



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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February 17, 2016

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RE: Partners Produce System Documentation (Boise, Ada County)
Review Comments, Master Plan

Dear Mr. Fluckiger:

The above referenced project cannot be approved or constructed until the following comments have been addressed. These comments are based on the "Idaho Rules for Public Drinking Water Systems" (IDAPA 58.01.08), the "Wastewater Rules" (IDAPA 58.01.16), IDAPA 58.01.03, "Individual/Subsurface Sewage Disposal Rules," common engineering standards of care, and other project-specific comments for your consideration.

General Comments:

1. Please note that the comments presented in this letter may not include all needed changes. Please reference IDAPA 58.01.08, "Idaho Rules for Public Drinking Water Systems," IDAPA 58.01.16, "Wastewater Rules," and IDAPA 58.01.03, "Individual/Subsurface Sewage Disposal Rules" for all requirements.
2. The facility plan for Partners Produce Inc. (Partners) combines the drinking water and wastewater systems into one document. Please separate these documents and resubmit them as separate facility plans. DEQ is willing to provide examples of approved facility plans both for drinking water and wastewater if needed (contact our office).
3. The document submitted for Partners appears to combine aspects of a well site evaluation, well completion report, well house PER, plans/specifications, and a draft operations plan. Please remove all aspects of the plans/specifications and the draft operations plan from this document. Please contact our office regarding the submittal process.

4. The cover page indicates that this document is a facility plan and preliminary engineering report. The title on the table of contents indicates that the document is a preliminary engineering report and one of the headings indicates "*Coordination with the Facility Plan.*" Please be consistent throughout the document in the titles and contents. You may refer to IDAPA 58.01.08 and IDAPA 58.01.16 for the required contents for facility plans and PERs. Please feel free to contact DEQ regarding requirements for facility plans and PERs.
5. Page 1, indicates that Partners employs approximately 90 people, page 7 third paragraph indicates that Partners employs 80-90, and on page 9 first paragraph 80 employees is used for the calculation of the septic system. However, on the company's website it indicates that Partners has "*Over 200 loyal employees.*" An Email dated January 27, 2016, from Kevin Sorensen, indicates that Partners is at 97 employees at the Payette Facility. Please provide some clarification and revise the facility plans to be consistent. Does Partners foresee any additional growth/expansion of the business that would change the number of employees and/or processing practices, increasing demands on the drinking water and wastewater systems?
6. The overall format and contents of the document does not appear to follow the typical standards for Facility plans and PERs received by DEQ. Please review IDAPA 58.01.08 and IDAPA 58.01.16 for the required contents for facility plans and PERs. Please contact DEQ regarding requirements for facility plans and PERs.
7. The figure on page 10 illustrates a timeline. However, there do not appear to be items for the required PERs, plans and specifications, and the operation and maintenance manual(s). It appears that some of these documents are provided in the appendix. However, these documents cannot be submitted for approval until the facility plan has been submitted and approved. Please contact our office regarding the submittal process.
8. Many of the attachments in the appendix are not labeled or tabbed. Please label/tab the appendices (example: Attachment 9b) for easier navigation.
9. Throughout the document various numbers are referenced, such as flow, population, and concentrations. At times it appears that these numbers may not be used consistently in the document. Please be consistent with the use of these numbers throughout the document.

Drinking Water Specific:

1. Throughout the document, wells 1-5 are discussed. Some of the paragraphs appear to be repeating the information from other paragraphs earlier in the document. Please revise the document to reduce the repeated information.
2. Please note that sampling from distribution in 2015 and January 2016 indicates lead that exceeds the limit of 15 ppb and copper in the system. DEQ will require a materials survey of the entire system. Please contact the health district for details regarding the material survey requirements. Future PERs and facility plans will also need to address this issue.

