

**TECHNICAL GUIDANCE COMMITTEE
FOR INDIVIDUAL AND SUBSURFACE SEWAGE DISPOSAL**

November 3, 2005 MEETING MINUTES

PRESENT: Ken Babin, Supervisory REHS, PHD
Joe Canning, P.E., B&A Engineers
Bob Erickson, SCDH, EHS, Blaine County Office
A.J. Maupin, P.E., IDEQ, Water Quality Division, Wastewater Program
Steve Pew, Environmental Health Director, SDHD

GUESTS: Allen Worst, Power Pump
Steven Rule, Power Pump
Keith Spiers, Alternative Waste Water Systems, LLC
Paul Flynn, BioMicrobics Inc.

The meeting was called to order at 8:30 am November 5, 2005. A sign in sheet was provided for the Committee and guests to sign in. The guests were asked to indicate if they were interested in presenting to the committee. Introductions were made for the new TGC member, Bob Erickson, REHS, the Environmental Health Specialist for South Central District Health Department's (SCDHD) Blaine County field office. All other present at the meeting introduced themselves.

TGC Meeting Minutes - review, amend, and accept.

December 3, 2003 TGC meeting minutes were reviewed. A motion was made to accept the minutes, seconded, and unanimously approved.

April 19, 2005 TGC minutes were not available for review at the time of this TGC meeting.

Product Reviews

1. BioMicrobics

TGC reviewed a request to approve the RetroFAST system for sale in Idaho. This system is sized below National Sanitary Foundation International (NSF) Standard 40's range. NSF 40 is used to certify onsite wastewater treatment technologies capable of processing waste stream volumes ranging from 400 to 1,500 Gallons per Day (GPD). The RetroFAST products process either 250 or 375 GPD. A motion was made to deny inclusion of the BioMicrobics RetroFAST system on the approved ETFS listing. The motion was seconded and approved unanimously.

Discussion: Could the RetroFAST still be used in a design prepared by a Professional Engineer (PE) registered in Idaho? The TGC found that to be an acceptable course of action.

BioMicrobics also requested that their NSF 40 certified FAST systems have the approved Total Nitrogen (TN) reduction capability increased to 65%, verified as yielding an effluent containing 16 mg/L or less of TN. Idaho requires that the system capability be verified through third party testing, such as NSF 40 or the Environmental Technology Verification (ETV) program. The data was identified as being generated in Idaho. A motion was made to retain the Total Nitrogen Reduction Policy's 'Best Practical Methods for Onsite Wastewater Systems' table as is. The motion was seconded and passed unanimously.

2. Gravelless Products

An update was provided to the TGC concerning NSF's efforts in generating a Gravelless Products testing standard. The outstanding issues at the conclusion of this latest meeting was selection of an appropriate criteria for pass/fail determination and solidifying the test bed configuration.

3. BioDiffuser

BioDiffuser submitted a request for the TGC to review and approve their ARC 36 chamber product. This new product is intended to replace the existing 11" Low Profile (Original) model BioDiffuser. The new product's differences from the Original include an extra 1" in width, 1.5" taller, over 15.6" shorter, the louvers extend an additional 0.78" higher up the dome, and the capacity has increased 1 gallon per lineal foot (gal/lin.ft) to 12 gal/lin.ft. Appears very similar to Infiltrator Quick4. Motion made to approve ARC 36. Motion was seconded, and approved unanimously.

4. Eljen

Eljen submitted a request for the TGC to review and approve their GP5-24 aggregate replacement system. The TGC indicated that this configuration appeared familiar, and some members believe it was submitted for approval previously. The submittal package lacked drawings with dimensions, and the Eljen representative was unable to attend the meeting. A motion was made to reject the request at this time, providing the manufacturer time to submit more information and prepare to answer the TGC's questions. The motion was seconded and passed unanimously.

