Barr Lake/Milton Reservoir Watershed Association
BMW 2024 Board Retreat
December 9th, 2024, 9:00 am – 1:30 pm
Colorado Rockies Stadium (Denver)

BMW 2024 Board Retreat Minutes

Attendance: Brent Schantz (United Water & Sanitation District), Sami Miller (BMW), Chris Newton (East Cherry Creek Valley), Andrea Stucky-Acob (South Platte Renew), Julie Tinetti (Centennial/Highlands Ranch Water), Sarah Reeves (SP CURE), Brad Cox (City & County of Denver), Steve Lundt (Metro Water Recovery)

Introductions & Welcome – The Board introduced themselves for our new attendee, Andrea.

Board Business & Housekeeping Items -

A. *The Board voted unanimously to reinstate all current officers for the 2025 year.* Two officers were not present, and Sami will follow up with them to confirm their acceptance.
   - Chair – Caleb Owen
   - Vice Chair – Steve Lundt
   - Treasurer – Curt Bauers
   - Secretary – Julie Tinetti

B. The Board will conduct an email vote for approval of the tax return once it is ready for review.

C. The Board discussed and accepted the new process of having the Treasurer designate any additional signers to the bank account in writing. This was a suggestion by the law firm in 2024 when they reviewed the bylaws.

Actions:

- **Sami** will follow up with Curt about getting signers named in writing, likely Steve Lundt only.

2024 Water Quality Recap – Steve reviewed the data and results from the 2024 water quality monitoring. See slides below. Full slides will be posted on BMW website in early 2025.

A. Dec. 10th was the 20th/last sampling for 2024. The lab data will come back in early January which will guide Steve's writeup and summary of year (Metro also does a full annual report/summary that Steve can provide).

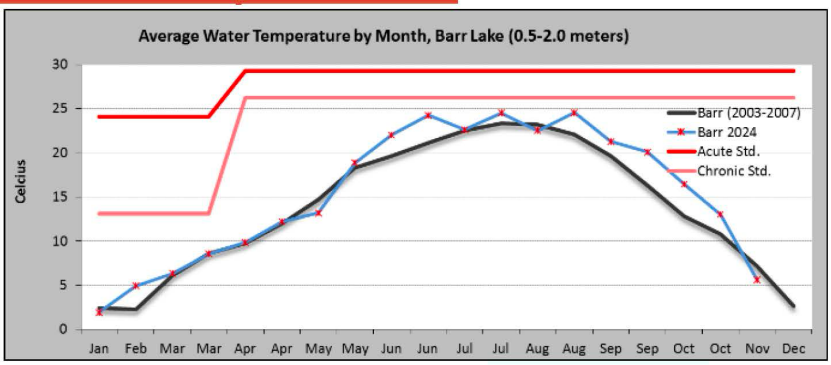
B. This water quality update helps implementation for the TMDL.

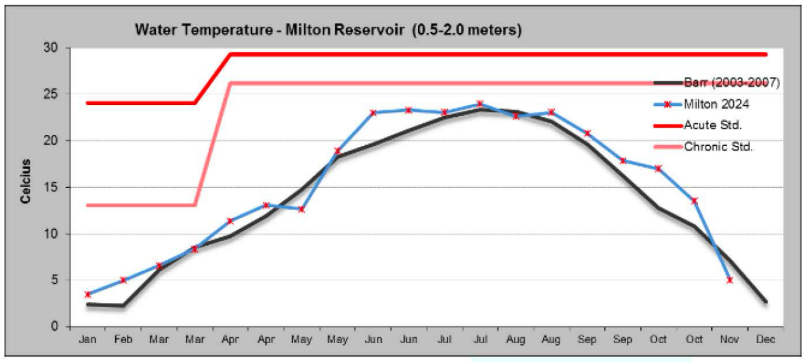
C. 2024 Highlights
   a. There are several big reservoir projects going on: outlets/lake draining; rebuilding the inlet structures which delayed refill to early Dec.; reinforcing dyke road along east side at Barr Lake (significantly removing cottonwoods and vegetation along shoreline); dredging at Milton – equipment is left there year round and there's been more stress with the HOA (FRICO doesn't have a timeline for how long it will take though) and this is the project that is really defining Milton right now.
   b. There were warmer waters for most of the year.
   c. It was a typical algae cycle/season – Milton never saw a visible bloom, but Barr Lake did have more blooms.

    d. We removed about 1500 carp from Barr and 1500-2000 annually would be a good goal.
    e. Ice off was early February this year.
D. Water depth determines if the lake is mixing top to bottom, which is why it's noted.
E. Chlorophyl-a (Chl-a) is how green it is. Water bodies are pretty green! We will probably never meet nutrient standards at 20 for Chl-a, but the cycle and how intensity of the blooms are much better than they historically have been
F. Dissolved Oxygen (DO) – when the lake is deeper, there is less oxygen at the bottom which is what we would want to look at treating with internal loading. We met DO numbers at Barr Lake (ice off at early Feb. so the open water possibly helped with that). With our continuous monitoring probe, it shows us DO measurements every 30 minutes which is nice to know how often the anoxic conditions are. Barr has more internal loading problems than Milton.
G. pH – Barr and Milton will meet the pH standards this year and we're getting to the point where pH levels are consistently being met at these lower nutrient level requirements. The blue green blooms cause the increase in pH levels. Milton has less algae than Barr.
H. Total Phosphorus (TP) – for Milton, average was 100micrograms/liter which is very close to meeting standards. Barr is closer to 200 mcg/l. Nutrients here have come down over 20 years.
I. The Burlington autosampler produces a 24-hour composite for Phosphorus (P) and Nitrogen (N) every week for the South Platte River and is used for storm events. Barr Lake is just under 14000kg (used to be 70,000) and BMW is supposed to reach 6,000kg (not to 92% reduction). BMW would meet our TMDL standards goal by February if we kept to the standard of 6000kg of TP, which seems unrealistic.
    a. South Platte Renew's tertiary treatment of P has definitely made a difference.
J. Inputs to Burlington ditch – 1st, 2nd, 3rd Creek & Beebe Pipeline
    a. None of these were part of the TMDL back in the day, likely because there wasn't a lot of data.
K. The next question for BMW in terms of water quality is what are the next sources of Phosphorus for us to look at?
    a. Internal loading
    b. In-Canal treatment
L. In-canal treatment idea from Steve
    a. Intercepting P before it goes into Barr Lake
    b. Harvey Harper is from ERD out of Florida has expressed interest in helping BMW explore Phosphorus (P) inactivation by using Allum to bind P and take it out of water and into a reservoir or estuary.
    c. Some states are comfortable using Allum, but CO has not been historically. It's not super common even though some states have been using it for 40+ years. We use it for drinking water, but it's not common to use it out in the environment such as in a lake, canal, etc.
    d. The overall idea is to conduct a pilot study on a small scale to see how it works. There is a loophole where the Beebe Pipeline is not permitted so there's no discharge permit – it's a water transfer. Not having to deal with a CDPHE permit might be helpful.
        i. There is lots of flexibility with how water is transferred to and from the South Platte.
        ii. Flows range from 5cfs to 50cfs.
        iii. The big question is why we would do it – if it's like Chemistry, we know it will work and remove P, so who are we trying to prove it to and what are we trying to prove?

