

CASE NO. MSW-W-23-01



Ryan D. Poole, Esq.
rpoole@smithknowles.com
(Licensed in Idaho, Utah
& Washington)

December 1, 2023

www.smithknowles.com

VIA E-MAIL ONLY

Jan Noriyuki
Secretary, Idaho Public Utilities Commission
P.O. Box 83720
Boise, ID 83720-0074
Email: jan.noriyuki@puc.idaho.gov
secretary@puc.idaho.gov

RE: Arrowrock v. Mayfield Springs Water Company — Formal Complaint

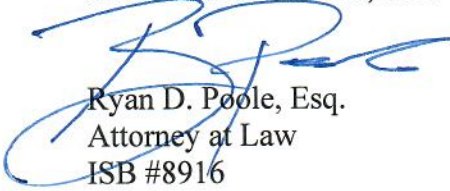
Dear Ms. Noriyuki:

Enclosed, and sent via electronic mail only, you will find a *Formal Complaint* by Arrowrock Ranch Association, Inc. against Mayfield Springs Water Company, Inc. Please feel free to give me a call if have any questions.

The corporate Secretary for Mayfield Springs Water Company, Inc., Lawrence (“Larry”) Squires has been notified of this complaint concurrent with this correspondence, and a copy of the *Formal Complaint* and all enclosures hereto have been emailed to larry@westparkco.com, and to the apparent attorney for Mayfield Springs – Hethe Clark, of Clark Wardle LLP, at hclark@clarkwardle.com.

Sincerely,

SMITH KNOWLES, P.C.



Ryan D. Poole, Esq.
Attorney at Law
ISB #8916

Enclosure: Formal Complaint - Arrowrock Ranch Association, Inc. v. Mayfield Springs Water Company, Inc., Certificate of Service, and related/attached Exhibits

Cc: Client

RYAN D. POOLE (#8916)
SMITH|KNOWLES, P.C.
2225 Washington Boulevard, Suite 200
Ogden, UT 84401
Telephone: (801) 476-0303
Facsimile: (801) 476-0399
E-mail: rpoole@smithknowles.com

Attorneys for Arrowrock Ranch Association, Inc.

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

**ARROWROCK RANCH ASSOCIATION,
INC.,** an Idaho non-profit corporation,

Complainant,

vs.

**MAYFIELD SPRINGS WATER
COMPANY, INC.,** an Idaho corporation,

Respondent.

Case/Docket No. _____

**FORMAL COMPLAINT OF
ARROWROCK RANCH
ASSOCIATION, INC.**

COMES NOW, the Complainant, Arrowrock Ranch Association, Inc. (“Arrowrock”), by and through its attorney, Ryan D. Poole of Smith Knowles, P.C., and pursuant to Rule 54 of the Idaho Public Utilities Commission’s (IPUC) Rules of Procedure, and IDAPA 31.01.01, files this Complaint against Respondent Mayfield Springs Water Company, Inc. (“Mayfield”). Arrowrock alleges herein that Mayfield has violated an agreement to provide public drinking water, applicable law, regulation and/or ordinance.

///

///

Communications, including any and all pleadings, production requests, production responses, Public Utilities Commission (“Commission”) orders, correspondence and/or any other documents relating to this Formal Complaint should be sent to:

Arrowrock Ranch Association, Inc.
c/o Ryan D. Poole
SMITH|KNOWLES, P.C.
2225 Washington Boulevard, Suite 200
Ogden, UT 84401
Telephone: (801) 476-0303
Facsimile: (801) 476-0399
E-mail: rpoole@smithknowles.com

I. FACTUAL ALLEGATIONS

1. Arrowrock Ranch Association, Inc. (“Complainant”/“Arrowrock”) is a nonprofit corporation duly formed and in good standing under the laws of the State of Idaho.
2. Upon information and belief, and at all material times herein, Mayfield Springs Water Company, Inc. (“Respondent”/“Arrowrock”), is an Idaho corporation, and the owner or reputed owner of the water system at issue. Mayfield is a water corporation as defined in Idaho Code (I.C.) § 61-125, and a public utility as defined in I.C. § 61-129, and is operating a water system as defined under I.C. § 61-124.
3. Mayfield owns and operates the Public Drinking Water System (“Water System”) that serves the Arrowrock community.
4. The public “Water System” owned and operated by Mayfield only serves the Arrowrock community and its Members/homeowners.

5. Mayfield is failing to supply adequate volume and/or supply of water to meet the water demand and/or need of the users of the subject "Water System." See the attached Exhibits 1 through 5.
6. Under a Declaration recorded in Ada County at Recorder's No. 111059307 on July 25, 2011, and relating to Domestic Water under Article IX, Section 9.1, Mayfield is obligated to provide a supply of domestic water to Arrowrock with a "Water System":

Each Building Lot shall have access to the Water System to be constructed by Grantor and to be owned and operated by Grantor (or Grantor's successor), subject to the provisions of Section 9.12 hereunder. Such Water System may consist of a source(s) of water supply (located on well lots), pumps, regulators, pipes and other delivery system equipment, and shall provide water for culinary, other ordinary domestic household use, and irrigation as provided in Article XIII. Owners shall have no right, title and/or interest in any water and water rights, including groundwater and groundwater rights, ditch and ditch rights, and storage and storage rights owned by Grantor.

7. Mayfield charges for use of the "Water System," with such charges assessed against Members/homeowners in the Arrowrock community, and with payments for such charges going to Mayfield.
8. The lots within the Arrowrock community, and served by the "Water System" operated by Mayfield, are metered to measure use of the "Water System" in connection with each lot in the Arrowrock community.
9. Mayfield is required to maintain a separate bank account in connection with the "Water System" and revenue in excess of paid operation and maintenance costs must be held in reserve for capital expenditures.
10. Access to the "Water System" wells, pump houses, and other facilities shall be restricted to Mayfield and its authorized representatives and contractors.

11. Design and construction of the “Water System” operated by Mayfield shall be in compliance with all Idaho Department of Environmental Quality and Idaho Department of Water Resources standards, to include IDAPA 58.01-08-550.
12. Mayfield is obligated to operate the “Water System” with good quality service and/or a quality of service that is equal to the “Community-Wide Standard,” and service that meets all applicable government laws, ordinances and regulations.
13. Arrowrock has been in discussions and meetings with Mayfield since 2019, and Arrowrock has requested action and solutions to the water pressure and flow problems relating to the “Water System” operated by Mayfield. See Exhibits 1 through 5 attached hereto.
14. To date, Mayfield has failed to act to provide sufficient and adequate water pressure and flow to the users of the “Water System.” Rather, Mayfield has made excuses, and nothing has occurred to alleviate the water shortages Arrowrock and the users of the “Water System” have been, and are, experiencing.
15. The problems with the “Water System” have been presented and discussed between Arrowrock and Mayfield over the course of many years, and yet Mayfield has continued to fail in its obligation to adequately and sufficiently provide domestic water to the users of the “Water System.” See Exhibits 1 through 5 attached hereto.
16. The logical and most cost-effective solution is to upgrade pumps in the existing wells, but Mayfield has refused or otherwise failed to act.
17. The existing domestic water pumps in the existing two (2) wells were designed to produce 750 gpm output. The existing pumps are running at 100 percent speed and

capacity, yet they fail to meet the designed flow or output of 750 gpm. There is not sufficient capacity to meet daily or seasonal demand, thus the “Water System” does not meet the domestic water needs of the users of the “Water System.” The supply of water provided by Mayfield is not sufficient and/or safe for the needs of the users.

18. A pump upgrade proposed to Mayfield by Arrowrock would, at the same horsepower and power requirements of the existing pumps, increase output to 1100 gpm – an amount below the applicable water rights. Despite this reasonable, and available option, to remedy the deficiency, Mayfield has refused or otherwise failed to act, and thereby necessitating this formal complaint. See Exhibits 1 through 5 attached hereto.
19. Mayfield has made and/or demanded charges to, and/or received related payments from, customers/users of the “Water System” despite failing to provide a sufficient and/or safe supply of water.

II. JURISDICTION

20. Arrowrock realleges and hereby incorporates by reference all of the foregoing as if fully stated herein.
21. The Commission has jurisdiction over this matter, including under I.C. §§ 61-129, -101, -302, -501, -515, and -701.
22. The Commission has authority to supervise and regulate every public utility within the State of Idaho and do all things necessary to carry out the spirit and intent of the Public Utility Law. I.C. § 61-501.
23. The Commission has the authority to enforce Public Utility Laws and impose penalties upon utilities for failing to act in accordance with those laws. I.C. §§ 61-406 and -701.

24. As a public utility furnishing water to customers within the State of Idaho, Mayfield must furnish, provide, and maintain such service, instrumentalities, equipment, and facilities that are adequate, efficient, just, and reasonable and promote the safety, health, comfort, and convenience of its patrons, employees, and the public. I.C. § 61-302.
25. The Commission has authority to “require every public utility to maintain and operate its line, plant, system, equipment, apparatus and premises in such manner as to promote and safeguard the health and safety of its employees, customers and the public” and “require the performance of any other act which the health or safety of its employees, customers or the public may demand.” I.C. § 61-515.
26. Under I.C. § 61-537, “[a]ll contracts of suppliers shall be subject to actions taken” under Title 61 of the Idaho Code.
27. Under I.C. § 61-706:
- Any public utility which violates or fails to comply with any provisions of the constitution of this state or of this act, or which fails, omits or neglects to obey, observe or comply with any order, decision, decree, rule, direction, demand or requirement or any part or provision thereof, of the commission, under the provisions of this act, in a case in which a penalty has not hereinbefore been provided for, such public utility is subject to a penalty of not more than \$2000 for each and every offense.
28. Under I.C. § 61-709:
- Every officer, agent or employee of any public utility, who violates or fails to comply with, or who procures, aids or abets any violation by any public utility of any provision of the constitution of this state or of this act, or who fails to obey, observe or comply with any order, decision, rule, direction, demand or requirement or any part or provision thereof, of the commission under the provisions of this act, or who procures, aids or abets any public utility in its failure to obey, observe and comply with any such order, decision, rule, direction, demand or requirement, or any part or provision thereof, in a case in which a penalty has not hereinbefore been provided for, such officer, agent or employee, is guilty of a misdemeanor and is

punishable by a fine not exceeding \$1000, or by imprisonment in a county jail not exceeding one (1) year, or by both such fine and imprisonment.

III. COUNT ONE

29. Arrowrock realleges and hereby incorporates by reference all of the foregoing as if fully stated herein.
30. Mayfield has violated I.C. § 61-302, which requires that “[e]very public utility shall furnish, provide and maintain such service, instrumentalities, equipment and facilities as shall promote the safety, health, comfort and convenience of its patrons, employees and the public, and as shall be in all respects adequate, efficient, just and reasonable.”
31. Mayfield has failed to provide safe and reliable service.

IV. COUNT TWO

32. Arrowrock realleges and hereby incorporates by reference all of the foregoing as if fully stated herein.
33. Mayfield has violated IDAPA 58.01.08 by failing to sufficiently supply a safe and adequate amount of water to the subject public drinking water system.

V. COUNT THREE

34. Arrowrock realleges and hereby incorporates by reference all of the foregoing as if fully stated herein.
35. Under I.C. § 61-301:

All charges made, demanded or received by any public utility, or by any two (2) or more public utilities, for any product or commodity furnished or to be furnished or any service rendered or to be rendered shall be just and reasonable. Every unjust or unreasonable charge made, demanded or received for such product or commodity or service is hereby prohibited and declared unlawful.

36. Mayfield has made, demanded and/or received charges for water service and/or for water to be provided by the “Water System” that it has failed to provide.
37. Mayfield has made, demanded and/or received charges for water service and/or water to be provided by the “Water System” that it has failed to adequately and/or sufficiently provide.
38. The charges made, demanded and/or received by Mayfield have been and/or are unjust and unreasonable, and in violation of I.C. § 61-301.

VI. REQUESTED RELIEF

WHEREFORE, Arrowrock respectively requests that the Commission award the following relief:

1. Entry of an order finding that that Mayfield has failed to provide safe and reliable service.
2. Entry of an order forbidding Mayfield from failing to provide safe and reliable service.
3. Entry of an order finding that Mayfield has failed to provide sufficient and/or otherwise adequate water supply and volume to the subject water system.
4. Entry of an order finding that Mayfield has made unjust and unreasonable charges for water and/or water service and its conduct has been, and is, prohibited and unlawful.
5. Entry of an order prohibiting Mayfield from failing to provide a sufficient and/or otherwise adequate amount of water supply and volume of water to the subject water system.

6. Entry of an order requiring Mayfield to upgrade or otherwise sufficiently improve its provision of water supply and volume in order to provide safe and reliable service to the water system users.
7. Any further relief to which Arrowrock may be entitled.

DATED this 13th day of December, 2023.

SMITH KNOWLES, P.C.



