

**30 TAC 222 Stakeholder Group  
September 12, 2005  
Austin, Texas**

**Introductions - Sherry Smith**

**Welcome – Chris Linendoll**

**Application Rate Model - Dr. Bruce Lesikar - Texas Cooperative Extension ( Handout #1)**

Dr. Lesikar demonstrated the Application Rate Calculator designed to determine the number of gallons per day that could be injected into a subsurface area drip dispersal site. He explained the parameters used to build the Application Rate Calculator and demonstrated the results when different variables, such as region, rainfall, and soil type, were programmed into the model. The model does calculate seepage. Dr Lesikar defined seepage as the migration (vertical or horizontal) of water out of the root zone that is in excess of the leachate necessary to maintain soil and plant health. If failure of the system is defined as seepage leaving the 48 inch block of soil contemplated in the statute, then the model shows application rates of 0.1 mgd would cause system failure in most soils in the Austin area.

Several stakeholders suggested changes to the model. Different cropping scenarios other than the warm season grasses over seeded with cool season grasses used in the model were discussed. A way to track not only hydrological loading, but also nutrient loading was suggested. It was also suggested that the agency allow applicants to use other models with approval of the executive director. Questions arose about using the current 30 TAC Chapter 309 requirements rather than using a model.

**List of Topics to Address**

Stakeholders were asked what areas of the rule that they wanted to discuss. The following list is the topics requested and the comments about those topics.

- **Public exposure**

There were many comments about the proposed rules regarding the public coming into contact with surfacing effluent due to rain events. Comments were expressed both that the current requirements were too stringent and that the current requirements were necessary to protect public health. Some stakeholders feel that subsurface area drip dispersal systems solve many of the problems of exposure caused by spray irrigation systems.

- **Exemptions for existing systems**
  - Current systems will have problems meeting requirements for soil depth, flush systems, location, buffer zones, etc.
  
- **Federal facilities**
  - Right of entry language needs to be edited to account for differences in right of entry for federal facilities. Current language does not contemplate federal facilities.
  
- **Compliance History**
  - Operator not co-permittee in this type of system, so compliance history not required.
  - Issue defining “related entity” suggestion to use definition of affiliated in TWC §13.002(2).
  
- **Telemetry**
  - Suggestion that subdrip systems do not require telemetry and this section be significantly revised.
  
- **Class C operators**
  - ▶ Draft requires “C” operator for all subdrip systems - why not based on flow like other systems.
  - ▶ Current certification program does not relate to subdrip.
  - ▶ No training currently available for operating subsurface drip systems.
  - ▶ Effluent must be filtered to 100 microns.
  - ▶ Economic hardship for small school districts and other small entities.
  
- **Design criteria**
  - ▶ Prescriptive spacing for emitter lines is too restrictive.
  - ▶ Why pH limit?
  - ▶ Returning flush lines to head works - is it necessary to protect groundwater?
  - ▶ Use of flush tank for flush water instead of back piping flush water back to treatment works.
  - ▶ If application rate of 0.1 gal/ft<sup>2</sup>/day is working, why do anything different?
  - ▶ Dosing during fallow periods and crop rotations not addressed.
  - ▶ Contours - margin of error not defined.
  - ▶ Root zone will vary in depth.
  - ▶ Primary filter - flush with filtered water- not practical.
  
- **Effluent Quality**
  - ▶ Is the subsurface irrigation system beneficial reuse or disposal?
  - ▶ Why have effluent limits? There is high burden of proof already in the rules.
  - ▶ Option to allow monitoring or demonstration that effluent quality below root zone will not degrade groundwater should be allowed.

- **Buffer zone**
  - Term used inconsistently in the draft.
  - Some buffer zones seem excessive.
- **Inject/dispose/dispersal**
  - Draft needs to use consistency in terms used to describe function of the drip systems.
- **100 year floodplain prohibition**
  - Why not allow if use is prohibited during inundation.
  - Should it be “floodway”.
- **Water rights**
  - Current draft would allow downstream users to protest use of drip irrigation rather than returning effluent to the receiving stream.
- **Watercourse**
  - Need clearer definition. Does it apply to drainage ditches?
  - 100' buffer is excessive.
- **Other comments**
  - Agency is taking away discretion of designer by being too prescriptive in the rule.
  - Rule needs to define the size of the dispersal system as well as the size of the treatment facility—not all effluent from a facility will necessarily be sent to the subsurface irrigation system
  - Remove “subsurface fluid distribution systems” from definition of well, or use the Water Well Drillers definition of well.
  - Remove mandatory soil moisture monitoring

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Attendees**

Darold Wingert	Wingert Water Systems
Tobin Synatschk	Jones & Carter, Inc,
Matt B. Phelps	APEC, LLC
R. H. Partirat	BWXP Pantex
Mark Zeppa	IWSCOT
June Ella Martinez	TCEQ
Paul Reynolds	TCEQ
Burt Carter	LCRA
Chris Linendoll	TCEQ
Jan Sills	TCEQ
Susan Hier	TCEQ
Rick Goldberg	Dys-Tech
Brad Castleberry	Lloyd Gosselink
Robert Weedn	Pecker Utility
Julio Sattler	Wastewater Solutions
Bill Whatley	Wastewater Technologies
Wayne Flores	Pate Engineers
Celia Castro	TCEQ
Cindy Cavazos	TCEQ
April Hoh	TCEQ
Sherry Smith	TCEQ
Jacquelyn Boutwell	TCEQ
Bruce Lesikar	Texas Cooperative Extension
Robby Callegari	CMA Engineers
Elston Johnson	TCEQ
Eric Allmon	Lowerre & Frederick
Michael Sunderlin	TCEQ
John Noell	Urban Design Group
Bryan Smith	TCEQ
Nathan Pechacek	TCEQ
Don Redman	TCEQ
Laurie Lancaster	TCEQ
Mary Ambrose	TCEQ
Louis C. Herrin, III	TCEQ