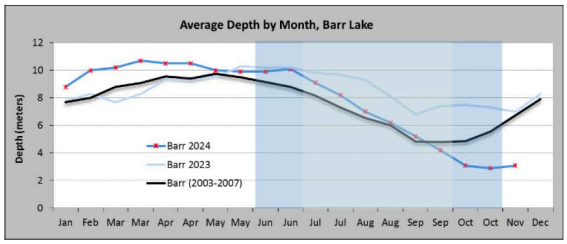
1. We've addressed all wasteload allocations, so what's the next step? A pilot study could show the state (or whoever) that we're doing all of this, but if it's not enough then we'll need Site Specific Numbers.
2. This all comes back to the question of what's next for BMW – are we just a monitoring group and if we're looking ahead to 2027 & 2048 then what's our purpose long-term?
3. *Conclusion on the pilot study was discusses in the below section of the agenda.*

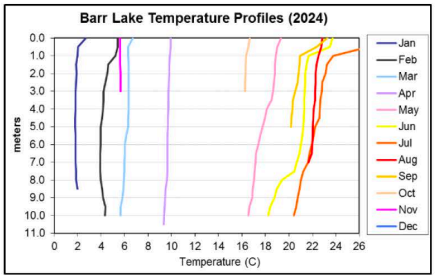
Water Temperature

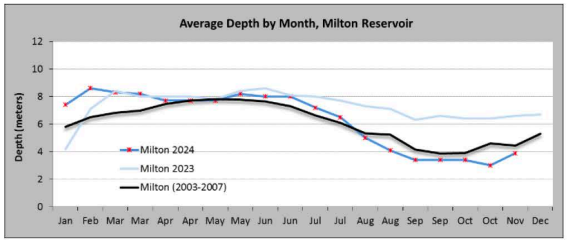


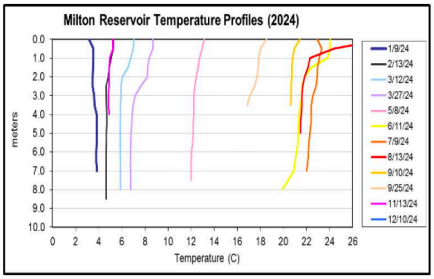


Water Depth & Lake Turn-over (de-stratification)

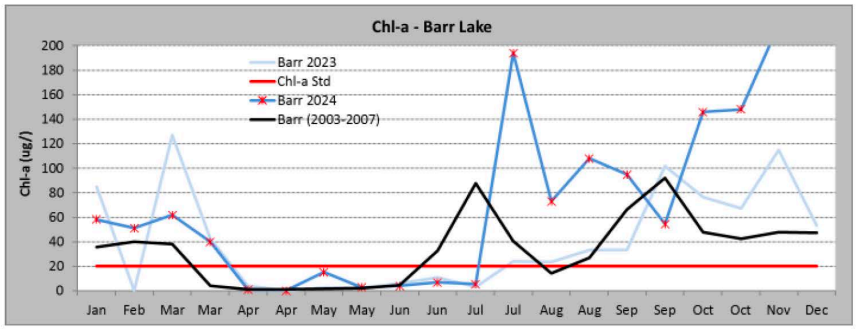


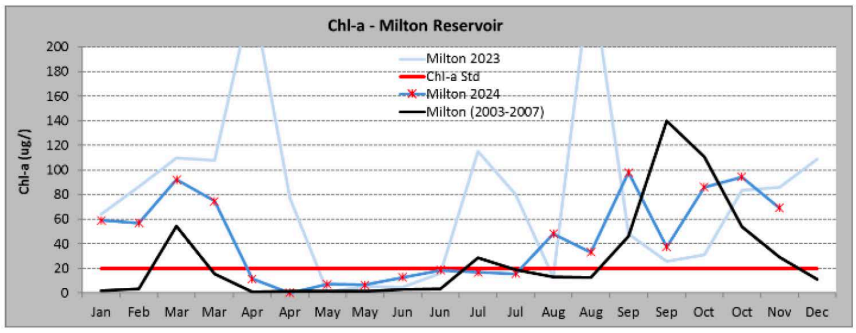






Chlorophyl-a





Dissolved Oxygen

(5.0 mg/L or higher, ave 0.5-2.0 meters)

Barr Lake

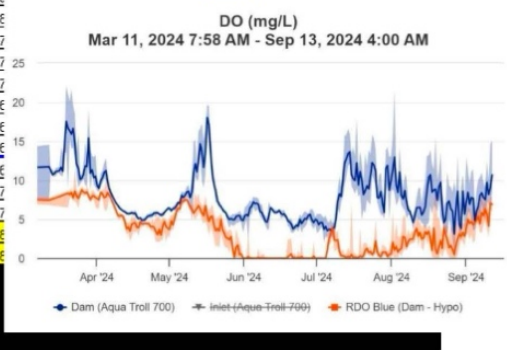
Appr. 130 days stratified (typically ~50 days)

