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Brad Little, Governor
Jess Byrne, Director

May 16, 2025

Cougar Creek Water Association
Stacy Wilhelm, Administrative Contact
stacy_wilhelm@hotmail.com

Subject: ID1090030 Cougar Creek Water Association - Sanitary Survey conducted May 5, 2025

Dear Stacy:

A sanitary survey was recently conducted for the Cougar Creek Water Association. This letter provides the sanitary survey report and photos for your records.

Significant Deficiencies: Significant deficiencies identified in this report must be addressed after consulting with the Idaho Department of Environmental Quality (DEQ), Coeur D Alene Regional Office. Consultation and a written corrective action plan are required within 30 days of any significant deficiencies and/or follow-up requirements identified in this notification (IDAPA 58.01.08). Follow the four steps identified in the sanitary survey report to address all significant deficiencies.

Deficiencies: Submit a corrective action plan within 30 days for deficiencies requiring a response. Other deficiencies and requirements must be corrected when feasible or during modifications of existing processes or facilities.

Recommendations: Recommendations identified in the report are not required to be corrected at this time, but it is recommended.

Consult DEQ before taking specific corrective actions or modifying the water system. Modifying your public water system or installing new components may require assistance from an Idaho licensed professional engineer and DEQ's review and approval. Contact this office before making modifications to your system.

Thank you for your help in completing the sanitary survey. For questions, contact Doug Ebert, Drinking Water Compliance Officer, Coeur D'Alene Regional Office, 208-666-4630, Douglas.Ebert@deq.idaho.gov.

Sincerely,

Doug Ebert, Drinking Water Compliance Officer

Encl(s): Sanitary Survey Report and Findings, Photo Log

ec: Anna Moody, Drinking Water Compliance Supervisor - DEQ, anna.moody@deq.idaho.gov
Alan Ameche, System Contact, alanameche@hotmail.com
Dion Holton, Designated Charge Operator, dholton@idahoruralwater.com

Sanitary Survey Report

Water System	Cougar Creek Water Assn.	**Survey Date**	May 5, 2025
PWS#	ID1090030	**Source(s)**	Groundwater
County	Bonner	**PWS Type**	Community
Inspector	Doug Ebert	**Connections/Pop**	108/270
System Rep(s)	Alan Ameche, Board Member Jim Socci, Board Member Dion Holton, Charge Operator	**Others present**	None

Narrative

Cougar Creek Water Association is a residential development in Bonner County located around the south shore of Cavanaugh Bay on Priest Lake, approximately 3-miles NNE of the town of Coolin, Idaho. The original water system was constructed in the early 1990's to serve mostly vacation homes, as a transient system. In December 2023, with the addition of additional year-round consumers, Cougar Creek Water Association was designated a Community Water System (TRIM 2023ACA7345).

This system consists of two active wells, a 120,000 gallon above-ground concrete storage tank, and distribution lines that serve 108 connections. These connections serve the Cavanaugh Bay lakefront lots (formerly state lease lots), Cavanaugh Bay Airport Estates, and the Cavanaugh Bay Cottage / Dutch Harbor sites. Cougar Creek Water Association maintains perpetual lease agreements for a well and other infrastructure located on property owned by Dr. Loel Fenwick. No treatment or disinfection is provided for this water system. The system serves 108 connections and approximately 270 people. The designated charge operator, Dion Holton of Idaho Rural Water Association, was on site during the sanitary survey.

Source

There are two source water wells. Both wells are designed to pump to the storage tank which then provides gravity flow to distribution. No existing ground water problems have been identified for either well by the Source Water Assessment report completed June 6, 2011. Potential contaminant information was updated on December 20, 2019. The GWUDI (Ground Water Under Direct Influence of Surface Water) assessment was completed on June 29, 2001, and determined that no surface water is influencing the ground water source (TRIM 2019ACA4165).

Cougar Creek Water Association is pursuing options to install another well to serve the community and are currently working with Coffman Engineers to complete a facility plan. Idaho Rules for Public Drinking Water Systems, IDAPA 37.03.09, Section 510 describes the minimum setback distances and site approval requirements. Prior to drilling, the site of a public drinking water system (PWS) well must be approved in writing by the Department. A well site evaluation report must be submitted prior to or concurrent with the Preliminary Engineering Report for the well. The well site evaluation must take into account the proposed size, depth, and location of the well. Prior to receiving authorization to serve from the newly constructed well, the water system must have an approved facility plan. Please continue to work with Association and Department engineers to evaluate potential well sites.