RYAN D. POOLE

Attorney for Arrowrock Ranch Association, Inc.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that I have this day, December 1, 2023, served the foregoing *Formal Complaint* upon all parties of record in this proceeding, by sending a copy via electronic mail to:

Lawrence Squires, Secretary
Mayfield Springs Water Company, Inc.
P.O. Box 344
Meridian, ID 83680
///
1861 S. Wells Avenue - #210
Meridian, ID 83642
larry@westparkco.com

and

Hethe Clark
Clarke Wardle LLP
251 E. Front Street - #310
Boise, ID 83702
hclark@clarkwardle.com



Ryan Poole
Smith Knowles, PC
Attorney for Complainant Arrowrock

Exhibit 1

to

PUC – Formal Complaint

Arrowrock Ranch Association, Inc.

v.

Mayfield Springs Water Company

From: Nicholas Nydegger
Sent: Thursday, February 23, 2023 5:44 PM
To: Larry Squires <larry@[REDACTED]>; arrowrockbd@[REDACTED]
Cc: Chris Hecht <Chris.Hecht@puc.idaho.gov>; Greg Johnson <greg@[REDACTED]>; Debbie Taylor <debbie@[REDACTED]>; tom@[REDACTED]; Taylor Merrill <taylor@[REDACTED]>
Subject: RE: Arrowrock Ranch / Mayfield Springs

Excellent. Thanks for the update. Larry I appreciate your efforts and follow through.

Best Regards,
Nick Nydegger

From: Larry Squires <larry@[REDACTED]>
Sent: Wednesday, February 22, 2023 4:21 PM
To: Nicholas Nydegger <NYDEGGEN@[REDACTED]>; arrowrockbd@[REDACTED]
Cc: Chris Hecht <Chris.Hecht@puc.idaho.gov>; Greg Johnson <greg@[REDACTED]>; Debbie Taylor <debbie@[REDACTED]>; tom@[REDACTED]; Taylor Merrill <taylor@[REDACTED]>
Subject: RE: Arrowrock Ranch / Mayfield Springs

Nick,
Wanted to give you a quick update. The engineer firm has now assigned a specific engineer to this project to do final analyses and recommendations. His name is Mike Woodworth. We have worked with Mike before on other projects, and feel that progress should now move forward at a quicker pace.

From: Nicholas Nydegger <NYDEGGEN@[REDACTED]>
Sent: Wednesday, February 8, 2023 1:33 PM
To: Larry Squires <larry@[REDACTED]>; arrowrockbd@[REDACTED]
Cc: Chris Hecht <Chris.Hecht@puc.idaho.gov>; Greg Johnson <greg@[REDACTED]>; Debbie Taylor <debbie@[REDACTED]>; tom@[REDACTED]
Subject: RE: Arrowrock Ranch / Mayfield Springs

Larry,

Thanks very much for your comments. They are all valid. I hope to continue to work together for the common good.

Regards,

Nick Nydegger

From: Larry Squires <larry@>
Sent: Monday, February 6, 2023 12:28 PM
To: Nicholas Nydegger <NYDEGGEN@>; arrowrockbd@
Cc: Chris Hecht <Chris.Hecht@puc.idaho.gov>; Greg Johnson <greg@>; Debbie Taylor <debbie@>; tom@
Subject: RE: Arrowrock Ranch / Mayfield Springs

Thanks for the update Nick. On behalf of Mayfield Springs Water Co. I feel compelled to add a few thoughts.

We understand why you are disappointed in the progress, but to characterize Mayfield's efforts as doing very little to nothing is not fair. Since our original meeting, we have been in contact with the Engineer and have been pushing on getting a firm solution. Could it have been faster? Perhaps, but getting the needed attention of all principals, including the engineers, has been difficult. We believe we have now passed that hurdle and our steadily moving toward a concrete solution.

In fact, we had received some written preliminary options from the Engineers, but chose not to share the details at the meeting. We are still working with the Engineer on questions we have about the options, and did not feel it was necessary to present them before vetting them. The discovery and design stage takes time and, as we all agreed at the last meeting, we want to get it right and not be back doing this again in the future. While the solution likely will be replacing pumps, it is by no means a simple process. All tangential effects to the system that may result from changing pumps (such as pipe and power constraints) must be considered and analyzed before deciding on the optimal solution.

And yes, Mayfield is concerned about cost recovery. An insolvent water company will not do any of us any good. Good business practices require that we explore all possible contingencies, including if the PUC were not to approve a surcharge, or an insufficient one. We appreciate the Board's stated expectation of a need for cost recovery. I believe we all agree that the financial aspects of the plan are as vital a part of the solution as the physical changes to the system itself.

Finally, at the meeting we also discussed that completion of the project once a solution is decided upon will take time. This project will likely not be a small undertaking and lingering supply chain issues may slow the implementation, especially if new pumps are needed. No one is prepared to give an estimated completion date at this juncture, but likely the project will not be completed in a day or two a few weeks after a decision is made.

We will continue to keep you updated and will alert you as soon as a concrete solution is determined. As always, we appreciate your patience and understanding.

Thank you,
Larry Squires
For Mayfield Springs Water Co.

From: Nicholas Nydegger <NYDEGGEN@>
Sent: Monday, February 6, 2023 11:34 AM
To: arrowrockbd@
Cc: Chris Hecht <Chris.Hecht@puc.idaho.gov>; Larry Squires <larry@>
Subject: Arrowrock Ranch / Mayfield Springs

Everyone,

On Wednesday Feb 1st we met with Mayfield Springs to discuss progress on our water pressure solution. Both myself and Don Decock attended the meeting. Other attendees were; Greg Johnson, Larry Squires, Tom Mehiel, Debbie Taylor and Taylor Merrill from Mayfield Springs.

We discussed the issue without having any information on what the plan to solve the problem really is. It was disappointing to see we have made no progress in defining a solution to the problem. Last meeting Mayfield was to involve their engineers to draw up solutions. This never happened and no solutions were presented and none have been defined. We cannot discuss solutions that have not been defined nor can we assess costs and how to recover those costs for Mayfield if we don't have a definitive solution. It is imperative to get a hard solution before we can move forward. We may have to get our own engineers to design a solution. Mayfield again indicated that they will get the engineering completed and we will meet again.

We did discuss sample costs and how Mayfield might recover those costs. They did not seem to have confidence in cost reimbursements through fee structures and surcharges presented to the Idaho PUC. Although, the Idaho PUC has plenty of experience in doing these kinds of things. It is possible that Mayfield was seeing if we realize a solution would cost dollars. We indicated that we are well aware that costs would be incurred and that we would need a plan for cost recovery.

It was noted that time frame to complete a solution, whatever it will be, is moving backward as spring is quickly approaching.

Again, it was disappointing to see little movement in getting a solution definition. I still feel a solution could be as simple as changing pumps in well#1 to 125hp from existing 75hp. Potentially changing 30hp pump in Well#2 to 75hp could provide the final boost. Tuning variable frequency drives to optimize pressure and output. As a reminder all active pumps are currently running at peak capacity. Variable drives are running at 100% capacity during our summer usage times.

I hope that we can break this roadblock and continue to move forward. We will continue to meet with Mayfield and continue to work toward a defined solution. Everyone was cordial and sincerely interested in finding a solution. I am sure we will get this solution completed.

Regards,

Nick Nydegger
Arrowrock Ranch HOA
208-██████████

Exhibit 2

to

PUC – Formal Complaint

Arrowrock Ranch Association, Inc.

v.

Mayfield Springs Water Company

From: Nick Nydegger <nydeggen@[REDACTED]>
Sent: Friday, April 28, 2023 8:26 PM
To: Larry Squires <larry@[REDACTED]>
Cc: Chris Hecht <Chris.Hecht@puc.idaho.gov>; Greg Johnson <greg@[REDACTED]>; debbie@[REDACTED]; tom@[REDACTED]; taylor@[REDACTED]; arrowrockbd@[REDACTED]
Subject: Re: Status for Annual Meeting

Thank you Larry.
N.

Sent from my iPhone

On Apr 26, 2023, at 2:24 PM, Larry Squires <larry@[REDACTED]> wrote:

Nick,
Thanks for the email. We are pushing the engineer firm to give us their final suggested solution. We know they have been working on it, and have done some testing of the fire pump as part of their due diligence. We will contact them again and try and get a final recommendation that we can cost-out and present to you. We will try our best to have that to you in time for your annual meeting.

Thanks
Larry Squires

From: Nicholas Nydegger <NYDEGGEN@[REDACTED]>
Sent: Wednesday, April 26, 2023 2:02 PM
To: Larry Squires <larry@[REDACTED]>
Cc: Chris Hecht <Chris.Hecht@puc.idaho.gov>; Greg Johnson <greg@[REDACTED]>; Debbie Taylor <debbie@[REDACTED]>; tom@[REDACTED]; Taylor Merrill <taylor@[REDACTED]>; arrowrockbd@[REDACTED]
Subject: Status for Annual Meeting

Dear Mayfield Springs,

The Arrowrock Ranch Annual Meeting is scheduled for June 1, 2023. I was hoping to update the homeowners on the status of our water pressure issues. I was hoping to have some options to present

at that time. I have not heard from the designated engineer and I or a board member are available to discuss the problem with him at any time.

Spring has finally sprung, and we are gearing up for summer season. Please know that we are available to do whatever we can to help develop a viable solution.

I hope all of you weathered the winter season well. I look forward to hearing from you.

Regards,

Nick Nydegger
Arrowrock Ranch HOA
208-██████████

Exhibit 3

to

PUC – Formal Complaint

Arrowrock Ranch Association, Inc.

v.

Mayfield Springs Water Company

From: Nicholas Nydegger
Sent: Monday, July 24, 2023 8:41 AM
To: tom@[REDACTED]; larry@[REDACTED]
Cc: arrowrockbd@[REDACTED]
Subject: Backup Generator

Mayfield,

Checking on the status of the backup generator. I am dealing with questions on its status. We cannot go without water for extended periods of time. Last failure was approximately four hours down time with zero water and no fire protection. Can you fill me in on its current status and its testing and service plans so I can report to the board. Thanks for your assistance.

Regards,

Nick Nydegger
Pres Arrowrock Ranch HOA
208-[REDACTED]

Exhibit 4

to

PUC – Formal Complaint

Arrowrock Ranch Association, Inc.

v.

Mayfield Springs Water Company

From: Nicholas Nydegger

Sent: Thursday, August 17, 2023 12:00 PM

To: larry@[REDACTED]; Greg Johnson <greg@[REDACTED]>; Taylor Merrill <taylor@[REDACTED]>; Mike Woodworth <mwoodworth@[REDACTED]>; tom@[REDACTED]

Cc: Chris Hecht <Chris.Hecht@puc.idaho.gov>; Chris McEwan <chris.mcewan@puc.idaho.gov>; Travis Culbertson <Travis.Culbertson@puc.idaho.gov>; Valerie.Greear@deq.idaho.gov; Dan.M.Smith@deq.idaho.gov; arrowrockbd@[REDACTED]; Arrowrock Ranch <arrowrockranch@[REDACTED]>

Subject: Arrowrock Ranch Water Pressure/Flow Problem with Mayfield Springs Water Company

Dear Mayfield Springs, Idaho Public Utilities Commission and Idaho Department of Environmental Quality,

I have attached our current response to Mayfield Springs. We have been working toward a solution for a long time. Currently we are stalled out dealing with the same problem points we have talked about for multiple years. The response is somewhat long so I have attached it in pdf form.

If you are unable to read the attached information or have questions, please don't hesitate to contact me.

Regards,

Nick Nydegger
President Arrowrock Ranch HOA
208-[REDACTED]
[nydeggen@\[REDACTED\]](mailto:nydeggen@[REDACTED])

Aug 17, 2023

Arrowrock Ranch Homeowners Association

Dear Mayfield Springs (Greg Johnson),

This letter is in response to our last meeting. We have been in talks to resolve the ongoing water pressure / flow problems here in Arrowrock Ranch Subdivision since an initial Strategic Planning request was sent in 2019. In that approximately 5-year period we have made little progress. As you indicated in our last meeting the pumps are performing near their designed capacity. Please FIX This. I will reiterate that the designed flow capacity was not correctly defined originally. Until we up that flow we will continue to fight.

The water pressure / flow problem complaints are not going to go away until we resolve the issue. We are in our peak use period and homeowner complaints are peaking. After 16 years of complaints, we need resolution.

In our last meeting we were tasked with getting estimates to provide a new well to meet our water deficiencies. This solution was to keep Mayfield from dealing with regulatory oversight and avoid any financial expense. You were tasked with looking at pump upgrades as a solution and to see if you could find any documentation or plans on the irrigation system and the related seven backflow devices.

Your recent email indicated you did not find any documentation or plans for the irrigation system. I assume you did not investigate pump upgrades as you can't tell us what make, and model are currently installed in those wells.

We solicited well drilling estimates, they varied a little but were mostly consistent. A twelve inch well 400 feet deep was \$104,000, a six inch well was \$75,000. The twelve inch well is preferred for pumping capacity. Additional costs to complete the well would include Pump house \$20,000, pumps and controls \$90,000, electrical service \$40,000, connectivity to existing systems \$90,000. Connectivity is a complex issue. A reasonable estimate to drill a new well, provide pumps and controls, provide power and a connection to existing water system is about \$350,000 (344,000).