5. SeptiTech

SeptiTech submitted a request for the TGC to review and approve their M400 (600 GPD), M550 (800 GPD), M750 (1,200 GPD), M1200 (1,750 GPD), and M3000H (4,500 GPD). A SeptiTech representative was not present. Consequently, the TGC recommended that the submittal be removed from consideration. The motion was seconded and passed.

Discussion: The TGC would like to see a presentation from SeptiTech on their product line. Detailed and dimensioned drawings would assist in review.

6. Delta / White Water Nutri-Clear

Delta submitted a request for the TGC to review and approve their DF40 (400 GPD) with the CP1000 "Intelligent Panel" controller designed to alternate operation of the system between aerobic and anaerobic modes. A Delta representative was not present. The TGC noted that this alteration of the model DF40 has not yet received NSF 40 certification. The TGC recommended that this submittal be rejected based upon lack of certification. The motion was seconded and passed.

Discussion: Installation of this system could be accomplished if the site/system were designed by an Idaho registered Professional Engineer (P.E.). The P.E. would have to stamp and sign each site/system documentation, which would include all calculations and drawings.

7. Lombardo Associates Nitrex Filter & PhosRID treatment system

The TGC requested clarification on whether this was product or a process. The Coordinator identified the Nitrex Filter as a custom engineered component that augments nitrate removal from an onsite wastewater treatment system. The Nitrex Filter component utilizes wood byproducts to slowly provide a carbon source for the denitrification cycle. The component could be listed, but what TN reduction would be granted? Similarly, the PhosRID component utilizes an iron rich porous media to provide soluble iron, post septic tank. Subsequent oxygenation in a sand filter encouraged phosphate bearing iron minerals to precipitate out of solution. The TGC recommends that Lombardo Associates market their components through engineering consultants. Consequently, the TGC recommended that the submittal be removed from consideration. The motion was seconded and passed.

LUNCH

Technical Guidance Manual

TGC Preliminary Approvals Review for Final Approval

Evapotranspiration (ET) Systems

The Coordinator submitted a modification to the ET System section to the TGC for review, comment and approval. A TGC member has seen excessive flows from homes and requests increased volumes for this self contained system. The coordinator stated that the US EPA (EPA/625/R-00/008, TFS-31) recommends that a Peaking Factor ($1.0 \leq n \leq 1.6$) be used in the design equation. Other TGC members requested that a list of acceptable plants be included in the section. This could constitute hundreds of plants. Contact with a good nursery, knowledgeable about the local climate and plant use, may be a more productive method. Alternatively, contacting the local National Resource Conservation Service (NRCS) extension or the UI Agricultural Extension may provide suitable plant possibilities. A TGC member inquired whether a plastic liner could be foregone if the ET system is to be installed in clay soils. The coordinator expressed concern over the tendency for clay to dry out and crack. It may be practical to reduce the thickness of the liner in clay soils, from the recommended 60 mil to 30 mil. Would the plants over the ET system require a sprinkler system? Proper selection of plants would remove that need, but periodic irrigation could be allowed in the ET system section. Would a replacement area be required? Since this is a self contained system that could be removed and replaced some members of the TGC believe that a replacement area is not required. The Water Quality Division Administrator had previously addressed this issue with the coordinator and indicated that a replacement area was required in order to safely and quickly replace failed systems. The TGC pointed out that Dr. James Converse (UW-Madison) and Terry Bounds (OSI) recommend that soils passing the #100 sieve be excluded from use in an ET system. The TGC recommended that the Standpipe minimum diameter be increased from the stated 4 inches. A minimum 8 inch diameter pipe will be stipulated. The US EPA document referenced above places Idaho in the "Partially Suitable" region of the US. This, coupled with the TGC's apprehension about how well this technology will work in Idaho has prompted the TGC to recommend that periodic monitoring and reporting be performed. Additionally, the liner shall be leak tested prior to receiving final approval from the permitting Health District. The Coordinator will modify the draft document accordingly, post on the Web and announce a public comment period. The TGC recommends that the modified ET System section return at the next TGC meeting for final discussion and possible approval. The motion was seconded and passed unanimously.

