

Meeting Agenda/Summary

Meeting	Water Quality Division: Onsite Wastewater Advisory Committee (OWAC)
Date	Tuesday, October 4, 2022
Start / End Time	10 am - Noon
Virtual Meeting	Zoom link in calendar invite
Documents	Located in ShareFile - https://azdeq.sharefile.com/

MEMBERS

- ☒ David Bartholomew, Bartholomew WW Services, Inc.
- ☒ Mark Basic, Basic Drilling Company (RENEWED TERM)
- ☐ Colin Bishop, Anua
- ☒ Bryan Chiordi, Orenco
- ☒ Jake Garrett, Gila County, Chair
- ☒ Jaimee Griffin, PE Drilling
- ☐ Thomas Hanson, Maricopa County (Resigned)

- ☒ Dawn Long, First American Septic Service LLC
- ☒ Michael Stidham, EZ Treat, Inc
- ☒ Frederick Tack, GHD Inc.
- ☒ Jenny Vitale, PE, Civil Engineer
- ☒ Joelle Wirth, Summit Environmental LLC
- ☒ Kitt Farrell-Poe
- ☐ Doug Disbrow, OMC Co-Chair

ADEQ STAFF

- ☐ Trevor Baggione, ADEQ, Water Quality Division Director
- ☐ Naveen Savarirayan, Manager, Groundwater Protection Value Stream
- ☒ Matt Ivers, Groundwater General Permits and Reuse
- ☒ Theresa Gunn, Project Manager
- ☐ Jon Rezabek, Legal Specialist
- ☐ Karthik Kumarasamy, PhD, PE

- ☒ Linneth Lopez, Environmental Engineering Specialist III
- ☒ Raymond Morgan, Trainer, Groundwater Protection, Groundwater Permits & Reuse Unit
- ☐ Luke Peterson, Environmental Engineer Specialist 3, Groundwater Protection
- ☒ Chloe Woods, ADEQ
- ☒ Heidi Welborn, Legal Support
- ☐ Morgan O'Connor, Community Liaison

Agenda Topic	Lead	Overview	Documents (* on ShareFile)	Action Requested	NOTES
Welcome	Jake	<ul style="list-style-type: none"> Roll Call 	September	For Information	Announcements: Cullin Pattillo retired from Mohave County and Tom Hanson

Meeting Agenda/Summary

(10 mins)	Garrett, Chair	<ul style="list-style-type: none"> Review Agenda Review Ground Rules 	Agenda* Ground Rules*		changed departments at Maricopa County. Jake reviewed the ground rules and Theresa recorded members present.
ADEQ Program Changes (5 mins)	Matt Ivers, Unit Manager				<p>Matt announced that Cullin Pattillo will join ADEQ onsite team beginning the end of October. Karthik will remain principal and keep oversight of onsite, as he focuses more on DPR (direct potable reuse) with Linneth and Jon R. Linneth will continue to work on some components of the onsite program. Looking to fill one additional engineer position. He also introduced Chloe Woods who will handle the delegation agreements, complaints, inquiries and assist Theresa with the 5-year plan implementation.</p> <p>Comment:</p> <ul style="list-style-type: none"> Hope Karthik can integrate onsite systems into the DPR concepts in the near future. How will PPL applications be reviewed moving forward? We will continue to follow the same review process as we do now. When applications are received will access the expertise and time available. Could be Linneth, Ray or Karthik.
TWG Recommendations (20 mins)	Jake Garrett, Chair	<p>OWAC discussion of the recommendations made during the Sept 20 joint meeting:</p> <ul style="list-style-type: none"> Permitting process Treatment levels 	Hybrid Framework Discussion*	Decision on whether or not these recommendations should be formally forwarded to ADEQ	<p>Permit Types Discussion and Vote</p> <ul style="list-style-type: none"> Need to clarify the excluded uses (mortuary, pharmacy, etc.) Typically written in rule. Is there another category for facilities which need vault and haul and/or something other than onsite system? <ul style="list-style-type: none"> How to deal with high strength waste and adverse chemicals/substances Did the group discuss how the permit categories will be defined? <ul style="list-style-type: none"> Once the foundation is established we can continue to build the program How do treatment levels work within the permit categories? <ul style="list-style-type: none"> The tiers are under the overarching permit categories. <p>DECISION: Mike Stidham made a motion to recommend the permit types to ADEQ. Bryan Chiordi seconded the motion and it passed unanimously</p> <p>Advanced Treatment Levels and Vote</p> <ul style="list-style-type: none"> PPL will continue to provide references and justification for the

