Meeting Minutes
April 14, 2026

Hosted in-person at the Fremont County Annex Building in St. Anthony, ID and hybrid via Zoom

Attendance

- **28** in-person
- **29** via Zoom

Introductions and Community Building

Aaron Dalling, Henry's Fork Watershed Council co-facilitator on behalf of Fremont-Madison Irrigation District, welcomed everyone to the hybrid meeting. The group went through introductions and then called for a moment of silence before opening for community building.

Rob Van Kirk noted his appreciation for the attendance of elected officials and current candidates.

Mark Chandler asked Jan Brown if he could tell a story of her and his dad. **Jan Brown** noted she had no power. **Mark** attended his first HFWC meeting with his father and shared his father's reaction to the moment of silence [led by Jan Brown at the time]. Mark noted that his father and Jan understood each other.

Predicted 2026 Water Supply and Water Quality
Rob Van Kirk, Henry's Fork Foundation

Rob presented water supply predictions for the next six months, explaining both how he builds the predictions (10 years of modeling experience) and what those predictions imply for natural flow and the irrigation season.

Rob started the presentation by sharing a visual example, comparing photos taken at Osborne Bridge on March 15, 2019 and March 17, 2026 (this year). The 2026 photo shows essentially no snow, which he noted is "pretty much all you need to know" about this year's water supply.

Using a 132-year National Weather Service record, this past fall and winter were the warmest on record across a broad swath of the western U.S. (Montana to Arizona). Rob noted that temperature records weren't just barely broken; they were exceeded by 2–5°F. Precipitation was ~93% of average, but much of it fell as rain, not snow.

The Henry's Fork watershed experienced snow drought in 2026. Snow Water Equivalent (SWE) peaked on March 17—about 27 days earlier than average for the Henry's Fork watershed. Peak SWE was only 67% of average. He described it as a "snow drought": normal-ish precipitation, but far

below-normal snowpack. Rob shared a snow water equivalent graph using the 40-year SNOTEL record. We reached average in early January, then flat-lined in February with almost no new snow. The SWE peak was low and early, and about 25% of that peak has already melted. Current SWE on the ground is about 50% of average for this date. Overall, snowpack in the Henry's Fork watershed was extremely low and early melting.

At Island Park Reservoir, the ice melted on March 31, almost a month earlier than average. The ice-covered season was 50 days shorter than normal, something Rob said he's never seen before.

In terms of soil moisture, the effects were uneven. Some areas saw improved soil moisture from winter rain. In the agricultural areas of the Henry's Fork, soil moisture on April 1 was "terrible" and very low, and remains very low.

Rob provided an orientation to his water supply prediction models—an exercise he's been doing since 2017. Over 9 years, his average error in predicting natural flow is ~10.5%, which he considers good for April 1 guidance. Model inputs include Snow Water Equivalent on April 1 (most important). soil moisture, and evapotranspiration. Model outputs include April–September streamflow volume, timing of streamflow (runoff timing), and diversion volume (how much water is diverted for irrigation). In a prior appropriation system, when water supply is low: junior irrigators get less water, so total diversion also ends up lower, because there simply isn't water to divert.

Rob also runs an operations model for the Henry's Fork system. His operations model Includes diversions, reservoirs, and management actions. Rob noted that Aaron Dalling manages the lower watershed and moves water from Henry's Fork to the Teton River via the Cross Cut Canal, and uses exchange wells in dry years to augment Teton River flow. Rob's model tries to simulate Aaron's decisions and system operations.

In very dry years, managers must often send water from Henry's Fork to American Falls Reservoir. For example: Island Park Reservoir is about 93% physically full, but only about half of that volume belongs to Fremont Madison; the rest belongs to the American Falls account. By late summer, American Falls can be nearly empty, so some of the water currently in Island Park and/or Henry's Lake must be delivered downstream to satisfy those storage accounts. Rob includes these allocation and transfer realities so his model reflects who actually owns the water and where it must go.

Rob predicts natural streamflow at about 62% of the "modern" (last 25 years) average. Compared to the wetter 1970s–1990s, this is only about 51% of that historical average. Bottom line: streamflow will be very low this year. Using a time series from 1978–2025, with 1978 chosen as the first year of full digital diversion data the closest analog year is 2001, a very dry year that felt especially severe because it followed the wet 70s–90s. Other recent similar years within the prediction range: 2015, 2016, 2021, 2022. If it stays cool and wet through April–May, this year might end up closer to the upper end of that dry range. Within the longer 93-year record (since 1934), using a gage near Island Park Dam, this year looks similar to 1934—the worst water year on record in the area. However, to actually match 1934, conditions from here would have to turn extremely bad; Rob thinks

that's unlikely but not impossible. Several other years in that long record look similar to this year in the upper Henry's Fork, including 1941, 2015, 2021, 2022, and 2025.

In terms of runoff timing, Rob predicts it will occur in late May this year (compared to early June on average). So runoff is 2–3 weeks earlier than average, mirroring the earlier snowpack peak. Irrigation demand and diversions are also effectively 2–4 weeks ahead of normal—current total diversion is about what's usually seen in mid-May.

In terms of the operational model, Rob shared his key assumptions:

- Delay drafting Island Park: Even though the lower Henry's Fork already hit the usual irrigation-season target (which typically triggers releases from Island Park), Rob assumes Aaron Dalling will delay drafting Island Park until early May, accepting some canal complaints in the meantime.
- Heavy use of exchange wells: Assumes ~30,000 acre-feet of exchange well pumping from about June 1–Sept 15, typical for a dry year.
- Earlier releases from Henry's Lake: Assumes more water released earlier from Henry's Lake to spread out deliveries, especially because water will have to go to American Falls.
- Lower minimum flow target at lower Henry's Fork (temporarily): Assumes they can "scrimp" a bit on the lower Henry's Fork target early in the season, then increase flows later in summer to move water to American Falls.

Rob's operational model outcomes predict the following:

- Model shows Island Park filling by ~May 8; given current conditions Rob now thinks more like around May 15 if they can avoid using it too early.
- In 1,000 simulation runs, median first-draft date is June 9, about three weeks earlier than average, so drafting likely begins in early June.
- Outflow peak from Island Park could be ~1,700–1,750 cfs, with a real chance of exceeding 2,000 cfs, similar to other dry years.
- Exchange well pumping ends up ~36,000–38,000 acre-feet, comparable to other dry years (e.g., 2007, 2016, 2020, 2022).
- End-of-season reservoir levels (Sept 30):
    - Henry's Lake: ~80% full (similar to 2007 and 2021).
    - Island Park: ~9% full if they prioritize delivering as much water as possible to Henry's Fork irrigators—still more water than in many past dry years, and similar to 1960–1963.
    - Grassy Lake: ~46% full, comparable to 1977, another very dry year.
    - Delivery to American Falls: About 20,000 acre-feet going to American Falls, versus roughly 11,000 acre-feet last year (depending on how it's counted).
- Water rights and allocations
    - Natural-flow priority date will drop about a month earlier than average, so irrigators will hit storage use earlier, again matching the "everything is 3–4 weeks early" pattern.
    - Junior users in Palisades and Fremont Madison will face short storage allocations:
        - Water District 1's latest accounting shows the 1935 storage account at ~52% (raw, before evaporation and other deductions).

    - Rob expects they'll be lucky to reach ~60%, and other demands/deductions will likely reduce that further.

