

Regular Joint Meeting
August 3, 2026
1:30 PM
County Commissioner's Chambers
Chair: Mark Newcomb

NOTICE: THE VIDEO AND AUDIO FOR THIS MEETING ARE STREAMED TO THE PUBLIC VIA THE INTERNET AND MOBILE DEVICES WITH VIEWS THAT ENCOMPASS ALL AREAS, PARTICIPANTS AND AUDIENCE MEMBERS. PLEASE SILENCE ALL ELECTRONIC DEVICES DURING THE MEETING.

I. ZOOM LINK FOR PUBLIC PARTICIPATION

The Town and County reserve the right to close Public Comment via Zoom at any time. In-person comment will continue to be taken and written comments can always be submitted to Town Council by emailing electedofficials@jacksonwy.gov and to County Commissioners by emailing commissioners@tetoncountywy.gov.

- A. To join, click link or copy it to your browser: <https://us02web.zoom.us/j/83812781166>
Or join at zoom.com with Webinar ID: **838 1278 1166** or by phone: **+1 669 900 6833**

II. CALL TO ORDER, ROLL CALL, AND ANNOUNCEMENTS

III. PUBLIC COMMENT

This section is reserved for comments on items that are not otherwise included in this agenda. Public comment is limited to 3 minutes. As a general practice, the Electeds will not hold discussion or debate these comments. Nor will they make any decisions presented during this time, but rather refer to staff for follow-up. If you would like to communicate with the Electeds during the meeting, please address them during this open public comment, when public comment is called for on a specific agenda item or send an email to council@jacksonwy.gov and commissioners@tetoncountywy.gov.

IV. CONSENT CALENDAR

- A. Meeting Minutes
1. July 6, 2026 Regular Joint Meeting
 2. July 7, 2026 Special Joint Meeting
 3. July 14, 2026 Special Joint Meeting

V. DISCUSSION/ACTION ITEMS

- A. Aquatics Facilities Planning Workshop (Tyler Florence, Max Moran & Cody Daigle, 60 mins)
- B. Housing Rules and Regulations Issue Analysis (Stacy Stoker & April Norton, 90 mins)

VI. MATTERS FROM COUNCIL, COMMISSIONERS AND STAFF

VII. PROPOSED ITEMS FOR FUTURE JOINT MEETINGS

START Budget and Level of Service Alternatives - August 31st Special Meeting

Transportation Impact & Maintenance Fee Nexus Study

Joint Power Agreement - START, Transportation

Joint Power Agreement Updates - Dispatch, Treatment Court, Animal Shelter, Victim Services & Long Range Planning

VIII. ADJOURN

Please note that at any point during the meeting, the Chair or Mayor may change the order of items listed on this agenda. In order to ensure that you are present at the time your item of interest is discussed, please join the meeting at the beginning to hear any changes to the schedule or agenda.

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**JOINT PROCEEDINGS
TOWN COUNCIL AND BOARD OF COUNTY COMMISSIONERS MEETING**

JULY 6, 2026

JACKSON, WYOMING

The Jackson Town Council and the Teton County Board of County Commissioners met in a regular joint meeting (JM) at 1:31 p.m. in the Town Council Chambers located at 150 East Pearl Avenue in Jackson. This meeting was held in-person and through the Zoom platform. Upon roll call the following were found to be present:

COUNTY COMMISSIONERS: Chair Mark Newcomb, Wes Gardner, Natalia Macker, Luther Propst, and Len Carlman.

TOWN COUNCIL: Mayor Arne Jorgensen, Jonathan Schechter, Kevin Regan, and Alyson Sperry. Devon Viehman was absent.

STAFF: Keith Gingery, Jodie Pond, Lea Colasuonno, Tyler Sinclair, Lea Colasuonno, Mike Toronto, David Garcia, Tyler Florence, Cody Daigle, and Rose Robertson.

Public Comment. There was no public comment.

Consent Calendar. There was no public comment on the consent calendar.

A. Meeting Minutes. To approve minutes from the June 1, 2026 Regular Joint Meeting.

Chair Newcomb proposed an edit to correct the name of Jen Haynam in the meeting minutes.

On behalf of the County, a motion was made by Commissioner Macker and seconded by Commissioner Carlman to approve the minutes as amended. Chair Newcomb called for the vote. The vote showed all in favor. The motion carried for the County.

On behalf of the Town, a motion was made by Councilmember Regan and seconded by Councilmember Sperry to approve the minutes as amended. Mayor Jorgensen called for the vote. The vote showed all in favor. The motion carried for the Town 4-0.

Matters for Discussion.

A. START Federal Funding Update

Mike Toronto provided staff comment. Commission and Council held discussion with staff. Tyler Sinclair provided staff comment. There was no public comment. Commission and Council provided comment.

No action was taken.

B. Town Proposal to Teton County for Discussion of Future Joint Efforts

Tyler Sinclair provided the presentation. Council provided comment. There was no public comment. Commission and Council provided comment.

No action was taken.

The meeting recessed at 2:53 p.m. and reconvened at 3:04 p.m.

C. Parks & Recreation Joint Powers Agreement Review

Jodie Pond, Tyler Sinclair, and Tyler Florence provided staff comment. Commission and Council held discussion with staff. Lea Colasuonno provided staff comment. There was no public comment. Commission and Council provided comment.

On behalf of the County, a motion was made by Commissioner Gardner and seconded by Commissioner Propst to direct staff to prepare a one-year extension of the existing Parks & Rec Joint Powers Agreement for consideration at a future meeting, and further move to direct staff to prepare a revised Parks & Rec Joint Powers Agreement for consideration at a future meeting with future funding determined as follows: Rec Center capital and operations, Parks capital and operations, maintenance of non-park public facilities, and governance recommendations for the Parks & Rec Board.

Commissioner Propst suggested a friendly amendment to add a date instead of a date uncertain.

Commission and Council held discussion with staff.

Commissioner Gardner, as the motion maker, withdrew the motion. Commissioner Propst, as the motion second, supported the withdrawal.

The meeting recessed at 4:21 p.m. and reconvened at 4:26 p.m.

On behalf of the County, a motion was made by Commissioner Gardner and seconded by Chair Newcomb to direct staff to prepare a one-year extension through June 30th, 2027, of the existing Parks & Rec Joint Powers Agreement for consideration at our August joint meeting. Chair Newcomb called for the vote. The vote showed all in favor. The motion carried for the County.

On behalf of the Town, a motion was made by Councilmember Schechter and seconded by Councilmember Sperry to direct staff to prepare a one-year extension through June 30th, 2027, of the existing Parks & Rec Joint Powers Agreement for consideration at our August joint meeting. Mayor Jorgensen called for the vote. The vote showed all in favor. The motion carried for the Town 4-0.

On behalf of the County, a motion was made by Commissioner Gardner and seconded by Commissioner Propst to continue this item to a future meeting and direct staff to provide additional information to be considered in a revised Joint Powers Agreement as follows:

- Alternatives 4 and 5,
- Parks and Rec Board email dated April 22 considering their future role, and
- Retaining a facilitator to assist.

Council and Commission provided comment.

Following discussion between Commission, Council, and staff, a friendly amendment was proposed to add the joint meeting date of September 14.

Commissioner Gardner, as the motion maker, accepted the friendly amendment to change a future meeting date to September 14.

The new motion now reads: I move to continue this item to the September 14 joint meeting and direct staff to provide additional information to be considered in a revised Joint Powers Agreement as follows:

- Alternatives 4 and 5,
- Parks and Rec Board email dated April 22 considering their future role, and
- Retaining a facilitator to assist.

On behalf of the County, Chair Newcomb called for the vote. The vote showed all in favor. The motion carried for the County.

On behalf of the Town, a motion was made by Councilmember Sperry and seconded by Councilmember Regan to continue this item to the September 14 joint meeting and direct staff to provide additional information to be considered in a revised Joint Powers Agreement as follows:

- Alternatives 4 and 5,
- Parks and Rec Board email dated April 22 considering their future role, and
- Retaining a facilitator to assist.

Council and Commission provided comment.

Commissioner Carlman called the previous motion.

On behalf of the Town, Mayor Jorgensen called for the vote. The vote showed all in favor. The motion carried for the Town 4-0.

D. Housing Rules & Regulations Biennial Update: Topic Identification

Stacy Stoker provided staff comment. Commission and Council held discussion with staff.

There was no public comment. Commission and Council provided comment.

On behalf of the County, a motion was made by Commissioner Macker and seconded by Commissioner Carlman to approve the topic list as amended in this meeting, and to direct staff to provide an analysis of each topic and present the analysis at the August joint meeting for discussion. Chair Newcomb called for the vote. The vote showed all in favor. The motion carried for the County.

On behalf of the Town, a motion was made by Councilmember Schechter and seconded by Councilmember Sperry to approve the topic list as amended in this meeting, and to direct staff to provide an analysis of each topic and present the analysis at the August joint meeting for discussion. Mayor Jorgensen called for the vote. The vote showed all in favor. The motion carried for the Town 4-0.

Matters from Council, Commissioners and Staff. There was no discussion.

Adjourn.

On behalf of the County, a motion was made by Commissioner Gardner and seconded by Commissioner Macker to adjourn. Chair Newcomb called for the vote. The vote showed all in favor. The motion carried for the County.

On behalf of the Town, a motion was made by Councilmember Regan and seconded by Councilmember Sperry to adjourn. Mayor Jorgensen called for the vote. The vote showed all in favor. The motion carried for the Town 4-0.

The meeting adjourned at 4:59 p.m.

TOWN OF JACKSON

ATTEST:

Arne O. Jorgensen, Mayor

Lynsey Lenamond, Deputy Town Clerk

**JOINT MEETING PROCEEDINGS
BOARD OF COUNTY COMMISSIONERS AND TOWN COUNCIL MEETING**

July 7, 2026

JACKSON, WYOMING

The Teton County Board of County Commissioners and the Jackson Town Council met in a special joint meeting at 1:35 p.m. in the Commissioners Chambers located at 200 South Willow in Jackson. This meeting was held in-person. Upon roll call the following were found to be present:

COUNTY COMMISSIONERS: Mark Newcomb, Chair, Wes Gardner, Vice-Chair, Luther Propst, and Len Carlman. Natalia Macker was absent.

TOWN COUNCIL: Mayor Arne Jorgensen, Jonathan Schechter, and Kevin Regan. Alyson Sperry and Devon Viehman were absent.

STAFF: Lea Colasuonno and Rose Robertson.

Volunteer Board Interviews – The following applicants were interviewed for positions on joint volunteer boards:

JH Travel & Tourism

- Shelby Scharp (via Zoom)
- Sam Pope
- Samantha Strawbridge (via Zoom)
- John Beye (via Zoom – also applied for Parks & Recreation)

Maggie Gibson submitted an application but was not present for the interviews.

Commissioner Propst exited at 2:14 p.m.

Energy Conservation Works

- Jim O'Brien
- Nancy Leon
- Jessica Kellett

Parks & Recreation

- John Beye (via Zoom – also applied for TTB)

Executive Session

On behalf of the County, a motion was made by Commissioner Gardner and seconded by Commissioner Carlman to enter executive session pursuant to Wyoming Statute §16-4-405(a)(ii) to consider appointments to volunteer boards. Chair Newcomb called for a vote. The vote showed all in favor and the motion carried for the County 3-0.

On behalf of the Town, a motion was made by Councilmember Regan and seconded by Councilmember Schechter to recess into executive session pursuant to Wyoming Statute §16-4-405(a)(ii) to consider appointments to volunteer boards, specifically the appointment of a board member as a public officer. Mayor Jorgensen called for a vote. The vote showed all in favor and the motion carried for the Town 3-0.

The meeting entered executive session at 3:04 p.m.

Commissioners present: Mark Newcomb, Wes Gardner, and Len Carlman.

Councilmembers present: Arne Jorgensen, Jonathan Schechter, and Kevin Regan.

Others: Lea Colasuonno, Town Attorney, and Rose Robertson, Deputy Clerk.

The meeting recessed at 3:04 p.m. and reconvened at 3:12 p.m.

Lea Colasuonno exited at 3:25 p.m.

On behalf of the County, a motion was made by Commissioner Carlman and seconded by Chair Newcomb to exit the executive session. Chair Newcomb called for a vote. The vote showed all in favor and the motion carried for the County.

The Town exited the executive session.

Both entities exited the executive session at 4:55 p.m.

On behalf of the County, a motion was made by Commissioner Carlman and seconded by Commissioner Gardner to reappoint Jim O'Brien and Jessica Kellett to the Energy Conservation Works Board and to appoint Nancy Leon to the Energy Conservation Works Board, all for three-year terms expiring June 30, 2029. Chair Newcomb called for a vote. The vote showed all in favor and the motion carried for the County.

On behalf of the Town, a motion was made by Councilmember Schechter and seconded by Councilmember Regan to reappoint Jim O'Brien and Jessica Kellett to the Energy Conservation Works Board and to appoint Nancy Leon to the Energy Conservation Works Board, all for three-year terms expiring June 30, 2029. Mayor Jorgensen called for a vote. The vote showed all in favor and the motion carried for the Town -0.

On behalf of the County, a motion was made by Commissioner Carlman and seconded by Commissioner Gardner to reappoint Sam Pope and appoint John Beye to the Travel and Tourism Board for three-year terms expiring June 30, 2029. Chair Newcomb called for a vote. The vote showed all in favor and the motion carried for the County.

On behalf of the Town, a motion was made by Councilmember Schechter and seconded by Councilmember Regan to reappoint Sam Pope and appoint John Beye to the Travel and Tourism Board for three-year terms expiring June 30, 2029. Mayor Jorgensen called for a vote. The vote showed all in favor and the motion carried for the Town -0.

Adjourn. On behalf of the County, a motion was made by Commissioner Gardner and seconded by Commissioner Carlman to adjourn. Chair Newcomb called for a vote. The vote showed all in favor and the motion carried for the County.

On behalf of the Town, a motion was made by Councilmember Schechter and seconded by Councilmember Regan to adjourn. Mayor Jorgensen called for a vote. The vote showed all in favor and the motion carried for the Town -0.

The meeting adjourned at 3:36 p.m.

TETON COUNTY BOARD OF COUNTY COMMISSIONERS

Mark Newcomb, Chair

ATTEST:

Maureen E. Murphy, County Clerk

TOWN OF JACKSON

Arne Jorgensen, Mayor

ATTEST:

Lynsey Lenamond, Town Clerk

**MONTHLY JOINT MEETING
BOARD OF COUNTY COMMISSIONERS AND JACKSON TOWN COUNCIL**

JULY 14, 2026

JACKSON, WYOMING

The Teton County Board of County Commissioners and the Jackson Town Council met in a special joint meeting (JM) at 9:02 a.m. in the County Commissioner's Chambers located at 200 S. Willow St. This meeting was held in-person and through the Zoom platform. Upon roll call the following were found to be present:

COUNTY COMMISSIONERS: Mark Newcomb, Chair, Wes Gardner, Vice-Chair, Natalia Macker, Luther Propst, and Len Carlman.

TOWN COUNCIL: Mayor Arne Jorgensen, Jonathan Schechter, Kevin Regan, Alyson Sperry, and Devon Viehman.

STAFF: Tyler Sinclair, Jodie Pond, Keith Gingery, Kristi Malone, and Rose Robertson.

Matters for Discussion

A. 90 Virginian Lane Affordable Workforce Housing Development.

April Norton provided staff comment via Zoom. Shannon Cox Baker provided comment. Commission and Council held discussion with commentor and staff. Lea Colasuonno provided staff comment via Zoom. Keith Gingery provided staff comment.

The meeting recessed at 10:12 a.m. and reconvened at 10:21 a.m.

Commission held discussion with staff.

Public comment was given by Jessica Chambers.

The meeting recessed at 10:31 a.m. and reconvened at 10:43 a.m.

Public comment was given by Tim Rieser, Gabe Koerber, Bob Lenz, Joe Burke, Clair Stumpf, Jean Day, David Scheurn, and Margaret Mary Aeckerle.

Jodie Pond provided staff comment.

Commission and County held discussion.

On behalf of the Town, a motion was made by Councilmember Schechter to direct and authorize the Housing Authority Board to terminate negotiations with Pennrose LLC at 90 Virginian Lane and halt all work on the 90 Virginian Lane affordable workforce housing development until 2027 or a date to be determined otherwise.

There was no second. As a result, the motion died.

On behalf of the County, a motion was made by Commissioner Gardner to direct and authorize the Housing Authority Board to terminate negotiations with Pennrose LLC at 90 Virginian Lane.

Commission provided comment.

The motion was seconded by Commissioner Propst.

Commission and Council provided comment.

Chair Newcomb called for the vote. The vote showed three in favor and the motion carried 3-2 for the County, with Commissioner Macker and Commissioner Carlman opposed.

On behalf of the Town, a motion was made by Councilmember Viehman and seconded by Councilmember Schechter to direct and authorize the Housing Authority Board to terminate negotiations with Pennrose LLC at 90 Virginian Lane. Mayor Jorgensen called for a vote. The vote showed three in favor and the motion carried 3-2 for the Town, with Mayor Jorgensen and Councilmember Sperry opposed.

Commission and Council provided comment.

Adjourn

On behalf of the County, a motion was made by Commissioner Gardner and seconded by Commissioner Macker to adjourn. Chair Newcomb called for a vote. The vote showed all in favor and the motion carried for the County.

On behalf of the Town, a motion was made by Councilmember Viehman and seconded by Councilmember Regan to adjourn. Mayor Jorgensen called for a vote. The vote showed all in favor and the motion carried for the Town.

The meeting adjourned at 12:08 p.m.

TETON COUNTY BOARD OF COUNTY COMMISSIONERS

Mark Newcomb, Chair

ATTEST:

Maureen E. Murphy, County Clerk

TOWN OF JACKSON

Arne Jorgensen, Mayor

ATTEST:

Lynsey Lenamond, Deputy Town Clerk



JOINT MEETING AGENDA DOCUMENTATION

SUBMITTING DEPARTMENT: Parks & Recreation

PRESENTER: Tyler Florence, Max Moran, Cody Daigle

MEETING DATE: August 3, 2026

SUBJECT: Aquatics Facilities Planning Workshop

STATEMENT/PURPOSE

The purpose of this workshop is to present the findings of the Counsilman-Hunsaker (CH) Aquatics Commissioning Report, review the condition and remaining service life of the Teton County / Jackson Recreation Center aquatic facilities, discuss current maintenance efforts, and obtain policy direction regarding future aquatics planning.

BACKGROUND/ALTERNATIVES

The Recreation Center aquatic facilities have served the community for decades and continue to support recreational swimming, swim lessons, competitive swimming, and other community programs. As the facilities have aged, it has experienced increasing maintenance demands, higher operating costs, and growing concerns regarding the long-term viability of major mechanical and structural systems.

CH was retained to perform an independent assessment of the Recreation Center aquatic facilities, associated mechanical systems, and long-term capital needs. The assessment documents existing conditions, identifies code and operational deficiencies, estimates short-term investments necessary to maintain operations, and outlines long-term replacement considerations.

ANALYSIS

The assessment concludes that the aquatic facilities are approaching the end of their practical service life. While many systems remain functional, increasing maintenance requirements, aging infrastructure, deferred capital improvements, and evolving industry standards indicate that continued investment in isolated repairs will become progressively less cost-effective over time. Although targeted repairs can maintain operations for the near term and many existing systems remain legally operable through grandfather provisions, the report concludes that continued piecemeal investment is not a sustainable long-term strategy and recommends planning for comprehensive replacement within approximately 5–10 years.

To evaluate the long-term future of the Recreation Center aquatics facilities, staff and Counsilman-Hunsaker (CH) have categorized potential capital strategies into three distinct operational approaches: **Repair**, **Renovate**, or **Replace**.

Option	Cost Range	Estimated Service Life	Operational Impact / Shutdown	Focus & Purpose
Repair	~\$275,000 – \$300,000	1–3 Years	Minimal (<i>Shutdown required only for waterslide & tower</i>)	High-priority safety, regulatory, and mechanical items to maintain daily operations.
Renovate	~\$2.25M – \$2.75M	10–15 Years	~ 6 Months (<i>Full facility shutdown</i>)	Complete overhaul of all priority items across existing pools and mechanical rooms.
Replace	~\$20.6M – \$27.5M	30+ Years	~ 18 Months (<i>Full facility shutdown</i>)	Comprehensive facility overhaul (~19,200 sq. ft.) via structural repurposing (\$20.6M) or all-new construction (\$27.5M).

Repair (~\$275,000 to \$300,000)

- **Scope:** Focuses strictly on high-priority items needed within the next 1–3 years to preserve staff and patron safety, maintain water chemistry automation, and fulfill regulatory compliance.
 - **Exclusions & Assumptions:** Excludes lap pool replastering (in progress / budgeted separately in FY27) and the leisure pool tank reconfiguration. Assumes all Virginia Graeme Baker (VGB) Act compliance items are already resolved.
- **Operational Impact:** Allows the facility to remain open for regular programming, with localized closures limited to the waterslide and stair tower during recoating.
- **In Progress:** Staff are already addressing critical maintenance needs where practical (e.g., pool replastering) and continue to prioritize preventive maintenance and strategic capital investments to preserve the facility while minimizing service interruptions. Most of these high-priority repair items, along with the active lap pool replastering project (~\$400,000), are fully covered within the approved \$600,000 FY27 budget allocation.

Renovate (~\$2,250,000 to \$2,750,000)

- **Scope:** Expands scope beyond high-priority fixes to cover all deferred maintenance items identified in the CH assessment. This extends the functional service life of existing pool basins and mechanical spaces by 10 to 15 years.
- **Operational Impact:** Requires a full facility shutdown lasting approximately 6 months.

Replacement (~\$20,600,000 to \$27,500,000)

- **Scope:** Represents a comprehensive overhaul or full rebuilding of the entire aquatics area (~19,200 sq. ft. covering pools, deck, and mechanical spaces). Cost models baseline construction rates (~\$1,100/sq. ft.) adjusted up by 33% to reflect local Jackson Hole market conditions.
 - **Implementation Pathways:**
 - **Full Replacement (\$~27.5M):** Ground-up new construction. Demolishes and replaces the entire aquatics portion of the facility (all-in cost, including building envelope, pools, decks, and mechanical systems). Provides total design freedom for layout and expansion.
 - **Repurposed Structure (\$~20.6M):** Keeps the structural "bones." Retains the existing building shell and primary structure while completely replacing and re-envisioning all interior pools, decks, and mechanical systems. Constrained to the existing building footprint, but yields an estimated 25% cost savings (~\$6.9M) compared to full replacement.
- **Operational Impact:** Requires a full facility shutdown lasting approximately 18 months.
- **Note on Estimates:** Replacement figures (~\$20.6M–\$27.5M) represent preliminary, high-level planning estimates based on regional square-footage benchmarks. These costs reflect all-in facility scope (not just pool-specific costs) and will be formally refined during the upcoming feasibility study.

As part of the FY2027 Capital Improvement Program, the Town of Jackson and Teton County approved funding for a separate Recreation Center Pool Expansion Feasibility Study. This feasibility study builds upon the CH commissioning report by using its findings as a technical baseline while evaluating comprehensive replacement/expansion, costs, and implementation options:

1. Evaluate comprehensive, detailed replacement costs of the existing facilities (including supporting infrastructure, e.g., mechanical systems, preliminary design, etc.)
2. Explore opportunities to expand or enhance the Recreation Center's aquatic facilities to better meet current and future community needs.

Direction provided during this workshop will help staff define the scope, priorities, and planning assumptions for that study.

The purpose of this workshop is to obtain policy direction regarding the long-term future of the Recreation Center aquatic facilities. Specifically, staff seek feedback regarding the following questions:

1. Should Parks & Recreation continue investing in short-term Repairs (~\$275,000 to \$300,000) necessary to maintain current operations while long-term planning progresses?
 - **Staff Recommendation:** Approve ongoing, essential short-term repairs.
 - **Alternative:** Defer short-term improvements.
 - **Risk:** Increased facility downtime, compounding maintenance backlogs, and higher reactive repair costs.
2. Should Parks & Recreation pursue a mid-term Renovation (~\$2.25M–\$2.75M) as a bridge to maintain operations for 10–15 years until a full facility replacement?
 - **Staff Recommendation:** Do not pursue mid-term renovation; prioritize full facility replacement.
 - **Alternative:** Pursue mid-term renovation as a bridge strategy.
 - **Risk/Trade-off:** While a renovation addresses deferred mechanical repairs, it requires a full 6-month facility closure and invests \$2.25M–\$2.75M into aging infrastructure without solving capacity limits. Staff recommend focusing resources on full replacement to directly address overwhelming community demand for expanded aquatics space.
3. Should Parks & Recreation pursue a comprehensive aquatic facility Replacement within the next five to ten years?
 - **Staff Recommendation:** Proceed with long-term facility planning. Initiating the planning process now allows time to evaluate community needs, site options, funding mechanisms, and design requirements without rushing.
 - **Alternative:** Defer long-term planning.
 - **Risk:** Relying on aging infrastructure increases the risk of unexpected, catastrophic equipment failures, inflates ongoing maintenance costs, and delays the community's ability to address modern recreation needs.
4. What facilities, amenities, priorities, and community needs would the Boards like included within the Recreation Center Pool Expansion Feasibility study's scope?
 - **Staff Recommendation:** Define a broad, options-based scope. Includes core aquatic needs, expanded community amenities, cost projections, and site layout concepts to give the Boards maximum flexibility. This may include exploring concepts such as an expanded or additional lap pool, a modernized zero-depth entry leisure pool with interactive play features, updated and modernized locker rooms and changing areas, and improved administrative and storage areas.
 - **Alternative:** Limit scope to basic facility replacement/expansion.
 - *Consequence:* Saves initial consulting costs but limits the study's ability to explore long-term growth, multi-use programming, or partnership opportunities, potentially requiring additional studies later.
5. Should Parks & Recreation develop a project schedule that positions a future aquatics renovation and/or expansion project for consideration during the next Specific Purpose Excise Tax (SPET) funding cycle while continuing necessary short-term investments to maintain operations?
 - **Staff Recommendation:** Develop a project schedule targeting the next SPET funding cycle for a future aquatics renovation/expansion, while maintaining necessary short-term operational investments.
 - **Alternative:** Defer SPET cycle planning and limit current spending to essential repairs.

- **Risk:** Misses key funding opportunity, delays essential facility upgrades, and risks higher interim maintenance costs to keep aging systems running.

Policy direction provided during this workshop will assist staff in developing future capital planning recommendations and budget requests for consideration by both governing bodies.

Next Steps

Following direction from this workshop, staff will proceed with the following actions:

- **Short-Term Repairs:** Staff will proceed with executing essential short-term repairs using the approved \$600,000 FY27 allocation (including the ~\$400,000 lap pool replastering). Remaining high-priority repair items identified in the CH report (~\$275,000–\$300,000) will be integrated into upcoming annual operating budgets and multi-year Capital Improvement Plan (CIP) schedules to ensure continuous, safe facility operations.
- **Mid-term Renovation:** If directed, staff will proceed with incorporating the \$2.25M–\$2.75M renovation project into the multi-year CIP schedule and budget.
- **Execute Feasibility Study:** Staff will finalize the RFP scope for the Recreation Center Pool Expansion Feasibility Study using the Board's feedback, select a consultant team, and execute the study during FY27.
- **Present Study Findings:** Upon completion of the expansion feasibility study in FY27, staff will return to the elected bodies to present the findings and obtain further direction.

COMPREHENSIVE PLAN ALIGNMENT

This workshop supports Comprehensive Plan goals related to maintaining high-quality public facilities, preserving community infrastructure, promoting public health and recreation, and planning for long-term capital investments that meet the evolving needs of residents and visitors.

STAKEHOLDER ANALYSIS

The aquatic facilities serve a diverse range of community members across all age groups and remain one of the Recreation Center's most heavily utilized program areas.

FISCAL IMPACT

No fiscal action is requested as part of this workshop.

Immediate short-term operational stability is supported by an approved \$600,000 FY27 allocation, which funds high-priority repairs including the ~\$400,000 lap pool replastering. Remaining critical short-term repairs (~\$275,000–\$300,000) will be absorbed through standard multi-year CIP and operating budget planning.

The mid-term renovation option represents an estimated capital outlay of \$2.25M–\$2.75M. While lower in immediate cost than a complete rebuild, staff advise against this path as it directs significant capital into aging infrastructure without addressing severe capacity constraints.

Long-term replacement costs are projected at \$20.6M to \$27.5M depending on final scope (Repurposed vs. Ground-Up). Initiating long-term planning now allows staff and elected officials to strategically evaluate capital funding pathways, such as upcoming SPET) funding cycles, without risking emergency facility failures.

