

## **OWTS Stakeholder Meeting #1 Minutes: April 12, 2007 10-12, DEM Room 280**

In attendance: Noel Berg, Dennis Vinhateiro, Tom D' Angelo, Tim Stasiunas, Jane Austin, James Boyd, July Lewis, Darlene Gardner, Joe Frisella, Eugenia Marks, Nancy Hess, Chris Duhamel, Scott Moorehead, Susan Licardi, Alicia Good, Russ Chateaufneuf, Tom Getz, Brian Moore, Ernie Panciera, Deb Knauss, Jon Zwarg

- Tom Getz called the meeting to order at 10:05
- Introductions around the table

Tom Getz will be facilitator. DEM staff will address technical and programmatic issues.

- Background of stakeholder process, outgrowth from Septic System Task Force.
- Material not for public release.
- DEM provide agendas with tentative lists of topics to be addressed at each meeting.
- Issues still not resolved at conclusion of stakeholder process can be addressed during the public comment period of the Rule adoption process.

Concern raised over the amount of time between correspondence and meetings -- participants would like more time to review information.

- Russ Chateaufneuf provides overview
  - This is a comprehensive rewrite, driven by stakeholder review from ISDS Task force, technology change, and a push for consistency with other agencies within the state.
  - Goals of the revision process:
    - Create a more predictable process
    - Clarify rule language
    - Streamline where possible (esp. variances, OWTS Suitability Determination)
    - Policy consistent between regulations of different agencies.

### **Issue List**

- Late additions can be emailed to Jon by Tuesday. All emails should be directed to Jon for subsequent distribution to the Group.

The Issue List was read and several comments were made. It was noted that there are many other potential issues to talk about. Group asked for any additions to the Issue List.

- Chris Duhamel: Conservation Development is increasingly prevalent in South County. Do not want OWTS regulations to be contrary to conservation development.
  - "Facilitating Conservation Development" added to the issue list.
  - CD agrees to provide bulleted list summarizing his perspective on the issue by next meeting.

- Scott Moorehead noted that he has many additional issues and will create a list, but initially:
  - Rule 48, Variances: Suggests that language may not be legal, requests having a representative from DEM Legal present when we discuss variances. RC agrees.
  - Requested rule numbers to accompany issues listed on Agenda.
  
- Nancy Hess brought up the issue of Critical Resource Areas. There's no mention of Sole Source Aquifers in the rule.
  - “Sole Source Aquifers” added to issue list.
  
- Eugenia Marks would like to add Pathogens and Freshwater nutrients to issue list.
  - “Pathogens” and “Freshwater Nutrients” added to Issue List.

### **Issue Discussion**

#### **-Rule 8: Galley Prohibition**

- Galleys will be allowed for repairs only where there is no other viable option.
  - EM requested clarification of terminology
    - It was suggested that “galley” be included in the definitions
- Tim Stasiunas expressed support for the prohibition, but said there has been inconsistency in review because other types of drainfields are bigger than galleys and thus designs using conventional systems other than galleys on a repair might encroach on wells.
  - RC and Brian Moore agreed, it's a case by case review issue, noting that by using better technology some encroachment is acceptable.
  - With galleys as an option only in extreme circumstances, the issue will be an I/A system on a smaller footprint or a conventional system. As an example, it was suggested that a BSF will always fit, and we are therefore pushing people to this.
  - The issue of cost was raised, and point made by others that financial barriers are a less significant issue because of Community Septic System Loan Program (CSSLP) and Community Development Block Grants (CDBG). A new Clean Water Finance Agency direct loan program was also discussed.
  - RC says DEM will make sure our flexibility is preserved, consistent with the existing language in the Rules so we're not requiring I/A in this situation. It was noted that the vast majority of repairs use conventional systems.

#### **Rule 8: Prohibition of Large Capacity Cesspools.**

- Sue Licardi asked if the rule language is clear enough on the point that large capacity cesspools have to be removed? DEM agreed to clarify the language.
  
- It was noted that the Laundromat prohibition has been deleted.
  - EM suggested laundry wastewater is a potential phosphorus source.
  - NH suggested allowing them but place additional treatment requirements. It was noted that there are currently no I/A technologies approved for phosphorus reduction.

### Rule 18: OWTS Suitability Determination.

- It was explained that the intent of Rule 18.3 is to determine whether an OWTS application to DEM is required based on the given circumstances surrounding a project.
- General discussion of Rule 18.3 recommends some additional clarification, including a suggestion that the OWTS Suitability Determination either be required or not, rather than voluntary. RC says Department position is to have the procedure available but not required in an effort at streamlining the permitting process. Concern was expressed that the voluntary aspect of 18.3 takes DEM out of the loop. A suggestion was made to clarify that an OWTS must not be failing to be considered “suitable.”
- It was suggested that the wording in the latter half of Rule 18.3.1(C) be reviewed for clarity.
- Discussion of the imminent sewer exception in Rule 18.3.3:
  - Several issues emerged, including the 5-year time period in Rule 18.3.3(c) as being too long, concern about the delays inherent in sewer construction projects, and tracking whether houses actually hook up to sewers within 5 years of the OWTS Suitability Determination.