We also investigated pump upgrades. According to your engineer Mountain Waterworks, Pump1, a Variable Frequency Drive (VFD), was to provide 500 gpm peak flow and Pump 2, a VFD, was to provide 250 gpm peak flow. That is 750 gpm design. Pump 3 the fire pump is rated at 1,000 gpm and is a constant speed pump. A simple test performed by Mountain Waterworks dialed up the variable frequency drives on both Pump1 and Pump2 to 100% speed showed an estimated flow of 500 gpm. This was a lame test as no load was on the system. Sprinklers were off, the supplemental water to sewer was off, and it assumed the VFD's, and pumps were operating properly up to performance standard. At any rate our daily pump use is 100% pumping capacity at all times. There is no room for additional loads from daily or seasonal activity. Currently the actual output is somewhere between 438-500 gpm.

Layne of Idaho, a premier pump installation company here in Idaho can electronically test the system components for performance rating and help pinpoint where problems are. This service runs \$500.00 for testing. This should be done.

We investigated motor and pump replacements to alleviate our problems. R C Worst provided custom quotes to meet pumping goals. Moving Pump1 to 750 gpm with new pump and motor would cost approximately \$66,000. Moving Pump2 to 350 gpm with new pump and motor would cost approximately \$38,000. That would provide 1100 gpm and would solve our problems.

According to the cost estimates we compiled, fixing existing pumps and motors is the correct and most logical path.

According to your engineer Mountain Waterworks we are licensed by our current water rights to 1,167 gpm. Plus, another 1,000 gpm for fire. These water rights have been in place for a long time, and we have never approached those levels ever. After research, I see that Mountain Waterworks Water Right Summary Table is in Error. There is no 63-33344 in our area. And they are missing two others: 63-12260 and 63-33186. A corrected version is shown below. Using the corrected Water Rights Table, we are licensed by our current water rights to 1,255 gpm. Plus, another 1,000 gpm for fire. Again, we have never approached these levels ever.

Corrected Water Right Summary Table

Water Right	CFS	GPM	USE	Use Area
63-31745	1.43	641	Domestic	100 lots w ½ acre irrig
63-31745	2.25	1000	Fire	1,000 gpm fire
63-31881	0.04	18	Irrigation	2 acres common area
63-12260	0.75	336	Irrigation	37.3 acres Stated once as 46+13 or 59 acres
63-33186	0.58	260	Irrigation	Ag field (HOA) 30 acres

Upgrading pumps falls within our current licensing guidelines and below our licensed levels.

There are other elements to bear in mind. As we are not significantly changing what we are doing, it is possible that DEQ would see this as not requiring full change to current policy levels. I discovered that there are instances of shared fire pump activity in Idaho. Where the fire pump is used to supplement peak use periods and is set to take over its official fire duty by control settings. This is also a possibility and something to investigate.

You have been recalcitrant to consider any upgrades due to expense and governmental oversight. We can no longer accept these continued obstructions. It is imperative that we move forward to fix this issue permanently. We have close to 300 million dollars in assets in this subdivision that is at risk due to your continual dragging of feet.

We will be following this letter with a request to the Idaho PUC to move forward with our pending formal complaint.

The ideas discussed here are just a few of a multitude of solutions available to solve our problem. Other pump companies said they could provide multiple solutions. Deal with the governmental groups and find a viable funding solution.

Since you have no interest in providing real service to your Small Quantity Public Drinking Water System stakeholders, maybe you should consider getting out of the Water System business. You could transfer the water system over to the HOA. We would then be able to create our own solution.

I hope that in the next few weeks we can map a path forward that will be the best for all stakeholders.

Sincerely,

Nicholas C. Nydegger

Nick Nydegger
President Arrowrock Ranch Homeowners Association
208-██████████
nydeggen@██████████

Attachments:

Attachment 1 – Previous Meeting - - Feb 2023 Responses

Attachment 2 – Last Meeting Agenda 5/19/2023

Attachment 3 – Mountain Waterworks Meeting Minutes 5/19/2023 for Mayfield Springs

Attachment 4 – Well Estimate Stevens Drilling

Attachment 5 – R C Worst Designed Pump Estimates

Attachment 6 - 2016 Water Supply Alternatives Mountain Waterworks

Attachment 7 – 2014 Water Supply SPF Engineering

Attachment 1 - Previous Meeting Responses

From: [Larry Squires](#)
To: [Nicholas Nydegger](#); [arrowrockbd@██████████](#)
Cc: [Chris Hecht](#); [Greg Johnson](#); [Debbie Taylor](#); [tom@██████████](#)
Subject: RE: Arrowrock Ranch / Mayfield Springs
Date: Monday, February 6, 2023 12:28:34 PM

Thanks for the update Nick. On behalf of Mayfield Springs Water Co. I feel compelled to add a few thoughts.

We understand why you are disappointed in the progress, but to characterize Mayfield's efforts as doing very little to nothing is not fair. Since our original meeting, we have been in contact with the Engineer and have been pushing on getting a firm solution. Could it have been faster? Perhaps, but getting the needed attention of all principals, including the engineers, has been difficult. We believe we have now passed that hurdle and our steadily moving toward a concrete solution.

In fact, we had received some written preliminary options from the Engineers, but chose not to share the details at the meeting. We are still working with the Engineer on questions we have about the options, and did not feel it was necessary to present them before vetting them. The discovery and design stage takes time and, as we all agreed at the last meeting, we want to get it right and not be back doing this again in the future. While the solution likely will be replacing pumps, it is by no means a simple process. All tangential effects to the system that may result from changing pumps (such as pipe and power constraints) must be considered and analyzed before deciding on the optimal solution.

And yes, Mayfield is concerned about cost recovery. An insolvent water company will not do any of us any good. Good business practices require that we explore all possible contingencies, including if the PUC were not to approve a surcharge, or an insufficient one. We appreciate the Board's stated expectation of a need for cost recovery. I believe we all agree that the financial aspects of the plan are as vital a part of the solution as the physical changes to the system itself.

Finally, at the meeting we also discussed that completion of the project once a solution is decided upon will take time. This project will likely not be a small undertaking and lingering supply chain issues may slow the implementation, especially if new pumps are needed. No one is prepared to give an estimated completion date at this juncture, but likely the project will not be completed in a day or two a few weeks after a decision is made.

We will continue to keep you updated and will alert you as soon as a concrete solution is determined. As always, we appreciate your patience and understanding.

Thank you,
Larry Squires
For Mayfield Springs Water Co.

From: Nicholas Nydegger <NYDEGGEN@██████████>
Sent: Monday, February 6, 2023 11:34 AM

To: arrowrockbd@[REDACTED]
Cc: Chris Hecht <Chris.Hecht@puc.idaho.gov>; Larry Squires <larry@[REDACTED]>
Subject: Arrowrock Ranch / Mayfield Springs

Everyone,

On Wednesday Feb 1st we met with Mayfield Springs to discuss progress on our water pressure solution. Both myself and Don Decock attended the meeting. Other attendees were; Greg Johnson, Larry Squires, Tom Mehiel, Debbie Taylor and Taylor Merrill from Mayfield Springs.

We discussed the issue without having any information on what the plan to solve the problem really is. It was disappointing to see we have made no progress in defining a solution to the problem. Last meeting Mayfield was to involve their engineers to draw up solutions. This never happened and no solutions were presented and none have been defined. We cannot discuss solutions that have not been defined nor can we assess costs and how to recover those costs for Mayfield if we don't have a definitive solution. It is imperative to get a hard solution before we can move forward. We may have to get our own engineers to design a solution. Mayfield again indicated that they will get the engineering completed and we will meet again.

We did discuss sample costs and how Mayfield might recover those costs. They did not seem to have confidence in cost reimbursements through fee structures and surcharges presented to the Idaho PUC. Although, the Idaho PUC has plenty of experience in doing these kinds of things. It is possible that Mayfield was seeing if we realize a solution would cost dollars. We indicated that we are well aware that costs would be incurred and that we would need a plan for cost recovery.

It was noted that time frame to complete a solution, whatever it will be, is moving backward as spring is quickly approaching.

Again, it was disappointing to see little movement in getting a solution definition. I still feel a solution could be as simple as changing pumps in well#1 to 125hp from existing 75hp. Potentially changing 30hp pump in Well#2 to 75hp could provide the final boost. Tuning variable frequency drives to optimize pressure and output. As a reminder all active pumps are currently running at peak capacity. Variable drives are running at 100% capacity during our summer usage times.

I hope that we can break this roadblock and continue to move forward. We will continue to meet with Mayfield and continue to work toward a defined solution. Everyone was cordial and sincerely interested in finding a solution. I am sure we will get this solution completed.

Regards,

Nick Nydegger
Arrowrock Ranch HOA
208-[REDACTED]

Attachment 2 - Last Meeting Agenda 5/19/2023



MEETING AGENDA

DATE: May 19, 2023
SUBJECT: Arrowrock Ranch Water Supply and Demand

ATTENDEES

- **Mountain Waterworks:** Mike Woodworth, Cody Sprague
- **Westpark Company:** Taylor Merrill, Larry Squires
- **Arrowrock Ranch HOA:** Nick Nydegger

Agenda Items

I. Introduction

The Arrowrock Ranch subdivision consists of 100 residential lots ranging from approximately 0.5 to 1.0 acres. Westpark Company owns and operates the water system that supplies domestic, irrigation, and fire protection uses for the subdivision. Homeowners in the subdivision have reported decreased water pressures and supply during the high demand summer months.

Over the past several years, peak water demand in the Arrowrock Ranch Subdivision has exceeded current system pumping capacity (and original system design capacity), resulting in low pressure in the distribution system. Homeowners within the subdivision have observed low pressures (below 40 psi) primarily during the summer irrigation season.

II. Existing System Overview

In 2003, Arrowrock Ranch Water System was approved by the Idaho Department of Environmental Quality (IDEQ) as a new public drinking water system and began serving new homes in 2004. The system was originally designed to serve 100 homes and approximately 2.0 acres of common area irrigation. The initial water right allowed for domestic and fire protection uses, with domestic use allowing up to 0.5 acres of irrigation per platted lot. The Preliminary Engineering Report (PER) for the water system, prepared by A Best Utility Services in 2003, established the original design criteria and was approved by IDEQ on November 18, 2003.

The initial water right filing, license No. 63-31745, with a priority date of July 14, 2003, includes a maximum diversion rate of 1.43 CFS for domestic purposes (including up to 0.5 acres of per lot) and 2.25 CFS for fire protection purposes.

III. Design Demand

Water system demands for the subdivision are comprised of three components: domestic, irrigation, and fire protection. Design demands were estimated in the PER using 100 residential customers and equations found in A Study of Residential Water Use as recommended by IDEQ staff for metered systems. The domestic water use for each home within the subdivision includes potable water plus 0.5 acres of irrigation per lot. The design demands included in the PER are summarized in **Table 1**.

Table 1: Arrowrock Ranch Water System Design Demands

Parameter	Quantity	Total
Residential Customers	100	--
Average Lot Size	32,670 ft ² , 0.75 acres	--
Average Day Demand (peak season)	1.0 gpm/Customer	100 gpm
Peak Day Demand	2.28 gpm/Customer	228 gpm
Peak Hour Demand	4.73 gpm/Customer	473 gpm

Peak hour demand of 473 gpm was used to size the source of supply requirements for the subdivision water system. The water system sources of supply were designed to meet or exceed the peak hour demands in addition to fire protection.

IV. Source of Supply

During construction of the system, water supply and distribution facilities were designed to meet or exceed the peak hour demands of 473 gpm, plus 1,000 gpm fire flow. The water system was constructed with two wells, located on the same well lot. The North well is located outside of the pump house and is equipped with a submersible pump with a reported capacity of 500 gpm. The south well is located inside the pump house and is equipped with two independent submersible pumps with reported capacities of 250 gpm and 1,000 gpm. The 1,000 gpm submersible pump is dedicated to providing fire protection capacity and is unmetered at this time.

The water system design criteria included in the plans and specifications approved by IDEQ on August 3, 2004, are summarized in **Table 2**. A summary of the water supply and demand is provided in **Table 3**.

Table 2: Water System Supply Summary

Source	Pump (Use)	Rated Flow (gpm)	Pumping Water Level - (ft)	Total Dynamic Head (ft)	Power - Control (HP)	Setpoint On/Off
North Well 12-inch	Pump 1 (Domestic)	80 - 500 (min - max)	175	350	75 - VFD	60 psi 50/70 psi
South Well 18-inch	Pump 2 (Domestic)	50 - 250 (min - max)	150	325	30 - VFD (Standby power)	60 psi 50/70 psi
	Pump 3 (Fire)	1,000	165	350	125 - Soft Start	Constant Flow 40/80 psi

Table 3: Design Supply v. Demand Summary

As Originally Approved by IDEQ (2003)	Peak Hour Demand	Installed Pump Capacity (2003)	Surplus/(Deficiency)
100 lots, ½ acre, 2 acres Common Irrigation	473 gpm	750 gpm	277 gpm
Fire Protection	1,000 gpm	1,000 gpm	---

V. Current Water Supply and Demand

Following construction of the initial homes, additional irrigation water rights were transferred to the two existing wells to allow additional irrigation of up to 56 acres with a maximum diversion rate 1.12 cfs or 502 gpm. Following this transfer of water rights, approximately 32 acres of common area irrigation has been connected to the public drinking water system, and the pumping capacity of the wells was not increased above original design criteria, resulting in a water supply deficiency during summer irrigation periods. Additionally, the water system operator has noted that the current available combined supply capacity from the two primary demand pumps is less than the original reported capacity of 750 gpm. A summary of available water rights is displayed in **Table 4**.

