by participants should be communicated to Opsis Architecture.

The purpose of the **Focus Group 3 – Family Users and Regular Lap Swimmers** was to review how each group uses the pool, what currently works well and what improvements they would recommend.

Adequate function of current pool:

- Open year around
- Central location.
- Open air in summer – cross winds can be challenging.
- Therapy pool warm water is good for kids.

Improvements for Aquatic Activities:

- Community Center functions – fitness, weights, child care, multi-purpose rooms.
- Zero entry at wading pool for toddlers.
- Family changing rooms
- Cost is expensive for lower income families.
- Toilet at therapy and wading pools – long walk/run to locker rooms from far end of pool.
- Acoustics – very loud when full or swimmers.

Improvements / Additions of Non-Water Activities (Dry-side):

- See comment above about Community Center.
- Fitness activities. Private gyms and fitness centers are expensive.
- Community Ed program through School District are maxed out with little vacancy – more space needed.
- Additional multipurpose rooms for parties and gatherings.

Location of Facility:

- New location within 2-3 miles of current would not impact usage. Most families drive to facility.

End of Meeting Minutes

MARKET REVIEW

*Hood River Valley Park & Recreation District
Hood River Aquatic Center Study*



Section I – Market Review

Ballard*King & Associates, as part of the Opsis Architecture project team, has been tasked with completing a market review for the possible renovation and expansion of the Hood River Aquatic Center for the Hood River Valley Park and Recreation District.

Demographics

The following is a summary of the basic demographic characteristics of the identified service areas along with aquatic participation rates as produced by the National Sporting Goods Association.

B*K accesses demographic information from Environmental Systems Research Institute (ESRI) who utilizes 2010 Census data and their demographers for 2016-2021 projections. In addition to demographics, ESRI also provides data on housings, recreation, and entertainment spending and adult participation in activities.

Service Area: The existing aquatic center first and foremost serves the needs of the Hood River Valley Park and Recreation District. However, it also serves a much wider market that is marked by Cascade Locks on the west, The Dalles on the east, Trout Lake, Washington on the north and Parkdale to the south. As such this has been identified as the Primary Service Area.

Primary Service Areas are usually defined by the distance people will travel on a regular basis (a minimum of once a week) to utilize an aquatics center or its programs. Use by individuals outside of this area will be much more limited and will focus on special activities or swim meets.

Service areas can vary in size with the types of components in the facility. An aquatic facility with unique elements (water slides, zero depth entry, lazy river, therapy pool) will have a larger service area than a traditional, flat-water, rectangular shaped pool.

Service areas can flex or contract based upon a facility's proximity to major thoroughfares. Other factors impacting the use as it relates to driving distance are the presence of alternative service providers in the service area. Alternative service providers can have an effect on annual pass sales, daily admissions and the associated penetration rates for programs and services.

MARKET REVIEW

*Hood River Valley Park & Recreation District
Hood River Aquatic Center Study*



Table A – Service Area Comparison Chart:

	Hood River Valley District	Primary Service Area
Population:		
2010 Census	21,194 ¹	62,347 ²
2016 Estimate	22,514	65,628
2021 Estimate	23,652	68,348
Households:		
2010 Census	7,725	24,282
2016 Estimate	8,237	25,505
2021 Estimate	8,675	26,543
Families:		
2010 Census	5,352	16,335
2016 Estimate	5,647	17,006
2021 Estimate	5,916	17,623
Average Household Size:		
2010 Census	2.64	2.51
2016 Estimate	2.64	2.51
2021 Estimate	2.64	2.52
Ethnicity (2016 Estimate):		
Hispanic	33.1%	22.2%
White	81.5%	84.4%
Black	0.5%	0.6%
American Indian	0.9%	1.5%
Asian	1.5%	1.2%
Pacific Islander	0.2%	0.4%
Other	12.3%	8.6%
Multiple	3.0%	3.2%
Median Age:		
2010 Census	37.9	40.6
2016 Estimate	39.1	41.8
2021 Estimate	40.2	42.8
Median Income:		
2016 Estimate	\$56,376	\$49,085
2021 Estimate	\$65,187	\$55,120

¹ Between the 2000-2010 Census, the Hood River Valley Park & Rec. District experienced a 9.9% increase in population.

² Between the 2000-2010 Census, Primary Service Area experienced an 8.0% increase in population.

MARKET REVIEW

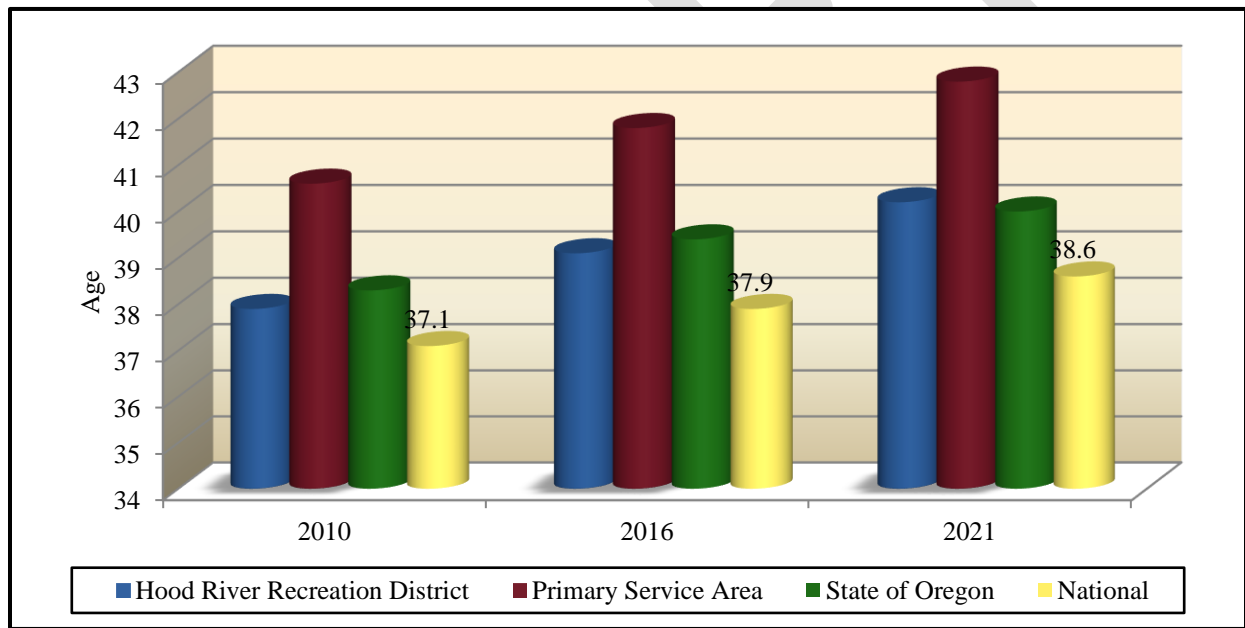
*Hood River Valley Park & Recreation District
Hood River Aquatic Center Study*

Age and Income: It is important to compare the median age and median household income levels to the state and national levels. Age and income are primary determiners of participation in recreation activities. The lower the median age, the higher the participation rates are for most activities. The level of participation also increases as the median income level goes up.

Table B – Median Age:

	2010 Census	2016 Projection	2021 Projection
Hood River Rec. District	37.9	39.1	40.2
Primary Service Area	40.6	41.8	42.8
State of Oregon	38.3	39.4	40.0
National	37.1	38.0	38.7

Chart A – Median Age:



The median age in the Hood River Valley Park & Rec. District is lower than the National number and the State of Oregon. However, the median age in the Primary Service Area is higher than both the National and state numbers.

MARKET REVIEW
Hood River Valley Park & Recreation District
Hood River Aquatic Center Study



Households with Children: The following table provides the number of households and percentage of households in the Hood River Valley Park & Rec. District and Primary Service Area with children.

Table C – Households w/ Children

	Number of Households w/ Children	Percentage of Households w/ Children
Hood River Valley District	2,798	36.2%
Primary Service Area	7,669	31.6%

The information contained in Table-B helps further outline the presence of families with children. As a point of comparison in the 2010 Census, 30.1% of households in the State of Oregon had children present and 33.4% of households nationally.

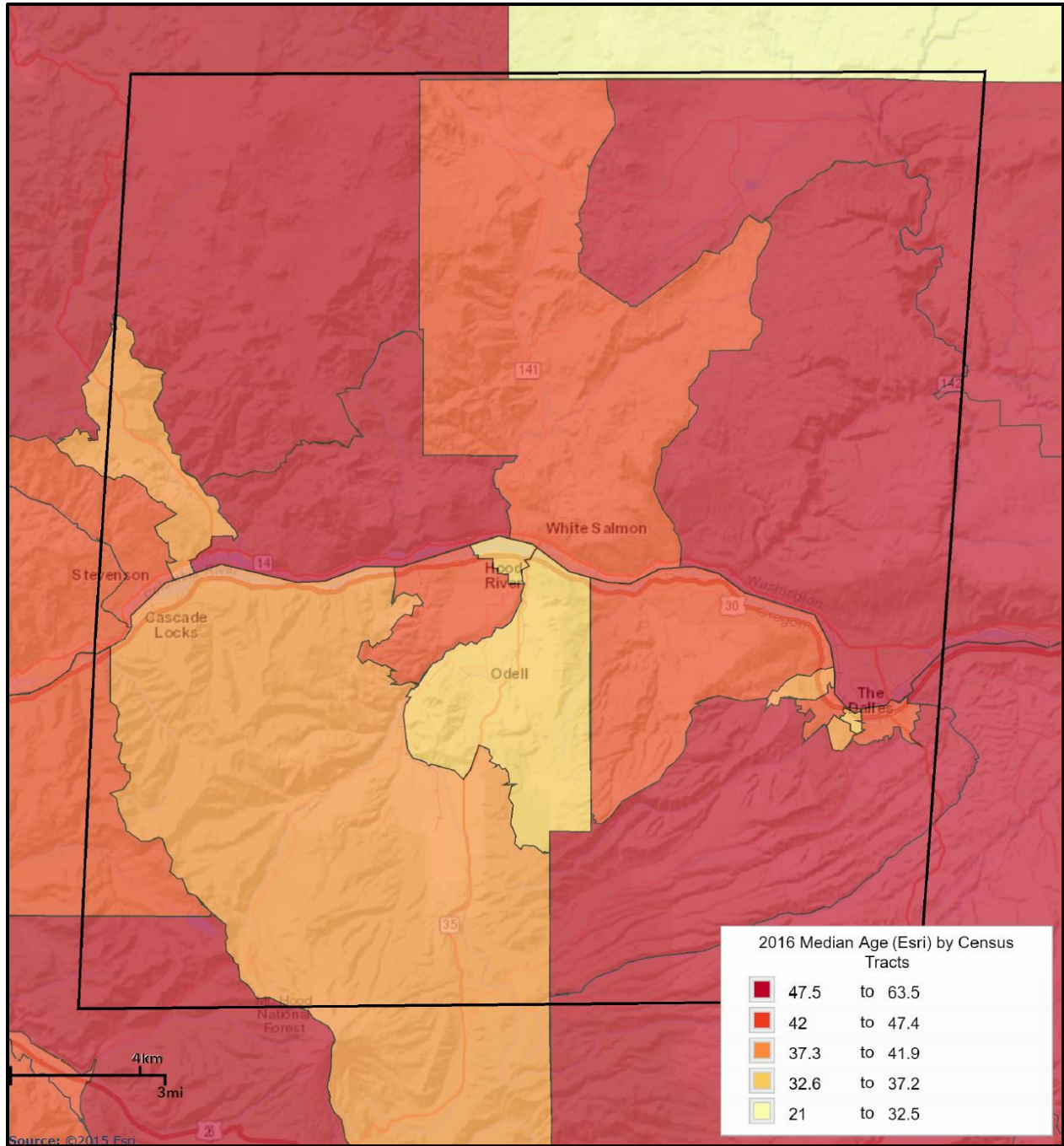
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Map A – Median Age by Census Tract



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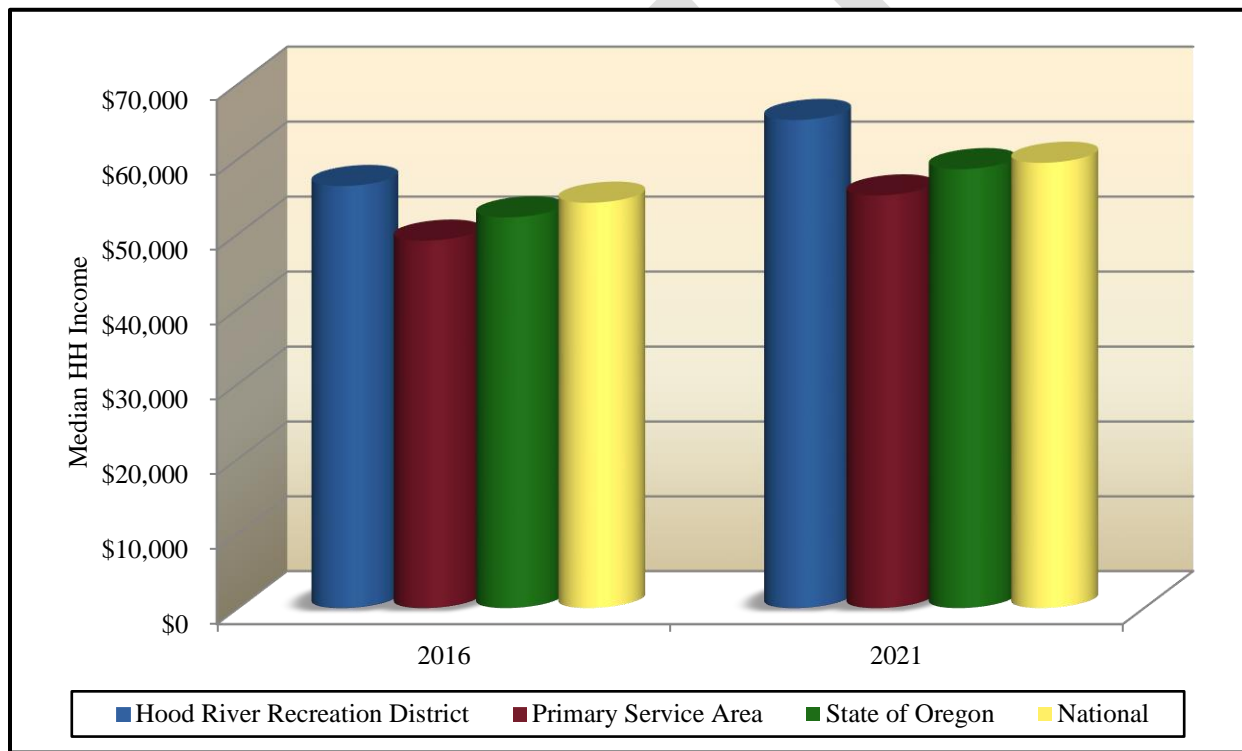
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Table D – Median Household Income:

	2016 Projection	2021 Projection
Hood River Valley District	\$56,376	\$65,187
Primary Service Area	\$49,085	\$55,120
State of Oregon	\$52,196	\$58,623
National	\$54,149	\$59,476

Chart B – Median Household Income:



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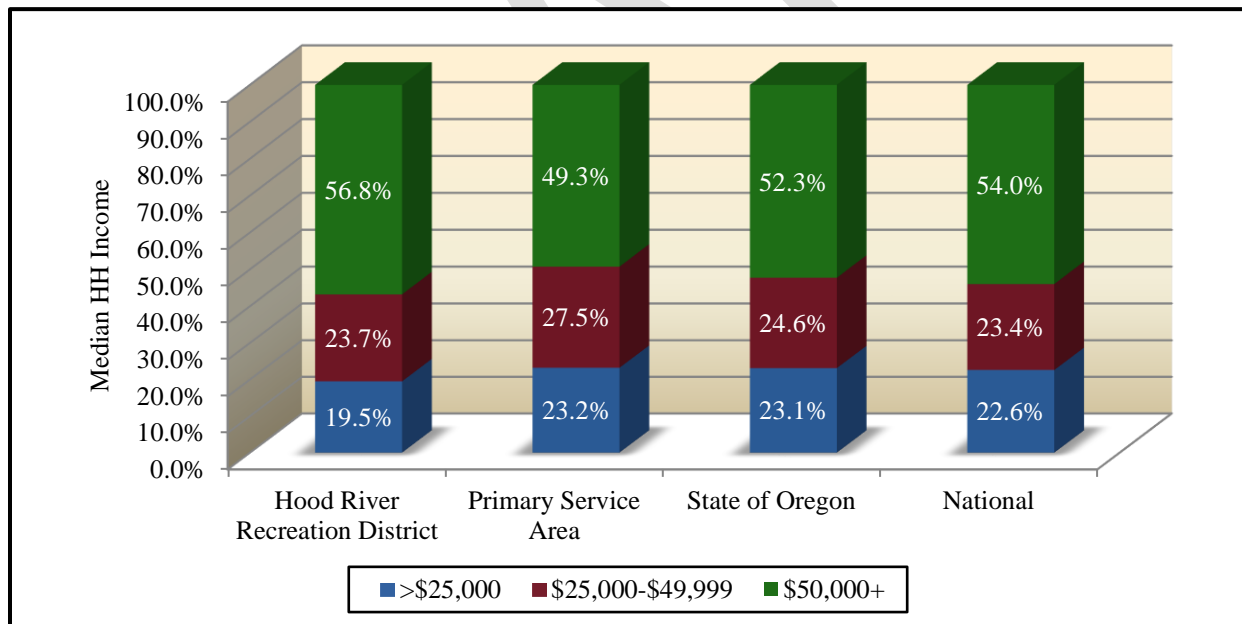
Based on 2016 projections for median household income the following narrative is available:

In the Hood River Valley Park & Rec. District, the percentage of households with median income over \$50,000 per year is 56.9% compared to 54.0% nationally. Furthermore, the percentage of the households in the service area with median income less than \$25,000 per year is 19.5% compared to a level of 22.6% nationally.

In the Primary Service Area, the percentage of households with median income over \$50,000 per year is 49.2% compared to 54.0% nationally. Furthermore, the percentage of the households in the service area with median income less than \$25,000 per year is 23.2% compared to a level of 22.6% nationally.

The median income in the Hood River Valley Park & Rec. District is greater than the National number, while the State of Oregon and Primary Service Area is lower than the National number. The income level must be balanced with the overall cost of living to determine ability to pay for entertainment and recreation services.

Chart C – Median Household Income Distribution

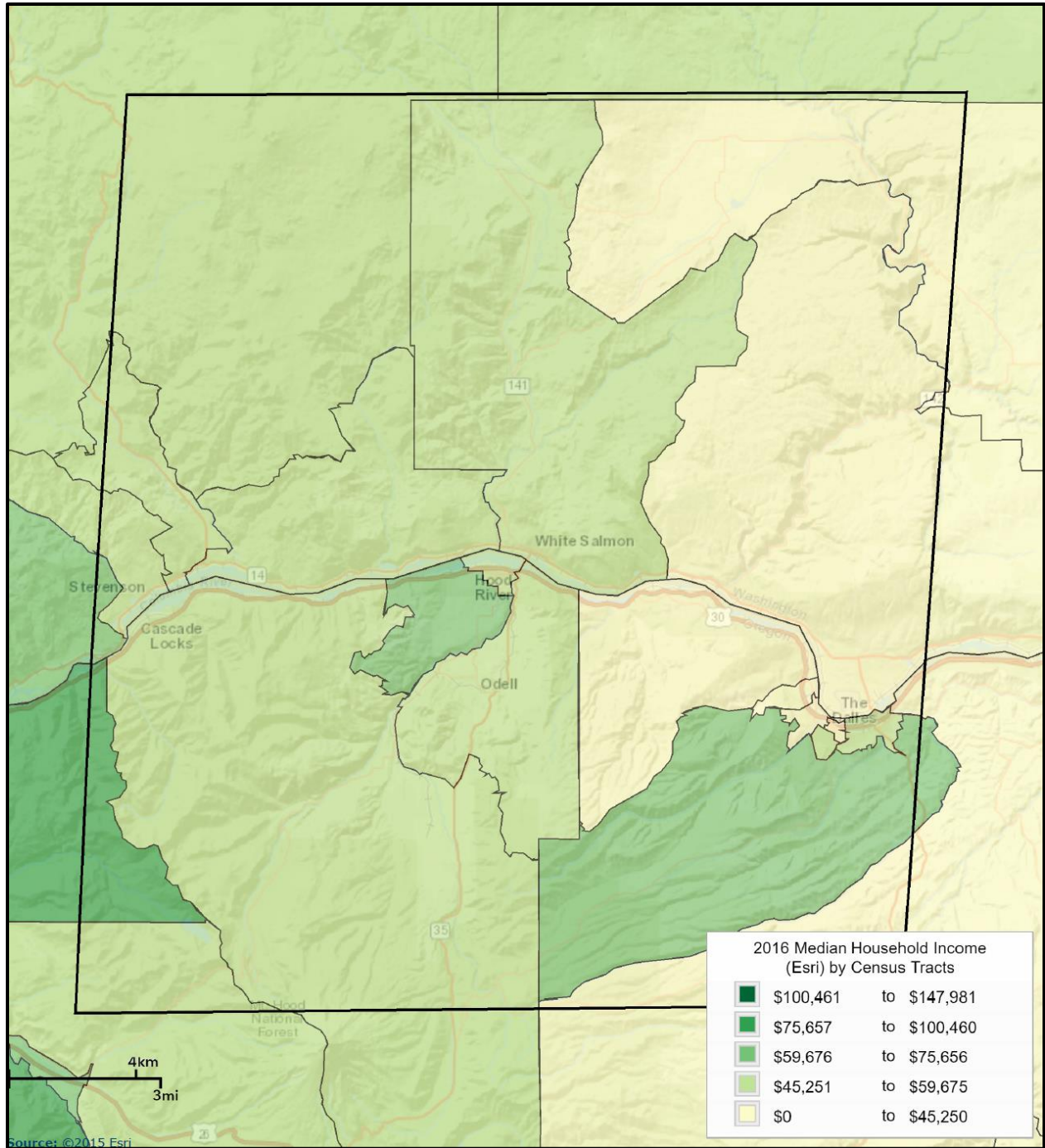


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Map B – Median Household Income by Census Tract



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Household Budget Expenditures: In addition to studying Median Age and Median Income, it is important to examine Household Budget Expenditures. In particular, looking at housing information; shelter, utilities, fuel and public services along with entertainment & recreation can provide a snapshot into the cost of living and spending patterns in the services areas. The table below looks at that information and compares the service areas.