Meeting Agenda/Summary

					<p>numbers. Have assigned as homework to a couple of members.</p> <ul style="list-style-type: none"> • What do these numbers align with? <ul style="list-style-type: none"> ◦ Why were treatment levels assigned at each level? ◦ Are you assigning a treatment level based on limiting conditions? • Why are we doing phosphorus? • What is the correlation between site limiting condition and treatment levels? • Proportionality - used in NC statute to determine adjustments to setbacks and other design considerations • Issues which need to be discussed: <ul style="list-style-type: none"> ◦ What degradation rate is assigned to technologies? As a safety factor. (multiple groups) ◦ Are treatment levels to limiting conditions or gaming SAR? ◦ Prevent gaming of SAR? CAP reduction. DPP ◦ What about fail safe? Keeping a fail-safe alternative to the systems. (multiple groups) ◦ If robust on OM what are doing if people are non-compliant • Thought we were reviewing the levels not the actual numbers? <ul style="list-style-type: none"> ◦ We can adjust moving forward ◦ But needed as a starting point • Would like to see unique numbers from the PPL certifications which are grouped under the treatment levels • Need to have others come into the PPL group to question the treatment levels selected <ul style="list-style-type: none"> ◦ Need to know what they were based on; not just other states ◦ People need to question to ensure one technology is not given advantage over others • Numbers relate to other states which have successful program • PPL is proposing no unique numbers; technology need to stay under the limits of the level • PPL needs to coordinate with the design and permitting TWG but needs a foundation to build upon • Most of the concerns can be answered if we can get a foundation to build upon <p>DECISION: Motion made by Bryan and seconded by Joelle to recommend to ADEQ the treatment levels as proposed by the PPL TWG to enable future</p>
--	--	--	--	--	--

Meeting Agenda/Summary

					discussion between the PPL and Design and Permitting TWG. Voice vote was requested by the chair. Motion passed with only one nay vote.
Septic Haulers Survey (15 mins)	Theresa Gunn, Project Manager	Preliminary review of the survey underway to identify issues related to septage dumping		For Information	<p>Theresa discussed the actions underway to determine the current state of septic dumping in Arizona. Pumpers are indicating it is difficult to find locations to dump current state.</p> <p>Comments:</p> <ul style="list-style-type: none"> • We should use sludge and scum levels to determine if pumping actually needed. • Will need to determine if we need manifests to track septage in the future. • There is a problem with pumpers not pumping correctly • Need to track septage reports in the statewide database
Liquid Sewer (20 mins)	Jake Garrett, Chair	NOID's and an A312G to justify designs utilizing Liquid Effluent Collection System (LECS) as the collection system		For Discussion and possible recommendation	<p>Jake asked Joelle and Mike Stidham to present a recommendation that ADEQ approve a statewide 312G for 4.01 collection systems. See attached presentation and draft 312G.</p> <p>Discussion:</p> <ul style="list-style-type: none"> • Happy to see this being considered as an option as pumpers are just pulling liquid because the tanks are buried too deep • Some border control tanks are 10 feet deep • This aligns with the requirements of an individual APP; it is allowed under an individual permit so it should be allowed under a general permit <p>DECISION: Bryan made a motion, seconded by Dawn to recommend ADEQ review the draft A312G and approve for use statewide in lieu of requiring systems with 24,000 gpd less having to obtain an APP individual permit. Motion passed unanimously</p> <p>Matt stated the onsite team will discuss and consider the recommendation.</p>
GAPs Spreadsheet	Theresa	Review the list of outstanding		For Information	Theresa reviewed the sheet and will be sending out to all members. The sheet