3. Throughout the document, it is indicated that the issues being addressed are those that are identified by Southwest District Health. Did Fluckiger Consulting perform any additional evaluations on the water system with respect to IDAPA 58.01.08, "Idaho Rules for Public Drinking Water Systems." Please provide some clarification and revise the facility plan to include a discussion of the Professional Engineers observations and recommendations for the water system beyond what Southwest District Health has indicated.
4. Page 2, third paragraph indicates "*There is also a leaking pipe connection which allows water to flow in the well house.*" Is this leaking pipe part of the water system or is it another pipe? Please provide some clarifications and revise the facility plan.
5. Page 2, fifth paragraph, second sentence seems to be missing some words "*The power outages experienced at the facility.*" Please revise as needed.
6. Page 2, last paragraph indicates that "*Waivers will be requested for Wells #3 and #4 which will be unable to fully meet requirements.*" Page 4, first and second paragraph indicates for Well #3 "*A waiver is requested for this will due to it being with 10 feet of a building and about 15 feet from an onion process water waste line.*" and for Well 4 that "*A waiver is requested for this will due to it being house in an existing building the difficulty to modify the depth and install an annular seal to a depth of 58 feet.*" Page 4, fourth paragraph also is requesting "*waivers on Well #3 and Well #4.*" Please note that waiver requests will need to be submitted as a separate submittal. For the requirements and guidance in obtaining the waiver please contact this office.
7. Page 2, last paragraph indicates that "*If either of the wells become contaminated and are not able to be de-contaminated then they will be abandoned and the piping will be re-routed to a different well.*" Will the other wells have sufficient capacity? Please provide details regarding the water system demands including peak hour, average day demand, maximum day demand, and fire flows. It is recommended that this information be summarized in a table format. Please summarize the area each well serves the public and/or industrial processes. Please note that if a well is only used for food processing and has no potential for human consumption, it likely will not be part of the public water system and subject to DEQ regulation.
8. Page 3, indicates that the annular seal for well #1 will be extended to a depth of 58-feet and casing extended 18-inches above ground surface. Please provide some additional details regarding the process to increase the annual seal depth. Please note that a preliminary engineering report and plans and specifications will need to be submitted for all material modifications to the water systems including the wells. Please contact DEQ for additional information on the submittals required.

9. Page 2, second paragraph indicates that well #2 is the main processing well which has a 10-inch casing and is 33-feet deep. It is also indicated that the well, per the well drillers report, is capable of delivering 150 gallons per minute with 4-feet of drawdown. Page 3, second paragraph recommends that the well be deepened so that a 58-foot annular surface seal can be constructed. Will increasing the depth of the well reduce the diameter? If the diameter of the well is reduced, will the capacity of the well change? How will this affect the demands of the system (peak hour, maximum day, average day, and fire flows)? Please note that all wells for Partners' non-transient non-community system will need to meet the requirements in IDAPA 58.01.08, "Idaho Rules for Public Drinking Water Systems" Section 510.05.e.ii. These results shall be submitted in the Facility Plan or PER that addresses Section 510.08 for all wells that will be used in the public water system.
10. Page 3, second paragraph discusses well #2 and the installation of a Point of Use (POU) treatment system within the well house. Please note that a POU treatment device is defined as a "A treatment device applied to a single tap used for the purpose of reducing contaminants in drinking water at that one tap." Per IDAPA 58.01.08, "Idaho Rules for Public Drinking Water Systems." Please clarify this. Will treatment be installed at the well house or will a POU system be installed at specific taps used by the employees? Please contact our office regarding the required submittals for a source treatment and/or a POU system. Please note that if the system chooses to treat at the well the water system will be at a higher classification and require an operator with a license equal to or greater than the classification of the public water system.
11. Page 3, second paragraph, last sentence for well #2 indicates "*A double check valve will be placed in this line to reduce the risk of contamination from the recycled water into the drinking water.*" Partners Well Head DWG Sheet 6 of 13 indicates a double check valve that appears to be within the well house. Will well #2 serve a public drinking water location (bath room sinks, water fountains, and kitchen) and the food processing plant down stream of this check valve? If this well serves both the needs of the public drinking water system and the food processing, beyond this check valve there still may be a cross connection created within the public water system. Please clarify and modify the documents as needed.
12. Page 3, last paragraph indicates that well #3 is below the maximum contaminant level for arsenic. Does well #3 meet all other requirements in IDAPA 58.01.08, "Idaho Rules for Public Drinking Water Systems" Section 510.05.e.ii.? These results shall be submitted in the Facility Plan or PER that addresses Section 510.08 for all wells that will be used in the public water system.
13. Page 3, last paragraph indicates that the annular seal for well #3 will be modified to meet a seal depth of 58-feet.
 - a. Please note that details on the modification of the wells will need to be provided in a subsequent PER, plans, and specifications.