Well 1 (E0005776) was drilled in 1993 and has a well log on file with Idaho Department of Water Resources (TRIM 2018ACA7877). Well 1 is primarily used as a back-up well during times of highest demand on the system and it is not automated with the water system's RAFA control system. It produces approximately 25 gallons per minute.

Well 1 was drilled to a depth of 262 feet through sand and gravel with an 8-inch casing. The controls, threaded sampling tap, flow meter, and associated plumbing are enclosed in a below ground vault located next to the well. The Well 1 casing extends approximately 18 inches above the ground surface and is properly sealed but there is no screened well vent (photo 3-5) and one retaining bolt has been sheared off (photo 4). This is considered a significant deficiency and requires the installation of a new retaining bolt and vent.

There is no accessible check valve for this well and the nearest pressure gauge is located in a private adjacent structure. The frost-free hydrant can provide flow to waste for the well as needed. Surface uses within 50 feet of the well are the private entrance driveway to Dr. Fenwick's shop building. There is no public access without permission and oversight from Dr. Fenwick. Concrete barriers help to protect the well casing from vehicle damage.

Well 2 (E0009170) is the primary producing well and is also located on Dr. Fenwick's property in the natural preserve area approximately ¼-mile northeast of Well 1. It has an 8-inch casing and was drilled in 2004 to a depth of 180 feet into sand (Well Log: TRIM 2018ACA7695). It produces approximately 50 gallons per minute computed at the reservoir. Well 2 has a 4-inch Berkeley 50 gpm submersible pump and a Franklin, 7.5 hp, 230-volt 3-phase 4-inch motor. In 2023, Cougar Creek Water Association installed a RAFA control system for Well 2.

The well casing extends approximately 18 inches above the ground surface and is properly sealed and the well vent is properly screened. A smooth nose sample tap, flow meter, pressure gauge and associated plumbing are enclosed in a vault located next to Well 2. Well controls can be accessed in a nearby control shed. There is no accessible check valve installed on Well 2. The flush hydrant located near Well 2 can provide flow to waste as needed. Telemetry with a solar power source has been added as of Fall 2017. Surface uses within 50 feet of the well are limited to only the private entrance driveway to Dr. Fenwick's property. There is no public access without permission and oversight from Dr. Fenwick.

Storage

The 120,000 gallon above ground concrete storage tank was constructed in place in 1999 by B.F. Builders of Bonners Ferry, ID. It is located east of Cavanaugh Bay Road, uphill with a locked, gated entrance to provide security from unauthorized people. The storage tank is not fenced on the lot.

The storage tank controls the well pumps by a pressure switch connected to a small pressure tank located in the Well 2 vault. The storage tank provides approximately 60 psi to distribution with some of the waterfront Dutch Harbor cottage sites reaching approximately 100 psi and, therefore, using pressure reducing valves as needed. The storage tank valves are located adjacent to the reservoir and can be isolated for maintenance purposes. The storage tank has a properly screened vent and overflow/flow to waste that empties into a natural drainage area away from the reservoir structure.

The storage tank hatch was properly sealed and locked. There were no obvious signs of cracks or leakage on the sides of the storage tank. The roof was fairly clear of debris and maintained. One minor crack in the roof was observed but appeared to have been previously repaired (photo 24). The DEQ recommends cleaning and re-sealing the roof annually to extend the longevity of the reservoir. The reservoir was last inspected and cleaned in 2021. The DEQ recommends that storage tanks be inspected and cleaned every 5 years.

Distribution

The system currently serves 108 connections, none of which are metered. An 8-inch PVC pipe runs from the reservoir down the hill to the main 4-inch PVC distribution line. The majority of the distribution lines that have the 2-inch flush hydrants are 4-inch lines. A section of line was improved to 6-inches and also has a 2-inch flush hydrant at the end. The Airport Estates portion of the system has 3-inch PVC lines installed. The distribution system contains 5 dead-end lines, 6 flush/fire hydrants, and does not have any air vacuum relief valves.

The Cougar Creek Water Association is responsible for ensuring no connection between the distribution system and any pipes, sprinkler systems, pumps, hydrants, water loading stations, or tanks whereby unsafe water or other contaminating materials may be discharged or drawn into a public water system. The water system has a Cross Connection Control Plan in draft and is ready to be approved by their board in June 2025. Please supply DEQ with a copy of the draft plan and a final approved plan after it is adopted and implemented by the association.

