

**CORRESPONDENCE/MEMORANDUM**

DATE: January 18, 2023

SUBJECT: **Advisory Council Meeting Notes**

Date/Time: **Wednesday, January 18, 2023 – 9:00 AM – 12:30 PM**

Location: Ebony room, Kalahari Resort, 2102 1305 Kalahari Dr., Wisconsin Dells  
[Directions, Maps and Hours | Wisconsin | Kalahari Resorts](#)

### 1. Welcome and Introductions

Attending: Terry Marshall, Terry Farago, Steve Tesmer, Bruce Walker, Rick Peterson, Dennis Crow, Jeff Beiriger, Bob Gundrum, Stacy Steinke, Marty Nessman, Frank Fetter  
Online Zoom attendees: Pete Chase, Troy Van De Yacht

### 3. WGNHS Updates (Pete Chase)

- WWWA presentations:
  - Dave Hart giving WWWA presentation on vertical flow in wells.
  - Maureen Muldoon giving talk on vertical mixing of groundwater in southwest Wisconsin wells and impact by bacteria and nitrates. Nitrate concentration at high levels in the well mixing with low levels of nitrate in water lower in the well.
- Upcoming projects:
  - Statewide monitoring network – monitoring head in 100 + wells, at least one in every county. Wells are monitoring different aquifers. This is important data for the DNR High Cap well approval process. Grant from USGS to evaluate the wells. Most were donated. Many were wayside wells owned by the DOT. Many have not been used for years and are beginning to deteriorate. Six of the wells are being replaced this year.
  - Depth to bedrock mapping study being worked on the DNR, Dept of Ag, Trade and Consumer Protection and Natural Resource Conservation Service – NE Wisconsin, determining where and how much manure can be applied to Ag fields. Definitive edge of the Maquoketa Shale that will be of benefit to well drillers.
  - Working on mapping projects for Jefferson, Lafayette and Grant counties. Next year Crawford County. Bedrock and surficial mapping Monroe, Juneau and Price Counties.
  - Chequamegon-Nicolet – groundwater and surface water interaction studies for US Forest Service. Pigeon Lake in Drummond area - lake level drop of 6 feet since October of 2020. High water levels receded leaving many large dead trees. Located near groundwater divide. These areas susceptible to rise or fall in groundwater table.
  - Working on groundwater investigations near the Bend mineral deposit. Located in National Forest and on public land simplifies permitting and makes mining more likely.
  - See [Wisconsin Geological & Natural History Survey](#) for more information.
- Questions.
  - Timing for completion of depth to bedrock study in NE Wisconsin? Dave Hart would have this answer and will be available at the conference on Thursday.
  - Adams County nitrate levels doubled in some areas due to dairy spreading of liquid manure, but no evidence of E.coli. Why? In Adams County the overburden over bedrock is primarily sand which is rather effective E.coli filter. Unlike NE

part of Wisconsin which has fractured bedrock with essentially no filtering before surface water reaches aquifer.