Table E – Household Budget Expenditures³:

Hood River Valley Rec. District	SPI	Average Amount Spent	Percent
Housing	93	\$18,984.95	30.0%
<i>Shelter</i>	91	\$14,217.92	22.5%
<i>Utilities, Fuel, Public Service</i>	98	\$4,767.04	7.5%
Entertainment & Recreation	97	\$2,822.84	4.5%

Primary Service Area	SPI	Average Amount Spent	Percent
Housing	81	\$16,548.09	29.9%
<i>Shelter</i>	79	\$12,288.62	22.2%
<i>Utilities, Fuel, Public Service</i>	87	\$4,259.47	7.7%
Entertainment & Recreation	85	\$2,484.28	4.5%

State of Oregon	SPI	Average Amount Spent	Percent
Housing	93	\$18,946.14	30.9%
<i>Shelter</i>	93	\$14,430.01	23.6%
<i>Utilities, Fuel, Public Service</i>	93	\$4,516.13	7.4%
Entertainment & Recreation	93	\$2,701.08	4.4%

SPI: Spending Potential Index as compared to the National number of 100.

Average Amount Spent: The average amount spent per household.

Percent: Percent of the total 100% of household expenditures.

Note: Shelter along with Utilities, Fuel, Public Service are a portion of the Housing percentage.

³ Consumer Spending data are derived from the 2004 and 2005 Consumer Expenditure Surveys, Bureau of Labor Statistics. ESRI forecasts for 2016 and 2021.

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Chart D – Household Budget Expenditures Spending Potential Index:

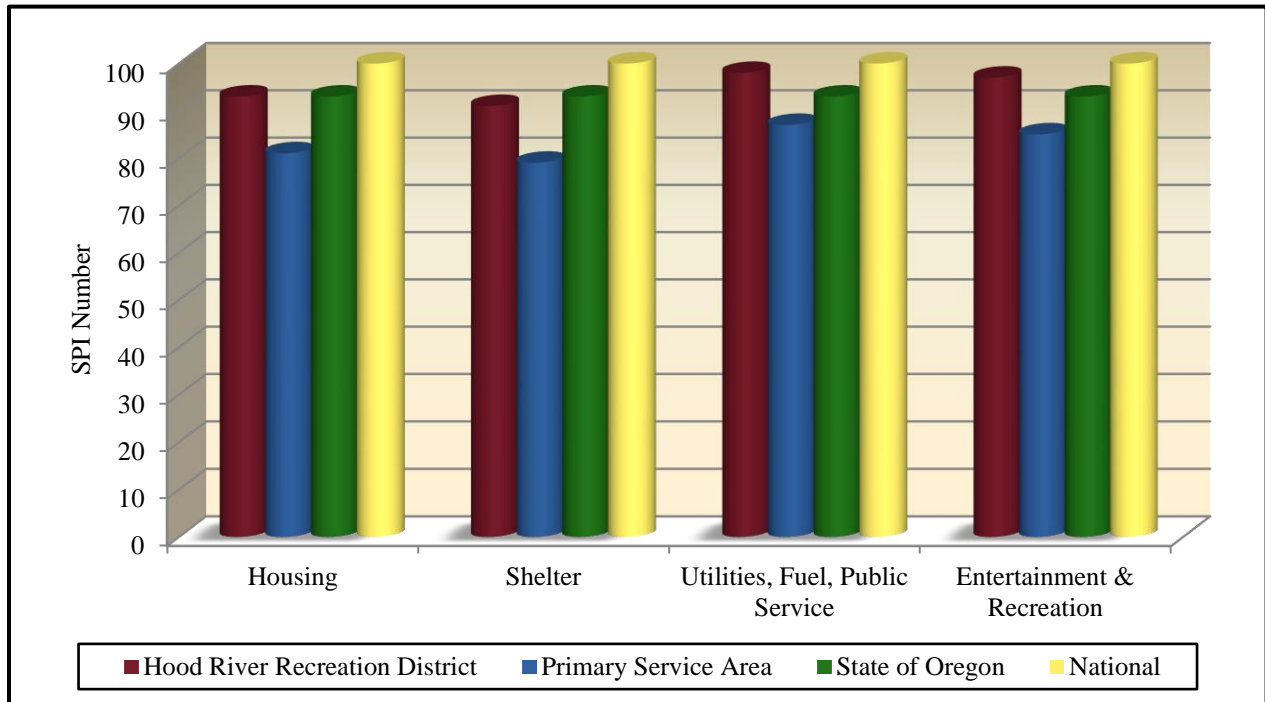


Chart D illustrates the Household Budget Expenditures Spending Potential Index in the service areas. The Hood River Valley Park & Rec. District and Primary Service Area are less than the National number along with the State of Oregon, with the Primary Service Area being the lowest.

Further Narrative on Housing:

The total number of housing units in the Primary Service Area, according to the 2010 Census, is 27,441 and 88.5% of those are occupied, or 24,282 housing units. Of the available units (11.6%) the bulk is for seasonal/recreational/occasional use (5.4%).

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Recreation Expenditures Spending Potential Index: Finally, through ESRI, B*K can examine the overall propensity for households to spend dollars on recreation activities. The following comparisons are possible.

Table F – Recreation Expenditures Spending Potential Index⁴:

Hood River Valley Rec. District	SPI	Average Spent
Fees for Participant Sports	88	\$78.84
Fees for Recreational Lessons	87	\$107.49
Social, Recreation, Club Membership	87	\$166.54
Exercise Equipment/Game Tables	107	\$58.13
Other Sports Equipment	105	\$10.03

Primary Service Area	SPI	Average Spent
Fees for Participant Sports	75	\$67.02
Fees for Recreational Lessons	71	\$87.76
Social, Recreation, Club Membership	75	\$142.88
Exercise Equipment/Game Tables	94	\$51.02
Other Sports Equipment	94	\$8.98

State of Oregon	SPI	Average Spent
Fees for Participant Sports	91	\$81.85
Fees for Recreational Lessons	88	\$108.83
Social, Recreation, Club Membership	91	\$173.21
Exercise Equipment/Game Tables	91	\$49.53
Other Sports Equipment	93	\$8.84

Average Amount Spent: The average amount spent for the service or item in a year.

SPI: Spending potential index as compared to the national number of 100.

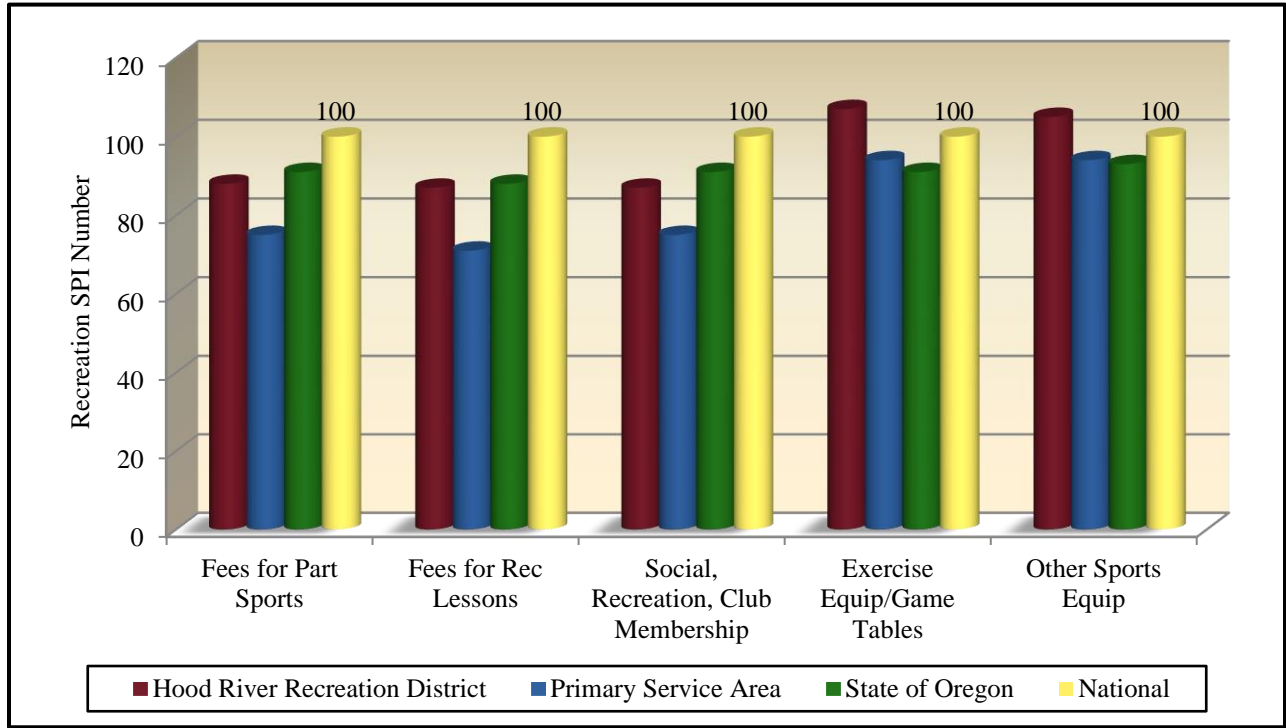
⁴ Consumer Spending data are derived from the 2006 and 2007 Consumer Expenditure Surveys, Bureau of Labor Statistics.

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Chart E – Recreation Spending Potential Index:



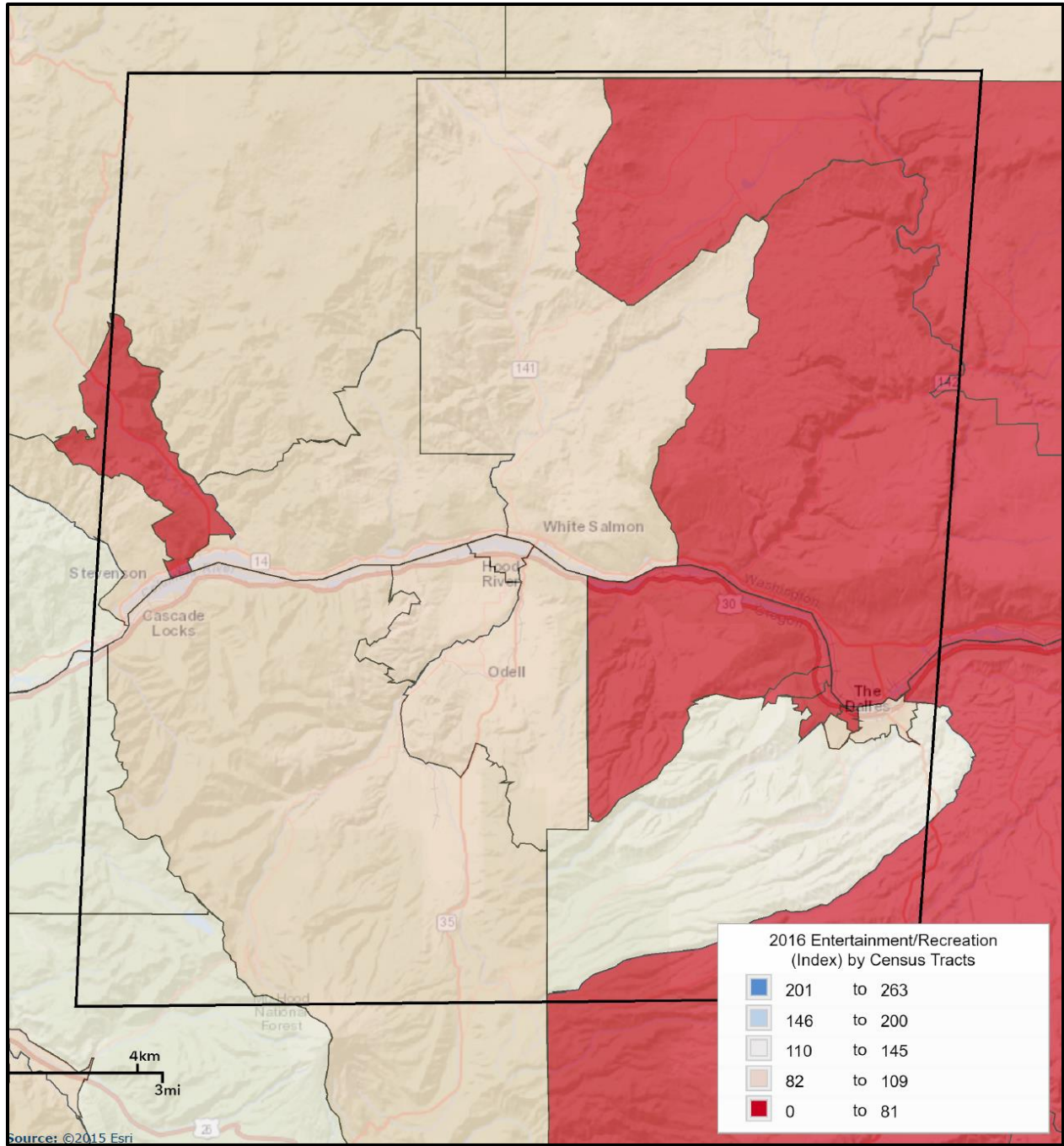
The Spending Potential Index for Recreation is similar to the Household Budgetary Spending. It is also important to note that these dollars are currently spent at some location.

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Map C – Entertainment & Recreation Spending Potential Index by Census Tract



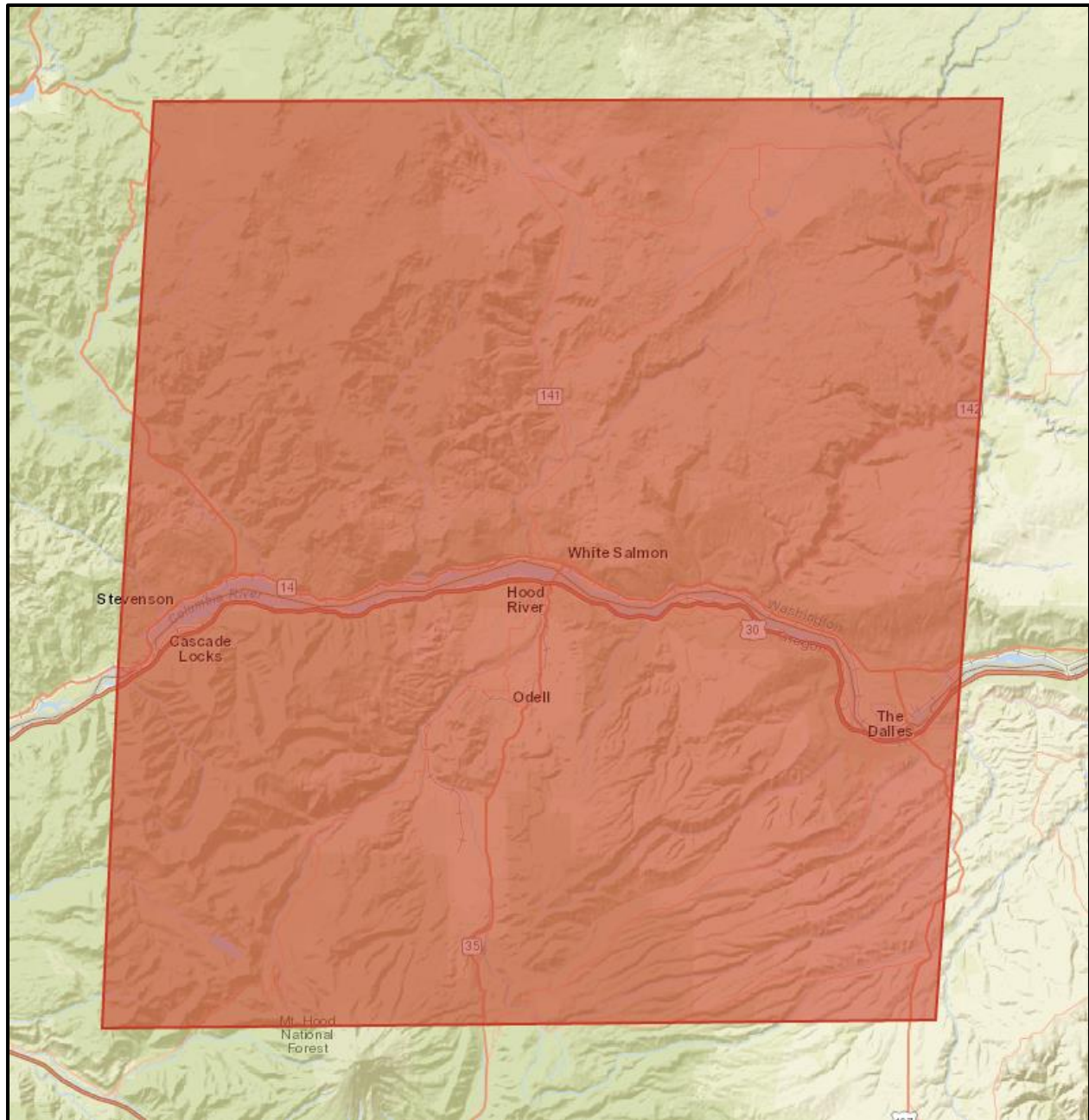
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Primary Service Area Description: – The Primary Service Area is marked by Cascade Locks on the west, The Dalles on the east, Trout Lake, Washington on the north and Parkdale to the south.

Map D – Primary Service Area Map



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Population Distribution by Age: Utilizing census information for the Primary Service Area, the following comparisons are possible.

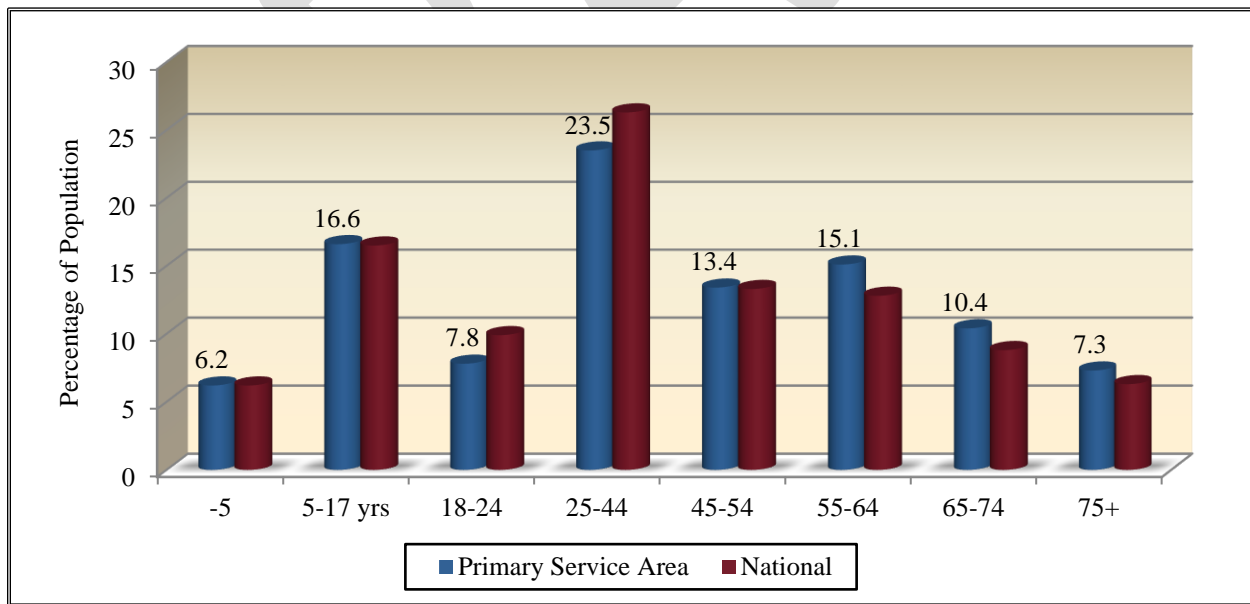
Table G – 2016 Primary Service Area Age Distribution

(ESRI estimates)

Ages	Population	% of Total	Nat'l Population	Difference
-5	3,964	6.2%	6.2%	+0.0%
5-17	10,874	16.6%	16.5%	+0.1%
18-24	5,139	7.8%	9.9%	-2.1%
25-44	15,412	23.5%	26.3%	-2.8%
45-54	8,780	13.4%	13.3%	+0.1%
55-64	9,878	15.1%	12.8%	+2.3%
65-74	6,804	10.4%	8.8%	+1.6%
75+	4,776	7.3%	6.3%	+1.0%

Population: 2016 census estimates in the different age groups in the Primary Service Area.
% of Total: Percentage of the Primary Service Area/population in the age group.
National Population: Percentage of the national population in the age group.
Difference: Percentage difference between the Primary Service Area population and the national population.

Chart F – 2016 Primary Service Area Age Group Distribution



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The demographic makeup of the Primary Service Area, when compared to the characteristics of the national population, indicates that there are some differences with an equal or larger population in the -5, 5-17, 45-54, 55-64, 65-74 and 75+ age groups and a smaller population in the 18-24 and 25-44 age groups. The largest positive variance is in the 55-64 age group with +2.3%, while the greatest negative variance is in the 25-44 age group with -2.8%.

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Population Distribution Comparison by Age: Utilizing census information from the Primary Service Area, the following comparisons are possible.