Operations & Maintenance (O&M) monitoring and reporting

The Coordinator recommended to the TGC that the O&M Entities submit lab analyses of systems sampled when they receive them from the lab. This submittals should go concurrently to the Health Districts and DEQ. Additionally, the same lab analyses should appear in the annual report. This process will help the Health Districts and DEQ identify those Extended Treatment Package Systems (ETPS) that are not complying with their discharge limits, and assist in correcting these individual systems in a timely manner. Allen Worst, of Idaho Onsite Services, stated that they submit the reports when they receive them and that they believe all Entities should be required to. A TGC member recommended that Idaho's permitting system should be changed to an Operating Permit for all subsurface sewage disposal systems, and that this new permitting process should start with the ETPS's. This recommendation requires a Rule change and will be investigated after the Director approves Rule change efforts. The Coordinator will relay to the O&M Entities the TGC's recommendation that Lab analysis be submitted upon receipt to the Health Districts and DEQ. The Coordinator will at first solicit voluntary compliance with this recommendation.

Small Businesses & Non-Domestic Waste

A request was submitted to the TGC to generate and publish a section addressing small business wastewater disposal. The TGC indicated that this has already been addressed and resulted in the creation of the [Application Checklist for Non-Domestic Wastewater](#). The TGC reiterated that providing guidance prior to a business identifying the wastewater volumes created, and the constituent concentrations in the wastewater is premature. All businesses must complete the Non-Domestic Wastewater checklist as an integral part of their permit application process. The TGC generated a motion to reject this request. The motion was seconded and unanimously passed.

DEQ Update on Proposed Rules

Currently, there aren't any proposed Rules that DEQ has/is presenting before the legislature.

Issues that may require a Rule change:

1. Application Rates: TGM versus Rule.

Currently, the Application Rates (AR) listed in the TGM result in drainfields that are smaller than would be required by Rule in Soils A-1, B-1, and C-1. The TGC addressed a request for finer soil characterization by creating the Table located in the TGM on page 14. Direction was given, in case the refined soils categories were contested, to revert to those categories in Rule. The TGC recommends that the refined categories replace the simple A, B, and C categories in the Rules. The motion was seconded and passed unanimously. The Coordinator will include this change in the negotiate rule making process when authorization to proceed with new Rules is received from the Director.

2. Module Definition with respect to Large Soil Absorption System (LSAS)

The Coordinator identified that the term 'module' is currently used in the Rules in reference to LSAS drainfield configurations, yet a definition for this term is not included in the Rule. The Coordinator proposed a definition for the Rules as "a configuration of trenches used in a LSAS drainfield design that receives not more than 10,000 gallons per day." The TGC agrees and recommends that this be included in the next round of negotiated rule making, but until then this definition should be included in the TGM in a new definitions section. The motion was seconded and passed unanimously.

3. 1500 ft² maximum drainfield size versus 2,500 gallons per day.

The Coordinator identified a grey area that exists in drainfield sizing. When soil types and effluent flows combine to require a drainfield exceeding the standard drainfield limit of 1500 ft² what alternatives are appropriate. The TGC recommends that the Coordinator address this in a new section to be created called "Interpretation and Policy". Mr. Allen Worst, Power Pump Inc., asked how would one address a Cluster System that doesn't generate over 2,500 gpd yet requires over 1500 ft² of drainfield? The Coordinator indicated that the limitation in Rule (IDAPA 58.01.03.008.04) apply to "Standard" Subsurface Disposal Facilities. Application of a pressure dosed design would allow the Health District to issue a permit to install a suitable pressurized dosing system. The Coordinator will create guidance addressing this grey area. This guidance will be distributed to the Health Districts for review and comment prior to returning to the TGC for approval to insert into the TGM.

