



Phelan Piñon Hills Community Services District

4176 Warbler Road • P. O. Box 294049 • Phelan, CA 92329-4049 • (760) 868-1212 Fax (760) 868-2323

ENGINEERING COMMITTEE MEETING

May 9, 2018 – 4:00 p.m.

PPHCSD Office

4176 Warbler Road, Phelan, CA

AGENDA

1. **Call to Order** – Pledge of Allegiance
2. **Roll Call**
3. **Approval of Agenda**
4. **Public Comment** – Under this item, any member of the public wishing to directly address the Board on any item of interest that may or may not be within the subject matter jurisdiction of the Board, but not listed on the agenda, may do so at this time. However, the Board is prohibited by law from taking any action on any item not appearing on the agenda unless the action is otherwise authorized by the Brown Act. Any member of the public wishing to directly address the Board on any item listed on the agenda may do so when the item is being considered by the Board. If you wish to address the Board, please complete a Comment Card and present it to the Board Secretary. Speakers are requested to be brief in their remarks. The Chair may limit each speaker to a comment period of five (5) minutes.
5. **Approval of Minutes** – April 16, 2018
6. **Discussion Regarding Water System**
 - Pumps and Wells Services Agreement
 - 10-Year Tank Rehabilitation & Maintenance Service
 - Water Quality
 - Other Repairs/Replacements/Updates
7. **Smithson Springs Update**
8. **Ducommun – Dairywell Discussion**
9. **Service Line Replacement Program Update**
10. **Well 12 Test Pumping Update**
11. **Review of Current Projects**
 - Pressure Zone 6 Pipeline Projects
 - Parking Lot Rehabilitation Project – Engineering/Design Services
12. **Discussion with Sheep Creek Mutual Water Company Regarding Water Transfer & Mutual Agreement**

13. Review of Action Items

14. Set Agenda for Next Meeting – June 13, 2018

15. Adjourn

Pursuant to Government Code Section 54954.2(a), any request for a disability-related modification or accommodation, including auxiliary aids or services, that is sought in order to participate in the above-agendized public meeting should be directed to the District's General Manager at (760) 868-1212 at least 24 hours prior to said meeting.

Agenda materials can be viewed online at: <http://www.pphcsd.org/2017.php>



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ENGINEERING COMMITTEE MEETING

April 16, 2018 – 4:00 p.m.

DISTRICT OFFICE

4176 Warbler Road, Phelan, CA

MINUTES

Directors Present: Director Dan Whalen, Chair
President Mark Roberts

Committee Members Absent: None

Staff Present: George Cardenas, Engineering Manager
Sean Wright, Water Operations Manager
Cindy Kecskes, Engineering Technician

1. **Call to Order and Flag Salute**
Director Whalen called the Meeting to order at 4:00 p.m.
2. **Roll Call**
All Committee members were present.
3. **Approval of Agenda**
President Roberts moved to approve the Agenda. Director Whalen seconded the motion. All were in favor and the motion carried.
4. **Public Comment-** None
5. **Approval of Minutes – February 14, 2018**
Director Whalen moved to approve the Minutes. President Roberts seconded the motion. All were in favor and the motion carried.
6. **Discussion Regarding Water System**
 - Pumps & Wells Services Agreement
 - 10-Year Tank Rehabilitation & Maintenance Service
 - Water Quality
 - Other Repairs/Replacements/Updates
7. **Smithson Springs Update**
8. **Emergency Response Plan Review**
9. **Service Line Replacement Program Update**

10. Well 12 Test Pumping Update

11. Review of Current Projects

- Pressure Zone 6 Pipeline Projects
- Parking Lot Rehabilitation Project – Engineering/Design Services

12. Discussion with Sheep Creek Mutual Water Company Regarding Water Transfer & Mutual Agreement

13. Review of Action Items

14. Set Agenda for Next Meeting – May 9, 2018

- Remove Item 8
- Add Ducommun - Dairywell

15. Adjournment

With no further business before the Committee, the meeting was adjourned at 5:08 p.m.

Link to Agenda Materials and Handouts: <http://www.pphcsd.org>



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March 22, 2018

By Email

Don Bartz, S.D.A., General Manager
Mark Roberts, Board President
Phelan Piñon Hills Community Services District
4176 Warbler Road
Phelan, CA 92329-4049

RE: Phelan Piñon Hills Community Services District (PPHCSD) Wells
Near Ducommun AeroStructures Inc. (DAS), El Mirage Facility.

