

PUBLIC MEETING MINUTES

Wednesday November 22nd, 2023, 10:30am

This meeting will be held via zoom only

I. Regular Board Meeting Public Forum

A. Call to Order/start recording

The meeting was called to order at 10:31 and recording was started. Altman and Olsen were present making quorum.

B. Revise October Meeting Minutes- Action

The board members had reviewed the minutes previously.

Olsen moved to approve the October meeting minutes. Altman seconded. No Discussion. The motion passed unanimously.

C. Public comment on relevant non-agenda items – *Discuss* None.

II. New Business

A. Board member updates and correspondence – Discuss

None not covered in other agenda items.

B. Annexation and Outreach Committee updates – *Discuss*

A meeting was held last Friday. It was decided that a mailer with annexation information and the petition form should be sent out. Significant in-person communications have been done – this will help spread the message further. A draft has already been developed – this will be updated and reviewed by the subcommittee before being sent out by WGM Group.

Syncing GCCWSD outreach and Gallatin River Task Force outreach efforts can be explored.

After the new year, some in person outreach events in Big Sky should be held. A local facilitator should be engaged - Meg O'leary was mentioned as a potential option for this roll.

a. Annexation Petitions Review and Potential Annexation Ordinance - Action

Annexation petitions need to be approved through an ordinance, not a simple resolution. This requires reading and approval of the proposed ordinance to annex at two meetings before it takes effect. Draft ordinances are currently being reviewed by legal counsel.

Legal is also being consulted to make sure there are no obligations to provide service to an annexed property if other neighboring properties don't annex and make it cost effective.

Jon requested that the map of properties requesting annexation be updated to include a reference to the legal description included in the draft ordinance.

Outreach mailer and event planning - Discuss, maybe Action Discussed above

C. Board Member Appointments and Resignation – Discuss Tabled.

D. BSCWSD-BSRAD-GCCWSD "joint project subcommittee" Updates – Discuss

No formal agreement was made but there is some understanding that the funds GCCWSD puts towards paying the BSCWSD bills would be reimbursed by BSCWSD eventually in the project.

E. Canyon Sewer Project Updates – Discuss

Before the last board meeting, the board was provided with a 30% design plan set. That is still available to them.

Shane Strong (WGM) provided an overview of construction costs estimates based on 30% design (see attached – note that all values presented are very preliminary). This does not include engineering, contingency, and other such markups to construction costs.

Kalistead (service area 3) seems open to a lift station on his property if needed. They'd want to know more about impacts of the planned MDT roundabout at the intersection of 191 and 64 on his property before committing to much for the Sewer. Significant coordination with that property will be an important next step.

Service area 4 (east side of the highway) is the most expensive for collection construction, largely due to deep pipe needs, high groundwater, and easements needed. The amount of existing load collection is much higher here, so probably cost effective. Altman clarified that sewering this area is a main mission of the GCCWSD, to serve existing properties and remove existing nutrient loads.

Lazy J already has a collection system and can be tapped into without adding much collection infrastructure on the property. This same collection line can serve Buck's T-4 as well. Generally, they are trying to connect to existing systems in the least disruptive way.

Coordination with landowners to align collection and discharge designs with properties long term plans will be an important next step before design progresses much farther.

Significant DEQ coordination is ongoing throughout the design process.

DEQ will likely allow existing collection systems to connect to the GCCWSD without upgrading to existing standards (within reason).

Ramshorn can be collected by tapping into the existing three collection points.

The mainline along highway 191 will be sized to handle additional flow in case other areas choose to connect in the future.

This cost breakdown will inform AE2S's upcoming connection cost and rate study.

Some cost-saving considerations for collection were briefly discussed.

Geotechnical studies have been delayed until January or February.

F. Discharge Alternatives Review and Priority area selection – Action

Preliminary Discharge alternatives were overviewed. Lazy J drainfield, Buck's T-4 lagoons, Ramshorn's 3 drainfields, School's drainfield and opens space, FWP property as potential wetland treatment and discharge, and various areas of irrigation were evaluated.