- **Question: Glade Mason** noted he was in Island Park the previous day and were encouraged to see a snowstorm moving through the mountains. He also relayed a concern from another person about low river levels at Mack's Inn, specifically asking whether there has been a decline in flow at Big Springs / Mack's Inn.
- **Answer: Rob Van Kirk** explained that baseflow (groundwater-fed flow) in the upper Henry's Fork, including the Mack's Inn / Big Springs area, has been steadily declining for about 25 years, so the river is indeed low there because less water is coming out of the ground, not just due to short-term variation.

Rob turned from water supply to water quality predictions. At Island Park Dam, this summer will likely have record-high turbidity, sediment, and temperature. All three parameters track together because they're driven by the same factors: Water supply/inflow (most important) – more inflow generally means better water quality and Temperature (second most important). Conclusion: Water quality outlook for this summer is poor.

Rob showed a record from 1930–present for natural inflow between Henry's Lake and Ashton (upper Henry's Fork). There are three distinct periods:

1. 1930–1965: Generally very dry, with few above-average years.
2. ~1965–2000: Very wet period, only occasional dry years.
3. 2000–present: Back to dry overall, but much more variable (wet years interspersed with multiple dry ones).

Rob shared that low water supply itself is not unprecedented; many years (1930s, 1977, 2001, 2015, 2021–22, 2025) were comparably dry. But Rob emphasized that what is new is the combination of very low water supply, and exceptionally high temperatures. The only real analog in the record is 1934, an anomalously warm and dry year. From a water supply standpoint, Rob noted that we've seen this magnitude of low flow before; from a water quality standpoint, we probably have not.

In terms of irrigation and diversion, because water rights priorities are dropping earlier and storage allocations are low Rob's model predicts total diversion in the Henry's Fork watershed will be about 85% of the modern average, which is already lower than historic flood-irrigation eras. This will likely be the lowest diversion year on record in the Henry's Fork watershed. Under prior appropriation, senior users get their full allocation before juniors get any; that legal framework is designed to handle shortages. Rob noted that: farmers and canal companies have mechanisms to adapt (deciding when to plant, what to plant, when to divert, using storage vs. natural flow, etc.). It's difficult, but the agricultural system has built-in tools (water rights, storage, crop choices, insurance, etc.) to survive a year like this.

In terms of water quality and fisheries, conditions may be worse than anything seen before due to the combination of warm temperatures and low water. There will likely be fewer fish, poorer water quality, and altered timing of insect hatches. Rob expects another disappointing year for anglers. Many

people feel Henry's Fork fishing is not what it "should" be, but those expectations were formed during unusually wet decades.

Rob shared that Jack McLaren recently brought in a copy of Outdoor Life's Complete Guide to Freshwater Angling (1963) to the office. The book listed the "100 best trout streams in America," and the Henry's Fork did not appear. Rob noted that, in contrast, any list from the 1970s onward would almost certainly include Henry's Fork near the top. Rob's long-held view: the world-class fishery emerged in the 1970s–1990s mainly because of abundant water, not because the system was always that way.

Sociologically, Rob noted that a whole fishing culture and economy (guides, fly shops, tourism) built up around a water-dependent fishery that thrived in an unusually wet 30-year window. Unlike agriculture, fisheries interests don't have a formal structure of rights or programs that can "guarantee" conditions; if water and temperature don't cooperate, there's no mechanism to make the river behave differently.

In closing Rob asked: Is this year a one-off, after which we return to more normal snow years? Or is this a preview of more common future conditions (warmer winters, more rain than snow, low inflow)? If years like this become common, the hydrologic system itself will fundamentally change, with major implications for both irrigation and the fishery.

Q&A: Predicted 2026 Water Supply and Water Quality

- **Keith Esplin** commented that although the outlook for this area (Henry's Fork/Upper Snake) seems bleak, it is still one of the better-off regions in the entire western U.S., which they note is worrying in itself given how bad conditions are elsewhere.
    - **Rob Van Kirk** agreed with Keith's comment, emphasizing that even though conditions look bad locally, the Upper Snake Basin (and parts of northwest Montana) are actually "bright spots" compared to the rest of the West. In contrast, Oregon, Washington, southwest Idaho, Utah, Colorado, and most of Wyoming are in much worse, "dismal" shape, so this region is relatively better off than most of the western U.S..
- **Brian Murdock** commented that nothing is ever the same in farming and this year both the water year and crops are running 2–3 weeks early. Fields that are not usually planted are being planted, and grain will likely be harvested and irrigation shut down earlier (late June/early July rather than late July/August), which will affect water demand. He adds that in the 1960s–70s Henry's Fork had more "surplus" water because withdrawals for irrigation and domestic uses were lower, leaving more flexibility. Today, the system runs on a much tighter water budget with little surplus, so he argues the region needs ways to increase water supply in wet years and store it to regain some operational flexibility.
    - **Rob Van Kirk** responded that Brian's comments about crops being early illustrate how farmers can adapt timing and cropping (e.g., planting grain earlier east of Ashton, ending grain irrigation earlier), whereas it's much harder to convince anglers to shift their expectations 3–4 weeks earlier. He then clarified the historical water use picture in the Henry's Fork watershed. In the 1960s–80s, total diversion was ~1.2 million

acre-feet/year, versus about 800,000 acre-feet/year now. Back then, diversions were higher but so were aquifer levels, and more water returned to the river (due to flood irrigation), so demand wasn't actually lower, it was just a different system. Today, with sprinkler efficiency, more water is consumed on fields and less returns to the river, so margins are tighter when supply is low. Historically higher aquifer levels cushioned low surface flows later in the season; now that cushion is smaller.

    - **Keith Esplin** added that some farmers adapt via crop insurance—in dry years they may not plant and collect insurance instead, so you'll see some dry fields by design. In some areas (e.g., the largest canal south of Blackfoot), irrigators have already been told they may not have water past August 1, so they can't risk planting long-season crops like sugar beets or potatoes, which will significantly affect cropping decisions and regional agriculture.

- **Brad Buttars** referenced Rob's closing question about whether this year is "an anomaly or the new norm" and recalled that one of his slides showed several past years with similar conditions in the current 120-year cycle. He asked Rob directly for his professional opinion on whether this year represents a new normal rather than just a one-off event.
    - **Rob Van Kirk** said the data indicate we are definitely in a drier cycle. Years similar to this one (2015, 2016, 2021, 2022) are clustered in the last 15 years, suggesting dry years are becoming more frequent. Over the last 25 years, conditions have been about 20% drier than the 1970s–90s, which he stresses is a huge reduction in water. What makes this year stand out is temperature, not just low snow. Past dry years like 1977, 2021, 2022 had low snowpack but cold springs. This year is warm, with snow levels at 7,500–8,000 feet, "off the charts" compared to history. Even with the general warming trend, this year is far above that trend; being just 5°F cooler would have put the snow line back near 6,000 feet and produced much more snow. His main concern going forward is whether we'll see more rain and less snow at these elevated temperatures; the warming and snowline shift are the big unknowns.
- **Glade Mason** noted that Rob said a cold, wet spring would be a blessing in surprise and irrigate crops.
    - **Rob Van Kirk** explained that a wet spring helps by reducing irrigation demand and allowing more runoff to be stored in reservoirs instead of going directly to fields. However, if it's too wet and too cold, that can create problems for early-planted crops, so conditions are never ideal—"like fishing, it's never perfect." He also acknowledges and appreciates Brian's and Keith's points about farmer adaptations (e.g., crop choices, crop insurance) as important tools for coping with difficult water years.
- **Aaron Dalling** noted that Rob's reference to 1934 is significant because that extreme drought occurred before Island Park and Grassy Lake reservoirs existed. The hardship of that year helped catalyze support for building the reservoirs: in May 1935, the Fremont Madison Irrigation District was formed specifically to contract with the federal government to build Grassy Lake and Island Park Reservoirs. In an election held across seven precincts in Fremont, Madison, and Teton

counties, the vote to create Fremont Madison and enter that contract was unanimous (about 360–0).