14. Page 3, last paragraph indicates that *"The pit currently surrounding the well head will be filled and packed with top soil."* Does the well have any appurtenances or piping that is in the pit that will require modification prior to the pit being filled in? Please provide clarification.
 - a. Please note that details on the modification of the wells will need to be provided in a subsequent PER, plans, and specifications.
15. Page 4, first paragraph indicates that a POU system will be installed in the *"room housing the well."* Please see Drinking Water Specific Comment 10 regarding the POU.
 - a. Prior to installing a POU for the *"high level of arsenic"* please check the water quality sample results. It appears that the results from the laboratory for well #4 indicates non-detect for arsenic for 2015. However, it appears that arsenic was at .014 mg/l in October, May, and August of 2014. Are there any thoughts on the sudden change in the levels of arsenic detected in well 4?
16. Page 5, third paragraph request waivers from well #3 and well #4. Please see Drinking Water Specific comment 6.
17. Page 4, fourth paragraph provides an alternative solution to keeping all wells. Please note that DEQ will only regulate wells that are serving the public. Wells only used for industrial process, and that do not serve the public are not subject to DEQ regulation. Partners and Fluckiger Consulting may want to consider reducing the wells that serve the public. This could potentially reduce overall costs and sampling requirements.
18. Page 5, second paragraph indicates *"Contamination is most likely to occur from chemical spills on site."* Where are all the chemicals stored? Are they within 50-feet of any well?
19. The information presented in the paragraphs on page 6 and the first two paragraphs on page 7 is generally repeated from pages 3 and 4. Please address all relevant comments for those pages.
20. Page 7 indicates that *"approximately 3,500 gallons per day is supplied by Well #3, and approximately 3,000 gallons per day is supplied by Well #4."* It is DEQ's understanding, from earlier in the document, that well #3 supplies the *"Fresh Pack Building"* and that well #4 supplies the lunch room and restrooms on the side of the processing building. Page 16, fifth paragraph states that *"The remaining water is used for tower cooling and use in the restrooms and lunchrooms."* Page 15, last paragraph states that well #3 runs to the tower. Please be consistent in the discussion of the wells and the uses. Please specify all uses and connections of the wells. If the wells are used for non-potable uses are there proper backflow devices in place to prevent cross contamination?
21. Page 7 indicates that *"The quantity of water from the wells should be adequate for the needs of the facility."* Please provide specific flows as outlined in Drinking Water Specific: Comment 7.

22. Page 7, paragraph 6 indicates that *"The system will maintain a pressure of no less than 25 psi at any point in the system."* Will 20 psi be maintained during maximum day demand, plus fire flow if provided? Please note that IDAPA 58.01.08, "Idaho Rules for Public Drinking Water Systems" Section 552.b.v requires systems to maintain 40 psi throughout the distribution system, during peak hour demand conditions excluding fire flow, measured at the service connection. Will Partners' public water system meet this requirement?
23. Page 8, first paragraph indicates that *"The quality of the water meets all maximum contaminant levels for public drinking water except for arsenic."* Do all the water quality parameters for all the wells (wells #1-#4) meet the requirements in IDAPA 58.01.08, "Idaho Rules for Public Drinking Water Systems" Section 510.05.e. expect arsenic? Please provide all the certified laboratory results for all the wells to show that the water meets the water quality requirements.
24. Page 7, last paragraph indicates that *"From Well #4 the pipe size will change from ½ inch to ¾ inch to reduce pressure loss."* Is this change just within the well house or is it also for the distribution system? Please clarify. Please note that this change will require plans and specifications. Please also reference the data in the appendix.
25. Page 9, first paragraph (continued from page 8) specifies that the *"average daily water usage is 24,429 gallons. This is assuming the recycling system has a 98% recovery rate..."* Page 8, second paragraph indicates that the *"water usage from Well #2 is 24,429 gallons."* With 98% recovery from the RO system for reuse within the industrial process, will the demands on well #2 still be 24,429 gallons? Please clarify within the facility plan.
26. Page 9, second paragraph indicates that *"The chlorine will only be used to sanitize when the lines are flushed when required."* Unless the system needs to be disinfected because of TC/E-coli issues, Partners may not want to store chlorine onsite. Over time chlorine can lose potency.
27. Page 9, Second paragraph states that *"The flushing of the main line of Well #1 will be into the septic since it is anticipated to be minimal."* Please see Wastewater Specific: Comment 8.
28. Page 11, first paragraph heading is *"Soils characteristics and ground water levels."* However, there does not appear to be a discussion of the ground water levels within this paragraph/section. Please revise the heading and/or the paragraph.
29. Page 12, under the heading *"Anticipated Geology and Hydrogeology"* it states *"Include well logs."* Please reference the well logs in the attachments and provide a discussion of the geology.
30. Page 12, under the heading *"Water Quality"* it states that *"Well #1 well #3 are below the maximum contaminant levels. Well #2 and well #4 are above the maximum contaminant level for arsenic."* Please provide the required water quality results for all the wells to be used for the public water system. See Drinking Water Specific: Comment 23.