Abby Indreland (WGM) presented an overview of Discharge infrastructure and permitting work to date.

The initial focus was on existing systems with existing discharge permits, per DEQ's recommendation. There will need to be some new infrastructure in any scenario.

Lazy J field work as shown there is a restrictive clay layer in the proposed expansion area that may limit use of this area. Lazy J's water rights required most domestic water be discharged to the ground (non-consumptive use). Additional coordination with DNRC is needed to see if this has to be discharged within the property boundary or just to the same aquifer.

Buck's T-4 lagoons were evaluated as potentially retrofitted to be a rapid infiltration bed (RIB). The lagoons could also be abandoned, regraded and turned into an irrigated lawn for discharge with similar capacity as the RIB. Significant owner coordination would be required before progressing design. Other alternatives on the property could potentially be evaluated, but close coordination with future development plans would be required. Mace was asking about potential drainfields under a parking area – DEQ generally would not allow this.

Ramshorn has 3 existing drainfields with a discharge permit covering 2. Replacement area was planned to be between existing laterals. This space could be utilized to expand capacity, but it would increase the technicality of construction and cost. This would likely be able to hand significant discharge.

The school was evaluated for reuse of their drainfield – this design is closer to 10% instead of 30%. There is room for expansion of the existing system. DEQ highly recommended further investigation of discharge at this site.

Coordination with the School, Ramshorn, etc. has been tabled until better costs and rates are available from AE2S.

Land application, via irrigation is being evaluated. An associated report will be available to the board next week. An overview of evaluated irrigation areas and preliminary capacity and costs were presented. Note that this represents roughly 10% design. This is limited to summer discharge only. This may be an important tool in getting sufficient timing and nutrient control.

This requires no storage or ponds in the Canyon.

A treatment wetland concept was also presented. This was evaluated at the FWP land, but landowner coordination indicates this site will likely not be available. This same concept could be used in other large open spaces. The school and Kalistead property have been floated as a potential area. FWP may be more open to this in the future. Treatment wetlands can remove significant amounts of nutrients.

Cost estimates and preliminary recommendations for these discharge sites were evaluated (see attached).

Current recommendations would be to proceed with design for the green highlighted alternatives – these are recommended for Phase 1. Other options may become more favorable for future phases.

Additional field work will help confirm assumptions that went into these preliminary designs.

The Quarry is still on the table for GCCWSD discharge – they are progressing their work separately for now.

Disposal is the key part to determine feasibility.

Some next steps can be covered by the existing budget. DEQ and landowner coordination in the next few months will help confirm current recommendations of which discharge alternatives to continue pursuing. Additional work orders and budget will be required for next year's field work and design. This is likely two months or so out. Modeling would be included in a future work order and budget as well.

Cost/capacity and landowner willingness are vital.

Connection costs could be reduced in exchange for discharge capacity/ use of land for discharge. Impending costs of needed upgrades to existing systems if they didn't connect to sewer should also be evaluated.

The board should spend more time soaking this in in preparation for future decisions on which direction to take.

G. BSCWSD ARPA Funds Request - Discuss, maybe Action

All invoices up for payment were included in the board packet. Several are from BSCWSD's project-related costs. The board had approved covering some of these costs using ARPA funds at the last meeting.

Once feasibility is demonstrated, the \$12M BSRAD pot of money will be released – this is What BSCWSD plans to rely on going forward.

Scott asked - at next meeting, can AE2S give a presentation on what they have done for the Highway 64 corridor? Kelsey (AE2S) gave a quick update. Largely, work has been focused on data collection, survey, wetland delineation, but some preliminary 30% design and cost estimates are available – these will be shared with the board members. Modeling of pressures in the reuse pipe to Ophir school have also been done. AE2s can present more at the next meeting. A short report summarizing work to date is also in progress. The MDT roundabout at the intersection of Highway 191 and 64 may require some changes to design.