Issues from the field: None

The committee adjourned at 4:53 pm

APPENDIX A
FINAL TGC Minutes
December 2, 2003

**TECHNICAL GUIDANCE COMMITTEE
FOR INDIVIDUAL AND SUBSURFACE SEWAGE DISPOSAL**

December 02, 2003 MEETING MINUTES

PRESENT: Joe Canning, P.E., B&A Engineers
Dan Kriz, Environmental Health Director, SCDHD
Ken Babin, Supervisory REHS, PHD
Brian Crawford, REHS – SWDH
Barry Burnell, REHS - DEQ

ABSENT: Vacant, Licensed Installer

GUESTS: Blake Johnston, Infiltrator Systems Inc.
Alex Mauck, EZ Flow
Mark Mason, P.E., DEQ-Wastewater Program

The meeting was called to order at 8:30 am December 02, 2003. A sign in sheet was passed to the Committee and guests to sign in. The guests were asked to sign in and indicate if they were interested in presenting to the committee. No one indicated an interest to provide testimony. Appointment letter were distributed to Brian Crawford and Ken Babin. Brian Crawford was appointed to replace Mike Reno. Brian and Ken were appointed for three year terms.

December 11, 2002 TGC minutes - review, amend, and accept.

The Committee reviewed the minutes. Joe Canning moved that the committee accept the minutes. Dan Kriz seconded the motion and the committee voted in favor of accepting the 12/11/2002 TGC minutes as final. **See Appendix A.**

TGC Preliminary Approval Reviews for Final Approval
Pumps and Electrical Code

The Committee discussed the proposed revisions to the pressure distribution system section regarding pumps and electrical code. The change is to modify the dosing chamber design section #7 description for electrical requirements of individual residential systems and commercial or multiple residential systems. The three figures in design section #7 Dosing Chamber have been modified to reflect these changes..

For individual residential systems the electrical connection for the pump can be made in a weatherproof box and the electrical wires can run through rigid non-metallic conduit such as Schedule 80 PVC.

For commercial or multiple residential systems the electrical connection for the pump must be made in an explosion proof box and the wires must run through a rigid conduit.

Ken Babin moved to accept for final approval the Pressure Distribution System section. Joe Canning seconded the motion and the committee voted in favor of **final approval**. **See Appendix B** TGM page 51 to 59-1.

Product Reviews

EZ Flow – EPS Drainrock Substitute.

The committee had been given a packet of information from the EZ Flow Company requesting approval for use in Idaho of the 1203H and 1201P systems. Mr. Mauck was given an opportunity to present the information contained in the information packet to the committee. Mr. Mauck expressed his understanding of the June 5, 2000 TGC meeting. Mr. Mauck explained approvals EZ Flow Company has received from Washington, Nevada, Georgia and Texas. Mr. Mauck provided his recollection of review and asked for clarification of the TGC recommendations.

Mr. Mauck indicated that Washington State has approved the 1203H product at a 40% reduction. Mr. Mauck pointed out section for of the supplied information as being supportive of this request. Mr. Mauck asked the committee for approval of the 1201P system at 3ft²/ft.

Ken Babin stated that the Panhandle District Health Department had issued a few permits for 1201p products at 3ft²/ft. It was his opinion to size this product at the same sizing of a 3 feet wide standard system. He recalled that it was the TGC intention to keep this configuration on par with other products. Ken moved to recommend for approval to DEQ the 1201p system at 3 ft²/ft and for the 1203H system at a 40% reduction. Dan Kriz seconded the motion.

Discussion was called for. DEQ explained its position on sizing, that the TGC has not recommended to DEQ to include sidewall in sizing recommendations as the sidewall infiltrative surface has been the margin of safety. Also the 1201P system is not equivalent to large diameter pipe. The product is not wrapped in geotextile and is filled with expanded polystyrene. DEQ explained that it had entered into a contract with NSF to develop a gravelless trench alternative approval protocol.