Meeting Agenda/Summary

(15 mins)	Gunn, Project Manager	issues and the TWGs assigned			contains all of the issues identified today, the group assigned, status and links to documents and references.
Program Update (20 mins)	Matt Ivers, Unit Manager	<ul style="list-style-type: none"> • NPRM (Phase 1) • SPSs • Phase 2 Exemption Memo • Infield Testing 			<ul style="list-style-type: none"> • Formal hearing on phase 1 rule is October 13 at 1 pm. • Three SPSs have been published and one more is being reviewed by leadership. • The Phase 2 exemption memo is being reviewed for final approval and submission to the Governor's office. • Completed the FY23 testing program. Appreciate the input received from those who viewed the sampling. Anticipate doing more testing in the future. <p>Discussion:</p> <ul style="list-style-type: none"> • Are we going to get a summary of the result to date? <ul style="list-style-type: none"> ○ Do we think the results justify operations, maintenance and monitoring? Based on the initial data it appears there is justification but additional analysis is needed. • Does the exemption memo state the rule will be a repeal and replace? <ul style="list-style-type: none"> ○ The memo will allow us to make the changes being contemplated in phase 2. Seeking a broadly scoped memo. • Did ADEQ take into consideration how the SPSs change projects in progress. <ul style="list-style-type: none"> ○ We will consider when more lead time is needed to implement an SPS? • Is the Oct 13 hearing the final GRCC hearing? <ul style="list-style-type: none"> ○ No, it is the ADEQ required public hearing. ○ Written comments will be responded to in a responsive summary. ○ After hearing will file NFRM which is published and goes to GRCC study session and a GRCC meeting for action. Public can attend and all documents will be posted on the GRCC website. ○ GRCC will post the NFRM and the response to comments will be posted on the GRCC website. ○ Do we need to attend the meeting on October 13? <ul style="list-style-type: none"> ■ We welcome all comments during the hearing. ○ A written summary of the phase1 NFRM remaining actions/steps will distributed to OWAC members
2023 OWAC Members	Theresa Gunn,	Discuss the process for the annual OWAC membership		For Information	Theresa shared the members whose terms end in 2022 and reviewed the process for selecting the new members. Any member anticipating retiring or resigning

Meeting Agenda/Summary

(10 mins)	Project Manager	application process			from OWAC should notify Theresa as soon as possible. The new member application process will be presented at the November 1 OWAC meeting.
Review New Action Items (5 mins)	Theresa Gunn, Project Manager	New Action Items	Action Plan	For Information Only	Skipped due to time constraints.
Adjourn	Jake Garrett, Chair				The meeting was adjourned at 12:05. Next Meeting: November 1 Agenda: TBD

No.	Action to be Taken	Person Responsible	Due Date	Comments	Percent Complete				Date Complete
82	Summary of FY23 infield testing to OWAC members	ADEQ			25	50	75	100	
83	A checklist of all of the actions which will take place between now and the approval of the NPRM	ADEQ			25	50	75	100	
84	Review the 312G draft and make determination if it can be used statewide	ADEQ			25	50	75	100	
85	Review new member application process at Nov 1 OWAC Meeting	ADEQ			25	50	75	100	
					25	50	75	100	

312G Approach to Current 4.01 Collection Systems

Consideration of a State-wide 312G

Rule Citation
for which
change is
needed

R18-9-E301. 4.01

Description of Requested Change

Requesting the use of Liquid Effluent Collection System (LECS) processes in addition to the gravity and force main options identified in rule. The use of "Liquid Effluent Collection System" (LECS) methods allows design flexibility that will provide and ensure enhanced treatment, performance, and manageable maintenance of an onsite system.

Justification for Requested Change (Please attach any necessary calculations, drawings, or other supporting documentation.

With the continued population growth into urban areas in Arizona the demand for residential housing and commercial facilities has increased. The current design options addressed in R18.9.E301 are outdated and frequently result in installations that are not manageable, require a huge footprint and are costly to operate and are inadequately managed. The proposed use of LECS processes would be a process would provide for a more sustainable use of properties experiencing increased population densities.