Dear Don and Mark:

Thank you for meeting with me, Kent Christensen (DAS) and Ian Jones (Accord Environmental) at DAS's El Mirage Facility on March 20, 2018. As promised, I am providing a detailed summary of the nearby PPHCSD wells 14K, 14K1, 14Q1 and 23F1, along with proposed actions for each well for your consideration. The attached **Table 1** is an updated version of the table we viewed in our meeting.

As discussed, we believe conducting the proposed work on the wells is in the interests of both DAS and PPHCSD. From the meeting we understand that PPHCSD intends to rehabilitate and put into use the two newer wells, 14K1 (Home Irrigation Well) and 23F1 (George's Well) and, pending further review, may want to abandon the older former domestic wells, 14K and 14Q1. Based on this understanding, DAS proposes the following actions for each of these wells.

Well 14K

Proposal: Abandon (Destroy) 14K as follows:

1. Purge one well and one filter-pack volume (~ 3,700 gallons) & dispose off the groundwater on the surround land. This is to remove stagnant water from the well and filter-pack that may still contain groundwater from the upper aquifer.
2. Remove any pipe & pump, if these are still in this well.
3. Cut slots in the casing using a Mills Knife from 130 to 150 feet below ground surface (bgs). This is to enable cement grout to seal a 20-foot section of filter-pack within the clay aquitard between the upper and lower aquifers.
4. Shot perforate the casing from 50 to 150 feet bgs. This is to allow the cement grout to seal off the filter pack from the water table to 150 feet bgs.
5. Using a Tremie pipe, grout the well with cement (10-sack sand slurry) up to surface in lifts. Wait for cement level to stabilize; top up the cement to 5 feet bgs.
6. Excavate the top 5 feet of well casing, cut-off the casing & pour a mushroom cap.
7. Backfill with native soil and compact.

Well 14Q1

Proposal: Abandon (Destroy) 14Q1 in the same general manner as Well 14K, above.

1. To access the well, possibly demolish a part of a vacant (derelict) dwelling (because 14Q1 is very close).
2. Purge ~ 6,700 gallons of groundwater to remove one casing volume and one filter-pack volume dispose on field before grouting the well and filter pack (due to blockage the water level in this well is anticipated to be much higher than in well 14K).

Well 14K1

Proposal: Keep 14K1 for future use but conduct the following work.

1. Ignore the pipe and pump since are currently not in the well and will not need to be removed.
2. Seal-off a 20-foot section of the filter-pack from 130 to 150 feet bgs by cutting slots in the casing with a Mills Knife and then shot-perforating to help improve cement grout penetration into the filter-pack, thereby preventing potential migration of poor quality groundwater from the upper aquifer to the lower aquifer (production zone).
3. Pressure grout the filter-pack with cement grout (10-sack sand slurry).
4. Wait at least 72 hours for the filter-pack seal to set and then install a temporary pump.
5. Purge three well and filter-pack volumes (~ 12,500 gallons) and dispose on field;
6. Sample groundwater for full suite of analyses using the same analyses as PPHCSD applied for well 14K in 2013.

Well 23F1

No action is recommended; however, PPHCSD may want to consider sealing off the filter pack between the upper and lower aquifers like well 14K1.

We appreciate the opportunity to meet with you and submit this proposal. We look forward to receiving your feedback. Please let us know if you have any questions or comments.

Sincerely,



CHARLES H. POMEROY
StilesPomeroy LLP

Attachment: Table1 - PPHCSD Wells Near DAS El Mirage Facility

Table 1 - Phelan Pinon Hills Community Service District (PPHCSD) Wells Near Ducommun AeroStructures (DAS) El Mirage Facility