Table H – 2016 Primary Service Area Population Estimates

(U.S. Census Information and ESRI)

Ages	2010 Census	2016 Projection	2021 Projection	Percent Change	Percent Change Nat'l
-5	4,000	3,964	3,965	-0.9%	+1.9%
5-17	11,014	10,874	11,170	+1.4%	+0.5%
18-24	4,602	5,139	4,851	+5.4%	+0.4%
25-44	15,113	15,412	15,970	+5.7%	+9.6%
45-54	9,428	8,780	8,421	-10.7%	-8.8%
55-64	8,779	9,878	9,825	+11.9%	+18.2%
65-74	4,897	6,804	8,516	+73.9%	+56.2%
75+	4,514	4,776	5,629	+24.7%	+27.1%

Chart G – Primary Service Area Population Growth

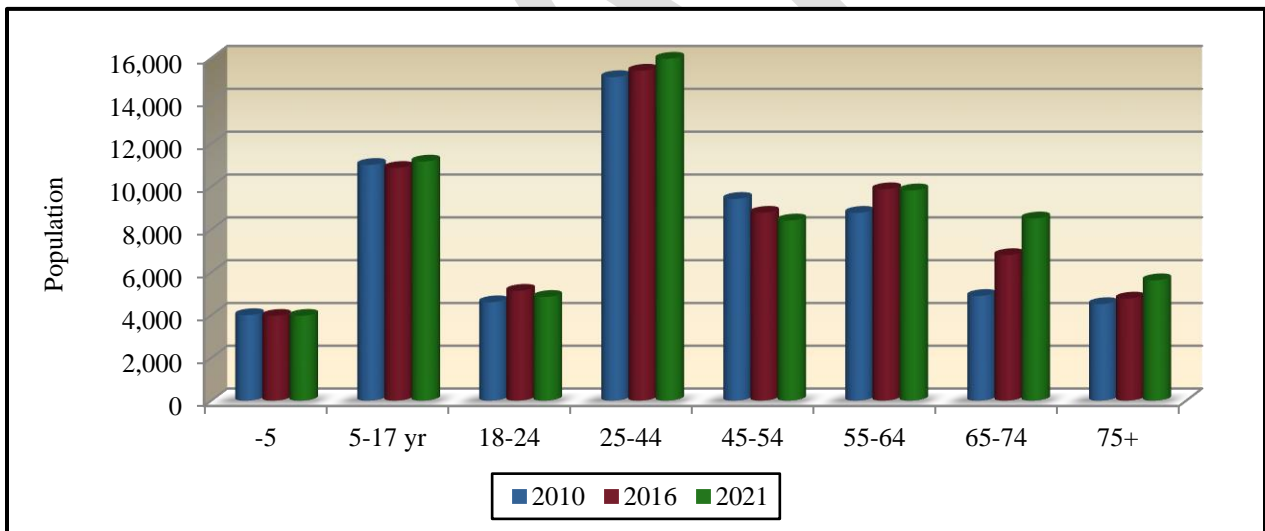


Table H illustrates the growth or decline in age group numbers from the 2010 census until the year 2021. It is projected that all age groups will experience an increase, except the -5 and 45-54 age groups will experience a decrease. It must be remembered that the population of the United States as a whole is aging and it is not unusual to find negative growth numbers in the younger age groups and significant net gains in the 45 plus age groupings in communities which are relatively stable in their population numbers.

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Ethnicity and Race: Below is listed the distribution of the population by ethnicity and race for the Primary Service Area for 2016 population projections. Those numbers were developed from 2010 Census Data.

Table I – Primary Service Area Ethnic Population and Median Age 2016

(Source – U.S. Census Bureau and ESRI)

Ethnicity	Total Population	Median Age	% of Population	% of OR Population
Hispanic	14,566	24.1	22.2%	13.0%

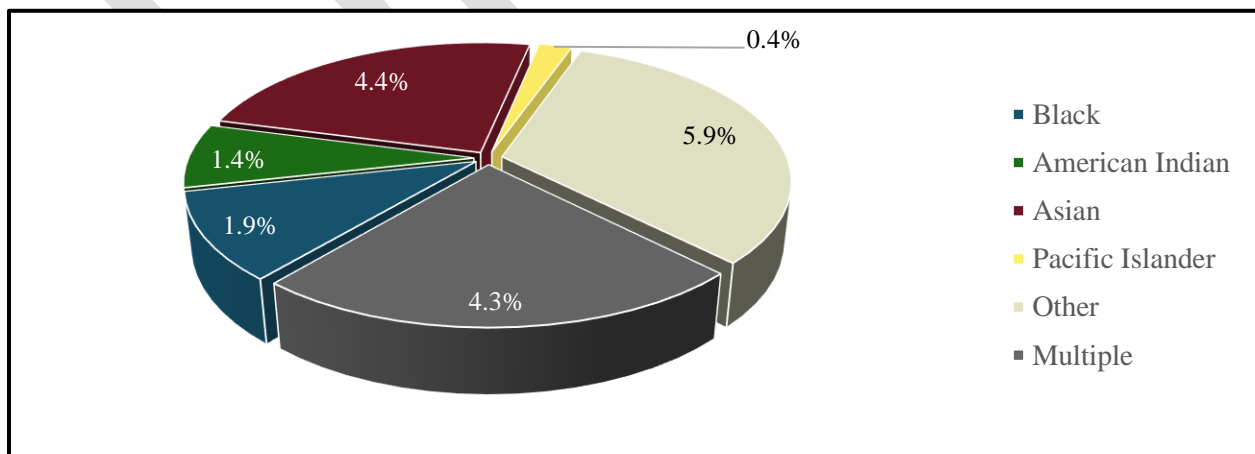
Table J – Primary Service Area Population by Race and Median Age 2016

(Source – U.S. Census Bureau and ESRI)

Race	Total Population	Median Age	% of Population	% of OR Population
White	55,414	45.0	84.4%	81.7%
Black	384	29.4	0.6%	1.9%
American Indian	997	34.6	1.5%	1.4%
Asian	795	49.3	1.2%	4.4%
Pacific Islander	250	29.2	0.4%	0.4%
Other	5,669	25.8	8.6%	5.9%
Multiple	2,119	21.3	3.2%	4.3%

2016 Primary Service Area Total Population: 65,628 Residents

Chart H – 2016 Primary Service Area Non-White Population by Race



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Tapestry Segmentation

Tapestry segmentation represents the 4th generation of market segmentation systems that began 30 years ago. The 67-segment Tapestry Segmentation system classifies U.S. neighborhoods based on their socioeconomic and demographic compositions. While the demographic landscape of the U.S. has changed significantly since the 2000 Census, the tapestry segmentation has remained stable as neighborhoods have evolved.

The value of including this information for the Primary Service Area is that it allows the organization to understand better the consumers/constituents in their service areas and supply them with the right products and services.

The Tapestry segmentation system classifies U.S. neighborhoods into 65 individual market segments. More than 60 attributes including; income, employment, home value, housing types, education, household composition, age and other key determinates of consumer behavior are used to identify neighborhoods.

The following pages and tables outline the top 5 tapestry segments in the Primary Service Area and provides a brief description of each. This information combined with the key indicators and demographic analysis helps further describe the markets that the Primary Service Area looks to serve with programs, services, and special events.

For comparison purposes, the following are the top 10 Tapestry segments, along with percentage in the United States. The Primary Service Area may or may not reflect these segments:

1. Green Acres (6A)	3.2%
2. Southern Satellites (10A)	3.2%
3. Savvy Suburbanites (1D)	3.0%
4. Salt of the Earth (6B)	2.9%
5. Soccer Moms (4A)	<u>2.8%</u>
	15.1%
6. Middleburg (4C)	2.8%
7. Midlife Constants (5E)	2.5%
8. Comfortable Empty Nesters (5A)	2.5%
9. Heartland Communities (6F)	2.4%
10. Old and Newcomers (8F)	<u>2.3%</u>
	12.5%

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Table K – Primary Service Area Tapestry Segment Comparison

(ESRI estimates)

	Primary Service Area		Median Age	Median HH Income
	Percent	Cumulative Percent		
The Great Outdoors (6C)	21.0%	21.0%	46.3	\$53,000
Prairie Living (6D)	14.0%	35.0%	43.4	\$51,000
Southern Satellites (10A)	7.5%	42.5%	39.7	\$44,000
Midlife Constants (5E)	5.6%	48.1%	45.9	\$48,000
Old & Newcomers (8F)	5.2%	53.3%	38.5	\$39,000

The Great Outdoors (6C) – Over 55% of households are married-couple families; 36% are couples with no children living at home. They enjoy outdoor activities such as hiking, hunting, fishing and boating.

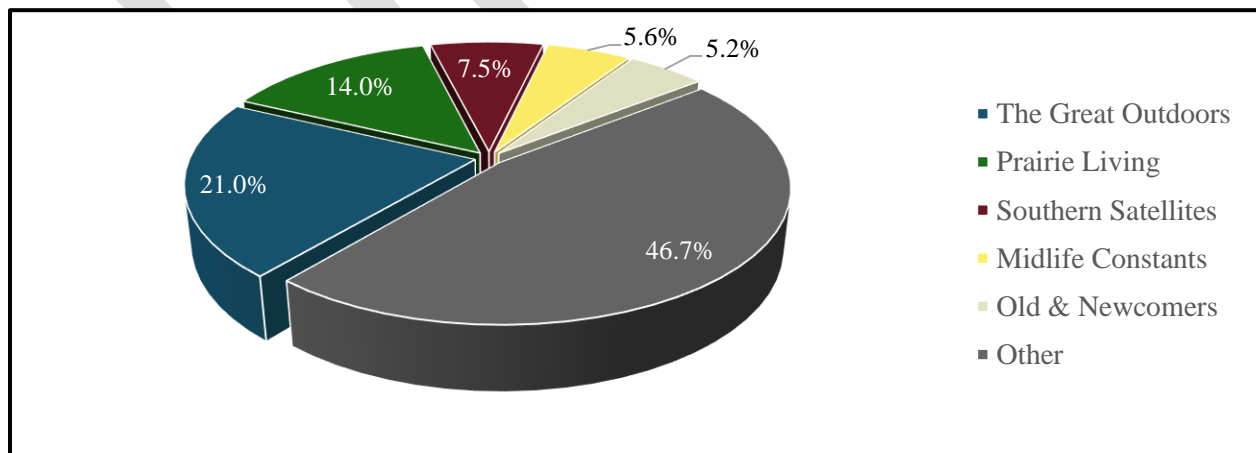
Prairie Living (6D) – Dominant household type is married-couples with no children. Leisure activities include fishing, hunting, boating, camping and attending country music concerts.

Southern Satellites (10A) – Married couples with no children are the dominant household type, with a number of multigenerational households. Participate in fishing and hunting.

Midlife Constants (5E) – Primarily married couples, with a growing share of singles. Leisure activities include scrapbooking, movies at home, reading, fishing and golf.

Old & Newcomers (8F) – Predominantly single households with a mix of married couples (no children). There is a significant Hispanic (11.1%) and Black (10.5%) population in this segment. Entertainment features the Internet, movies at home, country music and newspapers.

Chart I – 2016 Primary Service Area Non-White Population by Race



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Demographic Summary:

The following summarizes the demographic characteristics of the service areas.

- The Primary Service Area has a large enough population to support an aquatic facility with multiple amenities. The Hood River Valley Park & Recreation District has only an adequate population for a full service aquatic center so it will be important that the facility draw well from the Primary Service Area.
- The Hood River Valley Park & Recreation District has a lower median age than the state but it is higher than the national number. There are a significant number households with children and median household income is higher than the state and national numbers.
- The Primary Service Area has an older population than the District and a lower median household income level.
- Both service areas are expected to see significant population growth with the greatest increase coming in the older adult categories.
- There is a significant (greater than 20%) Hispanic population in both service areas but there is little racial diversity.
- It is important to note that these demographic figures do not take into account the large number of visitors to the area during the summer months. This adds a considerably number of potential aquatic center users to the market.

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Swimming Participation Rates and Trends

In addition to analyzing the demographic realities of the service areas, it is possible to project possible participation in swimming and other sport activities.

Participation Numbers: On an annual basis, the National Sporting Goods Association (NSGA) conducts an in-depth study and survey of how Americans spend their leisure time. This information provides the data necessary to overlay rate of participation onto the Primary Service Area to determine market potential. The information contained in this section of the report, utilizes the NSGA’s most recent survey. For that data was collected in 2015 and the report was issued in May of 2016.

B*K takes the national average and combines that with participation percentages of the Primary Service Area based upon age distribution, median income, region and National number. Those four percentages are then averaged together to create a unique participation percentage for the service area. This participation percentage when applied to the population of the Primary Service Area then provides an idea of the market potential for swimming.

Swimming Participation:

Table L – Swimming Participation Rates for the Primary Service Area

	Age	Income	Region	Nation	Average
Swimming	15.6%	13.8%	15.6%	15.9%	15.2%

- Age:** Participation based on individuals ages 7 & Up of the Primary Service Area.
- Income:** Participation based on the 2016 estimated median household income in the Primary Service Area.
- Region:** Participation based on regional statistics (Pacific).
- National:** Participation based on national statistics.
- Average:** Average of the four columns.

	Age	Income	Region	Nation	Average
Did Not Participate	22.8%	24.8%	18.1%	22.1%	21.9%

Note: “Did Not Participate” refers to all 55 activities tracked by the NSGA.

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Anticipated Swimming Participation Number: Utilizing the average percentage from Table-L above plus the 2010 census information and census estimates for 2016 and 2021 (over age 7) the following comparisons are available.

Table M – Swimming Participation Growth

	Average	2010 Population	2016 Population	2021 Population	Difference
Swimming	15.2%	8,640	9,143	9,559	+918

	Average	2010 Population	2016 Population	2021 Population	Difference
Did Not Participate	21.9%	12,458	13,183	13,782	+1,324

Note: The estimated participation numbers indicated above are for swimming and “did not participate.” These figures do not necessarily translate into attendance figures for various activities or programs. The “Did Not Participate” statistics refers to all 55 activities outlined in the NSGA 2015 Survey Instrument.

The chart below outlines the frequency of participation in Swimming.

Table N – Participation Frequency Swimming

The NSGA classifies Swimming based on how often individuals participate:

	Frequent	Occasional	Infrequent
Swimming Frequency	110+	25-109	6-24
Swimming Percentage of Population	6.1%	41.2%	52.7%

In Table-N one can look at swimming and how it is defined with respect to visits being Frequent, Occasional or Infrequent and then the percentage of population that participates.

Table O – Participation Numbers

	Frequent	Occasional	Infrequent	Total
Swimming	112	67	15	
Population	558	3,767	4,819	
Visits	62,467	252,391	72,278	387,135

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Table-O takes the frequency information one step further and identifies the number of times individuals may participate in the activity, applies the percentage from Table-C to the 2016 swimming population (9,143) and then gives a total number of swimming days. This would indicate that a total of 387,135 swimming day are available within the Primary Service Area market. It is also important to note that those are being absorbed, on some level, by the other service providers in the area.

Swimming as an activity can be used for competition, therapy, exercise and leisure.

Participation by Ethnicity and Race: The table below compares the overall rate of participation nationally with the rate for Hispanics and African Americans. Utilizing information provided by the National Sporting Goods Association's 2015 survey, the following comparisons are possible.

Table P – Comparison of National, African American and Hispanic Participation Rates

Indoor Activity	Primary Service Area	National Participation	African American Participation	Hispanic Participation
Swimming	15.2%	15.9%	5.9%	12.0%

- Primary Service Part:** The unique participation percentage developed for the Primary Service Area.
- National Rate:** The national percentage of individuals who participate in the given activity.
- African American Rate:** The percentage of African-Americans who participate in the given activity.
- Hispanic Rate:** The percentage of Hispanics who participate in the given activity.

There is a significant (greater than 20%) Hispanic population in the Primary Service Area. As such these numbers play more of a factor regarding overall participation.

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Summary of Sports Participation: The following chart summarizes participation for indoor activities utilizing information from the 2015 National Sporting Goods Association survey.

Table Q – Sports Participation Summary

Sport	Nat'l Rank ⁵	Nat'l Participation (in millions)
Exercise Walking	1	106.3
Exercising w/ Equipment	2	56.3
Swimming	3	46.3
Aerobic Exercising	4	45.1
Running/Jogging	5	44.5
Workout @ Club	8	36.6
Weight Lifting	11	34.8
Yoga	13	30.7
Basketball	14	24.8
Billiards/Pool	15	21.5
Golf	17	18.6
Tennis	21	12.8
Volleyball	24	10.7
Table Tennis/Ping Pong	25	10.5
Pilates	42	5.6

Nat'l Rank: Popularity of sport based on national survey.
Nat'l Participation: Percent of population that participate in this sport on national survey.

Participation by Age Group: Within the NSGA survey, participation is broken down by age groups. As such B*K can identify the top 3 age groups participating in the activities reflected in this report.

Chart R – Participation by Age Group:

Activity	Largest	Second Largest	Third Largest
Swimming	7-11	12-18	35-44
Did Not Participate	75+	55-64	65-74

Largest: Age group with the highest rate of participation.
Second Largest: Age group with the second highest rate of participation.
Third Largest: Age group with the third highest rate of participation.

⁵ This rank is based upon the 55 activities reported on by NSGA in their 2015 survey instrument.

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Cross Participation: In the process of developing an aquatic facility it is important to understand how swimmers spend their time away from aquatic facilities. It is possible for organizations to further capture participants, and subsequently revenue, associated with those additional activities. The chart below provides the top 15 activities that swimmers participate in, other than swimming.

Chart S – Swimming Cross Participation Index

Activity	Percent of Swimmers Participating In...	Total U.S. Participation	Index
Exercise Walking	51.0%	36.6%	139
Running/Jogging	36.0%	15.3%	235
Exercise w/ Equipment	33.6%	19.3%	174
Bicycle Riding	33.5%	12.4%	270
Hiking	32.3%	14.4%	224
Camping (vacation/overnight)	27.9%	13.8%	202
Bowling	27.7%	12.1%	228
Aerobic Exercising	26.6%	15.5%	171
Workout @ Club	22.6%	12.6%	180
Basketball	22.5%	8.5%	264
Weightlifting	22.4%	12.0%	187
Fishing (fresh water)	21.4%	10.1%	211
Billiards/Pool	18.9%	7.4%	256
Yoga	17.6%	10.6%	167
Soccer	16.5%	4.9%	340

- Activity:** Activities that Swimmers participate in.
Percent of Swimmers: Percentage of Swimmers that also participate in the identified activity.
Total U.S. Participation: Percentage of individuals in the U.S. that participate in activity.
Index: The national index for each activity is 100, so the provided information is comparative.

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Market Potential Index for Adult Participation: In addition to examining the participation numbers for various indoor activities through the NSGA 2015 Survey and the Spending Potential Index for Entertainment & Recreation, B*K can access information about Sports & Leisure Market Potential. The following information illustrates participation rates for adults in swimming in the Primary Service Area.

Table T – Market Potential Index for Adult Participation in Activities

Adults participated in:	Expected Number of Adults	Percent of Population	MPI
Swimming	8,122	16.0%	103

Expected # of Adults: Number of adults, 18 years of age and older, participating in the activity in the Primary Service Area.

Percent of Population: Percent of the service area that participates in the activity.

MPI: Market potential index as compared to the national number of 100.

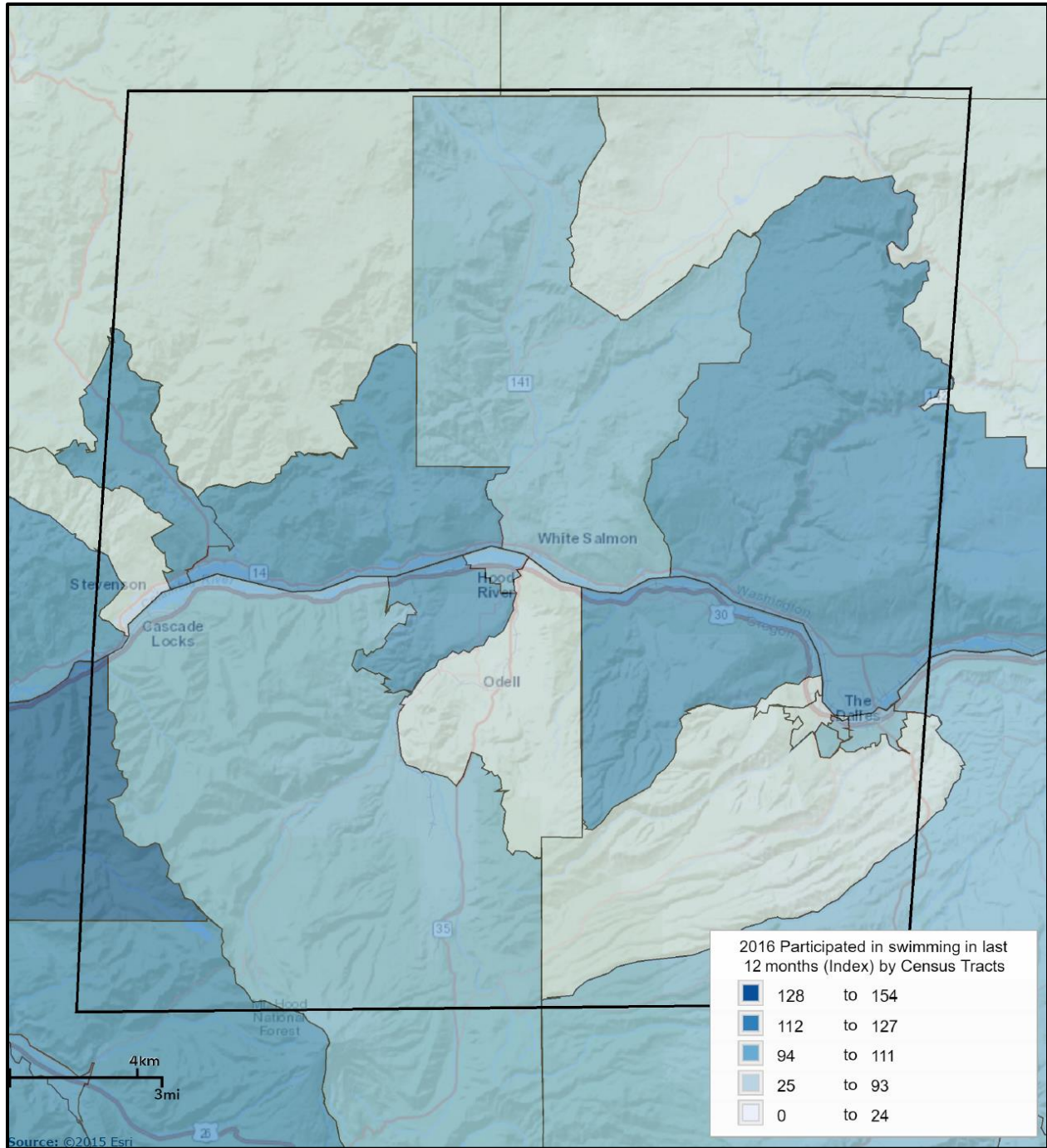
This table indicates that the overall propensity for adults to participate in swimming is greater than the national number of 100.