STAFF IMPACT

Parks & Recreation staff devoted an estimated 200 combined staff hours to support the aquatics commissioning process, including consultant coordination, data collection, site inspections, technical review of findings, evaluation and prioritization of recommended capital improvement projects, and preparation for Board presentations. Future phases involving schematic design, conceptual cost estimating, public engagement, and capital planning will require additional staff time and consultant support.

LEGAL REVIEW

None at this time.

ATTACHMENTS

1. Counsilman-Hunsaker Aquatics Commissioning Report

RECOMMENDATION

Staff recommends that the Town Council and Board of County Commissioners provide direction to:

1. Proceed with essential short-term repairs using the approved \$600,000 FY27 budget allocation and incorporate ongoing repair needs into future CIP and annual operating budgets.
2. Support long-term facility replacement planning targeting full implementation within a 5-to-10-year horizon.
3. Authorize a broad, options-based scope for the upcoming Recreation Center Pool Expansion Feasibility Study that evaluates core aquatic needs, expanded community amenities, cost projections, and conceptual site layouts.
4. Develop an implementation timeline targeted for the next SPET cycle to secure a viable funding mechanism for the long-term project.

SUGGESTED MOTIONS

I move to direct staff to:

1. Proceed with essential short-term repairs using the approved \$600,000 FY27 budget allocation and incorporate ongoing repair needs into future CIP and annual operating budgets.
2. Support long-term facility replacement planning targeting full implementation within a 5-to-10-year horizon.
3. Authorize a broad, options-based scope for the upcoming Recreation Center Pool Expansion Feasibility Study that evaluates core aquatic needs, expanded community amenities, cost projections, and conceptual site layouts.
4. Develop an implementation timeline targeted for the next SPET cycle to secure a viable funding mechanism for the long-term project.

TETON COUNTY, WY POOL FACILITY AUDIT

March 2, 2026



Counsilman · Hunsaker
AQUATICS FOR LIFE

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EXECUTIVE SUMMARY

Teton County Jackson Parks & Recreation initially reached out to Counsilman-Hunsaker (C-H) requesting a facility audit to determine the condition and lifespan of the existing indoor pools and their respective mechanical systems at the Community Recreation Center. C-H was commissioned for the facility audit in October 2025.

Teton County Jackson Parks & Recreation operates six (6) bodies of water at the facility:

- Indoor eight (8) lane lap pool with stair entry
- Indoor leisure pool with a small waterslide and various features
- Indoor therapy pool with hydrotherapy jets, UW bench, and stair entry
- Indoor splash pool with a large indoor waterslide and a play area
- Indoor raised spa
- Outdoor sprayground with various spray features

The sprayground was recently implemented to the Community Recreation Center and will be omitted from this report. This audit focuses on the five (5) indoor bodies of water and their associated mechanical systems. Note that the distinction of indoors will be removed from these bodies of water hereinafter.

The purpose of the facility audit is to identify items that are substandard in the five (5) pools, items that do not satisfy the current administrative code, that are items not to current aquatic industry design standards, and equipment not operating as designed. This will assist in defining a course of action regarding the future of the pools. In addition, an opinion of probable construction costs is provided for any of the aquatic recommendations provided by C-H.

The audit site visit to the Community Recreation Center was completed on November 6, 2025. This report is based on the discussions with staff, visual inspections during the site visit, existing construction documents, and any other pool information that was provided to C-H by the staff.

Lap Pool

The eight (8) lane lap pool was built during original construction in 1994, and the pool structure has seen no major renovations since its inception. The lap pool is rectangular with an approximate surface area of 4,332 sqft and perimeter of 274'. C-H observed this pool to be in fair to poor condition with the cost of suggested renovations to meet code compliance approaching the cost of replacement. It is Counsilman-Hunsaker's professional opinion that the current lap pool be replaced within the next 10 to 15 years. Until then, minor renovations can occur including, but not limited to, plaster replacement, main drain grate replacement, and a new stainless steel gutter.

Leisure Pool

The leisure pool was built during original construction and has seen no major renovations to the structure since. The leisure pool has an approximate surface area of 1,548 sqft and a perimeter of 199'. C-H observed this pool to be in poor condition with the cost of suggested renovations to meet code compliance approaching the cost of replacement. For example, the existing skimmers do not meet NSF and Teton Health District Code requirements and would need to be

cut out of the wall and fully replaced. It is Counsilman-Hunsaker's professional opinion that the current leisure pool be replaced within approximately the next 5 to 10 years. Until then, minor renovations can occur including, but not limited to, plaster replacement, main drain grate replacement, waterline tile repair, and pool piping/water loss repair.

Therapy Pool

The therapy pool structure from original construction remains the same. The therapy pool has an approximate surface area of 325 sqft and a perimeter of 78'. C-H observed this pool to be in fair condition. However, the existing skimmers do not meet NSF and Teton Health District Code requirements. It is Counsilman-Hunsaker's professional opinion that the current therapy pool be replaced within the next 5 to 10 years. Until then, minor renovations can occur including, recommissioning the hydrotherapy bench jets and pump and cleaning/passivating the existing stainless steel components.

Spa

The spa was built during original construction and has not seen any major renovations in either the spa structure or the mechanical room. The spa is circular in shape with a 10' diameter. It has an approximate surface area of 85 sqft and a perimeter of 40'. C-H observed the spa to be in fair to good condition. However, the existing skimmer does not meet NSF and Teton Health District Code requirements. It is Counsilman-Hunsaker's professional opinion that the current spa be replaced within the next 10 to 15 years due to code deficiencies. Until then, minor renovations can occur including, but not limited to, tile repair, addition of ADA access, and new depth markers and warning signs.

Splash Pool

The splash pool was built during original construction and has not seen any major renovations in either the pool structure or the mechanical room. The splash pool has an approximate surface area of 697 sqft and perimeter of 103'. C-H observed this pool to be in fair condition. It is Counsilman-Hunsaker's professional opinion that the current splash pool be renovated within approximately the next 5 to 10 years.

Mechanical Systems

The pools and spas use a mixture of plastic and metallic pumps, ranging from Pentair to Sta-Rite, to Aurora. All of the existing pool systems utilize high-rate sand filtration: the three large pools use a Stark horizontal system, while the spa uses a Pentair Triton TR100 and the therapy pool uses a Hayward HCF.

Accu-tab calcium hypochlorite (tablet chlorine) sanitizer feeds are used for the lap, leisure, and splash pools. The therapy pool is hand-fed granular chlorine, and the spa utilizes an automated hydrogen peroxide system. All pools utilize muriatic acid as their sole pH buffer, with all systems being automatically fed by a BECSys5 controller with the exception of the spa. Various supplemental UV systems are installed on the leisure, spa, and splash pool systems. Only one of the UV systems is functional: the SentryGuard unit on the spa.

The overall condition of the pool mechanical systems is poor. Many pieces of equipment are deteriorating or not meeting code. Automation is in disrepair or is lacking for all systems. Some chemical feed units and several pumps are dysfunctional.

Conclusions

These pools and their respective recirculation systems have items that do not meet current administrative code requirements, national aquatic code requirements, and modern aquatic industry design standards. The list within Appendix D summarizes the conditions identified in the report. *Please note that the list is not comprehensive of every condition noted in the report.*

The items noted in Appendix D are in violation of various local and federal codes while other items are simply not in line with industry standards. While some of the violations would be considered “grandfathered” due to the age of the pool, many others pose safety or equality concerns. These concerns are omitted from the “grandfather clause”, such as the Virginia Graeme Baker (VGB) act or Americans with Disabilities Act (ADA). VGB covers suction outlet entrapment, while ADA addresses accessibility concerns for all type of pools.

Typically, commercial-grade swimming pools have a lifespan of approximately 40 to 50 years. The Teton/Jackson Community Recreation Center pools are approaching 35 years old. Significant, costly, and sometimes unreasonable repairs would need to occur in order to keep all the existing pools code-compliant for the next generation of use. This would include (but is not limited to) replacing the existing gutter system, replacing many of the existing skimmers and the accompanying pool deck, resizing underground and concrete-encased piping systems, hydroblasting the pool finishes to bare concrete and replacing with an entirely new pool finish, installing new main drains and the accompanying concrete sumps/piping for VGB compliance, and complete replacements to each pool mechanical room.

The splash and lap pools are in fair condition and are closer to achieving code compliance than the other pools through renovations. Although ownership could repair these pools and replace the other three, this leads to a piecemealed facility that will have varying aesthetics and lifespans. It is Counsilman-Hunsaker’s professional opinion that the Community Recreation Center pools be wholly replaced within the next 5 to 10 years following some immediate small-scale repairs/renovations. To continue to perform minor repairs to the current outdated pools and expect many more years of successful use is unrealistic. Therefore, a “band-aid” approach to the facility is not appropriate due to the age of the pools and the desire of Ownership to continue to offer modern aquatic amenities for the residents and visitors of Teton County for many years into the future.

OPINION OF PROBABLE COSTS

The spreadsheet below provides the Opinion of Probable Construction Cost to replace the pools and includes the long-term recommendations described in the report that are directly related to the pool system in red. The pricing below is a “like-for-like” replacement – the aquatics construction scope of the same pools/spas and features with modern code compliance. The opinion of probable construction cost does not include other impacted trades (architectural, mechanical, plumbing, etc).

 Counsillman Hunsaker AQUATICS FOR LIFE		
Teton County/Jackson Rec Center		
*PRELIMINARY Opinion of Probable Construction Cost - Pool Replacement		3/2/2026
ITEM	COST	
Lap Pool (4,625sf)		
Site Costs (Demolition, excavation, crushed rock)	\$373,736.37	
Pool Structure (ACI-350 concrete, include new access ramp)	\$589,473.66	
Perimeter Overflow System (Deck-level gutter)	\$116,717.99	
Pool Piping (SCH 80 PVC, Concrete-encased under pool shell)	\$139,013.00	
Mechanical Equipment (RMF, BECSys5, Accu-tab, AcidRite, UV, VFDs, Aquatics)	\$419,906.23	
Pool Finishes (Diamond-Brite with tile accents and markings)	\$253,864.86	
Deck/Loose/Maintenance/Safety Equipment (Blocks, 1m diving, rails, lifelines)	\$167,980.00	
Timing System Package Allowance (Assume GEN7 and videoboard)	\$150,000.00	
Pool Subtotal		\$2,210,692.11
Leisure Pool (1,600sf)		
Site Costs (Demolition, excavation, crushed rock)	\$116,050.56	
Pool Structure (ACI-350 concrete, include new ADA beach entry)	\$123,282.80	
Perimeter Overflow System (Skimmer)	\$53,332.00	
Pool Piping (SCH 80 PVC, Concrete-encased under pool shell)	\$102,513.00	
Mechanical Equipment (RMF, BECSys5, Accu-tab, AcidRite, UV, VFDs, Aquatics)	\$249,343.61	
Pool Finishes (Diamond-Brite with tile accents and markings)	\$67,919.05	
Deck/Loose/Maintenance/Safety Equipment (Ladders, rails, lifts, etc)	\$27,650.00	
Feature Allowance (Sprays, tot slide, etc)	\$150,000.00	
Pool Subtotal		\$890,091.03
Therapy Pool (350sf)		
Site Costs (Demolition, excavation, crushed rock)	\$30,022.53	
Pool Structure (ACI-350 concrete)	\$38,209.20	
Perimeter Overflow System (Skimmer)	\$20,368.00	
Pool Piping (SCH 80 PVC, Concrete-encased under pool shell)	\$52,214.00	
Mechanical Equipment (HRS, BECSys7, Accu-tab, AcidRite, UV, VFDs, Aquatics)	\$182,351.82	
Pool Finishes (Diamond-Brite with tile accents and markings)	\$17,362.80	
Deck/Loose/Maintenance/Safety Equipment (Ladders, rails, lifts, etc)	\$21,850.00	
Pool Subtotal		\$362,378.34
Spa (90sf)		
Site Costs (Demolition, crushed rock)	\$12,037.50	
Pool Structure (ACI-350 concrete)	\$18,707.50	
Perimeter Overflow System (Skimmer)	\$7,450.00	
Pool Piping (SCH 80 PVC, Concrete-encased under pool shell)	\$35,605.00	
Mechanical Equipment (HRS, BECSys7, Accu-tab, AcidRite, UV, VFDs, Aquatics)	\$114,858.32	
Pool Finishes (Diamond-Brite with tile accents and markings)	\$21,125.00	
Deck/Loose/Maintenance/Safety Equipment (Handrails, etc)	\$11,850.00	
Pool Subtotal		\$221,633.32
Splash Pool with Slide (700sf)		
Site Costs (Demolition, excavation, crushed rock)	\$54,845.31	
Pool Structure (ACI-350 concrete)	\$63,594.80	
Perimeter Overflow System (Skimmer)	\$27,604.00	
Pool Piping (SCH 80 PVC, Concrete-encased under pool shell)	\$56,488.00	
Mechanical Equipment (RMF, BECSys7, Accu-tab, AcidRite, UV, VFDs, Aquatics)	\$343,722.50	
Pool Finishes (Diamond-Brite with tile accents and markings)	\$49,005.80	
Deck/Loose/Maintenance/Safety Equipment (Ladders, rails, lifts, etc)	\$18,850.00	
Waterslide Allowance (Splashtacular, open flume, 25ft height)	\$450,000.00	
Pool Subtotal		\$1,064,110.42
TOTAL AQUATICS COST ESTIMATE (Inflation not included)		\$4,748,905.22
Contingency	30%	\$1,424,671.57
General Contractor Mark-up and Management Fee	15%	\$712,335.78
TOTAL AQUATICS COST ESTIMATE		\$6,885,912.57

The spreadsheet on the pages below include estimates for repair items described within the report that can be undertaken by staff or contractors to keep the pool in operating condition for the next 10 years. **It is important to note that completing these items will NOT get the pool to a level of full code-compliance.**

 Counsillman · Hunsaker AQUATICS FOR LIFE		
Teton County/Jackson Rec Center		
*PRELIMINARY Opinion of Probable Construction Cost - Pool Repairs		1/24/2026
ITEM	COST	PRIORITY
Lap Pool		
Water tightness testing	Performed by staff	LOW
Plaster replacement (Hydroblasting included)	\$375,000	HIGH
Tile replacements as needed (floor markers, wall targets, depth markers, w	\$75,000	MEDIUM
Stainless steel gutter (with return tube inlets and gutter dropouts)	\$525,000	MEDIUM
Main drain piping connection, SVRS, & new VGB grates	\$16,000	HIGH
Floor inlet removal and patching for new stainless steel gutter	\$5,000	MEDIUM
New grab rails & starting blocks (with anchors) due to new stainless steel g	\$75,000	MEDIUM
Passivate all existing stainless steel to be re-used	Performed by staff	LOW
Revised touchpad brackets from CTS	Contact CTS	LOW
Starting block anchor replacements (if stainless steel gutter isn't installed)	\$13,500	LOW
Verify all anchor bonding per NEC680	Performed by staff	MEDIUM
Color-coded arrows, system schematic, & valve tags	\$500	LOW
Two new Pentair EQK(T) self-priming pumps, gauges, & VFDs	\$65,000	HIGH
Two new Neptune Benson SHFFG3684 filters & media	\$165,000	LOW
New AcidRite 450 pH buffer	\$30,000	LOW
Provide fire rated cabinets for chemical storage	\$2,500	HIGH
Provide equipment interlocks at water chemistry controller per code	ntact Electrical Engineer	HIGH
Replace existing copper heating lines with SCH80 CPVC	\$3,500	LOW
New ELC810 water level control system	\$6,000	MEDIUM
Pool Subtotal		\$1,357,000
Leisure Pool		
Water tightness testing	Performed by staff	HIGH
Plaster replacement (Hydroblasting included)	\$125,000	HIGH
Tile replacements as needed (waterline tile, depth markers, warning signs)	\$20,000	MEDIUM
Skimmer replacements for NSF50 and adjustable weir	\$145,000	MEDIUM
Slide suction piping SVRS, & new VGB grates	\$5,500	HIGH
Grab rail replacement for skimmer replacement	\$9,500	LOW
Passivate all existing stainless steel to be re-used	Performed by staff	LOW
ADA lift & anchor/footing installation	\$14,000	HIGH
Stair handrails & anchor installation	\$9,500	MEDIUM
Replace existing feature pumps and reconnect to SVRS systems	\$17,500	MEDIUM
Small waterslide restoration allowance	\$15,000	LOW
Water chemistry sample line relocation	\$1,500	LOW
Color-coded arrows, system schematic, & valve tags	\$500	LOW
Install new recirculation pump in balance tank and re-pipe	\$22,000	HIGH
New strainer installation for existing feature pump	\$6,500	MEDIUM
New pump gauges	\$500	HIGH
New Pentair Triton TR filters & media	\$75,000	LOW
Source and repair leaks in balance tank	Contact American Leak	HIGH
New AcidRite 450 pH buffer	\$30,000	LOW
Recommission Hanovia UV system and replace bulbs	\$2,000	MEDIUM
Provide fire rated cabinets for chemical storage	\$2,500	HIGH
Provide NFPA hazard signage	\$500	HIGH
Provide equipment interlocks at water chemistry controller per code	ntact Electrical Engineer	HIGH
Replace existing copper heating lines with SCH80 CPVC	\$3,500	LOW
Re-routing of make-up water line	ntact Plumbing Engineer	LOW
Pool Subtotal		\$502,000

Therapy Pool		
Water tightness testing	Performed by staff	LOW
Plaster replacement (Hydroblasting included)	\$40,000	LOW
Tile replacements as needed (waterline tile, depth markers, warning signs)	\$7,500	MEDIUM
Skimmer replacements for NSF50 and adjustable weir	\$30,000	MEDIUM
New VGB grates	\$2,500	HIGH
Passivate all existing stainless steel to be re-used	Performed by staff	LOW
Upsize piping size in mechanical room from 2" to 3"	\$15,000	MEDIUM
Color-coded arrows, system schematic, & valve tags	\$500	LOW
Replace hydrotherapy pump and reconnect to SVRS systems	\$8,500	MEDIUM
New pump gauges	\$500	HIGH
Relocate recirculation pump to the pump pit	\$3,000	MEDIUM
Replace existing filter with Pentair Triton TR140 & media	\$25,000	LOW
Install Accutab 1030 calcium hypochlorite feeder, connect to chemical contro	\$20,000	HIGH
Provide equipment interlocks at water chemistry controller per code	ntact Electrical Engineer	HIGH
Replace existing copper heating lines with SCH80 CPVC	\$3,500	LOW
Pool Subtotal		\$156,000
Spa		
Water tightness testing	Performed by staff	LOW
Plaster replacement (Hydroblasting included)	\$25,000	MEDIUM
Full tile replacement (include all depth marking & warning signs, contrastin	\$15,000	MEDIUM
New VGB grates	\$2,500	HIGH
Replace existing hydrotherapy timer/switch	\$1,000	MEDIUM
Provide and install ADA transfer rails	\$1,500	HIGH
Passivate all existing stainless steel to be re-used	Performed by staff	LOW
Color-coded arrows, system schematic, & valve tags	\$500	LOW
Replace signet rotary flow meter	\$2,000	HIGH
New pump gauges	\$500	HIGH
Clean and remove staining on all exposed air blower piping	Performed by staff	LOW
Install Accutab 1030 calcium hypochlorite feeder, connect to chemical contro	\$20,000	MEDIUM
Install Stenner muriatic acid feeder, connect to chemical controller	\$7,500	HIGH
Repair leak in Sentry Chlorking UV unit	Performed by staff	HIGH
Provide fire rated cabinets for chemical storage	\$2,500	HIGH
Provide NFPA hazard signage	\$500	HIGH
Install a chemical controller (BECsSys5) and provide equipment interlocks pentact Electrical Engineer		HIGH
Replace existing copper heating lines with SCH80 CPVC	\$3,500	LOW
Pool Subtotal		\$82,000.00
Splash Pool & Waterslide		
Water tightness testing	Performed by staff	LOW
Plaster replacement (Hydroblasting included)	\$75,000	LOW
Tile replacements as needed (waterline tile, depth markers, warning signs)	\$10,000	MEDIUM
Provide VGB skimmer equalizer covers	\$1,500	HIGH
New VGB grates	\$4,000	HIGH
Passivate all existing stainless steel to be re-used	Performed by staff	LOW
Waterslide fiberglass and tower recoating and renovation allowance	\$90,000	HIGH
Chemical systems effluent line relocations	\$2,000	LOW
Color-coded arrows, system schematic, & valve tags	\$500	LOW
New strainer installation for existing slide pump	\$7,500	MEDIUM
New pump gauges	\$500	HIGH
Replace existing filter with two Pentair Triton TR140 filters & media	\$35,000	MEDIUM
Recommission Aquionics UV system and replace bulbs	\$2,000	MEDIUM
Provide fire rated cabinets for chemical storage	\$2,500	HIGH
Provide vent check valve on open muriatic acid carboys	\$500	MEDIUM
Provide NFPA hazard signage	\$500	HIGH
Provide equipment interlocks at water chemistry controller per code	ntact Electrical Engineer	HIGH
Replace existing copper heating lines with SCH80 CPVC	\$3,500	LOW
Re-routing of make-up water line	ntact Plumbing Engineer	LOW
Pool Subtotal		\$235,000.00
TOTAL AQUATICS COST ESTIMATE (Inflation & general contractor mark-up not included)		\$2,332,000.00
Contingency	30%	\$699,600.00
TOTAL AQUATICS COST ESTIMATE		\$3,031,600.00

The opinions of probable construction costs shown above and on the previous sheet are based on current 2026 prices. It is recognized that the Consultant or Owner has no control over the cost of labor, materials or equipment, over the Contractor's methods of determining bid prices, or over competitive bidding, market or negotiating conditions. Accordingly, the Consultant cannot, and does not, warrant or represent that bids or negotiated prices will not vary from the Owner's project budget or from any opinion of construction cost or evaluation prepared or agreed to by the Consultant.

TECHNICAL REPORT

Applicable Administrative Codes - Aquatics

Many of the items identified in this report do not meet the current requirements for pools built today. Pools are required to meet current codes when newly constructed or renovated and until such time, they may be considered “grandfathered”. The items identified as not meeting the current code would need to be addressed if a major pool renovation or replacement occurs.

Thus, the administrative code issues noted in the report do not indicate that the Teton County Jackson Parks & Recreation staff have been operating the pools in an unsafe manner. The local Health Department monitors the aquatic facilities and reports specific deficiencies that staff is required to address at that time.

The following codes were used within this report:

- Teton Health District – Rules for Teton District Public Pools and Spas (Teton Health District Code)– 2009 Edition
- Model Aquatic Health Code (MAHC) 5th Edition – 2024
- Virginia Graeme Baker Pool and Spa Safety Act (VGB) 2017
- 2010 ADA Standards for Accessible Design (ADA)
- International Fire Code (IFC) – 2024 Edition
- National Fire Protection Association – Standard System for the Identification of the Hazards of Materials for Emergency Response (NFPA 704) – 2024 Edition

For the purposes of this report, the Teton Health District Code will take precedence over the MAHC. Teton Health District Code is the current governing code for the area, but many jurisdictions around the country are slowly transitioning to a more extensive national-level code (such as the MAHC) as time/money/resources allow. Where the Teton Health District Code remains silent, the MAHC or “aquatic industry standard” will take precedence in the assessment. In Appendix D, a complete summarization of code violations per line item can be found for ease of comprehension.

Description of Recommendations

The following recommendations listed in the report are sorted into two separate categories. Recommendations in **BLACK** are considered “repair” fixes that will attempt to extend the life and enhance the existing condition of the pools. It is important to note that completion of all black items does NOT mean that the existing pool systems are completely code-compliant.

Achieving complete full up-to-date code-compliance strictly through renovations and repairs to the existing pool systems would exceed the price and scope to completely replace the pool.

Recommendations in **RED** are updates to the pool design that would be made in conjunction with a full replacement. These suggestions would bring the pool to complete code-compliance.

Out-of-Scope Recommendations

It should be noted that there are some recommendations included in this report that do not fall within the traditional Aquatics scope of work. These recommendations should be discussed and confirmed with a design professional of that particular trade. Due to some of the included recommendations being outside of the Aquatics scope, an opinion of probable cost was not provided for these items. Refer to Appendix A for consultant contact information.

GENERAL INFORMATION: Lap Pool

Length	75'-2" (Per Drawings)
Width	57'-2" (Per Drawings)
Surface Area	4,332 sqft (Per Drawings)
Perimeter	274' (Per Drawings)
Water Depth	3'-6" to 11'-10" (Per Drawings)
Pool Volume	225,000 gallons (Per Staff)
Flow Rate	625 GPM (Per Staff)
Turnover Rate	6.00 Hours (Calculated)



STRUCTURE AND FINISH

The lap pool is constructed of concrete and utilizes a proprietary aggregate plaster finish. Waterline tile is not present beneath the handhold. The pool utilizes tile for floor lane lines, wall targets, and a contrasting band at the transition point where the 5' depth begins.

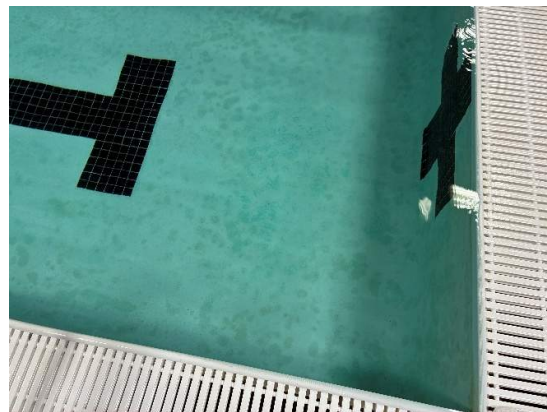
The pool's plaster was observed to be in fair to poor condition, displaying widespread surface deterioration and discoloration. While plaster is typically expected to be replaced approximately once every 7 to 10 years in the aquatics industry, staff could not determine when the last plaster application was performed. Additionally, there is a risk that the current finish was applied over old layers of plaster. This practice is commonly seen but is not recommended for competition pools as the added thickness can interfere with racecourse tolerances and may lead to delamination of the new plaster layer. Ownership noted that the 2"x2" tiles are occasionally chipped or is dislodged and requires replacement, which is typical of pool tile finishes.

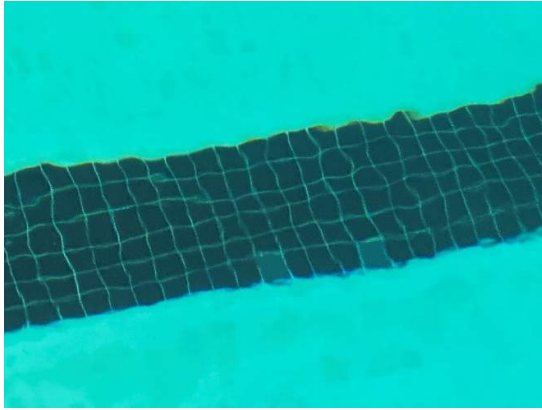
Regarding the lap pool vessel's integrity, ownership stated that no discernible water loss is present at the lap pool.

Recommendation

Considering the age and condition of the plaster, it is recommended that the pool's plaster finish be hydroblasted to bare concrete and replaced entirely with a similar finish if the pool is to be used for at least an additional 5 years. If it is decided that the pool will be decommissioned and replaced in the near future, spot repairs and patches are recommended for the plaster and tile finishes as needed.

While water loss has not been a problem at the lap pool, staff should consider performing a water tightness to assess the true condition of the lap pool structure. Refer to Appendix B for the water tightness test procedure specified by C-H during new construction projects.





GUTTER PERIMETER OVERFLOW SYSTEM

The lap pool utilizes a deck-level concrete gutter perimeter overflow system for water recirculation. The gutter system is equipped with a thin PVC handhold and 14" wide perpendicular PVC gutter grating, which was observed to be in good shape, secure, and free from significant cracking or warping.

According to documents provided to C-H, the gutter trough converts to a single 8" dropout line that leads via gravity to a below-grade surge tank in the lap pool mechanical room. C-H was unable to determine the location of the gutter dropout during the site observation. It should be noted that Teton Health District Code requires the perimeter overflow system to be capable of conveying 100% of the pool flow rate at a time. The single existing 8" dropout line is capable of conveying roughly 420gpm via gravity flow, which does not meet the code requirement.

Teton Health District requires sizing of surge tanks for one (1) gallon of open-air surge capacity for every sqft of pool surface area. Original construction documents indicate the existing surge tank has a volume of approximately 1,413 gallons of open area during typical operation, which is insufficient per code for the 4,332 sqft lap pool. C-H was unable to confirm the surge tank's in-field dimensions during the site visit as the access hatch was locked.