### Rule 22: Sewage Flows

- RC points out key changes and added categories with particular attention to shopping centers, explains flow is based on size of building. Residential flows reduced from 150 gpd/bedroom to 115 gpd/bedroom with a minimum total flow of 345gpd. Residential leachfields will stay the same size as in the existing regulations. Since the design flow has been reduced, the loading rate has been reduced proportionately. Since the same loading rates used for residential OWTSs are used for all other OWTSs, uses in the proposed regulations that have no change in design flow or an increase in design flow will have a larger leachfield under the proposed regulations.
- Rule 22.2: Bedroom definition and number.
  - RC explained background, noting that DEM doesn’t actually go in to check what is actually a bedroom in the house. Also, rooms may meet building code definition but never actually get used as a bedroom. Finally, home occupancy is generally lower than what the rules assumed. For example, a 3 bedroom house will generally not have 6 people living in it.
  - Question asked as to which rule has priority, the definition of a bedroom in Rule 7, or Rule 22.2.4. RC answered that Rule 22.2.4 always applies, but it was pointed out that there could be inconsistencies. DEM will clarify.
  - Point raised that in this context it might be easier to have the OWTS regs not consistent with the State Building Code. RC responds that Department position is to be as consistent as possible with other state regulations.
  - EM suggested a different way to determine bedrooms for new construction vs. renovation because of rental overoccupancy issues. The assumption that modern homes/lifestyles produce less sewage in existing buildings (as opposed to new construction with water-saving fixtures) is questioned. Also, other cases of increased water use, like Jacuzzis or multiple-head showers are noted. RC notes that Jacuzzis require larger septic tank sizes.

- EM commented that some of the flow rates in Table 22.1 may be too low, with particular emphasis on kennels and health clubs.-SM suggested that an additional footnote be added to table 22.1 reserving the right to additional review for uses like beauty salons, funeral homes, etc DEM agreed..

- A question on whether shower and tub waste is sanitary sewage was raised. Shower and tub waste is not explicitly listed in the definition of sanitary sewage, but they are part of graywater which is defined as sanitary sewage. DEM will clarify definition of sanitary sewage to make it clear that showers and tub waste is included.

Meeting ended at Noon.

Next meeting on Thursday April 19 in DEM Room 300 from 10-12.

## **OWTS Stakeholder Meeting #2 Minutes: April 19, 2007 10-12 DEM Room 300**

In attendance: Rob Adler, Noel Berg, Jim Boyd, Dave Burnham, Tom D'Angelo, Chris Duhamel, Darlene Gardner, Nancy Hess, July Lewis, Scott Moorehead, David Provonsil, Tim Stasiunas, Jane Austin, Russ Chateauneuf, Tom Getz, Brian Moore, Ernie Panciera, Jon Zwarg

-Meeting called to order at 10:05

-Introductions around the table followed by quick preview of the agenda.

-Russ began with discussion of Rule 23, Minimum Setback Distances. Provided brief background on the proposed changes, noting in particular subdrains.

-Concern was raised over the setback to storm drains pushing buildings further away from roads than needed. It was noted that this creates a possible conflict with principles of conservation development. Suggestion made that smaller setbacks to storm drains should be allowed if the storm drain was built with water-tight joints and was shown to be above the groundwater table.

-A question was raised regarding the definition of a foundation drain. It was noted that there is almost always stone beneath a building foundation that could be considered a foundation drain.

The Department agreed to review the definition of foundation drain.

-Concern was raised over Table 23.1, Note 4. On sloping sites where the groundwater gradient is clear, Table 23.1 requires a 50 foot setback down gradient and side gradient and a 25 foot setback upgradient. Where the ground surface slopes less than 3%, a 50 foot setback is required on all sides. At issue was where, exactly, on the site the grade of the original ground surface would be determined when trying to figure out whether Note 4 applies, and also what to do in cases where the groundwater gradient is shown to not follow the surface contours.

Russ responded that the Department will clarify the language of Note 4 and consider circumstances under which the 50 foot setback to storm drains might be reduced.

-Russ presented Tables 23.3-23.5, drawing attention to the larger setbacks for OWTS with design flow over 5000gpd. Setbacks to Drinking Water Wells have been made consistent with Department of Health policies.

-Concern was raised over the definition of large systems as it relates to applying the setbacks in Tables 23.3-23.5. For large systems, based on the categories in Rule 36.1, consisting of an aggregation of many small OWTSs, the question was whether each of the components (eg. Tanks, building sewers) of the small systems had to comply with the setback requirements for large (>5000gpd) systems.

The intent of the requirement is to have increased setbacks for individual systems with design flow >5000gpd. OWTSs <5000gpd, including those that are component parts of a

large system, will be held to the smaller setback distance, the Department agrees to clarify this point.

-Russ pointed out that the minimum setback distances in coastal areas will be measured from the CRMC designated coastal feature rather than the “solstice moon tide elevation” in the current regulations.

-Concern was raised over setbacks to wetlands and the relationship between OWTS application review and Wetlands review. Example described where septic system complied with setbacks, but house was constructed within wetland buffer area.

Russ responded by noting that proposed rules provide for improved coordination between OWTS review and Wetlands review. Jim Boyd noted that the example mentioned was an older case, proposed rules also are more consistent with CRMC policies so the situation less likely to occur in the future.

-A clarification of the units in the first column of Table 23.5 was requested, the Department agreed to present design flow units more clearly.

-A comment was made concerning Note 3(c) accompanying Table 23.5. Note 3(c) specifically mentions PSNDs and a suggestion was made that BSFs also be included. It was observed that BSFs can provide high level of treatment but require less space for installation, thereby avoiding variance requests. It was noted that the Technical Review Committee discussed this issue in the past and reached a consensus statement that PSNDs were the preferred drainfield technology but BSFs were appropriate in order to avoid variance requests.