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Map E – Market Potential Index for Adults Participating in Swimming by Census Tract



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Sports Participation Trends: Below are listed a number of sports activities and the percentage of growth or decline that each has experienced nationally over the last ten years (2006-2015).

Table U – National Activity Trend (in millions)

Increasing in Popularity

	2006 Participation	2015 Participation	Percent Change
Yoga ⁶	10.7	30.7	+186.9%
Running/Jogging	28.8	44.5	+54.5%
Hiking	34.0	42.0	+35.5%
Aerobic Exercising	33.7	45.1	+33.8%
Tennis	12.3	12.8	+23.1%
Exercise Walking	87.5	106.3	+21.5%
Exercising w/ Equipment	52.4	56.3	+7.4%
Weight Lifting	32.9	34.8	+5.8%
Pilates ⁷	5.5	5.6	+1.8%
Bicycle Riding	35.6	36.0	+1.1%

Decreasing in Popularity

	2006 Participation	2015 Participation	Percent Change
Workout @ Club	35.2	36.6	-1.1%
Swimming	56.5	46.3	-18.1%
Table Tennis/Ping Pong ⁸	13.3	10.5	-21.1%
Golf	24.4	18.6	-23.8%
Billiards/Pool	31.8	21.5	-31.8%

2015 Participation: The number of participants per year in the activity (in millions) in the United States.

2006 Participation: The number of participants per year in the activity (in millions) in the United States.

Percent Change: The percent change in the level of participation from 2005 to 2014.

⁶ Change since 2007.

⁷ Change since 2014.

⁸ Change since 2009.

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Table V – Sports Participation Trends Beyond 10-Year History by Millions

	1990	1995	2000	2005	2010	2015
Swimming	67.5	61.5	58.8	58.0	51.9	46.3

While swimming has decreased steadily since 1990 there have been multiple changes in the market impacting the overall participation rate. In no order of importance these are:

- *Financial Constraints.* It was not uncommon in the 1970s and 1980s for municipal agencies to offer free swim lessons. Additionally, many swim teams utilized public and school facilities at no cost. Transitioning from the 1980s to the 1990s there became a renewed focus on financial responsibility of the host agencies and many began to assess fees.
- *Aging Facilities.* Hand in hand with the financial constraints of operating a pool, aquatic facilities are aging. As those facilities age many agencies are faced with the decision to continue offering services or eliminate them. Many agencies have consolidated their facilities.

Aquatic Participation Trends: Swimming is one of the most popular sports and leisure activities, meaning that there is a significant market for aquatic pursuits. Approximately 16.4% of the population in the Pacific region of the country participates in aquatic activities. This is a significant segment of the population.

Despite the recent emphasis on recreational swimming the more traditional aspects of aquatics (including swim teams, instruction and aqua fitness) remain as an important part of most aquatic centers. The life safety issues associated with teaching children how to swim is a critical concern in most communities and competitive swim team programs through USA Swimming, high schools, masters, and other community based organizations continue to be important. Aqua fitness, from aqua exercise to lap swimming, has enjoyed strong growth during the last ten years with the realization of the benefits of water-based exercise.

A competitive pool allows for a variety of aquatic activities to take place simultaneously and can handle aqua exercise classes, learn to swim programs as well competitive swim training and meets (short course and possibly long course). In communities where there are a number of competitive swim programs, utilizing a pool with 8 lanes or more is usually important. A competitive pool that is designed for hosting meets will allow a community to build a more regional or even national identity as a site for competitive swimming. However, it should be realized that regional and national swim meets are difficult to obtain on a regular basis, take a considerable amount of time, effort and money to run; can be disruptive to the regular user groups and can be financial losers

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for the facility itself. On the other side, such events can provide a strong economic stimulus to the overall community.

Competitive diving is an activity that is often found in connection with competitive swimming. Most high school and regional diving competition centers on the 1-meter board with some 3 meter events (non-high school). The competitive diving market, unlike swimming, is usually very small (usually 10% to 20% the size of the competitive swim market) and has been decreasing steadily over the last ten years or more. Thus, many states have or are considering the elimination of diving as a part of high school swimming. Diving programs have been more viable in markets with larger populations and where there are coaches with strong diving reputations. Moving from springboard diving to platform (5 meter and 10 meter, and sometimes 3 and 7.5 meters), the market for divers drops even more while the cost of construction with deeper pool depths and higher dive towers becomes significantly larger. Platform diving is usually only a competitive event in regional and national diving competitions. As a result, the need for inclusion of diving platforms in a competitive aquatic facility needs to be carefully studied to determine the true economic feasibility of such an amenity.

There are a couple of other aquatic sports that are often competing for pool time at competitive aquatic centers. However, their competition base and number of participants is relatively small. Water polo is a sport that continues to be very popular on the west coast and uses a space of 25 yards or meters by 45-66 feet wide (the basic size of an 8 lane, 25-yard pool). However, a minimum depth of 6 foot 6 inches is required which is often difficult to find in more community based facilities. Synchronized swimming also utilizes aquatic facilities for their sport and they also require deeper water of 7-8 feet. This also makes the use of some community pools difficult.

Without doubt the hottest trend in aquatics is the leisure pool concept. This idea of incorporating slides, lazy rivers (or current channels), fountains, zero depth entry and other water features into a pool's design has proved to be extremely popular for the recreational user. The age of the conventional pool in most recreational settings has greatly diminished. Leisure pools appeal to the younger kids (who are the largest segment of the population that swims) and to families. These types of facilities are able to attract and draw larger crowds and people tend to come from a further distance and stay longer to utilize such pools. This all translates into the potential to sell more admissions and increase revenues. It is estimated conservatively that a leisure pool can generate up to 30% more revenue than a comparable conventional pool and the cost of operation while being higher, has been offset through increased revenues. Of note is the fact that patrons seem willing to pay a higher user fee with this type of pool that is in a park like setting than a conventional aquatics facility.

Another trend that is growing more popular in the aquatic's field is the development of a raised temperature therapy pool for relaxation, socialization, and rehabilitation. This has been effective in bringing in swimmers who are looking for a different experience and non-swimmers who want

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the advantages of warm water in a different setting. The development of natural landscapes has enhanced this type of amenity and created a pleasant atmosphere for adult socialization.

The multi-function indoor aquatic center concept of delivering aquatics services continues to grow in acceptance with the idea of providing for a variety of aquatics activities and programs in an open design setting that features a lot of natural light, interactive play features and access to an outdoor sun deck. The placing of traditional instructional/competitive pools, with shallow depth/interactive leisure pools and therapy water, in the same facility has been well received in the market. This idea has proven to be financially successful by centralizing pool operations for recreation service providers and through increased generation of revenues from patrons willing to pay for an aquatics experience that is new and exciting. Indoor aquatic centers have been instrumental in developing a true family appeal for community-based facilities. The keys to success for this type of center revolve around the concept of intergenerational use in a quality facility that has an exciting and vibrant feel in an outdoor like atmosphere.

Also changing is the orientation of aquatic centers from stand-alone facilities that only have aquatic features to more of a full-service recreation center that has fitness, sports and community based amenities. This change has allowed for a better rate of cost recovery and stronger rates of use of the aquatic portion of the facility as well as the other “dry side” amenities.

Aquatic Center Market Orientation: Based on the market information, the existing pools, and typical aquatic needs within a community, there are specific market areas that need to be addressed with any aquatic facility. These include:

- 1. Leisure/recreation aquatic activities** - This includes a variety of activities found at leisure pools with zero depth entry, warm water, play apparatus, slides, seating areas and deck space. These are often combined with other non-aquatic areas such as concessions and birthday party or other group event areas.
- 2. Instructional programming** - The primary emphasis is on teaching swimming and lifesaving skills to many different age groups. These activities have traditionally taken place in more conventional pool configurations but should not be confined to just these spaces. Reasonably warm water, shallow depth with deeper water (4 ft. or more), and open expanses of water are necessary for instructional activities. Easy pool access, a viewing area for parents, and deck space for instructors is also crucial.
- 3. Fitness programming** - These types of activities continue to grow in popularity among a large segment of the population. From aqua exercise classes, to lap swimming times, these programs take place in more traditional settings that have lap lanes and large open expanses of water available at a 3 1/2 to 5 ft. depth.

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4. **Therapy** – A growing market segment for many aquatic centers is the use of warm, shallow water for therapy and rehabilitation purposes. Many of these services are offered by medically based organizations that partner with the center for this purpose.
5. **Competitive swimming/diving** - Swim team competition and training for youth, adults and seniors requires a traditional 6 to 10 lane pool with a 1 and/or 3-meter diving boards at a length of 25 yards or 50 meters. Ideally, the pool depth should be no less than 4 ft. deep at the turn end and 6 feet for starts (7 is preferred). Spectator seating and deck space for staging meets is necessary. This market usually has strong demands for competitive pool space and time during prime times of center use.
6. **Specialized uses** – Activities such as water polo and synchronized swimming can also take place in competitive pool areas as long as the pool is deep enough (7 ft. minimum) and the pool area is large enough.
7. **Social/relaxation** - The appeal of using an aquatics area for relaxation has become a primary focus of many aquatic facilities. This concept has been very effective in drawing non-swimmers to aquatic facilities and expanding the market beyond the traditional swimming boundaries. The use of natural landscapes and creative pool designs that integrate the social elements with swimming activities has been most effective in reaching this market segment.
8. **Special events/rentals** - There is a market for special events including kid’s birthday parties, corporate events, community organization functions, and general rentals to outside groups. The development of this market will aid in the generation of additional revenues and these events/rentals can often be planned for after or before regular hours or during slow use times. It is important that special events or rentals not adversely affect daily operations or overall center use.

Specific market segments include:

1. **Families** - Within this market, an orientation towards family activities is essential. The ability to have family members of different ages participate in a fun and vibrant facility is essential.
2. **Pre-school children** - The needs of pre-school age children need to be met with very shallow or zero depth water which is warm and has play apparatus designed for their use. Interactive programming involving parents and toddlers can also be conducted in more traditional aquatic areas as well.

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3. **School age youth** - A major focus of most pools is to meet the needs of this age group from recreational swimming to competitive aquatics. The leisure components such as slides, fountains, lazy rivers and zero depth will help to bring these individuals to the pool on a regular basis for drop-in recreational swimming. The lap lanes provide the opportunity and space necessary for instructional programs and aquatic team use.
4. **Teens** - Another aspect of many pools is meeting the needs of the teenage population. Serving the needs of this age group will require leisure pool amenities that will keep their interest (slides) as well as the designation of certain “teen” times of use.
5. **Adults** – This age group has a variety of needs from aquatic exercise classes to lap swimming, triathlon training and competitive swimming through the master’s program.
6. **Seniors** - As the population of the United States and the service area continues to age, meeting the needs of an older senior population will be essential. A more active and physically oriented senior is now demanding services to ensure their continued health. Aqua exercise, lap swimming, therapeutic conditioning and even learn to swim classes have proven to be popular with this age group.
7. **Special needs population** - This is a secondary market, but with the A.D.A. requirements and the existence of shallow warm water and other components, the amenities are present to develop programs for this population segment. Association with a hospital and other therapeutic and social service agencies will be necessary to reach this market.
8. **Special interest groups** - These include swim teams (and other aquatic teams), school district teams, day care centers and social service organizations. While the needs of these groups can be great, their demands on an aquatics center can often be incompatible with the overall mission of the facility. Care must be taken to ensure that special interest groups are not allowed to dictate use patterns for the center.

With the proper pools and strong utilization of the aquatics area, it is possible to meet most of the varied market orientations as outlined above.

Existing Hood River Area Aquatic Facilities Assessment: Within the greater Hood River area there are a number of pools to serve the population base.

Public Providers

Beyond the existing Hood River Aquatic Center, there are two other public outdoor pools in the area. It is significant that Hood River Valley Park & Recreation District has the only indoor public pool in the Primary Service Area.

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WASCO Aquatic Center – Located in The Dalles, this outdoor aquatic center opened in 2015 and it features a 50-meter pool, 140-foot water slide, diving board, aqua climbing wall, and splash pad. There is also a concession operation. The aquatic center is owned and operated by the Northern Wasco County Parks & Recreation District. The facility does draw users from Hood River.

White Salmon City Pool – This is an older single tank outdoor pool that has limited capacity. The City of White Salmon has long range plans to replace the existing pool with a new aquatic center that would be funded and operated by a new metro park district.

Private

There are several health clubs that also have indoor pools associated with their operation. These include:

Fitness Center at Water's Edge – This is a new first rate health club located on the banks of the Columbia River in The Dalles. It features a 2-lane lap pool, a therapy pool and a resistance pool (which is not used). All of the pools are saline pools. The center is part of the Mid-Columbia Medical Center.

The Dalles Fitness & Court Club – This club has a small 4 lane by 25-meter lap pool. There are no windows into the space and a small deck area. However, The Dalles High School swim team does practice at the pool.

Hood River Fitness & Court Club – This club is located a short distance from the Hood River Aquatic Center. The club has a 4-lane lap pool with a hot tub. They do offer kids swimming lessons, water exercise classes and lap swimming.

Note: This is a representative listing of the indoor and outdoor pools in the area and is not meant to be a total accounting of all facilities. There may be other pools located within the service area that have an impact on the market as well.

Market Conclusion:

Below are listed some of the market opportunities and challenges that exist with this project.

Opportunities

- The demographic characteristics of the Primary Service Area indicate households with average income levels and an acceptable level of disposable income for recreation purposes. There are significant number of households with children in the District.

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-
- There is a sizeable population in the Primary Service Area to support an expanded aquatic center.
 - The population will continue to grow at a steady pace in the market area.
 - There is no other indoor public pool in Hood River or the Primary Service Area and this project will enhance the existing Hood River Aquatic Center.
 - The Hood River Aquatic Center already has an established market in the area.

Challenges

- The Hood River Valley Park & Recreation District has a reasonably small population base to support an indoor aquatic center on its own.
- It is more difficult to draw from the far reaches of the Primary Service Area due to time and distance to the existing aquatic center.
- There will be large growth in the senior population in the coming years and the rate of participation in active aquatics pursuits is generally lower with this age group.
- Developing a project that is within the funding capacity of the District for not only capital construction but also operations will be critical.

Hood River Aquatic/Community Center Operations Analysis Assumptions

This PRELIMINARY operations analysis has been completed for the planned expansion/replacement of the Hood River Aquatic Center. The following are the basic parameters for the project.

- There are four options:
 - *Option 2* – The existing aquatic center is upgraded with a larger lobby, new locker rooms, multi-purpose room, birthday party rooms and renovated support spaces. **Approximately 35,500**
 - *Option 3* – This has the same improvements as Option 2 but adds a recreation pool and renovates the existing competitive pool. **Approximately 38,500**
 - *Option 4* – This option is the same as Option 3 but a new competitive pool is built and added behind the recreation pool. **Approximately 38,500**
 - *Option 5* - The existing aquatic center is rebuilt to include a competitive pool, recreation pool, group exercise room, weight/cardio space, child watch, casual activities lounge, multi-purpose room, birthday party rooms and support spaces (offices, locker rooms, storage, etc.). **Approximately 47,000 SF**
- The first year of operation will be late 2020 or later.
- This operational budget represents full expenses and revenues for each option.
- The presence of other providers in the market will remain the same.
- The center will continue to be operated by the Hood River Valley Parks & Recreation District.
- This operations estimate is based on a program plan and preliminary concept plan for the facility options only.
- There will be a high level of programming in the building.
- The center will draw well from the entire Primary Service Area.
- No new partnerships with other organizations have been shown in this operations plan.
- No new ongoing use or long term rental of space in the facility has been shown.
- Basic capital replacement dollars are shown.

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- No debt service for the capital funding of the building has been shown.
- The basic hours of operation will be:

Day	Hours
Monday - Friday	6:00am – 9:00pm
Saturday & Sunday	7:00am – 7:00pm

- The new fee structure for use of the facility will be:

Option 2 – Approximately 10% higher than the rates in September 2017.

Category	Daily		10 Visit		3 Month		Annual	
	Res	NRes	Res	NRes	Res	NRes	Res	NRes
Adults	\$5.00	\$6.50	\$45	\$59	\$127	\$160	\$400	\$500
Youth (3-17)	\$4.00	\$5.00	\$36	\$45	\$88	\$110	\$280	\$350
Senior (60+)	\$4.00	\$5.00	\$36	\$45	\$88	\$110	\$280	\$350
Family ¹	\$14	\$17.50	N/A	N/A	\$150	\$188	N/A	N/A

Note: Fee structure pricing is based on an anticipated 2020 or later opening date.

Option 3-4 – Approximately 25% higher than the rates in September 2017.

Category	Daily		10 Visit		3 Month		Annual	
	Res	NRes	Res	NRes	Res	NRes	Res	NRes
Adults	\$5.50	\$7.00	\$50	\$63	\$145	\$180	\$455	\$570
Youth (3-17)	\$4.50	\$5.50	\$40	\$50	\$100	\$125	\$320	\$400
Senior (60+)	\$4.50	\$5.50	\$40	\$50	\$100	\$125	\$320	\$400
Family ²	\$17.50	\$22.00	N/A	N/A	\$250	\$315	N/A	N/A

¹ Includes 2 adults and all youth under 21 living in the same home.

² Includes 2 adults and all youth under 21 living in the same home.

Option 5 –

Category	Daily		10 Visit		3 Month		Annual		Monthly ³	
	Res	NRes	Res	NRes	Res	NRes	Res	NRes	Res	NRes
Adults	\$6.00	\$7.50	\$54	\$68	\$185	\$230	\$500	\$625	\$45	\$55
Youth (3-17)	\$5.00	\$6.50	\$45	\$59	\$130	\$160	\$350	\$435	\$32	\$39
Senior (60+)	\$5.00	\$6.50	\$45	\$59	\$130	\$160	\$350	\$435	\$32	\$39
Family ⁴	N/A	N/A	N/A	N/A	\$335	\$420	\$900	\$1,125	\$78	\$97

Note: Fee structure pricing is based on an anticipated 2020 or later opening date.

Operations Pro-forma Estimates

Option 2

Category	Existing Budget Proposed FY17-18	New Budget FY20-21
Expenses	\$594,306	\$652,401
Revenues	\$331,207	\$388,332
Difference	\$(263,099)	\$(264,069)
Recovery %	56%	60%

³ Does not represent a separate form of payment but the cost of an annual pass on a month to month contract with EFT. \$3 has been added to each monthly calculation.

⁴ Includes 2 adults and all youth under 21 living in the same home.

Option 3

Category	Existing Budget Proposed FY17-18	New Budget FY20-21
Expenses	\$594,306	\$1,172,306
Revenues	\$331,207	\$891,571
Difference	\$(263,099)	\$(280,735)
Recovery %	56%	76%

Option 4

Category	Existing Budget Proposed FY17-18	New Budget FY20-21
Expenses	\$594,306	\$1,172,306
Revenues	\$331,207	\$903,034
Difference	\$(263,099)	\$(269,272)
Recovery %	56%	77%

Option 5

Category	Existing Budget Proposed FY17-18	New Budget FY20-21
Expenses	\$594,306	\$1,785,290
Revenues	\$331,207	\$1,602,556
Difference	\$(263,099)	\$(182,734)
Recovery %	56%	90%

Hood River Aquatic/Community Center Operations Analysis Assumptions

This PRELIMINARY operations analysis has been completed for the planned expansion/replacement of the Hood River Aquatic Center. The following are the basic parameters for the project.

- There are four options:
 - *Option 2* – The existing aquatic center is upgraded with a larger lobby, new locker rooms, multi-purpose room, birthday party rooms and renovated support spaces. **Approximately 35,500**
 - *Option 3* – This has the same improvements as Option 2 but adds a recreation pool and renovates the existing competitive pool. **Approximately 38,500**
 - *Option 4* – This option is the same as Option 3 but a new competitive pool is built and added behind the recreation pool. **Approximately 38,500**
 - *Option 5* - The existing aquatic center is rebuilt to include a competitive pool, recreation pool, group exercise room, weight/cardio space, child watch, casual activities lounge, multi-purpose room, birthday party rooms and support spaces (offices, locker rooms, storage, etc.). **Approximately 47,000 SF**
- The first year of operation will be late 2020 or later.
- This operational budget represents full expenses and revenues for each option.
- The presence of other providers in the market will remain the same.
- The center will continue to be operated by the Hood River Valley Parks & Recreation District.
- This operations estimate is based on a program plan and preliminary concept plan for the facility options only.
- There will be a high level of programming in the building.
- The center will draw well from the entire Primary Service Area.
- No new partnerships with other organizations have been shown in this operations plan.
- No new ongoing use or long term rental of space in the facility has been shown.
- Basic capital replacement dollars are shown.

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- No debt service for the capital funding of the building has been shown.
- The basic hours of operation will be:

Day	Hours
Monday - Friday	6:00am – 9:00pm
Saturday & Sunday	7:00am – 7:00pm

- The new fee structure for use of the facility will be:

Option 2 – Approximately 10% higher than the rates in September 2017.

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	Res	NRes	Res	NRes	Res	NRes	Res	NRes
Adults	\$5.00	\$6.50	\$45	\$59	\$127	\$160	\$400	\$500
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Senior (60+)	\$4.00	\$5.00	\$36	\$45	\$88	\$110	\$280	\$350
Family ¹	\$14	\$17.50	N/A	N/A	\$150	\$188	N/A	N/A

Note: Fee structure pricing is based on an anticipated 2020 or later opening date.

Option 3-4 – Approximately 25% higher than the rates in September 2017.

Category	Daily		10 Visit		3 Month		Annual	
	Res	NRes	Res	NRes	Res	NRes	Res	NRes
Adults	\$5.50	\$7.00	\$50	\$63	\$145	\$180	\$455	\$570
Youth (3-17)	\$4.50	\$5.50	\$40	\$50	\$100	\$125	\$320	\$400
Senior (60+)	\$4.50	\$5.50	\$40	\$50	\$100	\$125	\$320	\$400
Family ²	\$17.50	\$22.00	N/A	N/A	\$250	\$315	N/A	N/A

¹ Includes 2 adults and all youth under 21 living in the same home.