Financial and Managerial

The water system is classified as Very Small Water System. The designated operator is Dion Holton and is licensed by the Idaho Division of Occupational and Professional Licenses (IDOPL). He holds Drinking Water Distribution (DWD4-20013) and Drinking Water Treatment (DWT1-13622) licenses that renew in May 2026.

The DEQ recommends that the operation and maintenance manual be updated with current information. Operation and maintenance manuals should include daily operating instructions, trouble shooting, operator safety procedures, location of valves and other key system features, parts lists and parts order forms, and information for contacting the water system operator.

Monitoring

Cougar Creek Water Association monitors quarterly for total coliforms and annually for nitrates at each well. Total coliform samples are collected from locations identified by the RTCR sample plan (2025ACA1246). Lead and copper samples are collected from locations identified by the Lead and Copper site plan (2024ACA3267).

Cougar Creek Water Association is in the process of completing initial monitoring for inorganics in Wells 1 and 2. Cougar Creek Water Association should continue to review the monitoring requirements for the water system described in the monitoring schedule of the Public Drinking Water System Switchboard at: https://www2.deq.idaho.gov/water/monitoringschedulereport.

Findings

Significant Deficiencies

A significant deficiency as identified during a sanitary survey, is any defect in a system's design, operation, maintenance, or administration, and any failure or malfunction of any system component, that the DEQ or its agent determines to cause, or have the potential to cause, risk to health or safety, or that could affect the reliable delivery of safe drinking water (IDAPA 58.01.08.003.131). Failure to address significant deficiencies constitutes a violation of IDAPA 58.01.08.302 or 58.01.08.303.

Significant deficiencies may reference IDAPA design standard requirements. IDAPA rule citations for sections 500-549 are primarily requirements during the design or modification stage of a new system or component, and may not be enforceable as part of a sanitary survey. These requirements are listed to provide reference of what current standards would apply if that particular component were designed, modified, or constructed today. Corrective actions that include material modifications must be approved by DEQ.

To address all significant deficiencies identified in this Sanitary Survey Report, follow steps 1 through 4.

Step 1 - Within 30 days of receiving this Report, consult with *and* submit to the Coeur D'Alene Regional Office, in writing, a corrective action plan including planned completion dates for each identified significant deficiency.

Step 2 - Complete the planned action(s) by the "Planned Completion Date(s)."

Step 3 - After completing each planned action, enter an "Actual Completion Date," your initials, and write the "Corrective action taken."

Step 4 - Sign your name at the bottom certifying that each corrective action has been corrected by the planned completion date(s) and that the Public Water System (PWS) has completed the sanitary survey response requirements pursuant to the "Idaho Rules for Public Drinking Water Systems" IDAPA 58.01.08. Send a copy of the signed paperwork to the Coeur D'Alene Regional Office.

1. Wells

WELL 1 (E0005776)

Question #8- Is the well properly vented? *(24 mesh screen, open downward >18" outdoor or >12" indoor, etc.)* No.

Note: *No. There is no vent is on the well cap and one retaining bolt is gone.*

The well casing for Well 1 (E0005776) is not properly vented to include a 24 mesh screen and/or does not open downward (IDAPA 58.01.08.511.05).

Install a casing vent to minimize the possibility of contamination caused by the creation of a partial vacuum during pumping and to release air trapped in the pump column when the pump is not running. On some wells the presence of a water tight (and thus air tight) well casing cap can mean that when the pump is running and drawing down the static head in the well it can create a vacuum that could impede pump operation. The vent lets equalizing air into the casing. The vent needs to be at a height above flood levels and terminated downward to prevent entry of any potential surface water. This may be accomplished by extending the casing 18 inches above the ground or 12 inches above the pump house floor. A 24-mesh screen installed on the vent prevents contamination by prohibiting entry of insects, rodents, and birds.

Submit planned completion dates to DEQ within 30 days of this letter.

Corrective Action Plan

Planned Completion Date: _____,

Actual Completion Date: _____, Initials: _____.

Corrective action(s) taken:

I certify, to the best of my knowledge that all significant deficiencies have been corrected by the agreed upon date and that the corrective action meets the requirements pursuant to IDAPA 58.01.08.

Signature: _____ Date: _____

Deficiencies Requiring Immediate Action

Deficiencies Requiring Immediate Action are to be included in the Corrective Action Plan with projected due dates for correction and will be tracked until satisfactory completion.