Russ responded that the intent of 3(c) as proposed is to reduce variances, so even if the note is limited to PSNDs there will still be fewer variances than under current rules.

-A clarification was requested regarding Note 4 accompanying Table 23.5, specifically a question of whether “pressurized drainfield” includes both BSFs and PSNDs.

Russ responded that “pressurized drainfield,” in this context, does include both types. The Department will clarify this note.

-A final call for questions and comments on the issue of minimum setback distances elicited a concern from the stakeholders about perceived pressure to rush through discussion in order to maintain the meeting schedule at the expense of resolving issues.

-Discussion of setbacks from system components in Table 23.5 continued with a suggestion that while leachfield setbacks should increase with increasing system size, there is no reason that setbacks to tanks and building sewers should also increase since these components are required to be water tight.

-The issue of pressurized sewer pipes crossing water lines was raised. Note 1 accompanying Table 23.1 prohibits pressurized sewer lines from crossing water lines, which would limit use of

some types of community systems. Suggestion made that sewer lines should be allowed to cross below water lines.

Russ responded that the Department will investigate the issue.

-Discussion shifted to Rule 36, Large OWTS Requirements. EP explained the changes to large system review, stated that proposed rule, in general, codifies the review procedure currently in place under the groundwater certification process. Under the proposed rules, no groundwater certification will be required.

-Concern was raised that large systems consisting of an aggregation of several smaller systems (i.e. systems as defined in Rule 36.1.2-4) should not be required to undergo as high a standard of review as single systems with design flow >5000gpd. Mounding calculations were highlighted as a particularly difficult and expensive requirement for smaller systems.

The Department will release a guidance document to help explain the impact analysis requirements of Rule 36.2. The proposed rule language will also be clarified to show that mounding calculations will be required only for individual systems with design flow >5000gpd, not for smaller systems that are part of an aggregate large system.

-Question was asked as to whether the entire area of the project lot could be used in impact analysis calculations (i.e. the bathtub approach), particularly in cases utilizing conservation development principles incorporating open space.

Russ responded that for review purposes, the location of the leachfield(s) relative to sensitive receptors is important and as such the bathtub approach is not appropriate.

-Clarification was requested regarding the use of the word “condominium.” It was pointed out that “condominium” refers to an ownership structure, not any particular land use pattern. Suggestion was made to clarify terms using “land development project” and “subdivision,” where appropriate.

The Department agrees to review use of the word “condominium” in the proposed Rules.

-Several stakeholders expressed interest in reviewing the large system guidance document prior to making further comments on the rule language. A general suggestion was made to incorporate more guidance language into the proposed rule itself.

The Department agreed to consider this, particularly with regard to large systems made up of an aggregation of several smaller systems.

-Discussion moved on to Tank Standards, Rule 27. Russ reviewed the proposed changes, including requirements for the use of two-compartment tanks and effluent filters, tank standards, and access risers.

-Effluent filter retrofits at time-of-sale brought up, Russ noted that such a policy would present enforcement problems. It was pointed out that some towns in the state are already implementing a similar policy.

-After several minutes of discussion, consensus emerged that both inlet and outlet risers should be brought to grade. Currently, proposed language requires the outlet riser be brought to grade and the inlet riser be brought to within 12 inches of the surface. It was noted that maintaining a two compartment tank is more difficult if only one riser extends to grade.

The Department agrees to change the proposed Rules to require both risers be brought to finished grade.

-Tank testing requirements discussed. Proposed rules require on-site tank testing whenever a tank seam is below the seasonal high groundwater table. It was noted that the tanks used most frequently come from the manufacturer in one piece and are certified watertight. A suggestion was made that on-site testing not be required for tanks that are factory certified.

Russ said the Department would review the tank testing requirements and remove the blanket requirement for on-site testing.

-A concern was raised over tank capacity determination for design flows over 1500gpd for non-residential systems. Suggestion that tank capacity should be based on two times the daily design flow for such systems.

The Department agreed to review the septic tank capacity requirements for non-residential systems.

-Concern raised over prohibition on having more than two tanks in series (Rule 27.10), point made that for large flow systems, it can be beneficial to have more than two tanks in series.

Russ said the proposed policy was based on maintenance concerns and the Department would review this issue.

-Discussion moves on to Rule 51, Fees. Russ explained the fee increases were based on the work load required for the tasks associated with processing applications. A concern was raised over the added fees for applications involving I/A technologies. It was noted that I/A applications generally take longer to review due to the added complexity of these systems.

It was noted that some applications include the use of components listed on the Department's I/A Technologies List but are not I/A systems and should therefore not be subject to the doubling of fees. Eljen In-drains as example. Brian Moore agrees, says the Department will clarify language in Rule 51 to show clearly under what circumstances added fees are applicable.

-It was noted that fees go into the State's general revenues and are not directly available to the Department and a suggestion made to stop collecting all fees.

Russ noted that this proposal requires more thought.

-A concern was raised about the application resubmission fee being too high. Russ responded that 99% of applications are approved on the first or second submission and so only a very small number of applications would be subject to the resubmission fee. Further discussion elicited

support for the general policy provided there is some clarification of the meaning of “deficiency” and “properly address.” The distinction between a formal deficiency and Department benchmarks or other suggestions was discussed and the Department agreed to clarify language in Table 51.2 regarding resubmission fees.