Diatoms/Greens

Blue-Greens

Ice Off 4 weeks early

B3	Jan	Feb	Mar	Mar	Apr	Apr	May	May	Jun	Jun	Jul	Jul	Aug	Aug	Sep	Sep	Oct	Oct	Nov	Dec
Depth (m)	1/9/24	2/13/24	2/12/24	3/27/24	4/9/24	4/24/24	5/8/24	5/29/24	6/11/24	6/24/24	7/9/24	7/24/24	8/13/24	8/28/24	9/10/24	9/25/24	10/8/24	10/23/24	11/13/24	#######
0.0	14.29	23.57	12.74	14.67	7.37	5.59	8.24	6.26	6.46	6.77	5.89	13.70	8.02	13.72	13.41	17.72	9.41	17.92	12.21	
0.5	14.86	23.88	13.57	14.83	6.93	5.58	8.29	6.24	6.45	7.02	5.89	14.55	8.71	13.94	12.47	17.79	9.32	8.42	12.20	
1.0	15.09	22.59	13.56	14.92	6.93	5.57	8.40	6.25	6.29	6.66	5.91	15.69	8.53	11.89	8.83	13.74	8.96	6.47	12.18	
1.5	15.13	19.08	13.56	12.51	6.92	5.57	8.54	6.25	6.34	6.37	6.20	13.17	7.83	8.24	8.45	7.22	8.90	5.21	12.16	
2.0	15.13	17.15	13.51	10.96	6.91	5.58	8.59	6.24	6.27	6.14	6.20	10.18	7.40	7.06	8.06	5.89	8.96	3.69	12.14	
2.5	15.15	15.36	13.47	10.19	6.90	5.59	8.58	6.24	6.26	6.02	6.08	9.21	7.06	6.75	7.58	4.19	8.83	3.64	12.15	
3.0	15.07	14.41	13.46	9.99	6.85	5.58	8.51	6.24	6.27	5.88	5.9									
3.5	15.11	13.75	13.49	9.95	6.82	5.63	8.20	6.23	6.21	5.81	5.8									
4.0	15.13	13.30	13.45	9.92	6.80	5.61	8.05	6.27	6.16	5.77	5.7									
4.5	15.12	12.50	13.42	9.97	6.83	5.57	8.00	6.25	6.15	5.65	5.7									
5.0	15.12	11.62	13.34	9.97	6.79	5.56	7.94	6.14	6.07	5.28	5.7									
5.5	15.16	9.92	12.96	9.91	6.81	4.96	7.92	6.01	5.96	5.17	5.6									
6.0	15.20	8.76	12.71	9.91	6.80	5.01	7.88	5.82	5.49	5.08	5.6									
6.5	15.18	8.24	12.63	9.93	6.80	4.85	7.94	5.62	5.19	4.59	5.6									
7.0	15.15	6.92	12.58	9.94	6.79	4.77	8.05	5.51	5.06	4.55	5.6									
7.5	15.12	6.00	12.52	9.95	6.79	4.42	8.09	5.46	4.82	2.30	5.7									
8.0	15.10	5.32	12.44	9.97	6.78	4.29	8.09	5.42	2.15	0.90	5.7									
8.5	5.43	4.24	12.41	9.97	6.68	4.21	8.07	5.35	0.82	0.32	4.8									
9.0		3.27	12.33	9.99	6.44	4.19	8.05	5.25	0.32	0.00	3.8									
9.5		1.46	11.90	9.98	6.19	4.12	8.04	3.93	0.00	0.00										
10.0		1.45	10.00	9.98	5.91	3.52	7.73	3.59	0.00	0.00										
10.5				9.6665	0.1045	2.9548														



Dissolved Oxygen

(5.0 mg/L or higher, ave 0.5-2.0 meters)

Milton Reservoir

Diatoms/Greens

Ice Off 4 weeks early

(Blue-Greens Blooms but no sign of blooms)

B3	Jan	Feb	Mar	Mar	Apr	Apr	May	May	Jun	Jun	Jul	Jul	Aug	Aug	Sep	Sep	Oct	Oct	Nov	Dec
Depth (m)	1/9/24	2/13/24	3/12/24	3/27/24	4/9/24	4/24/24	5/8/24	5/29/24	6/11/24	6/24/24	7/9/24	7/24/24	8/13/24	8/28/24	9/10/24	9/25/24	10/8/24	########	11/13/24	########
0.0	11.89	18.31	15.11	13.70	8.67	6.42	7.57	6.99	8.15	6.64	7.56	10.00	13.60	7.20	7.36	9.83	13.19	14.06	12.59	
0.5	14.41	19.45	15.12	13.72	8.55	6.09	7.59	6.91	8.14	7.66	8.47	9.62	12.44	7.10	6.82	9.60	13.28	14.03	12.76	
1.0	14.42	19.34	14.98	13.30	8.68	6.03	7.56	6.93	8.25	7.69	8.05	9.12	8.21	6.60	6.14	9.36	10.53	13.07	12.60	
1.5	14.43	18.93	14.39	12.61	8.86	5.98	7.45	6.61	9.00	7.36	7.46	8.68	6.51	6.50	5.88	8.92	8.22	9.45	12.43	
2.0	14.39	17.38	13.49	12.36	8.93	5.84	7.38	6.78	9.16	7.15	7.37	8.37	5.52	6.30	5.93	8.53	7.50	7.73	12.33	
2.5	14.34	15.68	13.05	11.10	8.58	5.72	7.34	6.80	9.05	5.59	7.08	8.15	4.38	5.80	5.81	7.43	7.29	7.36	12.26	
3.0	12.85	12.76	12.91	9.81	7.96	5.69	7.35	6.82	8.72	5.26	5.80	8.02	3.96	5.75	5.31	5.60	7.03	7.16	12.29	
3.5	11.65	11.18	12.83	9.97	7.72	5.41	7.34	6.62	8.36	5.21	5.47	7.64	3.82	5.00	4.63	2.79	1.95		12.20	
4.0	9.90	10.12	12.80	10.24	7.70	5.07	7.38	6.55	7.91	5.19	5.43	6.56	3.64	3.73					12.12	
4.5	8.14	8.73	12.75	10.14	7.68	5.11	7.35	6.25	7.52	5.16	5.42	5.42	2.87							
5.0	8.24	7.60	12.75	10.06	7.62	5.03	7.37	5.61	7.34	5.14	5.40	4.53	2.45							
5.5	7.85	6.94	12.72	10.05	7.61	4.83	7.48	5.49	7.09	5.09	5.40	3.18								
6.0	7.70	6.53	12.67	9.96	7.55	4.79	7.43	5.33	6.64	5.03	5.44	2.04								
6.5	6.15	6.13	12.63	9.58	7.47	4.75	7.33	5.25	6.11	4.99	5.24	0.44								
7.0	3.94	5.81	12.63	9.39	7.43	4.65	7.26	4.57	5.73	4.96	4.37									
7.5		5.28	12.62	9.20	4.79	4.21	4.26	4.54	3.83	4.67										
8.0		4.51	9.73	9.04				4.20	1.42	3.96										
8.5		4.14																		
9.0																				
9.5																				
10.0																				
10.5																				

pH

(85th Percentile needs to be between 6.5 and 9.0, ave 0.5-2.0 meters)