- **Glade Mason** asked how this affects the chatter going on about the Teton Dam.
- **Aaron Dalling** noted that was probably a better question for Brian [unknown].
- **Christina Morrisett** added that we could return to this discussion after Brian Steven's presentation.

Water Supply Update (Upper Snake Basin)
Brian Stevens, U.S. Bureau of Reclamation

Brian Stevens shared current river and irrigation season conditions. Starting with the fact that the system is about 8 feet lower than last year. Diversion between Palisades–American Falls–Blackfoot is about 3000 CFS (vs a typical target of ~2000 CFS) to capture increased flows. Irrigation on the Snake River started 5–6 days earlier than last year and is almost double last year's rate, driven by warm temperatures and active crops. American Falls is delivering water to Minidoka (~750 CFS diversion), and Minidoka's outflows are supplying irrigation upstream of Milner Dam.

In terms of runoff forecasts and snowpack, the April runoff forecast for the Snake above Heise is about 70% of normal (vs 76% observed last year April–July). Some basins are extremely low (e.g., Ririe at 26%, Henry's Fork ~65%, Island Park and Teton in the 70% range). NRCS snowpack shows about 49% of average, while a University of Arizona neural-network product suggests closer to 39% of median. Compared to 1992 and 2001 dry years, this year likely has less snow; if conditions stay dry, runoff above Heise could drop to ~50% or even ~36% of normal.

Looking at the spatial pattern of snowpack above Heise, record-low or near-record-low snow (e.g., Moran below historical minimum; several sites near minimum) is present in the low elevations. In the high elevations, there is relatively better snow (up to around the 75th percentile at Lewis Lake Divide). In the Upper Henry's Fork basin (above Island Park: Valley View, Big Springs, Kilgore, etc.), nearly all snow courses are at or below historical minimums; main remaining snow is around 7,000–7,500 ft. Of 57 NRCS snow courses above King Hill, 30 are at record lows.

In terms of the outlook for reservoir storage and operations, total system storage is just over 3 million acre-feet (~76% full), 150–200k acre-feet less than in 1992 and 2001 at this time. Brian expects to hit peak storage in April and then begin drafting; historically the system has been drawn down to ~350–400k acre-feet by season's end. At Jackson Lake, Brian projects there will likely be high summer releases (2,000–4,000 CFS) from early May to support downstream reservoirs. Jackson Lake is expected to end the year at about 15% full, with very low fall levels. American Falls is projected to end below 100,000 acre-feet and on the low end of historical low-storage scenarios regardless of future precipitation. At Island Park, drafting will likely start in early June and the reservoir could end the season nearly empty (around 9–10% full). It is possible that there will be a possible increase in outflow in May as it fills, higher releases in June when irrigation calls rise, then reduced flows in September. Reflecting on winter 2025–26 outflow at Island Park, outflow was held at 100 CFS; future winter flow decisions will be coordinated with the Drought Management Planning Committee based on end-of-season storage.

Overall, Brian anticipates very low reservoir levels by fall, potentially lowest on record. A planned 60,000 acre-feet rental for flow augmentation (for rainbow trout) was not triggered because the April forecast was 70% (below the 76% threshold), so that water will stay in the system. Reclamation will instead take 60,000 acre-feet from Palisades powerhead space, making fall storage at Palisades about 32,000 acre-feet lower, while keeping total system storage roughly the same.

There will be a windshield snow survey on Friday, May 15 and a public information meeting on May 14. Expect high summer reservoir outflows (especially from Jackson) and very low reservoir storage by fall 2026.

Q&A: Water Supply Update (Upper Snake Basin)

- **Keith Esplin** asked for clarification about "powerhead" water in Palisades Reservoir. He noted that powerhead water is controversial and wanted to know if once all irrigation storage is used, can operators still physically release the powerhead water itself? Or does "using the powerhead water" effectively mean you've drawn the reservoir so low that power generation can no longer occur (i.e., you lose the ability to generate hydropower once that water is used)?
    - **Brian Stevens** noted that Palisades can generate power all the way down to "0% full." They have never actually gone into the powerhead space and don't expect to this year. Physically, they *can* release all the powerhead storage from Palisades. But once they go below the 0% full level, they can no longer generate power at the dam. If it looks like they might have to dip into powerhead, they will likely increase releases from Jackson Lake to avoid losing generation capability at Palisades, because Palisades generation is very important for many basin users.
- **Keith Esplin** asked if **drawing the reservoir down too far** might cause **excess sediment to be sent downstream**.
    - **Brian Stevens** noted that turbidity may increase somewhat when the reservoir is drawn down, but a recent study (bathymetric/sediment survey of Palisades Reservoir plus downstream measurements) found no significant turbidity problem in the river below the dam. Any increase in turbidity would be modest, not extreme, and is much less severe than many (including Reclamation) had feared before the study.
    - **Rob Van Kirk** noted that HFF has a water quality monitoring station just downstream of Palisades Reservoir. Data from that station show no increase in turbidity, even when Palisades is very low. The situation is not like Island Park, where low levels do cause turbidity concerns. Rob agreed with Brian's assessment that turbidity is not a major concern when Palisades is drawn down.
- **Aaron Dalling** added that flow augmentation is water released from the Upper Snake to help salmon migration to the ocean. Last year, the Upper Snake provided 150,000 acre feet for flow augmentation; Fremont Madison's share was ~3.5%, so their current-year allocation is reduced by ~3.5% to account for that. A further reduction to FMID comes from obligations to the Fort Hall Reservation. A 1990 settlement advanced the Shoshone Bannock Tribe's water right from 1891 to 1867, making it the most senior right on the Snake River. The federal government gave Ririe Reservoir to irrigators as mitigation, but in dry years Ririe's junior right doesn't get additional fill,

so Fremont Madison must supply some of its own water to meet the Fort Hall obligation, taking another few percent off its allocation. Combined, these are "additional demands" that reduce Fremont Madison's available allocation this year.