-It was noted that large systems can be penalized because they are charged a higher fee because they are large systems and then more because they are often I/A systems as well.

It was noted that large systems are generally more complex and therefore require more time and work to review.

-A clarification was requested regarding transfer fees. Table 51.2 implies that transfer fees are doubled if I/A technology is proposed in the application. This is not the Department’s intent and the table will be clarified accordingly.

-Meeting adjourned at 12:00.

### **OWTS Stakeholder Meeting #3 Minutes: April 26, 2007 10-12 DEM Room 280c**

In attendance: Rob Adler, Noel Berg, Jim Boyd, Chris Duhamel, Darlene Gardner, Nancy Hess, Susan Licardi, July Lewis, George Loomis, Scott Moorehead, David Provonsil, Jane Austin, Russ Chateauneuf, Tom Getz, Deb Knauss, Brian Moore, Alicia Good, Jon Zwarg

-Russ called meeting to order at 10:10.

-Brief review of materials submitted electronically by stakeholders. Phosphorus material will be discussed later in the meeting. With regards to the definitions of terms to replace the word “condominium” in the proposed Rules, Russ notes that the Department has reservations about the reference to local regulations but will find suitable language to clarify points raised in Meeting 2.

-Discussion moved to Rule 42, Nitrogen Loading in Areas of On-site Wells. Russ explained sewage loading rate policy (345gpd design flow per 20,000 sq. ft. lot area) and provided background information on rationale.

A question was asked on how the loading rate applies to conservation development and whether open space may count towards the loading rate calculation. Russ highlighted Rules 42.3 and 42.4 to respond. A comment was made that the proposed rule could be interpreted as a requirement for denitrification in areas served by on-site wells.

Russ responded that the requirement is a density standard that depends, in part, on the level of denitrification. Subdivision loading calculated over whole subdivision under Rule 42.3.1.

A request was made to clarify Rule 42 to reflect that you don't necessarily need to use nitrogen reducing technology if you can meet the density standard. A comment was made that the proposed rule's title may be misleading since the subject is sewage loading, not nitrogen loading.

It was noted that nitrogen loading problems may still occur because of the actual configuration of multiple systems in a subdivision, even if the project meets the requirements of Rule 42. Russ noted that the intent was to be supportive of conservation subdivisions and community OWTS where appropriate to avoid nitrogen loading problems. After further discussion regarding the relation between Rule 42 and the Subdivision Review procedures in Rule 21, the Department agreed to clarify Rule 42 and make sure that Rules 21 and 42 are consistent.

A question was asked on the derivation of the percent N removal numbers used in Rule 42.2. Russ responded that the “% Nitrogen Removal” number is for the technology's I/A approval, based on TRC review, not performance data as installed. It was noted that this will increase the responsibility on the TRC.

A comment was made that since actual performance data may vary widely and can be difficult to accurately measure. The importance of monitoring system performance was also noted.

Discussion followed on performance monitoring and web-based tracking systems. The Rhode Island Wastewater Information System was discussed. The example of Barnstable County, MA was described as an example of utilizing web-based tracking to enable local governments to monitor onsite system performance. A suggestion was made that individual operating permits would be a method to address accountability issues for operations and maintenance.

A suggestion was made to change the % Nitrogen Removal standard in Rule 42 to an effluent N concentration standard. Russ responded that there are pros and cons to each type of performance standard. There is variability in influent N concentrations from house to house (assuming similar occupancy), but DEM is assuming that the total N load is relatively consistent.

-Discussion moved on to Rule 40, Requirements in the Salt Pond and Narrow River Critical Resource Areas.

Russ explained DEM's intent to be consistent with CRMC policies. Department considers all ponds to be either threatened or overloaded with Nitrogen, so proposed policy is that all applications include nitrogen reducing technology.

Background on derivation of CRMC density restrictions was provided, it was noted that denitrification technology has improved significantly, and water quality still in decline. CRMC is preparing a White Paper on nitrogen loading to coastal ponds that will support proposed OWTS rules.

It was noted that the public may oppose this change. Discussion of potential costs of nitrogen reducing technology followed. While it was noted that such systems generally cost more than conventional systems, but on tough sites I/A systems are cost competitive (less fill required, fewer or no retaining walls, less machine time, fewer stormwater problems, etc.)

It was asked if the proposed policy was tied to TMDL's for the coastal ponds. Russ responded that this is a BMP, the Department can't say definitively that this rule change will improve water quality in the ponds and later might discover a need to address nitrogen loading differently.

A suggestion was made to require best available technology for denitrification as a means to push industry to develop better technologies.

A comment was made that Rule 40.4.2 (specifications for disposal trench construction) is inconsistent with the policy of requiring nitrogen reducing technology. The Department agrees to remove 40.4.2 and reorganize 40.4 accordingly.

A clarification was requested for Rule 39.5. It was noted that this provision could be interpreted as a prohibition on variance requests for alterations in Critical Resource Areas. In response, it was stated that the Department's intent in Rule 39.5 was to limit increased flow on alterations. The Department agrees to rephrase 39.5 to clarify.

It was asked whether Rule 39 prohibits local designation of critical resource areas. In response, it was noted that Rule 18.2 applies, allowing local governments to petition DEM for local review of OWTS applications.

-Discussion moved on to the issue of Phosphorus loading. It was noted that while phosphorus is less mobile than nitrogen in groundwater, there is wide variability in soil's ability to attenuate phosphorus.

Russ described two proposed rule changes that may potentially reduce phosphorus loading.