1. Distribution System and Financial/Managerial Capacity

DISTRIBUTION SYSTEM (T1090030DS1)

Question #21- Is an adequate cross connection control program provided and implemented? *(Community PWS only) (Authority to implement, inspection program, adequate protection, annual testing, ability to discontinue service, 10 days to repair a failed device)* No.

FINANCIAL/MANAGERIAL CAPACTIY

Question #10- Cross Connection Control Plan *(C only)* No.

Note: *A plan is in draft and in review for finalization and approval at the June board meeting. Please send a copy of the final plan after it is approved by the board.*

The PWS owner/operator has not implemented a cross connection control program that includes the minimum requirements (IDAPA 58.01.08.552.06). A cross connection control program needs to be developed and/or implemented.

Cross connections are significant sanitary risks that threaten drinking water quality and public health. Successful control of cross connection hazards depends not only on inspecting for cross connections, but also on an enforceable and implemented cross connection control program.

Submit planned completion dates to DEQ within 30 days of this letter.

Corrective Action Plan

Planned Completion Date: _____,

Actual Completion Date: _____, Initials: _____.

Corrective action(s) taken:

Other Deficiencies
Other deficiencies must be corrected when feasible or during modifications of existing processes or facilities.

1. Wells

WELL 1 (E0005776)
Question #10- Is a raw water smooth nosed sample tap provided on the discharge pipe? *(Prior to any treatment)* No.

The discharge pipe for Well 1 (E0005776) does not provide a sample tap that is properly located, or the sample tap that is used to collect bacteria samples is not of the smooth-nosed type without interior or exterior threads and/or is a mixing faucet and or is of the petcock type and/or has a screen and/or has an aerator (IDAPA 58.01.08.511.01).

A raw-water sample tap should be smooth-nosed with no interior or exterior threads, screen, aerator, or other attached appurtenances to allow for proper sampling techniques and to decrease the risk of contaminating a sample during collection.

2. Storage Tanks

STORAGE TANK (ST1090030ST1)
Question #9- Can the storage structure be isolated from the system without depressurizing the distribution system? No.

The finished water Storage Tank (ST1090030ST1) which provides pressure directly to the distribution system cannot be isolated from the distribution system without causing a loss of pressure in the distribution system (IDAPA 58.01.08.544.01.b and 546.02). Install a means to isolate the storage facility without causing a loss of pressure in the distribution system the next time material modifications occur to the system.

The water system distribution system needs to be designed such that it will not lose pressure when a tank is taken offline for cleaning and repairs. When storage tanks need to be removed from service for maintenance or cleaning, distribution pressure must not drop below 20 psi.

3. Pumps

Question #4- Is each pump equipped with an accessible check valve? *(on the discharge side before the shut-off valve)* No.

An accessible check valve is not provided on the discharge line between both well pumps and the shut-off valve (IDAPA 58.01.08.511.04 -well pumps or IDAPA 58.01.08.541.03.a. - water pumps). Install an accessible check valve the next time material modifications occur to this section of the water system.

A check valve allows flow in one direction and prevents back flow (reverse flow) if water in the line reverses direction. The check valve is intended to prevent the system from draining and prevents the pump from excessive cycling.

Question #23- Can the community PWS adequately pressurize the distribution system during a power outage? *(C only)* No.

Note: *The system is gravity pressurized. If power is lost, pressure will remain until the 120,000-gallon reservoir is depleted. There are no flow meters on the system to estimate normal demand. The total time the system would remain pressurized is dependent on the time of year but could potentially provide pressure for 8 hours or more; therefore, this was downgraded to a deficiency.*

The community PWS would be unable to adequately pressurize the distribution system in the event of a power outage. There is not adequate storage. Install standby power or adequate storage facilities the next time material modifications occur to the water system (IDAPA 58.01.08.501.07).

4. Financial/Managerial Capacity

Question #11- Asset Management Plan *(C and NTNC)* No.

An Asset Management Plan should be established for the PWS. The assets of a water system include the natural and engineered components for providing water (e.g., source water, pumps, motors, storage tanks, treatment plants, pipes). A good asset management program typically includes a written plan for achieving the best appropriate cost for rehabilitation, repair, or replacement of a public water system's assets. Asset management is effective in maximizing the value of capital as well as minimizing operations and maintenance expenditures. To learn more about asset management, go to DEQ's website at: https://www.deq.idaho.gov/water-quality/drinking-water/public-water-system-switchboard/capacity-development/

Question #12- Operation and Maintenance Manual *(C and NTNC)* No.