Table 4: Available Water Right Summary

Number	Diversion Rate (cfs/gpm)	Water Use	Comments
63-31745	1.43 / 641	Domestic	100 Lots with ½-acre irrigation
63-31745	2.25 / 1,000	Fire	1,000 gpm Fire Protection
63-31881	0.04 / 18	Irrigation	2 acres Common Area irrigation
63-33344	1.12 / 502	Irrigation	56 acres Common Irrigation, lots in excess of ½-acre

On May 10, 2023, Mountain Waterworks met the system operator onsite to observe pumping conditions. The system was observed to supply approximately 500 gpm at 64 psi to the distribution system. Well pumps were noted to perform below the reported installed pump capacity, however, no clear documentation regarding installed pump models is available.

Under the current pumping configuration of the Arrowrock Ranch Water System, insufficient water supply and pumping capacity will result in continued low-pressure events within the water distribution system. The current supply verses demand projections are shown in **Table 5**.

Table 5: Current Supply v. Demand Summary

Water Use	Design Demand (gpm)	Available Supply (gpm)	Surplus/(Deficiency) (gpm)
100 Lots with ½-acre irrigation 2 acres Common Area irrigation	473	500 ^a	27
Up to 56 acres Common Irrigation	500	---	(500)
Total Water Demand	973	500 ^a	(473)

Notes:

- a. A pump test performed on May 10, 2023, resulted in a flow of 500 gpm at 64 psi was the highest flow observed with pumps 1 and 2 operating at full speed.

Attachment 3 - Mountain Waterworks Meeting Minutes 5/19/2023



MEETING MINTUES

MEETING DATE: May 19, 2023

SUBJECT: Arrowrock Ranch Water Supply and Demand

ATTENDEES

- **Mountain Waterworks:** Mike Woodworth, Cody Sprague
- **Westpark Company:** Taylor Merrill, Larry Squires
- **Arrowrock Ranch HOA:** Nick Nydegger

INTRODUCTION

The Arrowrock Ranch subdivision consists of 100 residential lots ranging from approximately 0.5 to 1.0 acres. Westpark Company owns and operates the water system that supplies domestic, irrigation, and fire protection uses for the subdivision. Homeowners in the subdivision have reported decreased water pressures and supply during the high demand summer months.

Over the past several years, peak water demand in the Arrowrock Ranch Subdivision has exceeded current system pumping capacity (and original system design capacity), resulting in low pressure in the distribution system. Homeowners within the subdivision have observed low pressures (below 40 psi) primarily during the summer irrigation season.

EXISTING SYSTEM OVERVIEW

In 2003, Arrowrock Ranch Water System was approved by the Idaho Department of Environmental Quality (IDEQ) as a new public drinking water system and began serving new homes in 2004. The system was originally designed to serve 100 homes and approximately 2.0 acres of common area irrigation. The initial water right allowed for domestic and fire protection uses, with domestic use allowing up to 0.5 acres of irrigation per platted lot. The Preliminary Engineering Report (PER) for the water system, prepared by A Best Utility Services in 2003, established the original design criteria and was approved by IDEQ on November 18, 2003.

The initial water right filing, license No. 63-31745, with a priority date of July 14, 2003, includes a maximum diversion rate of 1.43 CFS for domestic purposes (including up to 0.5 acres of per lot) and 2.25 CFS for fire protection purposes.

I. Design Demand

Water system demands for the subdivision are comprised of three components: domestic, irrigation, and fire protection. Design demands were estimated in the PER using 100 residential customers and equations found in A Study of Residential Water Use as recommended by IDEQ staff for metered systems. The domestic water use for each home within the subdivision includes potable water plus 0.5 acres of irrigation per lot. The design demands included in the PER are summarized in **Table 1**.

Table 1: Arrowrock Ranch Water System Design Demands

Parameter	Quantity	Total
Residential Customers	100	--
Average Lot Size	32,670 ft ² , 0.75 acres	--
Average Day Demand (peak season)	1.0 gpm/Customer	100 gpm
Peak Day Demand	2.28 gpm/Customer	228 gpm
Peak Hour Demand	4.73 gpm/Customer	473 gpm

Peak hour demand of 473 gpm was used to size the source of supply requirements for the subdivision water system. The water system sources of supply were designed to meet or exceed the peak hour demands in addition to fire protection.

II. Source of Supply

During construction of the system, water supply and distribution facilities were designed to meet or exceed the peak hour demands of 473 gpm, plus 1,000 gpm fire flow. The water system was constructed with two wells, located on the same well lot. The North well is located outside of the pump house and is equipped with a submersible pump with a reported capacity of 500 gpm. The south well is located inside the pump house and is equipped with two independent submersible pumps with reported capacities of 250 gpm and 1,000 gpm. The 1,000 gpm submersible pump is dedicated to providing fire protection capacity and is unmetered at this time.

The water system design criteria included in the plans and specifications approved by IDEQ on August 3, 2004, are summarized in **Table 2**. A summary of the water supply and demand is provided in

Mountain
WATERWORKS

Table 3.

Table 2: Water System Supply Summary

Source	Pump (Use)	Rated Flow (gpm)	Pumping Water Level - (ft)	Total Dynamic Head (ft)	Power - Control (HP)	Setpoint On/Off
North Well 12-inch	Pump 1 (Domestic)	80 - 500 (min - max)	175	350	75 - VFD	60 psi 50/70 psi
South Well 18-inch	Pump 2 (Domestic)	50 - 250 (min - max)	150	325	30 - VFD (Standby power)	60 psi 50/70 psi
	Pump 3 (Fire)	1,000	165	350	125 - Soft Start	Constant Flow 40/80 psi

Table 3: Design Supply v. Demand Summary

As Originally Approved by IDEQ (2003)	Peak Hour Demand	Installed Pump Capacity (2003)	Surplus/(Deficiency)
100 lots, ½ acre, 2 acres Common Irrigation	473 gpm	750 gpm	277 gpm
Fire Protection	1,000 gpm	1,000 gpm	—

III. Current Water Supply and Demand

Following construction of the initial homes, additional irrigation water rights were transferred to the two existing wells to allow additional irrigation of up to 56 acres with a maximum diversion rate 1.12 cfs or 502 gpm. Following this transfer of water rights, approximately 32 acres of common area irrigation has been connected to the public drinking water system, and the pumping capacity of the wells was not increased above original design criteria, resulting in a water supply deficiency during summer irrigation periods. Additionally, the water system operator has noted that the current available combined supply capacity from the two primary demand pumps is less than the original reported capacity of 750 gpm. A summary of available water rights is displayed in Table 4.

Table 4: Available Water Right Summary

Number	Diversion Rate (cfs/gpm)	Water Use	Comments
63-31745	1.43 / 641	Domestic	100 Lots with ½-acre irrigation
63-31745	2.25 / 1,000	Fire	1,000 gpm Fire Protection
63-31881	0.04 / 18	Irrigation	2 acres Common Area irrigation
63-33344	1.12 / 502	Irrigation	56 acres Common Irrigation, lots in excess of ½-acre

On May 10, 2023, Mountain Waterworks met the system operator onsite to observe pumping conditions. The system was observed to supply approximately 500 gpm at 64 psi to the distribution system. Well pumps were noted to perform below the reported installed pump capacity, however, no clear documentation regarding installed pump models is available.

Under the current pumping configuration of the Arrowrock Ranch Water System, insufficient water supply and pumping capacity will result in continued low-pressure events within the water distribution system. The current supply versus demand projections are shown in Table 5.

Table 5: Current Supply v. Demand Summary

Water Use	Design Demand (gpm)	Available Supply (gpm)	Surplus/(Deficiency) (gpm)
100 Lots with ½-acre irrigation 2 acres Common Area irrigation	473	500 ^a	27
Up to 56 acres Common Irrigation	500	—	(500)
Total Water Demand	973	500 ^a	(473)

Notes:

- a. A pump test performed on May 10, 2023, resulted in a flow of 500 gpm at 64 psi was the highest flow observed with pumps 1 and 2 operating at full speed.

PROJECT CONSIDERATIONS

Based on discussion with the Arrowrock Homeowner's association and Westpark Development in May, 2023, several potential system modifications were considered to increase water system production. Potential modifications included the following:

I. Construction of Separate Irrigation Well

In order to reduce demand on the Public Drinking Water System, a separate irrigation well could be constructed to provide irrigation water for the approximately 56 acres of common area currently irrigated by the drinking water system. This alternative would require application of a water right transfer to Idaho Department of Water Resources (IDWR) and drilling permits for construction of an irrigation well. Additionally, a separate, non-potable irrigation system will be required to connect the irrigation well to the existing irrigation distribution system. In this alternative, the irrigation well would operate on a separate system from the drinking water system and would not be connected. Additionally, required separation distances between non-potable irrigation mains and drinking water mains and services must be maintained.

II. Replace and Increase Capacity of Existing Well Pumps

This alternative was considered to increase the system capacity, however, increasing pump capacity will be considered a material modification of the Public Drinking Water system by IDEQ. Material modifications will require substantial engineering effort, as well as substantial modifications to the existing well house. Estimated project costs for this alternative would likely significantly exceed cost associated with construction of a new irrigation well.

Attachment 4 - Well Estimate Stevens Drilling

From: [Estimate](#)
To: [nydeggen@](#)
Subject: Your Well Drilling Estimate from Stevens Drilling
Date: Tuesday, May 30, 2023 5:16:00 PM

Thank you for your interest in our well drilling services!

Based on the numbers you entered, the estimated cost will be: **\$103,700***

Well Depth: 400'

Casing Diameter: 12"

Your Name: Nicholas Nydegger

Email: [nydeggen@](#)

Phone: (208)

Well Site Address: 11848 W Dynamite Ln

Well Site City: Kuna

Well Site Zip Code: 83634

Well Site GPS Coordinates:

Well Site Lat/Long:

Well Site Township, Range, and Section: T1N R1E Sec 3 nw1/4 of nw1/4

Need Emergency Scheduling?: No

To reserve your site inspection appointment, respond to your Estimate Email with any questions. For scheduling and deposit, reach out to ap@stevenswelldrilling.com

*Estimate is not binding and for informational purposes only. It is calculated with the following standard assumptions, and will change after on-site inspection:

Standard 0.25" steel casing

Within a 20-mile radius of Vista & I-84, Boise ID

Standard well permit (no design)

Standard 38' seal

Standard well development 5' screen

Assuming access is a level graveled min. 14' x 60' surface that can support a 60k drill rig and support rigs

Flat graveled surface that can support a 60k drilling rig

Attachment 5 - R C Worst Designed Pump Estimates



R.C. Worst & Company Inc.
625 E. Best Avenue
Coeur d'Alene, ID 83814

SALES QUOTATION

Quote Number: **69229**
 Quote Date: **6/17/2023**
 Quote Valid Date: **6/27/2023**
 Account Number: **C01-CASH**

CUSTOMER
Cash Customer - Coeur d'Alene 625 E Best Ave Coeur d'Alene, ID 83814

ADDRESS
PICKUP Idaho Falls - Office 4444 S Yellowstone Hwy Idaho Falls, ID 83402

Reference: **Arrowrock Wells** Employee: **Scott Jessick**
 Terms: **Cash, Check, or Credit Card** Shipping Method: **Will Call**