Ken expressed the case by case approach that the TGC has used in making recommendations to DEQ on product approvals. The best the TGC can do is look at the information provided by the manufacturer and make reasonable recommendations. Ken asked for DEQ to develop guidance for the TGC to use in making recommendations.

Joe asked about the methods of installation and if any products are recommended for covering the EZ Flow product. Mr. Mauck replied that the preferred material to use to prevent soil intrusion is 60 pound untreated building paper or straw and do not recommend the use of geotextile.

Brian asked about wastewater flow associated with product approvals and reductions in sizing. Brian mentioned that the flow rates for Washington state are much higher that for Idaho. The flow estimate for Washington State is 120 GPD/bedroom. Brian's suggestion was to keep the EZ flow systems on par at 40% reductions for each configuration. Brian expressed concern over the low wastewater flow estimates in Idaho's rules.

Blake Johnston requested to present to the committee. It was noted that he did not sign in and requested to testify. The Committee authorized Mr. Johnston to provide brief comments to the committee. Mr. Johnston pointed out the function of media is to store wastewater. The EPS media is an aggregate substitute and must be viewed as occupying void volume. Mr. Johnston

provided a hand out to the committee to use in making their recommendation. Mr. Johnston pointed out that there is no long term acceptance rates established for this product.

Ken pointed out that many of these comments apply to all gravelless systems and that the TGC must rely on the materials presented in making a recommendation. He noted that after discussion that his motion stands and that he did not wish to amend the motion.

Joe discussed the information provided on aggregate void for EPS. He stated that he felt that there were sizing problems with large diameter pipe. He noted that bottom area and migration of fines in rock systems effect system performance. He expressed the need to re-look at all gravelless systems.

A call was made for the question:

The committee voted with 4 ayes to approve the motion.

Policy Development

A. Total Nitrogen Reduction

The TGC discussed the need to develop a policy for assigning total nitrogen reductions for complex systems that reduce total nitrogen from the wastewater. Information was presented from various ETPS systems in Idaho. The TGC discussed the structure of the TGM and the possibility of adding to the TGM a table assigning total nitrogen reductions to various complex systems.

The committee reviewed the information presented on RGFs, ISFs, and ATUs.

The TGC discussed the need to qualify data for inclusion into the TGM. Data sources were reviewed. NSF data and Experimental Testing and Verification (ETV) data were viewed as completely independent and verifiable. Third party data could be used under circumstances of study design to replicate northern tier states and full season testing. Product data from manufacturers needs additional evaluation to determine collection methods and sampling protocols. Local data of existing systems was presented and evaluated. This data is of limited duration and shows wide fluctuations.

The TGC concluded that there is a need to require data be submitted from NSF or ETV to be qualified data for evaluation. The data collection location and season needs to be considered for Idaho's four seasons and elevations from 1500 to 6000 feet above sea level.

The committee worked on revising a proposed table for inclusion into the TGM as either a policy page or part of the operation and maintenance section of the TGM.

The following is a reprint of that draft work:

Total Nitrogen Reduction

Onsite wastewater systems that would qualify as Best Practical Methods (BPM) are:

- Recirculating Gravel Filters (40% NO₃-N reduction),
- Extended Treatment Package Systems (30% NO₃-N reduction),
- Intermittent Sand Filters (15% NO₃-N reduction) and
- Recirculating Extended Treatment Package Systems (50-70% reduction).

These systems reduce total Nitrogen from 45 mg/l to 27 mg/l and even as low as 16 mg/l NO₃-N (Table 1).