H. BSRAD and ARPA Draw Requests and Invoice Payments – Action

A summary of invoices up for payment and proposed funding strategy to cover these was presented.

ARPA Ask	\$ 272,729.66		BSCWSD Payments \$ 193,106.68	\$ 193,106.68		Quarterly reports	ARPA - PHASE 1.1 Quarterly reports by 7th of month following quarter close.	ving quarter close.	All	BSRAD - PHASE 1.1 All grant admin paid by BSRAD.	p.
nenan reasibility Ash					CASH ON	State ARPA	County ARPA - Combined for Submittals	ined for Submittals	EVOA Budant	Familie:	
BORAD FEASIBILITY ASK	\$ 34,327.07				HAND	For costs between 3/3/21 & 12/31/26	For costs between 3/3/21 & 12/31/24 (costs paid before 12/31/26)	6/3/21 & 12/31/24 ore 12/31/26)	(7/1/23-6/30/24)	(communal w/BSCWSD)	Interlocal
FY24 Draw	\$ 15,266.65					Competitive	Min Allocation	LFR			
Total Current Invoices	\$ 342,323.38				\$ 57,434.81	.99	\$ 542,480.00 \$	\$ 207,520.00 \$	\$ 164,268.75 \$	\$ 301,239.36 \$	\$ 12,000,000.00
Invoice Date	Vendor	Invoice Number	Amount	Project #	\$ 95,603.56	\$2M	\$542,480	\$207,520	\$200,000	\$380K Spend before the \$12M	\$12M
11/1/2023	Knaub & Co.	110123-40	\$ 176.00	accounting					\$ 176.00		
10/1/2023	Knaub & Co.	100123-32	\$ 219.45	accounting					\$ 219.45		
6/24/2023	AE2S/BSCWSD	88043	\$ 17,787.74	BSCWSD		\$ 17,787.74					
7/24/2023	AE2S/BSCWSD	88705	\$ 60,729.09	BSCWSD		\$ 60,729.09					
8/22/2023	AE2S/BSCWSD	89364	\$ 38,934.63	BSCWSD		\$ 38,934.63					
10/24/2023	AE2S/BSCWSD	90596	\$ 75,655.22	BSCWSD		\$ 75,655.22					
11/6/2023	WGM Group	70379	\$ 6,151.90	200323.3					\$ 6,151.90		
11/6/2023	WGM Group	70380	\$ 6,173.10	200323.4					\$ 6,173.10		
11/7/2023	WGM Group	70415	\$ 22,226.20	220724.3		\$ 6,536.10				\$ 15,690.10	
11/7/2023	WGM Group	70411	\$ 32,577.74	220724.2		\$ 32,577.74					
11/7/2023	WGM Group	70414	\$ 19,862.52	220724.1						\$ 19,862.52	
10/10/2023	WGM Group	70207	\$ 8,077.20	220724.3		\$ 1,697.50				\$ 6,379.70	
10/10/2023	WGM Group	70203	\$ 38,811.64	220724.2		\$ 38,811.64					
10/10/2023	WGM Group	70205	\$ 12,394.75	220724.1						\$ 12,394.75	
10/11/2023	WGM Group	70263	\$ 1,563.10	200323.3					\$ 1,563.10		
10/11/2023	WGM Group	70264	\$ 983.10	200323.4					\$ 983.10		

Altman moved to authorize the BSCWSD ARPA draw request plus the GCCWSD ARPA and BSRAD draw requests and all associated payment of invoices as presented.

III. Old Business

A. Water PER Engineering Scope and Budget – Action

A rough scope was briefly presented as a preview of the direction WGM Group and AE2S are taking it. A Scope will be up for discussion and approval at the next meeting.

County ARPA provided \$25,000 for this effort. Fiscal year 2024 BSRAD funds will help cover the rest of this effort. June 2024 is the initial due date, to align with BSRAD funding.

B. Annual Fiscal Report to Local Government Services FY 23 – *Discuss, maybe Action*

Altman, Jessica, and WGM will meet to finalize this and the Fiscal Year 2024 budget update.