Item Number	Description	Quantity	Unit Price	Total
<i>ARROWROCK WELL 1 - 750 GPM</i>				
TMP	Grundfos 800S1000-4 Pump End 100HP 8" Motor Bracket	1.00	\$7,012.60	\$7,012.60
TMP	Franklin Electric 2396048541 Sand Fighter Motor 8" 100 HP 460-Volt 60-Hz 3-Phase 3-Wire	1.00	\$27,938.00	\$27,938.00
GLV60	GALV PIPE 6"	320.00	\$50.27	\$16,086.40
FTC4089VFD	Flomatic 4089VFD, 80DI-VFD Ductile Iron Check Valve 6"	2.00	\$1,593.90	\$3,187.80
TMP	3/0 3 Heavy Duty Flat W/GRND THW/submersible Pump Cable Copper 600V	325.00	\$36.00	\$11,700.00
			Subtotal	\$65,924.80
<i>ARROWROCK WELL 2 - 350 GPM</i>				
TMP	Grundfos 385S600-8 Pump End 60HP 8" Motor Bracket	1.00	\$6,993.70	\$6,993.70
TMP	Franklin Electric 2396028521 Sand Fighter Motor 8" 60 HP 460/380 -Volt 60/50-Hz 3-Phase 3-Wire	1.00	\$14,618.00	\$14,618.00
GLV40	GALV PIPE 4"	345.00	\$24.53	\$8,462.85
FTC7939VFD	Flomatic 7939VFD, 80DI-VFD Ductile Iron Check Valve 4"	2.00	\$686.70	\$1,373.40
WIRSHDJ1/03WG	Cable Submersible Heavy Duty Flat Jacketed 1/0 w/grd (Non-Stock)	350.00	\$19.00	\$6,650.00
			Subtotal	\$38,097.95
<i>ARROWROCK WELL 3</i>				
TMP	Grundfos 625S1000-5-AA Pump End 100HP 8" Motor Bracket	1.00	\$8,022.70	\$8,022.70
TMP	Franklin Electric 2396048541 Sand Fighter Motor 8" 100 HP 460-Volt 60-Hz 3-Phase 3-Wire	1.00	\$27,938.00	\$27,938.00
TMP	Baker Pitless Unit Model 5PS1214WBWE06F6S - 5' bury, 6" drop pipe, 6" discharge, vented cap	1.00	\$15,000.00	\$15,000.00
GLV60	GALV PIPE 6"	345.00	\$50.27	\$17,343.15
FTC4089VFD	Flomatic 4089VFD, 80DI-VFD Ductile Iron Check Valve 6"	2.00	\$1,593.90	\$3,187.80
TMP	3/0 3 Heavy Duty Flat W/GRND THW/submersible Pump Cable Copper 600V	350.00	\$36.00	\$12,600.00
			Subtotal	\$84,091.65
			Subtotal	\$188,114.40
			Freight	\$0.00
			Sales Tax	\$11,286.86
			Total	\$199,401.26

Attachment 6 - Water Supply Alternatives Mountain Waterworks 2016



April 18, 2016

Greg Johnson
Mayfield Springs Water Company
P.O. Box 344
Meridian, Idaho 83680



Subject: Water Supply Alternatives - Arrowrock Ranch Subdivision

Dear Greg,

As requested, Mountain Waterworks has provided water supply alternatives and budgetary cost estimates for each alternative to address peak season water supply deficiencies for the Arrowrock Ranch Public Water System.

Over the past several summers, peak water demand in the Arrowrock Ranch water system have generated low pressures in the distribution system. Homeowners within the subdivision have observed low pressures (below 40 psi) primarily during the summer irrigation season.

This report identifies existing water supply deficiencies, water supply alternatives and other alternatives to remedy the existing and future water supply deficiency issues.

1. Public Water System Design

In 2003, Arrowrock Ranch Water System was approved by IDEQ as a new public drinking water system and began serving new homes in 2004. The system was originally designed to serve 100 homes and approximately two acres of common area irrigation. The initial water right allowed for domestic and fire protection uses, with domestic use allowing up to ½ an acre of irrigation per platted lot.

The initial water right filing, license No. 63-31745, with a priority date of July 14, 2003 includes a maximum diversion rate of 1.43 CFS for domestic purposes and 2.25 CFS for fire protection purposes.

The water system design demand: were originally calculated at 228 gallons per minute (gpm) for peak day and 473 gpm during peak hour demands. Water supply and distribution facilities were designed to meet or exceed the peak hour demands of 473 gpm. All supply facilities were designed to meet peak hour demands due to the water system operating as a closed system with no gravity storage available.

The water system was constructed with two wells, located on the same well lot. The North well is located outside of the pump house and is equipped with a 500 gpm submersible pump. The South well is located inside the pump house and is equipped with two independent submersible pumps with original design capacities of 250 gpm and 1,000 gpm. The 1,000 gpm submersible pump is dedicated to providing fire protection capacity and is unmetered at this time. The water system operator has noted that the current available combined supply

Mountain Waterworks, Inc.

capacity from the two primary demand pumps is approximately 600 gpm as compared to the design capacity of 750 gpm.

The as-designed water supply verses projected system demands are shown below in Table No.1.

As Originally Approved by IDEQ (2003)	Peak Hour Demands	Water Supply Available	Surplus
101 lots, ½ acre, 2 acres Common Irrigation	473 gpm	750 gpm (domestic)	277 gpm
Fire Protection	1,000 gpm (fire)	1,000 gpm (fire)	---

Table No. 1 Water Supply Design vs. Projected Demands

2. Current Water Supply Deficiency (2016)

The current water supply deficiency has developed with the addition of common area irrigation to the existing public water system demands. Approximately 56 acres of common area irrigation demands have been connected to the public drinking water system as the subdivision was developed. Although currently there are only 78 of the original 100 lots with existing homes. The additional common area irrigation demands have created a supply deficiency during summer irrigation periods.

After the initial phase homes were constructed, additional irrigation water rights were transferred to the two existing wells to supply the water demand requirements of the additional common area irrigation. Approximately 56 acres of irrigation water rights were transferred to the Arrowrock Ranch wells as points of diversion with a maximum diversion rate 1.12 cfs or 502 gpm.

A summary of available water rights is displayed in Table No. 2.

Number	Diversion Rate cfs/gpm	Water Use	Comments
63-31745	1.43/641	Domestic	100 homes, ½ acre irrigation per lot
63-31745	2.25/1,000	Fire Protection	1,000 gpm Fire Protection
63-31881	0.04/18	Irrigation	2 acres, Common area
63-33344	1.12/502	Irrigation	56 acres, Common area, lots in excess of ½ acre.

Table No. 2 Available Water Rights

Mountain Waterworks, Inc.

With the addition of the 56 acres water right and common area irrigation, a water supply deficiency has developed and will increase with the addition of newly constructed homes. When assuming an additional 500 gpm water demand required to irrigate up to a maximum of 56 acres, additional well supply, pumping capacity and/or water conservation will be required to offset these water demands. At full buildout, a water supply deficiency of approximately 373 gpm will exist.

The 2016 supply verses demand projections are show below.

2015 - 2016 Existing Water Uses	Peak Hour Demands	Water Supply Available	Surplus/(Deficiency)
101 lots, ½ acre, 2 acres Common Irrigation	473 gpm	600 gpm (domestic)	127 gpm
56 acres Common Area	500 gpm	---	(500 gpm)
Total Water Demand	973 gpm	600 gpm	(373 gpm)

Table No. 3 2016 Supply vs. Demand Projections

Under the current pumping configuration of the Arrowrock Ranch Water System, insufficient water supply and pumping capacity will result in continues low-pressure events within the water distribution system. In review of the well completion reports of the existing wells, sufficient well capacity is available to offset long term system demands in the range of 1,000 gpm. However, the two primary demand pumps that are currently installed cannot meet the current or anticipated water system demands at pressures above 40 psi.

3. Capital Improvement Alternatives

To resolve the existing and future water system supply deficiency, Mountain Waterworks has identified three primary alternatives.

3.1. Install New Primary Pumps in North and South Wells (Alt No. 1)

This alternative would include replacing the existing domestic pumps in the north and south wells. The south well is equipped with two pumps which include the 1,000 gpm (125 Hp) fire pump and 250 gpm (30 Hp) demand pump. The north well is equipped with a 400+ gpm (75 Hp) demand pump. The two primary demand pumps would be replaced and the existing fire pump would remain in place and continue to be a dedicated fire protection supply.

This alternative would generally include the following:

1. Replace north and south well demand pumps, with capacity around 1,000 gpm total.
2. Retrofit well house mechanical piping to accommodate higher flows.
3. Retrofit electrical equipment, VFDs and controls for higher Horsepower new pumps.

Mountain Waterworks, Inc.

4. Evaluate standby power capacity.
5. IDEQ engineering submittals would be required. Facility Plan, Preliminary Engineering Report, Plans and specifications.

Budgetary Cost: \$160,000

Limitations of Alternative:

- Although this alternative appears to be the low cost alternative, the ability to fit a new small domestic pump in the range of 300-400 gpm down the south well may be difficult. The south well is equipped with the 1,000 fire pump with the new demand pump being installed above and adjacent to the fire pump.
- The existing 6-inch mechanical piping should be replaced with 8-inch piping. New piping could provide space and hydraulic issues. The existing flow meter could be reused.
- The VFD's and electrical controls will be updated and matched to new pumps.
- Distribution system hydraulics were sized for peak day demands and fire protection. At buildout, additional supply capacity could result in low pressure during peak irrigation demands.
- Supplying approximately 50% of the water demand to common area irrigation will be hard to manage and operate.
- The cost of service to supply common area irrigation could be high.
- The existing standby power generator was only sized for initial water system design capacity and may need to be upgraded.

3.2. *Install New Fire Pump in South Well and Utilize as 3rd Demand Pump (Alt No. 2)*

This alternative would replace the original dedicated 1,000 fire pump with a pump that would supply 1,000 gpm at system pressures of 60-80 psi. The original pump was designed to supply fire flow capacity of 1,000 gpm to all hydrants at a pressure of 40 psi.

The 1,00 gpm pumping system mechanical piping was designed without a flow meter and the electrical starter was not variable speed. The new pump would be a 175-200 horsepower and be equipped with a variable speed drive to match variable system demands at constant pressures.

Pressure sustaining valves would be installed on all irrigation connections with the potable water system to ensure that fire flow capacities would be available during a fire flow event.

Mountain Waterworks, Inc.

This alternative would generally include the following:

1. Pull and replace existing 1,000 gpm well pump, motor and utilize as 3rd demand pump.
2. Increase system capacity to approximately 1,500 gpm.
1. Replace current 125 Hp motor starter with 175-200 Hp Variable Speed Drive and upgrade electrical controls.
2. Install 8-inch master system flow meter outside building in concrete vault.
3. Modify mechanical piping to accommodate three pump system.
4. Installation of 1.5 - 2.0" pressure sustaining valves on all 7 irrigation connections.
5. Evaluate standby power capacity.
6. Coordinate with Fire Marshal on required fire flow capacity.
7. IDEQ engineering submittals would be required. Facility Plan, Preliminary Engineering Report, Plans and specifications.

Budgetary Cost: \$173,000

Limitations of Alternative:

- The ability to utilize the dedicated 1,000 gpm fire protection pump as a third demand pump may not be allowed by fire code. The local fire District must approve this approach prior to installation.
- Supplying approximately 50% of the water demand to common area irrigation will be hard to manage and operate. Cost of irrigation water supply could be high.
- Public drinking water systems that are regulated by the IPUC and IDEQ are normally not set up to have the majority of water use irrigation. Allocating costs to residential users and common area irrigation may be challenging.
- Pressure sustaining valves should be installed on all common irrigation lines to shut down irrigation supply during a fire event or low pressure event. The cost and operation of these valves may not be allowed by the IPUC and IDEQ.
- Distribution system hydraulics were sized for peak day demands and fire protection. At buildout, additional supply capacity could result in low pressure during peak irrigation demands.

3.3. Drill New Irrigation Well to Supply all Common Area Irrigation (Alt No. 3)

The existing public drinking water system was sized to meet the demands of 101 lots within the Arrowrock Ranch subdivision and two acres of common area irrigation. The addition of 56 acres of common area irrigation to the public water system increases the water system demands by approximately 500 gpm, or double the design demands.

Under the best-case scenario, the majority of the common area irrigation would be supplied by a separate source of supply and would not be connected to the public drinking water system.

Under this alternative a new 400-foot deep 10 or 12-inch irrigation well would be drilled on the east end of the property. The well would be drilled to irrigation standards and equipped with a pump capable of meeting the ultimate demands of all common area irrigation. It is estimated that the well would have a supply and pumping capacity of approximately 500 gpm.

The new irrigation well would irrigate the majority of common areas within the Arrowrock Ranch subdivision and provide supplemental irrigation water to the wastewater reuse site.

This alternative would generally include the following:

1. New 400 ft. deep, 10-inch irrigation well.
2. 500 gpm well pump.
3. Well head mechanical piping.
4. Piping connection to common area irrigation.
5. Disconnection of irrigation piping from PWS.
6. Electrical equipment and controls.
7. Mechanical piping at well head.
8. Complete water right transfer application of existing irrigation rights.

Budgetary Cost: \$209,000

Limitations of Alternative:

- High capital cost and responsibility of operation.
- Negotiation of ownership and funding of new well facility.
- A new well lot and pipeline easements would be required.
- Water right transfer approval would be required.
- Would require IPUC and IDEQ approvals.

4. Alternative Summary and Recommendation

Of the three alternatives presented, **Alternative No.3 - Drilling a New Irrigation Well** provides a clear separation between the irrigation supply and the public drinking water system. Retrofitting the existing water facilities to accommodate significant irrigation of common areas and wastewater reuse will result in high capital, operational and life cycle costs to homeowners. Mountain Waterworks is recommending constructing a new irrigation well to supply common area irrigation and supplemental irrigation for the wastewater reuse site.

A budgetary cost summary of the three alternatives is shown below. The budgetary cost provided shall be used only to evaluate supply alternatives. If actual project cost estimates are required, preliminary engineering and cost estimating should be completed prior to construction of the selected alternative.