Table 1. Best Practical Methods for Onsite Wastewater Systems.

| <u>Best Practical Method</u> | Percent Total Nitrogen Reduction | Total Nitrogen mg/l | O&M Provider |
|---|---|----------------------------|-------------------------|
| Recirculating Gravel Filters | 40% ¹ | 27 | Property Owner |
| Intermittent Sand Filters | 15% ¹ | 38 | Property Owner |
| Extended Treatment Package Systems | 30% | 32 | Non-Profit O&M Corp |
| Biomicrobics | 34% ² | 30 | ✓ |
| Jet Inc. | 32% ² | 31 | ✓ |
| Norweco | | | ✓ |
| Delta/Whitewater | | | ✓ |
| Southern | | | ✓ |
| Nayadic | | | ✓ |
| | | | |
| | | | |
| Recirculating Extended Treatment Package Systems | | | Non-Profit O&M Corp |
| Advantex – OSI | 65% ³ | 16 | ✓ |
| Norweco- Recirc Singulair | 65% ⁴ | 16 | ✓ |
| | | | |
| | | | |

¹Literature Value

²Idaho Testing

³3rd party

⁴ NSF

Ken moved to recommend that DEQ adopt the Total Nitrogen Policy table as developed into the policy section of the TGM and to use NSF or ETV data to qualify for inclusion into the table. Joe seconded the Motion. The motion passed unanimously.

B. Bedroom Definition

The TGC reviewed bedroom definitions from the following states:

| | | | | | |
|---------------|-------------|----------|--------------|----------|------------|
| Alabama | Connecticut | Florida | Georgia | Hawaii | New Mexico |
| Massachusetts | Maine | Missouri | Minnesota | Nebraska | New Jersey |
| N. Carolina | Ohio | Oregon | Rhode Island | Texas | Utah |
| Vermont | | | | | |

The TGC also reviewed the International Building Code definition of bedroom, several dictionary definitions and reviewed Idaho's history from a rule perspective. Blacks Law Dictionary does not define bedroom.

The committee worked on developing a definition of Bedroom.

Bedroom. Any room within a dwelling that may be primarily used for sleeping and consists of the following elements:

1. Floor space of at least ninety (90) square feet.
2. Provides privacy to the occupants.
3. Provides one (1) or more window(s) or door(s) suitable for emergency escape and rescue (IBC requires 5.7 square-feet for egress); and
4. Provides one (1) or more interior methods of entry or exit.

Living rooms, dining rooms, kitchens, halls, bathrooms, are not considered bedrooms. Any room shall be considered as a portion of an adjoining room when at least one-half of the area of the common wall is open and unobstructed. An unfinished basement that has at least one (1) separate entry and exit, one of which is suitable for emergency escape and rescue, shall qualify as a minimum of one (1) bedroom. A bedroom may include a room listed as a den, study, office, library, sewing room, or craft room on building plans if the conditions listed above are met.

The TGC recommended that this definition be included in the proposed rules section of the TGM and that the TGC develop a policy recommendation to DEQ.

The Corwin, B.K. et al paper titled " Residential Design Flow Projections: What Constitutes a Bedroom?" was reviewed by the TGC. Williamson County, Dept of Sewage Disposal Management 2002.

Dan moved to recommend the DEQ adopt the definition of bedroom as a preliminary policy to be placed into the TGM. Ken seconded the motion. The motion passed.

System Review - Sand Mound

The coordinator presented to the committee a draft revision to the sand mound alternative. The draft revision changes were based on new information from the University of Wisconsin. (Converse, J.C. and E. J. Tyler, 2001. Wisconsin Mound Soil Absorption System: Siting, Design and Construction Manual. 30 pgs. Small Scale Waste Management Project, University of Wisconsin-Madison, College of Agriculture and Life Sciences.) The TGC discussed the

proposed changes and had reviewed the reference paper. The committee made changes to the proposed text and revisions to the Description Diagram. Brian moved to make a preliminary approval and recommendation to DEQ to adopt the revised Sand Mound Alternative. Dan Seconded the motion and the motion passed.

Public Comment Opportunity

The TGC asked if there was anyone from the public that wished to present information to the Committee. No one requested the opportunity to present to the committee.