C. Fiscal Year 2024 budget update - Discuss, maybe Action

Tabled

D. Bylaw update - Discuss, maybe Action

Tabled

E. District Legal Counsel Letters of Engagement (Matt Williams) – Discuss, maybe Action

F. Board Member COI Disclosure (Schumacher) – Discuss

Tabled

IV. Any Other Business Which May Properly Come Before the Board – Discuss

None.

V. Next Meeting Planning

A. Date & Draft Agenda - Discuss

A meeting was penciled in for January 3rd, 10:30am, zoom only. A second meeting in January will likely be needed as well.

VI. Adjourn

Olsen moved to adjourn the meeting at 12:04. Altman seconded. No discussion. The motion passed unanimously.

Minutes Drafted by: Michelle Pond, WGM Group

Minutes Approved: 1/3/2024 Signed: Scott Altman, Board President

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GCCWSD MEETING ATTENDANCE SHEET

10:30 AM; 11/22/23; Zoom Only



#	Name	Affiliation	Contact	Remote Attendance?
1	Michelle Pond	WGM Group	Mpond@wgmgroup.com	X
2	Mace Mangold	WGM Group	mmangold@wgmgroup.com	X
3	Scott Altman	GCCWSD Board	orock9530@me.com	X
4	Jon Olsen	GCCWSD Board	jolsen@lonemountainland.com	X
5	Shane Strong	AE2S	sstrong@wgmgroup.com	X
6	Steve Johnson	BSRAD	steve@resorttax.org	X
7	Kristin Gardner	Ramshorn + GRTF	kristin@gallatinrivertaskforce.org	X
8	Marlene Sadaj			X
9	Kelsey Wagner	AE2S		X
10	Abby Indreland	WGM Group	aindreland@wgmgroup.com	X
11	Nick Banish	GLWQD		X



PUBLIC MEETING AGENDA

Wednesday November 22nd, 2023, 10:30am

This meeting will be held via zoom only

https://us06web.zoom.us/j/81108956137?pwd=bHHFFriLaFRFayAXZTCGUasP43NMQ4.1

(see next page for call in details)

I. Regular Board Meeting Public Forum

- A. Call to Order/start recording
- B. Revise October Meeting Minutes- Action
- C. Public comment on relevant non-agenda items Discuss

II. New Business

- A. Board member updates and correspondence Discuss
- B. Annexation and Outreach Committee updates Discuss
 - a. Annexation Petitions Review and Potential Annexation Ordinance Action
 - b. Outreach mailer and event planning Discuss, maybe Action
- C. Board Member Appointments and Resignation Discuss
- D. BSCWSD-BSRAD-GCCWSD "joint project subcommittee" Updates Discuss
- E. Canyon Sewer Project Updates Discuss
- F. Discharge Alternatives Review and Priority area selection Action
- G. BSCWSD ARPA Funds Request Discuss, maybe Action
- H. BSRAD and ARPA Draw Requests and Invoice Payments Action

III. Old Business

- A. Water PER Engineering Scope and Budget Action
- B. Annual Fiscal Report to Local Government Services FY 23 Discuss, maybe Action
- C. Fiscal Year 2024 budget update Discuss, maybe Action
- D. Bylaw update Discuss, maybe Action
- E. District Legal Counsel Letters of Engagement (Matt Williams) Discuss, maybe Action
- F. Board Member COI Disclosure (Schumacher) Discuss

IV. Any Other Business Which May Properly Come Before the Board – Discuss

V. Next Meeting Planning

A. Date & Draft Agenda - Discuss

VI. Adjourn

Public comment is encouraged before all non-emergency non-ministerial Actions.