² Includes 2 adults and all youth under 21 living in the same home.

Option 5 –

Category	Daily		10 Visit		3 Month		Annual		Monthly ³	
	Res	NRes	Res	NRes	Res	NRes	Res	NRes	Res	NRes
Adults	\$6.00	\$7.50	\$54	\$68	\$185	\$230	\$500	\$625	\$45	\$55
Youth (3-17)	\$5.00	\$6.50	\$45	\$59	\$130	\$160	\$350	\$435	\$32	\$39
Senior (60+)	\$5.00	\$6.50	\$45	\$59	\$130	\$160	\$350	\$435	\$32	\$39
Family ⁴	N/A	N/A	N/A	N/A	\$335	\$420	\$900	\$1,125	\$78	\$97

Note: Fee structure pricing is based on an anticipated 2020 or later opening date.

Operations Pro-forma Estimates

Option 2

Category	Existing Budget Proposed FY17-18	New Budget FY20-21
Expenses	\$594,306	\$652,401
Revenues	\$331,207	\$388,332
Difference	\$(263,099)	\$(264,069)
Recovery %	56%	60%

³ Does not represent a separate form of payment but the cost of an annual pass on a month to month contract with EFT. \$3 has been added to each monthly calculation.

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Option 3

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Expenses	\$594,306	\$1,172,306
Revenues	\$331,207	\$891,571
Difference	\$(263,099)	\$(280,735)
Recovery %	56%	76%

Option 4

Category	Existing Budget Proposed FY17-18	New Budget FY20-21
Expenses	\$594,306	\$1,172,306
Revenues	\$331,207	\$903,034
Difference	\$(263,099)	\$(269,272)
Recovery %	56%	77%

Option 5

Category	Existing Budget Proposed FY17-18	New Budget FY20-21
Expenses	\$594,306	\$1,785,290
Revenues	\$331,207	\$1,602,556
Difference	\$(263,099)	\$(182,734)
Recovery %	56%	90%

PROGRAM OPTIONS

OPTION 2A

Upgrade Existing Pool Systems Replace Existing Pool Cover and Mechanical System New 2-Story Bath House

	Existing Area	New Area
POOL HOUSE		
A.01 Entry Lobby	250	1,800
A.02 Reception / Access Control / Registration		275
A.03 Vending Alcove		150
A.04 Locker Rooms - Men's	900	1,050
A.05 Locker Rooms - Women's	1,200	1,100
A.06 Family / Special Needs Shower Rooms (85sf each)		170
A.07 Family/Special Needs Changing Rooms (65sf ea)	100	195
A.08 Level Two Lobby / Lounge		2,620
A.09 General Building Storage		245
A.10 Maintenance / Receiving / Storage		265
A.11 Party Rooms (2)		640
A.12 Multipurpose Room		1,590
B.01 District Director	2,400	140
B.02 Assistant Director		120
B.03 Facility Manager Office		120
B.04 Program Coordinator's Office (120sf ea)		225
B.05 Program Staff Offices (2 @ 120 sf ea)		240
B.06 Staff Conference / Breakroom		370
B.07 Workroom / Storage / Supplies	600	155
C.07 Aquatic Supervisor's Office		120
C.08 Aquatic's Office (2 staff)	720	150
C.09 First Aid Room		85
C.10 Lifeguard Changing / Breakroom		0
C.11 Pool Storage	100	950
C.13 Pool Mechanical & Heater Rooms	700	1,100
C.13 Pool Sanitation Storage Room		365
	6,970	14,240
Building Circulation, Mech, Walls, Etc.		2,585
	6,970	16,825
NATATORIUM		
C.01 Upgrade Existing Pool Systems		
C.02 Replace pool Covering		
C.03 Replace Mechanical Unit	18,500	
	18,500	18,500
	Existing	New / Reno
GROSS BUILDING AREA / COST RANGE	25,470	35,325

OPTION 2B

Upgrade Existing Pool Systems New Permanent Pool Enclosure and Mechanical System New 2-Story Bath House

	Existing Area	New Area
POOL HOUSE		
A.01 Entry Lobby	250	1,800
A.02 Reception / Access Control / Registration		275
A.03 Vending Alcove		150
A.04 Locker Rooms - Men's	900	1,050
A.05 Locker Rooms - Women's	1,200	1,100
A.06 Family / Special Needs Shower Rooms (85sf each)		170
A.07 Family/Special Needs Changing Rooms (65sf ea)	100	195
A.08 Level Two Lobby / Lounge		2,620
A.09 General Building Storage		245
A.10 Maintenance / Receiving / Storage		265
A.11 Party Rooms (2)		640
A.12 Multipurpose Room		1,590
B.01 District Director	2,400	140
B.02 Assistant Director		120
B.03 Facility Manager Office		120
B.04 Program Coordinator's Office (120sf ea)		225
B.05 Program Staff Offices (2 @ 120 sf ea)		240
B.06 Staff Conference / Breakroom		370
B.07 Workroom / Storage / Supplies	600	155
C.07 Aquatic Supervisor's Office		120
C.08 Aquatic's Office (2 staff)	720	150
C.09 First Aid Room		85
C.10 Lifeguard Changing / Breakroom		0
C.11 Pool Storage	100	950
C.13 Pool Mechanical & Heater Rooms	700	1,100
C.13 Pool Sanitation Storage Room		365
	6,970	14,240
Building Circulation, Mech, Walls, Etc.		2,585
	6,970	16,825
 NATATORIUM		
C.01 Upgrade Existing Pool Systems		
C.02 New Pool Enclosure		
C.03 Replace Mechanical Unit	18,500	
	18,500	18,500
	Existing	New / Reno
GROSS BUILDING AREA / COST RANGE	25,470	35,325

OPTION 3

New Permanent Pool Enclosure and Mechanical System New 2-Story Bath House New Recreation added to Existing Competition Pool

	Existing Area	New Area
POOL HOUSE		
A.01 Entry Lobby	250	1,800
A.02 Reception / Access Control / Registration		275
A.03 Vending Alcove		150
A.04 Locker Rooms - Men's	900	1,050
A.05 Locker Rooms - Women's	1,200	1,100
A.06 Family / Special Needs Shower Rooms (85sf each)		170
A.07 Family/Special Needs Changing Rooms (65sf ea)	100	195
A.08 Level Two Lobby / Lounge		2,620
A.09 General Building Storage		245
A.10 Maintenance / Receiving / Storage		265
A.11 Party Rooms (2)		640
A.12 Multipurpose Room		1,590
B.01 District Director	2,400	140
B.02 Assistant Director		120
B.03 Facility Manager Office		120
B.04 Program Coordinator's Office (120sf ea)		225
B.05 Program Staff Offices (2 @ 120 sf ea)		240
B.06 Staff Conference / Breakroom		370
B.07 Workroom / Storage / Supplies	600	155
C.07 Aquatic Supervisor's Office		120
C.08 Aquatic's Office (2 staff)	720	150
C.09 First Aid Room		85
C.10 Lifeguard Changing / Breakroom		0
C.11 Pool Storage	100	950
C.13 Pool Mechanical & Heater Rooms	700	1,100
C.13 Pool Sanitation Storage Room		365
	6,970	14,240
Building Circulation, Mech, Walls, Etc.		2,585
	6,970	16,825
NATATORIUM		
C.01 New Recreation Pool (water 3,500sf)		
C.02 Renovate 10-Lane 25 Yard Pool (water 6,400sf)		
C.03 Spectator Seating (300 seats)		
C.06 Natatorium (Bldg Shell and Mech/Elect)	18,500	21,500
	18,500	21,500
	Existing	New / Reno
GROSS BUILDING AREA / COST RANGE	25,470	38,325

OPTION 4

Complete New Facility

New 2-Story Bath House

New Recreation and Competition Pools

	Existing Area	New Area
POOL HOUSE		
A.01 Entry Lobby	250	1,800
A.02 Reception / Access Control / Registration		275
A.03 Vending Alcove		150
A.04 Locker Rooms - Men's	900	1,050
A.05 Locker Rooms - Women's	1,200	1,100
A.06 Family / Special Needs Shower Rooms (85sf each)		170
A.07 Family/Special Needs Changing Rooms (65sf ea)	100	195
A.08 Level Two Lobby / Lounge		2,620
A.09 General Building Storage		245
A.10 Maintenance / Receiving / Storage		265
A.11 Party Rooms (2)		640
A.12 Multipurpose Room		1,590
B.01 District Director	2,400	140
B.02 Assistant Director		120
B.03 Facility Manager Office		120
B.04 Program Coordinator's Office (120sf ea)		225
B.05 Program Staff Offices (2 @ 120 sf ea)		240
B.06 Staff Conference / Breakroom		370
B.07 Workroom / Storage / Supplies	600	155
C.07 Aquatic Supervisor's Office		120
C.08 Aquatic's Office (2 staff)	720	150
C.09 First Aid Room		85
C.10 Lifeguard Changing / Breakroom		0
C.11 Pool Storage	100	950
C.13 Pool Mechanical & Heater Rooms	700	1,100
C.13 Pool Sanitation Storage Room		365
	6,970	14,240
Building Circulation, Mech, Walls, Etc.		2,585
	6,970	16,825
NATATORIUM		
C.01 New Recreation Pool (water 3,500sf)		
C.02 New 10-Lane 25 Yard Pool (water 6,400sf)		
C.03 Spectator Seating (300 seats)		
C.06 Natatorium (Bldg Shell and Mech/Elect)	18,500	21,500
	18,500	21,500
	Existing	New / Reno
GROSS BUILDING AREA / COST RANGE	25,470	38,325

OPTION 5

Complete New Facility

New 3-Story Bath House

New Recreation and Competition Pools

	Existing Area	New Area
POOL HOUSE		
A.01 Entry Lobby	250	1,800
A.02 Reception / Access Control / Registration		275
A.03 Vending Alcove		150
A.04 Locker Rooms - Men's	900	1,050
A.05 Locker Rooms - Women's	1,200	1,100
A.06 Family / Special Needs Shower Rooms (85sf each)		170
A.07 Family/Special Needs Changing Rooms (65sf ea)	100	195
A.08 Level Two Lobby / Lounge		2,620
A.09 General Building Storage		245
A.10 Maintenance / Receiving / Storage		265
A.11 Party Rooms (2)		640
A.12 Multipurpose Room		1,590
B.01 District Director	2,400	140
B.02 Assistant Director		120
B.03 Facility Manager Office		120
B.04 Program Coordinator's Office (120sf ea)		225
B.05 Program Staff Offices (2 @ 120 sf ea)		240
B.06 Staff Conference / Breakroom		370
B.07 Workroom / Storage / Supplies	600	155
C.01 Aquatic Supervisor's Office		120
C.02 Aquatic's Office (2 staff)	720	150
C.03 First Aid Room		85
C.04 Lifeguard Changing / Breakroom		0
C.05 Pool Storage	100	950
C.06 Pool Mechanical & Heater Rooms	700	1,100
C.07 Pool Sanitation Storage Room		365
D.01 Multi-Purpose Group Exercise		1,800
D.02 GE Storage		200
D.03 Cardiovascular / Weight Room		3,200
D.04 C/W Storage		150
D.05 Fitness Assessment / Health Screen Room		150
D.06 Childwatch Room		900
D.07 CW Storage		80
D.08 CW Restrooms (boy's and girl's)		60
E.01 Casual Activities Lounge Areas		600
E.02 Multi-Purpose Room		1,200
E.03 Multi-Purpose Room Storage		100
	6,970	22,680
Building Circulation, Mech, Walls, Etc.		2,645
	6,970	25,325
NATATORIUM		
C.01 New Recreation Pool (water 3,500sf)		
C.02 New 10-Lane 25 Yard Pool (water 6,400sf)		
C.03 Spectator Seating (300 seats)		
C.06 Natatorium (Bldg Shell and Mech/Elect)	18,500	21,500
	18,500	21,500
	Existing	New / Reno
GROSS BUILDING AREA / COST RANGE	25,470	46,825



Hood River Valley Parks and Recreation
Aquatic Center Feasibility Study

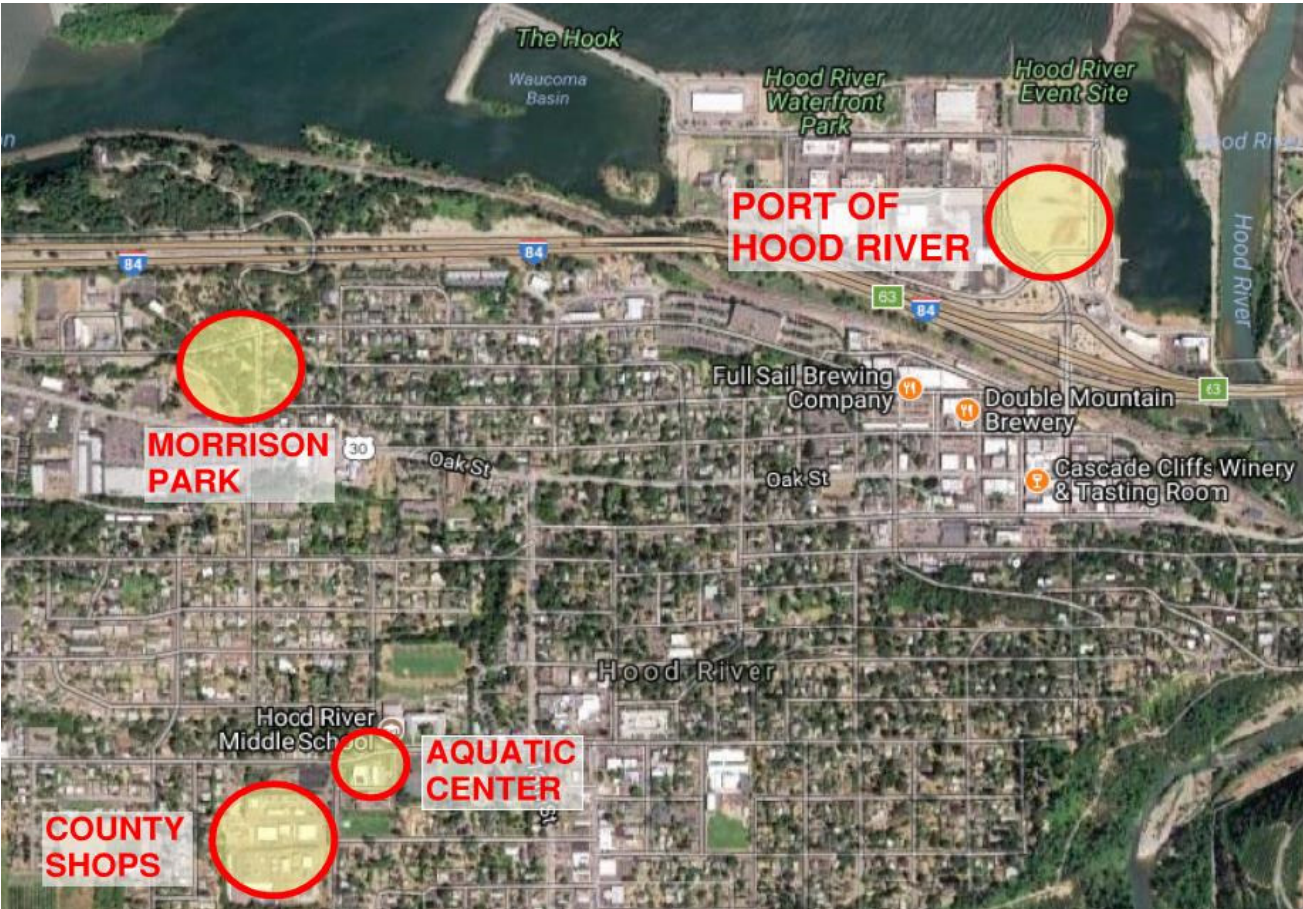
4. SITE ANALYSIS

SITE ANALYSIS

Four sites were reviewed for their ability to accommodate the required program, provide a central location for community access, adequate area for future expansion and site ownership/acquisition. The conclusion of the analysis was to develop a space program that could be accommodated on the existing Aquatic Center site. The primary reason for this decision was site ownership (HRVPRD) and its central location.

Sites Considered

- Existing Aquatic Center
- County Shops / Maintenance Yard
- Port of Hood River
- Morrison Park



SITE COMPARISON

Existing Aquatic Center Site

Advantages	HRVPRD owns site Renovation or New Facility construction schedule - near future Centrally located Adequate site area for program Future expansion could be accommodated with purchase of May Street School
Disadvantages	Limited site area for future expansion Parking is shared with School District

County Shop Site

Advantages	Centrally located Adequate site area for program and parking Future expansion could be accommodated on site
Disadvantages	Cost of site purchase New Facility construction schedule dependent on finding new home for County Shops

Port of Hood River

Advantages	Waterfront location supports river activities Adequate site area for program and parking Future expansion could be accommodated on site
Disadvantages	Cost of site purchase Not centrally located and crossing highway may challenge pedestrian and bike access

Morrison Park

Advantages	HRVPRD owns site Adequate site area for program and parking Future expansion could be accommodated on site
Disadvantages	Topography of site - significant grade change Not centrally located



5. CONCEPT OPTIONS

- Option 1 Upgrade Existing Pool Systems
Replace Existing Pool Cover and Mechanical System
Existing Bath House to remain

- Option 2A Upgrade Existing Pool Systems
Replace Existing Pool Cover and Mechanical System
New 2-Story Bath House

- Option 2B Upgrade Existing Pool Systems
New Permanent Pool Enclosure and Mechanical System
New 2-Story Bath House

- Option 3 Upgrade Existing Pool Systems
New Permanent Pool Enclosure and Mechanical System
New 2-Story Bath House
New Recreation Pool added to Existing Competition Pool

- Option 4 Complete New Facility
New 2-Story Bath House
New Recreation and Competition Pools

- Option 5 Complete New Facility
New 3-Story Bath House
New Recreation and Competition Pools

Perspective Views

OPTION 1

- Existing pool mechanical systems will be upgraded
- Existing removable canopy over pool will be replaced
- Existing Bath House will remain with a new roof

Level One Program Spaces

Facility Entry and Lobby

Entry Desk / Reception

Conference Room

Locker Rooms

Family Changing Room

Lifeguard Office and First Aid

Pool Storage

Pool Mechanical Room

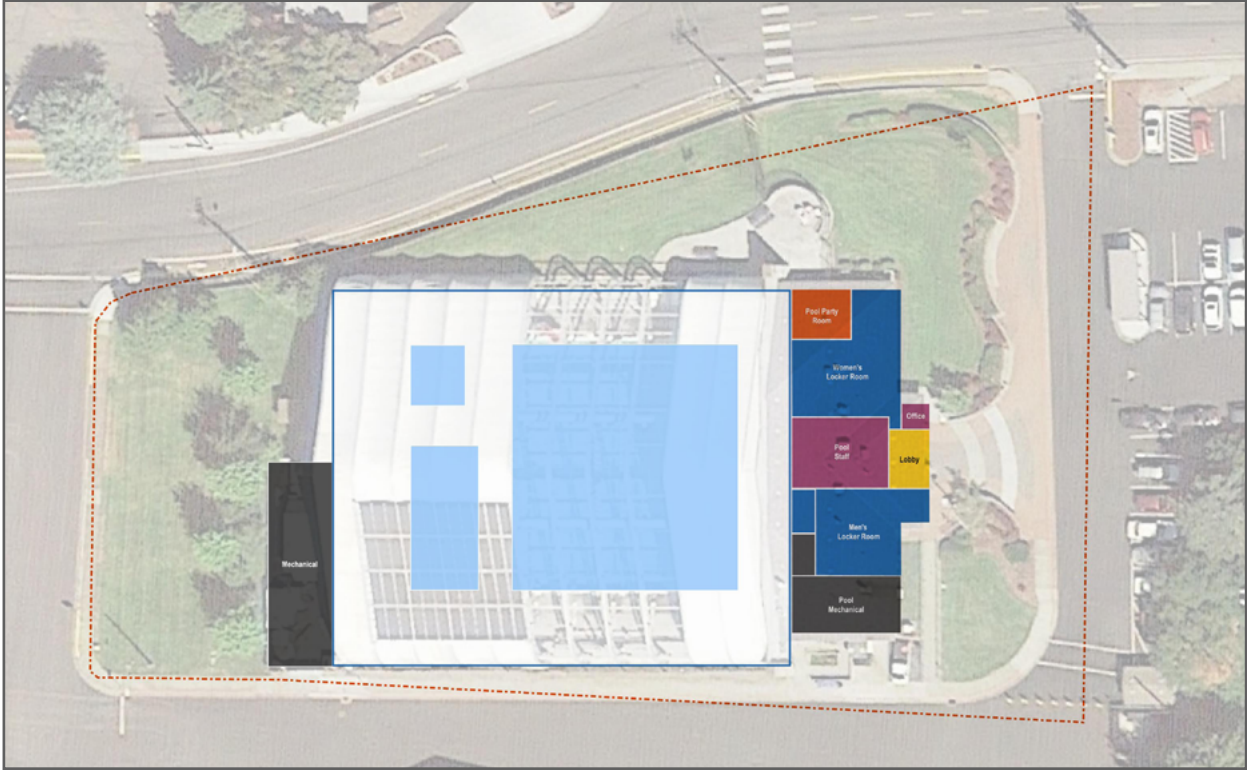
Level Two Program Spaces

Park and Rec Offices

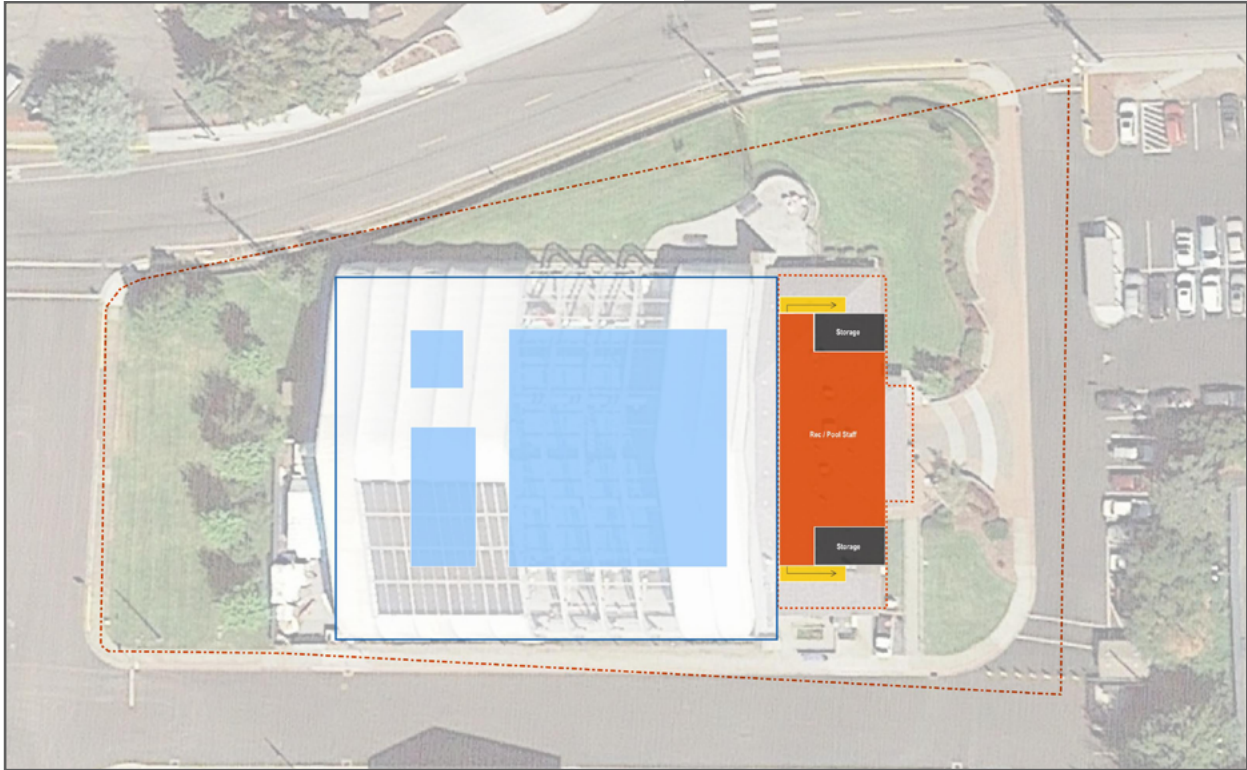
Storage

OPTION 1

LEVEL ONE - ENTRY & POOL LEVEL



LEVEL TWO - REC OFFICE LEVEL



OPTION 2A

- Existing pool mechanical systems will be upgraded
- Existing removable canopy over pool will be replaced.
- Existing Bath House will be replaced with a new 2-story Bath House