Number	Alternative	Budgetary Estimate
Alternative 1	Replace Demand Pumps	\$160,000
Alternative 2	Replace and Utilize Fire Pump	\$173,000
Alternative 3	Drill and Equip Irrigation Well	\$209,000

Table No. 3 Budgetary Alternative Cost Summary

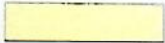


Sincerely,

Mountain Waterworks

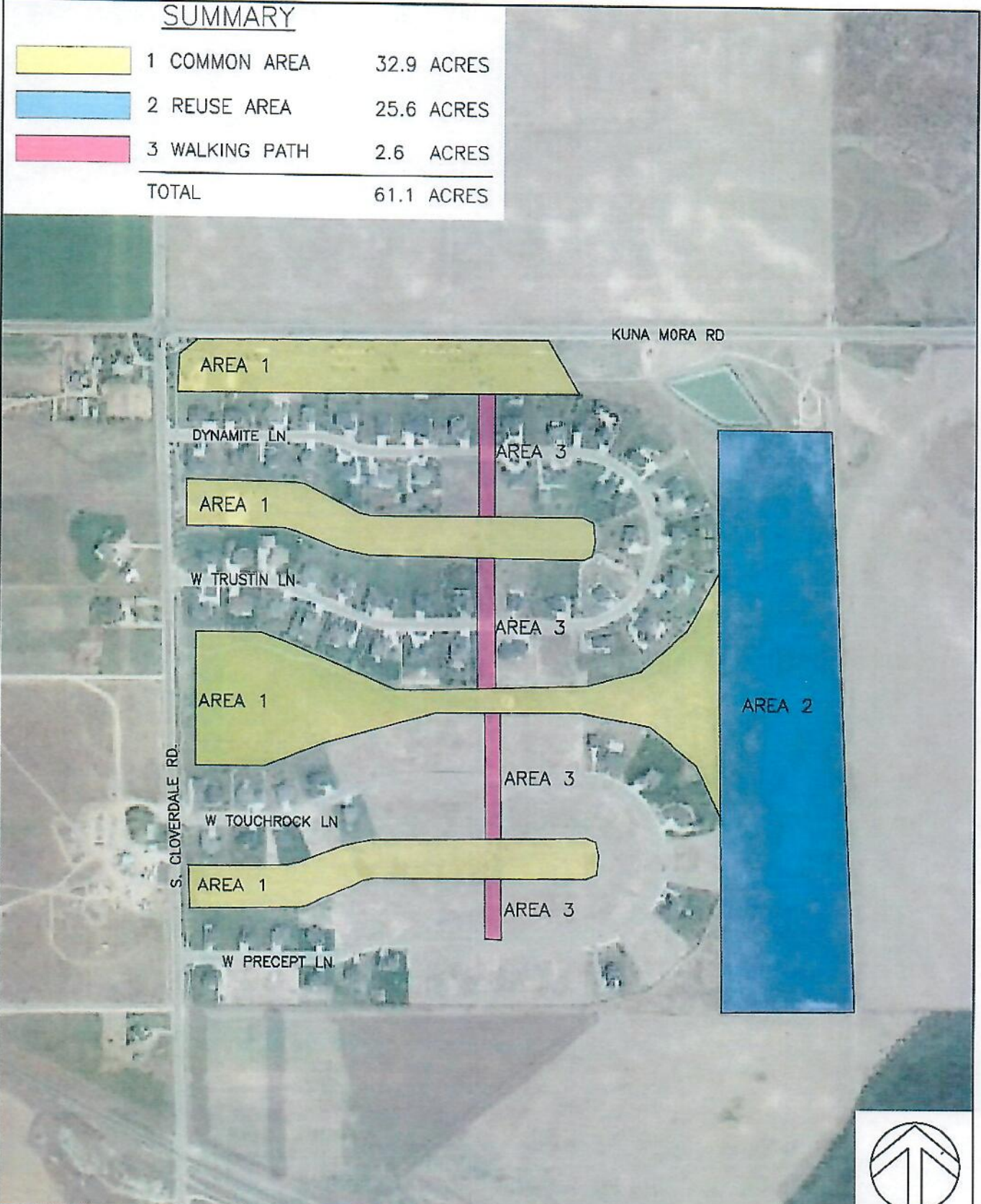


Tim Farrell, P.E.
Principal Engineer

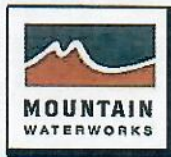
SUMMARY

	1 COMMON AREA	32.9 ACRES
	2 REUSE AREA	25.6 ACRES
	3 WALKING PATH	2.6 ACRES
TOTAL		61.1 ACRES

Path: X:\Projects\E-H\HillsdaleEstates_10210020_Well 4\CISD\BLM\Exhibit Tank Option 3.dwg File Name: BLM Exhibit Tank Option 3.dwg Plot Date: 4/11/2016 2:48 PM Duce



NORTH



ENGINEERING AND ENVIRONMENTAL SOLUTIONS
 2210 W. MAIN ST.
 BOISE, IDAHO 83702
 208.780.3990
 IDAHO OFFICES
 BOISE · McCALL · COEUR D'ALENE

MAYFIELD SPRINGS WATER COMPANY

PROJECT NO.:
139.0020.01

ADDITIONAL IRRIGATION REQUIREMENTS

SHEET NO.
FIGURE 1

Attachment 7 - 2014 Water Supply SPF Engineering



MEMORANDUM

DATE: August 20, 2014
TO: Chris Ward, Arrowrock Ranch Association, Inc.
FROM: Cathy Cooper, P.E.
CC: File 776.0050
RE: Arrowrock Ranch Water System Design Criteria and Irrigation Pumping Capacity



The Arrowrock Ranch water system is reportedly experiencing low system pressures during peak irrigation season. This memorandum summarizes water system design criteria for the Arrowrock Ranch existing water system. To compile the design criteria, we used information available in SPF Water Engineering (SPF) files, and also submitted a Public Information Request to the Idaho Department of Environmental Quality (IDEQ) and reviewed records available in their file archives. We have not field verified this information, it is reported from available documentation. The design and permitting documents reviewed were completed between 2003 and 2007.

In addition, this Memorandum projects pumping rates that would be required to supply the irrigation contemplated with water right permits 63-12260 and 63-33186.

Design Criteria

Number of Lots

The water system was designed to serve 100 residential lots, plus the wastewater system, or 101 total connections. Phase one of Arrowrock Ranch was assumed to be 50 of the 100 planned residential lots. The water system was designed around providing domestic, irrigation, and fire protection water supplies.

Design Flows

IDEQ guidance documents were used to determine water requirements. The common area irrigation demands were accounted for in the calculations by increasing the average lot size until the irrigated area totals 52 acres (2 acres of common area irrigation and 100 lots, each with 0.5 acre of landscape irrigation). Using the IDEQ guidance document formula, an average density of 1.41 homes per acre resulted in a total irrigated area of 52 acres. The resulting maximum day demand was 228 gpm and the peak hour demand was 473 gpm. Design fire flows were 1,000 gpm. The system was designed to provide a maximum flow of 1,473 gpm (fire flow plus peak hour demand).

A summary of design flows is included in the following table.

Design Point (at Full Build-Out)	Flow (gpm)
Maximum Day Demand	228
Peak Hour Demand	473
Fire Flows	1,000

Design Pressures

The following design pressures were listed for key locations in the development.

Elevation (ft)	Pressure (psi)	Location
2,780	54 to 74	Low Point
2,790	50 to 70	Well Site
2,800	46 to 66	High Point

Wells and Pumps

Well #1 (the outside well) is constructed with 12-inch casing and 12-inch well screens. Well #2 (the inside well) is constructed with 18-inch casing and 10-inch well screens. Both wells are constructed to produce water from approximately 275 to 400 feet below ground. Well #1 contains one domestic/irrigation supply pump. Well #2 contains a domestic/irrigation supply pump and a fire supply pump.

The well pumps have the following characteristics:

Pump and Well	Service	VFD?	Flow Capacity (gpm)	TDH (ft)	Horse- power
Pump 1, Well 1	Domestic/Irrigation	Yes	500	350	75
Pump 2, Well 2	Domestic/Irrigation	Yes	250	325	30
Pump 3, Well 2	Fire	No	1,000	350	125

It appears that the pumps were selected so that for the first phase of Arrowrock Ranch (50 residential lots), Pump 2 (250 gpm) would be the primary supply for domestic and irrigation flows. When normal domestic and irrigation demands exceeded 250 gpm, (anticipated to occur with more than 50 residential lots) the controls would be switched to make Pump 1 (500 gpm) the primary supply pump for domestic and irrigation flows.

The following design pressures were anticipated for pump operation:

Pump and Well	Service	VFD?	Flow Capacity (gpm)	Minimum Flow (gpm)	Pressure On (psi)	Pressure Off (psi)	Pressure to Maintain (psi)
Pump 1, Well 1	Domestic and Irrigation	Yes	500	80	50	70	60
Pump 2, Well 2	Domestic and Irrigation	Yes	250	50	50	70	60
Pump 3, Well 2	Fire	No	1,000	Constant	40	80	N/A

Distribution System Piping

The distribution system is supplied from the well facility via a 12-inch water main to an 8-inch looped system through the streets.

Water Rights

The Idaho Department of Water Resources (IDWR) on-line water rights database was searched to identify water rights associated with Arrowrock Subdivision located in Section 3, T1N, R1E, Ada County. Findings consist of ground water rights for irrigation, domestic and fire protection uses. Copies of the water right records are attached. The water rights' points of diversion and places of use are shown in Figure 1.



Figure 1: Appurtenant Water Rights

Water Right 63-31745 authorizes diversion of 1.43 cubic feet per second (cfs) and 120 acre-feet per year (afa) from ground water for year round domestic uses for 100 homes and 2.25 cfs for year round fire protection use with a July 7, 2003 priority date. The points of diversion are two wells located in Lot 2, Arrowrock Subdivision, Phase 1. The right allows irrigation of up to $\frac{1}{2}$ acre per home, but does not include irrigation of common areas within the subdivision. The water right is currently listed in the name of Mayfield Springs Water Co., Inc.

Water Right 63-31881 authorizes diversion of 0.04 cfs and 9.0 afa from ground water for irrigation use from 3/15 to 11/15 with a December 9, 1983 priority date. The points of diversion are the same two wells described above. The right allows irrigation of 2 acres of common area within the subdivision. The water right is currently listed in the name of Mayfield Springs Water Co., Inc.

Permit 63-12260 authorizes diversion of 1.12 cfs from ground water for irrigation use from 3/1 to 11/15 with a July 21, 1995 priority date. The points of diversion are the same two wells described above. The right allows irrigation of 46 acres of additional common area and 13 acres of residential lawn area in excess of the ½ acre allowed under water right 63-31745. Proof of beneficial use was filed in 2010. A licensing field exam has yet to be conducted by the IDWR. The water right is currently listed in the name of Mayfield Springs Water Co., Inc.

Permit 63-33186 authorizes diversion of 0.60 cfs from ground water for irrigation use from 3/1 to 11/15 with a March 16, 2009 priority date. The points of diversion are the same two wells described above plus waste water from a treatment pond. The right allows irrigation of 30 acres of additional common area as shown in Figure 1. Proof of beneficial use has not been filed and is due in January 2, 2015. The water right is currently listed in the name of Arrowrock Ranch Assn., Inc.

Irrigation Water Pumping Projections

It does not appear that the existing water system design criteria included pumping capacity for the large irrigation demands contemplated with water right permits 63-12260 and 63-33186.

- **Permit 63-12260** authorizes diversion of 1.12 cfs. A pumping rate of 503 gpm (equivalent to 1.12 cfs) pumped continuously would allow for irrigation of the 46 acres of additional common area and 13 acres of residential lawn area in excess of the ½ acre per home. Irrigation would need to be on a rotating basis through sprinkler zones around the clock during mid-summer peak-demand periods.
- **Permit 63-33186** authorizes diversion of 0.60 cfs for irrigation of 30 acres. A pumping rate of 270 gpm (equivalent to 0.60 cfs) pumped continuously would allow for this irrigation demand on a 24-hour basis during mid-summer peak demand periods.