- **Aaron Dalling** also took the opportunity to address previous questions and comments from **Glade Mason**, **Brad Buttars**, and **Brian Murdock** about rebuilding Teton Dam. He stated that the Idaho Water Resource Board and Bureau of Reclamation are starting a basin study to evaluate new storage opportunities. Teton is one candidate among several potential new or expanded storage projects in the basin. This is early-stage work—a basin study is the first step before any specific dam/storage project could move forward.
    - **Glade Mason** underlined that rebuilding Teton Dam is a sensitive and traumatizing subject locally, but has the potential if done right.
    - **Aaron Dalling** noted that he lives directly downstream of the Teton Dam canyon, very close to the river. A neighbor has said they would move away if Teton Dam is ever rebuilt, illustrating how strong and personal the local fears and trauma around Teton remain.
    - **Brian Murdock** added that the new basin study will cover a much larger area than the 2015 Henry's Fork study—running from below Milner all the way up to Jackson Lake. It will evaluate multiple storage options, including raising Jackson Lake Dam, raising Minidoka Reservoir, increasing storage at American Falls, and addressing Ririe flood-curve issues. Brian noted that the process is slow. The study is expected to take about four years, underscoring that expanding storage is a long-term effort ("the long game").
    - **Keith Esplin** highlighted the contrast in historical timelines with today's reality. In 1934, projects could move from study to contract in about one year. Now, similar projects can take around 10 years just to reach a contract, highlighting how much longer modern processes and approvals take.
    - **Aaron Dalling** added that, in reference to the older contract, the language was broad: it authorized "storage reservoirs on the Henry's Fork or Teton River", not specifically Island Park or Grassy Lake. Teton Dam was already being considered under that authority. Even in that earlier era, with simpler processes, it still took 30–40 additional years before Teton Dam was actually approved, underscoring that large storage projects have always taken a long time to move forward.

Updates on the 2026 Idaho Legislative Session
Paul Arrington, Idaho Water Users Association

Paul Arrington began by adding on to the previous conversation, using Anderson Ranch Dam (Boise River) as an example of how hard big infrastructure is now. There is a current proposal to raise the existing dam 6 feet to add about 29,000 acre-feet of storage. There is little to no real opposition—only routine questions (e.g., fisheries protection). Even so, it is expected to cost about $150 million and take roughly 15 years from start to finish.

This example shows that if a relatively non controversial dam raise takes that much money and time, then building a new dam like Teton—with more controversy, opposition, and history—will be even

more expensive and slower. Paul noted that large Reclamation projects follow a multi step study process. Step 1: broad basin study. Step 2: project specific study, then all the federal processes. Water users are working with Reclamation and congressional representatives to streamline where possible (e.g., "check a couple of boxes" faster), but it will still take many years.

Paul's overall message to conclude the previous conversation was that large water infrastructure is inherently slow and difficult today because of modern laws and processes. Despite that, planning must start now so that 30–50 years from now people can look back to 2026 and be glad these groups did the hard, long-term work to secure future water supplies.

Paul shifted to the 2026 Idaho legislative session, the topic of today's presentation. The Idaho Water User's Association was very active, taking a position on 26 different bills—more than in any previous year on record. This higher engagement is attributed largely to a very active legislative committee chair, Aaron Dalling (current first vice president, and likely future president). Barney Metz (Lewiston Orchards Irrigation District) is now serving as president.

Paul shared that water issues stayed out of the most divisive public debates (immigration, education, social issues, flags, bathrooms, etc.). That was intentional—the water community worked to "stay under the fray" and quietly get water business done.

The legislature's main focus this year was budgets and funding. The legislature now splits each agency's budget into the Maintenance budget (bare-bones "keep the lights on") and the Enhancement budget (additional programs and asks). This bifurcation has created internal legislative conflict, but it's now the established process.

Last year, the Department of Water Resources got its basic maintenance budget and fought hard to secure an ongoing $30 million in the enhancement budget for water infrastructure projects—which ultimately passed after significant advocacy from groups statewide (including Eastern Idaho Water Rights Coalition and Keith's outreach). This year, that $30 million is now "baked into" the maintenance budget, so it renewed much more smoothly, with far less fighting.

Another key win was continued funding for the Idaho Water Resources Research Institute (IWRRI) led by Kendra Kaiser at the University of Idaho. IWRRI receives about $1 million (small in state budget terms) but is "moving the needle" on water science and management. The legislature chose to continue this funding, which Paul noted as critical.

More broadly, Paul noted that the sate revenues are below forecast, so last year the Governor ordered a 3% ongoing cut to state agency budgets. The Legislature added another 1% cut for April–June and 2% more after June, equating to 4% total through June (3% + 1%) and 5% ongoing from July 1 (3% + 2%). The Department of Water Resources managed the initial 3% cut with no major service impacts. But a full 5% cut would have forced real reductions, including cuts to streamflow and gaging. In the end, the Legislature restored most or all of those cuts to the Department via its maintenance/enhancement budgets, so the department did not have to absorb the 5% cut. Lawmakers signaled they understand the need to keep the agency fully funded, especially in a dry year.

The other major issue was cloud seeding, driven by misinformation. Legislators frequently complained about contrails on sunny days, blaming them on Idaho's cloud seeding. Paul had to

repeatedly explain that Idaho's program targets high mountain, super cooled clouds to enhance snowpack, not routine jet contrails or generalized "weather control."

Five different cloud seeding bills surfaced: two would have banned cloud seeding outright and made it a felony; one would have required legislative approval for any cloud seeding programs; one would have urged Congress to enact a nationwide ban. The Idaho Water Users Association opposed all four restrictive bills, and none of them passed, but their very introduction shows a deep misunderstanding between Idaho's cloud seeding practices and broader fears about weather modification.

The Idaho Water Users Association supported one bill: Senate Bill 1269 sponsored by Sen. Nichols and Rep. Fuhriman in the House. SB 1269 keeps cloud seeding legal and builds on the existing 5 year old cloud seeding statute. It adds "meat to the bones": more transparency, reporting, and public involvement requirements. Much of this (reporting, public discussion in Water Board meetings) was already being done, but SB 1269 codifies it, ensuring programs stay open and transparent.

Government efficiency efforts area also impacting the water community. The Governor's Office of Species Conservation (OSC) and the Office of Energy and Mineral Resources (OEMR) are being merged. The new combined entity is the Office of Species, Minerals, and Energy Coordination (OSMEC). This new entity is effective July 1 and its purpose is to increase efficiency and reduce redundant positions. Mike Edmondson and Callie Younger will both move into OSMEC. The Governor will appoint one of them as Administrator and the other will likely serve as Deputy. Practically, for audience members who have previously worked with OSC on endangered species issues, you will now work through OSMEC.

In other news, many water projects involving federal agencies must go through National Historic Preservation Act – Section 106 review. This is done by the State Historic Preservation Office (SHPO). SHPO evaluates whether a project affects historic resources (often 50+ years old with cultural, social, or other significance). In Idaho, irrigation ditches and infrastructure are often considered historic due to agriculture's role in state development. SHPO used to be housed in the Idaho State Historical Society. New legislation moves SHPO into OSMEC (also effective July 1), making OSMEC the state's hub for federal permitting and coordination. There have been widespread frustrations with SHPO's process across industries; there is hope this move will keep compliance with the law but reduce unnecessary delays for projects.

Despite trying to avoid divisive politics, there was a deliberate push to educate legislators on water issues. Rep. Raybould (from eastern Idaho) did significant work here. A series of Senate Concurrent Resolutions 116–119 were passed. The Water Resource Board divides the state into four districts: District 1: North Idaho; District 2: Treasure Valley / Southwest; District 3: South Central (Magic Valley, Wood River); District 4: Eastern Idaho. Each resolution focuses on one region, describing water challenges, ongoing and proposed projects, and work by water users and stakeholders to address supply needs. The Core purpose is reinforce the importance of the ongoing $30 million annual water infrastructure funding and show how it supports communities statewide.