Due to water loss and settling on-site, the lap pool's waterline was observed to be slightly out of level. The low-point for the perimeter overflow system flows towards the stair entry corner of the pool. If portions of the pool perimeter do not have water cresting over the handhold, this hinders proper surface skimming action. This suggests that the system does not meet the MAHC requirement of the perimeter overflow being level within 1/16".

Another item of note is the issue of water spilling onto the deck around the stair entry. C-H believes that this problem is an issue caused by the design of the pool walls at the stair entry, by the pool perimeter being out of level, but we believe this can be mitigated with installation of parallel gutter grating which prevents water from "running" across to the deck.

Recommendation

To achieve proper water quality management and restore the pool's level hydraulic function, C-H recommends that the existing concrete gutter be replaced with a stainless-steel gutter system during a major renovation. Installation of a stainless-steel gutter will allow for the pool to be re-leveled in place. Additionally, two (2) gutter dropouts should be designed and routed to the existing surge tank to accommodate full 100% recirculation rate per Teton Health District Code. The new stainless steel gutter can be reconfigured completely envelop the stair entry to prevent water loss.

If a full replacement of the concrete gutter is not performed, the installation of 14" wide parallel gutter grating in lieu of perpendicular grating may assist the facility with mitigating splash-out onto the deck near the stair entry.

A larger surge tank must be installed if a full pool replacement occurs, and the tank must have proper open area and water conveyance as required by modern codes.

A tiled concrete gutter should be considered in lieu of a plastic handhold. The levelness of a tiled gutter can be adjusted via mud bed / setting material if settlement ever occurs. For a new design, geotechnical engineers should be informed of a max differential settlement requirement of $\frac{1}{2}$ " for gutter pools, and soil improvements should be considered during a replacement if this cannot be met with typical construction/backfill practices.



MAIN DRAINS

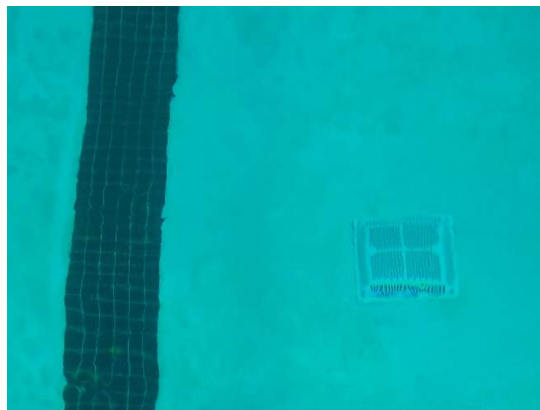
The lap pool has two (2) main drains. The main drain grates were observed from the pool deck and appeared to be the 12"x12" main drain cover, part number WG1032BHF2 by Hayward – operations team to confirm.

These drains are subject to the requirements of VGB, which mandates that all main drain grates must be compliant with current safety standards to prevent suction entrapment. The grate manufacturer also recommends that the grates be replaced at least every seven (7) years, and these drains have reportedly not been replaced in at least five (5) years.

The existing drawings provided to C-H indicate that the suction outlet to each main drain is 4" in size. A 4" line would not allow the 625gpm recirculation rate at a velocity of 6 fps or less, which indicates that the suction lines are not sized per Teton Heath District Code. In addition, the utilized main drain covers are not properly sized for the flow rate of 625gpm. The maximum that one grate allows per the manufacturer is 484gpm, and although there is a second drain, the second drain must be treated like it is completely blocked by a patron for grates of this size.

Recommendation

Unfortunately, VGB is a national-level requirement for all pools that cannot be grandfathered. Due to undersized grates, sumps, and piping, C-H recommends that the main drain grates, concrete sumps, and associated undersized piping should be replaced. A temporary fix would be to reconfigure piping within the surge tank to make sure the main drains cannot flow to the surge tank via gravity and install a safety vacuum release system (SVRS) on the recirculation pump.



INLETS

C-H counted sixteen (16) wall return inlets during the site visit that are installed along the perimeter of the pool. The inlets were fully functional during observation, though some fittings were observed to be damaged. Wall inlets are installed at a depth that meet code requirements.

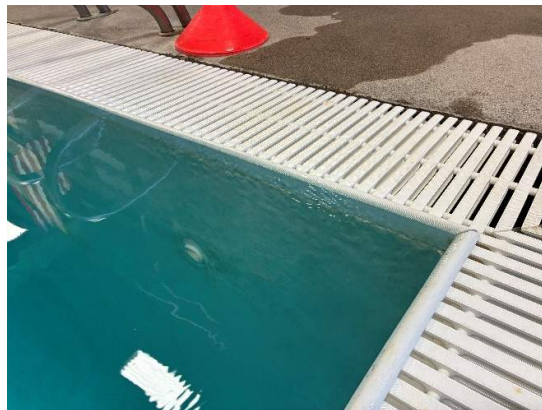
However, Teton Health District Code requires wall inlets to be spaced a maximum of every 15' on center. With sixteen (16) inlets and a pool perimeter of 274', there are not enough wall inlets to meet this code requirement. Additionally, the pool is approximately 57' wide, and Teton Health District Code requires floor inlets for all pools wider than 40'.

For competitive pools, it is generally recommended that floor inlets be utilized instead of wall inlets. Wall inlets disrupt the water's surface, making the pool less competitive by impacting lane conditions. In discussions with staff, it was noted that the high-velocity flow from the wall inlets is directly interfering with the timing system touchpads by pushing them off the wall. The use of floor inlets would remedy this issue, as they introduce circulation without impacting the pool wall or surface dynamics.

Recommendation

If a stainless-steel gutter is installed to remedy the levelness of the pool, a pressure return tube should be implemented into the gutter around the pool's perimeter to increase the number of wall inlets to a code-compliant amount.

Upon pool replacement, consider floor inlets as a part of the design to ensure a “fast pool”, meet current Teton Health District Code, and prevent any interference with timing system equipment and competitive swimmers.



LADDERS

The lap pool features three (3) pairs of stainless steel grab rails that were generally observed to be in fair condition. The stainless-steel material of the rails themselves appears sound. However, the associated escutcheons (decorative covers where the rail meets the deck) were observed to have visible surface-level corrosion. The grab rails remain secure in their anchors, as they exhibit only a slight, acceptable amount of rocking.

Recommendation

It is important to note that if a stainless-steel gutter is utilized, these grab rails will require reconfiguration and replacement.

If a stainless-steel gutter is not installed, then C-H recommends cleaning and passivating all stainless-steel grab rails and escutcheons to inhibit future corrosion and extend the life of this equipment.



INGRESS AND EGRESS

Due to the lap pool's perimeter being less than 300', the requirement for a compliant means of entry and exit is satisfied by the presence of the single battery-powered ADA lift. The observed lift itself is in good condition; however, the battery was not supplied on the lift while on site. To fulfill ADA requirements, the battery must be reinstalled in order for the lift to be operable by a patron without assistance.

The lap pool stair entry does not have handrails that follow the stair treads into the water. This is a Teton Health District code requirement, and it is also a convenience to patrons that require the stair entry in order to enter the pool.

Ownership expressed interest in replacing the stair entry with an ADA-compliant zero-depth entry ramp. The replacement of the existing stairs with an ADA ramp is functionally limited by space constraints. Achieving the required 12:1 maximum slope for an accessible ramp, coupled with a mandatory 5' level landing at the pool's 2' water depth, would necessitate at least 47' of horizontal deck space, which is not currently available at the stair location without taking away deck space and traffic paths around the pool as required by code. The exterior building footprint would need to be adjusted if this change were to be made.

Recommendation

To fulfill ADA requirements, which requires the lift to be fully operable by the patron without staff assistance during all hours the pool is open for public use, the battery must be immediately located and installed or replaced if necessary. In addition, C-H recommends cleaning and passivating all stainless steel components of the ADA lift to mitigate further corrosion and extend service life.

If the pool is going to be resurfaced or a stainless steel gutter is going to be installed, provide new wedge anchors and handrails for the lap pool stair entry.

During a full pool replacement, allocate space for a dual ADA ramp/stair entry at the side wall of the lap pool. Separate the ADA area from the competition area with a wing wall.



WARNING SIGNS AND DEPTH MARKERS

The lap pool currently features tile horizontal depth markers and vinyl adhesive horizontal "NO DIVING" warning markers. However, no vertical depth markers were observed on the vertical wall of the pool, which is a requirement of both the Teton Health District Code and the MAHC.

While the horizontal depth markers and warning signs were generally observed to be properly spaced within 25' along the pool perimeter, they were not present at the slope breaks of the pool floor, which is specifically required by the Teton Health District code. Furthermore, MAHC standards require a depth marker to be located for every 2' depth change, a standard that the existing markings do not meet.

C-H observed that the depth markers in the deep end were not descriptive, lacking any units to specify what the numeral represents. Additionally, various vinyl "No Diving" markers affixed to the pool deck were observed to be peeling off in certain areas.

Recommendation

C-H recommends replacing all non-descriptive depth markers with markers that display both a number and units to patrons. Any peeling "NO DIVING" should be replaced.

Additionally, C-H recommends implementing vertical depth markers in accordance with Teton Health District code if a new stainless steel gutter is installed.

For a new pool, ensure that all depth markers and warning signs are descriptive, placed on both vertical and horizontal surfaces, have text at least 4" tall, and include the international "NO DIVING" symbol.



LANE LINES AND ANCHORS

The lap pool is equipped with seven (7) floating lane lines secured by deck-anchored eyebolts and extensions. The lane lines themselves were observed to be in good condition, showing no discoloration or damage to the rotating discs.

However, the eyebolts used as deck anchors are in poor condition, showing considerable signs of corrosion and degradation. More critically, these bolts protrude from the deck surface, creating a significant toe catch safety hazard for patrons moving along the pool perimeter.

In compliance with both Teton Health District code and MAHC, where the pool depth exceeds 5' (MAHC) or transitions to a diving area (Teton Health District Code), a floating safety rope is required when the lane lines are removed for open swimming. Cup anchors for this safety rope, located at the approximate 5' slope break, were observed on site and appear to be in good condition.

Recommendation

C-H recommends replacing all rusted eyebolts associated with the lane line anchors and ensuring that all bolts are a 316 stainless steel material that is properly bonded to the pool structure per NEC 680. Upon replacement, it is further recommended that Ownership clean and passivate all anchors and the deck surrounding them on a regular basis to prevent future corrosion and staining.

If a stainless-steel gutter is installed, the lane line anchors can be implemented into the stainless-steel structure to prevent deck protrusions.

With a new pool design, integrate lane line anchors into the gutter grating with new technology from manufacturers such as Daldorado.

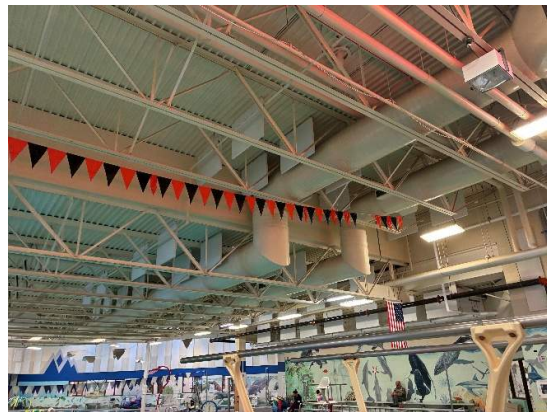
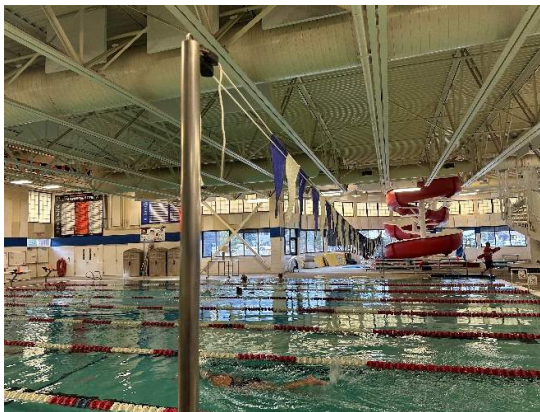


BACKSTROKE FLAGS AND STANCHIONS

The stanchions were noted to be in fair condition, with visible signs of surface corrosion present. The anchors securing these posts have developed a visible green corrosion ring. Despite the corrosion, the anchors currently hold the stanchions securely. Regular cleaning and application of a protective coating are recommended to mitigate further corrosion and extend the service life of the stanchions and their anchors. The two sets of backstroke pennants were observed to be in good condition overall, ensuring they remain an effective visual aid for competitive swimmers.

Recommendation

C-H recommends cleaning and passivating the stanchion posts and anchors on a regular basis to mitigate further corrosion and extend service life.



TIMING SYSTEM

The facility utilizes a Colorado Timing System for swim meets and training. The wall plate and new Gen7 Legacy deck plates were observed to be correctly located and appeared to be in good physical condition. A timing board display mounted on the north wall was also observed and reported to be functioning properly.

Ownership noted that the touchpads are being pushed off the pool wall when in use. This displacement is caused by the concentrated flow of water being "blasted" directly at the pads from the adjacent wall return inlets. Floor inlets are typically utilized in competition pools where timing systems are present as they do not interfere with the water surface or specialized equipment like touchpads.

Recommendation

If touchpads being pushed off the wall are a concern to ownership, C-H recommends contacting Colorado Timing Systems (CTS) to determine if a different touchpad or mounting mechanism would be better suited for the lap pool. Refer to Appendix A for contact information

With a new pool design, provide a new serial Gen 7 timing system with deck plates. Plan for a dedicated meet management room where the scoreboard and timing system can be operated from in a controlled, non-humid environment.



DECK EQUIPMENT

The lap pool's surrounding deck is equipped with several items necessary for competition and safety. Two (2) stainless steel lifeguard stations were observed on either side of the pool in good condition, with some slight staining under the seat.

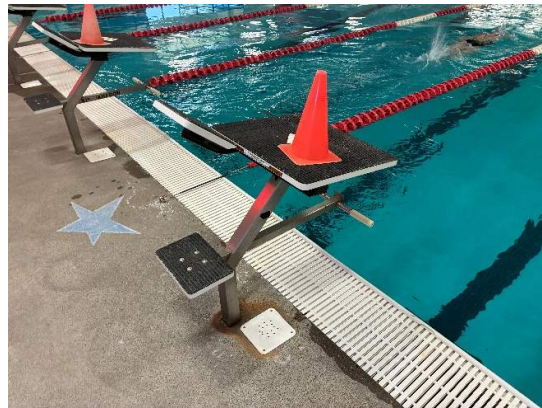
The pool features eight (8) KDI Paragon starting blocks, which were assessed to be in fair condition. Each block exhibited a slight rocking within the anchor sleeves and was missing tightening hardware to secure it fully. Furthermore, the anchor of one block showed visible signs of corrosion which was observed to be leaching into the surrounding pool deck. C-H suspects this anchor may not be bonded per NEC 680, or rebar may be too close to the anchor body within the concrete.

One (1) Duraflex 1-meter diving springboard was observed on site and appears to be in good condition. The lap pool water depths and diving envelopes meet current USA Diving requirements, but do not meet Teton Health District Code and modern NFHS competition standards.

Recommendation

If ownership desires more secure starting blocks, C-H recommends replacing the existing starting block anchors with dual-wedge anchors with tightening knobs in conjunction with a lap pool renovation.

Verify the proper bonding per NEC680 with the corroding anchor. If bonding is not present, replace the anchor. If bonding is present, thoroughly clean and passivate the anchor sleeve.



LAP POOL MECHANICAL ROOM



PIPING

The bulk of the visible recirculation system piping uses Schedule 40 PVC piping, which is less robust than the Schedule 80 PVC typically recommended by modern aquatic industry standards for all exposed pool piping. This includes the influent and effluent heat exchanger piping (which was observed to be copper) whereas modern industry standards recommend Schedule 80 CPVC due to its superior heat tolerance. The presence of some acceptable Schedule 80 PVC fittings elsewhere in the system suggests recent, post-original-construction repairs by diligent staff. Furthermore, the piping supports were observed to be corroded and rusted, indicating a need for maintenance or replacement to ensure the long-term integrity and proper alignment of the plumbing runs.

The piping system lacks essential identifiers: no color-coded arrows were observed indicating the direction of flow, which violates both Teton Health District Code (requiring arrows) and MAHC (requiring colored arrows). Additionally, no posted piping and system schematic was observed in the mechanical room, which does not adhere to both Teton Health District Code and MAHC.

The main drain suction piping is 6", which does not meet Teton Health District code requirements for suction pipe velocities.

The muriatic acid injection point was observed to be downstream of the Accu-Tab sanitizer injection point. This sequence does not follow modern industry standards as the pH buffer is typically injected upstream to clean the calcium hypochlorite effluent line.

Recommendation

C-H recommends color-coded arrows be applied on all recirculation pipes per the interval listed in the MAHC. A detailed system schematic (flow diagram) must be posted in the mechanical room to adhere to both the Teton District Health Code and the MAHC.

The injection points for the Accu-Tab and muriatic acid systems should be swapped to prevent clogging of the Accu-Tab feed lines, a common maintenance issue.

C-H recommends replacing all existing SCH 40 piping with SCH 80 piping throughout the mechanical room for improved longevity. The influent and effluent piping running from the heat exchanger should be replaced with SCH 80 CPVC piping to adhere to modern industry standards. In conjunction with the piping replacement, all existing pipe supports should also be replaced.



FLOW METERS

One (1) Signet rotary flow meter was installed on the lap pool piping, which is accurate enough, installed appropriately, and is acceptable per all code requirements.

Recommendation

No immediate recommendations.

During a full pool mechanical room replacement, ensure a 4-20mA signal Signet MagMeter is included to allow for feedback control with recirculation pump VFDs. This leads to significant energy savings following filter tank backwashing.



PUMPS

The lap pool recirculation system is driven by a Sta-Rite CSP pump paired with a 20 HP, 460V Baldor Reliance motor, and a newly replaced Sta-Rite strainer. The performance of this system is notably compromised, with staff reporting that maintaining the required 6-hour turnover rate is difficult. This difficulty is directly related to the pump's current operational state: the pump is cavitating (suggesting air intrusion or insufficient supply-side pressure) which causes the impeller to degrade prematurely, requiring replacement as often as once per year according to staff.

The pump is not located within a pump pit and therefore does not achieve the industry-preferred condition of flooded suction (where the pump intake is below the pool's water level by at least 2'), contributing to cavitation and straining the motor.

The pump is missing pressure and vacuum gauges, which are required by MAHC. These measure the pressure differential across the pump, which gives the operator insights into the flow rate of the pool system, power consumption, as well as performance of the pump.

The pump does not include a VFD, which would allow for speed adjustments to optimize flow, reduce energy consumption, and manage pressure spikes that can damage equipment.

Recommendation

Given that the mechanical room likely lacks the necessary space for a dedicated pump pit, C-H recommends replacing the existing pump with two (2) self-priming 10 HP EQK(T)-1000 pumps from Pentair, a supplier that is more easily accessed in the area. Implementing two pumps not only allows for self-priming with off-the-shelf pumps but also offers partial redundancy for staff if one goes down.

Upon installation of the pumps, pressure and vacuum gauges should be installed to meet the MAHC requirements for system monitoring. Furthermore, VFDs should be implemented on the pumps to allow the system to run more efficiently, save energy, and extend the lifespan of the new pump motors.



VALVES AND FLANGES

The valves and flanges throughout the mechanical room were observed to be in fair to poor condition. Specifically, those on the suction side of the recirculation pump were noted to be in particularly poor condition, characterized by significant rusting on the bolts. This corrosion compromises the long-term integrity of the plumbing connections and could lead to leaks or potential failures.

Many of the installed valves were observed to be Schedule 40 PVC, whereas modern aquatics industry standards recommend the use of more durable Schedule 80 PVC for this critical mechanical room application.

Recommendation

C-H recommends installing valve tags on all valves within the recirculation system and providing a corresponding detailed valve chart to assist staff in diagnosing and remedying future maintenance issues easier.

C-H recommends replacing all SCH 40 valves and flanges with SCH 80 components to adhere to modern industry standards for increased durability and pressure resistance. All valves and flanges on the influent and effluent heater lines should be replaced with SCH 80 CPVC.



FILTRATION EQUIPMENT

The lap pool utilizes one (1) Stark SA144 filter system with a semi-automatic backwash functionality. The filter system was observed to have a manual air relief system present, which satisfies the requirement set forth by MAHC for safe operation.

However, an automatic relief valve was not installed on the filter. This does not adhere to modern industry standards, as an automatic relief valve is essential for protecting the filter tank from trapping air. Additionally, the filter is not anchored to its housekeeping pad.

Ownership reported that when the backwash cycle is performed for an excessive duration, sanitary waste line backs up, indicating an undersized or blocked backwash waste line. It should be noted that the original design documents included three (3) filter tanks, and the original sanitary capacity may have been sized for smaller tanks. This is likely the reason that a single tank overwhelms the sanitary line during backwash if a blockage is not present.

The filter backwash system is a semi-automatic method, relying on actuated valves to operate. Staff noted that these valves break down easily and require repairs often.

Recommendation

C-H recommends switching to a dual-filter tank system during a pool mechanical room renovation. 36" diameter horizontally oriented tanks should be used to ensure ceiling heights and door clearances can be maintained. The new face piping should include manual backwash valves which will reduce the repair frequency required by staff.

The dual tank system should not only assist with filtration at the pool, but will also ease the backwash flow rates routed to the existing sanitary connection.

Utilization of glass filter media and an electronic flocculant (such as Clear-Flow) would further increase the quality of the sand filtration at the lap pool. Alternatively, a regenerative media filtration system could also be explored for additional cost.



CHEMICAL TREATMENT

The lap pool utilizes an Accu-Tab 3070AT sanitizer system and booster pump for primary water treatment, which was observed to be in fair condition. The feed lines were observed to be clear and properly feeding the system, with no signs of excessive clogging or degradation.

The lap pool system utilizes muriatic acid as the standalone pH buffer. This acid is delivered into the recirculation system via a peristaltic Stenner pump, which draws from the acid storage room directly adjacent to the lap pool mechanical room.

Using muriatic acid as the sole pH buffer is a common and effective industry practice for lowering pH in commercial pools. However, it quickly reduces the pool's total alkalinity (TA), which is the water's natural buffering capacity. Low TA can lead to unstable pH (known as pH "bounce") and corrosive water. If the fill water has a higher TA, then this standalone system is sufficient.

Recommendation

If water chemistry management has been an ongoing concern for Ownership, which may be the case based upon observed amounts of sodium bicarbonate on-hand, C-H recommends a comprehensive domestic water analysis be performed to evaluate the facility's potable source water. The results of this analysis are critical for understanding the baseline alkalinity and mineral content, which directly influence the stability of the lap pool's pH. Depending on these findings, the integration of a carbon dioxide or sodium bisulfate system could be utilized to supplement the existing muriatic acid system, providing superior water quality to the facility.

With a full facility replacement, provide a centralized pool mechanical room for all bodies of water. This will reduce the amount of muriatic acid lines traveling throughout the facility, which will therefore reduce the risk of harmful chemical leaks.



CHEMICAL STORAGE

The dedicated chemical room houses several dry chemicals, including granular and tablet calcium hypochlorite, Potassium Monopersulfate, Sodium Bicarbonate, and soda ash. C-H did not confirm if these chemicals service only the lap pool or are used across other bodies of water in the facility. A ventilation system was observed in the room, but its current condition and functionality could not be verified.

Due to insufficient space within the designated chemical room, some calcium hypochlorite was stored in the general mechanical room space, which does not follow modern industry standards for segregation and chemical storage. Calcium hypochlorite storage in excess of 200lbs exceeds hazard occupancy as called out by IFC and NFPA fire codes.

Furthermore, dry bags of sodium bicarbonate and soda ash, while off the floor, were observed stacked on top of chemical pails. To follow industry best practices, dedicated, allocated storage spaces should be provided for all chemicals to prevent cross-contamination or accidental mixing.

The eyewash station is located in the general mechanical room, outside the chemical room door. This arrangement does not comply with MAHC, which requires an eyewash unit to be located within all chemical storage spaces where pool chemicals are handled or stored.

Insufficient NFPA diamond hazard signage was found, which is required for all rooms housing flammable or hazardous chemicals. Additionally, the door does not adhere to MAHC chemical room door signage requirements.

Recommendation

In adherence to IFC standards, Ownership must ensure that no more than 200 pounds of calcium hypochlorite is stored in any single room at a time, unless the room is properly rated for a higher quantity. Provide fire rated cabinets within the space for storage of calcium hypochlorite to mitigate fire hazards and double the amount that is allowed to be stored within the space without becoming a hazard classification per the IFC.

NFPA diamond signage on the chemical room door and an emergency eyewash station within the room must be provided.

During a future full mechanical room renovation, C-H recommends that separate, properly fire-rated rooms be constructed to house chemicals and their respective feed systems, ensuring adequate segregation for safety.



WATER CHEMISTRY CONTROLLER

The lap pool's water chemistry is monitored and controlled by one (1) BECSys5 Water chemistry controller. This unit was observed to be in good condition and reported to be working properly.

Interlocks were not confirmed by C-H during the site visit. These are required by the MAHC to ensure that chemicals are not fed while the recirculation pump is off. This is an important safety feature of a commercial pool system that should be tested regularly.

Recommendation

If recirculation pump interlocks are not already in place for calcium hypochlorite and muriatic acid, consult with an electrical contractor to ensure that these interlocks are installed.

With a new pool, provide a more complex controller that can integrate with UV systems, dual- pH Buffer, and VFDs, such as the BECSys7.



POOL HEATING

The lap pool system is currently heated indirectly via a central building boiler/heater that supplies hot water to a dedicated heat exchanger within the pool's recirculation system. The copper influent and effluent piping shows signs of aging and corrosion.

Historically, a solar tube heating system was installed to supplement the facility's heating needs. However, it has since been decommissioned due to its ineffectiveness. Based on previous audit observations at similar facilities, solar heating seldom (if ever) provides a sufficient or reliable heat source for commercial aquatic facilities. A few examples of this are the competition pool at Veteran's Memorial Aquatic Center in Thornton, CO and Bob Burger Recreation Center in Lafayette, CO.

Recommendation

Based on past experiences, C-H does not recommend reimplementing the solar tube heating system for any of the existing pools. The system should be decommissioned and disconnected during the next significant renovation.

All aging influent/effluent heater lines should be replaced with SCH 80 CPVC during the next significant amount of pool mechanical room work.

Unless the pool chemical room is completely repurposed, there is not enough room for a standalone lap pool heater during a renovation. Therefore, during a future facility replacement, C-H recommends providing each pool recirculation system with its own dedicated heater. Standalone systems provide a level of redundancy for facilities with multiple bodies of water.



MAKE-UP WATER

The lap pool currently utilizes a manual fill system for make-up water, which C-H observed inside the mechanical room leading into the surge tank lid. The pool originally featured an automatic fill system, but this system has since been decommissioned.

MAHC requires an automatic fill system for pools with a gutter system. This is because if the pool is underfilled, perimeter overflow skimming action does not occur at the gutter handhold as intended. A manual system introduces the risk of the water level falling too low, compromising the primary function of the gutter to skim the surface effectively and, consequently, hindering water quality management.

Recommendation

With an existing surge tank within the pool mechanical room space, an automatic water level control system is an easy addition during a renovation of any size. C-H recommends that an automatic fill system (with normal level and overflow protection) be integrated to meet MAHC requirements and ensure proper perimeter overflow into the gutter system.



GENERAL INFORMATION: Leisure Pool

Length	Varies
Width	Varies
Surface Area	1,548 sqft (Approximate)
Perimeter	199' (Approximate)
Water Depth	0'-0" to 3'-0" (Per Drawings)
Pool Volume	30,000 gallons (Per Staff)
Flow Rate	250 GPM (Per Staff)
Turnover Rate	2.0 hours (Calculated)



STRUCTURE AND FINISH

The leisure pool is constructed of concrete, and has not had significant renovation since original construction. The pool surface features an aggregate plaster finish and a 6" waterline tile. The age of the plaster is estimated by ownership to be approximately ten (10) years old.

Currently, the plaster is showing signs of aging, with some staining and spalling present. Tile is used for both a 1" x 1" and 3" x 3" contrasting nosing on the stairs and for the waterline. The 1" x 1" tiles are in fair condition, with minor chips noted in some areas. The 3" x 3" tiles also have some chips, cracks and a few tiles are missing in one area of the pool.

The documents provided to C-H indicated that in 2024, American Leak Detection investigated the facility's water loss and located a leak to the return lines for the leisure pool. These inlets were reportedly patched, but ownership continues to report a significant rate of water loss, estimated at approximately 3,000 gallons per day.