There is not a complete operation and maintenance (O&M) manual for this public water system (IDAPA 58.01.08.501.12, 003.90, and 003.91). An O&M manual needs to be developed and/or implemented. Submit an O&M manual for review and approval. Upon approval, the operator must operate the system in accordance with the approved O&M manual. At a minimum, include the following items in the O&M manual:

- daily, weekly, monthly, and yearly operating instructions
- information specific to a particular type of treatment
- location of valves and other key distribution system features
- pertinent telephone and address contact information including the responsible charge water system operator and water system owner
- operator safety procedures
- alarm system and emergency procedures
- trouble-shooting advice
- water quality testing procedures
- response plan for depressurization events
- customer service procedures
- response plan for customer complaints
- maintenance information and checklists
- manufacturer's product information including troubleshooting information
- parts list, spare parts list, and parts order form
- necessary special tools

An O&M manual provides procedures to operate and maintain a facility's various systems and equipment. It is important to analyze and evaluate a facility from the system level, then develop procedures to attain the most efficient systems integration. Lack of an O&M manual can lead to system failures and contamination of drinking water.

Recommendations:
Recommendations identified in this Report are not required to be corrected at this time, however it is recommended.

1. Wells

WELL 1 (E0005776)
Question #6- Is the well (not located in a pump house) protected from unauthorized access? *(Locking cap, fenced, etc.) (Recommended)* No.

Note: *Well 1 is on private property and is in a fairly secure location with concrete barrier to prevent vehicles from hitting the well cap.*

Well 1 (E0005776 - not in a pump house) should be protected from unauthorized access through fencing around the source and/or use of a locking well cap.

WELL 2 (E0009170)
Question #6- Is the well (not located in a pump house) protected from unauthorized access? *(Locking cap, fenced, etc.) (Recommended)* No.

Well 2 (E0009170 - not in a pump house) should be protected from unauthorized access through fencing around the source and/or use of a locking well cap.

2. Distribution System

DISTRIBUTION SYSTEM (T1090030DS1)
Question #12- Are valves inspected and exercised regularly? *(Recommended)* No.

All valves should be inspected and exercised at least semiannually. Locating and exercising valves minimizes interruption of service during main breaks or construction activities.

3. Financial/Managerial Capacity

Question #4- Has an independent financial audit of the PWS been conducted, or has the SMART Financial Tool been completed? *(Recommended)* No.

An independent financial audit of the public water system should be completed every year for large systems and every 3 to 5 years for small systems. The SMART Financial Tool located on DEQ's Public Water System Switchboard (www.deq.idaho.gov/water-quality/drinking-water/pws-switchboard) can also be a great way for a public water system to evaluate their financial capacity.

Question #9- Can any of the water system's functionality be controlled virtually or over a network? Yes.

Without proper cybersecurity, a drinking water system is vulnerable to attack.
The EPA recommends all drinking water and wastewater utilities take the following cybersecurity actions:

- Prioritize remediating known exploited vulnerabilities.
- Enable and enforce multifactor authentication with strong passwords.
- Close unused ports and remove any application not deemed necessary for day-to-day operations.
- Follow the steps outlined in the joint Cybersecurity Advisory to protect your organization from a potential Hive ransomware attack.

If you suspect that you organization is the victim of a ransomware attack please report to the Cybersecurity and Infrastructure Security Agency (CISA) at https://us-cert.cisa.gov/forms/report and/or FBI at https://www.ic3.gov/.

Question #16- Water Loss Control Program No.

A water loss control program should be put in place and utilized. More than 15% water loss is an indication of either inaccurate meters or excessive leakage. Inaccurate meters result in lost revenue and leaks are potential points for entry of contaminated groundwater. The following is a link to an EPA resource for developing a water loss control program: https://www.epa.gov/sites/production/files/2015-04/documents/epa816f13002.pdf.

Question #17- Water Efficiency Program No.

A water efficiency program should be implemented. Improvements in water efficiency in the distribution system begin with metering, water audits, and water loss control programs. The following is a link to an EPA resource for developing a water efficiency program:
https://nepis.epa.gov/Exe/ZyPDF.cgi/P100MEV6.PDF?Dockey=P100MEV6.PDF.