- Prohibit galleys: Not enough soil contact for effective phosphorus adsorption.
- Shallower disposal trench depth: Increases leachfield footprint, therefore more soil contact.

It was also noted that the soil evaluation process helps by improving system designs and siting, reducing problems caused by saturated soils.

The issue of Laundromat systems was raised. Proposed rules remove prohibition on Laundromat discharge to OWTS. It was suggested that these systems be given special review.

It was noted that commercial Laundromats and several other types of commercial facilities are exempt from the RI phosphorus detergent prohibition. Russ notes that the Department will continue to research this issue, but proposed reinstating the prohibition on Laundromats discharging to OWTS.

-Discussion moved on to Rule 21, Subdivisions.

Russ noted that the intent of the proposed changes is to streamline the application process and be consistent with legislative requirements for subdivisions.

A comment was made regarding Rules 21.1.3(c), 21.1.7, 21.1.8 that these provisions could be interpreted as forbidding variances for the case of a subdivision that consists of partitioning one lot out of a big parcel. It was suggested that 21.1.7 say "to extent possible."

Clarification was sought on rationale for "frontage on an existing road" language in 21.1.3. Russ responded that different application requirements will apply when subdivisions include road building in recognition of other potential issues. It's a procedural issue to improve review of larger or more complicated projects. It was noted that stormwater and wetlands issues become more significant when roadbuilding is part of a subdivision project.

A question was asked if it was possible to review subdivisions in Critical Resource Areas differently, for example requiring higher treatment standards. In response, it was noted that CRMC has jurisdiction over subdivisions involving more than 6 lots in SAMP regions. CRMC is reviewing its policies to reflect and encourage conservation development principles.

-At this time the floor was opened for questions or discussion of issues from previous meetings.

Question asked regarding the availability of revised rule language reflecting stakeholder comments. Russ responded that the Department will try to make revised language available by the end of stakeholder meeting process, but if there isn't enough time the stakeholders will have opportunity for further review during the public notice period. A tracked changes version of the rules will be available, showing changes made in response to stakeholder input.

Proposed Rule 18.2 was brought up for discussion. There was concern over establishing whether local or state regulations would prevail in event of conflicting requirements. A specific example where compliance with local requirements might lead to a request for a variance from state regulations was discussed.

It was noted that local requirements may be more stringent than state standards, but DEM is not formally adopting these requirements through 18.2. Rather, the proposed rule allows for local review of applications prior to DEM review.

Some other potential scenarios of conflict between local and state requirements were discussed. Russ noted that the rules should make it clear that DEM rules prevail in the event of a conflict. It was noted that in appeals, court precedent is to default to the state regulation. It was suggested that stakeholders develop scenarios where such conflicts may be problematic for review as part of the variance discussion on May 3.

Meeting adjourned at noon.

## **OWTS Stakeholder Meeting #4 Minutes: May 3, 2007 DEM Room 300 10-12**

In attendance: Noel Berg, Tom D'Angelo, Chris Duhamel, Joe Frisella, Darlene Gardner, Nancy Hess, Susan Licardi, George Loomis, July Lewis, Scott Moorehead, David Provonsil, Tim Stasiunas, Jane Austin, Russ Chateauneuf, Tom Getz, Deb Knauss, Brian Moore, Ernie Panciera, Jon Zwarg, Alicia Good, Greg Shultz

10:05 Meeting called to order, brief agenda review.

-First issue for discussion was Rule 48: Variance Requests:

It was noted that DEM's legal counsel would not be able to attend the meeting [Greg Shultz, DEM legal counsel, was able to attend part of the meeting as noted below].

Russ explained that the Department has received criticism for the variance process taking too long and involving too much uncertainty. Part of the intent of revision is to be clear in the rules about what variance requests will and will not be heard. DEM examined current practices and tried to find scenarios where variance requests were not approved. Rule 48.1.1 lists circumstances where a variance request will not be heard. The discussion that followed centered around variances and subdividing property.

It was noted that the need for a variance could be created through the actions of some other party than the applicant after a subdivision is platted and the language in Rule 48.1.1 forbids many variance requests even under these circumstances. Russ responded that if the need for the variance is through no fault of the owner, a variance request may be heard.

A comment was made that the proposed 48.1.1 prejudices variance requests without considering the facts in each individual case. It was suggested that court challenges to the proposed language would be likely. Russ responded that the Department has not been approving subdivisions that create variances by the way lots are configured. Proposed rules try to codify current practice.

It was noted that some variances have been granted for circumstances listed in 48.1.1. Point is that applicants should at least have the opportunity to apply for a variance if the designer thinks that a system can be designed to address site constraints. Example of cutting one small lot out of a large parcel discussed. It was noted that the variance process is a recognition that the Rules cannot every possible scenario that may emerge in the real world.

A suggestion was made to have the restrictions in 48.1.1 apply only to major subdivisions. It was noted that lots in new subdivisions should not be configured so as to require variances.

It was noted that subdivisions must comply with local zoning ordinances in addition to DEM regulations. Discussion of zoning followed. It was noted that zoning ordinances, by law, have

provisions for variances. An overview of the subdivision approval process at the local level was presented.

Russ state that the Department wants to avoid instances of reviewing a subdivision proposal for a Subdivision Site Suitability Certification where most lots meet the Rules and one or two are marked “unbuildable.” Such lots may later be proposed for development with extensive variance requests. Goal is to encourage cutting lots in compliance with the Rules, reduce this source of variances.