Meeting Agendas



Join Zoom Meeting

https://us06web.zoom.us/j/81108956137?pwd=bHHFFriLaFRFayAXZTCGUasP43NMQ4.1

Meeting ID: 811 0895 6137 Passcode: 561149

One tap mobile +17193594580,,81108956137#,,,,*561149# US +12532050468,,81108956137#,,,,*561149# US

Dial by your location

• +1 719 359 4580 US

• +1 253 205 0468 US

• +1 253 215 8782 US (Tacoma)

• +1 346 248 7799 US (Houston)

• +1 669 444 9171 US

• +1 669 900 6833 US (San Jose)

• +1 301 715 8592 US (Washington DC)

• +1 305 224 1968 US

• +1 309 205 3325 US

• +1 312 626 6799 US (Chicago)

• +1 360 209 5623 US

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• +1 507 473 4847 US

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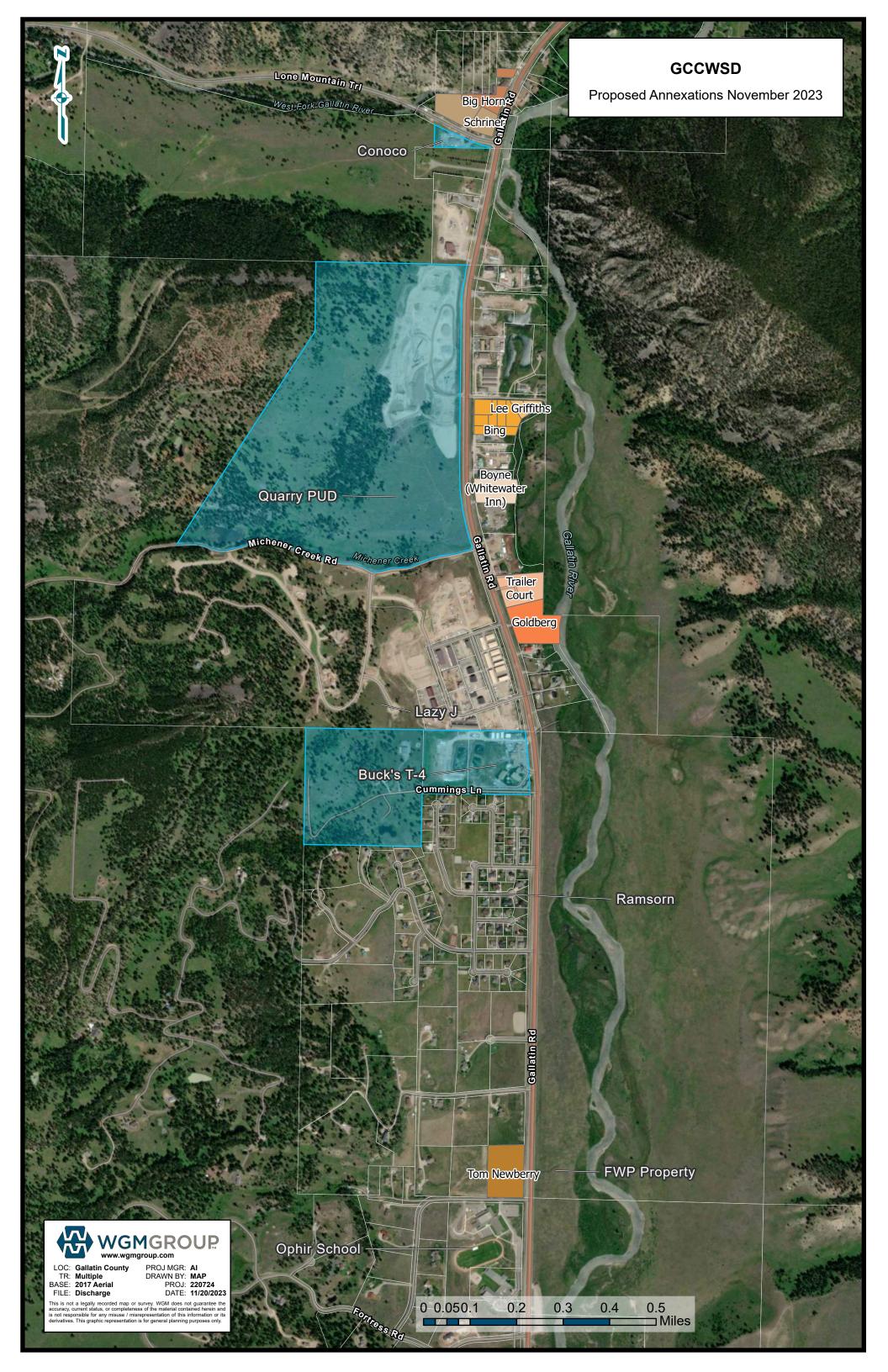
• +1 646 931 3860 US