Barr Lake

Blue-Greens

B3	Jan	Feb	Mar	Mar	Apr	Apr	May	May	Jun	Jun	Jul	Jul	Aug	Aug	Sep	Sep	Oct	Oct	Nov	Dec
Depth (m)	1/9/24	2/13/24	3/12/24	3/27/24	4/9/24	4/24/24	5/8/24	5/29/24	6/11/24	1/6/00	7/9/24	7/24/24	8/13/24	8/28/24	9/10/24	9/25/24	10/8/24	########	########	########
0.0	7.86	8.71	8.80	8.07	8.58	7.77	8.08	8.07	8.16	7.87	8.04	9.17	8.76	9.22	9.21	9.32	8.56	9.33	9.1686	
0.5	7.68	8.49	8.84	8.08	8.57	7.80	8.10	8.06	8.17	7.97	8.06	9.16	8.95	9.18	9.13	9.22	8.52	8.38	9.1585	
1.0	7.61	8.20	8.83	8.07	8.60	7.81	8.13	8.05	8.16	7.91	8.06	9.14	8.94	9.06	8.94	9.01	8.46	8.06	9.1507	
1.5	7.55	7.90	8.82	7.69	8.60	7.82	8.16	8.05	8.16	7.85	8.10	9.00	8.90	8.83	8.92	8.57	8.46	7.92	9.1514	
2.0	7.55	7.83	8.81	7.55	8.60	7.82	8.17	8.05	8.15	7.80	8.10	8.85	8.87	8.78	8.89	8.47	8.47	7.71	9.1495	
2.5	7.55	7.67	8.81	7.46	8.60	7.83	8.18	8.05	8.15	7.78	8.07	8.80	8.85	8.76	8.85	8.30	8.46	7.70	9.1481	
3.0	7.54	7.60	8.81	7.45	8.60	7.83	8.18	8.04	8.15	7.76	8.06	8.79	8.85	8.74	8.77	8.14	8.42	7.81	9.1408	
3.5	7.55	7.56	8.80	7.48	8.60	7.83	8.15	8.04	8.14	7.74	8.05	8.78	8.84	8.73	8.72	8.07				
4.0	7.54	7.55	8.80	7.46	8.60	7.84	8.13	8.05	8.13	7.74	8.05	8.79	8.82	8.73	8.71	7.90				
4.5	7.56	7.56	8.80	7.50	8.60	7.84	8.12	8.05	8.13	7.72	8.04	8.79	8.81	8.73	8.69					
5.0	7.57	7.43	8.79	7.51	8.59	7.84	8.12	8.04	8.12	7.67	8.04	8.78	8.80	8.67	8.60					
5.5	7.60	7.23	8.77	7.50	8.59	7.81	8.12	8.03	8.10	7.66	8.03	8.71	8.80	8.51						
6.0	7.62	7.11	8.76	7.51	8.60	7.81	8.12	8.01	8.05	7.66	8.03	8.67	8.79	8.35						
6.5	7.64	7.06	8.76	7.53	8.60	7.80	8.14	7.99	8.01	7.59	8.03	8.58	8.78							
7.0	7.62	6.93	8.76	7.51	8.60	7.79	8.17	7.97	7.98	7.60	8.03	8.53	8.70							
7.5	7.65	6.83	8.75	7.50	8.60	7.77	8.18	7.97	7.95	7.37	8.03	8.47								
8.0	7.66	6.78	8.75	7.52	8.60	7.76	8.18	7.96	7.64	7.28	8.03	8.37								
8.5	7.02	6.71	8.75	7.52	8.59	7.75	8.18	7.95	7.54	7.27	7.87									
9.0		6.69	8.74	7.54	8.57	7.75	8.18	7.94	7.50	7.25	7.76									
9.5		6.59	8.67	7.52	8.55	7.74	8.18	7.83	7.47	7.25										
10.0		6.59	8.40	7.51	8.52	7.70	7.98	7.77	6.94	6.84										
10.5				7.4966	7.8747	7.6228														

pH

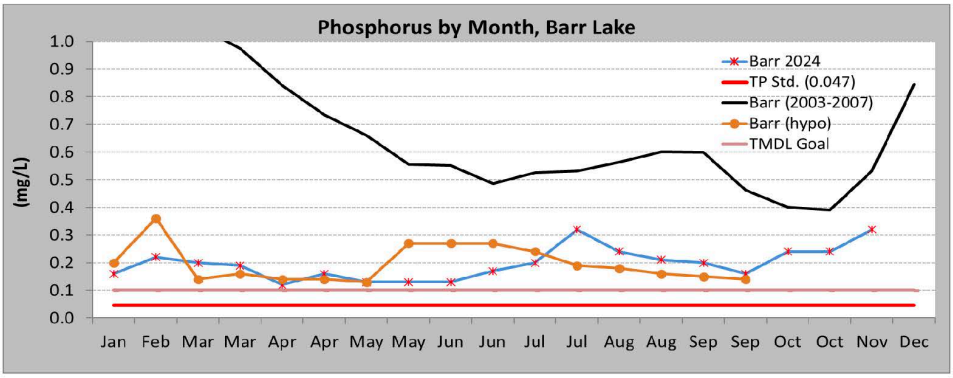
(85th Percentile needs to be between 6.5 and 9.0, ave 0.5-2.0 meters)

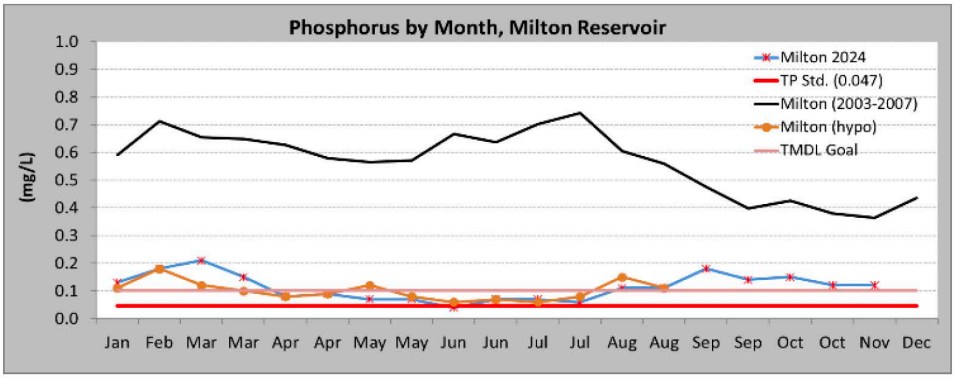
Milton Reservoir

(Blue-Greens Blooms but no sign of blooms)