Further discussion of zoning and variances at the local level followed. Process for variance application and review described. In the case of Tiverton, applicant has to show precedent for approval, or get review and approval from Planning where there is no precedent. There have to be specific reasons for granting variances. Local approvals might be conditioned on DEM approval.

Through continued discussion, several stakeholders suggested that applicants should generally have the opportunity to request a variance, not whether or not the variance is likely to be approved. It is a fundamental property rights issue. Russ noted that the Department’s general position is that if the applicant has created the hardship themselves (through subdividing property, lot layout, etc), they should not be able to make a variance request. However, if the hardship is created by another party (regulatory change, change in nearby land use, etc.), then it may be appropriate for the Department to hear a variance request. It was noted that changing the proposed language in Rule 48 to allow variance requests in more circumstances will represent moving in a different direction from the previous push to reduce variances and streamline the process.

The situation of “projects in the pipeline” was brought up. If regulatory changes create new variances for projects that are under subdivision review, will these variance requests be heard? Russ responded that applicants will be able to request variances if the Department’s rule changes created the hardship. It was suggested that there could be a streamlined variance process to address projects impacted by the rule revision. In response to a question, it was noted that the review criteria would be the same in a streamlined process as for other projects.

It was noted that the discussion of variances raises broader issues. For example, why is a 1’ water table considered buildable in the first place? A comment was made that no matter how good the OWTS, there’s still impact on groundwater, especially considering errors or uncertainty in the water table determination.

Discussion followed on determining the seasonal high groundwater table in areas where there is fill over the original ground surface. A comment was made that this is a good example of a circumstance where applicants should be able to request a variance. Russ expressed the Department’s concerns about exceptions for filled sites. The practice is to measure the water

table depth from original ground otherwise an incentive is created for owners to fill their lots, also treatment performance of fill is inconsistent.

Russ explained two other changes to Rule 48 and then responded to requests for clarification. At this point, Greg Shultz arrived and discussion returned to the legal aspects of Rule 48.1.1. Russ reviewed previous discussion, noting that the basic question was whether or not applicants should be able to request variances in the cases listed in 48.1.1, noting the difference between the opportunity to apply as opposed to actual approval.

It was reiterated that the Department's intent was to keep applicants from creating their own hardship then asking for relief from the Rules. It was suggested that "self imposed hardship" be included in variance review standards, but several other problems with this strategy were raised.

After some additional discussion, the Department acknowledged the position of several stakeholders that applicants should be able to apply for variances in many of the cases listed in 48.1.1, particularly B, E, F, and G. Stakeholders agreed that a variance request does not automatically lead to an approval, particularly in the circumstances listed in 48.1.1. The Department will clarify Rule 48.

-Discussion moved on to Rules 9-14, Licensing. Russ explained the proposed changes, pointing out the 3 year licensing renewal period, noting that CEU requirements are distributed differently. Goal is to encourage licensees to engage in continuing education continually.

Stakeholders express concern over changes to CEU requirements. Question is whether more than 4 CEUs can be credited per year. Proposed rule says 4 CEUs per year. It was explained that the Department will accept more than 4 CEUs per year, there is no penalty.

It was suggested that the CEU requirement be decreased to 8 per renewal period based on the concern that there weren't enough courses to take. Russ expressed the Department's position that onsite wastewater technology is rapidly evolving and thus continuing education is important.

George Loomis spoke on behalf of the URI Onsite Wastewater Training Center. Stated that they're trying to create 3-4 new classes per year, at different times of year, etc. URI surveys licensees in an effort to determine what subject material to cover and when to hold classes. Noted, however, that people just don't show up during some periods.

Several stakeholders expressed further concern with the proposed annual CEU policy. It was noted that it is the responsibility of the licensee to keep their credentials valid.

A suggestion was made that URI could change the course schedule to backload classes near the renewal deadlines to make more CEUs available when licensees need to finish their requirements. In response, it was noted that the URI OWTC program needs to spread coursework out in order to operate most efficiently.

It was noted that the Department's policy is to require a total of 12 CEUs over the 3 year renewal period. The total number is more important than the distribution. The proposed language is an effort to encourage spreading CEUs over the 3 year period instead of taking them all in the last 6 months before licenses expire.

It was noted that the language of Rule 11.2.3 is punitive and it was suggested that some other form of incentive be developed to spread continuing education out. It was suggested that if there is no incentive to encourage CEU's to be spread out, the URI staff will be underutilized for 2 years and then overwhelmed in the 3<sup>rd</sup> year.

It was suggested that DEM send out reminders to licensees reminding them of the approaching deadline for continuing education. It was also suggested that license renewals could be staggered to spread the work load on DEM and URI. The Department responded that this strategy would be difficult to track but would be given further consideration.

It was noted that the proposed Rules do not include continuing education requirements for installers and a suggestion was made to include. It was noted in response that there is no legislative mandate for installer CEUs.

A clarification of the term "available" was sought in the context of Rule 13.3 and Rule 44. Russ responded that law requires the designer of record to inspect installations. Rules allow subordinates to do much of the work, but the licensee has to be available to address problems or unforeseen circumstances as needed. It was noted that staff working under the designer of record should have sufficient training to be knowledgeable on the installations they are inspecting. It was also noted that the licensed designer is responsible for the work of the subordinate on site. Russ noted that the revised language in Rule 12 was intended to clarify the Department's authority in calling designers before the Review Panel.