Meeting Agenda/Summary



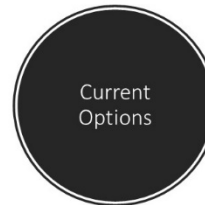
Design
Challenges



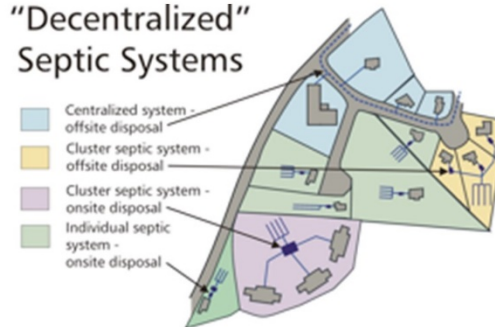
Design
Challenges



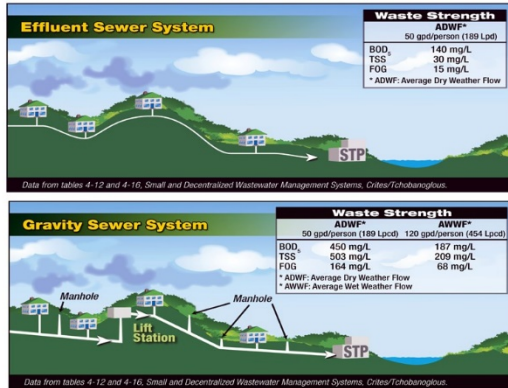
Design Challenges



"Decentralized" Septic Systems



Liquid Effluent Collection vs Gravity Collection



Performance

Breaking up the tankage requirement and providing multiple tanks for some development will enhance the reduction of sedimentation, blockage and erosion throughout a planned development. Pipe and pump sizing assure that an adequate scour flow of 1-fps is maintained.

Performance

This is enhanced with the use of Liquid Effluent Collection System methods. Unlike the currently prescribed methods, the use of Liquid Conveyance allows development to provide multiple tank locations that would be adequately sized as opposed to one large process center. The use of smaller sized tanks in the collection system will allow for achievable operation and manageable maintenance. Pipe and pump sizing assure adequate effluent flow.

Performance

With smaller, properly sized components and operator will have the ability to effectively manage and operate a Liquid Conveyance System. Systems may be evaluated more closely, and problems more readily pinpointed as opposed to one large flow.

Protects water quality through minimization of Infiltration and Exfiltration (INE) losses from the system. An operator has a better opportunity to identify and correct exfiltration losses through management of multiple components that are accessible as opposed to one large flow. The system is a closed system from the exit of the pump tank to the exit of the LECS into a treatment facility, thus there are no direct openings to the land surface as are present in gravity sewer lines

Performance- tankage

Multiple tanks that are adequately sized for the wastewater delivered to the system will allow enhanced inspection maintenance, testing, visibility, and accessibility as opposed to the current tankage requirement identified in E301.

Tankage can be more efficiently managed with smaller capacity tanks that can be visually monitored and maintained as opposed to huge tanks that are not capable of being properly serviced. Velocity and pressure loss can also be remotely monitored to facilitate quick response to unexpected interruptions of flow.

Performance- Tankage

Smaller, adequately sized tanks for the volume of wastewater delivered to them will work more efficiently as designed as opposed to the large tanks that cannot be properly evaluated. Pipe and pump sizing assure that an adequate scour flow of 1-fps is maintained, thus eliminating any possibility of septic conditions. Additionally, there is no additional oxygen available in this environment since the LECS is a closed system from the exit of the pump tank to the exit of the LECS into a treatment facility.

Why the Need?

Until Phase II rules may address and incorporate Decoupling into the rules it is being requested by many manufacturers, regulators, operator and property owners to be able to apply more efficient practices through the use of an A312G. currently STEG and STEP Systems are already being utilized through the ADEQ General Permit process for systems less than 24,000 gpd.