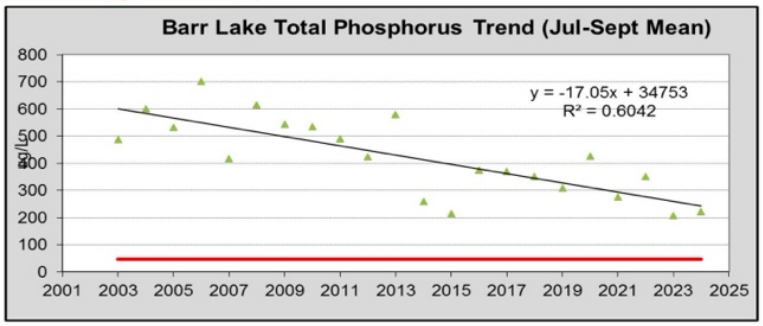
B3	Jan	Feb	Mar	Mar	Apr	Apr	May	May	Jun	Jun	Jul	Jul	Aug	Aug	Sep	Sep	Oct	Oct	Nov	Dec
Depth (m)	1/9/24	2/13/24	3/12/24	3/27/24	4/9/24	4/24/24	5/8/24	5/29/24	6/11/24	6/26/24	7/9/24	7/24/24	8/13/24	8/28/24	9/10/24	9/25/24	10/8/24	########	11/13/24	########
0.0	8.45	8.38	8.95	8.08	8.57	7.81	7.88	8.11	8.39	8.11	8.2462	8.63	9.01	8.45	8.49	8.69	9.06	9.14	8.91	
0.5	7.89	8.11	8.93	8.08	8.59	7.74	7.98	8.11	8.35	8.30	8.36	8.61	8.78	8.45	8.40	8.69	9.06	9.16	8.90	
1.0	7.82	7.92	8.90	8.00	8.63	7.75	7.99	8.14	8.37	8.28	8.29	8.50	8.17	8.39	8.28	8.64	8.81	9.07	8.88	
1.5	7.78	7.80	8.84	7.95	8.64	7.77	7.99	8.12	8.46	8.24	8.22	8.46	7.97	8.39	8.23	8.60	8.49	8.80	8.86	
2.0	7.77	7.61	8.78	7.96	8.65	7.77	7.99	8.14	8.47	8.21	8.20	8.38	7.79	8.35	8.25	8.52	8.40	8.62	8.86	
2.5	7.74	7.37	8.77	7.72	8.64	7.77	7.98	8.14	8.46	7.97	8.17	8.35	7.66	8.28	8.22	8.34	8.40	8.59	8.86	
3.0	7.58	7.03	8.75	7.56	8.57	7.77	7.99	8.14	8.44	7.93	8.01	8.34	7.60	8.25	8.10	7.98	8.34	8.57	8.86	
3.5	7.52	6.90	8.75	7.56	8.55	7.77	7.99	8.12	8.40	7.92	7.97	8.25	7.57	8.14	7.94	7.58	8.28		8.85	
4.0	7.39	6.83	8.74	7.60	8.55	7.75	8.00	8.12	8.36	7.91	7.96	8.08	7.54	7.84					8.85	
4.5	7.28	6.75	8.74	7.55	8.55	7.75	8.00	8.09	8.33	7.91	7.96	7.87	7.48							
5.0	7.30	6.65	8.74	7.52	8.55	7.75	8.01	8.03	8.31	7.90	7.95	7.74	7.45							
5.5	7.25	6.66	8.74	7.54	8.54	7.75	8.02	8.01	8.30	7.90	7.97	7.60								
6.0	7.24	6.64	8.74	7.53	8.54	7.74	8.02	8.01	8.24	7.89	7.98	7.52								
6.5	7.12	6.62	8.74	7.52	8.53	7.74	8.02	8.00	8.18	7.89	7.95	7.45								
7.0	6.97	6.66	8.74	7.49	8.53	7.74	8.01	7.94	8.13	7.89	7.83									
7.5		6.57	8.74	7.47	8.41	7.69	7.98	7.93	7.85	7.86										
8.0		6.59	8.32	7.42				7.74	7.60	7.80										
8.5		6.58																		
9.0																				
9.5																				
10.0																				
10.5																				