-Discussion moved on to Rule 16, Soil Evaluations. Russ provided a brief overview of changes, noting that practices are unchanged but some terminology has changed. Table 16.11 has also been changed. A suggestion was made to include a note alerting designers to the changes to Table 16.11 so that systems are designed for appropriate soil categories. The Department agreed to clarify this point.

George Loomis noted some technical issues with Table 16.11 and the text of Rule 16, agreed to provide written comments.

A clarification was requested for Note 1 for Table 16.11, which allows soil consistency determination using soil clods. It was noted that soil evaluator training is for in-place evaluation. Also, soils may be firm in-place but friable in-hand.

It was suggested that the term “fill” be replaced with the phrase “Human Transported Material.” The Department agreed to review this suggested change, noting that the current definition of fill also includes “storm deposited materials.”

Meeting adjourned at 12:05.

## **OWTS Stakeholder Meeting #5 Minutes: May 11, 2007 10-12 DEM Room 300**

In attendance: Rob Adler, Noel Berg, Tom D'Angelo, Chris Duhamel, Joe Frisella, Nancy Hess, George Loomis, Tim Stasiunas, Russ Chateauneuf, Tom Getz, Deb Knauss, Brian Moore, Ernie Panciera, Alicia Good, Jon Zwarg

Meeting called to order at 10:05 with a call for questions remaining from prior meetings.

A question on whether the BSF and PSND specifications would be done by rule or by guidance document was asked. Russ responded that it would be by guidance.

Discussion of issues began with Sole Source Aquifers (SSA), a topic added for discussion at the request of stakeholders in meeting 1. There is no specific rule addressing SSAs.

DEM provided some background on the relationship between SSA designation and the proposed OWTS rules. It was noted first that SSAs are a federal, EPA program while the OWTS rules are a state program. There are three SSAs in Rhode island: Pawcatuck River, Hunt-Annaquatucket-Pettaquamscutt, and Block Island. These are federally designated, so any project using federal funds in these areas can be reviewed by EPA for impacts on groundwater.

An EPA clarification was interjected, noting the difference between "federal financial assistance" and federal funds. Federally funded projects go through the environmental assessment/EIS process, whereas projects receiving federal financial assistance don't. Instead, they may undergo environmental review.

DEM noted that at the state level, SSA designation doesn't have any direct regulatory implications, rather designation is more of a tool for education and outreach. However, groundwater protections at the state level are already in place. In Rhode Island, groundwater in SSAs is designated GA or GAA under the groundwater rules, and public wells have Wellhead Protection Areas.

It was noted that SSAs are designated because groundwater is the only source of drinking water in those areas. A suggestion was made to treat SSAs like surface drinking water supply watersheds in Rule 41.

Russ reviewed Rule 41: Requirements in Drinking Water Supply Watersheds, including a prohibition on subsurface drains to lower the water table, greater separation to groundwater for certain soil types, and greater setbacks. It was noted that for SSAs the greater separation to surface waters (Table 23.2) wouldn't apply since the water resource in question is groundwater.

It was pointed out that phosphorus and fecal coliform TMDLs have been developed for some waterbodies in SSA areas, therefore enhanced protections for the aquifers should be implemented.

It was noted that there are many areas in Rhode Island where groundwater is the only source of drinking water but are not designated SSAs. Why should DEM provide extra protection for one place that is functionally no different than another similar area based solely on a federal designation? Groundwater is important in all areas.

A comment was made that SSA designation in addition to state-level wellhead protection areas provide sufficient protection to groundwater and further regulations are not warranted.

The rationale behind the prohibition on subdrains in Rule 41 was questioned. In response, it was noted that if the subdrain failed, the separation to groundwater necessary for effluent treatment would be lost.

A comment was offered that SSAs are fundamentally important and that the Department should consider addressing them in the OWTS rules. Failure to consider SSAs could send the wrong message to the public and potentially subvert local initiatives to protect groundwater.

In response, it was noted that DEM has taken steps to protect groundwater in the proposed OWTS rules, for example the loading rate requirements in areas served by on-site wells. Furthermore, the Groundwater Regulations provide protections. It was noted that the discussion of incorporating SSAs into state level regulations is new, although DEM has used SSA designation to support other protective measures in the past.

Russ agreed that the need for enhanced protection may make sense in some areas, but in others existing policies are sufficient. As an example, discussed Jamestown Shores neighborhood. Would it make sense to designate the entire island of Jamestown an SSA as has been discussed elsewhere? Jamestown shores neighborhood has small lots, private wells, and the Veeger report shows groundwater quality degradation. Alternately, residents have asked if the neighborhood can be designated a critical resource area (CRA). It might emerge that current nitrogen loading is too great and show a need to retrofit existing OWTS with denitrification or shift to cluster systems or some other technique. So, rather than SSA being the end, what about using SSA as a criterion in designating an area as a CRA under the Rules? The Jamestown Shores scenario plays out in several places that are currently not SSAs.

Discussion moved on to leachfield construction, covered in Rules 33, 34, and 35.

Brian Moore reviewed the proposed rule changes beginning with Rule 33. Noted that design flows have decreased but loading rates have also decreased so leachfields will not change size. Noted that loading rates are determined by the most restrictive soil horizon within 5' of distribution pipe.

A comment was made that 5' is too deep. In response, Russ noted that this stipulation is consistent with other states and that the effect will be to design larger systems in areas where the soil is restrictive. Noted in Rhode Island restrictive layers are often shallow anyway.

