



COLORADO

Division of Water Resources

Department of Natural Resources

Board of Examiners of Water Well Construction
and Pump Installation Contractors


NOTICE OF SPECIAL MEETING OF THE BOARD OF EXAMINERS AGENDA

TIME/DATE 10:00 am, March 7, 2023

LOCATION Virtual Meeting

Virtual Link: meet.google.com/tsf-xndh-ocj

To join the meeting click the [link](#) and follow the onscreen prompt to join the meeting.

- *Chrome is the preferred browser*
- You can use your computer for audio (camera/computer speakers) or join with a phone.
 - *Using your computer for audio and/or video is preferred*
- If using your phone:
 - Have Meet call your phone
 - Depending on whether or not you're already in a meeting, choose an option:
 - If you're in the meeting, click More  > Use a phone for audio.
 - From meet.google.com, select the meeting and click Join and use a phone for audio.
If you're in a different domain than the meeting owner, someone in the meeting might need to approve you.
 - Click Call me. Enter your phone number. Click Call me. When prompted, press 1 on your phone.
 - Dial in by Phone
 - (US) +1 510-560-5604 PIN: 124 791 872#
 - Please remember to use *6 to unmute yourself if you are using your phone.
- Google Meet training and help:
<https://support.google.com/a/users/answer/9282720?hl=en#>



BOE Meeting Agenda

Chairperson - Christopher Sanchez

Vice Chairperson - Bruce Hier

- I. Call to Order
- II. Distribute Google Form to Attendees to sign-in and request public comment,
 - A. <https://forms.gle/PtX4djBM5un1zzTb7>
- III. Review Agenda
- IV. Well Inspection Program
 - A. Well Inspector Position
- V. Variances
 - A. Justice Water Systems, Receipt 10019183 Type 3
- VI. Old Business
 - A. Rulemaking Revisions Status Update Only
 - 1. Status Update Only - No Revisions to be Discussed
 - B. Process and Procedures Update on Voorhis Vs Logue, 23-BC-014
- VII. Public Comment
- VIII. Future Meetings
 - A. Monday, May 1, 2023, 10:00 AM, 1313 Sherman Street, Rm 318 & Online
 - B. Monday, August 7, 2023, 10:00 AM, Hybrid 1313 Sherman Street, Rm 318 & Online



Well Construction Variance for Well Permit No. 329367

Joel Hellwege <info@justicewater.com>

Tue, Feb 21, 2023 at 1:57 PM

To: "Lennon - DNR, Ashley" <ashley.lennon@state.co.us>

Cc: "DEB@utecountryloghomes.com" <DEB@utecountryloghomes.com>, Matt Sares - DNR <matt.sares@state.co.us>, "Donegan - DNR, Kevin" <kevin.donegan@state.co.us>, Andrew Flor - DNR <andrew.flor@state.co.us>, Chris Jones - DNR <chris.jones@state.co.us>, Larry Hakes - DNR <larry.hakes@state.co.us>

Hello Ashley and Interested Parties,

Thank you for completing the Variance and sending to us.

We read over the variance carefully. We struggled with trying to figure out how to get "a) The perforated 10-inch casing must have open area of 30% or greater with at least 1-inch perforated slots."

30% of the surface area of 10" pipe is 2553 inches. With 1" x 8" windows we would have to have 319 windows in the well casing. We can't begin to put 319 slots in the 10" well casing and expect it to be structurally sound as the pipe takes the vertical impact from the air hammer and the horizontal pressures of the various boulders.

What we did was brought the pipe into our shop and tried to put as many slots in it as we could, that would still allow the pipe to have structural integrity while making sure that the slots were placed close enough each other to make sure that the cement, gravel, and water - at different levels of the pipe - would flow through it.

We ended up with not five rows of 1" x 4" like we originally proposed, but SIX rows of 1" x 8" windows for a total of 84 slots. Please understand that we are not trying to "skin back" the 30% requirement due to cost savings or for any other reason other than the casing will not be strong enough to survive the drilling process.

Here's what we propose. I think we all want to see how well this works:

1. If you allow us to use the window casing as built in the attached picture, then we will cement the casing all the way up to the ground surface. This will allow us to come back the next day and dig down to the pitless depth - a few feet - and carefully expose the grout that has flowed through the windows to the ground. We will be happy to take pictures of that and even video it. And it would be great if Larry Hakes would be on site to inspect how fully the cement flowed to the outside of the well casing to the outer bore hole.

2. The annular space between the 5.625 O.D. steel well casing and 10" I.D. window casing is 4.375 inches. This annular space between the casings is over a 100% more of the amount of grout required by the rules.

3. The bond from the cement to the 5.625" O.D. of the well casing will be 100%. If the window casing was not used, the cement was placed between the casings, and conductor casing was removed, then the percentage of the area on the actual 5.625" O.D. of the well casing that would have rock or large gravel laying up against its' surface area would be substantial - maybe 50%? In our on-the-ground layman's opinion, leaving the window casing in place, the grout completely bonded to the well casing, and the grout flowing out into the rocks laying up against the side of the window casing makes a much better seal.

4. Then we will KNOW how effective the window casing is immediately upon pouring the seal. We will have the calculations on site that will show how many sacks of cement it would take if there were not windows. Then when we pour the seal, we will be able to see how many more sacks of Portland it takes to fill the space through the windows, by how many sacks we actually use.

5. The other advantage of the window casing is that the small gravel, sand and rock will have been flushed out by the drilling air, water, and foam process. This allows the cement to flow through the window casing and bond to rock that is more substantial and then up against the smaller material an inch or two away from the O.D. of the window casing.

It's now been over a year since we've been contracted to drill this well, 2022—01-30. We need to get this done for these wonderful patient clients. And we really need to get this done before we get any more snow melt.

We've tried our best to find the best way to drill this well for our clients. We've gone through the expensive and drawn-out process of a variance by meeting with you face to face. We really need to get this done.

If you can approve the window casing as shown on the attached pictures, we know that it would be a win-win for the integrity of the grout seal and for our client. If not, we're prepared to purchase the \$9,000 extractor hammer from Holte, and they can have it to us in about three weeks. Then we can pull out the casing as per the existing rules and have maybe 50% grout actually up against the well casing surface, which we will believe we can prove, when we also bring that cement up to the surface and expose it the next day.

I'm hopeful that you will allow us to demonstrate the effectiveness of the window casing with modifying this variance once more.

Sincerely,

Joel Hellwege, HS
Justice Water Systems, Inc.
[11137 West Hwy 160](#)
Pagosa Springs, CO 81147

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From: Lennon - DNR, Ashley <ashley.lennon@state.co.us>

Sent: Monday, February 13, 2023 1:46 PM

To: Joel Hellwege <info@justicewater.com>

Cc: DEB@utecountryloghomes.com <DEB@utecountryloghomes.com>; Matt Sares - DNR <matt.sares@state.co.us>; Donegan - DNR, Kevin <kevin.donegan@state.co.us>; Andrew Flor - DNR <andrew.flor@state.co.us>; Chris Jones - DNR <chris.jones@state.co.us>; Larry Hakes - DNR <larry.hakes@state.co.us>

Subject: Well Construction Variance for Well Permit No. 329367

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2 attachments



JWS Window Casing, 10 Inch Ring Bit & Slots.jpg
2592K



JWS Window Casing, Slot Size.jpg
2878K