TGM Printing Strategy

The TGC was informed that DEQ was moving toward an electronic documentation protocol and that the TGM would no longer be printed and sent out to owners. Owners would be able to use the internet to print updates or read the TGM in a more timely fashion. A final printing of the TGM is pending.

Sanitary Restrictions

A. Health Certificate #3. Was approved by the Attorney Generals office and would begin to be implemented by the DEQ regional offices.

B. Proposed Revisions to Idaho Code. The Association of Idaho Cities and Idaho Association of Counties are jointly working with the Engineering Board and DEQ to revise Idaho Code Title 50 Chapter 13 Plats and Vacations. Changes are proposed to several sections of the code and three subcommittees have been established: Planning; Plats and Vacations; and Irrigation Districts and Mosquito Abatement Districts. DEQ and some Health Districts have been involved in the Plats and Vacation Subcommittee. A hand out of the proposed changes was provided to the TGC.

The TGC recommended that DEQ develop changes to the DEQ/HD MOU with respect to the Enforcement Protocol for implementing sanitary restrictions on plats.

Issues from the Field

A. Drainfield Abandonment and Well Setback. Concerns about abandoned drainfields in areas that are not provided public water systems led to a discussion on drilling individual wells. An example from Oregon was discussed in which a 100 foot setback from a drilled well to an abandoned drainfield. The TGC discussed the issue and reiterated that for a drainfield to be abandoned it will have to have been disconnected for one (1) year. The TGC made several recommendations:

1. Meet the Plumbing Bureau Abandonment criteria for septic tanks
2. Recommend that wells be drilled 100 feet from abandoned drainfields
3. Follow the one (1) year time frame for abandonment to be effective.
4. Follow Water Resources Well Drilling Program for setbacks.

B. Standard Absorption Bed – Guidance. The TGC reviewed a letter from Central District Health Department that recommended the TGC adopt a new section for the TGM called “Standard Absorption Bed.” The TGC discussed this suggestion and as this system is adequately described in the rules at this time. The TGC felt there was no need for a new section. The committee asked for greater detail of what type of information should be part of the TGM and discussed any addition should appear in the TGM in the Standard System section.

C. Extra Drainrock Trench / Gravelless Trench Conditions for approval. A second suggestion was to revise the Extra-Drain Rock alternative conditions of approval. The suggestion was to delete that the site is not large enough for a standard system. This condition does not exist for Gravelless Trench alternatives and should not be a condition of approval for Extra-Drain Rock systems. The TGC discussed this suggestion. Joe moved to issue a preliminary recommendation that DEQ strike from the Extra-Drain Rock alternative Condition of Approval #1. Ken seconded the motion and the motion passed.

D. Extended Treatment Package System Monitoring Conditions. A third suggestion was to amend the Extended Treatment Package System (ETPS) section of the TGM to allow flexibility for systems that treat nitrogen and to amend the numeric value for achieving total nitrogen reduction. The suggested language change is for page 39 section d. monitoring 3.) :

3.) For those systems installed in nitrogen sensitive areas or are used as part of a nutrient-pathogen study, the following additional constituents will be monitored in addition to BOD and TSS: Total Kjeldahl Nitrogen (TKN) and Nitrate-Nitrite nitrogen (NO₃+NO₂-N). Results for Total Nitrogen (TKN + NO₃+NO₂-N) that exceed 24 mg/l ~~indicate that the treatment device is not achieving the required 40% reductions~~ the levels stipulated in the subdivision approval for sanitary restrictions release or the nutrient pathogen study approval indicate that the device is failing to achieve the required reductions.

Ken moved to issue a preliminary recommendation to DEQ to revise ETPS section 2. D as presented. Joe seconded the motion and the motion passed.