• +1 689 278 1000 US

• +1 929 205 6099 US (New York)

Meeting ID: 811 0895 6137 Passcode: 561149

Find your local number: https://us06web.zoom.us/u/kdlWHfQ4wZ



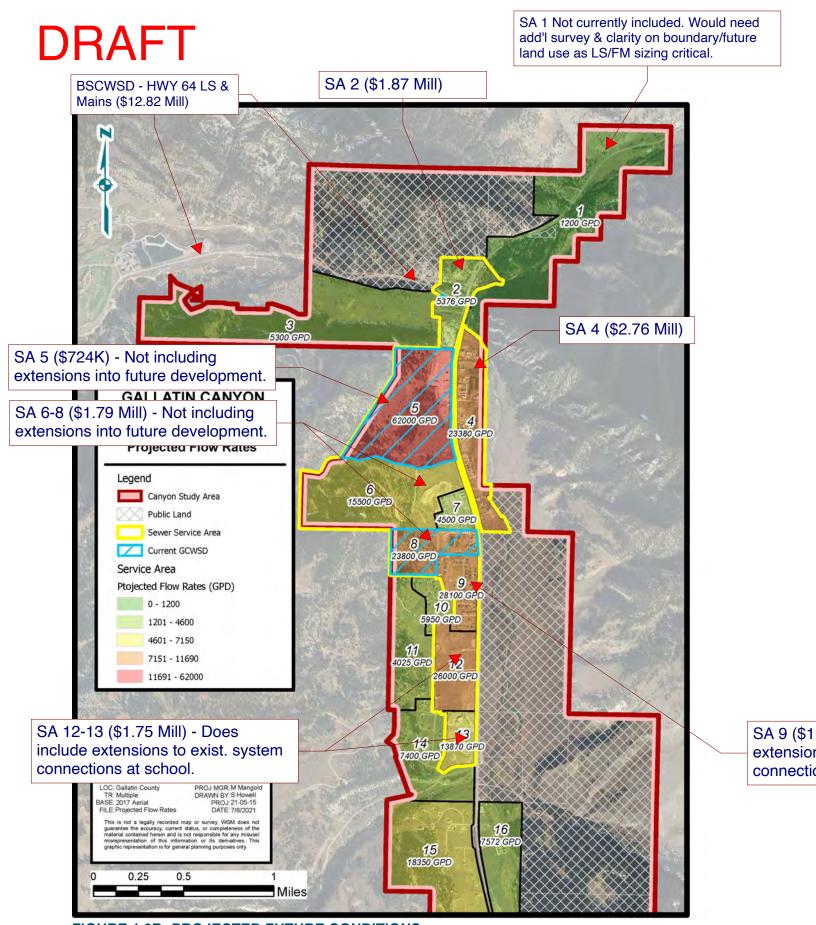


FIGURE 1.3B: PROJECTED FUTURE CONDITIONS



11/22/2023 GCCWSD Board Meeting Presentation Outline:

30% Plan Review and Highlights:

Work Order #2 – Phase 05A – Existing Disposal System Assessment (page turn through plan set for brief overview)

- ❖ Initial focus for 30% design was based on existing infrastructure / disposal sites that have current, existing, approved discharge permits (DEQ recommendation).
- ❖ Focus was also on reuse and expansion as most cost-effective options upfront, however utilizing the same area with entirely new infiltration infrastructure may also be required (system age, useful life, etc.).