Paul talked about storage & new water development resolutions. House Joint Memorial 14 (HJM 14) sponsored by Rep. Furniss, Rep. Fuhriman and Senators Burtenshaw, Cook and others. This resolution echoes earlier meeting discussions about Teton Dam and new storage and urges

continued work on developing new storage opportunities across Idaho. House Concurrent Resolution 34 (HCR 34) deals with the Bear River Compact. The Bear River flows from Utah → Wyoming → Idaho → back to Utah (Great Salt Lake). In the lower division, Idaho has first right to 125,000 acre-feet, Utah gets the next 250–275k acre-feet. Idaho has so far developed only about 17,000 acre-feet of its share. HCR 34 directs the Idaho Water Resource Board to study how Idaho could develop more of its 125,000 acre-feet allocation and recognize that much of that water is likely spring freshet and would probably require storage to be usable. Some deliverables include a preliminary study due mid-summer and a final report due to the interim Natural Resources Committee in late October / early November.

Paul provided an update on the domestic exemption cleanup (Senate Bill 1222). Last year, Idaho adjusted the domestic water right exemption, adding "sideboards" limiting when it can be used, especially in stressed areas such as Critical Groundwater Areas, Ground Water Management Areas (e.g., ESPA), and Moratorium areas (much of Eastern Idaho. The intent was to be prospective, applying only to new development. In practice, the language accidentally swept in some existing situations it wasn't supposed to. This year, Senate Bill 1222 corrects that—clarifing that the new limits apply only to final subdivision applications filed on or after July 1, 2025 and ensures existing developments are not unintentionally captured by the new rules.

In terms of legislative scorecard & elections the Idaho Water Users Association does not endorse candidates or take positions on "people politics, " but does track "issue politics" and publishes a legislative scorecard at iwua.org. The scorecard shows how each legislator voted on key water-related bills and is designed to help voters evaluate legislators' records on water issues. Staff member Taylor prepares the scorecard in a clear, easy-to-read format. Paul encourages voters to do their homework—the scorecard is one tool for understanding where legislators stand on water.

The Idaho Water Users Association is planning the 2026 Legislative Water College, held over four days from the last week of August into the first week of September. It's aimed at general-election candidates for legislative and statewide offices in an election year. They tour infrastructure, discuss water challenges and policy issues, and meet stakeholders and constituents. The Water College rotates through four regions so candidates can discuss local water issues close to home: North, Southwest, Magic Valley/South-Central, and Eastern Idaho. For 2026, Eastern Idaho day is September 1, with planning support from Keith Esplin, the Eastern Idaho Water Rights Coalition, and Aaron Dalling. In non-election years, they hold one statewide Water College session, likely in Eastern Idaho next year, inviting sitting legislators from across the state.

Q&A: Updates on the Idaho Legislative Session

- **Brian Murdock** asked whether House Concurrent Resolution 34 (HCR 34) was essentially Speaker Moyle's "shot back" at Utah over the gas tax dispute, suggesting it felt like the Speaker was reminding Utah that Idaho could respond in kind—by signaling it might develop more of its Bear River water as leverage.
    - **Paul Arrington** noted he wouldn't speculate on Speaker Moyle's motives, but acknowledged that the gas tax dispute with Utah did help bring Bear River issues (and HCR 34) to the Speaker's attention. Some legislators do see HCR 34 as a "shot across the bow" at Utah, since Idaho developing its full Bear River allocation would further stress

the already serious Great Salt Lake problem. However, Paul framed HCR 34 as good policy regardless of the politics. Idaho should be proactive and forward thinking about securing future water supplies, just as it is in other basins. From a policy standpoint, there's no reason the Bear River basin shouldn't be doing what the rest of the state is doing in planning and studying additional development.

- In reference to the regional water resolutions (HCRs 116–119), **Brian Murdock** noted that HCR 116 and 117 passed by voice vote with no debate whereas the other two drew significant debate, but only because they mentioned cloud seeding. Bria noted that cloud seeding language alone triggers controversy, underscoring the need to keep educating legislators about what Idaho's cloud seeding program actually is and does.
    - **Paul Arrington** responded that cloud seeding will be a standing education topic at the Legislative Water College and summer water law seminar because of ongoing misunderstandings. Within water circles, people "who get it" may take for granted the benefits of cloud seeding and don't always explain its importance to others whose day to day world is different. A key lesson from this session was that the program needs supportive voices beyond the State of Idaho and Idaho Power. At the Capitol, those two are seen as "the cloud seeders", so their advocacy is discounted as self interested. Local stakeholders and water users speaking directly to legislators about how cloud seeding benefits their basins are critical. For example, cloud seeding adds about 600,000 acre feet to the Eastern Snake Plain, in a context where the current shortfall is ~700,000 acre feet—without it, conflicts would be dramatically worse. The Idaho Water Users Association plans to create videos and outreach materials, but stresses that constituents' voices and engagement with legislators are essential on cloud seeding and all key water issues.

Idaho Invasive Species Program Update
Cole Morrison, Idaho State Department of Agriculture

Cole Morrison, the section manager for Idaho's Invasive Species, Noxious Weeds, and Grasshopper/Cricket programs, provided an overview of the Invasive Species Program with a focus on eastern Idaho. He described the program as a "three legged stool":

1. Prevention – primarily via watercraft inspection stations (e.g., Henrys Lake, Malad, Franklin, Dubois) and roving crews based out of Idaho Falls. Border check stations aim to keep mussel fouled watercraft out of the state, while roving crews visit local docks on weekends.
2. Detection – checking whether anything has slipped through or moved between water bodies using veliger (larval mussel) analysis, adult mussel surveys, false substrates (e.g., buoys hung in the water), shore walks and Ponar/grab samples, and eDNA sampling, a newer tool being deployed more fully this year.
3. Management/Control – treatments where needed, especially targeting quagga mussels on the mid Snake River, with 2025 treatments differing from past efforts.

He also noted education and outreach as a key component.

For 2025–2026 operations, most southern check stations open in March to catch returning "snowbirds," with some Panhandle stations opening as temperatures rise. In 2025, Idaho inspected 173,000 watercraft, of which 18 were mussel fouled, across 24 inspection stations (mostly at borders). Three stations on the mid Snake operate 365 days a year to limit spread from that area. Idaho was the first state to run a 24 hour inspection station at Cottrell near Burley; Washington later copied the model. Most stations operate from about an hour before dawn to an hour after dusk; some high traffic sites (e.g., I 15, Cottrell, Bruno, Marsing, Cedars) run closer to 18 hours; Cottrell is 24/7. The program works with Idaho State Police (ISP) and county law enforcement to turn around boaters who bypass stations, though there is no current law enforcement support in Island Park, which they'd like to improve. All related data are available on invasivespecies.idaho.gov, where dashboards show check station traffic, locations of roving crews, counts of inspections at specific sites (e.g., Malad, Island Park), and proportions of high risk inspections, with filter options for users.

Cole explained the monitoring side of the Invasive Species Program and how it has scaled up after the mid Snake quagga mussel detection. Monitoring begins when each water body reaches about 12°C, just below the 14°C threshold where mussels can reproduce. A statewide map tracks where samples are taken. Sample counts have increased each year: ~1,600 in 2022, ~1,900 in 2023 (year of mid Snake detection), target of ~3,500–3,600 in 2024–2025, and a target of ~3,800 samples for 2026. The contracted lab can process about 4,000 samples per year, with a two week turnaround per sample. They plan 3,800 routine samples and keep ~200 in reserve for delimit (delimitation) surveys.

