

Drainfield to Surface Water Setback Distance Subcommittee

Teleconference Meeting Minutes

Tuesday, 02/22/11, 10:00 am

Teleconference
Date: 2011-02-22
Start: 10:00 a.m.

ATTENDEES:

Athol: George Miles, PE
Boise: AJ Maupin, PE; Joe Canning, PE; Michael Cook, Soil Scientist
Coeur d'Alene: Allen Worst
Hayden: Dick Martindale, REHS
Rapid City, SD: Bill Holder, PE
Kimberley: Dr. Jim Ippolito, Ph.D. USDA
Idaho Falls: Nathan Taylor, REHS

Absent:

Idaho Falls: Brett Skidmore (Building Contractors Association Representative)
Coeur d'Alene: John Corcoran (Realtor Association Representative)

Support Staff: Lindsey Stanton, DEQ clerical

Meeting called to order: 10:10 a.m.

Past Meeting minutes:

The subcommittee reviewed the February 8th minutes. A motion was made to approve the minutes, the motion was seconded and the minutes passed unanimously.

Onsite Drainfield Setback Model

Mike Cook presented his work on determining setback distances between drainfields and surface water, which included an overview PowerPoint presentation and an Onsite Drainfield Setback Model. Mike explained that he incorporated both the vadose zone model provided by Dr. Ippolito with the saturated flow model concept initially worked on by Bill Holder, PE. The presentation focused on how the model worked, not on establishing actual setback distances to surface water. The model's variables were populated with arbitrary numbers and model results were discussed for demonstration purposes only. Future modifications were briefly presented to explain the model's functionality and possible capabilities.

The effort so far has only addressed effluent concentrations of 9 mg-P/L discharging to the drainfield. Future effort will encompass alternative effluent concentrations (4.5 mg-P/L to 20 mg-P/L). Discrepancies with down gradient concentrations were noted by Bill Holder. Mike Cook and Bill Holder will investigate to see if the discrepancies between their 2 models can be rectified.

This presentation highlighted the large number of questions, mainly concerning drainfield lifetime constraints and location of compliance boundaries, that still need to be answered. The culmination of this effort indicates that it may be possible to identify a drainfield setback distance to surface water if critical questions can be answered. Such questions included, but are not limited to: (a) How many years must a drainfield sequester phosphorus prior to maturity? (b) What to do when drainfield phosphorus saturation occurs at maturity? (c) Where will compliance boundaries be placed? (d) What action can a homeowner take once they have a phosphorus saturated mature drainfield?

Progress Report

AJ presented the current version of the progress report.

The progress report needs to be understandable to the general populous and a wide audience. It will include a cover sheet, executive summary, and body containing just the core facts. Details will be located in the appendices. There will be a "Concerns" section to convey ongoing areas of debate and unanswered questions.

It was agreed to include Mike Cook's model following the Vadose and Saturated Flow sections. Additionally, the permitting flowchart was removed because some subcommittee members believed that this information was

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premature and misleading. The flowchart conveyed the perception that the subcommittee understood the phosphorus problem thoroughly. It did not highlight the many questions that exist and still need answers to. The flowchart may be useful in the future if the stakeholders, legislators, departments and districts find an acceptable path forward.

A question arose again about who will establish points of compliance. The State will establish the point of compliance based on surface water quality standards and constraints in conjunction with the authorities vested by the legislature to DEQ.

The progress report needs to be submitted to the Technical Guidance Committee by March 1st. This will provide the TGC members time to review and formulate questions concerning the subcommittee's Progress Report.

Action Items:

- AJ will work with Mike to draft language for the new model Mike presented today.
- Bill will send AJ his paragraph on transport modeling to include in the progress report.
- Nathan and Dick will provide concerns regarding implementation.
- Subcommittee members are to submit questions and comments to AJ by the end of this week.

NEXT SCHEDULED MEETING:

The next meeting is scheduled for Monday, 28 February 2011, from 10:00 am MDT (9:00 am PDT) to 12:00 pm MDT (11:00 am PDT).

ADJOURN: Meeting Adjourned at 12:00 p.m.

Next Meeting Topics:

Finalize the Progress Report