31. Page 13, provides a general discussion on the wells. All prior comments regarding the wells are applicable and should be addressed in the facility plan. Please contact DEQ with any questions on submittals and requirements for submittals.
32. Page 13, third paragraph states that *"There has been no indication above maximum contaminant level from test results. The well has experienced above maximum contaminant level of coliforms, but recent results have shown the coliform level is below the maximum contaminant level."* Are there any thoughts on issues that were causing the coliform levels in the well? Could there still be an issue? What was done to resolve the issue?
33. Pages 14-17, appear to be information regarding the well and pump house construction projects. Please note that a separate PER and plans and specifications will be required after approval of the drinking water facility plan. Please separate the documents.
34. Page 16, second paragraph states that *"All sinks for drinking water in the facility will be connected to either Well #3 or Well #4."* Does this include the sinks in the laboratory? Please note that all sinks are considered potable.
35. Page 16, fourth paragraph indicates that *"If there is a need to pump to waste, a hose should be connected to the outlet."* Please note that this could create a cross connection unless a backflow device is used.
36. Page 18, second and third paragraphs provide information on GWUDI for the wells. Please contact DEQ regarding the required information and documentation.

Wastewater Specific:

1. Page 1, third paragraph indicates that the purpose of the document is to comply with the "Idaho Rules for Public Drinking Water Systems" 58.01.08 and "Idaho Rules for Subsurface Storage." Please note that "Idaho Rules for Subsurface Storage" should be Individual/Subsurface Sewage Disposal Rules. Please also note that Partners is subject to IDAPA 58.01.16, "Wastewater Rules." Please make the needed changes.
2. Page 3, first paragraph indicates that *"The septic system for the rental home east of the well will be moved to the northeast to be farther than 100 feet from Well #1."* Please note that all modifications and or changes to subsurface disposal systems will need to be permitted/approved through the Southwest District Health Department. Please contact them at 208-455-5400.
3. Page 4, last paragraph provides the wastewater system recommendations. Page 1, second paragraph provides a brief discussion on the subsurface disposal systems for Partners There does not appear to be a discussion regarding peak hour, average day, and maximum day flows or a discussion regarding the various waste streams (industrial and municipal). There should be a general discussion regarding the overall wastewater prior to presenting the recommendations. Please revise the facility plan to reflect background information. Please see General Comments, Comment 2 regarding separating the facility plans.