Level One Program Spaces

Facility Entry and Lobby
Entry Desk / Reception
Park and Rec offices
Conference Room
Multipurpose Room
Building Storage and Mechanical Room

Level Two Program Spaces

Existing Competition Pool and New Recreation Pool
Event Rooms
Lounge and Game Areas
Locker Rooms
Family Changing Rooms
Lifeguard Office and First Aid
Pool Storage
Pool Mechanical Room

OPTION 2B

- Existing pool mechanical systems will be upgraded
- A new permanent enclosure will build over the existing pools
- Existing Bath House will be replaced with a new 2-story Bath House

Level One Program Spaces

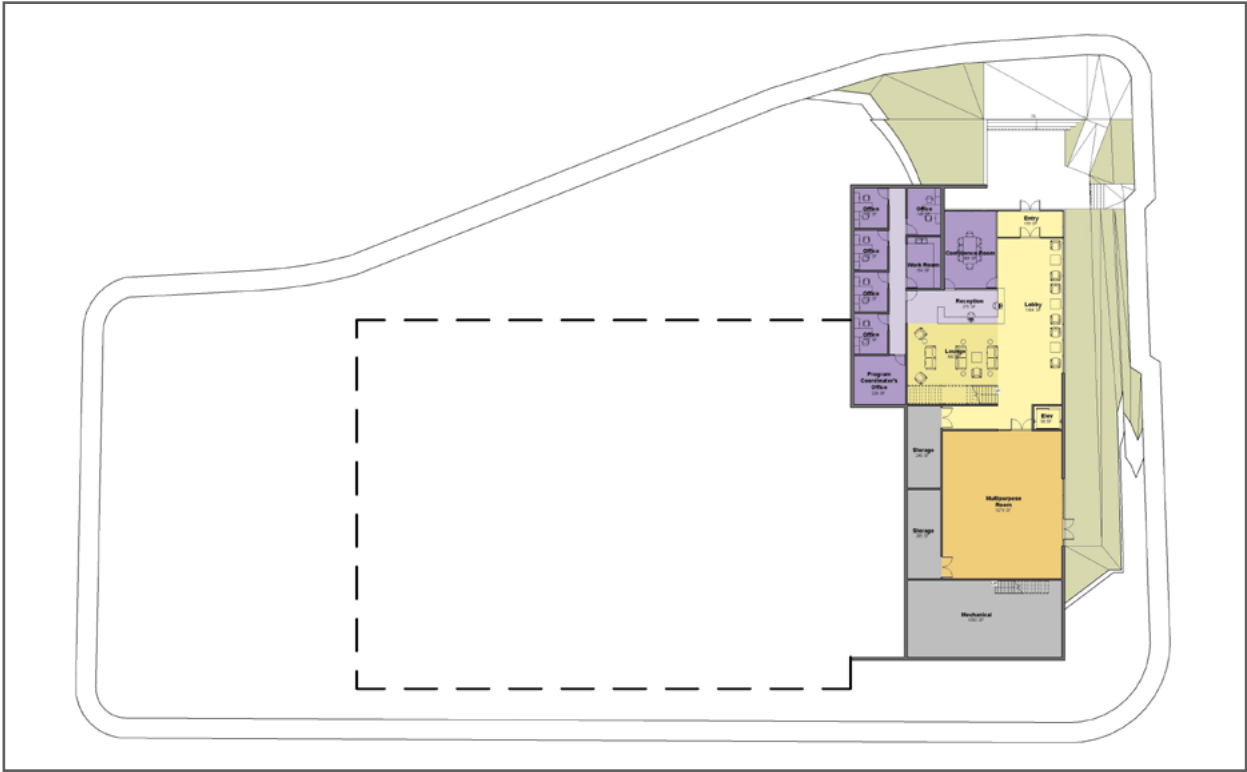
Facility Entry and Lobby
Entry Desk / Reception
Park and Rec offices
Conference Room
Multipurpose Room
Building Storage and Mechanical Room

Level Two Program Spaces

Existing Competition Pool and New Recreation Pool
Event Rooms
Lounge and Game Areas
Locker Rooms
Family Changing Rooms
Lifeguard Office and First Aid
Pool Storage
Pool Mechanical Room

OPTION 2

LEVEL ONE - ENTRY LEVEL



LEVEL TWO - POOL LEVEL



OPTION 3

- Existing pool mechanical systems will be upgraded
- A new Recreation Pool will be added to the existing Competition Pool
- A new permanent enclosure will be constructed over both pools
- Existing Bath House will be replaced with a new 2-story Bath House

Level One Program Spaces

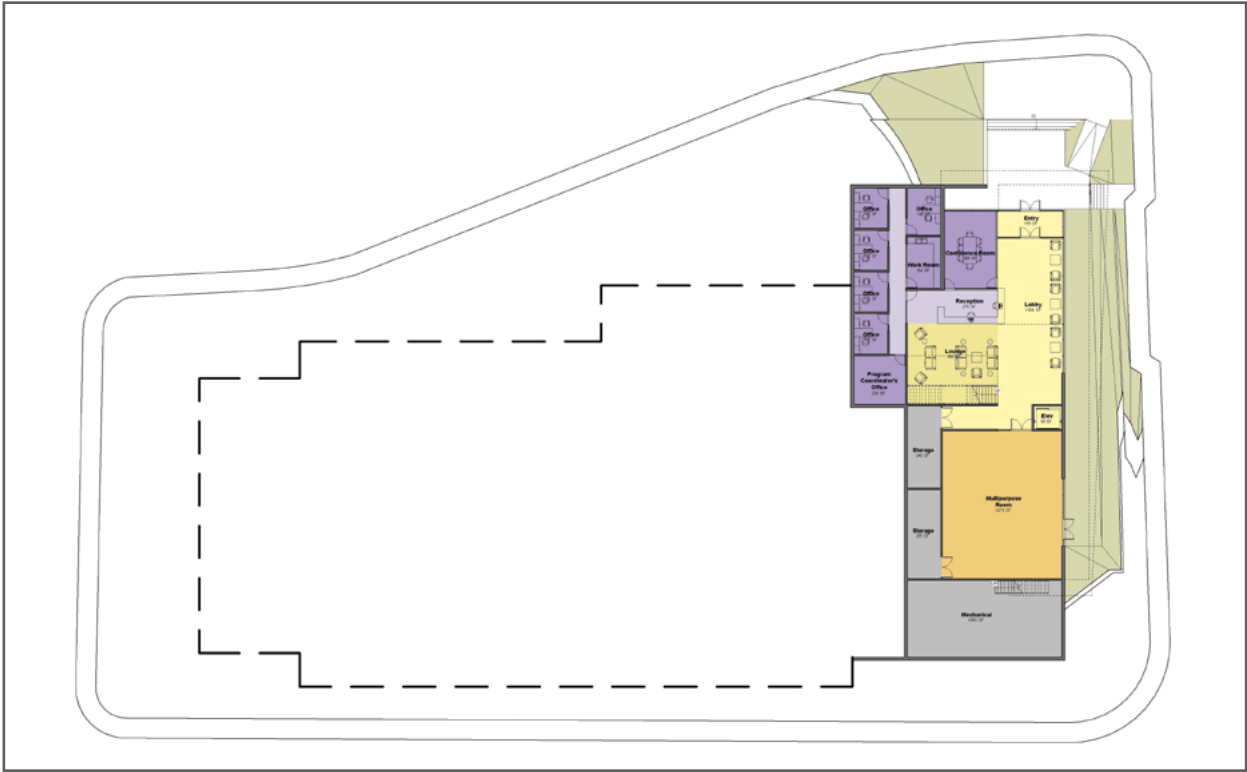
Facility Entry and Lobby
Entry Desk / Reception
Park and Rec offices
Conference Room
Multipurpose Room
Building Storage and Mechanical Room

Level Two Program Spaces

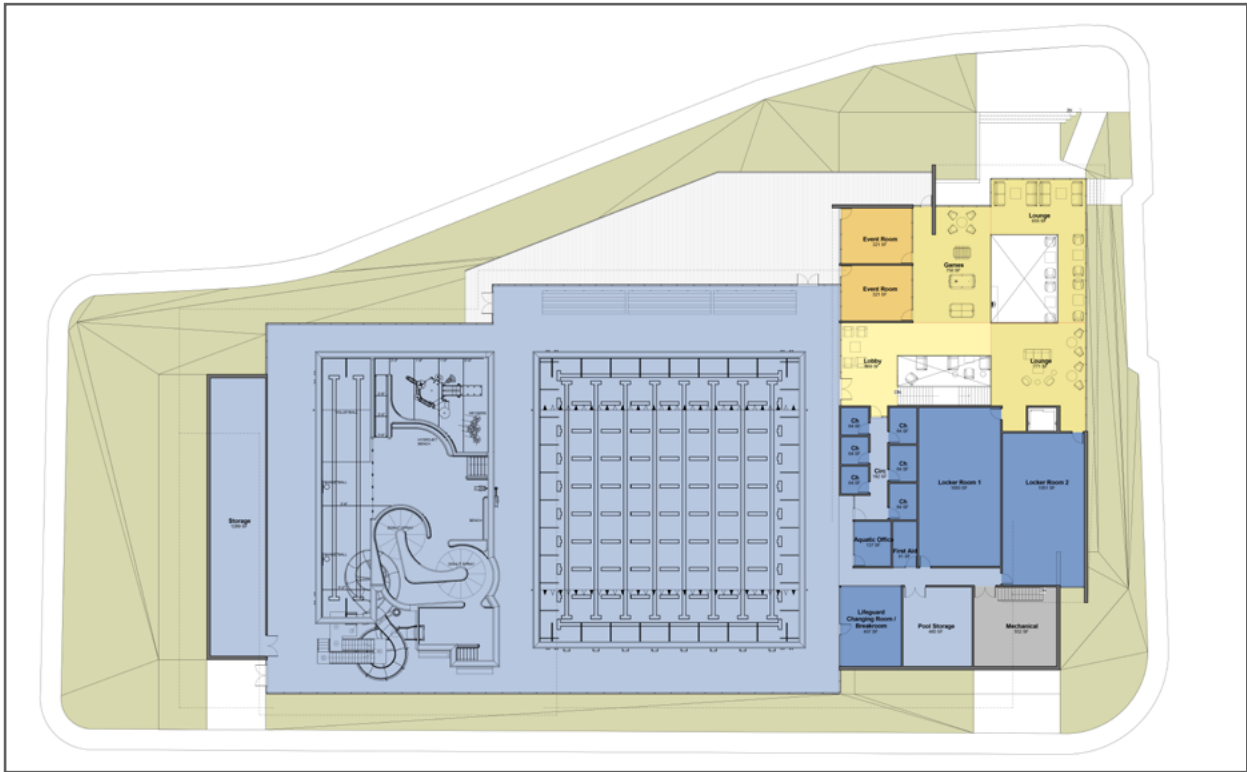
Existing Competition Pool and New Recreation Pool
Event Rooms
Lounge and Game Areas
Locker Rooms
Family Changing Rooms
Lifeguard Office and First Aid
Pool Storage
Pool Mechanical Room

OPTION 3

LEVEL ONE - ENTRY LEVEL



LEVEL TWO - POOL LEVEL



OPTION 4

- Complete New Facility
- A new Recreation Pool and Competition Pool
- A new 2-story Bath House

Level One Program Spaces

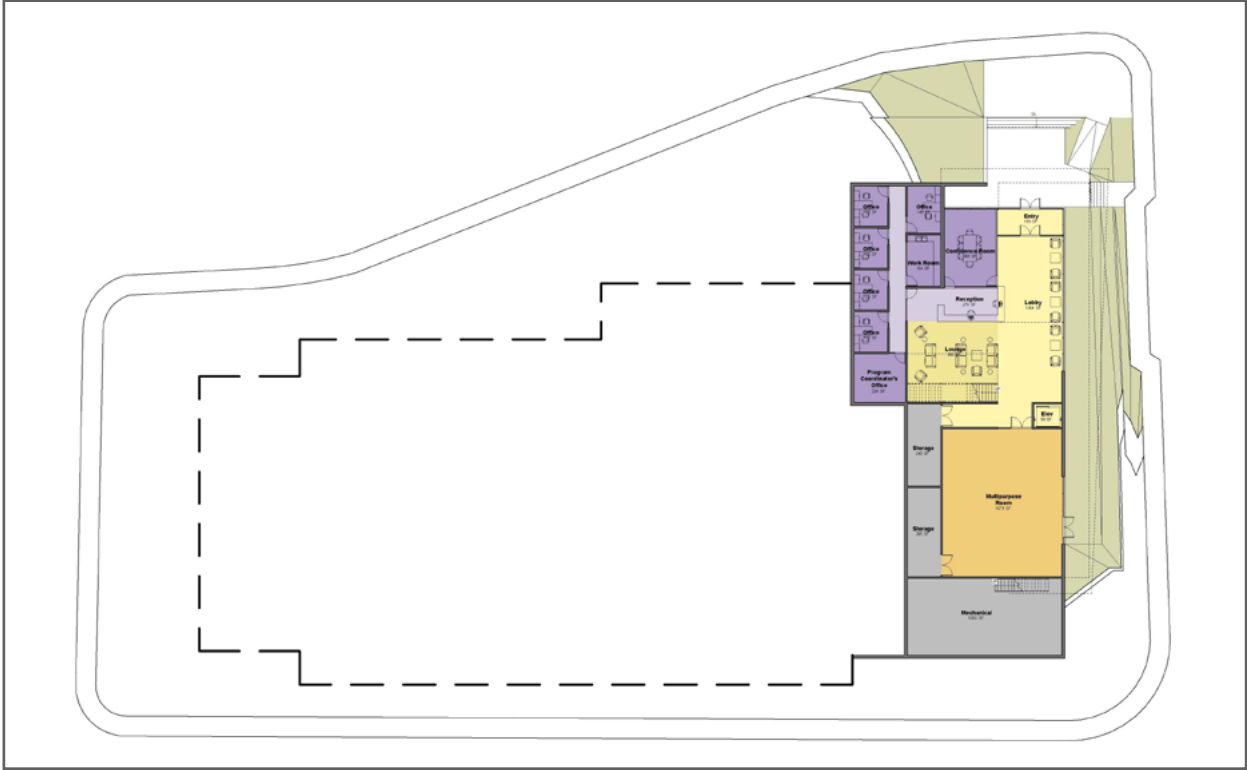
Facility Entry and Lobby
Entry Desk / Reception
Park and Rec offices
Conference Room
Multipurpose Room
Building Storage and Mechanical Room

Level Two Program Spaces

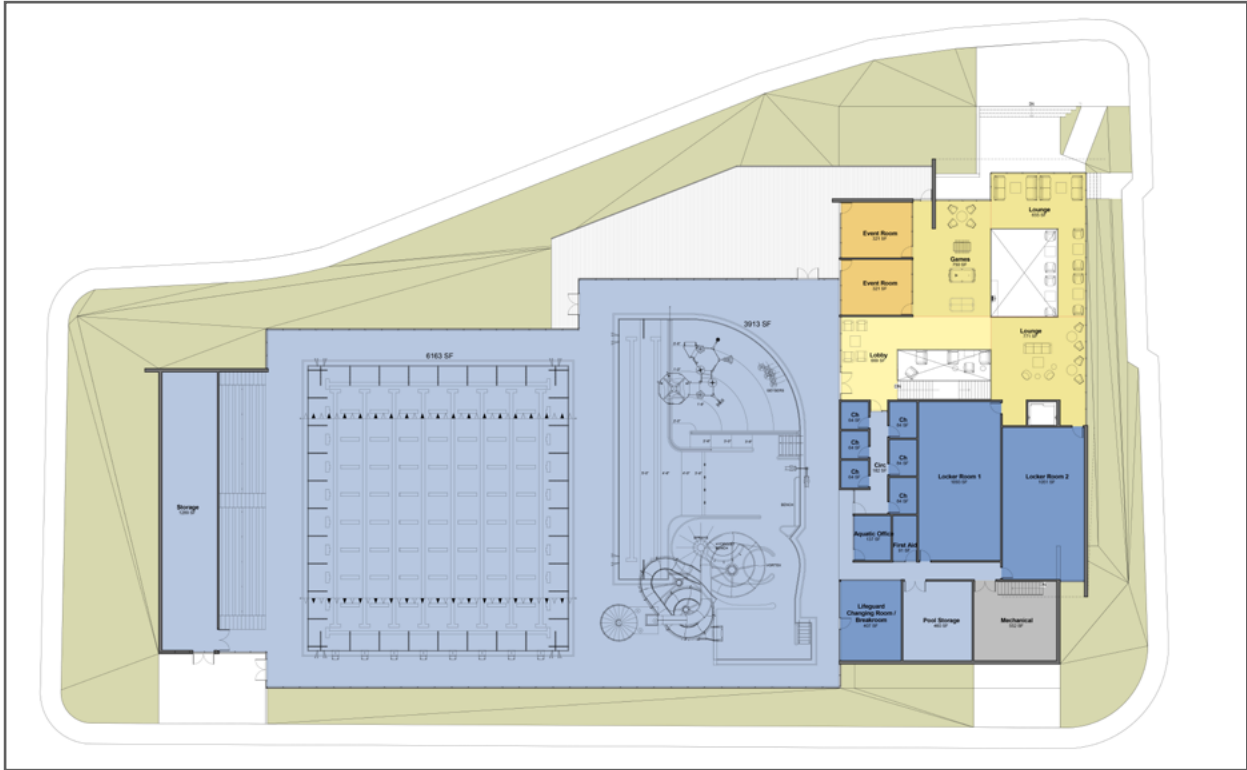
New Competition Pool and New Recreation Pool
Event Rooms
Lounge and Game Areas
Locker Rooms
Family Changing Rooms
Lifeguard Office and First Aid
Pool Storage
Pool Mechanical Room

OPTION 4

LEVEL ONE - ENTRY LEVEL



LEVEL TWO - POOL LEVEL



OPTION 5

- Complete New Facility
- A new Recreation Pool and Competition Pool
- A new 3-story Bath House

Level One Program Spaces

Facility Entry and Lobby
Entry Desk / Reception
Park and Rec offices
Conference Room
Multipurpose Room
Building Storage and Mechanical Room