The invasive species program first used eDNA sampling in 2023 on the mid-Snake to help rule out where infestations were or weren't, taking 12 samples there. The mid-Snake canyon is a somewhat contained system (water comes in but doesn't easily flow out), which simplifies control but complicates source-tracking (e.g., canal returns). They've been cautious with eDNA because a positive result is "a big bell to ring." False positives are possible due to mussel DNA on boats and DNA persisting in sediment. Given its usefulness and stakeholder interest, they plan a fuller deployment in 2026, aiming for about 400 eDNA samples statewide.

The program is also building in-state lab capacity. Their contracted lab trained the Idaho Bureau of Labs to do microscopy for quagga, zebra, and golden mussels. For mid Snake samples, Idaho can now get weekly turnaround, enabling much faster response. In comparison, other states have taken ~6 months from detection to treatment. Idaho can move from detection to treatment in about three weeks. Key lab partners include Pisces, the University of Idaho, and Aquaticus in Florida (main veliger processor). During the response, Idaho's lab also ran mortality studies on veligers during treatment to see how quickly and at what rates they die.

Cole described how they confirmed and narrowed the quagga mussel infestation on the mid-Snake, then refined the 2025 treatment. In terms of detection and verification, monitoring on the mid-Snake showed spikes where adult mussels were found; positives appeared again around September. Because a positive is "a big bell to ring," they follow a multi-step verification: 1) Initial lab positive (processed first by the Idaho lab, which Cole notes with pride); 2) Independent confirmation using a different boat, net, and crew at the same site; 3) DNA confirmation of the

species (quagga/zebra/golden). The full verification and notification chain (governor's office, Idaho Power, sister agencies, water users, etc.) takes about a week.

Idaho has a rapid response plan, but its exact application is highly site-specific (conditions change drastically even a mile downstream). A key step is a delimitation ("delimit") survey, where the team conducts very intense sampling across about 26 river miles in the canyon, from a reservoir near Burley down to Broken Bridge. Samples are spaced roughly every 100 meters, requiring difficult canyon access. Crews even hiked in with inflatable kayaks near an overpass by Kimberly to rule out upstream sources—this long, low-water trip was jokingly called "the trip of 1,000 portages" and "Operation Body Heat" when staff had to overnight in the canyon. Samples were rushed to the lab so they could map the true extent and source of the infestation.

Between 2024 and 2025, the quagga mussel footprint shrank by about 51%. There was no evidence of any mussels downstream of Shoshone Falls, confirmed by physical finds (adults), larval (veliger) detection, and DNA. Cole stressed control is not one-and-done; it requires sustained pressure, likening it to persistent weed control (e.g., morning glory).

In 2025, quagga mussels were detected on September 12, 2025. Chemical treatment started a bit over two weeks late and lasted about two weeks, covering ~3.5 river miles. Treatment used Natrix (a copper-based product), with ~63,000 gallons applied at a target concentration of 1 part per million (ppm). The treatment area focused on top of Twin Falls, the power plant reach, and the section forming Shoshone Reservoir.

In terms of challenges, submerged springs and complex bathymetry (3–4 deep 90-ft pools) affected how copper behaved. Copper is heavier than water, so it settles in deep "cup" pools—good for killing mussels down to 90 ft, but it can also create uneven distribution. To address this, they used "dive bombers"—boats towing weighted lines (Clean Lakes crews) to drive chemical deeper and even out the treatment.

Cole also detailed the team's Boats and Totes system, where the core objective was to hit and maintain 1 ppm copper throughout the treatment reach. They installed ~20+ application sites with totes and metered drip boxes to control dosing. Crews ran a "boats and totes" loop: fill a boat tote at the dock, use it to refill stationary land totes at application points, continuously adjust drip rates to sustain the target concentration.

The Mid-Snake copper treatment also had a bathymetry problem. Deep "holes" (~90 ft) and complex underwater topography caused copper to settle and create uneven treatment. Divers found mussels dead at 50–90 ft, alive at ~31–49 ft, and dead again from 0–30 ft, indicating a mid-depth "friction zone" where copper was being pushed out by flowing water over these flooded underwater waterfalls. The ISDA team worked with IDWR and Idaho Power to understand flow dynamics. They installed underwater spray booms/pumps (similar to terrestrial spray trucks) positioned right in the friction zone to keep copper in that middle layer. They also addressed spring-fed "safe harbor" sites along canyon walls where mussels could survive by implementing shoreline treatments, with applicator boats cruising along the banks and spraying those areas.

To monitor treatment, the goal was to maintain 1 part per million (ppm) copper throughout the treated reach. ISDA collected samples every 12 hours at fixed stations to verify copper levels. They also used tools (including camera-based tracking) and logged results in Excel to visualize how the "slug" of chemical moved and where/when they hit 1 ppm.

Cole shifted the conversation to golden mussels, a newly listed invasive species in Idaho. Golden mussels were first detected in Port of Stockton, California (2024) and has since spread ~450 river miles along the San Joaquin River, now present across much of California. Biologically, golden mussels are more invasive than quagga and zebra mussels because they tolerate slightly brackish water, reproduce at warmer temperatures—keeps going up to 32°C (quagga/zebra stop above ~24°C), and need far less calcium (can thrive with <1 ppm, versus ~10 and 8 ppm for quagga/zebra).

In terms of risk assessment, Idaho has built a risk model that weights: watercraft traffic (based in part on "Where are you going?" check-station questions), distance to hydro facilities and major roads, number of boat ramps, calcium, pH, average temperature, and proximity to the mid-Snake (current in-state vector). They're still working on fully incorporating watercraft traffic data. Once it's in, North Idaho is expected to light up as high risk. Current monitoring network (for quagga/zebra) will also detect golden mussels, and Idaho now has clear authority to decontaminate boats carrying them.

Cole closed with an example from California and a note on outreach. He showed photos from work with the Arvin-Edison Canal Company at the terminal end of the San Joaquin River, where Idaho was invited to advise on a golden mussel treatment after California state support was limited. The canal company irrigates land producing about $1 billion annually; their treatment cost about $3 million, illustrating how expensive infestations become. Photos from 2024 to early this year show extreme biofouling and biomass buildup on infrastructure and equipment, with the resulting costs ultimately passed on to producers—a key reason Idaho emphasizes prevention.

He briefly highlights education and outreach efforts in Idaho: Multiple public campaigns, including wrapped ice boxes, sidewalk/boat-ramp stencils, and online ads, aimed at building public advocates for invasive species prevention. He ended by acknowledging the many partner organizations involved and opens the floor for questions.