4. Page 4, last paragraph indicates that *"A sump is to be installed to collect the water from the condenser towards the south side of the facility. The collected water will then be pumped from the sump to an onion processing wastewater drain."* What are the flows from this waste stream (peak hour, maximum day, average day)? Is the condenser flow factored into the RO and other wastewater treatment systems? Was the drainfield sized to receive flow from the condenser also?
5. Page 4, last paragraph indicates that *"The onion processing water from the facility is currently being stored in trenches north of the facility."* Is the water being disposed of in the trenches or stored? If the wastewater is being stored, what is done with the wastewater after storage? Please revise or update the facility plan.
6. Page 4, last paragraph indicates that the onion processing water will be *"recycled through a reverse osmosis system and be re-used in the facility."* Which Crystal Quest system will be used? Please provide the make/model and the capabilities. Will the system meet the demands?
 - a. It is indicated that the system will have 98% recovery. Does the quality or other characteristics of the water affect this recovery rate?
 - b. Is there any pretreatment required prior to the RO system?
 - c. What will be the total flow through the RO System?
 - d. How will the water that is recycled from RO be separated from the public water supply that is used in the laboratory? Please reference Drinking Water Specific: Comment 11.
 - e. It is indicated that 440 gallons of wastewater would flow from the RO system each day to *"the waste system each day."* Page 7 indicates that well #2 provides approximately 24,000 gallons per day. Two percent of 24,000 is 480. Please provide some additional supporting information for the number 440 gallons per day. How much water is supplied to the laboratory?
 - f. What will be the characteristics of RO reject water? Will the water be high in salts? The water characteristics could affect the disposal or the need for additional treatment after the RO system. Please provide some additional information on this waste stream in the facility plan or PER.
7. Page 8, second paragraph indicates that *"A flow control valve will be installed to allow a maximum flow rate to the septic system of 700 gallons/day."* Page 9, first paragraph indicates that the proposed septic system is 2,400 gallons per day. Please provide some details on the difference between these numbers. Is the septic system sized for other flows? If so, do those other flows include all the septic systems (see Wastewater Specific: Comment 11)? Please revise the facility plan to include this information.

8. Page 8, second paragraph states *"Water analyses will be conducted the reject water does not exceed maximum contaminant levels before entering the septic system."* What contaminants are of concern? What levels are anticipated? What further treatment is being considered? If water exceeds maximum contaminant levels (MCL), will the water be segregated from water that meets the MCL? Please provide additional information in the facility plan.
 - a. IDAPA 58.01.03, "Individual/Subsurface Sewage Disposal Rules" do not allow for the disposal of "Cooling water, backwash or backflush water, hot tub or spa water, air conditioning water, water softener brine, ground water, oil, or roof drainage cannot be discharged into any system unless that discharge is approved by the Director." The reject water from the RO system would likely not be allowed.
9. Page 8, second paragraph states that a 30,000 gallon storage tank will be used for the reject water. Page 4 last paragraph specifies that 440 gallons of wastewater would flow from the RO system each day. How was the 30,000 gallon storage tank specified? Please note that the storage tank would be considered part of the wastewater system and requires the appropriate preliminary engineering report and plans and specifications.
10. Page 8, third paragraph indicates that *"The office water usage was not included in the total since it will not be recycled and is assumed to be minimal."* Please provide this information with regard to the flow to the drainfield.
11. Page 8, third paragraph indicates that there are four existing septic systems. The supporting documents indicate the flow from two of the septic systems to be 525 and 550 gallons per day. What is the flow from the other two septic systems? This flow could affect the design of the wastewater treatment system. Please provide a summary of all the flows within the facility plan.
12. Page 9, first paragraph specifies that 21.1 gallons per day per employee is used for design of the septic system. However, IDAPA 58.01.03, "Individual/Subsurface Sewage Disposal Rules" Section 007.08 indicates that a factory with no showers should be 25 gallons per day per employee. The permit from Southwest District Health Department dated August 6, 2003 indicates 35 gallons per day per employee. Please provide justification for 21.1 gallons per day. Does Partners have showers?
13. Page 9, first paragraph indicates that the 30,000 gallon tank will collect the reject water prior to disposal. Please note that 30,000 gallon tank is part of the wastewater system and will be subject to DEQ review.
14. Page 9, first paragraph specifies 80 employees. Please see General Comments: 5.

Donnell Fluckiger
Fluckiger Consulting
Partners Produce System Documentation
February 17, 2016
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DEQ suggests a meeting to expedite the process. Please address the above comments at your earliest convenience, and submit revised plan sets and/or any additional information for review and approval. You may call me with any questions at 208-373-0184 or contact me via e-mail at kevin.ryan@deq.idaho.gov.

Sincerely,



Kevin Ryan, P.E.
Staff Engineer

cc: Todd Crutcher, P.E., DEQ Boise Regional Office
Bryan Zibbell, DEQ State Office
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