Recommendation

Considering the age and condition of the plaster, it is recommended that the pool finish be hydroblasted to bare concrete and replaced entirely with a similar finish if the pool is to be used for at least an additional 5 years.

Additionally, any dislodged tile along the waterline tile is recommended to be replaced. However, if the pool will be closed and replaced in the near future, then the plaster can be chipped back, patched, and repaired in various spots in an attempt to extend the life of the pool finish until the pool is decommissioned.

Considering the source of the water loss has not been determined in piping, it is recommended that a water tightness test is conducted at the leisure pool to confirm the integrity of the structure itself. Refer to Appendix B for the water tightness test procedure. However, all lines and outlets should be capped for this water tightness test iteration.

If water loss sources cannot be determined and repaired at the leisure pool as described above, C-H recommends that the pool be replaced in its entirety in the near future.



SKIMMER PERIMETER OVERFLOW SYSTEM

The leisure pool utilizes a skimmer system for perimeter overflow, consisting of eleven (11) skimmers total, which meets the quantities required by code. However, the skimmer piping running around the pool perimeter does not meet Teton Health District Code for pipe velocities.

While a basket was present in each skimmer unit, no weir or deck access lid was observed on any of the skimmers. A weir is required per MAHC to ensure proper surface skimming and flow adjustment. A lifeguard reported that to clean out the skimmer baskets, staff must reach into the skimmer opening. This is an atypical operational practice stemming from the missing access lids, which are standard on commercial grade skimmers. Additionally, the skimmers are not listed with NSF-50, which violates Teton Health District Code.

The pool was observed to be overfilled, with the waterline exceeding the centerline of the skimmer opening. This condition violates both Teton Health Code and MAHC, which require the water level be maintained at the midpoint (centerline) of the skimmer opening for optimal skimming and water quality management.

Furthermore, the skimmers were observed to be out of level with each other. This hydraulic imbalance becomes critical when one of the skimmers runs dry. The skimmer closest to the entry ramp was noted to dry up occasionally, rendering it non-functional. MAHC requires each skimmer to be level with all other skimmers in the pool within a tolerance of $\frac{1}{4}$ ", a standard which this system does not meet.

Recommendation

The pool deck and skimmers must be cut out and replaced in order to meet more modern codes.

C-H recommends removing and replacing the entire pool to ensure proper perimeter overflow and gutter system code compliance.



MAIN DRAINS

The leisure pool includes five (5) 12"x12" recirculation main drains located in the pool floor. The drain grates appear to be 12"x12" MLD-FG-1212-WT by Neptune-Benson. Operations team to confirm.

Based upon the existing drawings, the plumbing piping for the five (5) recirculation main drains are all sized at 2". When one drain is considered blocked as required per VGB calculations, these pipe sizes do not meet velocity requirements per Teton Health District Code. Additionally, the depth of the sumps could not be verified on the existing drawings to confirm an adequate 1.5x pipe diameter is provided from the pipe outlet to the grate cover at each location per VGB. The recirculation drains have been connected directly to the pool pump, and a Safety Vacuum Release System (SVRS) has been provided in order to meet VGB.

Additionally, there is one large 18"x24" feature drain grate located in the wall within the wading area. This grate appears to be custom sized grate certified by Neptune-Benson – operations staff to confirm. An 18"x24" grate is technically "unblockable" per VGB. Therefore, a second grate and sump are not required, provided the flow rate and open area of the grate result in a water velocity less than 1.5 fps. However, the distance from pipe to underside of grating is not compliant per VGB, and is less than 1.5x the diameter of the suction pipe per existing drawings. Additionally, it is against modern aquatic industry standard for three pumps to share one suction line. Operations staff has Safety Vacuum Release Systems (SVRSs) for pumps connected to this grate.

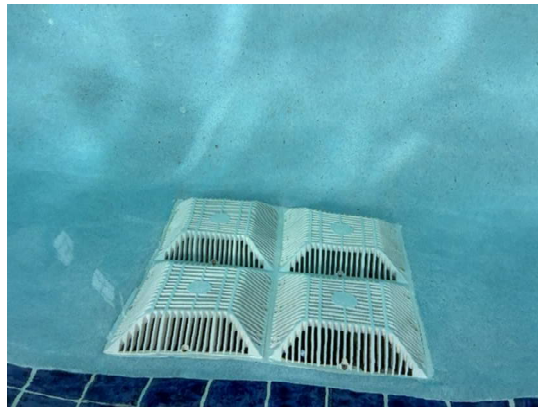
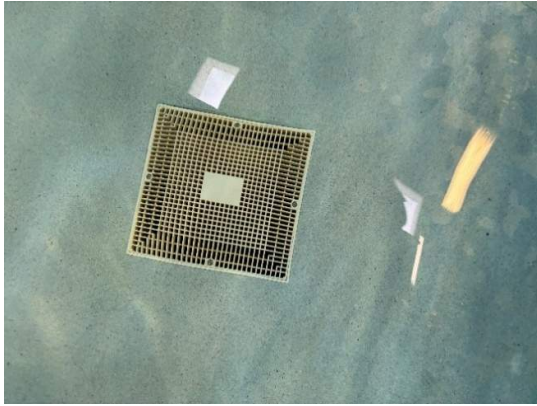
The pool also has four (4) 9"x9" grates dedicated to the waterslide suction. All grates were observed to be in good condition. However, the sizing of the total grate area does not meet the "unblockable" size described by VGB. Therefore, this grating does not meet VGB without a Safety Vacuum Release System. The waterslide wall sump depth could not be confirmed from existing drawings for VGB compliance. However, the 4" line shown is undersized per Teton Health District Code requirements for pipe velocity.

Recommendation

Safety Vacuum Release System (SVRS) should be connected to the waterslide pump associated with the four (4) 9"x9" wall grates, as this is considered a single, blockable drain. SVRS for all pumps associated with the 18"x24" grate should be tested for efficacy.

Verify the lifespan of all grates at the pool and ensure they are replaced at the intervals recommended by the manufacturers described above.

Nearly all pool suction piping is undersized per current codes, and should be upsized during a full pool replacement to accommodate high flow-rate features.



INLETS

The leisure pool's recirculation system utilizes a combination of ten (10) floor inlets and one (1) wall inlet located in the wading area. C-H observed that the floor inlet nozzles featured various makes and models.

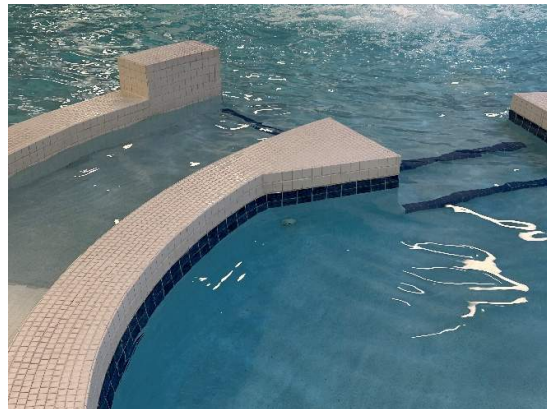
Areas where floor inlets used to be located have been patched in an attempt to remedy water loss that was traced to the return lines. Existing drawings indicate that the floor inlet supply pipes are not encased in concrete and tied to the bottom of the pool structure. This configuration, combined with large amounts settlement of the pool structure (indicated by the out-of-level skimmers) can lead to repeatedly broken pipes.

The differing types of inlet nozzles also suggest a lack of standardization in replacement parts, which can negatively affect the hydraulic balance and overall efficiency of the recirculation system.

Recommendation

Cap the inlets and perform a water tightness test on the pool to determine if the leaks are coming from the structure itself, or the floor inlet supply lines. If the floor inlet supply lines are determined to be the issue, further demolition, repair, and concrete encasement of the lines should take place.

During a pool replacement, ensure that all floor inlet lines are encased in concrete and tied to the underside of the pool structure. This ensures that the structure and all associated piping move as a unit, reducing the chance of breakage.



LADDERS

The leisure pool features two (2) pairs of stainless steel grab rails that were generally observed to be in fair condition. The stainless steel material of the rails themselves appears sound. However, the associated escutcheons (decorative covers where the rail meets the deck) were observed to have visible surface-level corrosion. The grab rails remain secure in their anchors, as they exhibit only a slight, acceptable amount of rocking.

Recommendation

It is important to note that if skimmers are selectively replaced in lieu of a whole pool replacement, these grab rails may also require reconfiguration and replacement.

If rails are not replaced, C-H recommends cleaning and passivating all stainless-steel grab rails and escutcheons to inhibit future corrosion and extend the life of this equipment.



INGRESS AND EGRESS

The leisure pool's means of entry and exit do not meet current ADA compliance requirements. Since the pool perimeter is under 300', one primary means of accessible entry/exit must be provided (a ramp or a pool lift). While a ramp is an acceptable means of primary access, the existing one is missing required handrails, and it has a cross slope which is not allowed for ADA access. Due to the short set of stairs into the wading area, the ramp does not serve as the primary ADA "beach entry" access for the wading area either.

One traditional stair entry into the leisure pool is present and appears to be in fair condition, but it does not have handrails. Both the Teton Health Code and MAHC require stairs to be equipped with at least one handrail for safe use.

Recommendation

An ADA lift should be installed at the deep end of the leisure pool.

Handrails should be installed at the stair-entry during the next repair/renovation.

Upon pool replacement, ensure that the requirements for ADA access are met, and intermediate stairs are excluded from the pool design to comply with the MAHC.



WARNING SIGNS AND DEPTH MARKERS

The leisure pool currently features tile horizontal and vertical depth markers and vinyl "NO DIVING" warning markers. While the depth markers and warning signs were generally observed to be properly spaced within 25' along the pool perimeter, one marker was hidden beneath the slide flume.

C-H also observed near the wading area that some depth markers are not descriptive, lacking any units to specify what the numeral represents. The vinyl "NO DIVING" markers affixed to the pool deck were observed to be peeling off in certain areas, compromising their visibility and function. All non-compliant and damaged markings must be corrected or replaced to ensure patron safety and adherence to all applicable codes.

Recommendation

C-H recommends replacing all non-descriptive depth markers with markers that display both a number and units to patrons. Any peeling "NO DIVING" should be replaced as needed or permanently replaced with tile.

For a new pool, ensure that all depth markers and warning signs are descriptive, placed on both vertical and horizontal surfaces, have text at least 4" tall, and include the international "NO DIVING" symbol.



FEATURES

The leisure pool is equipped with four (4) distinct water features.

Two (2) of the features are currently non-operational:

1. Vortex: A small vortex pool feature is present but has not been functioning within the recent memory of staff. This feature has multiple inlets above the water level that are currently not operational. The piping in the mechanical room was observed to be disconnected.
2. Whale Tail Feature: This feature, which replaced a previous rockwork waterfall feature, is in similar condition to the umbrella feature; the coating is in good shape, but the feature does not work due to operational issues. The piping in the mechanical room was observed to be disconnected.

The two (2) operational features are:

3. Bubbler Feature: A bubbler feature is present and was observed to be working during the site visit. An air blower is present for this feature in the mechanical room.
4. Mushroom Waterfall Feature: This feature was observed to be in fair condition, with the coating showing little discoloration or deterioration. Ownership did not note any issues with this feature, though C-H did not confirm the functionality on site. The piping was observed to be properly connected in the mechanical room.

Recommendation

C-H recommends repairing the pump for the whale tail and vortex bench, and resuming operation. Ensure that all pumps within the leisure pool are tied to a functioning and operational SVRS system.

All feature pumps implemented in a new pool should have their own dedicated suction line. Ensure that pipes and sumps are adequately sized for modern codes such as VGB and MAHC.





SMALL WATERSLIDE

The leisure pool is equipped with one small blue waterslide that was observed to be in fair to poor overall condition. While the coating on the fiberglass flume was in fair condition—only showing discoloration and surface staining since the renovation in the 2010s—the slide presents numerous structural and safety deficiencies. A primary structural concern noted was that the slide start tub was placed over a wood plank and was overhanging the concrete support structure.

The support structure itself was in poor condition, featuring visibly rusted railings and areas where the protective coating was completely removed. Furthermore, the structure presents a safety hazard as children are able to walk underneath it and hit their heads on fiberglass and support. C-H observed that padding was duct-taped onto the slide in these low-clearance areas, suggesting that previous incidents may have occurred.

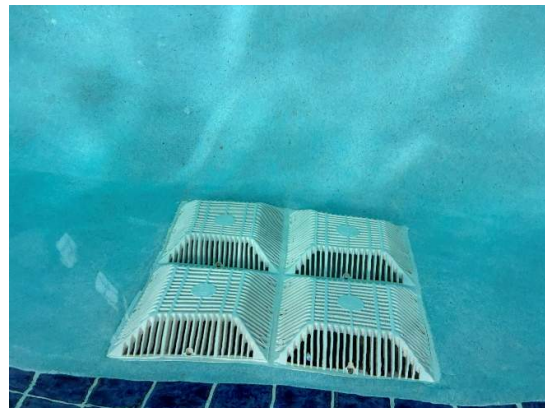
The slide path is a physical obstruction that violates the Teton District Health Code, which requires a minimum of 8' of unobstructed deck space around the pool.

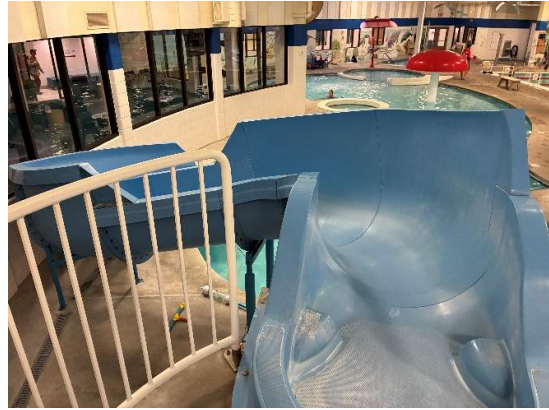
The waterslide does not include an e-stop adjacent to the start-tub entrance, which is against modern aquatic industry standards.

Recommendation

If the waterslide is to remain, C-H recommends contacting a waterslide restoration company, such as SafeSlide or SlideRenu for renovation services. Contact information for these companies will be provided in Appendix A.

Future facility plans should accommodate code-required deck widths for waterslide ride paths around the pool. An E-stop should be designed at the top of the slide tower in future facility plans.





DECK EQUIPMENT

C-H observed one (1) lifeguard chair that serves the leisure pool, spa, and splash pool. It was observed to be in good condition.



POOL DECK

As a "general use" pool in a public facility, the leisure pool is subject to the Teton Health District Code requirement mandating a minimum of 8' of unobstructed deck clearance around the entire perimeter of the pool vessel. C-H observed that the leisure pool is in violation of this requirement. C-H observed numerous areas where the available deck clearance was far less than the required 8'.

Recommendation

Nothing can be done immediately to completely correct this code-compliance issue.

In future pool renovations, deck clearances must be considered to adhere to all applicable code requirements.



LEISURE POOL MECHANICAL SYSTEM



PIPING

The bulk of the visible recirculation system piping uses Schedule 40 PVC piping, which is less robust than the Schedule 80 PVC typically recommended by modern aquatic industry standards for all exposed pool piping. This includes the influent and effluent heat exchanger piping (which was observed to be copper) whereas modern industry standards recommend Schedule 80 CPVC due to its superior heat tolerance. The presence of some acceptable Schedule 80 PVC fittings/piping in the UV bypass and elsewhere throughout the system suggests recent, post-original-construction repairs by diligent staff. Furthermore, the piping supports were observed to be corroded and rusted, indicating a need for maintenance or replacement to ensure long-term integrity and proper alignment of the plumbing runs.

The piping system lacks essential identifiers: no color-coded arrows were observed indicating the direction of flow, which violates both Teton Health District code (requiring arrows) and MAHC (requiring colored arrows). Additionally, no posted piping and system schematic was observed in the mechanical room, which does not adhere to both Teton Health District Code and MAHC.

All piping sizing in the mechanical room for the leisure pool system is code-compliant.

Recommendation

C-H observed that the water chemistry controller sample cell effluent line was upstream of the filter. This should be located downstream of the filter to prevent clogging.

C-H recommends color-coded arrows be applied on all recirculation pipes per the interval listed in the MAHC. A detailed system schematic (flow diagram) must be posted in the mechanical room to adhere to both the Teton District Health Code and the MAHC.

C-H recommends replacing all existing SCH 40 piping with SCH 80 piping throughout the mechanical room for improved longevity. The influent and effluent piping running from the heat exchanger should be replaced with SCH 80 CPVC piping to adhere to modern industry standards. In conjunction with the piping replacement, all existing pipe supports should also be replaced.



FLOW METERS

One (1) Signet rotary flow meter was installed on the leisure pool piping, which is accurate enough, installed appropriately, and is acceptable per all code requirements.

Recommendation

No immediate recommendations.

During a full pool mechanical room replacement, ensure a 4-20mA signal Signet MagMeter is included to allow for feedback control with recirculation pump VFDs. This leads to significant energy savings following filter tank backwashing.



PUMPS

The leisure pool recirculation system is driven by a Sta-Rite CSP pump paired with a 15 HP, 460V Baldor Reliance motor, and an aging Sta-Rite strainer. The pump was replaced in 2023. The flow rate varies widely on this system according to staff, from 250gpm to 500gpm based on how recently the filter has been backwashed. The lowest level, 250gpm is acceptable for an activity pool turnover, roughly equating to 2 hours. Operation staff noted that the pump is cavitating (suggesting air intrusion or insufficient supply-side pressure) which causes the impeller to degrade prematurely, requiring frequent replacement.

The recirculation pump is not located within a pump pit and therefore does not achieve the industry-preferred condition of flooded suction (where the pump intake is below the pool's water level by at least 2'). The elevation of the pump compared to the pool water level is contributing to cavitation and is straining the motor. The pump's strainer is not adequately supported by a housekeeping pad.

There is only one feature pump remaining in operation at the leisure pool. It is a Sta-Rite CSP pump paired with a 7.5HP, 460V Baldor Reliance motor. There is no strainer present on the suction side of the pump, which is against Teton Health District Code and the MAHC. The other two previous pumps have been disconnected and are no longer in operation.

The pumps are missing pressure and vacuum gauges, which are required by MAHC. These measure the pressure differential across each pump, which gives the operator insights into the flow rate of the pool system, power consumption, as well as performance of each pump.

The pumps do not include VFDs, which would allow for speed adjustments to optimize flow, reduce energy consumption, and manage pressure spikes that can damage equipment.

Recommendation

In conjunction with a full pump replacement, C-H recommends that both pumps should be installed within the existing pump pit, or the existing balance tank should be converted to an additional pump pit vault. Leaks would need to be sourced if the pump was placed within the balance tank.

A strainer needs to be added to the existing 7.5HP feature pump. The other existing pumps should be serviced, reconnected, and placed back into operation with a functioning SVRS.

Upon installation of the pumps, pressure and vacuum gauges should be installed to meet the MAHC requirements for system monitoring. Furthermore, VFDs should be implemented on each pump, but especially the recirculation pump to allow the system to run more efficiently, save energy, and extend the lifespan of the new pump motor.

In conjunction with a pool replacement, a larger pump pit should be installed to allow each operating pump to be placed below water level. Each pump should be provide with service valves, pressure gauges, a VFD, and proper housekeeping pad support.



VALVES AND FLANGES

The valves and flanges throughout the mechanical room were observed to be in fair to poor condition. Many of the installed valves are a Schedule 40 PVC material, whereas modern aquatics industry standards recommend the use of more durable Schedule 80 PVC for this critical mechanical room application.

It is important to note that an isolation valve is missing on the main drain line connecting to the leisure pool recirculation pump. This is a critical valve that allows for important servicing, leak testing, pipe pressure testing, and more.

Recommendation

C-H recommends installing valve tags on all valves within the leisure pool mechanical room, and providing a corresponding detailed valve chart to assist staff in diagnosing and remedying future maintenance issues easier.

C-H recommends replacing all SCH 40 valves and flanges with SCH 80 components to adhere to modern industry standards for increased durability and pressure resistance. All valves and flanges on the influent and effluent heater lines should be replaced with SCH 80 CPVC.



FILTRATION EQUIPMENT

The leisure pool utilizes one (1) Stark SA96 filter system with semi-automatic backwash functionality. The filter system was observed to have a manual air relief system present, which satisfies the requirement set forth by MAHC for safe operation.

However, an automatic relief valve was not installed on the filter. This does not adhere to modern industry standards, as an automatic relief valve is essential for protecting the filter tank from trapping air. Additionally, the filter is overhanging the housekeeping pad, and it is not anchored to the pad either.

Ownership reported that when the backwash cycle is performed for an excessive duration, sanitary waste line backs up, indicating an undersized or blocked backwash waste line. It should be noted that the original design documents included three (3) filter tanks, and the original sanitary capacity may have been sized for smaller tanks. This is likely the reason that a single tank overwhelms the sanitary line during backwash if a blockage is not present.

The filter backwash system is a semi-automatic method, relying on actuated valves to operate. Staff noted that these valves break down easily and require repairs often.

Recommendation

C-H recommends switching to a multiple tank filter system during a pool mechanical room renovation. 30" diameter vertically oriented tanks should be used to ensure ceiling heights and door clearances can be maintained. The new face piping should include manual backwash valves which will reduce the repair frequency required by staff.

The new filtration tank system should not only assist with filtration at the pool but will also ease the backwash flow rates routed to the existing sanitary connection.

Utilization of glass filter media and an electronic flocculant (such as Clear-Flow) would further increase the quality of the sand filtration at the leisure pool.

Alternatively, a regenerative media filtration system could also be explored for additional cost.



EXISTING LEISURE POOL BALANCE TANK

C-H observed a tank below the leisure pool mechanical room floor slab, accessible through an aluminum floor hatch. Both the skimmer and main drain suction lines pass through this tank before reaching the pump, but they lack any float valves, or isolation valves that would suggest a functional interaction with the vessel. Because the leisure pool utilizes a skimmer system, the pool structure inherently provides built-in surge capacity, rendering a surge tank useless. In modern aquatic design, suction lines from skimmers and main drains are simply connected at a tee prior to the pump and are managed via throttling/isolation valves within the mechanical room, entirely bypassing the need for an intermediate tank. Facility staff reported needing to occasionally pump the water out of the tank manually with a sump pump. The source of the water within the tank is unknown. According to the existing drawings, the original design of this tank was to be a balance tank, and the skimmers were to be gravity-flow. However, the skimmers are now connected directly to the pump, as required for the use of an SVRS.

Recommendation

C-H recommends the specific source of the facility's ongoing water loss be determined. C-H recommends draining the water completely out and drying the tank, and then thoroughly searching for the water ingress point.

If the tank can be made watertight, C-H suggests that the top of this tank at the mechanical room grade could be removed. This modification would allow the floor of the vessel to be utilized as a dedicated pump pit, enabling the leisure pool recirculation pump to be relocated to a lower elevation where it can receive a flooded suction. Transitioning to a flooded suction configuration would eliminate current priming issues and prolong the life of the leisure pool pump motor and impeller.



CHEMICAL TREATMENT

The leisure pool utilizes an Accu-Tab 1030 sanitizer system and booster pump for primary water treatment, which was observed to be in fair condition. The feed lines were observed to be clear and properly feeding the system, with no signs of excessive clogging or degradation.

The leisure pool system utilizes muriatic acid as the standalone pH buffer. This acid is delivered into the recirculation system via a peristaltic Stenner pump, which draws from the acid storage room, which is far away in the facility.

Using muriatic acid as the sole pH buffer is a common and effective industry practice for lowering pH in commercial pools. However, it quickly reduces the pool's total alkalinity (TA), which is the water's natural buffering capacity. Low TA can lead to unstable pH (known as pH "bounce") and corrosive water. If the fill water has a higher TA, then this standalone system is sufficient.

The leisure pool has a secondary sanitation system: a Hanovia UV unit. However, the unit has been isolated and has been out of commission.

Recommendation

If water chemistry management has been an ongoing concern for Ownership, which may be the case based upon observed amounts of sodium bicarbonate on-hand, C-H recommends a comprehensive domestic water analysis be performed to evaluate the facility's potable source water. The results of this analysis are critical for understanding the baseline alkalinity and mineral content, which directly influence the stability of the pool's pH. Depending on these findings, the integration of a carbon dioxide or sodium bisulfate system could be utilized to supplement the existing muriatic acid system, providing superior water quality to the facility.

C-H recommends that the bulbs are replaced, and the Hanovia UV system is restarted. Secondary sanitation reduces the amount of chloramines produced by a pool, which can greatly improve the environment of a natatorium. In addition, the UV system kills chlorine resistant threats such as legionella and cryptosporidium.

With a full facility replacement, provide a centralized pool mechanical room for all bodies of water. This will reduce the amount of muriatic acid lines traveling throughout the facility, which will therefore reduce the risk of harmful chemical leaks.



CHEMICAL STORAGE

The leisure pool lacks a dedicated, fire-rated chemical storage space, resulting in hazardous storage practices throughout the facility. During the inspection, chemicals were observed stored within the general mechanical room. This arrangement presents a fire and explosion hazard and directly violates IFC, which mandates that pool chemicals (specifically calcium hypochlorite) be stored in a segregated, ventilated, and properly rated environment to prevent dangerous reactions or interference with electrical infrastructure.

Furthermore, the required NFPA diamond signage is not present on the mechanical room doors. While these storage conditions are substandard, the facility is in compliance with the MAHC regarding immediate first aid, as a functional emergency eyewash unit was observed and accessible within the pool mechanical room space.

Recommendation

Provide fire rated cabinets within the space for storage of calcium hypochlorite to mitigate fire hazards. These cabinets will double the amount that is allowed to be stored within the space without becoming a hazard classification per the IFC.

Provide NFPA diamond signage on the mechanical room door.

During a future full mechanical room renovation, C-H recommends that separate, properly fire-rated rooms be constructed to house chemicals and their respective feed systems, ensuring adequate segregation for safety.



WATER CHEMISTRY CONTROLLER

The leisure pool's water chemistry is monitored and controlled by one (1) BECSys5 water chemistry controller. This unit was observed to be in good condition and reported to be working properly.

Interlocks were not confirmed by C-H during the site visit. These are required by the MAHC to ensure that chemicals are not fed while the recirculation pump is off. This is an important safety feature of a commercial pool system that should be tested regularly.

Recommendation

If recirculation pump interlocks are not already in place for calcium hypochlorite and muriatic acid, consult with an electrical contractor to ensure that these interlocks are installed.

With a new pool, provide a more complex controller that can integrate with UV systems, dual- pH Buffer, and VFDs, such as the BECSys7.



POOL HEATING

The leisure pool system is currently heated indirectly via a central building boiler/heater that supplies hot water to a dedicated heat exchanger within the pool recirculation system. The current influent and effluent piping is showing signs of aging and corrosion.

Historically, a solar tube heating system was installed to supplement the facility's heating needs. However, it has since been decommissioned due to its ineffectiveness.

Recommendation

Based on past experiences, C-H does not recommend reimplementing the solar tube heating system for any of the existing pools. The system should be decommissioned and disconnected during the next significant repair/renovation.

All aging influent/effluent heater lines should be replaced with SCH 80 CPVC during the next significant amount of pool mechanical room work.

There is not enough room for a standalone leisure pool heater in the case of a renovation. Therefore, during a future facility replacement, C-H recommends providing each pool recirculation system with its own dedicated heater. Standalone systems provide a level of redundancy for facilities with multiple bodies of water.



MAKE-UP WATER

The leisure pool currently utilizes a manual fill system for make-up water, which C-H observed inside the mechanical room tee'ing into the heat exchanger piping. The domestic water valve is left cracked open to offset the constant water loss from the leisure pool structure.

While an automatic system is not required by code, a manual system introduces the risk of the water level falling too low, and the skimmers potentially drawing air into the pool's recirculation pump and causing damage.