Q&A: Idaho Invasive Species Program Update

- **Mark Chandler** asked whether Fremont County's plan to run two check stations and two cleaning stations in 2027 would conflict with or preempt the state's authority, and specifically whether the county is legally allowed to set up and operate those stations.
    - **Cole Morrison** shared that counties do have some authority that can allow them to set up their own check and cleaning stations (he notes Fremont County previously adopted a "pull the plug" rule before the state did in 2023). He did not see Fremont County's planned stations as "getting in the way" of the state program. He strongly suggested it would behoove Fremont County to work under an agreement with the state so there's a clear legal framework and mandatory inspection authority can be extended. With an agreement, there is potential for state funding support to flow to the county. An

agreement will also help avoid conflicts with ITD and other agencies about where stations are placed.
    - **Mark Chandler** explained that the other two Fremont County commissioners have identified funding to operate the proposed stations for one year, and they need to know whether they can legally allocate that money and get the program up and running quickly.
    - **Cole Morrison** said he had Mark's email and would follow up.
- **Jack McLaren** asked for clarification on the dashboard's terminology—specifically, what it means when an inspection is labeled "high risk" and how "risk" is defined in that context.
    - **Cole Morrison** explained that an inspection is flagged as "high risk" on the dashboard when any of these conditions apply:
        - The boat has been in an infested waterbody within the last 30 days.
        - The boat has standing water or weeds present.
        - The origin of the boat is unknown (e.g., commercially hauled, "buddy hauled," or just purchased and history is unclear).
        - The boat is large and complex, making it harder to inspect and decontaminate thoroughly.
    - **Jack McLaren** added that he's used the dashboard before but is having trouble accessing historical data, specifically seeing information from 2023 or 2024.
        - **Cole Morrison** explained that they do have archived versions of the dashboards for past years (2023, 2024, etc.), but these are no longer on the public website. The archived dashboards are intentionally limited and general, only showing information that could be observed "from the side of the road," because the program is very cautious about data sensitivity. For anyone who needs a deeper, more detailed look at the data, they'd use a different, more tailored data sharing.
- **Keith Esplin** thanked Cole, saying he's seen other presentations on the topic and that the work done on the mid Snake is "incredible," offering congratulations and appreciation.
    - **Cole Morrison** acknowledged the praise, noting it has indeed been a huge amount of work.
- **Brad Buttars** echoed Keith's praise for Idaho's work, then raises a concern based on a family trip to Lake Powell, a known mussel-infested waterbody. He described being pulled into inspection at Malad on the way back and said the time lag worries him, since guidance suggests a boat can need around 18 days if it isn't fully decontaminated. He asked if there's a way to improve coordination so that states with infested waters decontaminate boats when they leave, in addition to Idaho treating them on entry, to reduce the risk of mussel spread.
    - **Cole Morrison** noted that Idaho works closely with Utah, federal agencies, and neighboring states to try to "nail down stopping vectors" from high-risk places (e.g., Great Lakes, Lake Havasu, Lake Powell). Their strategy is layered, like an onion: Boats may be washed when exiting an infested waterbody; washed again at a state line; and washed again at Idaho's stations (e.g., Malad). The idea is to take "as many bites at the apple" as possible rather than rely on a single decontamination. He also noted Idaho can't dictate

Utah's policies ("doesn't want to stick his beak in Utah's business") but he encouraged strong programs on their side as well.

- **Brad Buttars** added that Idaho does share a big body of water with Utah.
- **Cole Morrison** briefly discussed Bear Lake as a major concern due to its dense surrounding population. Cole agreed it's "spooky" and emphasizes that Idaho works as closely as possible with neighboring jurisdictions on it, while acknowledging he can't dictate their actions.
- **Brian Murdock** noted that, given the river's flow, mussels in southern Idaho wouldn't naturally move upriver, so any infestation in that area (e.g., Bear Lake / upper systems) would almost certainly come from an outside source.
- **Cole Morrison** affirmed that is "nice" from a risk-management standpoint.

Teton River Subbasin: 5-Year Review and TMDL Development
Cherie Windsor, Idaho Department of Environmental Quality

Cherie shared that IDEQ's mission is to protect human health and the quality of Idaho's air, land, and water. IDEQ's focus is on water quality (chemical and biological condition of water) rather than water quantity. Water quality is evaluated for uses like agriculture, wildlife, aquatic life, and domestic use.

Cherie provided an orientation to Total Maximum Daily Loads (TMDLs). TMDLs come from the Clean Water Act (1972) requirement to examine waterways, identify pollutants impairing water quality, and develop an implementation plan to restore water quality. A TMDL determines pollutants present and how much causes impairment; how much pollutant the stream can handle (load capacity); the existing load (based on data collection); a margin of safety to account for monitoring variability; load allocations (the "pollution budget" for a stream); reduction requirements (often expressed as percentage reductions).

DEQ is doing a five year review (a catch up review) of TMDLs in the Teton River subbasin. As part of this work, IDEQ is reviewing data and TMDLs from 2003 onward (plus some older data from the late 1990s). This process requires learning what has been done and where existing TMDLs stand, conducting new monitoring to see current conditions, deciding whether TMDLs should be revised based on new methods/standards, and potentially delisting streams where water quality has been restored. The Teton subbasin has impairments related to bacteria, nutrients, sediment, and temperature.

Cherie provided an overview of the monitoring methods being used. They include Beneficial Use Reconnaissance Program (BURP): rapid bioassessment to evaluate stream health (macroinvertebrates, habitat, fish); grab samples for bacteria (e.g., E. coli) and nutrients (e.g., nitrogen, phosphorus); sediment monitoring using McNeil cores to assess fine sediment; temperature loggers to track temperature trends. For each pollutant type, they compare Idaho water quality criteria/targets, locations of existing TMDLs, and recent data and trends relative to the 2003 and 2016 TMDL baselines (improvement, decline, or no change).

Under BURP (Beneficial Use Reconnaissance Program), seasonal technicians collect macroinvertebrates, habitat data, and fish community information to assess stream health and whether streams support cold water aquatic life. In 2015–2025: 29 BURP assessments were conducted in the Teton River subbasin. In the results so far: 14 sites support cold water aquatic life, 1 does not support (Teton Creek, 2015), 14 are still pending. In 2021–2025: 22 sites were sampled in the Teton; 2 could not be sampled (dry/inaccessible).

With bacteria monitoring, E. coli is the main indicator for recreation-related bacteria impairment. The state standard defines impairment if geometric mean > 126 E. coli/100 mL based on ≥5 samples in ~45 days. In 2017–2025: 8 sites were sampled for bacteria in the Teton subbasin and 3 sites are not supporting standards, while 2 sites will receive new TMDLs (no previous TMDLs, but now exceed criteria). Cherie provided a trend snapshot. For example, bacteria levels at North Fork Moody Creek are improving (geo-mean dropped from 817 to 439) but still above 126, so still impaired. Two sites (e.g., Warm Creek and another watershed) show improvement from past TMDLs. Two sites are essentially static.

In terms of nutrient monitoring (nitrogen and phosphorus), nutrients use narrative criteria. Waters must be free from excess nutrients that cause visible slime/nuisance growth that impairs uses. For the five year review, DEQ compared new data to 2003 TMDL targets (nitrogen target: < 0.3 mg/L; total phosphorus target: < 0.1 mg/L). In 2024–2025: 6 sites were sampled (4 in TMDL reaches, 2 reference sites – Moose Creek and an upstream Teton mainstem reach). Phosphorus looks good at these sites; none exceeded 0.1 mg/L, despite prior TMDL reductions of 59–78%. Whereas nitrogen is showing increasing trends in some areas. Cherie presented some open questions: Are these nitrogen increases actually impairing beneficial uses (e.g., visible slime)? Were the original 2003 targets appropriate? Patterns vary by location: some reaches increase then decline downstream.