Lazy J

- Existing discharge permit, as-builts from 2007
- Existing drainfield with room for doubled expansion (designated replacement area)
- June 2023 test pit excavations a clay layer was observed that is anticipated to limit application even more than what is currently permitted for, which will drive up \$/gpd disposal.
- The Lazy J water right permits require that effluent from the domestic use (or equivalent volume) must be put directly back into the ground via septic/drainfield or other method that does NOT result in increased water consumption. This means that 95% of the volume diverted under the Lazy J water rights cannot be used for land application, assuming 5% of it is consumed.
 - Further agency coordination will be needed to determine if Lazy J's portion of effluent must be discharged within their property boundaries or just to the same aquifer.
 - o For this reason, Lazy J subsurface disposal needs to remain in the conversation.

Buck's T4

- No existing discharge permit; existing lagoons for storage/in-place treatment, then land applied
- Removal of lagoon system for any new disposal, so Rapid Infiltration Bed (RIB) design reviewed
 - Similar RIB concepts could be applied in other discharge areas
 - RIBs are seasonally limited to ~7-month disposal period
 - Land application / irrigation instead of RIB disposal may be more cost effective but will be even more seasonally limited
- Shallow groundwater / groundwater mounding initially restrict discharge volumes (to be refined in near future when aquifer pump test data is processed)

Ramshorn

- Existing discharge permit, construction plan drawings from 2001, no as-builts available
- Existing drainfields (3 areas) with room for expansion (designated replacement areas are combined with primary drainfield areas, which creates more technicality for new installation)
- June 2023 test pit excavations limited observations due to utilities, some fill material observed otherwise a more infiltrative soil layer than found in Lazy J.

School (10%)

- Existing discharge permit (DEQ recommended area)
- Existing drainfields with room for doubled expansion (designated replacement areas, same size as existing primary drainfield areas)
- Not identified as a priority area in initial investigations due to distance down Canyon
- Incorporated as 10% design only due to:
 - No test pits or other fieldwork yet done in this area
 - No available plans/record drawings yet received (DEQ records request in process)

Land Application Technical Memo Review and Highlights:

Work Order #3 – Phase 02 – Expanded Disposal Feasibility – New Areas/Applications (page turn through document for brief overview)

- Review of potential surface or subsurface irrigation areas (snowmaking not included)
- Seasonally and topographically limited
- Existing irrigation areas review of retrofit potential
 - o Quarry (not yet installed), Buck's T4, Ramshorn, School
- New irrigation areas review of other available land in priority service areas only
 - o Quarry, Lazy J (water rights), Buck's T4, School
- Considered at 10% design concept to review initial feasibility

Treatment Wetland Concept Review and Highlights:

Work Order #3 – Phase 02 – Expanded Disposal Feasibility – New Areas/Applications (see concept for brief overview)

- Reviewed on FWP property
- Initial landowner correspondence not promising so not included in overall plan set, but treatment wetland concept could be applied on other areas if land can be purchased by GCCWSD (north/west of School)
- Covers 0.5 MGD disposal in one area
- Considered at 10% design concept to review initial feasibility

Engineer's Opinion of Probable Costs:

Work Order #2 & #3 – Costs for each area (see document for brief overview)

- Construction subtotal estimates generated based on design concepts to date, broken up into line items
- Construction total includes subtotal plus percentages applied to account for:
 - 25% Contractor Mark-Up / General Conditions
 - Mobilization
 - Erosion Control
 - Performance and Payment Bonds
 - Miscellaneous Work
 - Traffic Control
 - 20% Engineering Contingency:
 - Construction Oversight
 - Contract Administration
 - Change Orders
 - Materials Testing
- ❖ 30% & 10% Design Concepts Percentage range applied to construction subtotal to account for:
 - Assumptions/Unknowns at early design stages
 - Inflation
 - Market Volatility
- ❖ High range, up to +30%, used in comparison table below