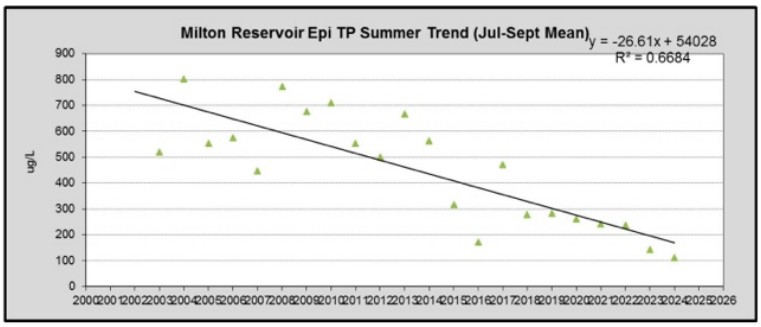
Total Phosphorus



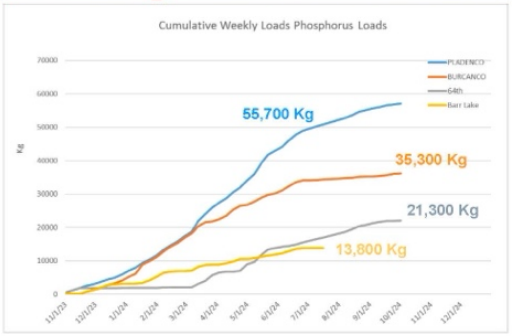


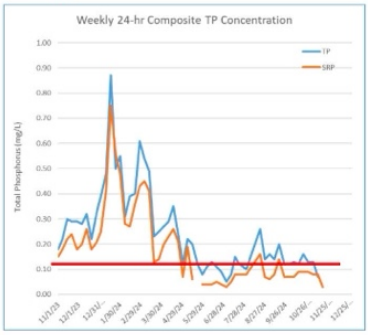
Total Phosphorus

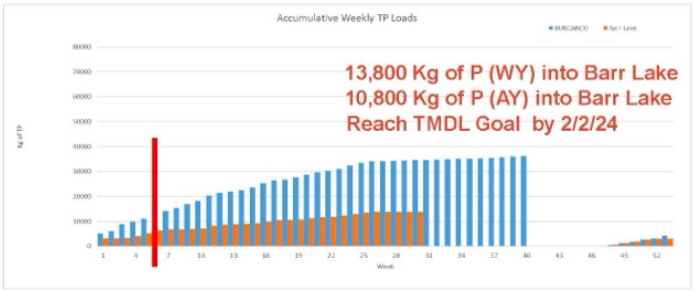




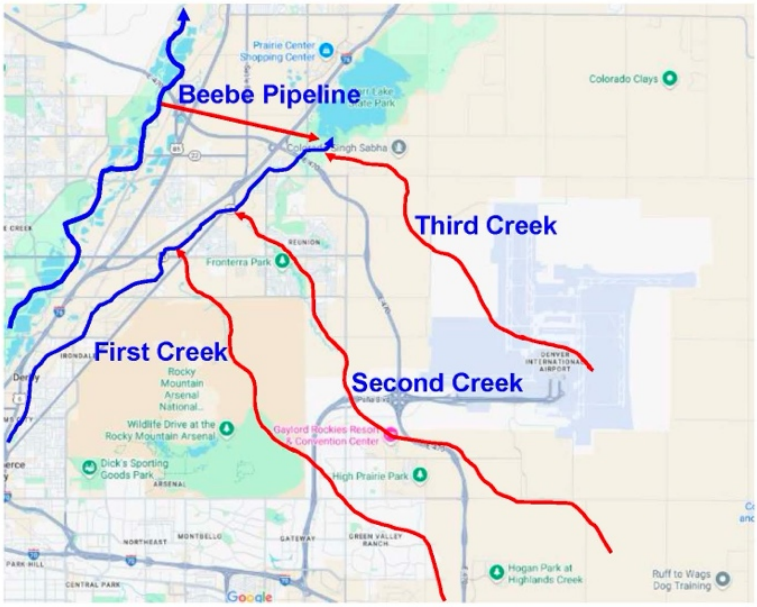
Burlington Auto-Sampler



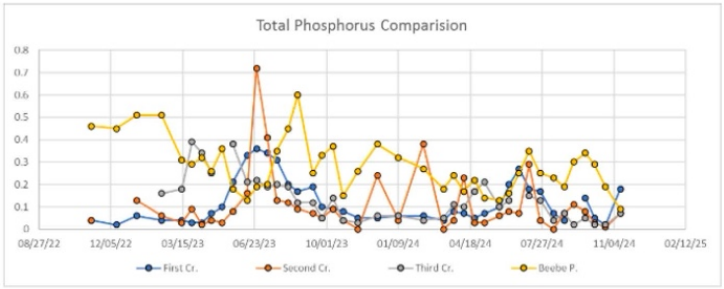


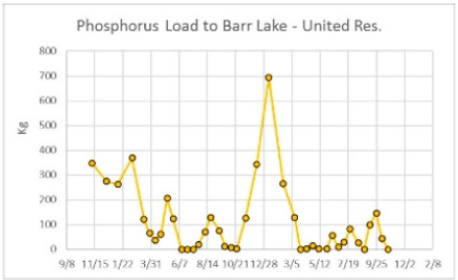


Inputs to Burlington Ditch



Inputs to Burlington Ditch



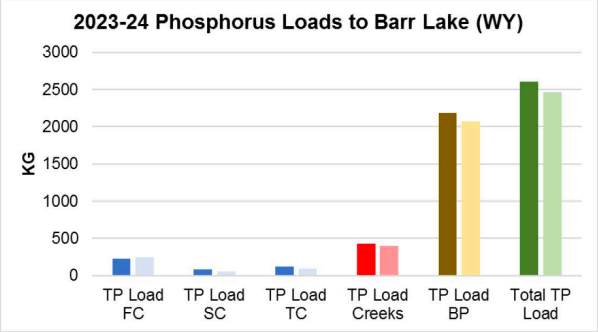


- About 100 Kg of P/week
- 25% - 32% of the TMDL Load Goal

TMDL Allocations

Table 4.1 Barr Lake Load Allocation Strategy					
Source	Current Load		Rationale	Reduction	Target (kg/yr)
	kg/yr	%			
Wasteloads					
Burlington Pump Works	26,075	37.1%	TP Treatment upgrade: 2.8 mg/L to 0.10 mg/L	96.5%	913
Littleton-Englewood WWTP	33,893	48.2%	TP Treatment upgrade: 2.9 mg/L to 0.10 mg/L	96.5%	1,186
Centennial WWTP	1,194	1.7%	TP Treatment upgrade: 0.70 mg/L to 0.10 mg/L	85.5%	173
MS4 Regulated Areas	2,189	3.1%	Some activity over last decade, plus more BMPs	20.0%	1,751
Wasteload Total	**63,351**	**90.1%**		**93.6%**	**4,023**
Loads					
Upstream Background	3,025	4.3%	75% TP reduction through in-canal treatment to reservoir	75.0%	756
Benthic P Load from Barr	4,000	5.7%	In-lake treatment to inactivate P in upper 10 cm of sediment	75.0%	1,000
Load Total	**7,025**	**10.0%**		**75.0%**	**1,756**
Total Load	**70,376**	**100%**	Target load of 5,900 kg/yr & in-lake July-September concentration maximum of 0.10 mg/L	**91.8%**	**5,779**

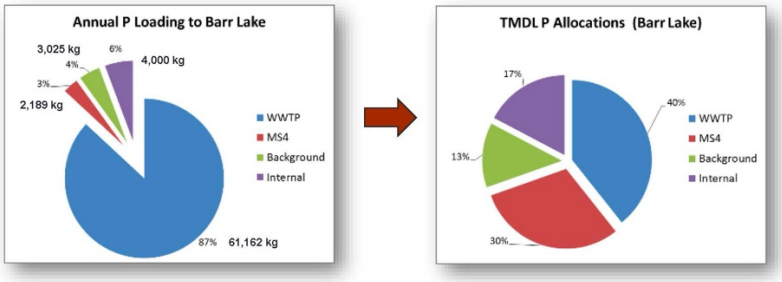
Beebe Pipeline Pilot Study Idea



25% - 32% of the TMDL Load Goal

Phosphorus Reductions

(Barr Lake, 2013 pH & DO Phased TMDL)



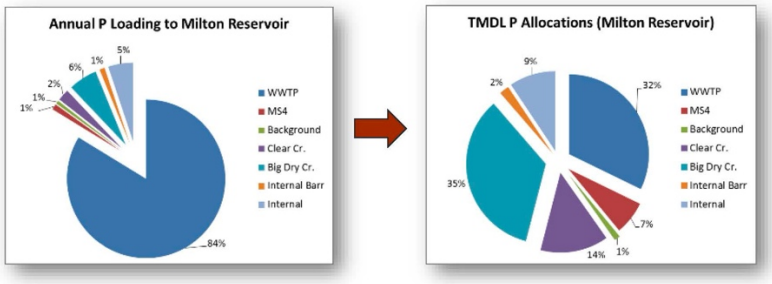
70,376 Kg/yr (2004 data)

(92% reduction)

5,779 Kg/yr (20??)

