Water Quality Division: On-Site Wastewater PPL TWG  
Meeting 3: Tuesday, September 27, 2021  9:00-11:00 am  
(See Link to Google Meets in Calendar Invite)

Members in Attendance:
☐ Ashley Chatfield, Maricopa County Environmental Services  
☒ Bryan Chiordi, Essential Operations  
☐ Todd Christianson, Premier Environmental Products, LLC  
☐ Suzanne Ehrlich, Yavapai County  
☐ Marc Fleetwood, Fleetwood Engineering  
☒ Karthik Kumarasamy, ADEQ  
☒ Linneth Lopez, ADEQ  
☒ Nicholas Noble, Orenco Systems Inc  
☒ Naveen Savarirayan, ADEQ  
☒ Michael Stidham, EZ TREAT, INC  
☒ Michael Sundberg, MST Manufacturing DBA MicroSepTec  
☒ Fred Vengrouskie, Eljen Corporation  
☒ Joelle Wirth, Summit Environmental, LLC

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<thead>
<tr>
<th>Agenda (Est Time)</th>
<th>Lead</th>
<th>Overview</th>
<th>NOTES</th>
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<tr>
<td>Input from Delegated Counties</td>
<td>Linneth and Joelle</td>
<td>Review any input from counties which have delegation for alternative systems</td>
<td>Pima County stated they had no issues. Linneth will follow-up her email from last week with phone calls this week. Concern from Maher about a county allowing use of a non-listed product if similar. The group discussed the phase 1 rule change which could allow a single use of a non-listed product. ADEQ added language that a request could be made but ADEQ would only do the review if the time and workload would allow.</td>
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| CTQs for the Ideal PPL Program | Nick | Review homework assignment | The group reviewed Nick’s draft paper on a future state PPL program. Comments on 4 assumptions:  
• Any deviations from the tested installation may require further review  
• Technologies are a component of a system which can be installed in various configurations for specific site conditions and in-field data should support different configurations  
• Some technologies have installation configurations that impact the performance and longevity  
• If the installed configuration is similar or equivalent then it can be allowed, if not, it would take engineer review of the revised configuration |

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<th>Outline of a Tiered Approach</th>
<th>Karthik</th>
<th>Review homework assignment</th>
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<td>Karthik presented a potential approach to parameters.</td>
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Comments on parameters:
- Need to know source level to determine the alkalinity needed to achieve the nitrogen reduction; may need to add alkalinity
- For consideration: TMDLs
- Statistics depend if we want percent reduction or end of pipe rates
- Nitrogen concentrations are going up which leads to alkalinity issues
- Distribution of data could also look at confidence level
- Sample size is not just number of samples, but the number of systems sampled
- We are seeing phosphates
- Need provision for water softeners and impact to the septic tank is drastically impacted
- How do you do influent testing in the field to understand the treatment reduction?
  - Do testing in Mode 1 for a month
- pH is also an important parameter
- Oxygen
- Grove’s report speaks to the sampling size
- Without enforceable O&M will make it difficult
- Concern about ADEQ approving manuals as it would be difficult to keep up with the versions of the manuals
  - Without the manual approval, people won’t know what the PPL was based upon
  - Will need to use the manual that was reviewed for the PPL in the field
  - Need to make the process reasonable on when a manual is updated
- We are seeking performance-based approvals based on testing
  - Manuals are prescriptive codes from the manufacturers
  - State shouldn’t get into the business of how to build the system which interfere with innovation
- With prescriptive code, each manufacture will have to deal with differences in each state
- Performance is based on meeting the testing conducted by a third party and backed up by a bond
- Potentially use different BOD numbers and the formula (next meeting)

Discussion of an experimental program to approve a product that has no testing
- In Oregon, they are limiting the number of limitations and testing and when passed additional systems can be installed
- North Carolina has a conditional approval process
- Should have more reciprocity between the testing done for other states
- Can limit where these can be installed; locations with low risk

What do others do for delisting or if the parameters are not met?
- Either you do this or we take this? (Rhode Island)
- If we are not willing to hold people to the parameters why are we doing this?
- It is the manufacturer not the homeowner to determine why the system is not performing and has the responsibility

General comments:
- Nitrogen management areas in Arizona; have they been updated.
- Need pathway to innovation but still need some regulation
- Prescriptive codes limit innovation
- Proven technologies that work and protect human health and the environment and less on being an incubator for innovation.

| Next Steps | Joelle | identify the gaps between current state and the ideal future state and develop actions to bridge the gap. | Tuesday, October 12, 1-3 |

Future topics: SAR formula, stacking, seasonal use

**Action Plan:**

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<tr>
<th>Task</th>
<th>Person Responsible</th>
<th>Due Date</th>
<th>Status</th>
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<td>Send calendar invite for the next meeting.</td>
<td>Theresa</td>
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<td>Complete</td>
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<tr>
<td>Gather information from County partners on concerns they have about PPLs and the process</td>
<td>Linneth/Joelle</td>
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<td>Linneth will follow-up email with phone calls</td>
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<td>ADEQ to answer the industry the question about over reach and going beyond the rule today</td>
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<td>How will a performance-based program work?</td>
<td>Fred</td>
<td>If time permits</td>
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<td>Refine discussion paper on parameters and SAR formula with some examples from residential and commercial</td>
<td>Karthik</td>
<td>Based on the discussion during the meeting</td>
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<td>Joelle to put assumptions into a spreadsheet to begin to put in additional information</td>
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