#### 4. DNR Updates

##### a. Staffing Updates (Nessman)

- LTE positions – Jeff Beiriger comment regarding new LTE staff – emphasized importance of keeping new hires employed because it is difficult to find replacements. Assistance can be provided by Jeff to retain new temporary staff if needed by working through legislature.
- MARSHALL questioned who the contact would be for well comp questions. Receiving many requests for estimates on contaminated wells. DNR allows \$16,000 max on these projects. On these project, casing much deeper and grouting (more than usual) is required which dramatically increases the cost. It appears that the DNR is not up to date with current pricing as far as what is required in the field. It is suggested that that needs to be reviewed by the DNR. Who at the DNR would review this and how do we initiate the review process by the DNR? Some of these are \$30,000 to \$40,000 jobs. When the well owner sees this, they decide against going forward or revert to treatment like reverse osmosis. So, is there a way that the industry can work with the DNR to review these prices and get them updated?
- MARSHALL regarding treatment option for well compensation grants, if a well owner applies for grant to fix a well and they get the grant, but the fix (drilling deeper or whatever) does not resolve the contaminant issue, can they apply again for a grant for treatment of the well water? Marty: Treatment would be considered a new project so they can apply for a second grant in that case.
- NESSMAN - As far as cost, the \$16,000 was not intended to cover 100% of the cost of fixing a contaminated well. It was increased from \$12,000 to \$16,000, the current cap on grants is more generous than what was previously available. Also, if they are lower income, they can qualify for more than \$16,000. County median income is the basis for what is considered "lower income".
- BEIRIGER - comments that these grants are treated as taxable income. This could put a well owner who receives a grant into another tax bracket. They may want to consider whether this additional income would disqualify them from other government programs that they are receiving aid from.
- MARSHALL has seen a heavy influx of estimate requests. When preparing estimates, he is relying on the DNR for input on casing depths since the DNR has a better grasp of the geology in some of these areas.
- BEIRIGER - asks what the estimate requests are for. Is it for nitrate, ag issues, PFAS or what?
- MARSHALL - All estimate requests have been for high nitrate levels. Some wells are in areas where geology is unknown. Wells have not been drilled in the areas before. Depth to bedrock and water quality is an unknown. Someone could be trading a nitrate issue for something else like high iron concentrations. Then treatment is required for iron.
- NESSMAN – If you're trading one problem for another, you will need to install treatment anyway. When preparing the estimate, you could make the well owner aware of the possibility of trading one problem for another and they might opt for going to treatment instead.
- FARAGO – In Waushara County they are installing RO treatment for anything under 20 ppm nitrate. There is a bar that has nitrate at 9.5 to 10 ppm. They were told that they need to drill a new well rather than install treatment. Is this because it is a public building rather than a private resident?

- NESSMAN – DNR Public Water Supply Section has allowed systems like a bar to operate at levels between 10 and 12 ppm nitrate. With this program, they can now apply for a grant to address the problem. To be approved for treatment, a public system must first look at drilling a new well to resolve the problem. Treatment is an option only if a new well is not feasible.
- CROW – There are instances where public water systems revert to treatment because drilling a new well is not feasible due to high level of nitrated at depths in excess of 400 ft. There has to be evidence indicating that a new well is not an option before a public system can revert to treatment.
- FETTER – Adam Ornelles and Grace Fleszewski will be available for questions at the DNR booth on Thursday. Take the opportunity to introduce yourself to them.
- NESSMAN – The DNR has also added a hydrogeologist in the water use section for high cap reviews. Madeline Gotkowitz who previously was with the WGNHS before serving as the Director of Mines in Montana.

**a. Staffing Updates (Steinke)**

- Private Water Field Expert Positions – Internal promotions within the program, field specialists taking on a statewide role in an area of specialty in addition to their regional field duties.
- Steve Janowiak – contact for more difficult private well contamination issues.
- Adam Scheunemann – developing uniform statewide enforcement response.
- Greg Roanhouse – Working with realtors and realtor associations across the state to answer questions on existing installations and educate them on property transfer well inspection requirements. Also, will work with some in Minnesota and Illinois to educate and answer questions. Greg would be the person to reach out to with ideas on how improve that aspect of the industry.
  - Rick Peterson commented that he is also meeting with realtors and would like to coordinate with Greg when speaking to realtors to ensure that they are on the same page with information that is being provided.
- Jim Kasdorf – Working to ensure uniform DNR process for statewide handling of complex well and drillhole situations.

**b. Compliance and Enforcement activities (Steinke)**

- Data shown is for fiscal year 2022 which is 7/2021 through 6/2022. Focus more on non-core inspections which are done pre- or post-construction rather than core inspections which are done on site during well construction, pump installation or well filling and sealing. For this reason, the number of core inspections may be lower than what has been seen in the past.

**b. Compliance and Enforcement activities (Fetter)**

- Data presented here is for calendar year rather than fiscal year as was reported for Stacy's data. Next year, reporting may be coordinated so that data will all be either fiscal year or calendar year.
- 47 NONs statistically is a typical (normal) number for field NONs. When Sandy Hershberger was with the DNR, she would issue as many as 300 NONs in a year for reporting related violations.
- Ben Degner has replaced Sara Fry in the NE region. Sara Fry now has Sandy Hershberger's position. We are pretty confident that Sara Fry will be around for a while. Sara came into the program with a good understanding of DWTS – the drinking water system data base. Sara is just returning from maternity leave and will soon be working to assist Frank with the annual report.
- The annual report will be delayed because of a backlog of issues to be addressed coming off of Sara's maternity leave.