Phosphorus Reductions

(Milton Reservoir, 2013 pH & DO Phased TMDL)



38,999 Kg/yr (2004 data)

(86% reduction)

5,319 Kg/yr (20??)

Scenario Planning Continuation – With recent nutrients timelines being pushed and the progress made over the past year, the Board continued the discussion from 2023-2024 on scenario planning.

A. In 2023 we talked about 2027 nutrient standards and possible scenarios, recapped below:
    a. Scenario 1: Instream standards are set higher than current interim value - we didn't spend any time here because this has very low to no probability of happening.

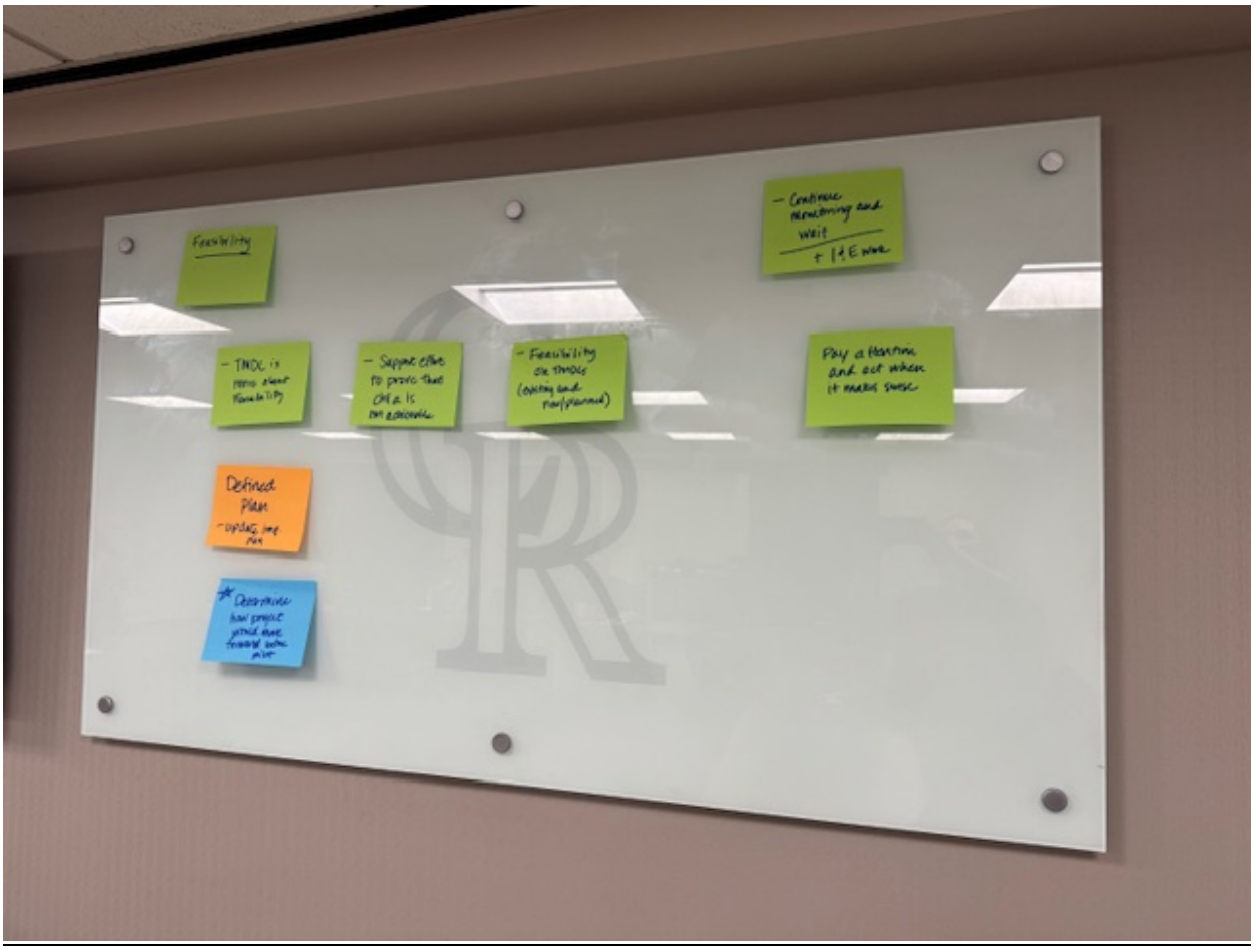
b. Scenario 2: Reservoir standards are controlling – BMW would continue to be a key player and efforts to do in-canal and in-reservoir treatment would likely be funded and move forward.
c. Scenario 3: Instream standards are controlling – BMW would be less of a focus and dischargers would likely focus efforts on maximizing treatment at their facilities. Funding of in-canal and in-reservoir treatment would fall to other stakeholders.