Recommendation

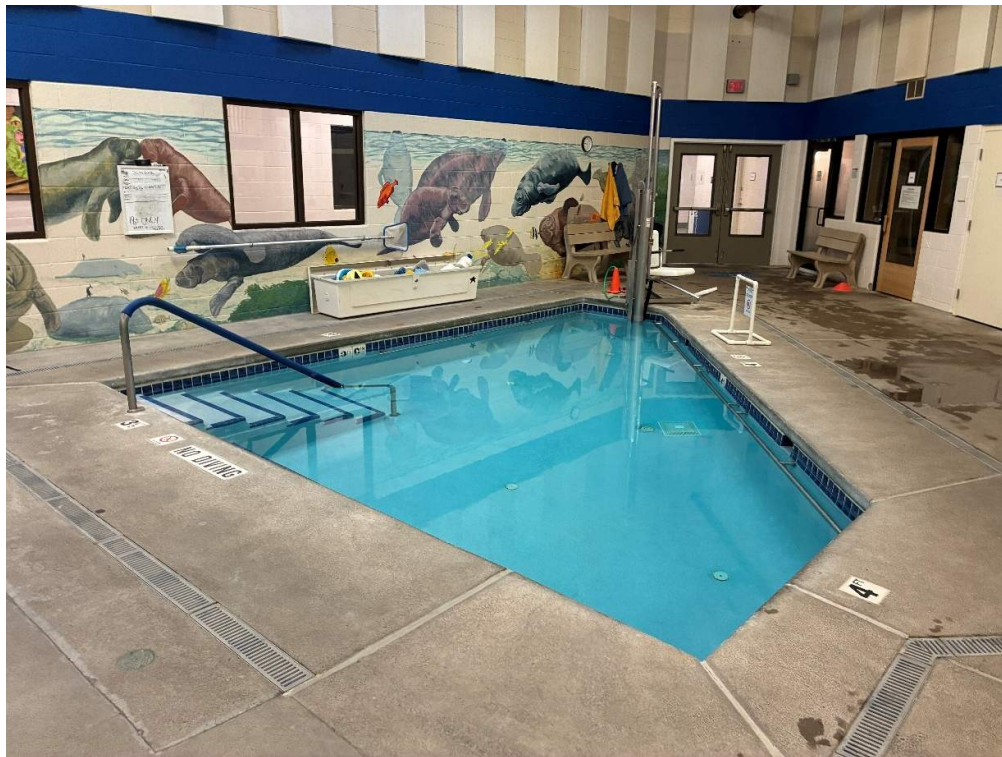
The make-up water line should be re-routed to the main recirculation line in lieu of the piping connected to the pool's heat exchanger.

An automatic water level control system is a more complex addition to skimmer pools when compared to pools that have in-mechanical room surge tanks. An abandoned supply or suction line would need to be re-used to create a "wet-well" in the mechanical room in which sensors can be placed. Otherwise, the deck would need to be torn out in order to route pipe or conduit back to the pool mechanical room.



GENERAL INFORMATION: Therapy Pool

Length	VARIABLES
Width	VARIABLES
Surface Area	325 sqft (Approximate)
Perimeter	78' (Approximate)
Water Depth	3'-6" to 4'-0"
Pool Volume	7,500 gallons (Per Staff)
Flow Rate	62.5 GPM (Per Staff)
Turnover Rate	2.00 Hours (Calculated)



STRUCTURE AND FINISH

The therapy pool is constructed of concrete with an aggregate plaster finish with a 6" waterline tile. The pool finish was observed to be in generally good condition, displaying only slight staining and some minor chipping around one floor inlet. Ownership was unable to specify the date of the last plaster replacement. The pool tile, which includes the waterline and the contrasting nosing tile on the stairs and the underwater bench, was all observed to be in good condition.

The pool structure itself does not appear to be out of level, and ownership reported no water loss from the vessel.

Recommendation

It may be ideal to plan for a re-plaster of the therapy pool if any other pools within the facility are being re-plastered, to get some "economy of scale" on contractors mobilizing to do the work.

While water loss has not been a problem at the therapy pool, staff should consider performing a water tightness to assess the true condition of the structure. Refer to Appendix B for the water tightness test procedure specified by C-H during new construction projects.



SKIMMER PERIMETER OVERFLOW SYSTEM

The therapy pool utilizes a skimmer system for perimeter overflow, consisting of two (2) skimmers total, which meets the quantities required by code. However, the therapy pool skimmer suction pipe size does not meet the velocity requirements per Teton Health District Code.

While a basket was present in each skimmer unit, no weir or deck access lid was observed on any of the skimmers. A weir is required per MAHC to ensure proper surface skimming and flow adjustment. A lifeguard reported that to clean out the skimmer baskets, staff must reach into the skimmer opening. This is an atypical operational practice stemming from the missing access lids, which are standard on commercial grade skimmers. Additionally, the skimmers are not listed with NSF-50, which violates Teton Health District Code.

Recommendation

The pool deck and skimmers must be cut out and replaced to meet more modern aquatic codes.

C-H recommends removing and replacing the entire pool to ensure proper perimeter overflow and gutter system code compliance.



MAIN DRAINS

The therapy pool includes one (1) 12"x12" recirculation main drain located in the pool floor. The drain grates appear to be 12"x12" MLD-FG-1212-WT by Neptune-Benson. Operations team to confirm.

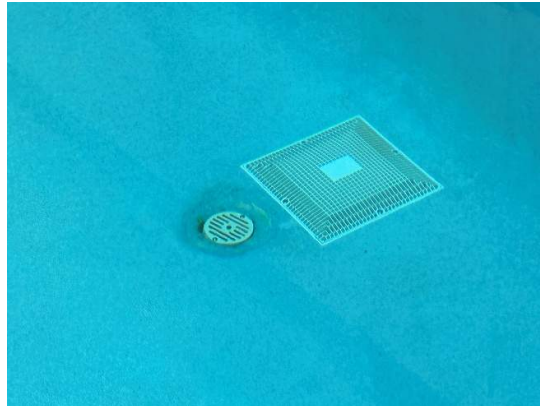
Based upon the existing drawings, the plumbing piping for the main drain is sized at 4". The depth of the sumps could not be verified on the existing drawings to confirm an adequate 1.5x pipe diameter is provided from the 4" pipe outlet to the grate cover per VGB. However, the sizing of the total grate area does not meet the "unblockable" size described by VGB. To address this, staff has installed a Safety Vacuum Release System (SVRS) on the recirculation pump.

Recommendation

Regularly check the Safety Vacuum Release System (SVRS) at the pool recirculation pump to ensure proper functionality.

Verify the lifespan of the grate at the pool and ensure they are replaced at the intervals recommended by the manufacturers described above.

With a new pool design, provide two (2) main drain grates to adhere to VGB without relying on a SVRS at the recirculation pump.



INLETS & HYDROTHERAPY JETS

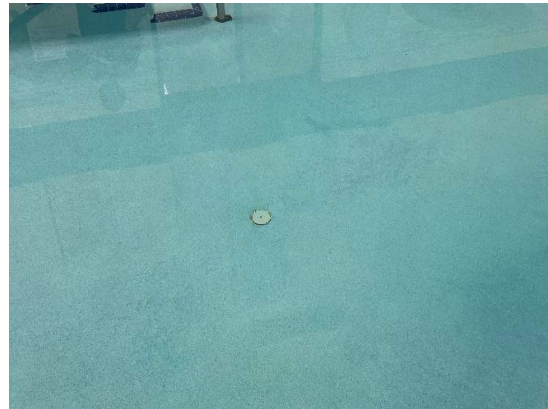
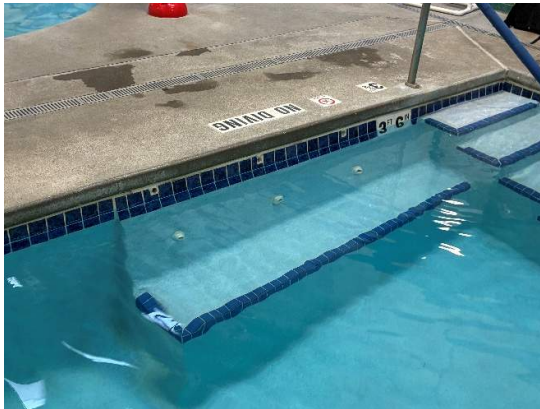
The therapy pool recirculation system utilizes five (5) floor inlets and various dysfunctional hydrotherapy inlets. It was observed that one of the floor inlet's nozzle featured a different make and model from the others.

The hydrotherapy jets have been decommissioned and have not been used in recent history according to staff.

Recommendation

Connect the 4" main drain suction line and the 2.5" jet pressure line to a new pump to restore functionality to the hydrotherapy jets.

With a new pool design, do not consolidate the recirculation and hydrotherapy bench onto the same pump as shown on the existing drawings. These uses have very different pressure requirements due to the filter on the recirculation line.



INGRESS AND EGRESS

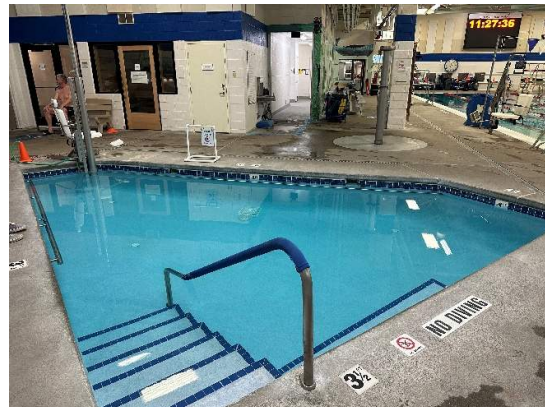
The therapy pool meets the minimum accessibility requirements set forth by ADA. A hydraulic pool lift was observed on site and is in operating condition. Since the pool perimeter is under 300', the presence of this single lift fulfills the ADA requirement for one primary means of entry.

For general ingress/egress, a stair entry with a handrail is present on the south end of the pool with a handrail, which adheres to the Teton District Health Code. The stainless steel of the stair handrail and the internal grab rails within the pool were observed to be in good condition. However, the escutcheon within the pool for the stair handrail showed visible signs of corrosion.

Therapy rails are provided for use on several sides of the pool. These rails appear to be in good condition.

Recommendation

C-H recommends cleaning and passivating the ADA lift, stair handrails, therapy rails, and escutcheons to mitigate further corrosion and extend service life.



WARNING SIGNS AND DEPTH MARKERS

The therapy pool includes tile horizontal and vertical depth markers and vinyl adhesive horizontal "NO DIVING" warning markers. While the depth markers were observed to be properly spaced within 25' along the pool perimeter, there is an insufficient quantity of warning signage. MAHC requires that "No Diving" markers be clearly visible and spaced at no more than 25' intervals around any pool where the water depth is 5' or less.

Recommendation

C-H recommends the application of vinyl "NO DIVING" warning signage to the other side of the perimeter deck of the therapy pool to ensure full compliance with MAHC.



POOL DECK

As a "general use" pool in a public facility, the therapy pool is subject to the Teton Health District Code requirement mandating a minimum of 8' of unobstructed deck clearance around the entire perimeter of the pool vessel. C-H observed that the therapy pool does not meet this requirement.

Recommendation

Nothing can be done as a repair or renovation to correct this code compliance issue.

In future pool designs, deck clearances must be considered to adhere to applicable local codes.

THERAPY POOL MECHANICAL SYSTEM



PIPING

The bulk of the visible recirculation system piping uses Schedule 40 PVC piping, which is less robust than the Schedule 80 PVC typically recommended by modern aquatic industry standards for all exposed pool piping. This includes the influent and effluent heat exchanger piping (observed to be partially copper and partially Schedule 40 PVC) whereas modern industry standards recommend Schedule 80 CPVC due to its superior heat tolerance. The presence of some acceptable Schedule 80 PVC fittings/piping in the UV bypass and elsewhere throughout the system suggests recent, post-original-construction repairs by diligent staff. Furthermore, the piping supports were observed to be corroded and rusted, indicating a need for maintenance or replacement to ensure long-term integrity and proper alignment of the plumbing runs.

The piping system lacks essential identifiers: no color-coded arrows were observed indicating the direction of flow, which violates both Teton Health District Code (requiring arrows) and MAHC (requiring colored arrows). Additionally, no posted piping and system schematic was observed in the mechanical room, which does not adhere to both Teton Health District Code and MAHC.

The suction and pressure piping lines within the system are both 2", which is inadequately sized to meet the velocity requirements per Teton Health District Code at the required flow rates for the pool.

C-H observed a capped PVC tee after the heating lines. Staff were unable to confirm the function of this tee. However, since a sanitation system is not being utilized for this pool, it is CH's assumption is that this tee was used to supply water for a sanitation system that has since been removed.

Recommendation

C-H recommends piping for this system should be upsized from 2" SCH 40 PVC to 3" SCH 80 PVC wherever possible within the pool mechanical room space to meet code. Re-install all chemical treatment systems.

C-H recommends color-coded arrows be applied on all recirculation pipes per the interval listed in the MAHC. A detailed system schematic (flow diagram) must be posted in the mechanical room to adhere to both the Teton District Health Code and the MAHC.

C-H recommends replacing all existing SCH 40 piping with SCH 80 piping throughout the mechanical room for improved longevity. The influent and effluent piping running from the heat exchanger should be replaced with SCH 80 CPVC piping to adhere to modern industry standards. In conjunction with the piping replacement, all existing pipe supports should also be replaced.



FLOW METERS

One (1) Signet rotary flow meter was installed on the therapy pool piping, which is accurate enough, installed appropriately, and is acceptable per all code requirements.

The flow rate stated by staff was between 62.5gpm and 125gpm. While this range meets Teton Health District Code, it is important to note that only the maximum of this range is acceptable per MAHC standards for a therapy pool.

Recommendation

Flow rate cannot be changed without significant piping and structure re-work. Nothing can be done immediately with the exception of keeping the flow rate as close as possible to the maximum end of the range at all times.

Ensure that a 1-hour minimum turnover rate is specified on any new therapy pool design.

During a full pool mechanical room replacement, ensure a 4-20mA signal Signet MagMeter is included to allow for feedback control with recirculation pump VFDs. This leads to significant energy savings following filter tank backwashing.



PUMPS

The recirculation system for the therapy pool is driven by a 2 HP Whisperflo pump, which was observed to be in good condition. This type of pump features both an integrated strainer and self-priming capabilities. The pump was observed to be missing both the suction and pressure gauges which does not meet MAHC requirements. This prevents operators from accurately monitoring the system's total dynamic head (TDH), diagnosing performance issues, and confirming the pump is operating within its anticipated flow range.

Although it is a self-priming pump, it is still preferred that this pump is placed below water level of whatever pool it is serving.

The new 2 HP Whisperflo pump does not possess the power or the variability to operate both the pool recirculation system and the hydrotherapy jets at the same time. A dedicated pump is not currently present for the hydrotherapy jets.

Recommendation

Provide a standalone 3 HP WhisperfloXF pump for the hydrotherapy jets by connecting it to the common 4" suction line and the 2.5" pressure line routed to the jet nozzles.

Provide pressure and vacuum gauges for all therapy pool pumps.

Install both the recirculation pump and the hydrotherapy pump within the pump pit to allow for a flooded suction condition.



VALVES AND FLANGES

The valves and flanges throughout the mechanical room were observed to be in fair to poor condition, except for a few SCH 80 PVC valves shown in the picture below. Many of the installed valves are a Schedule 40 PVC material, whereas modern aquatics industry standards recommend the use of more durable Schedule 80 PVC for this critical mechanical room application.

Recommendation

C-H recommends installing valve tags on all valves within the therapy pool mechanical room, and providing a corresponding detailed valve chart to assist staff in diagnosing and remedying future maintenance issues easier.

C-H recommends replacing all SCH 40 valves and flanges with SCH 80 components to adhere to modern industry standards for increased durability and pressure resistance. All valves and flanges on the influent and effluent heater lines should be replaced with SCH 80 CPVC



FILTRATION EQUIPMENT

The therapy pool is serviced by a single Hayward HCF236 high-rate sand filter, which was installed within the last few years. The unit is equipped with proper gauges and air relief piping, which are essential for monitoring filter performance, determining the total dynamic head (TDH), and safely releasing accumulated air during operation or start-up.

Operationally, the system maintains adequate function. However, the facility staff noted that this filter is more difficult to service as it is the only Hayward filter at the facility.

Recommendation

Replace the Hayward filter with a Pentair Triton TR140. This is the same form/function as the Hayward filter, but it will be easier for staff to service based on vendors in the area.

During a facility replacement, ensure the designer understands parts and products that are readily available in the area for easier service and upkeep.

Utilization of glass filter media and an electronic flocculant (such as Clear-Flow) would further increase the quality of the sand filtration at the therapy pool.

Alternatively, a regenerative media filtration system could also be explored for additional cost.



CHEMICAL TREATMENT

The therapy pool currently lacks an automated sanitization system. Although evidence suggests a system was previously installed—specifically a residual tee fitting remaining on the return line that likely served as the chemical injection point—the equipment has since been removed.

In the absence of a mechanical feeder, facility staff are currently hand-feeding chlorine into the pool. This practice does not comply with Teton Health District Code and the MAHC, both of which mandate a continuous and effective means of automated sanitation to ensure consistent water safety.

The therapy pool system utilizes muriatic acid as the standalone pH buffer. This acid is delivered into the recirculation system via a peristaltic Stenner pump, which draws from the acid storage room, which is far away in the facility.

Using muriatic acid as the sole pH buffer is a common and effective industry practice for lowering pH in commercial pools. However, it quickly reduces the pool's total alkalinity (TA), which is the water's natural buffering capacity. Low TA can lead to unstable pH (known as pH "bounce") and corrosive water. If the fill water has a higher TA, then this standalone system is sufficient.

Recommendation

Re-install a calcium hypochlorite feeder, and connect this system to the chemical controller in order to comply with applicable codes.

If water chemistry management has been an ongoing concern for Ownership, which may be the case based upon observed amounts of sodium bicarbonate on-hand, C-H recommends a comprehensive domestic water analysis be performed to evaluate the facility's potable source water. The results of this analysis are critical for understanding the baseline alkalinity and mineral content, which directly influence the stability of the lap pool's pH. Depending on these findings, the integration of a carbon dioxide or sodium bisulfate system could be utilized to supplement the existing muriatic acid system, providing superior water quality to the facility.



WATER CHEMISTRY CONTROLLER

The therapy pool's water chemistry is monitored and controlled by one (1) BECSys5 Water chemistry controller. This unit was observed to be in good condition and reported to be working properly, with the exception of the missing sanitizer system.

Interlocks were not confirmed by C-H during the site visit. These are required by the MAHC to ensure that chemicals are not fed while the recirculation pump is off. This is an important safety feature of a commercial pool system that should be tested regularly.

Recommendation

Once the sanitizer system is installed, reconnect it to the existing water chemistry controller for automation of feed.

If recirculation pump interlocks are not already in place for calcium hypochlorite and muriatic acid, consult with an electrical contractor to ensure that these interlocks are installed.

With a new pool, provide a more complex controller that can integrate with UV systems, dual-pH Buffer, and VFDs, such as the BECSys7.



POOL HEATING

The therapy pool system is currently heated indirectly via a central building boiler/heater that supplies hot water to a dedicated heat exchanger within the pool recirculation system. The copper influent and effluent piping is showing signs of aging and corrosion.

Historically, a solar tube heating system was installed to supplement the facility's heating needs. However, it has since been decommissioned due to its ineffectiveness.

Recommendation

Based on past experiences, C-H does not recommend reimplementing the solar tube heating system for any of the existing pools. The system should be decommissioned and disconnected during the next significant repair/renovation.

All aging influent/effluent heater lines should be replaced with SCH 80 CPVC during the next significant amount of pool mechanical room work.

There is not enough room for a standalone therapy pool heater in the case of a renovation. Therefore, during a future facility replacement, C-H recommends providing each pool recirculation system with its own dedicated heater. Standalone systems provide a level of redundancy for facilities with multiple bodies of water.



MAKE-UP WATER

The leisure pool currently utilizes a manual fill system for make-up water, which C-H observed inside the mechanical room teeing into the recirculation piping.

While an automatic system is not required by code, a manual system introduces the risk of the water level falling too low, and the skimmers potentially drawing air into the pool's recirculation pump and causing damage.

Recommendation

An automatic water level control system is a more complex addition to skimmer pools when compared to pools that have in-mechanical room surge tanks. An abandoned supply or suction line would need to be re-used to create a “wet-well” in the mechanical room in which sensors can be placed. Otherwise, the deck would need to be torn out in order to route pipe or conduit back to the pool mechanical room. A consideration is re-using the hydrotherapy line, if the hydrotherapy jets are not repaired.



GENERAL INFORMATION: Spa

Length	10' Diameter
Width	10' Diameter
Surface Area	85 sqft (Per Drawings)
Perimeter	40' (Per Drawings)
Water Depth	3'-0"
Pool Volume	2,000 gallons (Per Staff)
Flow Rate	67 GPM (Per Staff)
Turnover Rate	0.5 Hours (Calculated)



- Staff inquired about the possibility of covering the spa. Dimensions of the spa (per existing drawing sheet SP3) can be sent to a pool cover manufacturer, such as SR Smith (EnergySaver Spa) and Spectrum Aquatics (Swimming Spa Cover). This cover be applied during off-hours to retain heat and prevent evaporation.
- Alternative finish options for concrete spa structures were requested. Due to high temperatures within the spa, the best tried-and-true finish has been ceramic tile for the entirety of the spa. It stands up to the chlorine and high-temperatures yet is much easier to clean than plaster when the spa is drained down.
- Stainless steel and copper spas were inquired about by staff. The finish of these products is superior in warm-water conditions and easy to clean. Custom designs are also possible. However, in C-H's experience these vessels are roughly 20% more expensive than concrete. Issues with corrosion and water tightness of welds have arisen in previous C-H designs. Manufacturers to consider: Diamond Spas and Bradford Products. Contact info can be found in Appendix A.

STRUCTURE AND FINISH

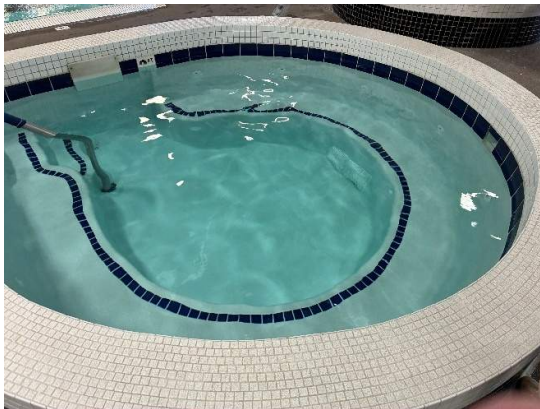
The spa pool is constructed of concrete with an aggregate plaster interior finish with a 12" waterline tile. The exterior and top faces of the spa structure are also tile. The spa finish was observed to be in fair condition, displaying staining and some delamination along the floor face. Ownership was unable to specify the date of the last plaster replacement. The tile is in fair to poor condition, with many areas of patched tile, cracked tiles, and dirty or missing/failing grout.

The pool structure itself does not appear to be out of level, and ownership reported no water loss from the vessel.

Recommendation

It may be ideal to plan for a re-plaster and re-tile of the spa if any other larger pools within the facility are being re-finished, to get some "economy of scale" on contractors mobilizing to do the work.

While water loss has not been reported as a problem at the spa, staff should consider performing a water tightness to assess the true condition of the structure leaks may be hard to detect at this pool with automated fill and a concealed float valve. Refer to Appendix B for the water tightness test procedure specified by C-H during new construction projects.



SKIMMER PERIMETER OVERFLOW SYSTEM

The spa utilizes a skimmer system for perimeter overflow, consisting of one (1) skimmer, which does not meet the quantity required by Teton Health District Code.

While a basket was present in the skimmer unit, no weir or deck access lid was present. A weir is required per MAHC to ensure proper surface skimming and flow adjustment. A lifeguard reported that to clean out the skimmer baskets, staff must reach into the skimmer opening. This is an atypical operational practice stemming from the missing access lids, which are standard on commercial grade skimmers. Additionally, the skimmers are not listed with NSF-50, which violates Teton Health District Code.

Recommendation

Nothing can be done immediately without significant spa structural changes that will cost more than replacing the spa.

C-H recommends removing and replacing the entire spa in conjunction with the rest of the pools within the facility to ensure proper perimeter overflow and gutter system code compliance.



MAIN DRAINS

The spa includes two (2) 9"x9" recirculation main drain located in the pool floor. The drain grates appear to be 9"x9" 640-4740V by Waterway. Operations team to confirm.

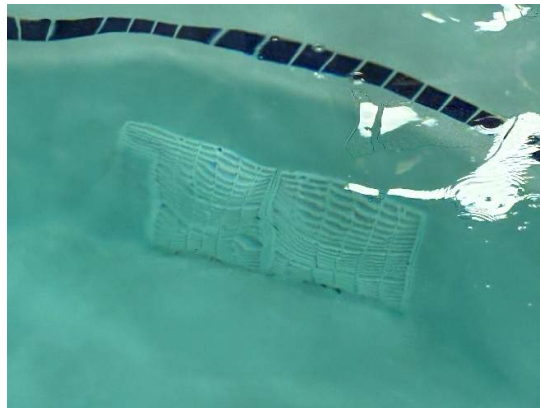
Based upon the existing drawings, the plumbing piping for the main drain is sized at 6". The depth of the sumps could not be verified on the existing drawings to confirm an adequate 1.5x pipe diameter is provided from the 6" pipe outlet to the grate cover per VGB. However, the size of the total grate area does not meet the "unblockable" size described by VGB. To address this, staff has installed a Safety Vacuum Release System (SVRS) on the recirculation and hydrotherapy pumps.

Recommendation

Regularly check the Safety Vacuum Release System (SVRS) at the pool recirculation pump to ensure proper functionality.

Verify the lifespan of the grates at the spa and ensure they are replaced at the intervals recommended by the manufacturers described above.

With a new pool design, provide two (2) main drain grates and sumps to adhere to VGB without relying on an SVRS technology.



INLETS

The therapy pool recirculation system utilizes four (4) wall inlets and the hydrotherapy pump is connected to ten (10) hydrotherapy jets which are operational. The hydrotherapy jets are connected to a timer switch that is mounted on the perimeter of the natatorium return air duct. The timer switch shows signs of corrosion.

Recommendation

Replace the hydrotherapy timer switch with a plastic or a non-ferrous metal product that can resist the corrosive environment present at the return air duct.



INGRESS AND EGRESS

The spa includes a knee height transfer wall and a stair entry. The raised spa does not meet ADA requirements because transfer handrails are not provided along the perimeter of the spa.

One handrail is provided for the stair entry, satisfying Teton Health District Code. However, the escutcheon within the spa for the stair handrail showed visible signs of corrosion. There is an exterior curb on the outside of the stair entry leading into the spa, but it does not contain a contrasting nosing for bather visibility when using the stairs or traveling around the spa.

Recommendation

C-H recommends providing stainless steel transfer rails at the perimeter of the raised spa in order to meet ADA compliance.

Thoroughly clean and/or replace the escutcheon at the bottom of the stair entry handrail for the spa.

Provide a contrasting nosing at the exterior stair entry step, such as a tile band or epoxy paint.



WARNING SIGNS AND DEPTH MARKERS

The spa currently features tile vertical tile depth markers at the spa's waterline. However, no horizontal depth markers or warning signs were observed at the top face of the spa, which is a requirement of both the Teton Health District Code and the MAHC.

Contrasting nosings are provided on all interior spa steps and benches as required per all applicable codes.

Recommendation

C-H recommends adding horizontal depth markers and warning signs during any significant spa re-finish.

For a new pool, ensure that all depth markers and warning signs are descriptive, placed on both vertical and horizontal surfaces, have text at least 4" tall, and include the international "NO DIVING" symbol.



SPA DECK

Unlike the other pools at the facility, the spa is subject to a different set of deck clearance requirements per the Teton Health District Code. Specifically, because the spa is less than 100 sqft in surface area, it must be provided with a continuous, unobstructed deck area measuring 6' by 8' on at least one side of the vessel. C-H confirmed that this dimension is possible on one side of the spa.

SPA MECHANICAL SYSTEM



PIPING

The bulk of the visible recirculation system piping uses Schedule 40 PVC piping, which is less robust than the Schedule 80 PVC typically recommended by modern aquatic industry standards for all exposed pool piping. This includes the influent and effluent heat exchanger piping, which was also observed to be Schedule 40 PVC, whereas modern industry standards recommend Schedule 80 CPVC due to its superior heat tolerance. The presence of some acceptable Schedule 80 PVC fittings/piping in the UV bypass and elsewhere throughout the system suggests recent, post-original-construction repairs by diligent staff.

The piping system lacks essential identifiers: arrows were observed indicating the direction of flow, but they were not color-coded, which violates MAHC (requiring colored arrows). Additionally, no posted piping and system schematic was observed in the mechanical room, which does not adhere to both Teton Health District code and MAHC.

All piping in the spa mechanical room is adequately sized for code compliance.

Recommendation

C-H recommends color-coded arrows be applied on all recirculation pipes per the interval listed in the MAHC. A detailed system schematic (flow diagram) must be posted in the mechanical room to adhere to both the Teton District Health Code and the MAHC.

C-H recommends replacing all existing SCH 40 piping with SCH 80 piping throughout the mechanical room for improved longevity. The influent and effluent piping running from the heat exchanger should be replaced with SCH 80 CPVC piping to adhere to modern industry standards.



FLOW METERS

One (1) Signet rotary flow meter was installed on the spa piping but was not in operation at the time of C-H observation. A blue-white impact flow meter was installed as a substitute. The impact flow meter is not accurate enough to meet MAHC flow meter requirements.