Name in DAS Documents	14K	14K1	14Q1	George's Well
Also Known as	Original Domestic Well	Home Irrigation Well	14Q02	
State Well ID	06N07W14K02	06N07W14K01	06N07W14Q02	06N07W23F1
Well Completion Report Number - Date	-	402637 - 5/20/1992	-	
Former Well Owner	Meadowbrook	Meadowbrook	Meadowbrook	Georges
Well Type	Domestic-Dairy	Agricultural	Domestic	Agricultural
Date Installed	8/17/63	5/15/92	Before 1957	5/8/90
Out of Service	1992	2012	2002	?
Back in Service	2002	-	?	-
Out of Service 2	2012	-	?	-
Destroyed	No	No	No	No
Ground Elevation (FT MSL)	2888	2888	2899	2916
UTM-East	446556	446576	446533	?
UTM-North	3829482	3829482	3829097	?
DASCoord-East (FT)	4716	4736	4536	?
DASCoord-North (FT)	7400	7400	6105	?
Distance from Site Boundary	1400	1400	170	2900
Direction from Site	N	N	NW	WSW
Boring Diameter (Inches)	26	26	26(?)	26
Well Outside Diameter (Inches)	16	15.5	?	16
Well Inside Diameter (Inches)	14	14	12 (0 to 145 FT); 10 (145 - 385 FT)	14
Well Casing Material	?	0.25-inch Copper	?	Steel
Well Screen	?	0.09-inch slot wire-wrap 0.25-inch Copper	Steel - knife-cut	Steel - Louvered
Well Seal	?	30-Inch diameter 0.312-inch Steel conductor casing & cement 0 - 50 FT	?	50
Filter Pack	?	Valley Sand 0 - 540 FT	?	?
Boring Depth (FT BGS)	521	580	385	708
Top of Screen (FT BGS)	296	350	73; 245	280
Bottom of Screen (FT BGS)	?	550	145; 385	700
Depth to Water (FT BGS)	180 (1963)	288 (10/8/2013)	56 (1957 & 1/5/1995)	310.9 (10/8/2013)
Estimated Well Yield (GPM)	2400 (1963)	1800 (1992)	?	1200
Date Last Sampled	5/4/2015 (PPHCSD)	01/16/13 (PPHCSD) \ \ 4/2/2012 (DAS)	10/18/2000 (DAS) \ \ May 2002 (DAS)	?
Last VOCs; Cr; CrVI; Nitrate as N (ppb)	TCE = 2.3; 26.0; 18; 8000	NS; ND<10; NS; 2900 \ \ TCE = 0.57; 5.0; NS; NS	NS; 23; 23; NS \ \ ND<0.5; NS; NS; NS	?
Boring Log?	Yes - Bottman Drilling - Poor Detail	Yes - Well Completion Report	No	?
Video Log	No.	Video Log on 10-08-2013 (PPHCSD). Pump & Pipe were not replaced after logging (per PPHCSD).	Video & Geophysical Logs 1995 (DAS). Pump & 315 FT pipe was replaced after logging (per DAS).	Video Log 10-08-2013 (PPHCSD). Pump & Pipe were not replaced after logging (per PPHCSD).
Geophysical Log	No.	None.	Compensated Sonic (Cement Bond); Spectral Gamma.	None.
Well Condition	Unknown.	~ 28 FT of sediment in bottom. Roscoe Moss Full Flo Louvers 350 to 550 FT. Partially to fully plugged.	Clay from 133 to 250 FT. No cement seal (Sonic only works below the water table). Upper screen heavily scaled, with most perforations nearly closed-off. Lower screen very heavily scaled with perforations difficult to see.	Louvered perforations open to very plugged. Broken PVC airline visible at 475 FT; more PVC airline stops camera at 657 FT.
PROPOSED ACTION	ABANDON WELL Purge one well + filter-pack volume (~ 3,700 gallons) & dispose on field. Remove pipe & pump (if still in well). Mills Knife 130 - 150 FT. Shot perforate 50 - 150 FT. Tremie cement (10-sack sand slurry) up to surface in lifts. Wait for cement level to stabilize; top up to 5 FT. Excavate top 5 FT casing, cut-off casing & pour mushroom cap; backfill with native soil and compact.	KEEP WELL & GROUT FILTER-PACK 130 - 150 FT BGS Pipe & pump currently not in well (PPHCSD). Mills Knife & shot perforate 130 - 150 FT. Pressure grout filter-pack with cement grout (10-sack sand slurry). Wait at least 72 hours for filter-pack seal to set & then install temporary pump & purge three well & filter-pack volumes (~ 12,500 gallons) & dispose on field; then sample groundwater for full suite of analyses (same as PPHCSD analyses for 14K02 in 2013).	ABANDON WELL May require removal of part of the vacant dwelling to gain access to the well. Purge well + filter-pack volume (~ 6,700 gallons) & dispose on field. Remove pipe & pump (if still in well). Mills Knife 130 - 150 FT. Shot perforate 50 - 150 FT. Tremie cement (10-sack sand slurry) up to surface in lifts. Wait for cement level to stabilize; top up to 5 FT. Excavate top 5 FT casing, cut-off casing & pour mushroom cap; backfill with native soil and compact.	NO ACTION REQUIRED

NOTES & ABBREVIATIONS: FT = Feet; BGS = Below Ground Surface; All depths are FT BGS; MSL = Mean Sea Level; GPM = Gallons per Minute; ppb = Parts per Billion (or micrograms per liter); TCE = Trichlorethene; Cr = Chromium (total); CrVI = Hexavalent Chromium; NS = Not Sampled or Analyzed; ND< = Not Detected Above Concentration Indicated (Laboratory Detection Limit); ~ = Approximately; PVC = Polyvinyl Chloride (plastic); UTM = Universal Transverse Mecator