B. One of the outcomes of the discussion was to determine the break point between those two scenarios (reservoirs are controlling or streams are controlling) and talked about working on that in 2024. In the end, we did not move forward on this effort because the Water Quality Control Division (WQCD) started a nutrients feasibility effort that has changed the standards timeframe and will likely impact its framework/implementation.
    a. There was a realization from state that smaller plants (about 80% of the existing facilities) can't afford the interim standards, so the WQCD decided to explore options for making sustained progress using existing flexibilities in policies/regulation.
        i. Two objectives from state have been identified:
            1. Objective 1 Feasibility: where we look at what's really feasible across different variables like cost, technical feasibility, environmental impact, community impact/environmental justice, etc.
                a. How would we implement it? How do we take what's feasible and implement in a permit?
                b. Right now, funds are being collected to pay for the National Water Research Institute to convene a panel of experts to help with objective #1 (what's feasible). There will be a 5–6-person expert panel for tech, impacts, etc.; they'll need data and info for wastewater treatment. They're writing the statement and scope right now and should be getting a SOW any day and will give comments on that.
            2. Objective 2 Implementation: a stakeholder group is looking at how to make progress on what is feasible using existing flexibilities/tools. The state would like to focus on using tools we already have (SSS, schedules in permit, etc.).
            3. The state continues to push the adoption date for standards out further, possibly 2029 for now.
C. In 2023, we also talked about if decisions get hard to make and we don't all agree, what do we do then; do our bylaws support what we need to do for voting?
        i. In 2024, Chris took us through the BMW bylaws and had an attorney look through it and we decided (through the law firm's recommendation as well) that we are comfortable with where our bylaws stand.
D. Our question is: what does it look like for us now?
        i. Is the TMDL going to drive us? Do we need more watershed implementation to get levels as low as we can then take these to the state to show them that we continue to make progress (could help answer feasibility objective)? Is this expected by the state? The state is not very hands on; BMW is basically "driving the bus" and it seems we can choose our own path at this point. Question for state: What is the impact of

feasibility on TMDLs (both for existing TMDLs and those that are new or planned)?

ii. If we work under the state's "feasibility" perspective, then we need to keep that question top of mind INSTEAD of pursuing a site-specific standard…always coming back to the question: what is feasible? The TMDL is more in alignment with feasibility because of the way it was set up (staged and adaptive).
    1. If we say this is just what we're going to do the state will probably not push back.
    2. Support effort to prove that Chl-a is not achievable.
    3. What if we follow the state's lead and work on our own feasibility process by identifying smaller projects that develop into more DEFINED plans for things like in-canal treatment?
    4. Do we need to determine how/if a project would move forward BEFORE we do something like a pilot?
    5. We could update the implementation plan. We're still in Stage 2, working through Reg 85.

E. Steve suggested considering a pilot study with Harvey Harper to determine how we might do alum dosing without having to get a permit to add alum and go through the whole in-canal treatment effort. The group discussed the option of dosing while the water is being diverted into some gravel lakes, so it is out of the jurisdiction of the WQCD (just part of a water rights transfer).
    i. The Board discussed a pilot project for treating Phosphorus with alum at length. The Board voted to approve up to $10,000 for a minimal/bare-bones scope and estimate from Harvey Harper for a project like this. BMW would pay his hourly fees and expenses for Harvey to come out and look at the system and determine the best solution.
        1. BMW is seeking a scope with a conceptual plan with recommendations on rough dosing and expected results.
        2. The Technical Committee can approve a contract for him up to $10k
            a. Board voted thumbs up to approve up to a $10k budget for Harvey to come out to scope the pilot project.
    ii. The Board agreed to then stay the course and see what happens with the feasibility effort and, in about 2 years, come back to it and determine next steps.
    iii. In 2 years, it should be clearer what dischargers will be required to do.
    iv. Continue monitoring and focus more on information and education in the interim. Pay attention and act when it makes sense.



Action:

- **Sami** will find and update goals graphic to website.
- **Steve** will connect with Harvey and the Tech Committee to get the ball rolling on the pilot project estimate.

TMDL Implementation – The Board will discuss future TMDL implementation planning and how it may relate to our scenario planning exercise.

A. This agenda item was absorbed into the WQ update and scenario planning items.

Other Updates or Discussions –

A. The board discussed the meeting calendar for 2025 and when to hold meetings. In 2024, about halfway through the year, the Board decided to move to holding meetings about every other month and keeping the "off" months as time on the calendar for "study sessions" to reserve the time on the calendar should we need it, but not necessarily hold a formal meeting.
    a. The Board decided to continue this every other month (the even months) meeting schedule for 2025.
    b. It was also decided that as a Board, BMW will focus a lot on I&E in the next year or two as the plan for the new nutrients standards hopefully becomes clearer. This will help give BMW a clearer focus on efforts and time.

c. Sarah suggested we use the February board meeting to plan out all of our agendas for the year, so it's done, and we know what we're working on ahead of time.
d. The February meeting will take place at B&C in Golden. Sami can prep agendas for the rest of the year that we'll work on.
e. There are lots of website updates that are needed.
f. Sami also plans to work on file organization as there are many, many files all the way back to 2010/2011 and things are a little unorganized from over the years.

Actions:

- **Sami** – Get February Board meeting details set & have Caleb create Teams invites for the year. Work with Sarah on any details for the meeting space we'll use in Golden at Brown & Caldwell. We'll plan agendas all at once in a batch at the Feb. meeting.
- **Sami** – Draft a calendar for 2025 meetings to include in all agendas
- **Sami** – website updates; start collecting and organizing what's needed.
- **Sami** – file organization

Wrap Up, Next Steps & Future Meeting Topics–

Board Topics	Technical Committee Topics
I&E impacts	Pilot study with Harvey Harper
Website updates	
2025 Agendas	

Next Meetings (2025)

- **I&E meeting** – January 7th, 10-11am, virtual
- **TC meeting** – January 23rd, 9-10am, virtual
- **Board meeting** – February 25th, 9-11am, Brown & Caldwell Offices in Golden (Hybrid/Teams option available)

2025 BMW Meeting Schedule

JANUARY • I/E meeting • TC meeting • Study session/no mtg	**FEBRUARY** • **Board meeting (1) – B&C in Golden/online** ○ approve new contracts ○ I&E comm invited? ○ Agenda workshop	**MARCH** • I/E meeting • TC meeting • Study session/no mtg
APRIL • **Board meeting (2) – location TBD** ○ June mtg planning	**MAY** • I/E meeting • TC meeting • Study session/no mtg ○ tour prep?	**JUNE** • **Stakeholder Tour (3) – location TBD** ○ vote on new budget
JULY • I/E meeting • TC meeting • Study session ○ Sept mtg planning	**AUGUST** • **Board meeting (4) – location TBD** ○ Sept mtg planning	**SEPTEMBER** • I/E meeting • TC meeting • **Stakeholder BBQ/Meeting (5) – location TBD** ○ vote on at-large members
OCTOBER • Study session ○ retreat prep	**NOVEMBER** • I/E meeting • TC meeting • Retreat prep	**DECEMBER** • **Board Retreat (6) – 2nd Tuesday in Dec; location TBD** ○ vote on corporate docs/updates; ○ vote on tax return ○ vote on officers

BMW I/E Events for 2025 - TBD

Date	Event	Activity	Name and contact