It was asked if digging through a dense layer to more permeable soil below would be permitted. In response, Russ said it would not be because the local hydrology is generally determined by the most restrictive layer.

It was asked why percolation rate table in Rule 33.2.1 is still in the proposed rules since systems are no longer designed based on percolation rate data. In response, it was noted that the percolation rate table remains in the rules for the purpose of addressing those valid, older applications where a soil evaluation has not been done, or to evaluate suitability of permitted existing systems where there is percolation data but no soil evaluation.

It was noted that no soil evaluation is required for repairs and that systems fail for a reason. Suggestion made that soil evaluations should be done in all cases. In response, it was noted that soil evaluations add expense and while it is true that repairs do not always work, failed repairs are infrequent. The Department's position is that the added cost of a required soil evaluation on all repairs does not justify the cost.

Discussion moved on to Rule 33.4, Depth to Groundwater From Original Ground Surface. It was noted that the proposed rule allows an 18" watertable when a set of conditions are met, including the use of a pressurized drainfield.

Clarification was requested on definition of "pressurized drainfield." Russ said that "pressurized drainfield" refers to bottomless sand filters and pressurized shallow narrow drainfields. The Department agrees to clarify "pressurized drainfield" where the phrase appears in the proposed rules.

It was noted that URI will soon be revising the BSF Guidance Document to better address PSNDs, among other changes.

A request was made to make a change to language in Rule 33.4. Change "Lots larger than 20,000 square feet" to "20,000 square feet or larger" in order to capture 20,000 square foot lots. The Department agreed to make this change.

A request for the rationale behind the Leachfield Design Point language in Rule 33.6 was made. A concern was expressed that if systems are designed to the high contour of the original ground surface when the seasonal high groundwater table is shallower than 2', extensive amounts of fill may be required, particularly on sloping sites. In response, it was noted that the goal of this policy is to get sufficient separation distance to groundwater and that designers would likely utilize a BSF rather than a trench leachfield in cases where extreme amounts of fill would be needed.

It was noted that trench excavation of leachfields (as opposed to digging out the entire leachfield area) is permitted under the proposed rules. It was suggested that language should be changed to

encourage or even require trench excavation rather than full dig-out. Suggested policy would state full dig-out would only be permitted if it could be shown that trench excavation was impossible due to, for example, the presence of boulders or other construction constraints. It was noted that to achieve better treatment soil should be disturbed as little as possible. Other stakeholders were in favor of preserving flexibility of using either trench excavation or full dig-out. The Department agrees to consider the suggestion of requiring trench excavation unless it can be shown to be impractical.

A question was asked about language in Rule 33.9 stating that excavation to depths below the seasonal high groundwater table must be done in the “drier periods of the year.” It was noted that excavations could be dewatered with pumps and the “drier periods of the year” phrase is vague. In response, it was noted that there is a concern about wet soils smearing easily. The Department acknowledges that excavations can be dewatered with pumps and agrees to re-evaluate the proposed language.

A question was asked about the language of Rule 33.12, specifically whether a sieve analysis would be required for every installation. In response, Russ said that this was not the Department’s intent, rather that a sieve analysis could be conducted if there was any question about the gravel’s characteristics. The Department agrees to clarify this point in Rule 33.12.

Changes to Rule 33.16, Adjacent Side Slope, were discussed next. A request for clarification was made regarding how far the 3:1 slope requirement extends away from the leachfield. In response, Brian Moore stated that these requirements extend 25’ from the leachfield. The Department will clarify language in Rule 33.16.

A discussion of Structural Retaining Walls followed and an explanation for the rationale behind the 2’ property line setback was requested. It was noted that it was technically possible to build a wall right at the property line, although another stakeholder noted that a wall built on the property line would become common property of the two landowners. Russ responded to the initial question by noting that a 2’ buffer ensures that a wall can be constructed without needing to secure easements or other permissions from the neighboring property owner.

A request was made to clarify proposed Rule 33.19 which could be interpreted as requiring that leachfields be flagged in perpetuity. It is the Department’s intent to ensure leachfield area is not compacted during construction of both the OWTS and the building itself, so flagging must remain in place until all construction activities are complete.

A suggestion was made to substitute the word “dipping” for the word “dosing” when referring to distribution boxes. The Department agrees to make this change. A suggestion was made to incorporate a generic diagram of a dipping distribution box.

It was noted that siphons are not permitted except as components of A/E systems approved pursuant to Rule 38. After further discussion about the reliability of siphons, the Department agreed to reexamine this prohibition.

It was noted that proposed disposal trench construction regulations will allow the soil's B Horizon to remain in place at the designer's discretion.

Rule 34.6, Leachfield Construction on Sloping Sites, was reviewed. It was noted in discussion that trench excavation is required on sloping sites. In response to a question, it was noted that Eljen in-drains are considered trenches for the purposes of these rules, but the Department will check the Eljen approval.

Concrete Chamber requirements in Rule 35 were reviewed. A question was raised as to whether the ends of concrete chamber trenches can be connected with a distribution pipe trench and counted as leaching area. The Department permits this and Rule 35.8.3 will be clarified accordingly.

At this time, Russ closed the discussion and summarized the next steps. The next draft of the OWTS rules will be issued June 4<sup>th</sup>. Public workshops will be held in June, stakeholders welcome to attend and comment further. Drafts will be made available to stakeholders showing changes made from the April 2 draft.

Joe Frisella acknowledged the comprehensive work done and complimented DEM on the proposed new rules.

Meeting adjourned at 12:05.