E. Septage Land Application Site Certification. DEQ Regional Office prepared revised guidance for Domestic Septage Treatment Site – Application for Site Approval. The TGC reviewed the information provided. Ken noted that the revisions were acceptable and that his district has two land application sites, both are approved by DEQ. The materials need to be reviewed such that the concept of guidance is preserved. The TGC recommended to revise the document in all locations that stipulate requires or required. The TGC recommended that as this is a DEQ function retained by DEQ as per the DEQ/HD MOU that the agency should follow its guidance development process, solicit comments, and post on the DEQ webpage.

F. Standard System Section Figure 1 and PWS well setbacks. A DEQ Regional Office reports the misinterpretation of Figure 1 in the Standard System Section of the TGM. Apparently some engineers are not aware that the separation distance for public water supply wells is 100 feet and this diagram of a single family dwelling indicates a 50 foot setback. This diagram has been used to document that the 50 setback is adequate, despite the requirements stated in the rules. The suggestion is to amend the diagram to note the requirement is 100 feet for PWS wells. Dan moved to issue a preliminary recommendation that DEQ revise Figure 1 of the Standard System Section to indicate the separation distance from a septic tank to a public water supply well is 100 feet. Ken seconded the motion and the motion passed.

The committee adjourned at 5:00 pm

**Changes to Total Nitrogen Reduction Policy table obtained via Public Comment:
TOTAL NITROGEN REDUCTION POLICY**

Onsite wastewater systems that qualify as Best Practical Methods (BPM) for the targeted nitrogen reduction amount appear in Table 1. Areas of concern, such as nitrate priority areas, areas with shallow soils over bedrock, or a shallow depth to ground water, may be required to use one of these BPMs to reduce the development's , or home's environmental impact. Values listed in the Total Nitrogen (TN) column should not be exceeded in order to assure that the required TN reduction percentage is attained. These TN values may be used in Nutrient – Pathogen (NP) Studies to evaluate impacts on ground water resources.

**TABLE 1.
BEST PRACTICAL METHODS FOR ONSITE WASTEWATER SYSTEMS.**

| Best Practical Method (BPM) | % TN ¹ Reduction | TN ¹ (mg/L) | Minimum Source Water Alkalinity ² | O&M Provider |
|--|-----------------------------|------------------------|--|----------------------|
| Intermittent Sand Filters (ISF) | 15% ³ | 38 | 108 mg/L | Property Owner |
| Recirculating Gravel Filters (RGF) | 40% ³ | 27 | 189 mg/L | Property Owner |
| Extended Treatment Package Systems (ETPS) | | | | |
| Delta/Whitewater | 30% | 32 | 156 mg/L | Non-Profit O&M Corp. |
| Nayadic | 30% | 32 | 156 mg/L | Non-Profit O&M Corp. |
| Norweco | 30% | 32 | 156 mg/L | Non-Profit O&M Corp. |
| Southern Manufacturing | 30% | 32 | 156 mg/L | Non-Profit O&M Corp. |
| Jet Inc. | 32% ⁴ | 31 | 163 mg/L | Non-Profit O&M Corp. |
| Recirculating ETPS | | | | |
| Advantex by OSI | 65% ⁵ | 16 | 269 mg/L | Non-Profit O&M Corp. |
| BioMicrobics | 65% ⁶ | 16 | 269 mg/L | Non-Profit O&M Corp. |
| Norweco – Recirc. Singulair | 65% ⁷ | 16 | 269 mg/L | Non-Profit O&M Corp. |

¹ Quantifiable values (mg/L) will indicate compliance with the Qualitative TN Reduction limit expressed as a percentage (%) reduction.

² Minimum recommended source water alkalinity to support nitrification in the denitrification process. Use of water softeners is not recommended due to potentially detrimental effects on the biological processes.

³ Literature Value

⁴ Idaho Testing

⁵ 3rd party (ETV)

⁶ NSF data

⁷ After market recirculating tank, pump, controls, & plumbing – each system must be designed, documented, stamped & signed by an Idaho Registered Professional Engineer (PE)