In terms of sediment monitoring, sediment also uses narrative criteria (no single “bright-line” number for impairment). IDEQ’s focus is on fine sediment that can harm habitat and spawning. The team collects subsurface samples with McNeil cores. Key targets include <10% fine sediment smaller than 0.85 mm (and another benchmark at 6.34 mm). For the sampling design, the team had 5 monitoring sites and 1 reference site in the Teton subbasin. Moose Creek was used as the reference (background condition). Sampling targets were likely spawning gravels; more cobbles (harder to core) generally indicates better spawning habitat. In terms of findings, Packsaddle Creek looks good (low fine-sediment levels). Parts of Moody Creek are borderline, but South Fork Moody Creek shows higher fine-sediment levels (more concern). There are 24 sediment TMDLs across 11 assessment units (AUs): 6 AUs are clearly improving, while 6 AUs are uncertain (access issues, data gaps, and possible listing errors), needing case-by-case review. Improvements are attributed to restoration projects and best management practices in the watershed.

For temperature monitoring, temperature has numeric criteria, differing by use—cold water aquatic life vs. salmonid spawning (stricter, colder). Limited new temperature monitoring was done in 2024 at Spring Creek and Fox Creek as recommended in the 2003 TMDL. Additional data from partners, like Friends of the Teton River and the Henry’s Fork Foundation will be used. Trend analysis is difficult as temperature data are fragmented (late 1990s, 2003 TMDLs, evolving methods). The current TMDL

approach for temperature focuses on shade and solar load—measuring canopy cover/shade over streams and comparing measured shade to expected natural shade for that part of the watershed. The "shade deficit" becomes the load allocation (i.e., how much more shade is needed). The main idea here is to increase shade to reduce solar heating to lower stream temperatures. However, they haven't yet seen clear declines in stream temperatures, even where air temperatures are rising.

In terms of next steps, IDEQ plans to finalize the five year review for the Teton subbasin. They will develop better temperature trend analyses by pulling together older and newer temperature datasets, and standardizing how trends are evaluated. They will update TMDLs for bacteria and temperature where needed and continue reviewing external data (e.g., from local organizations) to build a broader, basin wide picture of conditions.

Q&A: Teton River Subbasin: 5-Year Review and TMDL Development

- **Jack McLaren** asked why the sampler is hard to use in cobbly areas and if DEQ is specifically targeting salmonid spawning habitat when taking sediment cores.
    - **Cherie Windsor** confirmed that, yes, they target gravels (areas that are or resemble spawning habitat) when placing the McNeil core in the river. The difficulty of driving the sampler into cobbles just reflects that high-quality, coarse gravel habitat is harder to core, but that is exactly the type of habitat they are trying to assess.
- **Dan Powers** noted that the DEQ map shows a lot of red stream segments in Teton County. He asked for a broad, high-level explanation of what all that red means (i.e., what kind of impairments or listings it indicates), and where those problems might be coming from, acknowledging that it's a big, complex question.
    - **Cherie Windsor** clarified that many of the red segments (impaired waters) on the map come from TMDLs developed around 2003, based on assessments from the late 1990s and early 2000s. Those earlier assessments identified multiple types of impairments—bacteria, sediment, temperature, and nutrients—which are all represented in the red. The red can look overwhelming, but overall the Teton subbasin is still in "pretty good" shape. The map shows assessment units (AUs), which are stream segments of varying length. If a representative site within an AU is found to be impaired, the entire AU is listed as impaired, so a long red reach might reflect a single problem area within that segment.
- **Jack McLaren** referred back to a map slide showing many red (impaired) segments. He pointed out that one mainstem section of the Teton River is shown as "not assessed"—specifically, the reach associated with the old Teton Dam site, i.e., the area that would be inundated if a new Teton Dam were built. Given current discussions and resolutions about a potential new dam, Jack asked whether this unassessed section is likely to become a priority for DEQ to assess before any basin study or dam-related work moves forward.
    - **Cherie Windsor** noted that unassessed mainstem reach would likely be on DEQ's radar given current dam discussions, but there haven't been internal conversations about it yet.
    - On prioritizing that unassessed Teton mainstem reach, **Alex Bell** added that the answer is essentially "maybe". In terms of process, Alex clarified that Cherie (TMDL lead) gets involved only after there is evidence of a known or likely water quality impairment. First,

DEQ needs front-end information indicating a potential problem; then they investigate, determine if it's truly impaired, and if so, it gets a TMDL. In reference to why many waters are still blue (unassessed), Alex shared that some are intermittent or very small streams, where DEQ lacks good methods to evaluate whether beneficial uses are met. Even for larger mainstem reaches, it can be harder to apply existing protocols (which are well developed for wadeable streams) to answer regulatory questions. Because of these constraints, the unassessed Teton reach could become a priority, but it is not automatically one yet.

Community Building and Wrap Up

- **Keith Esplin** reflected on **Paul Arrington**'s call to get involved politically, especially with primary elections in May, which he noted will effectively decide many local races. He encouraged everyone to get involved, not just rely on a few voices like Paul's. Keith also recognized and praise another attendee (the person with the "green hand, " **Brian Murdock**) who has been consistently attending water meetings, joking that he might be having "withdrawals from farming potatoes" but emphasizing that his engagement is valuable. Keith's core point: most people don't attend many meetings unless it's their job, but if more community members showed up and engaged, the community would be better off.
- **Jack McLaren** asked DEQ to update the group on planned cuts/changes to their monitoring programs. Jack recalled earlier conversations about possible changes to DEQ's monitoring. He asked where DEQ stands now—whether there is more clarity on what monitoring will continue.
    - **Alex Bell** shared that DEQ's overall budget was cut by about 5% (~$1.5 million). For this department/group based out of Idaho Falls, the cut is about 16%. All formal Harmful Algal Bloom (HAB) monitoring has been eliminated due to cuts. But they still have some limited federal funds this year, so they will use the Bureau of Reclamation lab and qualitative field tests, visually assess sites and respond to complaints, and coordinate with public health to issue advisories. There will be no full, lab-quality official HAB monitoring this year, and next year could be worse if federal funds disappear. BURP (their main stream survey program) has been cut in half statewide. In this region, they are not running BURP at all this year. They hope is to resume next year if budget allows, but it will depend on future funding. Overall, Alex noted that DEQ is doing less with less, highlighting reduced capacity across these programs.
- **Brad Buttars** asked **Rob Van Kirk** to share his thoughts or perspectives on forecasts of a strong El Niño developing.
    - **Rob Van Kirk** noted that forecasts do point toward development of El Niño later this summer. El Niño reliably means warmer conditions locally; Rob expects it to be warm this summer, fall, and winter. The effect on precipitation is a toss up. Past El Niño years here have been very wet, very dry, and everything in between. Rob says there's no consistent correlation—people can "pick their favorite year to make their point." There is a

persistent, very warm "blob" of water in the Pacific that has lasted for years and isn't going away, reinforcing the warm outlook. Hydrologically, Rob emphasized that rain does not replace snow in this system. Most rain is lost to evapotranspiration and doesn't make it into the river. Even if it rains a lot, warm winters with low snowpack mean low spring and summer river flows. Overall, the outlook for next fall and winter is not good from a water-supply perspective: it may rain, but that won't translate into robust river flows without snow.

- **Christina Morrisett** announced that the next meeting will be on Tuesday, May 12. The agenda will include updates from the Bureau and Water District 1. There will also be introductions to the Bureau's Operations and Management Division and IWRRI will present their vision and programmatic outlook. Christina closed the meeting.