CURRENT DISCHARGE OPTION COMPARISON

Discharge Options	Cost Efficiency (\$/gpd)	Equivalent Discharge Capacity (gpd)	Phase of Design
LAZY J			
Existing Drainfield – Expansion	74	20,000	30%
Existing Drainfield – Minor Improvements	4	10,000	30%
Irrigation - New Area*	23	34,500	10%
BUCK'S T-4			
Existing Lagoon – Minor Improvements	2	17,300	10%
New RIB – Expansion*	78	45,000	30%
Lagoon to Park Conversion	118	45,000	10%
Existing Irrigation – Minor Improvements*	17	8,000	10%
Irrigation – New Area*	19	44,000	10%
RAMSHORN			
Existing Drainfields – Expansion	<u>16</u>	185,000	30%
Existing Drainfields – Minor Improvements	5	29,600	30%
Existing Irrigation – Minor Improvements*	6	7,000	10%
OPHIR SCHOOL			
Existing Drainfields – Expansion	8	68,500	10%
Existing Drainfields – Minor Improvements	2	20,000	10%
Existing Irrigation – Minor Improvements*	10	11,000	10%
Irrigation – New Area*	19	73,000	10%
FWP			
New Treatment Wetland	9	500,000	10%
QUARRY			
Irrigation – New Area*	17	106,000	10%
Existing Irrigation – Minor Improvements*	10	19,000	10%

Table Comparison Notes:

- Drainfield Options "Expansion" and "Minor Improvements" options are either/or
- Irrigation Options "New Area" and "Minor Improvements" options can both be used
- * Option is seasonally limited, but costs are evaluated on an annual basis.
- All \$/gpd costs are evaluated as separate projects and high end up to +30% OPC range. Cost efficiencies are expected if multiple areas are constructed together in a single phase. \$/gpd is rounded to the nearest \$ since there are several variables.
- Current gpds are maximum projected values based on work to date but are subject to change pending continuous data collection efforts.
- School disposal costs are artificially low without incorporation of transport piping infrastructure.
 No other options yet have this reflected in the gpd, however extensions to the school service area will be much less economical since the run from Ramshorn to the School will not be picking up contributors in between.

Synopsis:

Goal: Phase 1 = 200,000 gpd disposal

Primary Recommendations:

Proceed with feasibility review of several options.

Focus on green highlighted areas for Phase 1 as currently most economical and feasible at this point in the evaluation process.

Other prioritization factors:

- DEQ indicated expanding existing permits may be easier than new ones
- Irrigation of turf has best nutrient removal, followed by treatment wetland.
- o Irrigation in unmowed areas, probably worst for nutrient removal.
- o Further from river is generally better.
- o Minimizing potable wells directly downgradient helps protect public health.
- Siting discharge on few properties reduces ongoing logistics and coordination.
- o Operations are comparable between methods but fewer sites would be easier for O&M

Note Lazy J is only still currently on the table to satisfy water rights requirements – this is subject to change pending DNRC interpretations. See land application tech memo.

Secondary:

- Proceed with a value engineering review of a Buck's T4 New RIB Expansion or conversion of the area to all be land applied (park). Current RIB costs are highly driven by groundwater mounding limitations, which can be swayed by hydraulic conductivity values. Recent aquifer pump tests are anticipated to provide more realistic values to better confirm the Buck's RIB design once data is processed.
- Proceed with Quarry subsurface disposal review (not evaluated yet in this phase of design since in development is in process separately).
- Proceed with FWP or Other Site Treatment Wetland on a separate track for full build-out disposal.
- Proceed with School service to this area becomes more economical if TW disposal is utilized. Forcemain/collection main joint trench installation.

Immediate Next Steps (Winter 2023 through Spring 2024):

- Coordination with selected landowners for confirmed collaboration, annexation, and draft lease / easement agreements.
- Coordination with existing system operators to further identify existing system constraints / expansion potential.
- Spring 2024 fieldwork infiltration testing on Ramshorn drainfield, double-ring infiltrometer testing at irrigation sites, etc.
- 60% disposal design progression including instrumentation & controls input.
- Model polishing to help inform 60% design