- NESSMAN - Two LTEs will be hired to reduce the processing backlog of WCRs and other reports. Each will be working more than half time. It is understood that there likely is some frustration in the industry with the amount of time required for the DNR to process these reports. Help is on the way and the DNR will soon be working to get caught up on processing WCRs and well abandonment reports.
- BEIRIGER – Are the noncompliant electrical conduit NONs all related to the same issue?
  - They are mostly related to the noncompliant PVC product for conduit coming from the well cap and into the ground. Some did not use conduit at all. They had only the ground complying Romex or poly drop pipe.
  - MARSHALL – Most of the time it is not the conduit...it's the adapter. Mostly related to threads. It's the same adapter. Its NEC and you can't change it.
  - NESSMAN - – It's not that it is broken, it is because they are using schedule 40.
- FETTER – Secondary enforcement: Four NOV's were issued in 2022 for non-compliant grouting and noncompliant heat exchange construction.
  - c. **NR 812 Revisions (FETTER)**
    - i. **Board Order DG-07-22(E) and DG-08-22 update (Type 1L Cement)**
- Hearing on 3/22/2023 will be from 1:00 – 4:00 PM.
- Committee was asked if anyone has had any issues using the Type 1L cement.
  - Tom VAN DE YACHT has been using it regularly and has not had any issues. It has been a smooth transition from Type 1 to Type 1L. The only issue has been getting the product.
    - It was more difficult to find before Christmas. Menards is the only place that carries bag cement right now and they have been out for close to 6 weeks. They are slowly getting it back in, but some have been hoarding it as it comes in.
    - FETTER did some research and found from the cement industry that the shortages are regional including in Wisconsin. The recommendation by the cement industry was to stock pile the product when available. Much of the shortage was related to road construction projects. It is expected that during the cold weather months when road construction is down, more of the product will be available. Regardless, it is expected that the current shortage issues will be resolved by fall of 2023 at the latest.
    - NESSMAN - asked if there have been issues getting product from the ready-mix companies.
    - VAN DE YACHT – It was tough in the arsenic advisory areas. Product cannot be delivered on short notice (will-call day). It might take a few days for the product to be delivered which results in having a rig onsite doing nothing. It would be good to have the option to hand grout (even up to 200 ft – typical 40 bag mix) in the arsenic advisory areas. In Outagamie County, with 100' of casing, ready mix truck is required. A flat fee is charged which is very high.
    - STEINKE - The DNR is allowing variances for grouting by hand on site in these areas because of the cement issue. Call in verbal variances are being granted.
  - d. **Next up: NR 812 Subchapter III, and NR 146 (FETTER/GUNDRUM)**
    - ii. **Draft Scope Statements**
- FETTER – Rule language cannot be written until there is an approved scope statement. Determining whether an advisory committee for NR 146 revision is needed. If and advisory committee is needed, it would be formed after approval of the scope statement.

- Peterson – Do we have to complete revisions to NR 146 before starting on revisions for NR 812?
- FETTER - Both will be revised concurrently. There will be two separate scope statements. There may be some overlap in revisions, not much overlap is expected.
- BEIRIGER – Don't confine things too much in the scope statement... don't box yourself in if you can help it. If the scope statement is too confining, it may get shot down. On NR 146 in particular, you will want to have a long conversation about training, so don't box yourself in.
- NESSMAN – And we might have a problem telling the NRB that our current processes don't match code. We are in line with code, but there are new ways of doing things that we would like to look into.
- BEIRIGER – The distinction between revisions for NR 146 and NR 812 is that all that is being worked on in NR 812 is subchapter III.
- FETTER – That will be the focus whether we branch out from subchapter III or not is still under consideration. We do plan on having an advisory committee for NR 812 subchapter III. There are some specific things that we know need to be addressed.
- MARSHALL – why are you bringing up yard hydrants again?
- FETTER – We will be looking to improve clarity on these requirements.
- BEIRIGER – How soon do you think you will be looking for people to participate on an advisory committee? Need to allow for planning. It is a big commitment, and NR 146 is going to be very significant.
- FETTER - Scope statements may be approved as early as this spring and certainly by this summer.
- STEINKE – There is a DSPS component to some of what is listed. We may want to coordinate so DNR timelines are in sync. We will need to be consistent with the plumbing code requirements.
- BEIRIGER – DSPS has been working on draft code revision for 12 years. What is included in the DSPS scope statement is available for review. If there is something urgent within the plumbing code that needs to be changed, we still have time to go before legislature and make a request.
- NESSMAN – the last time we revised yard hydrants, we tried to stay consistent with what is required by DSPS.