Level Two Program Spaces

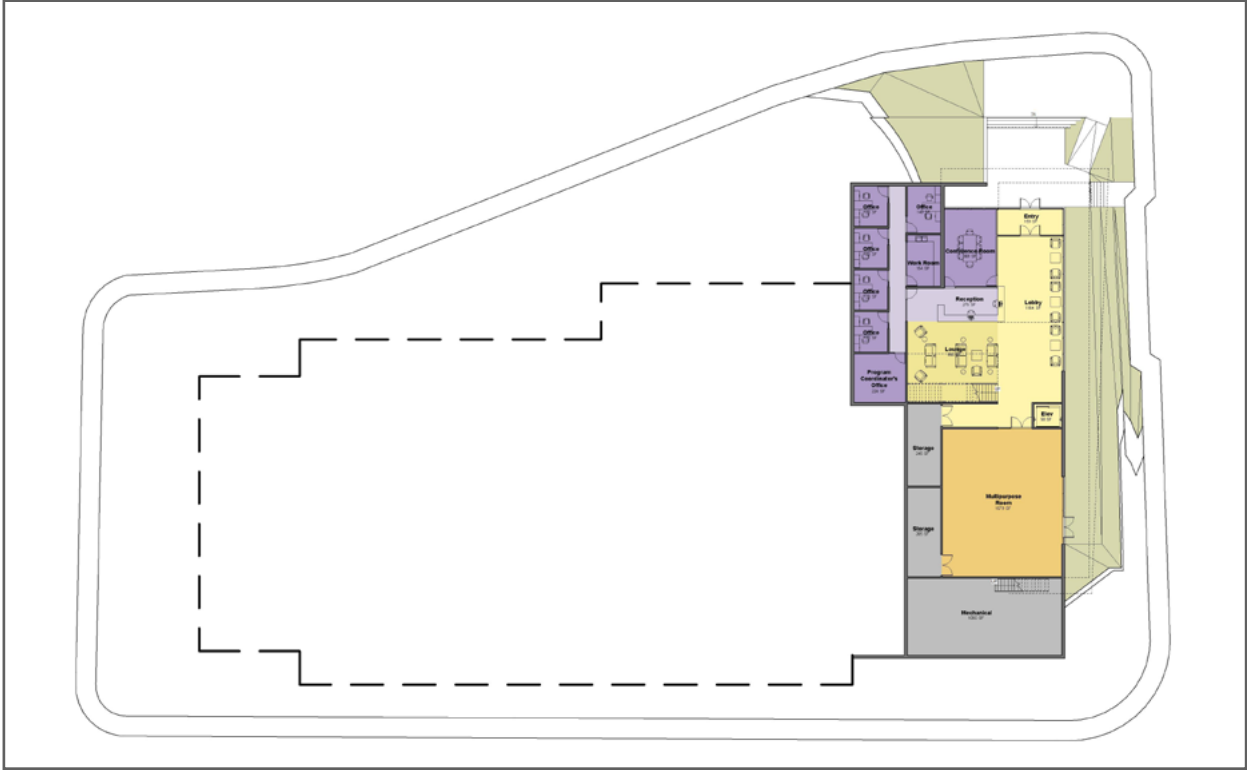
New Competition Pool and New Recreation Pool
Event Rooms
Lounge and Game Areas
Locker Rooms
Family Changing Rooms
Lifeguard Office and First Aid
Pool Storage
Pool Mechanical Room

Level Three Program Spaces

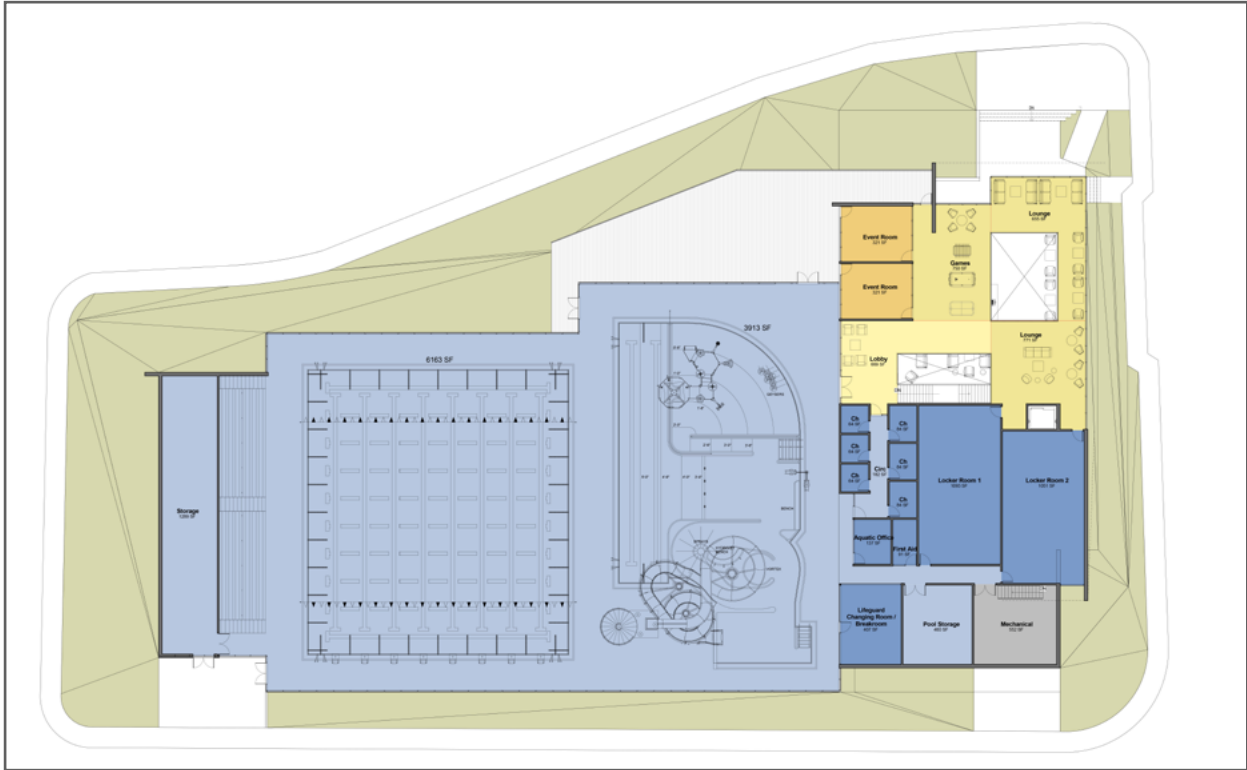
Lounge
Multi-Purpose Room
Cardio / Weight Room
Storage and Mechanical

OPTION 5

LEVEL ONE - ENTRY LEVEL

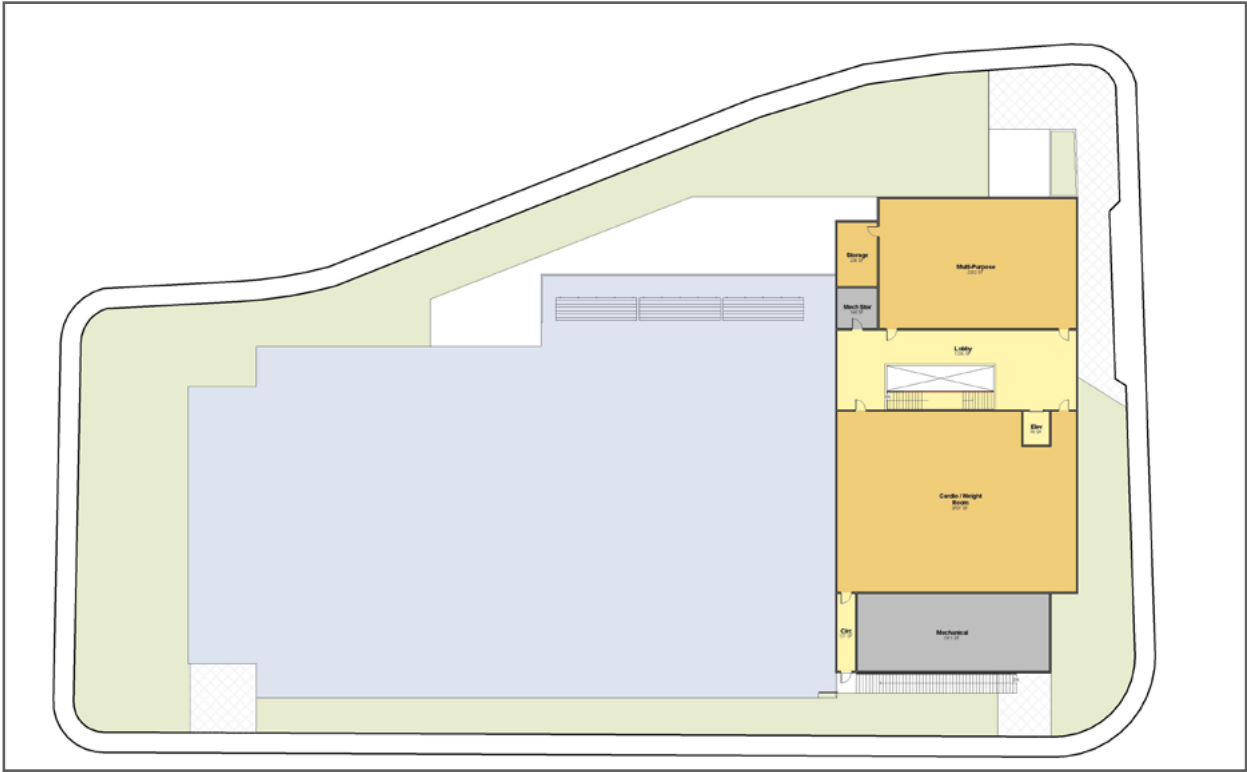


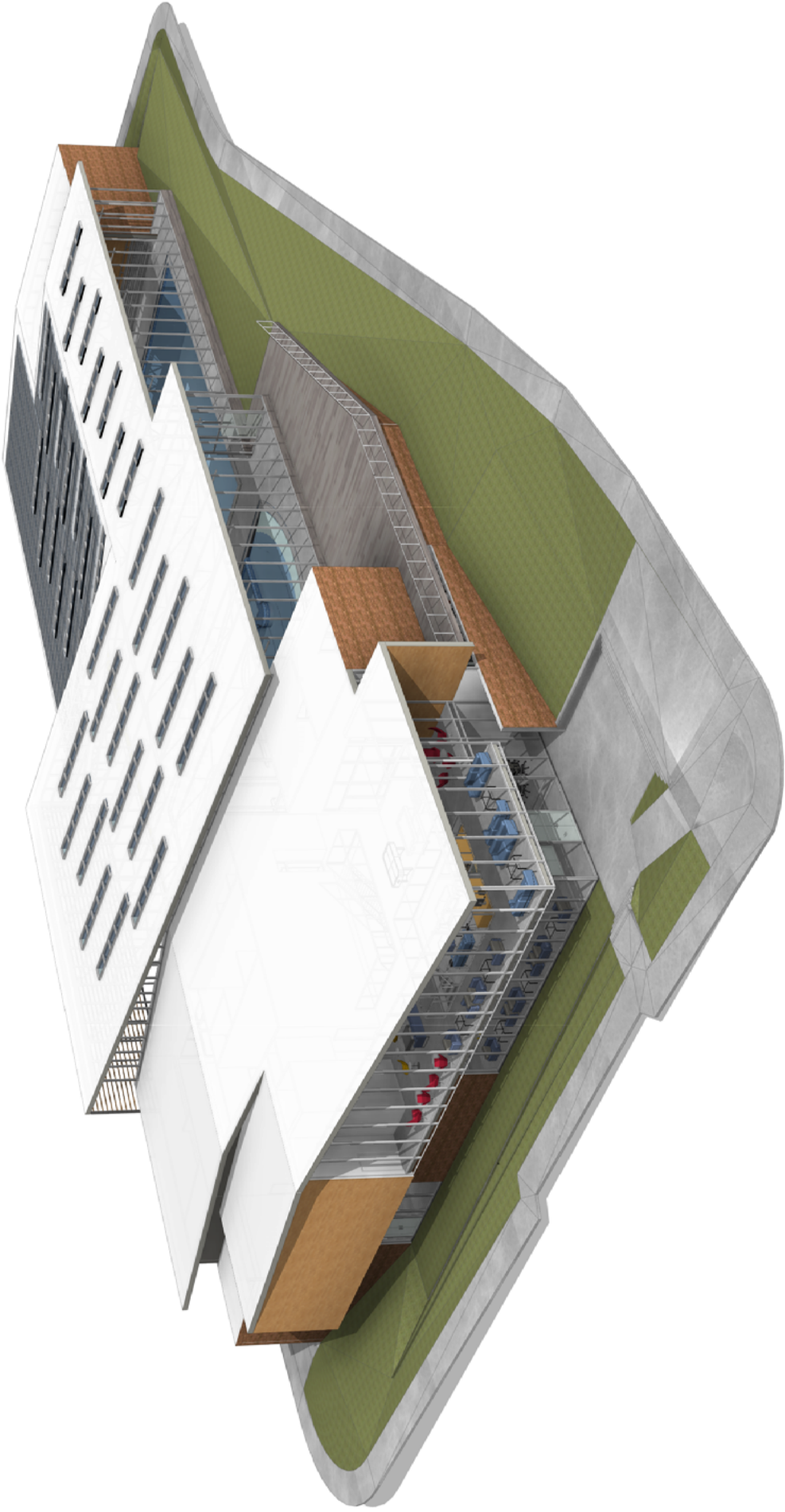
LEVEL TWO - POOL LEVEL



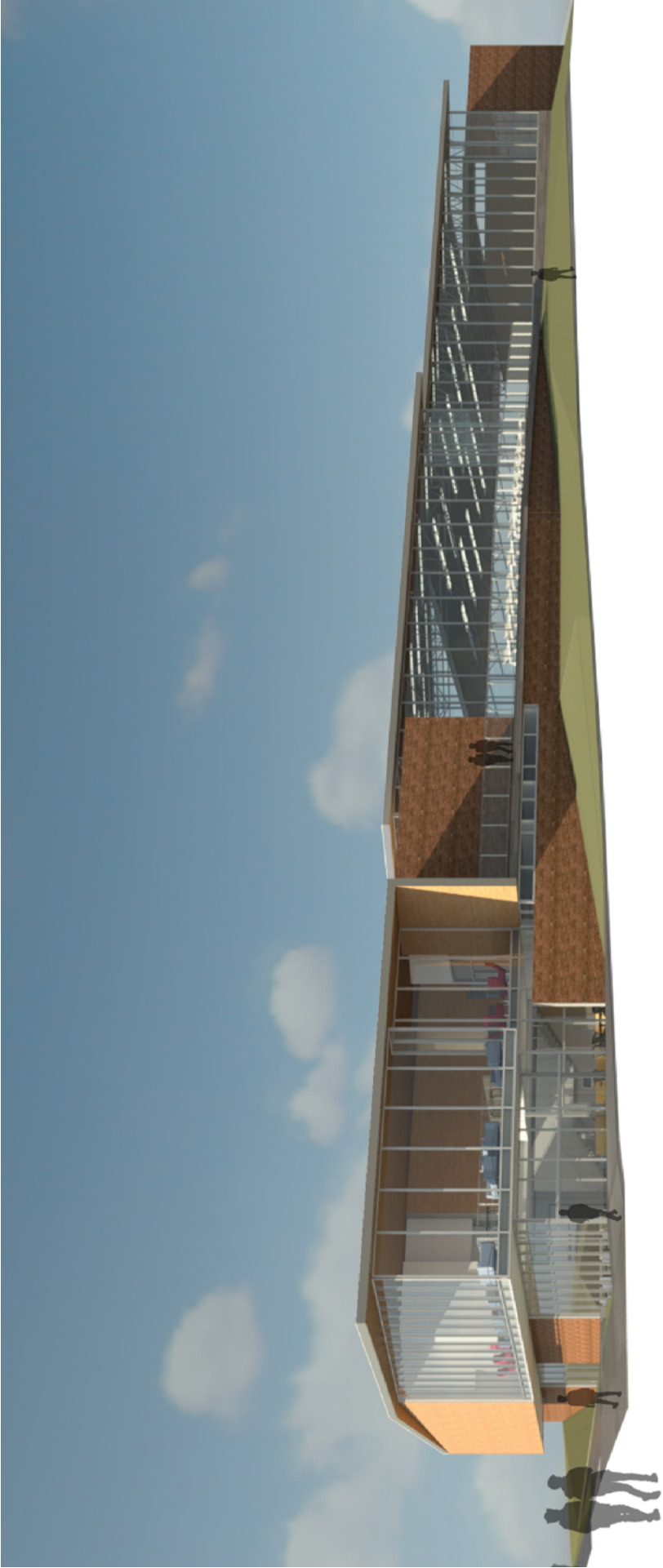
OPTION 5

LEVEL THREE

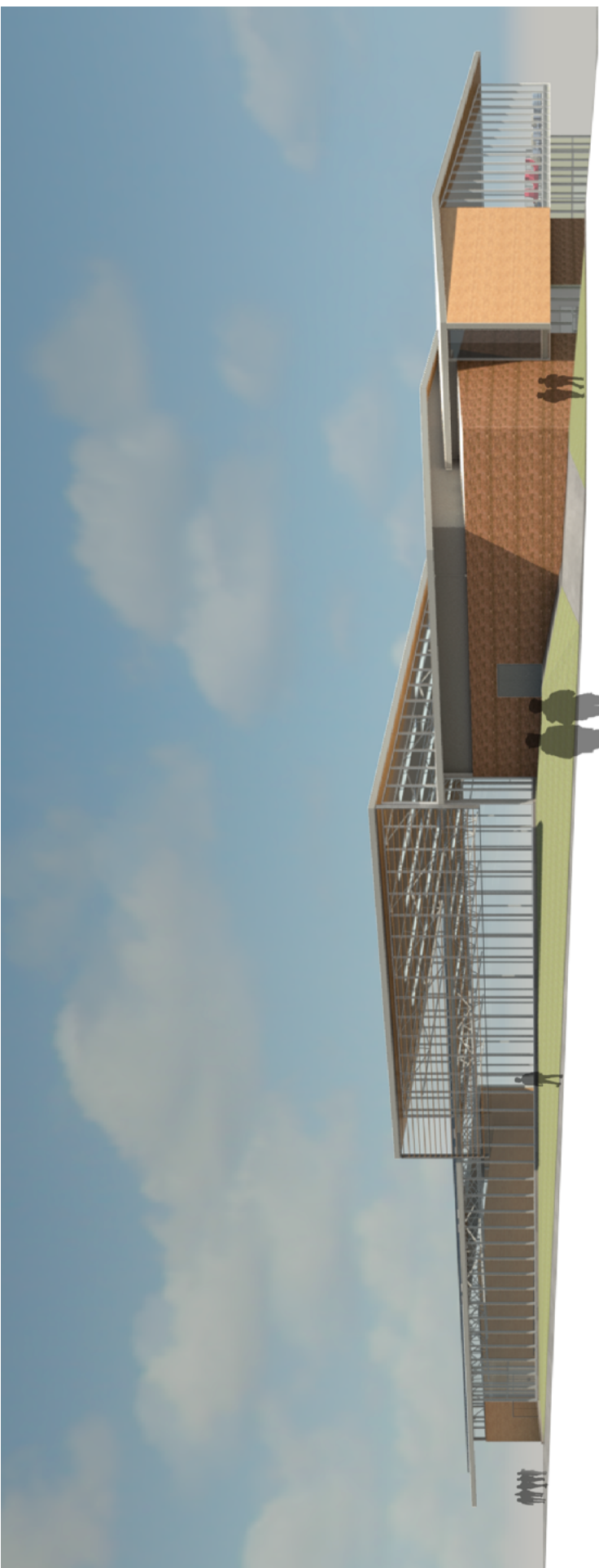




AERIAL VIEW FROM NORTHEAST



NORTH ELEVATION - BUILDING ENTRY



SOUTH ELEVATION - VIEW FROM FIRE STATION



POOL INTERIOR - LOOKING WEST



Hood River Valley Parks and Recreation
Aquatic Center Feasibility Study

6. PROGRAM COST OPTIONS

PROGRAM COST SUMMARY

	Project Area	Construction Cost	Expenses	Operations Revenues	Per-Forma Difference	Recovery
OPTION 1						
Upgrade Existing Pool Systems	25,470	\$1,800,000	\$594,306	\$331,207	-\$263,099	56%
New Pool Cover						
New Pool Mechanical		\$15				
New Bath House Roof		Annual cost per median household				
OPTION 2A						
Upgrade Existing Systems	35,325	\$9,200,000	\$652,401	\$388,332	-\$264,069	60%
New Pool Cover						
New Pool Mechanical		\$44				
New 2-Story Bath House		Annual cost per median household				
OPTION 2B						
Upgrade Existing Systems	35,325	\$13,500,000	\$652,401	\$388,332	-\$264,069	60%
New Pool Enclosure						
New Pool Mechanical		\$65				
New 2-Story Bath House		Annual cost per median household				
OPTION 3						
Upgrade Existing Systems	38,325	\$16,600,000	\$1,172,306	\$891,571	-\$280,735	76%
New Pool Enclosure						
New Pool Mechanical		\$80				
New 2-Story Bath House		Annual cost per median household				
Add New Recreation Pool						
OPTION 4						
Complete New Facility	38,325	\$17,300,000	\$1,172,306	\$903,034	-\$269,272	77%
New 2-Story Bath House						
New Recreation Pool		\$84				
New Competition Pool		Annual cost per median household				
OPTION 5						
Complete New Facility	46,825	\$20,300,000	\$1,785,290	\$1,602,556	-\$182,734	90%
New 3-Story Bath House						
New Recreation Pool		\$100				
New Competition Pool		Annual cost per median household				

OPTION 1
Upgrade Existing Pool Systems
Replace Existing Pool Cover and Mechanical System
New Bath House Roof

	Existing		Cost Range	
NATATORIUM				
C.01 Upgrade Existing Pool Systems		-	\$750,000 -	\$1,000,000
C.02 Replace Pool Covering			\$350,000 -	\$400,000
C.03 Replace Mechanical Unit	18,500	-	\$100,000 -	\$125,000
	18,500	18,500	\$1,200,000	\$1,525,000
			\$65	\$82

TOTAL CONSTRUCTION COST RANGE	\$1,200,000	\$1,525,000
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PROJECT SOFT COSTS (30%)	\$360,000	\$457,500
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TOTAL PROJECT COSTS	\$1,560,000	\$1,982,500
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\$1,771,250
AVERAGE PROJECT COST

OPTION 2A

Upgrade Existing Pool Systems Replace Existing Pool Cover and Mechanical System New 2-Story Bath House