[Close](#)

IDAHO DEPARTMENT OF WATER RESOURCES
Water Right Report

8/14/2014

WATER RIGHT NO. 63-31745

<u>Owner Type</u>	<u>Name and Address</u>
Current Owner	MAYFIELD SPRINGS WATER CO INC C/O GREG JOHNSON PO BOX 344 MERIDIAN, ID 83680 (208) 888-9946
Original Owner	ARBOR RIDGE LLC C/O GREG JOHNSON PO BOX 344 MERIDIAN, ID 83680 (208)888-9946

Priority Date: 07/14/2003
Basis: License
Status: Active

<u>Source</u>	<u>Tributary</u>
GROUND WATER	

<u>Beneficial Use</u>	<u>From</u>	<u>To</u>	<u>Diversion Rate</u>	<u>Volume</u>
DOMESTIC	01/01	12/31	1.43 CFS	120 AFA
FIRE PROTECTION	01/01	12/31	2.25 CFS	
Total Diversion			3.68 CFS	

Location of Point(s) of Diversion:

GROUND WATER|NWNW Lt 4|Sec. 03|Township 01N|Range 01E|ADA County
GROUND WATER|NWNW Lt 4|Sec. 03|Township 01N|Range 01E|ADA County

DOMESTIC Use:
Number of homes: 100

Place(s) of use:

Place of Use Legal Description: DOMESTIC ADA County

Township|Range|Section|Lot | Tract | Acres|Lot | Tract | Acres|Lot | Tract | Acres|Lot | Tract | Acres

01N | 01E | 3 | 3 | NENW | 4 | NWNW | | | SWNW | | | SENW |

Place of Use Legal Description: FIRE PROTECTION ADA County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
01N	01E	3	3	NENW		4	NWNW			SWNW			SEW	

Conditions of Approval:

1. 01M After specific notification by the Department, the right holder shall install a suitable measuring device or shall enter into an agreement with the Department to determine the amount of water diverted from power records and shall annually report the information to the Department.
2. X01 Domestic use is for 100 homes.
3. X60 Place of use is located within Lots 4-11, 13-23, 25-32, 35-42, 44-50 and 52-59, Arrowrock Ranch Subdivision Phase 1; Lots 64-71, 73-91, and 94-116, Arrowrock Ranch Subdivision Phase 2.
4. X59 Points of diversion are located within Lot 2, Arrowrock Ranch Subdivision Phase 1.
5. 077 Water shall not be diverted for fire protection use under this right except to fight or repel an existing fire.
6. 070 The irrigation occurring under this domestic use shall not exceed 1/2 acre within each platted subdivision lot upon which a home has been constructed. This right does not provide for irrigation of common areas or for irrigation of lots upon which homes have not been constructed.
7. Water bearing zone to be appropriated is from 200 to 500 feet.
When ordered by the Director, the right holder shall provide mitigation acceptable to the Director to offset depletion of lower Snake River flows needed for migrating anadromous fish. The amount of water required for mitigation, which is to be released into the Snake River or a tributary for this purpose,
8. 103 will be determined by the Director based upon the reduction in flow caused by the use of water pursuant to this right. Any order of the Director issued in accordance with this paragraph shall be in conformance with applicable rules allowing the right holder due process as the need for mitigation and the amount of mitigation are determined.

Dates:

Licensed Date: 09/20/2010
 Deceed Date:
 Permit Proof Due Date: 9/1/2013
 Permit Proof Made Date: 6/12/2009
 Permit Approved Date: 9/4/2003
 Permit Moratorium Expiration Date:
 Enlargement Use Priority Date:
 Enlargement Statute Priority Date:
 Water Supply Bank Enrollment Date Accepted:
 Water Supply Bank Enrollment Date Removed:
 Application Received Date: 07/14/2003
 Protest Deadline Date: 08/25/2003
 Number of Protests: 0

Other Information:

State or Federal:
 Owner Name Connector:
 Water District Number:
 Generic Max Rate per Acre:
 Generic Max Volume per Acre:
 Civil Case Number:
 Old Case Number:
 Decree Plaintiff:
 Decree Defendant:
 Swan Falls Trust or Nontrust:
 Swan Falls Dismissed:
 DLE Act Number:
 Cary Act Number:
 Mitigation Plan: False

[Close](#)

Close

IDAHO DEPARTMENT OF WATER RESOURCES
Water Right Report

8/14/2014

WATER RIGHT NO. 63-31881

<u>Owner Type</u>	<u>Name and Address</u>
Current Owner	MAYFIELD SPRINGS WATER CO INC C/O GREG JOHNSON PO BOX 344 MERIDIAN, ID 83680 (208) 888-9946
Original Owner	FRANK N HAM
Original Owner	WYOMA HAM 4415 N LOCUST GROVE MERIDIAN, ID 83642 (208)888-4263

Priority Date: 12/09/1983
Basis: Decreed
Status: Active

<u>Source</u>	<u>Tributary</u>
GROUND WATER	

<u>Beneficial Use</u>	<u>From</u>	<u>To</u>	<u>Diversion Rate</u>	<u>Volume</u>
IRRIGATION	03/15	11/15	0.04 CFS	9 AFA
Total Diversion			0.04 CFS	

Location of Point(s) of Diversion:

GROUND WATER|NWNW Lr 4|Sec. 03|Township 01N|Range 01E|ADA County
GROUND WATER|NWNW Lr 4|Sec. 03|Township 01N|Range 01E|ADA County

Place(s) of use:

Place of Use Legal Description: IRRIGATION ADA County

<u>Township</u>	<u>Range</u>	<u>Section</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>
01N	01E	3	3	NENW	0.3	4	NWNW	1		SWNW	0.6		SENW	0.1

Total Acres: 2

Conditions of Approval:

- 1. T07 The right holder shall accomplish the change authorized by Transfer 71181 within one (1) year of the date of the approval.
- 2. T08 Failure of the right holder to comply with the conditions of this transfer is cause for the Director to rescind approval of the transfer.
- 3. 046 Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.
- 4. T17 Prior to diversion of water under this approval, the right holder shall provide a means of measurement acceptable to the Department from all authorized points of diversion which will allow determination of the total rate of diversion.
- 5. WB4 The total instantaneous diversion of water from all points of diversion under Right 63-31881 shall not exceed 0.04 cfs, nor a total combined annual volume of 9.0 af.
- 6. X36 Right 63-31745 is also diverted through the point(s) of diversion described above.
- 7. C18 This partial decree is subject to such general provisions necessary for the definition of the rights or for the efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Section 42-1412(6), Idaho Code.
- 8. P21 This right is a split from former right 63-31790.
- 9. S39 The use of water for irrigation under this right may begin as early as March 1, provided other elements of the right are not exceeded. The use of water before March 15 under this remark is subordinate to all water rights having no subordinated early or late irrigation use and a priority date earlier than the date a partial decree is entered for this right.

Dates:

Licensed Date:
 Decreed Date: 02/16/2007
 Enlargement Use Priority Date:
 Enlargement Statute Priority Date:
 Water Supply Bank Enrollment Date Accepted:
 Water Supply Bank Enrollment Date Removed:
 Application Received Date:
 Protest Deadline Date:
 Number of Protests: 0

Other Information:

State or Federal: S
 Owner Name Connector: OR
 Water District Number:
 Generic Max Rate per Acre:
 Generic Max Volume per Acre:
 Civil Case Number:
 Old Case Number:
 Decree Plaintiff:
 Decree Defendant:
 Swan Falls Trust or Nontrust:
 Swan Falls Dismissed:
 DLE Act Number:
 Cary Act Number:
 Mitigation Plan: False

[Close](#)

Close

IDAHO DEPARTMENT OF WATER RESOURCES
Water Permit Report

8/14/2014

WATER RIGHT NO. 63-12260

<u>Owner Type</u>	<u>Name and Address</u>
Current Owner	MAYFIELD SPRINGS WATER CO INC C/O GREG JOHNSON PO BOX 344 MERIDIAN, ID 83680 (208) 888-9946
Representative	SPF WATER ENGINEERING LLC C/O LORI GRAVES 300 E MALLARD DR STE 350 BOISE, ID 83706 (208)383-4140
Original Owner	ANTHONY MILLER 10597 E KUNA MORA RD KUNA, ID 83634 (208)362-5388

Priority Date: 07/21/1995
Status: Active

<u>Source</u>	<u>Tributary</u>
GROUND WATER	

<u>Beneficial Use</u>	<u>From</u>	<u>To</u>	<u>Diversion Rate</u>	<u>Volume</u>
IRRIGATION	03/01	11/15	1.12 CFS	
Total Diversion			1.12 CFS	

Location of Point(s) of Diversion:

GROUND WATER|NWNW Lt 4|Sec. 03|Township 01N|Range 01E|ADA County
GROUND WATER|NWNW Lt 4|Sec. 03|Township 01N|Range 01E|ADA County

IRRIGATION Use:
Acre Limit: 56

Place(s) of use:

Place of Use Legal Description: IRRIGATION ADA County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
01N	01E	3	3	NENW/25	4	NWNW/40			SWNW/40				SENW/25	

Total Acres: 130

Conditions of Approval:

- 1.26A Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to circumstances over which the permit holder had no control.
- 2.01M After specific notification by the Department, the right holder shall install a suitable measuring device or shall enter into an agreement with the Department to use power records to determine the amount of water diverted and shall annually report the information to the Department.
- 3.004 This right does not grant any right-of-way or easement across the land of another.
- 4.X27 This right is limited to the irrigation of 56 acres comprised of common areas and residential lots larger than 0.5 acres within Arrowrock Ranch Subdivision in a single irrigation season.
- 5.X60 Place of use is located within Arrowrock Ranch Subdivision.
- 6.121 The Director retains jurisdiction to require the right holder to provide purchased or leased natural flow or stored water to offset depletion of Lower Snake River flows if needed for salmon migration purposes. The amount of water required to be released into the Snake River or a tributary, if needed for this purpose, will be determined by the Director based upon the reduction in flow caused by the use of water pursuant to this permit.

Dates:

- Proof Due Date: 01/01/2011
- Proof Made Date: 11/26/2010
- Approved Date: 01/15/2009
- Moratorium Expiration Date:
- Enlargement Use Priority Date:
- Enlargement Statute Priority Date:
- Application Received Date: 07/21/1995
- Protest Deadline Date: 01/05/2009
- Number of Protests: 0
- Field Exam Date:
- Date Sent to State Off:
- Date Received at State Off:

Other Information:

- State or Federal:
- Owner Name Connector:
- Water District Number:
- Generic Max Rate per Acre: 0.02
- Generic Max Volume per Acre: 4.5
- Swan Falls Trust or Nontrust:
- Swan Falls Dismissed:
- DLE Act Number:
- Cary Act Number:
- Mitigation Plan: False

[Close](#)

[Close](#)

IDAHO DEPARTMENT OF WATER RESOURCES
Water Permit Report

8/14/2014

WATER RIGHT NO. 63-33186

<u>Owner Type</u>	<u>Name and Address</u>
Current Owner	ARROWROCK RANCH ASSN INC C/O SNAKE RIVER HOA MGT 7231 W FRANKLIN RD BOISE, ID 83709 (208)855-0505
Representative	SPF WATER ENGINEERING LLC C/O LORI GRAVES 300 E MALLARD DR STE 350 BOISE, ID 83706 (208)383-4140

Priority Date: 03/16/2009
Status: Active

<u>Source</u>	<u>Tributary</u>
GROUND WATER	
WASTE WATER	

<u>Beneficial Use</u>	<u>From</u>	<u>To</u>	<u>Diversion Rate</u>	<u>Volume</u>
IRRIGATION	03/01	11/15	0.6 CFS	
Total Diversion			0.6 CFS	

Location of Point(s) of Diversion:

WASTE WATER	NENW Lt 3	Sec. 03	Township 01N	Range 01E	ADA County
GROUND WATER	NWNW Lt 4	Sec. 03	Township 01N	Range 01E	ADA County
GROUND WATER	NWNW Lt 4	Sec. 03	Township 01N	Range 01E	ADA County

Place(s) of use:

Place of Use Legal Description: IRRIGATION ADA County

<u>Township</u>	<u>Range</u>	<u>Section</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>	<u>Lot</u>	<u>Tract</u>	<u>Acres</u>
01N	01E	3	3	NENW	15		SENW	15						

Total Acres: 30

Conditions of Approval:

- | | |
|-------|--|
| 1.26A | Project construction shall commence within one year from the date of permit issuance and shall proceed diligently to completion unless it can be shown to the satisfaction of the Director of the Department of Water Resources that delays were due to circumstances over which the permit holder had no control. |
| 2.01M | After specific notification by the Department, the right holder shall install a suitable measuring device or shall enter into an agreement with the Department to use power records to determine the amount of water diverted and shall annually report the information to the Department. |
| 3.121 | The Director retains jurisdiction to require the right holder to provide purchased or leased natural flow or stored water to offset depletion of Lower Snake River flows if needed for salmon migration purposes. The amount of water required to be released into the Snake River or a tributary, if needed for this purpose, will be determined by the Director based upon the reduction in flow caused by the use of water pursuant to this permit. |
| 4.R65 | This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 4.5 afa per acre at the field headgate for irrigation of the lands above. |
| 5.004 | This right does not grant any right-of-way or easement across the land of another. |
| 6.F06 | The following rights are diverted through point(s) of diversion described above: 63-12260, 63-31881 and 63-31745. |
| 7. | Waste water source is treated wastewater from Arrowrock Ranch Subdivision. |

Dates:

Proof Due Date: 01/02/2015

Proof Made Date:

Approved Date: 12/31/2009

Moratorium Expiration Date:

Enlargement Use Priority Date:

Enlargement Statute Priority Date:

Application Received Date: 03/16/2009

Protest Deadline Date: 11/23/2009

Number of Protests: 0

Field Exam Date::

Date Sent to State Off:

Date Received at State Off:

Other Information:

State or Federal:

Owner Name Connector:

Water District Number:

Generic Max Rate per Acre: 0.02

Generic Max Volume per Acre: 4.5

Swan Falls Trust or Nontrust:

Swan Falls Dismissed:

DLE Act Number:

Cary Act Number:

Mitigation Plan: False

Exhibit 5

to

PUC – Formal Complaint

Arrowrock Ranch Association, Inc.

v.