#### **e. Licensing & Continuing Education (GUNDRUM)**

##### **iii. 2022 license data review**

- GUNDRUM – We started reviewing this license data at the April/2022 meeting following high licens expiration numbers at the end of 2021.
- Historical data from 2011 on shows significant decrease in pump installer licenses from 1352 in 2011 to 1037 at the end of 2022. Pump installer business registrations have decreased since 2017, but not at the same rate as pump installer licenses. Well driller licenses dropped from 332 in 2011 to 229 for 2022. In the past year well driller licenses have dropped by approximately 4%.

##### **iv. Rig Operator Training**

- Since the rig operator training requirements have gone into effect on 1/1/2020, there has been one well driller applicant who has completed all the required training and went on to take and pass the licensing exam. There are currently two other applicants who have completed the training with the exception of the required 6 hours of training in welding.
- The council was asked what discussion may have occurred in the past regarding required training for welding.
- MARSHALL – a lot of this training is done on site. Some training had been offered in the past. It would be up to the WWWW to decide on the training that should be done to fulfill the requirement.

- GUNDRUM – Was anyone here involved in the discussions on welding for pump installers and a certification requirement?
- MARSHALL – 6 hours of welding training or a certification is something they would have to go to a school to get, or the association could come up with some type of training. This is something the association needs to address. You learn on the job site. The first pass was usually done by an experienced welder and the 2<sup>nd</sup> and 3<sup>rd</sup> passes were done by the trainee. Issues related to welding pitless adapters has taken care of itself over time.
- GUNDRUM – Wasn't there past discussions regarding a required certification in welding for pump installers?
- GROUP – This is not something that should be pursued.
- MARSHALL – There are some tech schools that provide training.
- NESSMAN – some of the past discussion revolved around knowing the different types of welding and when to use them. What is needed in a broader education on what welding is and when to use what type.
- FETTER – Another concern with certification is that it opens the door for a driller to leave the drilling industry for a welding job outside of the industry.
- MARSHALL – Classroom training is not the same as on-site training that you get in the field. Classroom training provides the basics.
- BEIRIGER – A good approach would be to provide 2 hours of class room training inside at the Plumbers Local 75 training facility and then take them outside to do welding on casing similar to on-site conditions. Local 75 has the facility, but they will not have the criteria for training without having someone from the industry providing it to them. They could provide 2 hours inside in the welding booth, but then someone from the well industry would have to take them outside and finish onsite training.
- NESSMAN – how many rig operators are there that need the welding training?
- GUNDRUM – 2
- GUNDRUM – 2G Pipe Welding Certification – would like to grant completion of welding requirement to rig operators who pass a practical test for this certification.
- PETERSON – The Water Well Association is very seriously considering these training requirements and providing a means for rig operators to meet the welding and other training requirements.
- NESSMAN – What is the timeline on having this training available?
- BEIRIGER – We don't have the answer to that question. Details need to be worked out with Local 75. It would likely be near the end of 2023 when all arrangements for offering training would be complete. There is a contact at Waukesha Technical College that may be able to share what is available for welding training. They do welding training for trades people and welding is part of plumbing code requirements.
- Marshal – If one of these applicants has passed this certification, then he should be good to go.
- GUNDRUM – so the 2G certification is not obtained by taking a course. They pass a welding test to demonstrate competency and then receive the 2G certification.
- WALKER – How difficult would it be for the department to prove the 6 hours of experience is equivalent to the 2G certification?
- NESSMAN – We could request that the applicant sign a document saying that in order to obtain this certification, I obtained more than 6 hours of on the site training.
- FETTER – to paraphrase what is being discussed, these two drillers would not need to do course work, they would pass a practical test given by a certified instructor for 2G Pipe welding certification. Passing the certification test would be accepted as fulfillment of 6 hours of welding training.