	Existing Area	New Area	Cost / SF Range	Cost Range	
POOL HOUSE					
A.01 Entry Lobby	250	1,800	\$250 A \$300	\$450,000 -	\$540,000
A.02 Reception / Access Control / Registration		275	\$250 - \$300	\$68,750 -	\$82,500
A.03 Vending Alcove		150	\$250 - \$300	\$37,500 -	\$45,000
A.04 Locker Rooms - Men's	900	1,050	\$400 - \$450	\$420,000 -	\$472,500
A.05 Locker Rooms - Women's	1,200	1,100	\$400 - \$450	\$440,000 -	\$495,000
A.06 Family / Special Needs Shower Rooms (85sf each)		170	\$300 - \$350	\$51,000 -	\$59,500
A.07 Family/Special Needs Changing Rooms (65sf ea)	100	195	\$300 - \$350	\$58,500 -	\$68,250
A.08 Level Two Lobby / Lounge		2,620	\$300 - \$350	\$786,000 -	\$917,000
A.09 General Building Storage		245	\$200 - \$250	\$49,000 -	\$61,250
A.10 Maintenance / Receiving / Storage		265	\$200 - \$250	\$53,000 -	\$66,250
A.11 Party Rooms (2)		640	\$250 - \$300	\$160,000 -	\$192,000
A.12 Multipurpose Room		1,590	\$250 - \$300	\$397,500 -	\$477,000
B.01 District Director	2,400	140	\$250 - \$300	\$35,000 -	\$42,000
B.02 Assistant Director		120	\$250 - \$300	\$30,000 -	\$36,000
B.03 Facility Manager Office		120	\$250 - \$300	\$30,000 -	\$36,000
B.04 Program Coordinator's Office (120sf ea)		225	\$250 - \$300	\$56,250 -	\$67,500
B.05 Program Staff Offices (2 @ 120 sf ea)		240	\$250 - \$300	\$60,000 -	\$72,000
B.06 Staff Conference / Breakroom		370	\$250 - \$300	\$92,500 -	\$111,000
B.07 Workroom / Storage / Supplies	600	155	\$250 - \$300	\$38,750 -	\$46,500
C.07 Aquatic Supervisor's Office		120	\$250 - \$300	\$30,000 -	\$36,000
C.08 Aquatic's Office (2 staff)	720	150	\$250 - \$300	\$37,500 -	\$45,000
C.09 First Aid Room		85	\$250 - \$300	\$21,250 -	\$25,500
C.10 Lifeguard Changing / Breakroom		0	\$250 - \$300	\$0 -	\$0
C.11 Pool Storage	100	950	\$250 - \$300	\$237,500 -	\$285,000
C.13 Pool Mechanical & Heater Rooms	700	1,100	\$250 - \$300	\$275,000 -	\$330,000
C.13 Pool Sanitation Storage Room		365	\$250 - \$300	\$91,250 -	\$109,500
	6,970	14,240		4,006,250	4,718,250
Building Circulation, Mech, Walls, Etc.		2,585	\$250 - \$300	\$646,250 -	\$775,500
	6,970	16,825		\$4,652,500	\$5,493,750
				\$277	\$327
NATATORIUM					
C.01 Upgrade Existing Pool Systems			-	\$875,000 -	\$1,265,000
C.02 Replace pool Covering				\$350,000 -	\$400,000
C.03 Replace Mechanical Unit	18,500		-	\$100,000 -	\$125,000
	18,500	18,500		\$1,325,000	\$1,790,000
				\$72	\$97
	Existing	New / Reno			
GROSS BUILDING AREA / COST RANGE	25,470	35,325		5,977,500	7,283,750
				\$169	\$206
SITE DEVELOPMENT COST RANGE				\$300,000	\$500,000
TOTAL CONSTRUCTION COST RANGE				\$6,277,500	\$7,783,750
PROJECT SOFT COSTS (30%)				\$1,883,250	\$2,335,125
TOTAL PROJECT COSTS				\$8,160,750	\$10,118,875
				\$231	\$286
\$9,139,813					
AVERAGE PROJECT COST					

OPTION 2B

Upgrade Existing Pool Systems

New Permanent Pool Enclosure and Mechanical System

New 2-Story Bath House

	Existing Area	New Area	Cost / SF Range	Cost Range			
POOL HOUSE							
A.01 Entry Lobby	250	1,800	\$250 A \$300	\$450,000 -	\$540,000		
A.02 Reception / Access Control / Registration		275	\$250 - \$300	\$68,750 -	\$82,500		
A.03 Vending Alcove		150	\$250 - \$300	\$37,500 -	\$45,000		
A.04 Locker Rooms - Men's	900	1,050	\$400 - \$450	\$420,000 -	\$472,500		
A.05 Locker Rooms - Women's	1,200	1,100	\$400 - \$450	\$440,000 -	\$495,000		
A.06 Family / Special Needs Shower Rooms (85sf each)		170	\$300 - \$350	\$51,000 -	\$59,500		
A.07 Family/Special Needs Changing Rooms (65sf ea)	100	195	\$300 - \$350	\$58,500 -	\$68,250		
A.08 Level Two Lobby / Lounge		2,620	\$300 - \$350	\$786,000 -	\$917,000		
A.09 General Building Storage		245	\$200 - \$250	\$49,000 -	\$61,250		
A.10 Maintenance / Receiving / Storage		265	\$200 - \$250	\$53,000 -	\$66,250		
A.11 Party Rooms (2)		640	\$250 - \$300	\$160,000 -	\$192,000		
A.12 Multipurpose Room		1,590	\$250 - \$300	\$397,500 -	\$477,000		
B.01 District Director	2,400	140	\$250 - \$300	\$35,000 -	\$42,000		
B.02 Assistant Director		120	\$250 - \$300	\$30,000 -	\$36,000		
B.03 Facility Manager Office		120	\$250 - \$300	\$30,000 -	\$36,000		
B.04 Program Coordinator's Office (120sf ea)		225	\$250 - \$300	\$56,250 -	\$67,500		
B.05 Program Staff Offices (2 @ 120 sf ea)		240	\$250 - \$300	\$60,000 -	\$72,000		
B.06 Staff Conference / Breakroom		370	\$250 - \$300	\$92,500 -	\$111,000		
B.07 Workroom / Storage / Supplies	600	155	\$250 - \$300	\$38,750 -	\$46,500		
C.07 Aquatic Supervisor's Office		120	\$250 - \$300	\$30,000 -	\$36,000		
C.08 Aquatic's Office (2 staff)	720	150	\$250 - \$300	\$37,500 -	\$45,000		
C.09 First Aid Room		85	\$250 - \$300	\$21,250 -	\$25,500		
C.10 Lifeguard Changing / Breakroom		0	\$250 - \$300	\$0 -	\$0		
C.11 Pool Storage	100	950	\$250 - \$300	\$237,500 -	\$285,000		
C.13 Pool Mechanical & Heater Rooms	700	1,100	\$250 - \$300	\$275,000 -	\$330,000		
C.13 Pool Sanitation Storage Room		365	\$250 - \$300	\$91,250 -	\$109,500		
	6,970	14,240		4,006,250	4,718,250		
Building Circulation, Mech, Walls, Etc.		2,585	\$250 - \$300	\$646,250 -	\$775,500		
	6,970	16,825		\$4,652,500	\$5,493,750		
				\$277	\$327		
NATATORIUM							
C.01 Upgrade Existing Pool Systems			-	\$875,000 -	\$1,265,000		
C.02 New Pool Enclosure				\$3,500,000 -	\$4,000,000		
C.03 Replace Mechanical Unit	18,500		-	\$100,000 -	\$125,000		
	18,500	18,500		\$4,475,000	\$5,390,000		
				\$242	\$291		
	Existing	New / Reno					
GROSS BUILDING AREA / COST RANGE	25,470	35,325		9,127,500	10,883,750		
				\$258	\$308		
SITE DEVELOPMENT COST RANGE				\$300,000	\$500,000		
TOTAL CONSTRUCTION COST RANGE				\$9,427,500	\$11,383,750		
PROJECT SOFT COSTS (30%)				\$2,828,250	\$3,415,125		
TOTAL PROJECT COSTS				\$12,255,750	\$14,798,875		
				\$347	\$419		
<table border="1" style="margin: auto;"> <tr> <td>\$13,527,313</td> </tr> <tr> <td>AVERAGE PROJECT COST</td> </tr> </table>						\$13,527,313	AVERAGE PROJECT COST
\$13,527,313							
AVERAGE PROJECT COST							

OPTION 3

New Permanent Pool Enclosure and Mechanical System

New 2-Story Bath House

New Recreation added to Existing Competition Pool

	Existing Area	New Area	Cost / SF Range	Cost Range			
POOL HOUSE							
A.01 Entry Lobby	250	1,800	\$250 - \$300	\$450,000 -	\$540,000		
A.02 Reception / Access Control / Registration		275	\$250 - \$300	\$68,750 -	\$82,500		
A.03 Vending Alcove		150	\$250 - \$300	\$37,500 -	\$45,000		
A.04 Locker Rooms - Men's	900	1,050	\$400 - \$450	\$420,000 -	\$472,500		
A.05 Locker Rooms - Women's	1,200	1,100	\$400 - \$450	\$440,000 -	\$495,000		
A.06 Family / Special Needs Shower Rooms (85sf each)		170	\$300 - \$350	\$51,000 -	\$59,500		
A.07 Family/Special Needs Changing Rooms (65sf ea)	100	195	\$300 - \$350	\$58,500 -	\$68,250		
A.08 Level Two Lobby / Lounge		2,620	\$300 - \$350	\$786,000 -	\$917,000		
A.09 General Building Storage		245	\$200 - \$250	\$49,000 -	\$61,250		
A.10 Maintenance / Receiving / Storage		265	\$200 - \$250	\$53,000 -	\$66,250		
A.11 Party Rooms (2)		640	\$250 - \$300	\$160,000 -	\$192,000		
A.12 Multipurpose Room		1,590	\$250 - \$300	\$397,500 -	\$477,000		
B.01 District Director	2,400	140	\$250 - \$300	\$35,000 -	\$42,000		
B.02 Assistant Director		120	\$250 - \$300	\$30,000 -	\$36,000		
B.03 Facility Manager Office		120	\$250 - \$300	\$30,000 -	\$36,000		
B.04 Program Coordinator's Office (120sf ea)		225	\$250 - \$300	\$56,250 -	\$67,500		
B.05 Program Staff Offices (2 @ 120 sf ea)		240	\$250 - \$300	\$60,000 -	\$72,000		
B.06 Staff Conference / Breakroom		370	\$250 - \$300	\$92,500 -	\$111,000		
B.07 Workroom / Storage / Supplies	600	155	\$250 - \$300	\$38,750 -	\$46,500		
C.07 Aquatic Supervisor's Office		120	\$250 - \$300	\$30,000 -	\$36,000		
C.08 Aquatic's Office (2 staff)	720	150	\$250 - \$300	\$37,500 -	\$45,000		
C.09 First Aid Room		85	\$250 - \$300	\$21,250 -	\$25,500		
C.10 Lifeguard Changing / Breakroom		0	\$250 - \$300	\$0 -	\$0		
C.11 Pool Storage	100	950	\$250 - \$300	\$237,500 -	\$285,000		
C.13 Pool Mechanical & Heater Rooms	700	1,100	\$250 - \$300	\$275,000 -	\$330,000		
C.13 Pool Sanitation Storage Room		365	\$250 - \$300	\$91,250 -	\$109,500		
	6,970	14,240		4,006,250	4,718,250		
Building Circulation, Mech, Walls, Etc.		2,585	\$250 - \$300	\$646,250 -	\$775,500		
	6,970	16,825		\$4,652,500	\$5,493,750		
				\$277	\$327		
NATATORIUM							
C.01 New Recreation Pool (water 3,500sf)			-	\$900,000 -	\$1,300,000		
C.02 Renovate 10-Lane 25 Yard Pool (water 6,400sf)			-	\$1,000,000 -	\$1,200,000		
C.03 Spectator Seating (300 seats)				\$50,000 -	\$70,000		
C.06 Natatorium (Bldg Shell and Mech/Elect)	18,500	21,500	\$200 - \$250	\$4,300,000 -	\$5,375,000		
	18,500	21,500		\$6,250,000	\$7,945,000		
				\$291	\$370		
	Existing	New / Reno					
GROSS BUILDING AREA / COST RANGE	25,470	38,325		10,902,500	13,438,750		
				\$284	\$351		
SITE DEVELOPMENT COST RANGE				\$500,000	\$750,000		
TOTAL CONSTRUCTION COST RANGE				\$11,402,500	\$14,188,750		
PROJECT SOFT COSTS (30%)				\$3,420,750	\$4,256,625		
TOTAL PROJECT COSTS				\$14,823,250	\$18,445,375		
				\$387	\$481		
<table border="1" style="margin: auto;"> <tr> <td>\$16,634,313</td> </tr> <tr> <td>AVERAGE PROJECT COST</td> </tr> </table>						\$16,634,313	AVERAGE PROJECT COST
\$16,634,313							
AVERAGE PROJECT COST							

OPTION 4

Complete New Facility

New 2-Story Bath House

New Recreation and Competition Pools

	Existing Area	New Area	Cost / SF Range	Cost Range			
POOL HOUSE							
A.01 Entry Lobby	250	1,800	\$250 - \$300	\$450,000 -	\$540,000		
A.02 Reception / Access Control / Registration		275	\$250 - \$300	\$68,750 -	\$82,500		
A.03 Vending Alcove		150	\$250 - \$300	\$37,500 -	\$45,000		
A.04 Locker Rooms - Men's	900	1,050	\$400 - \$450	\$420,000 -	\$472,500		
A.05 Locker Rooms - Women's	1,200	1,100	\$400 - \$450	\$440,000 -	\$495,000		
A.06 Family / Special Needs Shower Rooms (85sf each)		170	\$300 - \$350	\$51,000 -	\$59,500		
A.07 Family/Special Needs Changing Rooms (65sf ea)	100	195	\$300 - \$350	\$58,500 -	\$68,250		
A.08 Level Two Lobby / Lounge		2,620	\$300 - \$350	\$786,000 -	\$917,000		
A.09 General Building Storage		245	\$200 - \$250	\$49,000 -	\$61,250		
A.10 Maintenance / Receiving / Storage		265	\$200 - \$250	\$53,000 -	\$66,250		
A.11 Party Rooms (2)		640	\$250 - \$300	\$160,000 -	\$192,000		
A.12 Multipurpose Room		1,590	\$250 - \$300	\$397,500 -	\$477,000		
B.01 District Director	2,400	140	\$250 - \$300	\$35,000 -	\$42,000		
B.02 Assistant Director		120	\$250 - \$300	\$30,000 -	\$36,000		
B.03 Facility Manager Office		120	\$250 - \$300	\$30,000 -	\$36,000		
B.04 Program Coordinator's Office (120sf ea)		225	\$250 - \$300	\$56,250 -	\$67,500		
B.05 Program Staff Offices (2 @ 120 sf ea)		240	\$250 - \$300	\$60,000 -	\$72,000		
B.06 Staff Conference / Breakroom		370	\$250 - \$300	\$92,500 -	\$111,000		
B.07 Workroom / Storage / Supplies	600	155	\$250 - \$300	\$38,750 -	\$46,500		
C.07 Aquatic Supervisor's Office		120	\$250 - \$300	\$30,000 -	\$36,000		
C.08 Aquatic's Office (2 staff)	720	150	\$250 - \$300	\$37,500 -	\$45,000		
C.09 First Aid Room		85	\$250 - \$300	\$21,250 -	\$25,500		
C.10 Lifeguard Changing / Breakroom		0	\$250 - \$300	\$0 -	\$0		
C.11 Pool Storage	100	950	\$250 - \$300	\$237,500 -	\$285,000		
C.13 Pool Mechanical & Heater Rooms	700	1,100	\$250 - \$300	\$275,000 -	\$330,000		
C.13 Pool Sanitation Storage Room		365	\$250 - \$300	\$91,250 -	\$109,500		
	6,970	14,240		4,006,250	4,718,250		
Building Circulation, Mech, Walls, Etc.		2,585	\$250 - \$300	\$646,250 -	\$775,500		
	6,970	16,825		\$4,652,500	\$5,493,750		
				\$277	\$327		
NATATORIUM							
C.01 New Recreation Pool (water 3,500sf)			-	\$900,000 -	\$1,300,000		
C.02 New 10-Lane 25 Yard Pool (water 6,400sf)			-	\$1,500,000 -	\$1,700,000		
C.03 Spectator Seating (300 seats)				\$50,000 -	\$70,000		
C.06 Natatorium (Bldg Shell and Mech/Elect)	18,500	21,500	\$200 - \$250	\$4,300,000 -	\$5,375,000		
	18,500	21,500		\$6,750,000	\$8,445,000		
				\$314	\$393		
	Existing	New / Reno					
GROSS BUILDING AREA / COST RANGE	25,470	38,325		11,402,500	13,938,750		
				\$298	\$364		
SITE DEVELOPMENT COST RANGE				\$500,000	\$750,000		
TOTAL CONSTRUCTION COST RANGE				\$11,902,500	\$14,688,750		
PROJECT SOFT COSTS (30%)				\$3,570,750	\$4,406,625		
TOTAL PROJECT COSTS				\$15,473,250	\$19,095,375		
				\$404	\$498		
<table border="1" style="margin: auto;"> <tr> <td>\$17,284,313</td> </tr> <tr> <td>AVERAGE PROJECT COST</td> </tr> </table>						\$17,284,313	AVERAGE PROJECT COST
\$17,284,313							
AVERAGE PROJECT COST							

OPTION 5

Complete New Facility

New 3-Story Bath House

New Recreation and Competition Pools

	Existing Area	New Area	Cost / SF Range	Cost Range	
POOL HOUSE					
A.01 Entry Lobby	250	1,800	\$250 - \$300	\$450,000 -	\$540,000
A.02 Reception / Access Control / Registration		275	\$250 - \$300	\$68,750 -	\$82,500
A.03 Vending Alcove		150	\$250 - \$300	\$37,500 -	\$45,000
A.04 Locker Rooms - Men's	900	1,050	\$400 - \$450	\$420,000 -	\$472,500
A.05 Locker Rooms - Women's	1,200	1,100	\$400 - \$450	\$440,000 -	\$495,000
A.06 Family / Special Needs Shower Rooms (85sf each)		170	\$300 - \$350	\$51,000 -	\$59,500
A.07 Family/Special Needs Changing Rooms (65sf ea)	100	195	\$300 - \$350	\$58,500 -	\$68,250
A.08 Level Two Lobby / Lounge		2,620	\$300 - \$350	\$786,000 -	\$917,000
A.09 General Building Storage		245	\$200 - \$250	\$49,000 -	\$61,250
A.10 Maintenance / Receiving / Storage		265	\$200 - \$250	\$53,000 -	\$66,250
A.11 Party Rooms (2)		640	\$250 - \$300	\$160,000 -	\$192,000
A.12 Multipurpose Room		1,590	\$250 - \$300	\$397,500 -	\$477,000
B.01 District Director	2,400	140	\$250 - \$300	\$35,000 -	\$42,000
B.02 Assistant Director		120	\$250 - \$300	\$30,000 -	\$36,000
B.03 Facility Manager Office		120	\$250 - \$300	\$30,000 -	\$36,000
B.04 Program Coordinator's Office (120sf ea)		225	\$250 - \$300	\$56,250 -	\$67,500
B.05 Program Staff Offices (2 @ 120 sf ea)		240	\$250 - \$300	\$60,000 -	\$72,000
B.06 Staff Conference / Breakroom		370	\$250 - \$300	\$92,500 -	\$111,000
B.07 Workroom / Storage / Supplies	600	155	\$250 - \$300	\$38,750 -	\$46,500
C.01 Aquatic Supervisor's Office		120	\$250 - \$300	\$30,000 -	\$36,000
C.02 Aquatic's Office (2 staff)	720	150	\$250 - \$300	\$37,500 -	\$45,000
C.03 First Aid Room		85	\$250 - \$300	\$21,250 -	\$25,500
C.04 Lifeguard Changing / Breakroom		0	\$250 - \$300	\$0 -	\$0
C.05 Pool Storage	100	950	\$250 - \$300	\$237,500 -	\$285,000
C.06 Pool Mechanical & Heater Rooms	700	1,100	\$250 - \$300	\$275,000 -	\$330,000
C.07 Pool Sanitation Storage Room		365	\$250 - \$300	\$91,250 -	\$109,500
D.01 Multi-Purpose Group Exercise		1,800	\$250 - \$300	\$450,000 -	\$540,000
D.02 GE Storage		200	\$250 - \$300	\$50,000 -	\$60,000
D.03 Cardiovascular / Weight Room		3,200	\$250 - \$300	\$800,000 -	\$960,000
D.04 C/W Storage		150	\$200 - \$250	\$30,000 -	\$37,500
D.05 Fitness Assessment / Health Screen Room		150	\$250 - \$300	\$37,500 -	\$45,000
D.06 Childwatch Room		900	\$250 - \$300	\$225,000 -	\$270,000
D.07 CW Storage		80	\$200 - \$250	\$16,000 -	\$20,000
D.08 CW Restrooms (boy's and girl's)		60	\$300 - \$350	\$18,000 -	\$21,000
E.01 Casual Activities Lounge Areas		600	\$250 - \$300	\$150,000 -	\$180,000
E.02 Multi-Purpose Room		1,200	\$250 - \$300	\$300,000 -	\$360,000
E.03 Multi-Purpose Room Storage		100	\$250 - \$300	\$25,000 -	\$30,000
	6,970	22,680		\$6,107,750	\$7,241,750
Building Circulation, Mech, Walls, Etc.		2,645	\$250 - \$300	\$661,250 -	\$793,500
	6,970	25,325		\$6,769,000	\$8,035,250
				\$267	\$317
NATATORIUM					
C.01 New Recreation Pool (water 3,500sf)			-	\$900,000 -	\$1,300,000
C.02 New 10-Lane 25 Yard Pool (water 6,400sf)			-	\$1,500,000 -	\$1,700,000
C.03 Spectator Seating (300 seats)				\$50,000 -	\$70,000
C.06 Natatorium (Bldg Shell and Mech/Elect)	18,500	21,500	\$200 - \$250	\$4,300,000 -	\$5,375,000
	18,500	21,500		\$6,750,000	\$8,445,000
				\$314	\$393
	Existing	New / Reno			
GROSS BUILDING AREA / COST RANGE	25,470	46,825		13,519,000	16,480,250
				\$289	\$352
SITE DEVELOPMENT COST RANGE				\$500,000	\$750,000
TOTAL CONSTRUCTION COST RANGE				\$14,019,000	\$17,230,250
PROJECT SOFT COSTS (30%)				\$4,205,700	\$5,169,075
TOTAL PROJECT COSTS				\$18,224,700	\$22,399,325
				\$389	\$478

\$20,312,013
AVERAGE PROJECT COST