Mayfield Springs Water Company

From: Nicholas Nydegger
Sent: Tuesday, September 12, 2023 10:25 AM
To: Larry Squires <larry@[REDACTED]>
Cc: arrowrockbd@[REDACTED]; Arrowrock Ranch <arrowrockranch@[REDACTED]>; Hethe Clark <hclark@[REDACTED]>; Debbie Taylor <debbie@[REDACTED]>; tom@[REDACTED]; Mike Woodworth <mwoodworth@[REDACTED]>; Greg Johnson <greg@[REDACTED]>; Taylor Merrill <taylor@[REDACTED]>; Valerie.Greear@deq.idaho.gov; Chris Hecht <Chris.Hecht@puc.idaho.gov>; Ryan Poole <rpoole@[REDACTED]>
Subject: RE: Arrowrock Ranch Water Pressure/Flow Problem with Mayfield Springs Water Company

Larry,

Here is our response to the proposals we are discussing. We still believe pump upgrades are then best choice. I appreciate your insight and efforts. Please see the included file for our full response. Let me know if you have troubles reading the file.

Best Regards,

Nick Nydegger
Arrowrock Ranch
208-[REDACTED]

From: Larry Squires <larry@[REDACTED]>
Sent: Friday, August 25, 2023 10:16 AM
To: Nicholas Nydegger <NYDEGGEN@[REDACTED]>
Cc: arrowrockbd@[REDACTED]; Arrowrock Ranch <arrowrockranch@[REDACTED]>; Hethe Clark <hclark@[REDACTED]>; Debbie Taylor <debbie@[REDACTED]>; tom@[REDACTED]; Mike Woodworth <mwoodworth@[REDACTED]>; Greg Johnson <greg@[REDACTED]>; Taylor Merrill <taylor@[REDACTED]>
Subject: RE: Arrowrock Ranch Water Pressure/Flow Problem with Mayfield Springs Water Company

Nick,

After reviewing the contents of your emailed letter dated August 17, 2023 with our consultants, which included Mountain Waterworks engineers and Tom Mehiel, the outside system operator, we have refined the three previously discussed options. A very brief summary of those three options are:

- A. Replace two existing pumps (not fire pump) with newer more efficient pumps of same horsepower to raise the outflow to 750-800 gpm.

- B. Upgrade pumps with higher horsepower pumps to achieve at least 1,500 gpm output.
- C. Dig new well to only service irrigation needs for common areas and to supplement sewer plant.

We have ruled out **Option A** because it does not fully solve the water pressure problems.

Based on information provided by the engineers, it appears that **Option B** will cost in the range of \$1.5 million and would require months of engineering work before upgrades could be made. (I have copied the portion of an email Mountain Water Works sent to Taylor Merrill relating to this option, and included it below at the end of this email for your reference.) This option is simply cost and time prohibitive.

Option C, though not perfect, is the best of the three options mostly because it is the only option that will solve the pressure issues AND is within fiscal reach of all financial participants. Estimates you received Nick suggest that its cost would be in the range of \$350,000 for the well and related equipment. The engineers, in referring to this option have told us that

The \$350,000 estimate Nick provides seems reasonable for an irrigation well with the pump and controls but would likely need additional funds to construct a separate non-potable irrigation piping system. This alternative is assumed to carry a lower overall cost and timeline for implementation. This would not require the IDEQ involvement of Option B unless the well is connected to the [potable] water system.

To reiterate, the "additional funds to construct a separate non-potable irrigation piping system" when coupled with the cost of the well itself, will likely be less than one-third of the cost of Option B.

Beside cost, an advantage Option C provides over the other two is that the HOA would know exactly the layout of the new non-potable irrigation piping, something that has not been determined about the existing system physically or through finding an irrigation piping plan. A couple of other advantages are that this option will not require a reduction or stoppage of service to homeowners during construction, whereas the other two options would; and it would be able to be implemented much faster than Option B.

For these reasons, we are proposing that we proceed with Option C. This will require that we consider a cost recovery plan with residents and/or the HOA for Mayfield Springs Water to recover the cost of the required capital investment. We are looking to engage an attorney familiar with PUC rules to advise Mayfield Water on the best way to proceed if the PUC needs to be involved.

We would like to meet with you next week to discuss these items further. Our hope for that meeting would be to outline a general approach on how to accomplish Option C in a timely manner, and to discuss the general terms of a satisfactory cost recovery plan. We will invite a representative from Mountain Waterworks and Tom Mehiel to join the meeting for technical expertise and questions. Feel free to invite members of your Board who may wish to be present at the meeting. Hethe Clark, the land development attorney we have engaged to assist with drafting agreements in this matter, may also join us. Our conference room is large enough to accommodate the meeting and would be available if that is an acceptable meeting venue for you.

To allow meeting participants time to further gather information relative to Option C and an acceptable cost recovery plan (thus making discussions at the meeting most effective and efficient), we would like to suggest the meeting not be before Wednesday, August 30. **Would you please suggest two or three times that would work for you beginning August 30, and we will choose from those the best meeting time for our people.** We would expect the meeting to last 60-90 minutes.

Thank you,
Mayfield Springs Water Company, Inc.
Larry Squires, CFO

Portion of engineer's email regarding cost of Option B that is referenced above:

From: Cody Sprague <csprague@ [REDACTED]>
Date: August 23, 2023 at 3:22:41 PM MDT
To: Taylor Merrill <taylor@ [REDACTED]>
Cc: Stuart Hurley <SHurley@ [REDACTED]>
Subject: Arrowrock Ranch

Hey Taylor,

I met with Stuart earlier today to go over a rough cost and timeline estimate for the engineering effort should you choose to pursue upsizing the pumps/system out at Arrowrock. Here is a summary of our preliminary opinions of costs and schedule:

1. Public Water System Upgrades for Irrigation:
 1. Facility Plan: comprehensive summary of the existing system history, demands, supply, deficiencies, and alternatives to correct/improve deficiencies (DEQ requirement)
 1. Engineering Cost: \$60,000
 2. Timeline: 6 – 8 months
 2. Preliminary Engineering Report: defines design criteria of selected system improvements (DEQ requirement)
 1. Engineering Cost: \$40,000
 2. Timeline: 4 – 6 months
 3. Plans and Specifications: construction documents (DEQ requirement)
 1. Engineering Cost: \$80,000
 2. Timeline: 6 – 8 months
 4. Construction:
 1. Engineering Cost (Construction Observation): \$60,000
 2. Timeline: 8-10 months
2. The system deficiencies we are assuming would need to be addressed are:
 1. Supply to meet updated Fire Flows (1,500 gpm with largest source out of service) – Opinion of Cost: \$1.5M – Two Options
 1. New Well – this would require additional engineering in the form of a Well Site Evaluation, an additional Preliminary Engineering Report, Plans and Specifications, additional construction time, a Well Completion Report– Estimated Engineering Cost: 120,000, Timeline: 12 months) – this would fit into the above timeline after the Facility Plan and before the Preliminary Engineering Report.
 1. This option may require an amendment to the Facility Plan to include the new system capacity after the well is constructed
 2. This would require piping and equipment to utilize the new source of supply
 2. Greatly upsized pumps
 1. This would require upsized power service and electrical equipment, and would likely require full replacement of well house mechanical piping
 2. Standby Power would need to be upsized to meet current standards – Opinion of Cost: \$150,000
 3. Additional deficiencies may be discovered during the Facility Planning phase that may or may not be required to be addressed.

From: Larry Squires
Sent: Tuesday, August 22, 2023 7:33 AM
To: Nicholas Nydegger <NYDEGGEN@>; Greg Johnson <greg@>; Taylor Merrill <taylor@>; Mike Woodworth <mwoodworth@>; tom@
Cc: Chris Hecht <Chris.Hecht@puc.idaho.gov>; Chris McEwan <chris.mcewan@puc.idaho.gov>; Travis Culbertson <Travis.Culbertson@puc.idaho.gov>; Valerie.Greear@deg.idaho.gov; Dan.M.Smith@deg.idaho.gov; arrowrockbd@; Arrowrock Ranch <arrowrockranch@>
Subject: RE: Arrowrock Ranch Water Pressure/Flow Problem with Mayfield Springs Water Company

Nick,

We are in receipt of your letter and have been reviewing it with outside consultants. We will get back to you with a proposal that includes a cost sharing agreement by the end of this week. Hethe Clark is included in this email. He is our land development attorney who would draft any agreements between Mayfield Springs Water Co. and the Arrowrock HOA in this regard.

Thank you.

Mayfield Springs Water Company, LLC
Larry Squires, its Manager

From: Nicholas Nydegger <NYDEGGEN@>
Sent: Thursday, August 17, 2023 12:00 PM
To: Larry Squires <larry@>; Greg Johnson <greg@>; Taylor Merrill <taylor@>; Mike Woodworth <mwoodworth@>; tom@
Cc: Chris Hecht <Chris.Hecht@puc.idaho.gov>; Chris McEwan <chris.mcewan@puc.idaho.gov>; Travis Culbertson <Travis.Culbertson@puc.idaho.gov>; Valerie.Greear@deg.idaho.gov; Dan.M.Smith@deg.idaho.gov; arrowrockbd@; Arrowrock Ranch <arrowrockranch@>
Subject: Arrowrock Ranch Water Pressure/Flow Problem with Mayfield Springs Water Company

Dear Mayfield Springs, Idaho Public Utilities Commission and Idaho Department of Environmental Quality,

I have attached our current response to Mayfield Springs. We have been working toward a solution for a long time. Currently we are stalled out dealing with the same problem points we have talked about for multiple years. The response is somewhat long so I have attached it in pdf form.

If you are unable to read the attached information or have questions, please don't hesitate to contact me.

Regards,

Nick Nydegger
President Arrowrock Ranch HOA
208-
nydeggen@

September 11, 2023

Arrowrock Ranch Homeowners Association

Dear Mayfield Springs (Greg Johnson),

Larry,

This letter is in response to your email of 25 August 2023 proposing solutions to our water pressure/flow problems here in Arrowrock Ranch Subdivision. We appreciate your efforts but disagree with the proposed selection of a new well. We still believe a pump upgrade is the least costly solution for everyone to meet our needs.

The Idaho Department of Environmental Quality (DEQ) will be a hindrance no matter which way we try to solve the problem. They will require, according to their engineer, a Facility Plan Update, a stamped Pre-Engineering Report, a pump test, and Installation plan to increase pump capacity. The pump solutions I proposed are based on our current in place horsepower. These pumps were engineered to replace what we have with increased flow. RC Worst used the well logs for those wells as well as Mayfield Springs information on installed pumps and horsepower.

For DEQ I believe we can update existing plans without the exorbitant costs your engineers proposed. A simple upgrade to pumps within our allocated water rights slightly above the 750 gpm instantiated in the original documents. DEQ did not say we would need to meet all their current requirements to change pumps within our water rights.

It seems the DEQ is the roadblock to making an advised decision. We should try to meet with them and nail down what the actual requirements are going to be.

Our problems again lay within our upper intermediate to peak flow requirements annually. I think we could be satisfied with increased flow at the 750-800 gpm as you suggested in Option A, increase pump outflow. I am sure you proposed this as it falls within a simple pump change, leaving our DEQ requirements valid. But the proposal I submitted at 1100 gpm would definitely solve the problem. Either option here provides the most cost-effective permanent solution for all.

The problem for our side with the new well is total cost, utility connectivity costs and disruption. No matter where the well is placed, we still need to connect to existing backflow connections. I have drawn up two scenarios to connect to these backflow connection points. Scenario One (Fig. 1) requires 2,762 meters of permanent water lines 42" below grade. This is 9,061 feet or 1.71 miles of water line. This will require we cross our hard surface roads twice. A rough estimate to trench, install pipe, repair elements that were cut and connect to the well is around \$72,000 - \$100,000. This will be quite a commotion and leave our site in recovery for a few years.



Fig. 1 Scenario One – Water lines to connect existing piping.

Scenario Two (Fig. 2) requires 2,615 meters of permanent water lines 42" below grade. This is 8,578 feet or 1.62 miles of water line. This will require we cross our hard surface roads three times and could adversely affect our paved walking trail. A rough estimate to trench, install pipe, repair elements that were cut and connect to the well is about the same as Scenario One, around \$72,000 - \$100,000.



Fig. 2 Scenario Two – Water lines to connect existing piping.

As I stated earlier, I believe we should pin down the DEQ on our proposals. We should meet with them and reach a viable compromise with them to meet our common needs. Then we can move forward with certainty. Let's get something setup with DEQ.

Thank you much for your time and efforts.

Sincerely,

Nicholas C. Nydegger

Nick Nydegger
President Arrowrock Ranch Homeowners Association
208-
nydeggen@