- BEIRIGER – so are there are no eligibility requirements to take the 2G pipe welding test. I wouldn't rely on this approach for everyone who needs to fulfill the welding requirement, but for these two, it appears to be a good approach.
- VAN DE YACHT – Son has graduated from Northern University in a Construction Management Program. His training included plan reading, masonry, blue print reading and more. Will any of his training meet the welding training requirement?
- STEINKE – Transcripts and a course description would be all that is needed.
- BEIRIGER – regarding the grouting, drilling fluids and well filling and sealing, this again will require time to plan and arrange. Is it something that would all be done in 2 or 3 days, or would it be broken into separate training events? Probably would be better for people to travel once rather than multiple times for separate training events.
- STEINKE – The training would be well received. GEFCO has international students attend each year because there is nothing else available.
- BEIRIGER - down the road making training available through public means may be considered as an investment in economic development for the state. Initially, we would want to take ownership in the program and not have it developed publicly. But it is not something in which the private industry should have to “take a bath” given the numbers. Let's get it up and running on the private side to show what can be done before approaching this as something to be provided by the state.

## 5. New Business

### 6. Old Business

#### a. Change in definition of School Wells in NR 812.07(94) (7/20) – Daycares (carried over from January 2022)

FETTER – Has anyone had any issues with this over the year? If not, it will be dropped from the agenda.

CROW – Is this a public non-community / non transient well issue? It has to do with the number of people being served in the home, correct?

NESSMAN – I believe the reason this was on the agenda was because a public water person was invited to talk about how this is being handled. We can recommit to having this at the next meeting as we probably should have already.

FETTER – This will be listed as an AR for the April meeting.

#### b. Driller Track to Licensing (“road map” or “apprenticeship”) program (Jeff BEIRIGER/All)

BEIRIGER – It appears that we have found the facility where we can do all the things that we need to do. Need to map so we know what the next steps are. The rig operator training is being considered along with any other training that might be beneficial to the industry. Is it feasible for us to drill holes in the ground for training there? Questions need to be answered. We have a facility, lets focus on the rig operator training track and go from there. We are providing a resource for contractors and union workers. There is an important distinction here. We are not providing training for people to get jobs; we are providing a resource where people who have jobs can send their employees to train. This is not an apprenticeship. This is employer-based training. We will be providing a service to people in the industry who are looking for a place to go for hands-on training.

FETTER – Bob and I will have to stay in contact as the training is developed to ensure that what is being done is consistent with the NR 146 rewrite.

BEIRIGER – If a change is made to the number of hours of training required, it will not have implications. If a training requirement is dropped altogether, that would be something that we would need to be aware of.

GUNDRUM – There was a reason for why the training requirements were added to NR 146.  
NESSMAN – There was some concern on the DNR's part regarding welding issues that were found. Not in all areas, but enough to indicate a need for training.  
PETERSON – So it was a general consensus that 6 hours of training was needed?  
NESSMAN – The 6 hours may have been a scaled down version of what was originally proposed. A more realistic option than what we started out with.

#### **7. [October 2022 Meeting Notes](#)**

FETTER – This is the link to notes from last meeting. I usually get the meeting notes posted within 1 or 2 weeks of the meeting. The agenda for next meeting will be provided earlier than what was given for this meeting.

#### **8. Future Meeting Dates**

- a. **April 2023 – WGNHS Research Collections & Educational Center, Mt. Horeb**  
CHASE: This should be OK. There is a fire suppression retrofit project in the works that I'm not sure of the timing. I will keep you posted as I know more.
- b. October 2023 – Location TBD