Recommendation

Repair the signet rotary flow meter and ensure that it provides accurate readings to the operator.

During a full pool mechanical room replacement, ensure a 4-20mA signal Signet MagMeter is included to allow for feedback control with the recirculation pump VFD. This leads to significant energy savings following filter tank backwashing.



PUMPS

The recirculation system for the spa is driven by an Intelliflo VS 3.95HP pump, which was observed to be in good condition. The spa hydrotherapy pump is a 5HP WhisperfloXF. Both pumps feature an integrated strainer and self-priming capabilities. The pumps were observed to be missing both the suction and pressure gauges which do not meet MAHC requirements. This prevents operators from accurately monitoring the system's total dynamic head (TDH), diagnosing performance issues, and confirming the pump is operating within its anticipated flow range.

The pumps are located at grade, at or slightly above the water level of the spa.

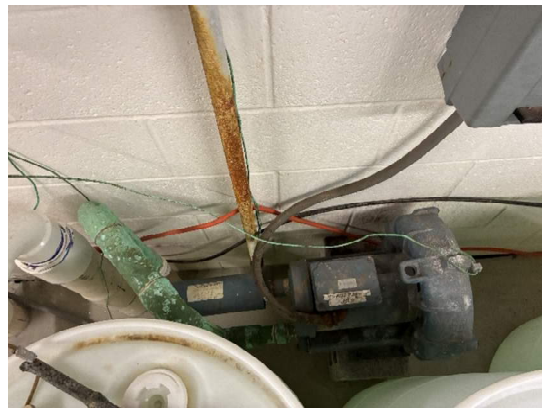
An air blower is provided and is operational for hydrotherapy in the spa. The blower appears to be in fair condition, but the accompanying copper piping is gathering some staining and corrosion.

Recommendation

Install pressure and vacuum gauges at the spa pumps.

Clean the air blower copper piping of any staining and corrosion.

In conjunction with a facility replacement, a pit should be installed to allow each operating pump to be placed below water level. This prolongs the longevity of pump motors, even if they are listed as self-priming pumps with low risk of cavitation.



VALVES AND FLANGES

Valves and flanges at the spa appear to be in fair condition and are mostly composed of a Schedule 80 PVC per aquatic industry standard. The only valves recommended to be replaced are: the discharge valve at the recirculation pump, the influent/effluent valves for the heat exchanger, and the suction/discharge valves at the hydrotherapy pump.

Valve tags were observed to be missing, which complicates emergency shutdown procedures and routine maintenance.

Recommendation

C-H recommends installing valve tags on all valves within the recirculation system and providing a detailed valve chart to assist staff in diagnosing and remedying future maintenance issues easier.

Upon an entire pipe replacement in the mechanical room, C-H recommends all SCH 80 components to adhere to modern industry standards for increased durability and pressure resistance. All valves and flanges on the influent and effluent heater lines should be SCH 80 CPVC.



FILTRATION EQUIPMENT

The spa is serviced by a single Pentair Triton-II TR100 high-rate sand filter, which appears to be in good condition. Staff noted that the media has changed recently. The unit is equipped with proper gauges and air relief piping, which are essential for monitoring filter performance, determining the total dynamic head (TDH), and safely releasing accumulated air during operation or start-up.

Recommendation

Utilization of glass filter media and an electronic flocculant (such as Clear-Flow) would further increase the quality of the sand filtration at the spa. Alternatively, a regenerative media filtration system could also be explored for additional cost.



CHEMICAL TREATMENT

The spa utilizes hydrogen peroxide for its primary sanitization system. While this method is highly capable when applied effectively, its use is rarely implemented in the commercial aquatics industry. Hydrogen peroxide is generally considered a less conventional choice due to its associated high cost and the large quantity required to maintain proper residual levels for effective treatment, especially in the high-temperature environment of a spa. The hydrogen peroxide is stored in barrels which are not sealed; the chemical vapors escape and accelerate corrosion in the mechanical room. The Blue-white A-100M pump for this system was observed to be working properly.

The spa is not connected to an automated acid feed system, like the facility's other pools. The method for maintaining the pH balance of the spa is currently reliant on staff hand feeding liquid acid as the sole pH buffer. This violates both Teton Health District code and MAHC. All pH control chemicals must be automatically introduced to the recirculation system to meet code requirements. Additionally, this manual dosing procedure is labor-intensive and inherently less precise than automated systems.

The spa utilizes a UV system from a Sentry Chlorling unit as its supplemental disinfection treatment. This system is a critical component for destroying chloramines and inactivating pathogens like Cryptosporidium or Legionella, and it was observed to be operating at the proper intensity of 65 mJ/cm². Despite its proper functional output, the unit was actively leaking and all associated flange bolts exhibiting significant rusting.

Recommendation

C-H recommends an automated calcium hypochlorite feeder for the spa in lieu of the hydrogen peroxide system. Using a calcium hypochlorite system ensures that all pools in the facility can operate on the same chemicals, which is best for consistency amongst staff. Additionally, this will be the best approach for cutting costs and ensuring the city can buy chemicals in bulk to receive the best possible price breaks.

C-H recommends implementing an automatic acid feed system similar to the other pools in the facility. This must be implemented to achieve code compliance.

Staff should prioritize repairing the leak on the Sentry Chlorling UV unit to reduce chances of the leak worsening and causing water loss within the mechanical room.



CHEMICAL STORAGE

The spa lacks a dedicated, fire-rated chemical storage space, resulting in hazardous storage practices. During the inspection, chemicals were observed stored within the general mechanical room. There were seven (7) barrels of hydrogen peroxide, which are listed as a class 4 oxidizer.

This arrangement presents a fire and explosion hazard and directly violates IFC, which mandates that pool chemicals (specifically calcium hypochlorite and hydrogen peroxide) be stored in a segregated, ventilated, and properly rated environment to prevent dangerous reactions or interference with electrical infrastructure. Furthermore, the required NFPA diamond signage is not present on the mechanical room doors, and a functional safety shower/eyewash is missing from the space.

Recommendation

C-H recommends switching to calcium hypochlorite, which is a lower-level class of oxidizer per fire code. Once calcium hypochlorite is provided, purchase/install fire rated cabinets within the space for storage of chemicals to mitigate fire hazards. These cabinets will double the amount that is allowed to be stored within the space without becoming a hazard classification per the IFC.

Provide NFPA diamond signage on the mechanical room door.

It is imperative that muriatic acid and hydrogen peroxide are not stored within the same space. If these liquids/vapors combine, they form chlorine gas which is deadly to pool operators. C-H recommends storing all muriatic acid in the existing designated room.

Muriatic acid vapors from carboys should be contained with a sealed cap or a check valve to prevent accelerated corrosion of the pool mechanical equipment.

During a future full mechanical room renovation, C-H recommends that separate, properly fire-rated rooms be constructed to house chemicals and their respective feed systems, ensuring adequate segregation for safety.



WATER CHEMISTRY CONTROLLER

C-H did not observe an automated chemical controller for the spa mechanical system. Both Teton District Health District Code and MAHC require the usage of an automated system for the continuous monitoring and control of both the sanitizer and pH buffer systems in public pools and spas.

Recommendation

C-H recommends implementing a water chemistry controller with pump interlocks to adhere to all applicable codes. A more comprehensive controller that can integrate with the existing UV system (such as the BECSys7) is recommended.



SPA HEATING

The spa system is currently heated indirectly via a central building boiler/heater that supplies hot water to a dedicated heat exchanger within the pool's recirculation system. The PVC SCH 40 influent and effluent piping show signs of aging.

Recommendation

All aging influent/effluent heater lines should be replaced with SCH 80 CPVC during the next significant amount of pool mechanical room work.

Unless the pool mechanical room is resized and more space is gained, there is not enough room for a standalone spa heater during a renovation. Therefore, during a future facility replacement, C-H recommends providing each pool recirculation system with its own dedicated heater. Standalone systems provide a level of redundancy for facilities with multiple bodies of water.



MAKE-UP WATER

The spa currently utilizes an automatic fill system for make-up water, which is a float valve attached to a domestic water supply located within a hatch in the spa wall. According to staff, this system is fully functional.

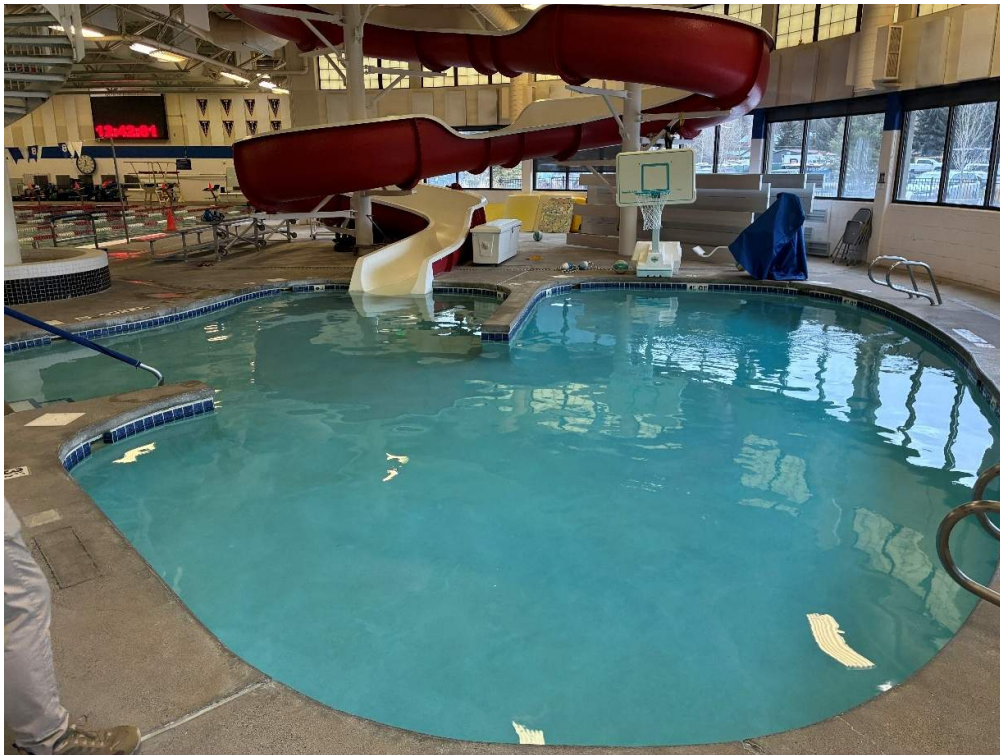
Recommendation

Staff to confirm that this domestic water line to the spa is routed downstream of a RPZ backflow preventer in order to meet all applicable plumbing codes.



GENERAL INFORMATION: Splash Pool

Length	Varies
Width	Varies
Surface Area	697 sqft (Approximate)
Perimeter	103' (Approximate)
Water Depth	3'-0" to 4'-0"
Pool Volume	17,000 gallons (Per Staff)
Flow Rate	140 GPM (Per Staff)
Turnover Rate	2.02 Hours (Calculated)



STRUCTURE AND FINISH

The splash pool is constructed of concrete with an aggregate plaster finish with a 6" waterline tile. The pool finish was observed to be in fair to poor condition, with some staining/chipping at the wing wall and delamination occurring beneath the basketball goal. Ownership was unable to specify the date of the last plaster replacement. The pool tile, which includes the waterline and the contrasting nosing tile on the stairs and the underwater bench, was all observed to be in fair condition. The sealant between the coping and tile is breaking and cracking along the entire pool perimeter.

The pool structure itself does not appear to be out of level; all skimmers are pulling in water properly. Ownership has reported no water loss from the vessel.

Recommendation

Considering the age and condition of the plaster, it is recommended that the pool's plaster finish be hydroblasted to bare concrete and replaced entirely with a similar finish if the pool is to be used for at least an additional 5 years. If it is decided that the pool will be decommissioned and replaced soon, spot repairs and patches are recommended for the plaster and tile finishes as needed.

C-H recommends that the sealant between the waterline tile and coping be removed and replaced.

While water loss has not been a problem at the splash pool, staff should consider performing a water tightness to assess the true condition of the structure. Refer to Appendix B for the water tightness test procedure specified by C-H during new construction projects.



SKIMMER PERIMETER OVERFLOW SYSTEM

The splash pool utilizes a skimmer system for perimeter overflow, consisting of seven (7) Hayward SP-1082 skimmers total, which meets the quantities required by code. While a skimmer basket and deck access lid were present in each unit, no weir was observed on any of the skimmers. A weir is required per MAHC to ensure proper surface skimming and flow adjustment. Skimmers are an NSF-50 listed product as required by Teton Health District Code.

C-H observed equalizer lines were provided for each skimmer. However, each equalizer did not include a VGB-compliant cover.

Per the existing drawings, the skimmer suction lines are undersized per Teton Health District Code and cannot meet the velocity requirements with the turnover rates stated by staff.

The pool was observed to be properly filled, with the waterline meeting the centerline of the skimmer opening. This condition adheres to both Teton Health Code and MAHC. C-H observed the skimmers to be in level with each other.

Recommendation

C-H recommends installing VGB covers over all skimmer equalizer openings.

Verify that overflow weirs are provided in each skimmer, and have staff check the weirs on a regular basis to see if replacement is required.

Ensure that all suction lines are properly sized per applicable codes during new pool construction/design.



MAIN DRAINS

The splash pool includes one (1) 12"x12" recirculation main drain located in the pool floor. The drain grate appears to be 12"x12" MLD-FG-1212-WT by Neptune-Benson. Operations team to confirm.

Based upon the existing drawings, the plumbing piping for the recirculation main drain is sized at 4". The depth of the sumps could not be verified on the existing drawings to confirm an adequate 1.5x pipe diameter is provided from the 4" pipe outlet to the grate cover per VGB. However, the sizing of the total grate area does not meet the "unblockable" size described by VGB. To address this, staff has installed a Safety Vacuum Release System (SVRS) on the recirculation pump.

Additionally, there is one large 18"x24" frame and grate located within the wall for waterslide supply. This appears to be general fiberglass/PVC grating, which is not VGB compliant. An 18"x24" grate is technically "unblockable" per VGB. Therefore, a second grate and sump are not required, provided the flow rate and open area of the grate result in a water velocity less than 1.5fps. However, the distance from pipe to underside of grating is not compliant per VGB and is less than 1.5x the diameter of the suction pipe per existing drawings. Operations staff has Safety Vacuum Release Systems (SVRSs) for the waterslide pump connected to this grate.

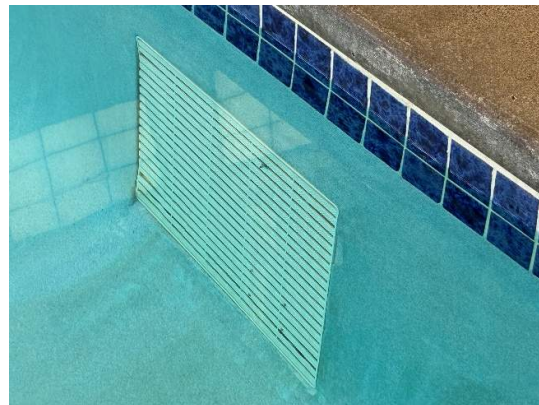
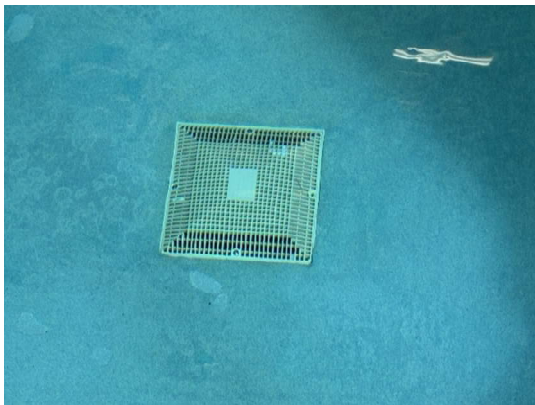
Recommendation

Regularly check the Safety Vacuum Release System (SVRS) for both splash pool pumps to ensure they are functioning properly.

The grating at the waterslide supply sump must be replaced with a VGB-compliant grate from Neptune-Benson, or similar.

Verify the lifespan of the grate at the pool floor and ensure it is replaced at the intervals recommended by the manufacturers described above.

With a new pool design, provide two (2) main drain grates and sumps to adhere to VGB without relying on a SVRS at the recirculation pump.



INLETS

The splash pool recirculation system utilizes eight (8) wall inlets. Various makes and models are present for the wall inlets.

Based on the perimeter of the pool, the quantity of wall inlets is acceptable per applicable codes, and the size of pipe feeding the inlets is properly sized.

Recommendation

N/A

LADDERS

The splash pool features two (2) pairs of stainless steel grab rails that were generally observed to be in fair condition. The stainless-steel material of the rails themselves appears sound. However, the associated escutcheons (decorative covers where the rail meets the deck) were observed to have visible surface-level corrosion. The grab rails remain secure in their anchors, as they exhibit only a slight, acceptable amount of rocking.

Recommendation

C-H recommends cleaning and passivating all stainless-steel grab rails and escutcheons to inhibit future corrosion and extend the life of this equipment.



INGRESS AND EGRESS

The splash pool's means of entry and exit meet current ADA compliance requirements. Since the pool perimeter is under 300', one primary means of accessible entry/exit must be provided (a ramp or a pool lift). The splash pool features an Aqua Creek Ranger 2 pool lift which fulfills this requirement. The condition and operation of this lift was not observed, as it was covered during the visit.

One traditional stair entry into the splash pool is present with a handrail that appears to be in fair condition. C-H observed surface corrosion on the handrail anchor. The presence of this rail at the stair entry fulfills the Teton Health District Code requirement.

Recommendation

Staff to confirm that the lift has a fully charged battery and the cover is removed during all open hours at the facility, as required per ADA.

C-H recommends cleaning and passivating all stainless-steel stair rails, anchors, and escutcheons to inhibit future corrosion and extend the life of this equipment.



WARNING SIGNS AND DEPTH MARKERS

The splash pool includes tile horizontal and vertical depth markers and vinyl adhesive horizontal "NO DIVING" warning markers. While the depth markers were observed to be properly spaced within 25' along the pool perimeter, one (1) additional warning sign is necessary to be fully compliant with MAHC. This sign must be installed near the water basketball hoop to meet MAHC standards that require "NO DIVING" markers be clearly visible and spaced at no more than 25' intervals around any pool where the water depth is 5' or less.

C-H observed one (1) horizontal depth marker on the south end of the pool to be chipped at the corner and damaged.

Recommendation

C-H recommends the application of a vinyl "NO DIVING" warning sign beside the water basketball hoop to ensure full compliance with MAHC. All damaged or substandard tile or adhesive markings should be replaced.



WATER BASKETBALL

C-H observed one (1) basketball hoop in the splash pool to be in good condition. The basketball playing area is appropriately sectioned off from the waterslide with a safety rope.

Recommendation

During new pool designs, provide a permanent basketball goal that includes a sleeve anchor so that it can be permanently mounted within the deck in-lieu of a water-weight base.



POOL DECK

As a "general use" pool, the splash pool is subject to the Teton Health District Code requirement mandating a minimum of 8' of unobstructed deck clearance around the entire perimeter of the pool vessel. C-H observed that the splash pool is in violation of this requirement on one side of the pool.

Recommendation

Nothing can be done as a repair or renovation to correct this code compliance issue.

In future pool designs, deck clearances must be considered to adhere to applicable local codes.



BIG WATERSLIDE

The facility features a large, 21ft tall Whitewater waterslide that is original to the pool's construction. The slide was observed to be in fair condition, having previously received both new interior coatings and a new external layer of paint over its lifespan. The current interior flume coating remains in fair condition, with wear and abrasion noted only at the slide entrance point.

The supporting slide tower structure was also in fair condition, although areas of surface-level corrosion (rusting) were present on both the stair railings and the vertical slide support columns. Access to the flume is provided by stairs made of fiberglass T-bar which include a contrasting nosing. Staff noted that replacing sections of these fiberglass stair treads is a common and annoying occurrence.

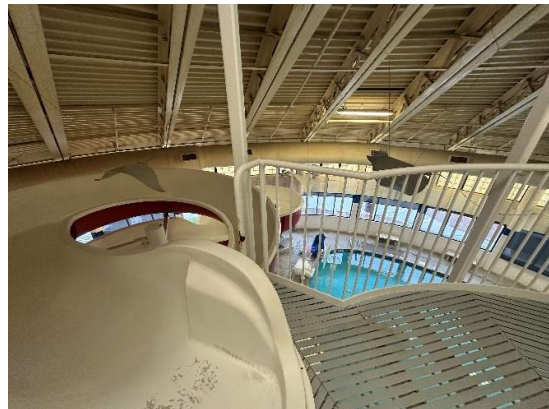
C-H did not observe an emergency E-stop located on the slide tower, which goes against typical aquatic design practices. While proper signage was in place to indicate to patrons that the waterslide was closed, other signage required by MAHC were not observed by C-H.

The feature itself is in violation of the Teton Health District Code, which limits waterslide height to a maximum of 12' —a requirement the current slide far exceeds. This height violation is further complicated by the splash pool water depth being insufficient as well. Teton Health District code requires a minimum water depth of 6' at the flume exit for a slide of the maximum allowed 12' height, yet the observed water depth at the splash pool was only 3'. *It is important to note that MAHC does not align with these standards and simply requires that waterslide depths at landing be determined by the waterslide manufacturer.*

Recommendation

Coordinate with Whitewater and furnish/install new waterslide instructions and warning signs at the base of the tower.

C-H recommends contacting a waterslide restoration company to eliminate existing rust, provide new fiberglass steps/platform, refurbish the waterslide stair tower coating, and provide a new gel coat at the slide interior. Whitewater can be contacted for this, as well as specific waterslide repair companies such as SafeSlide Restoration. Contact information can be found in Appendix A.



SPLASH POOL MECHANICAL SYSTEM



PIPING

The bulk of the visible recirculation system piping uses Schedule 40 PVC piping, which is less robust than the Schedule 80 PVC typically recommended by modern aquatic industry standards for all exposed pool piping. This includes the influent and effluent heat exchanger piping (which was observed to be copper) whereas modern industry standards recommend Schedule 80 CPVC due to its superior heat tolerance. Furthermore, the piping supports were observed to be corroded and rusted, indicating a need for maintenance or replacement to ensure long-term integrity and proper alignment of the plumbing runs.

Some Schedule 80 PVC fittings and pipe are present in the UV system bypass that suggest recent, post-original-construction additions/repairs by diligent staff.

The piping system lacks essential identifiers: no color-coded arrows were observed indicating the direction of flow, which violates both Teton Health District code (requiring arrows) and MAHC (requiring colored arrows). Additionally, no posted piping and system schematic was observed in the mechanical room, which does not adhere to both Teton Health District code and MAHC.

The waterslide suction piping within the pump pit is 8". Open flume waterslides from Whitewater are commonly set at 1,000gpm; 8" pipe sizing does not meet Teton Health District code requirements for suction pipe velocities.

The muriatic acid injection point was observed to be downstream of the Accu-Tab sanitizer injection point. This sequence does not follow modern industry standards as the pH buffer is typically injected upstream to assist in cleaning the calcium hypochlorite effluent line of any build-up.

Recommendation

C-H recommends color-coded arrows be applied on all recirculation pipes per the interval listed in the MAHC. A detailed system schematic (flow diagram) must be posted in the mechanical room to adhere to both the Teton District Health Code and the MAHC.

The injection points for the Accu-Tab and muriatic acid systems should be swapped to prevent clogging of the Accu-Tab feed lines, a common maintenance issue.

C-H recommends replacing all existing SCH 40 piping with SCH 80 piping throughout the mechanical room for improved longevity. The influent and effluent piping running from the heat exchanger should be replaced with SCH 80 CPVC piping to adhere to modern industry standards. In conjunction with the piping replacement, all existing pipe supports should also be replaced.



FLOW METERS

One (1) Signet rotary flow meter was installed on the splash pool piping, which is accurate enough, installed appropriately, and is acceptable per all code requirements.

The flow rate stated by staff was between 140gpm and 280gpm. While this range meets Teton Health District Code, it is important to note that only the maximum of this range is acceptable per MAHC standards for a waterslide plunge pool.

Recommendation

Flow rate cannot be changed without significant piping and structure re-work. Nothing can be done immediately with the exception of keeping the flow rate as close as possible to the maximum end of the range at all times.

Ensure that a 1-hour minimum turnover rate is specified on any new waterslide plunge pool design.

During a full pool mechanical room replacement, ensure a 4-20mA signal Signet MagMeter is included to allow for feedback control with recirculation pump VFDs. This leads to significant energy savings following filter tank backwashing.



PUMPS

The splash pool recirculation system is driven by a plastic, 5 HP Pentair WhisperfloXF with an integrated strainer. The pump is new and was replaced in 2023. The flow rate varies widely on this system according to staff, from 140gpm to 280gpm based on how recently the filter has been backwashed. Only the highest level (240gpm) is acceptable for an waterslide plunge pool turnover, roughly equating to 1 hour.

The waterslide system is driven by a metallic, 15HP Pentair Aurora pump. This pump is notably missing a strainer, which does not adhere to both Teton District Health Code and MAHC standards.

Both the recirculation and the waterslide pumps are located within a pump pit and therefore achieve the industry-preferred condition of flooded suction (where the pump intake is below the pool's water level by at least 2'). The elevation of the pump compared to the pool water level assists the pump to prevent cavitation and straining the motor.

The pumps are missing pressure and vacuum gauges, which are required by MAHC. These measure the pressure differential across each pump, which gives the operator insights into the flow rate of the pool system, power consumption, as well as performance of each pump.

The pumps do not include VFDs, which would allow for speed adjustments to optimize flow, reduce energy consumption, and manage pressure spikes that can damage equipment.

Recommendation

A strainer needs to be added to the existing 15 HP waterslide pump. Since the pump is below water level, valves on either side of the strainer must also be installed to meet Teton Health District Code requirements.

Pressure and vacuum gauges should be installed to meet the MAHC requirements for system monitoring. Furthermore, VFDs should be implemented on each pump, but especially the recirculation pump to allow the system to run more efficiently, save energy, and extend the lifespan of the new pump motor.



VALVES AND FLANGES

The valves and flanges throughout the mechanical room were observed to be in fair condition. Many of the installed valves meet the modern industry standard Schedule 80 PVC material for pool mechanical room application.

However, valve tags were observed to be missing, which complicates emergency shutdown procedures and routine maintenance.

Recommendation

C-H recommends installing valve tags on all valves within the recirculation system and providing a detailed valve chart to assist staff in diagnosing and remedying future maintenance issues easier.

Upon an entire pipe replacement in the mechanical room, C-H recommends replacing all SCH 40 components with SCH 80 to adhere to modern industry standards for increased durability and pressure resistance. All valves and flanges on the influent and effluent heater lines should be replaced with SCH 80 CPVC.



FILTRATION EQUIPMENT

The splash pool utilizes one (1) Stark SA72 filter system with a semi-automatic backwash functionality. The filter system was observed to have a manual air relief system present, which satisfies the requirement set forth by MAHC for safe operation. Staff stated that the filter media is old, and is overdue for a change.

However, an automatic relief valve was not installed on the filter. This does not adhere to modern industry standards, as an automatic relief valve is essential for protecting the filter tank from trapping air. Additionally, the filter is not properly anchored to its housekeeping pad.

Ownership reported that when the backwash cycle is performed for an excessive duration, sanitary waste line backs up, indicating an undersized or blocked backwash waste line. It should be noted that the original design documents included two (2) filter tanks, and the original sanitary capacity may have been sized for smaller tanks. This is likely the reason that a single tank overwhelms the sanitary line during backwash if a blockage is not present.

The filter backwash system is a semi-automatic method, relying on actuated valves to operate. Staff noted that these valves break down easily and require repairs often.

Recommendation

C-H recommends switching to a dual-filter tank system during a pool mechanical room renovation. 36" diameter vertically oriented tanks should be used to ensure ceiling heights and door clearances can be maintained. The new face piping should include manual backwash valves which will reduce the repair frequency required by staff.

The dual tank system should not only assist with filtration at the pool, but will also ease the backwash flow rates routed to the existing sanitary connection.

Utilization of glass filter media and an electronic flocculant (such as Clear-Flow) would further increase the quality of the sand filtration at the splash pool. Alternatively, a regenerative media filtration system could also be explored for additional cost.



CHEMICAL TREATMENT

The splash pool utilizes an Accu-Tab 1030 sanitizer system and booster pump for primary water treatment, which was observed to be in fair condition. The feed lines were observed to be clear and properly feeding the system, with no signs of excessive clogging or degradation.

The splash pool system utilizes muriatic acid as the standalone pH buffer. This acid is delivered into the recirculation system via a peristaltic Stenner pump, which draws from the acid storage room, which is far away in the facility.

Using muriatic acid as the sole pH buffer is a common and effective industry practice for lowering pH in commercial pools. However, it quickly reduces the pool's total alkalinity (TA), which is the water's natural buffering capacity. Low TA can lead to unstable pH (known as pH "bounce") and corrosive water. If the fill water has a higher TA, then this standalone system is sufficient.

The splash pool has a secondary sanitation system: an Aquionics UV unit. However, the unit has been isolated and has been out of commission.

Recommendation

If water chemistry management has been an ongoing concern for Ownership, which may be the case based upon observed amounts of sodium bicarbonate on-hand, C-H recommends a comprehensive domestic water analysis be performed to evaluate the facility's potable source water. The results of this analysis are critical for understanding the baseline alkalinity and mineral content, which directly influence the stability of the splash pool's pH. Depending on these findings, the integration of a carbon dioxide or sodium bisulfate system could be utilized to supplement the existing muriatic acid system, providing superior water quality to the facility.

Repair and recommission the existing Aquionics UV secondary sanitation unit.

With a full facility replacement, provide a centralized pool mechanical room for all bodies of water. This will reduce the amount of muriatic acid lines traveling throughout the facility, which will therefore reduce the risk of harmful chemical leaks.



CHEMICAL STORAGE

The splash pool lacks a dedicated, fire-rated chemical storage space, resulting in hazardous storage practices throughout the facility. During the inspection, chemicals (in this case muriatic acid) were observed stored within the general mechanical room. This arrangement presents a fire and explosion hazard and directly violates IFC, which mandates that pool chemicals (specifically calcium hypochlorite) be stored in a segregated, ventilated, and properly rated environment to prevent dangerous reactions or interference with electrical infrastructure.

Furthermore, the required NFPA diamond signage is not present on the mechanical room doors. While these storage conditions are substandard, the facility is in compliance with the MAHC regarding immediate first aid, as a functional emergency eyewash unit was observed and accessible within the pool mechanical room space.

Recommendation

Provide fire rated cabinets within the space for storage of calcium hypochlorite to mitigate fire hazards. These cabinets will double the amount that is allowed to be stored within the space without becoming a hazard classification per the IFC.

Muriatic acid vapors from carboys should be contained with a sealed cap or a check valve to prevent accelerated corrosion of the pool mechanical equipment.

Provide NFPA diamond signage on the mechanical room door.

During a future full mechanical room renovation, C-H recommends that separate, properly fire-rated rooms be constructed to house chemicals and their respective feed systems, ensuring adequate segregation for safety.



WATER CHEMISTRY CONTROLLER

The splash pool's water chemistry is monitored and controlled by one (1) BECSys5 Water chemistry controller. This unit was observed to be in good condition and reported to be working properly.

Interlocks were not confirmed by C-H during the site visit. These are required by the MAHC to ensure that chemicals are not fed while the recirculation pump is off. This is an important safety feature of a commercial pool system that should be tested regularly.

Recommendation

If recirculation pump interlocks are not already in place for calcium hypochlorite and muriatic acid, consult with an electrical contractor to ensure that these interlocks are installed.

With a new pool, provide a more complex controller that can integrate with UV systems, dual- pH Buffer, and VFDs, such as the BECSys7.



POOL HEATING

The splash pool system is currently heated indirectly via a central building boiler/heater that supplies hot water to a dedicated heat exchanger within the pool's recirculation system. The copper influent and effluent piping is showing signs of aging and corrosion.

Recommendation

All aging influent/effluent heater lines should be replaced with SCH 80 CPVC during the next significant amount of pool mechanical room work.

Unless the pool chemical room is repurposed, there is not enough room for a splash pool heater during a renovation. Therefore, during a future facility replacement, C-H recommends providing each pool recirculation system with its own dedicated heater. Standalone systems provide a level of redundancy for facilities with multiple bodies of water.



MAKE-UP WATER

The splash pool currently utilizes a manual fill system for make-up water, which C-H observed inside the mechanical room tee'ing into the heat exchanger piping.

Recommendation

The make-up water line should be re-routed to the main recirculation line in lieu of the piping connected to the pool's heat exchanger.

An automatic water level control system is a more complex addition to skimmer pools when compared to pools that have in-mechanical room surge tanks. An abandoned supply or suction line would need to be re-used to create a "wet-well" in the mechanical room in which sensors can be placed. Otherwise, the deck would need to be torn out in order to route pipe or conduit back to the pool mechanical room.



ACID ROOM*



***NOTE: THE ACID ROOM PROVIDES MURIATIC ACID TO THE LAP, LEISURE, AND THERAPY POOL SYSTEMS. IT IS LOCATED ADJACENT TO THE LAP POOL MECHANICAL ROOM.**

CHEMICAL STORAGE

Muriatic acid is used as the pH buffer at this facility for all of the indoor bodies of water. Muriatic acid is delivered to three of the pools from this room. The spa is hand-fed with acid, and the splash pool has its own remote carboy.

Muriatic acid is a highly corrosive chemical that requires proper ventilation. The acid barrels were not observed to have a sufficient ventilation system, sealed lids, or vent check valve components. All acid barrels must be completely sealed and not allow any acid vapors into the pH buffer room. All acid barrels should be housed in a room with mechanical ventilation per IFC.

All metallic hardware, conduit, and various electrical fixtures within the room showed significant signs of corrosion and deterioration.

No emergency eyewash was observed within the acid room. MAHC requires all pool chemical storage spaces to have an eyewash provided.

Insufficient NFPA diamond signage was found on the Acid Room door.

Muriatic acid is currently distributed around the building to deliver chemicals to the scattered mechanical systems. Staff reported that the acid is distributed via poly tubing encased in SCH 40 PVC.

Recommendation

The acid storage room needs a complete renovation and replacement of all hardware and electrical fixtures. Consult an architect for this work.

NFPA requires a proper diamond hazard signage for all rooms housing flammable chemicals.

All muriatic acid tanks and carboys should be sealed with a threaded cap or a vent check valve at all times to prevent accelerated corrosion of storage spaces and associated equipment.

Upon major facility renovation, ensure sufficient muriatic acid rooms are provided beside the pool mechanical rooms to limit long runs of this hazardous chemical. Provide an emergency shower/eyewash as required per MAHC and OSHA.





APPENDIX A - Contact Information

Electrical Engineering Consultant:

AE Design
1900 Wazee St. Suite 205
Denver, CO 80202
(303) 988-4514

Leak Detection/Repair Services:

American Leak Detection
(303) 536-5889

Slide Renovation Services:

Safe Slide Restoration
(855) 639-7543

Pool Timing System & Scoreboards

Colorado Time Systems
1551 E 11th St
Loveland, CO 80537
(970) 667-1000

Stainless Steel Spas

Bradford Products
2101 Enterprise Dr NE
Leland, NC 28541
(800) 438-1669

APPENDIX B – Water Tightness Test

- A. The water tightness test described within the following section is in accordance with the Hydrostatic Tightness Testing of an Open Concrete Containment Structure as required by American Concrete Institute (ACI) 350.1-10 Section 2. Test reports must be provided and must include test locations within the structure, dates of testing, water level measurements, amounts of evaporation, measured volume corrections, retest results (if applicable), actions taken, and final results.
- B. This test applies to the pool(s), the spa(s), the surge tank(s), and the gutter system(s).
- C. Water Tightness Test Procedure
 - 1. Preparation
 - a. For concrete pools and surge tanks: Allow the concrete structure to set 28 days for curing purposes. Once the shell has gained sufficient strength to withstand the test load and after the outlets have been securely sealed, the pool/surge tank must be filled with water.
 - 2. Fill: Fill and then isolate the pool(s), the spa(s), the surge tank(s), and the gutter system(s). The water tightness test must begin after the vessel has been filled for a minimum of three (3) days. During the filling, outlets must be monitored for water tightness and concrete joints, if applicable, must be monitored for visible leakage. If visible leakage from the vessel is observed, the condition must be corrected prior to the start of the test.
 - a. After the initial fill, ground water must be removed from the pool sight sump or the pool location de-watering system. This must be completed prior to the start of the water tightness test. De-watering of the pool sight sump must be maintained during the entire duration of the test.
 - 3. 24-hour Allowable Loss
 - a. Calculate the allowable water loss from the unlined vessel(s). This is .1% of the total vessel volume. For example, if the vessel has a volume of 200,000 gallons, the 24-hour allowable loss will be 200 gallons.

Vessel	Total Volume (Gallons)	24-hour Allowable loss (.1% or .001 of Total Volume)
EXAMPLE	200,000 gal	200 gal
Pool 1		
Pool 2		
Spa		
Pool 1 Surge Tank		
Pool 2 Surge Tank		
Pool 1 Gutter		
Pool 2 Gutter		

4. Measurement

- a. Measurements must be taken at the pool(s), the spa(s), the surge/balance tank(s), and the gutter system(s). Multiple test points with averaging are recommended for vessels which will be exposed to wind. Document the separate findings on the chart below. Repeat the measurements and document every 12 hours for a total of three (3) days. The Contractor must check the pool(s), the spa(s), the surge/balance tank(s), and the gutter system(s) for water loss with the Owner or a representative designated by the Owner every 12 hours. Submit photo documentation (with time stamps) of each measurement with the completed water tightness report. Example measurements are shown in the table below.

5. Evaporation Measurement Procedure

- a. Fill a floating, restrained, partially filled, calibrated, open pan with water and allow the container to float within the pool during the testing period. This will be used to measure evaporation.

Vessel	12 hrs. passed	24 hrs. passed	Day 1 TOTAL	36 hrs. passed	48 hrs. passed	Day 2 TOTAL	60 hrs. passed	72 hrs. passed	Day 3 TOTAL
Example Pool	0.021 ft	0.010 ft	0.031 ft	0.016 ft	0.019 ft	0.035 ft	0.022 ft	0.017 ft	0.039 ft
Example Pan	0.008 ft	0.006 ft	0.014 ft	0.008 ft	0.007 ft	0.015 ft	0.009 ft	0.007 ft	0.016 ft
Pool 1									
Pool 2									
Spa									
Pool 1 Surge Tank									
Pool 2 Surge Tank									
Pool 1 Gutter									
Pool 2 Gutter									
Evaporation Pan									

6. Calculate Daily Loss

- a. Calculate the total daily water loss for the vessel(s) and record in the table below. If a vessel has a daily water loss that is greater than the calculated 24-hour allowable loss, the vessel cannot be considered watertight.

- 3) Daily Loss = 7.481 x Structure Surface Area (SF) x [Total Water Loss per Day (FT) – Evaporation per Day (FT)]
- b. For example, we have a body of water that is 200,000-gallon volume and 3,500 square feet of surface area. Measurements for this example body of water are recorded in the table above.
- 3) Day 1 Loss = (7.481 gallons per cubic foot) x (3,500 SF) X [(0.031 ft water loss) – (0.014 ft evaporation)] = 445 gallons Day 1 loss
- 3) Day 2 Loss = (7.481 gallons per cubic foot) x (3,500 SF) X [(0.035 ft water loss) – (0.015 ft evaporation)] = 524 gallons Day 2 loss
- 3) Day 3 Loss = (7.481 gallons per cubic foot) x (3,500 SF) X [(0.039 ft water loss) – (0.016 ft evaporation)] = 602 gallons Day 3 loss

Vessel	Daily Water Loss Day 1 (Gal)	Daily Water Loss Day 2 (Gal)	Daily Water Loss Day 3 (Gal)	Allowable Loss (calculated above, Gal)	Are daily values higher than the Allowable Loss? (Y/N)
EXAMPLE	445 gal	524 gal	602 gal	200 gal	Y, not watertight
Pool 1					
Pool 2					
Spa					
Pool 1 Surge Tank					
Pool 2 Surge Tank					
Pool 1 Gutter					
Pool 2 Gutter					

7. Evaporation

- a. Evaporation must not have a significant effect on natatoria that are completely enclosed with no air circulation during the water tightness test. However, evaporation will have a significant effect on the water level in natatoria that has air movement across the water surface or are still partially uncovered.

APPENDIX C – HRS vs RMF Filtration

During the Teton County/Jackson Rec Center facility assessment prep and recap meetings, the topic of various pool filtration technologies came up. To summarize the pros and cons of the most common pool filtration systems used for new construction and renovations today, I've put together the following document so the team can make an educated and informed decision on which system is best for a renovation or a new build.

Until recently, pressure high-rate sand filtration was installed for most commercial pool applications. There were and continue to be other types of filtrations such as vacuum sand filters, cartridge filters, diatomaceous earth filters, and others. But often whether it was due to the type of pool, capital cost, material handling, simplicity of operations, or other reasons, high-rate sand filters were generally the preferred choice.

But in the last 10-15 years, regenerative media filters (RMF) have gained a significant portion of the market share, especially with the number of projects pursuing LEED certification or other sustainability goals. Instead of diatomaceous earth (DE), which creates material handling challenges for operators, the regenerative media filters use perlite. Perlite is a volcanic ash material, and almost all local jurisdictions allow it to be disposed directly to sanitary, unlike DE.

When comparing regenerative media filtration to high-rate sand filtration, there are really two main drawbacks. The first is the first-dollar capital costs. Taking the lap pool as an example, a new pair of high-rate sand filter tanks would cost roughly \$51,200 whereas a regenerative media filtration system would cost roughly \$101,200, which is roughly double the capital upfront cost. However, second-dollar operational costs are significantly cheaper for regenerative media systems based upon the local utility data provided by the team. A payback on the capital cost variance should be expected in approximately 6.66 years when all costs are accounted for. (Some details into these operational costs for this example will follow later in this appendix.) All regenerative media filters come with a 10-year warranty on the tank itself, which is less than that of its high-rate sand counterparts. But based on some overseas installations which embraced this technology much earlier than North America, some original RMF filters are still in operation 40 and 50 years later.

The drawback when comparing regenerative media filtration to high-rate sand filtration is maintenance frequency and complexity. The extent of high-rate sand filter maintenance is simple, and typically includes semi-weekly or weekly backwashing, replacing the sand media every 5 years or so, and servicing laterals inside the filter tanks as needed (this isn't an issue for many well-constructed commercial filter tanks). High-rate sand filter tanks for pools are tried and true; and once they are set up, it is largely a system that can be left on its own aside from backwashing for 5 minutes twice a week. However, the regenerative media filters require more attention and complexity from operators. The daily "bumping" process of RMF filters are automated and it takes approximately 5-10 minutes to shake the media off the filter elements and recoat. However, every 4-6 weeks approximately, two filter volumes of water will need to be dumped and new media will need to be ordered and loaded into the filter system.

Finally, on an annual basis, routine maintenance is suggested which includes inspecting and cleaning (if necessary) the filter elements, checking torques, and tending to the pneumatic valves as necessary. It is a more complex process that requires more care, but results in water, energy, and chemical savings.

Based upon flowrates, there are three pools that can utilize regenerative media filtration: the lap pool, the leisure pool, and the splash pool. The following are cost approximations based on the current designs and sizing:



DEFENDER COST SAVINGS ANALYSIS: SUMMARY

INITIAL CAPITAL EXPENSES

ITEM / DESCRIPTION	SAND FILTER COST	DEFENDER FILTER COST	COST VARIANCE
FILTER PURCHASE PRICE	\$86,126	\$170,600	(\$84,474)
INSTALLATION LABOR VARIANCE	\$12,919	\$0	\$12,919
FILTER MEDIA	\$2,136	\$66	\$2,070
TOTAL CAPITAL COSTS:	\$101,181	\$170,666	(\$69,485)

ANNUAL OPERATING EXPENSES

ITEM / DESCRIPTION	SAND FILTER COST	DEFENDER FILTER COST	COST VARIANCE
ELECTRICAL COSTS	\$4,855	\$3,815	\$1,040
POTABLE WATER	\$1,954	\$218	\$1,736
MAKE-UP: CHEMICALS	\$3,167	\$303	\$2,863
MAKE-UP: HEAT	\$4,211	\$471	\$3,740
SANITARY SEWER	\$2,063	\$231	\$1,832
PERLITE MEDIA	\$0	\$788	(\$788)
ANNUAL OPERATING COSTS:	\$16,250	\$5,826	\$10,424

FILTER 10 YEAR SAVINGS FORECAST

ITEM / DESCRIPTION	SAND FILTER COST	DEFENDER FILTER COST	COST VARIANCE
CAPITAL COST	\$101,181	\$170,666	(\$69,485)
ELECTRICAL COSTS*	\$67,080	\$52,706	\$14,374
POTABLE WATER FEE*	\$27,002	\$3,018	\$23,984
MAKE-UP: CHEMICALS*	\$43,754	\$4,192	\$39,562
MAKE-UP: HEAT*	\$58,183	\$6,503	\$51,679
SANITARY SEWER FEE*	\$28,503	\$3,186	\$25,317
PERLITE MEDIA*	\$0	\$10,894	(\$10,894)
SAND MEDIA REPLACEMENT**	\$2,136	\$0	\$2,136
MONTHLY MEDIA REPLACEMENT LABOR	\$0	\$1,134	(\$1,134)
GRAND TOTAL SAVINGS:			\$75,539

RAW ROI PAYBACK PROJECTION	CAPITAL COST VARIANCE	÷	OPERATING COST VARIANCE	=	PAYBACK PERIOD (MONTHS)
	-\$69,485		\$10,424		80

*COSTS INCLUDE ANNUAL INCREASE FOR LABOR, MATERIALS AND MAINTENANCE
 **SAND MEDIA REPLACEMENT AT 5 YEAR INTERVALS - PRICE BASED ON PROJECTED FUTURE COST

PROJECT NAME: Teton County/Jackson Recreation Center
 LOCATION: Jackson Hole, WY
 CONTACT NAME: Max Moran, PE
 PREPARED BY: Cole Henry, PE
 DATE: January 23, 2025



The RMF systems proposed save approximately \$24,000 worth of water over ten years when compared to high-rate sand system, and \$14,300 in electricity. So, while the upfront capital costs are significantly higher, the annual operating costs are over \$10,000 less when RMF is selected.

When analyzing small bodies of water like the therapy pool and the spa, it becomes more difficult to justify the added capital costs for regenerative media filters. To maintain proper water chemistry in high bather-load cases like spas, it's commonly advised for operators to dump an entire volume of water from the spa to waste every 1 to 2 weeks. With this taken into consideration, this virtually negates the water savings realized when utilizing regenerative media filters. Similar payback analyses often result in 20-30 year periods, which likely equal the life expectancy of the filter tanks. Because of this, RMF systems are not designed with small pools and spas in mind.

Our recommendation is to use regenerative media filtration systems for any lap, leisure, recreation, and splashdown pools at the facility. High rate sand filters should be maintained for the spa and the therapy pool (unless turnover rates are also increased during a facility replacement). The regenerative media systems will assist in cost savings and water conservation pursuits.

Hopefully this information will be valuable in making an informed and educated decision on which type of filtration system should be utilized moving forward. If the pool geometries are modified at all, we can provide another life cycle cost analysis for the filtration systems on all five bodies of water.

APPENDIX D – Summarization of Deficiencies

The following list serves to summarize the conditions and code violations identified in the report. The “Industry Standard Misalignment” violation column is utilized to identify any substandard conditions that don’t directly violate any applicable codes, but do misalign with industry best practice. *Please note that the list is not comprehensive of every condition noted in the report:*

POOL DEFICIENCIES					
Lap Pool					
Deficiency	Teton Health District Code Violation	Model Aquatic Health Code Violation	Virginia Graeme Baker Act Violation	ADA Standards Violation	Industry Standard Misalignment
Pool plaster is in fair to poor condition, displaying widespread surface deterioration and discoloration					X
Single, 8” Gutter dropout line is undersized and not capable of handling code flow requirements	X				
Original construction documents indicate that the surge tank is undersized	X				
Pool waterline is out of level, hindering water from cresting the handhold and providing proper surface skimming action		X			
Water is spilling out of the pool onto the deck					X
Main drain suction lines are undersized, causing excessive pipe velocities	X		X		
Main drain covers are not properly rated for the entire 625 GPM flow			X		
There are an insufficient number of wall inlets. Additionally, the pool	X				

requires floor inlets to be utilized.					
The lap pool stair entry does not have handrails that follow the stair treads into the water	X				
No vertical depth markers were observed on the vertical wall of the pool	X	X			
Insufficient/missing horizontal depth markers were observed at the sloped regions of the pool	X	X			
Depth markers in the deep end were not descriptive, lacking any units to specify what the numeral represents					X
Wall inlets are pushing the touchpads off of the vertical pool wall					X
Leisure Pool					
Deficiency	Teton Health District Code Violation	Model Aquatic Health Code Violation	Virginia Graeme Baker Act Violation	ADA Standards Violation	Industry Standard Misalignment
Pool plaster is showing signs of aging, with some staining and spalling present					X
Ownership reports an estimated 3,000 gallons per day of water loss					X
Suction piping from skimmers are undersized, causing excessive pipe velocities	X				
Weirs and deck access lids were not present on skimmers		X			
Skimmers are not listed with NSF-50	X				
The pool was observed to be overfilled, with the waterline exceeding	X	X			

the centerline of the skimmer opening					
the skimmers were observed to be out of level with each other		X			
Main drain suction lines are undersized, causing excessive pipe velocities	X				
The distance from pipe to underside of grating for the 18"x24" wall feature supply grate is insufficient			X		
Three pumps share one suction line					X
The four (4) 9"x9" waterslide suction grates are in compliant unless SVRS system is utilized			X		
waterslide suction lines are undersized, causing excessive pipe velocities	X				
The pool's means of entry and exit do not meet current ADA compliance requirements				X	
One traditional stair entry into the leisure pool is present but it does not have handrails	X	X			
Depth markers in the wading area were not descriptive, lacking any units to specify what the numeral represents					X
The slide path is a physical obstruction that violates deck space requirements. Deck space requirements are not met elsewhere along pool perimeter	X				
The waterslide does not include an e-stop adjacent to the start-tub entrance		X			

Therapy Pool					
Deficiency	Teton Health District Code Violation	Model Aquatic Health Code Violation	Virginia Graeme Baker Act Violation	ADA Standards Violation	Industry Standard Misalignment
Suction piping from skimmers are undersized, causing excessive pipe velocities	X				
Weirs and deck access lids were not present on skimmers		X			
Skimmers are not listed with NSF-50	X				
Insufficient number of "NO DIVING" warning signage		X			
Deck space obstruction requirements are not being met	X				
Spa					
Deficiency	Teton Health District Code Violation	Model Aquatic Health Code Violation	Virginia Graeme Baker Act Violation	ADA Standards Violation	Industry Standard Misalignment
The spa finish was observed to be in fair condition, displaying staining and some delamination along the floor face					X
The spa features one (1) skimmer which does not meet the quantity required by code	X				
Weirs and deck access lids were not present on skimmers		X			
Skimmers are not listed with NSF-50	X				
ADA Transfer handrails are not provided along the perimeter of the spa				X	
No horizontal depth markers or warning signs were observed at the top face of the spa	X	X			

Splash Pool					
Deficiency	Teton Health District Code Violation	Model Aquatic Health Code Violation	Virginia Graeme Baker Act Violation	ADA Standards Violation	Industry Standard Misalignment
The pool plaster is in fair to poor condition, with some staining/chipping at the wing wall and delamination occurring beneath the basketball goal					X
Weirs were not present on skimmers		X			
Skimmers are not listed with NSF-50	X				
Skimmer equalizers do not include a VGB-compliant cover			X		
Suction piping from skimmers are undersized, causing excessive pipe velocities	X				
The distance from pipe to underside of grating for the 18"x24" wall waterslide supply grate is insufficient			X		
one (1) additional "NO DIVING" warning sign is necessary to be fully compliant		X			
Deck space obstruction requirements are not being met	X				
While proper signage was in place to indicate to patrons that the waterslide was closed, additional signage is required		X			
The waterslide exceeds 12' of allowable height. This is further complicated by the splash pool water depth being insufficient (requires 6' depth at the flume exit) <i>It is important to</i>	X				

<i>note that MAHC does not align with these standards and simply requires that waterslide depths at landing be determined by the waterslide manufacturer.</i>					
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MECHANICAL ROOM DEFICIENCIES

Lap Pool Mechanical Room

Deficiency	Teton Health District Code Violation	Model Aquatic Health Code Violation	Industry Standard Misalignment
The bulk of the visible recirculation system piping and valves use Schedule 40 PVC piping, which is less robust than the Schedule 80 PVC			X
The piping system lacks essential identifiers: no color-coded arrows were observed indicating the direction of flow	X	X	
The main drain suction piping is 6" which is insufficient for pipe velocity requirements	X		
The muriatic acid injection point was observed to be downstream of the Accu-Tab sanitizer injection point			X
The pump is not located within a pump pit and therefore does not achieve the industry-preferred condition of flooded suction			X
The pump is missing pressure and vacuum gauges		X	
An automatic relief valve is not installed on the filter			X

Eyewash station is located in the general mechanical room, outside of the chemical room door		X	
a manual fill system is utilized for make-up water		X	
Leisure Pool Mechanical Room			
Deficiency	Teton Health District Code Violation	Model Aquatic Health Code Violation	Industry Standard Misalignment
The bulk of the visible recirculation system piping and valves use Schedule 40 PVC piping, which is less robust than the Schedule 80 PVC			X
The piping system lacks essential identifiers: no color-coded arrows were observed indicating the direction of flow	X	X	
The recirculation pump is not located within a pump pit and therefore does not achieve the industry-preferred condition of flooded suction			X
There is no strainer present on the suction side of the feature pump	X	X	
The pumps are missing pressure and vacuum gauges		X	
An automatic relief valve is not installed on the filter			X
Therapy Pool Mechanical Room			
Deficiency	Teton Health District Code Violation	Model Aquatic Health Code Violation	Industry Standard Misalignment
The bulk of the visible recirculation system piping and valves use Schedule 40 PVC piping, which is less robust than the Schedule 80 PVC			X
The piping system lacks essential			

identifiers: no color-coded arrows were observed indicating the direction of flow	X	X	
The suction and pressure piping lines within the system are both 2", which is inadequately sized to meet the velocity requirements	X		
The pump is missing pressure and vacuum gauges		X	
The therapy pool currently lacks an automated sanitization system. In the absence of a mechanical feeder, facility staff are currently hand-feeding chlorine into the pool.	X	X	

Spa Mechanical Room

Deficiency	Teton Health District Code Violation	Model Aquatic Health Code Violation	Industry Standard Misalignment
The bulk of the visible recirculation system piping and valves use Schedule 40 PVC piping, which is less robust than the Schedule 80 PVC			X
The piping system lacks essential identifiers: no color-coded arrows were observed indicating the direction of flow	X	X	
The pumps are missing pressure and vacuum gauges		X	
The spa is not connected to an automated acid feed system, like the facility's other pools. The method for maintaining the pH balance of the spa is currently reliant on staff hand feeding liquid acid as the sole pH buffer.	X	X	

Splash Pool Mechanical Room			
Deficiency	Teton Health District Code Violation	Model Aquatic Health Code Violation	Industry Standard Misalignment
The bulk of the visible recirculation system piping and valves use Schedule 40 PVC piping, which is less robust than the Schedule 80 PVC			X
The piping system lacks essential identifiers: no color-coded arrows were observed indicating the direction of flow	X	X	
The waterslide suction piping is undersized, causing excessive pipe velocities	X		
The muriatic acid injection point was observed to be downstream of the Accu-Tab sanitizer injection point			X
The waterslide pump is missing a strainer on the suction side	X	X	
The pumps are missing pressure and vacuum gauges		X	
An automatic relief valve is not installed on the filter			X
Acid Room			
Deficiency	Teton Health District Code Violation	Model Aquatic Health Code Violation	Industry Standard Misalignment
Muriatic acid is currently distributed around the building to deliver chemicals to the scattered mechanical systems. Staff reported that the acid is distributed via poly tubing encased in SCH 40 PVC.			X

No emergency eyewash was observed within the acid room		X	
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MONTHLY JOINT MEETING AGENDA DOCUMENTATION

SUBMITTING DEPARTMENT: Joint Affordable Housing

PRESENTER: Stacy Stoker, Housing Manager
April Norton, Housing Director

MEETING DATE: August 3, 2026

SUBJECT: JTC Housing Department Rules and Regulations Biennial Update: Staff Analysis

STATEMENT/PURPOSE

The Board and Council will consider ten (10) policy questions related to the Jackson/Teton County Housing Department Rules and Regulations ("Rules and Regs") and provide direction to staff.

For this item, the Housing Director will act as the meeting facilitator. The Housing Manager will be the staff content expert. The Board Chair will step in to moderate if necessary.

BACKGROUND/ALTERNATIVES

In June of 2018, the Jackson Town Council ("Council") and Teton County Board of County Commissioners ("Board") adopted the Jackson/Teton County Housing Department Rules and Regulations. Staff bring proposed changes to the Council and Board biennially for approval.

On July 6, 2026, the Council and Board identified a list of topics related to the Rules and Regs for staff to analyze. Today, Council and Board will consider the staff analysis and Housing Authority Board recommendations, discuss the items, and provide staff with direction on each topic. The complete list of topics and policy questions along with staff analysis is attached.

Once staff have received direction on which topics to include in the update and how, they will draft changes and bring the draft to Council and Board to review before releasing for a 45-day public comment period.

The proposed timeline for this project is as follows:

Topic Identification	July 6, 2026
Topic Analysis & Discussion	August 3, 2026
Draft Rules Update / Release for 45-day Public Comment Period	September 7, 2026
2026 Rules Update	November 2, 2026

COMPREHENSIVE PLAN ALIGNMENT

Common value 3, Section 5 is to ensure a variety of workforce housing opportunities so that at least 65% of those employed locally also live locally. The Housing Department Rules and Regulations govern the workforce housing to ensure that the units are being used as the community intends.

Housing Action Plan – The Housing Rules and Regulations annual update aligns with Chapter 3 of the Housing Action Plan *Housing Management Plan*, which requires the Housing Manager to revise existing Rules into a unified set of rules that address: standards and processes for enforcement and monitoring of restrictions; maintenance and improvement of restricted housing units; minimum requirements for new restricted units; and minimum standards of livability for existing units to be adopted by the Town Council and the Board of County Commissioners.

STAKEHOLDER ANALYSIS

Stakeholders include applicants, owners and tenants of restricted homes, members of the public, elected officials, and staff.

To date, public outreach has included:

- Email to community members on the Housing Department email list (approximately 8,000 emails) linking to the staff report and encouraging public comment. *June 15, 2026.*
- Public posting on the County's public comment webpage and the Housing Department webpage. *June 15, 2026.*
- Housing Authority Board Meeting – Topic Identification Recommendations. *June 11, 2026.*
- Joint Information Meeting – Topic Identification. *July 6, 2026.*
- Housing Authority Board Meeting – Policy Questions and Staff Analysis. *July 22, 2026.*

FISCAL IMPACT

None.

STAFF IMPACT

Tracking, evaluating, and documenting potential amendments to the Housing Rules requires a significant investment of time from the Housing Department and Legal Departments.

LEGAL REVIEW

R. Stout and L. Colasuonno.

ATTACHMENTS

1. Policy Questions and Staff Analysis

RECOMMENDATION

Staff and Housing Authority Board recommendations are included as part of the attached Topic List and Staff Analysis.

SUGGESTED MOTION

Both Boards:

I move to direct staff to make the changes to the Housing Rules and Regulations, as proposed today, and bring the proposed redlined Housing Rules and Regulations document back to the September 7 Monthly Joint Meeting for approval and release for the 45-day public comment period.

Housing Dept. Rules & Regulations Update

Changes to Housing qualification for First Responders

1. Should First Responders receive first preference in Weighted Drawings?

Current Rule:

The current Rules include First Responders with Critical Services Providers (CSPs). Weighted Drawings allow CSPs to receive an extra entry in the drawing with a maximum of 2 per household. The extra entry gives Critical Services Providers a better chance of being selected in the drawing but does not guarantee they will be selected first.

This policy question discusses the potential of separating First Responders from other Critical Services Providers and giving them first preference in Weighted Drawings for which they qualify based on the income and asset limits for the home. This would mean that if any qualified First Responders apply for a drawing, they will automatically be selected first in the drawing. If more than one First Responder applies, a drawing would be held between the First Responders only and then a second drawing would be held between the rest of the households who entered.

Key Points to Consider:

- First Responders who live locally can respond more quickly during emergencies, major incidents, natural disasters, and staffing shortages.
- If this policy is approved, it could reduce housing opportunities for other applicants including teachers, nurses, childcare workers, plumbers, snowplow drivers, and other essential workers in the community. These applicants will not have a chance to be selected in a Weighted Drawing where First Responders apply unless the First Responders decline the home.
- In ownership drawings for 2025 and YTD 2026 (17 total), only one drawing had CSPs apply. There were 4 CSP applicants for that home. Two volunteer Firefighters, one PCU Nurse, one Search and Rescue volunteer.
- In rental drawings for 2025 and YTD 2026 (15 total), zero CSPs applied.
- The fact that only one of the 32 homes offered received a CSP application may indicate a mismatch between the types of homes available through Housing Department programs and the housing preferences of Critical Service Providers in the community.
- First Responders housing may be more appropriately address by the Town and County employee housing programs and not as part of the community housing program.

Definition of Critical Services Provider: An employee or volunteer of a community based institutional or non-profit organization on call 24 hours per day for public safety emergencies.

[Link to approved CSP organizations and positions.](#)

Option One: Staff Recommendation: Maintain the current policy. Staff recommend maintaining the current policy, which includes First Responders within the Critical Services Provider (CSP) category and provides an additional entry in Weighted Drawings for each CSP (up to two) per household.

First Responders play a critical role in maintaining public safety and emergency response capabilities within the community. However, many other occupations also provide essential services that support the health, safety, and daily functioning of the community, including teachers, nurses, childcare providers, tradespeople, public works employees, and other critical workers. While providing First Responders with automatic first preference may have limited impact under current application trends, it could reduce housing opportunities for other qualified applicants

in the future by effectively removing them from consideration whenever one or more First Responders apply for a home.

Maintaining the current policy continues to recognize the importance of First Responders and other Critical Services Providers by providing an additional weighted entry while preserving a more equitable drawing process for all qualified applicants.

Option 2: Prioritize First Responders. Separate First Responders from CSPs and give them first preference in all Weighted Drawings for homes. The fact that First Responders do not currently apply for the majority of homes that come available means that other applicants' chances will not be greatly impacted.

Option 3: Housing Authority Board Recommendation:

- Provide a preference in weighted drawings for First Responders applying for rental units and require annual requalification to verify continued First Responder status.
- Maintain the current policy for owner-occupied weighted drawings, which provides all Critical Services Providers (CSPs) with one additional entry in the drawing (up to two entries per household).

The Housing Authority Board supports a rental preference because continued First Responder status can be verified through the annual requalification process. However, the Board recommends maintaining the current policy for ownership units because there is no practical way to require an owner to remain employed as a First Responder after purchasing a home. As a result, a household could receive the preference, purchase a home, and then leave their First Responder position, permanently removing that ownership opportunity from the pool of housing available to active First Responders.

2. Should First Responders receive an exemption from the Workforce Housing Income Requirement?

Current Rule:

For a household to qualify for the Workforce Program, they must meet the following criteria:

- One adult must work full-time for a Local Business.
- A minimum of 75% of the household's income must be derived from a Local Business.
- No one in the household may own residential real estate within 75 miles of the Town of Jackson except for vacant land no more than one acre in size.

Key points to consider:

- Approximately 1% of applicant households include a Critical Service Provider.
- The Housing Department has not received an application in which a Critical Service Provider household failed to qualify for Workforce Housing because the household did not meet the 75% Local Income Requirement. There may be households who don't apply because they know they do not qualify.
- If approved, a full exemption would allow a household with one qualifying First Responder to earn an unlimited amount of income from non-local sources while remaining eligible for Workforce Housing.
- Workforce households are required to requalify annually. If the household member serving as a First Responder leaves the position or is no longer volunteering, the household would immediately lose the exemption and could become ineligible to remain in Workforce Housing.
- Many First Responders serve the community as volunteers. Under the current Rules, volunteer hours may satisfy employment hour requirements; however, there is no mechanism to assign a value to those volunteer hours when calculating the Local Income Requirement. This creates a potential disadvantage for volunteer First Responders compared to paid First Responders.
- In 2024, the Town Council and Board of County Commissioners considered providing this exemption to all Critical Service Providers and ultimately decided not to adopt the exemption.

Option 1: Maintain the Current Policy.

Option 2: Staff Recommendation. Maintain the current policy while allowing the Housing Department to assign a reasonable value to documented volunteer First Responder service when calculating the Local Income Requirement. This option addresses the only identified gap in the current policy by recognizing the value of volunteer emergency service while preserving the Workforce Program's core requirement that household income remain primarily connected to the local economy. It provides additional support to volunteer First Responders without creating a broad exemption for non-local income or establishing separate qualification standards that could undermine the purpose of the Workforce Housing Program.

Option 3: Provide an exemption from the income requirement for households of First Responders.

Option 4: Lower the local income requirement for First Responders to 50%.

Option 5: Housing Authority Board Recommendation: Option 4, except lower the Local Income requirement to 25% of household income. Require the annual requalification to include First Responder Status. If no longer a First Responder, annual qualification should revert to 75% Local Income requirement.

3. How should First Responder be defined? *Only needed if #1 or #2 is approved.*

If the Board and Council choose to change the policy for First Responders in #1 or #2 above, a definition for First Responder separate from Critical Services Provider will be necessary.

Key points to consider:

- **HUD's Good Neighbor Next Door Program**, is for First Responders and requires full-time employment for a government agency, and includes sworn law enforcement officers, fire fighters, Emergency Medical Technicians (EMTs), and Paramedics.
- **The State of Wyoming** has a definition for First Responders in regard to Workers' Compensation. These include law enforcement, firefighters, search and rescue, and ambulance personnel. These include paid and volunteer.
- **The State of Wyoming** has a different definition under the Emergency Response Act where the term is "emergency responders" rather than "first responders". This definition includes fire services, law enforcement, emergency medical services, public health, public works, homeland security, and other public response agencies involved in hazardous materials incidents or other emergency response activities.
- **The Department of Homeland Security** uses the term "Emergency Response Providers" and includes Emergency public safety personnel, fire safety personnel, law enforcement officers, emergency medical personnel (including hospital emergency facilities), emergency management personnel, public works personnel involved in emergency response, related agencies and authorities at the federal, state, local, tribal, and territorial levels, whether governmental or nongovernmental.
- **Mortgage and Housing Assistance:** Many housing and mortgage assistance programs include HUD's definition and also include 911 Dispatchers and/or Emergency Communications Personnel.
- **Teton County Volunteers:** Teton County has many volunteers who are not employed full time but provide critical support for Fire EMS and Search and Rescue.
- **Administration:** Specific and narrow definitions are easier for staff to administer and help alleviate questions from other community personnel about whether they also qualify under the definition.
- **Occupations with Critical Response Requirements:** The occupations that are most critical during an emergency often depend on the nature of the emergency itself. For example, a mass-casualty vehicle accident may require EMTs, paramedics, nurses, physicians, and laboratory personnel, while a hostage situation may primarily require law enforcement officers. In a snow slide involving buried vehicles, snowplow operators may be essential to clearing access so emergency responders can reach victims. Similarly, during a major gas leak, natural gas utility

workers may play a critical role in protecting public safety and preventing loss of life. These examples illustrate that many occupations contribute to emergency response and community safety, making it challenging to distinguish one group of essential workers from another for housing preference purposes. For this reason, housing programs generally provide preferences for a broader group of essential workers, such as Teton County's Critical Services Provider definition.

Definition of Critical Services Provider: An employee or volunteer of a community based institutional or non-profit organization on call 24 hours per day for public safety emergencies.

Option 1: Use HUD's Good Neighbor Next Door definition for First Responder plus Emergency Communication Personnel. Full-time employed Law Enforcement, Fire Fighters, EMTs, Paramedics, and 911 Dispatchers.

Option 2: Staff Recommendation: Option 1, except expand the definition of First Responders to include volunteer firefighters and employees and volunteers of Search and Rescue. For law enforcement, limit eligibility to personnel whose primary duties typically involve responding to emergency incidents.

Housing Authority Board Recommendation: Option 2: Staff recommendation.

Housing Compliance Program

4. How should the 60-day vacancy requirement for new restricted rental units be enforced?

Currently, the maximum vacancy for deed restricted homes is 60 consecutive days. Once a unit has been vacant for 60 days, a default letter is issued, and the owner is given 30 days to cure the default. If the default is not cured, Housing staff turn the default over to Legal.

Key points to consider:

- The Housing Department has not seen this as an issue for Affordable units because the rents are set by the Housing Department to be affordable for households, and they lease up quickly.
- Owners of Workforce units are allowed to set rents themselves. If they set them high, the units take longer to lease, and they may not lease at all without a decrease in the rent rate. If Workforce units are taking too long to lease, it is likely an indication that the rate is too high.
- If owners of Workforce units are allowed longer than 60 days vacancy, and keep rents high, it affects the Workforce rental market, which is intended to be self-regulating.
- It takes longer to fill developments with several Workforce units and seasonality could affect the demand. However, units with lower rents typically lease more quickly regardless of number of units or seasonality.

Option 1: Require a decrease in rent- 20% to cure the default and 10% more after each subsequent 30-day period.

Option 2: Staff Recommendation: Option 1, and add a \$100 fee per unit for each week the unit stays vacant after the cure period.

Housing Authority Board Recommendation: Option 2: Staff recommendation.

5. Should owners of restricted homes pay an administration fee to the Housing Department?

Currently, the Housing Department does not charge an administration fee for any of the homes with Housing Department deed restrictions.

Key Points to Consider:

- The Housing Department employs two full-time staff members who work solely on Compliance.
- Owners of restricted housing units benefit from the units, collecting rents each month. Owners of owner-occupied homes benefit by having an affordable stable home in Jackson with stable monthly mortgage payments while they build equity and gain value with appreciation.
- It is common for housing agencies to charge administration fees for deed restricted units. Typically, an annual fee is charged.
- Wyoming Community Development Authority charges annual fees to administer compliance on certain Affordable Housing Programs.
- The JH Community Housing Trust charges administration fees/ground lease fees on all of their homes.
- Approval of this fee would only impact future homes.

Option 1: Maintain the current policy – Continue without charging fees.

Option 2: Staff Recommendation: Charge a \$50.00 annual fee with a 2% annual increase on all restricted units receiving C/O after adoption of the 2026 Rules and Regulations.

Housing Authority Board Recommendation: Option 2: Staff recommendation.

Housing Programs – General Requirements

6. Should restricted housing homes have maximum occupancy requirements?

The current Housing Rules and Regulations do not establish maximum occupancy limits for restricted homes. As housing demand and affordability challenges have increased, the Housing Department has encountered situations where very large households apply for relatively small homes. This issue is particularly evident during Weighted Drawings, where all qualified applicants must be invited to participate. For example, under the current Rules, a household of eight or more people may be eligible to enter a drawing for a one-bedroom home because no occupancy standard exists to limit participation. This raises the policy question: What occupancy standard for restricted homes best balances housing flexibility, health and safety considerations, and the efficient use of the community's limited housing inventory?

Key points to Consider

- **Health and Safety:** Occupancy standards can help prevent overcrowding and ensure homes provide safe and reasonable living conditions for occupants.
- **Efficient use of Housing Inventory:** Occupancy limits may help align household size with home size, promoting more efficient use of the community's limited housing inventory and reducing situations where very large households occupy the smallest homes.
- **Fair Housing Compliance:** Any occupancy standard should be consistent with applicable fair housing laws and should not disproportionately impact families with children.
- **Housing Flexibility:** Occupancy standards can be structured to provide flexibility for families with minor children while still establishing reasonable limits on the number of occupants in a home.
- **Administrative Consistency:** Clear occupancy standards would provide objective criteria for determining eligibility for Weighted Drawings, rental opportunities, and ownership opportunities, resulting in more consistent administration of the program.
- **Alignment with Community Housing Goals:** Occupancy limits can help balance the goals of maximizing the number of people housed, maintaining reasonable living conditions, and preserving long-term affordability within the housing inventory.

- **Unit Characteristics:** Occupancy standards may be based solely on the number of bedrooms or may take into consideration other factors such as square footage, unit layout, and available living space.
- **Impact on Housing Opportunities:** Establishing maximum occupancy limits may restrict eligibility for certain households while increasing housing opportunities for households whose size more closely aligns with the available unit inventory.
- **Implementation Considerations:** If adopted, occupancy standards would be applied prospectively to future applicants and occupants, minimizing impacts on existing households.
- **Weighted Drawing Participation:** Without occupancy standards, households of any size may be eligible to participate in drawings for homes of any size, including situations where very large households compete for one-bedroom homes. Occupancy standards would provide a mechanism to better align household size with available homes during the application and drawing process.
- **Home Size and Configuration:** While bedroom count provides a simple and objective occupancy standard, homes with the same number of bedrooms can vary significantly in size and layout. Square footage, sleeping areas, and overall configuration may support different occupancy levels and should be considered when evaluating whether a uniform occupancy standard is appropriate.
- **HUD Guidelines:** HUD provides guidelines for maximum occupancy standards that are in alignment with the Fair Housing Laws:

Studio	2 Persons
1 Bedroom	2 Persons
2 Bedroom	4 Persons
3 Bedroom	6 Persons

Option 1: Maintain the current policy.

Option 2: Staff recommendation. Use HUD Guidelines and allow the Housing Department flexibility to allow occupancy above the standard when necessary to accommodate minor children, taking into consideration the size and configuration of the unit, the age of the children, and applicable health and safety standards.

Housing Authority Board recommendation: Option 2: Staff recommendation, except change the 1-bedroom to “2 persons plus one minor.”

7. Should the income ranges be changed to narrow the ranges?

The proposed policy would replace the current four MFI income ranges with five narrower income ranges, particularly within moderate and middle income ranges. This change would allow affordable housing programs to better target households with more specific income levels.

Current Policy:

Affordable ownership and rental homes are currently designated within the following Median Family Income Ranges (MFI).

- 0-50%
- 50-80%
- 80-120%
- 120-160%

Proposed Policy:

The proposed policy creates five narrower income ranges using the Median Family Income (MFI)

- 0-50%
- 50-80%

- 80-100%
- 100-120%
- 120-140%
- 140-160%

Key points to consider:

- Narrower income ranges allow affordable homes to be more precisely targeted to households with varying housing needs and purchasing power. For example, a two-person household at the low end of the 80-120% MFI income range will pay 30% of their income towards rent. A household earning at the high end (120% MFI) will only pay 20% of their income towards rent. Narrowing the ranges decreases this gap and allows more appropriate rents to be charged to higher earning households within an income range.

Current Income Ranges

Income Range	Low end income range	% Income to Rent	High end income range	% income to rent
50-80%	\$52,000	30%	\$95,000	19%
80-120%	\$95,001	30%	\$145,000	20%

Proposed Income Ranges

Income Range	Low end of Income Range	% Income to Rent	High end of Income Range	% Income to Rent
80-100%	\$95,000	30%	\$118,800	24%
100-120%	\$118,801	30%	\$145,000	25%

- Narrower income ranges reduce competition among households with significantly different incomes by limiting applicants to a smaller income band, resulting in a more equitable allocation of affordable housing opportunities.
- Households are more likely to move between income ranges more often with narrower income ranges causing more rent adjustments.
- Initially, changing the income ranges will cause some extra administrative work. For example, changing information in our software system, website, etc.
- If these income ranges are approved, the Town and County may want to consider updating the Land Development Regulations to match the income ranges.

Option 1: Maintain the current income ranges.

Option 2: Staff Recommendation: Narrow the income Ranges to the above proposed income ranges. This will better align housing opportunities with household incomes. More refined income categories allow affordable housing units to be targeted more precisely, resulting in rents and sale prices that more accurately reflect a household's ability to pay. This approach also enhances the Town and County's ability to evaluate program performance, identify underserved income groups, and make informed policy decisions based on housing outcomes.

Housing Authority Board Recommendation: Option 2: Staff recommendation.

8. Should the Housing Department provide a preference (extra entry) in Weighted Drawings for individuals who are displaced by Housing Department developments?

Currently, no preference or extra entries in Weighted Drawings are provided to households who are displaced by Housing Department developments.

Key points to consider:

- Housing Department development projects may require residents to permanently vacate their homes due to redevelopment, rehabilitation, or other public purposes.
- Displacement can create significant financial and personal hardship, including increased housing costs, disruption of employment, schools, and community ties.
- A displacement preference recognizes that these households are relocating through no fault of their own and as a result of a Housing Department project intended to benefit the community.
- A preference could improve public confidence by demonstrating the Housing Department's commitment to assisting households affected by its own redevelopment efforts.
- Providing a preference may reduce opportunities for other qualified applicants who are also in need of affordable housing.
- Administering a displacement preference would require the Housing Department to establish eligibility standards, verify qualifying displacement, collect and review supporting documentation, monitor the duration of the preference, and resolve questions regarding eligibility, resulting in a significant increase in administrative workload.
- Clear eligibility criteria would be necessary to define who qualifies as displaced, the duration of the preference, and whether the preference applies to ownership units, rental units, or both.
- Private development and redevelopment projects also result in the displacement of households, often without any preference or priority for replacement affordable housing.
- Giving an extra entrance in Weighted Drawings does not mean the household will be chosen in the drawing. There is also a slim chance there will be a unit available at the time the household is being displaced.

Option 1: Staff Recommendation: Maintain the current policy and continue conducting Weighted Drawings without a preference for households displaced by Housing Department development projects. While displacement resulting from Housing Department projects can create significant hardship, administering a displacement preference would require the Housing Department to establish and monitor eligibility criteria, verify displacement, collect and review documentation, administer time-limited preferences, and resolve eligibility questions, resulting in a significant increase in administrative workload. Staff believe these administrative demands outweigh the potential benefits of implementing a displacement preference.

In addition, allowing an extra entry in Weighted Drawings for displaced households would reduce the effectiveness of the existing preference provided to Critical Service Providers by increasing the number of applicants receiving preferential treatment in the Weighted Drawing process. Maintaining a limited number of preferences helps preserve the value and purpose of the Critical Service Provider preference while keeping the Weighted Drawing process straightforward, transparent, and equitable.

To help minimize the impacts of displacement, Staff recommend we require that households affected by a Housing Department development project receive a minimum of six months advance written notice before they are required to vacate their housing. Providing adequate notice allows households sufficient time to identify alternative housing, plan for relocation, and participate in future Weighted Drawings or other housing opportunities without creating an additional preference category.

Option 2: Provide a preference in the Weighted Drawing process only for households displaced by Housing Department development projects, subject to clearly defined eligibility criteria and time limits.

Option 3: Provide a preference in the Weighted Drawing process for all households that have been involuntarily displaced, regardless of whether the displacement resulted from a Housing Department project or private development. This option recognizes that households experience similar hardships regardless of the source of the displacement and applies the preference more broadly.

Housing Authority Board Recommendation: Option 1: Staff recommendation.

9. Should the current asset limit calculation method be changed?

Current Rule:

The asset limit is calculated using 2 times the 4-person household income limit. These limits exclude qualified retirement accounts such as 401(k)s, IRAs, and pension accounts.

Current Asset Limits

0-50%	50-80%	80-120%	120-160%
\$148,500	\$237,600	\$356,400	\$475,200

Asset Limits for Proposed New Income Limits Using Current Policy

0-50%	50-80%	80-100%	100-120%	120-140%	140-160%
\$148,500	\$237,600	\$297,000	\$356,400	\$415,800	\$475,200

Key points to consider:

- For HUD-assisted housing programs, a household is generally ineligible if its net family assets exceed **\$105,574** (adjusted annually for inflation). HUD excludes qualified retirement accounts such as 401(k)s, IRAs, and pension accounts when determining net family assets. The Housing Department similarly excludes qualified retirement accounts but utilizes a higher asset limit that reflects the purpose of the local Affordable Housing Program and the high cost of housing in Teton County.
- The Housing Department's Affordable Housing Program serves a broader range of households than HUD programs and is designed to assist the local workforce in one of the nation's highest-cost housing markets. As a result, higher asset limits are appropriate than those used for federal housing programs.
- In 2024, after removing asset limits for Affordable Rental units, the Town Council and Board of County Commissioners reinstated asset limits after several households with substantial assets qualified for Affordable Rental units and benefited from below-market rents despite having significant financial resources.
- Asset limits for Affordable Ownership units have always remained in place to help ensure homes are reserved for households with a demonstrated financial need.
- The current methodology ties asset limits directly to the applicable income limits, allowing the limits to automatically adjust each year as Median Family Income (MFI) changes. This provides a consistent, objective, and easy-to-administer calculation.
- The Housing Department receives approximately one inquiry every two years from a household that qualifies based on income but exceeds the asset limit. This indicates that the current limits rarely exclude otherwise eligible households. However, it could also mean that households are not applying or contacting the Housing Department because they know they don't qualify.
- Asset limits help ensure that limited Affordable Housing resources are directed toward households that need assistance purchasing or renting housing rather than households with sufficient financial resources to compete in the private market.
- Changing the methodology to a different method of calculating asset limits will also require a method for calculating annual updates.

Option 1: Staff Recommendation: Maintain the current policy. The existing methodology has proven to be effective, is straightforward to administer, and automatically adjusts as income limits change. Similar to HUD, the Housing Department excludes qualified retirement accounts from the asset limit calculation while utilizing higher asset thresholds that better reflect the income levels and housing costs associated with Jackson's Affordable Housing Program. Since very few households are excluded solely because of the asset limits, there is little evidence that the current methodology is preventing qualified households from accessing housing. At the same time, it continues to ensure that limited Affordable

Housing resources are directed toward households with a demonstrated financial need rather than those with substantial non-retirement assets.

Option 2: Adopt a fixed asset limit. Replace the current calculation with a fixed dollar asset limit that applies to each income category or to all Affordable Housing applicants.

Housing Authority Board Recommendation: Change the method from 2 times the 4-person household income limit for each income range to 3 times the 4-person household income limit for each income range.

Asset limits with 3 times the 4-person household income limit

0-50%	50-80%	80-120%	120-160%
\$222,750	\$356,400	\$534,600	\$712,800

Asset Limits for Proposed New Income Limits Using HAB Recommended Policy

0-50%	50-80%	80-100%	100-120%	120-140%	140-160%
\$222,750	\$356,400	\$445,500	\$534,600	\$623,700	\$712,800

10. Should the Housing Department continue using both historical and estimated current-year income to determine household income during annual recertifications?

Current Rule:

The Housing Department uses both historical income and estimated current-year income when evaluating annual recertifications for rental units. Employers complete Affidavits of Employment providing information on salary, hourly wages, overtime, bonuses, tips, housing allowances, and other compensation. Prior-year tax returns are used to verify additional sources of income such as interest, dividends, rental income, and business income. Other documentation is used to verify non-taxable income, including Supplemental Security Income (SSI), disability benefits, child support, and similar sources. Business income is generally averaged over a three-year period, and other income sources that fluctuate significantly from year to year may also be averaged over three years.

Key Points to Consider

- The Housing Department's current process evaluates both historical and anticipated income to determine the household's expected annual income rather than relying solely on either past or projected income.
- Employers complete Affidavits of Employment that identify salary, hourly wages, overtime, bonuses, tips, housing allowances, and other compensation. If questions arise, Housing Department staff work directly with employers to clarify the information provided.
- Historically, when unusual circumstances result in excessive overtime, applicants or tenants provide documentation from their employer explaining that overtime is temporary and not expected to continue. In these situations, the Housing Department has the flexibility to exclude overtime from the income calculation.
- One-time payments, such as isolated bonuses, retirement distributions, or other non-recurring income, are not included when determining annual household income.
- If a household's prior-year income would place them into a higher income category but it is unclear whether that income level will continue, the Housing Department errs on the side of the household and allows them to remain in their current income category. If the higher income continues into a second year, the household is then moved to the higher income category.
- Many households have complex income situations, including self-employment, multiple employers, seasonal employment, fluctuating hours, commissions, or multiple sources of income. Evaluating both historical and current information provides a more accurate representation of a household's ongoing financial circumstances.

- Business income and other fluctuating sources are generally averaged over a three-year period to reduce the impact of unusually high- or low-income years.
- For Housing Authority-owned rental units, the Housing Authority Board has determined that it is not financially feasible to allow households to move into a lower income category than the category under which they originally leased the unit. Allowing downward movement could reduce rental revenue below the amount needed to cover operating expenses and debt service.

Option 1: Staff Recommendation: Maintain the current policy. The current income calculation methodology provides the most accurate and equitable evaluation of household income by considering both historical earnings and current employment circumstances. It allows the Housing Department to account for unique situations, such as temporary overtime, one-time payments, and fluctuating self-employment or seasonal income, while avoiding decisions based on a single year of earnings or a projected estimate alone. This approach results in more consistent income determinations, minimizes unnecessary movement between income categories, and supports the long-term financial stability of Housing Authority-owned rental properties.

Option 2: Use only current estimated income to calculate income for annual recertifications on rental units.

Housing Authority Board Recommendation: Option 1: Staff recommendation