



Department of Environmental Management



Final ISDS Permit Streamlining Task Force Report

**By:
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Acknowledgements

The Department of Environmental Management started its review of the ISDS Program in August 2000. We sent out about forty letters to interested parties and requested their help in reviewing this program. The Full Task Force met four times in 2000. The Regulatory Working Group continued detailed discussions through the summer of 2001.

The DEM would like to express its gratitude to all the members of the environmental, municipal and regulated communities, and program staff. It was only through their time and energy that this report could be developed. The recommendations of this report, for the most part, were generated by the output of the working groups who were led by Russ Chateauneuf (Regulatory), Jim Riordan (Outreach and Training) and Brian Moore (Customer Service). The majority of work accomplished was the result of the hard work of people who participated in the Regulatory Working Group, who met twenty-four times in the last year. Russ Chateauneuf led this group. The working group members are commended, especially Joe Frisella, Kendra Beaver, Scott Moorehead, Eugenia Marks, Tom D'Angelo, George Loomis, Alison Walsh, Rob Adler, Monica Staaf and Sue Licardi who spent many mornings discussing and reviewing the details of future regulatory changes. It was through their efforts, that the groups were able to develop the general consensus needed to generate recommendations to the full Task Force.

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I. Executive Summary

The Department of Environmental Management is committed to improving its performance on an ongoing basis. As part of this evaluation process, DEM initiated a Task Force that brought together Department staff, the regulated and environmental communities and other interested parties to identify streamlining goals and strategies. The purpose of this Task Force was to discuss to what extent statutory, regulatory, policy or administrative changes are necessary to improve environmental protection and to streamline the regulations.

The ISDS Permit Streamlining Task Force met four times from August to December 2000. Based on the discussions in the Task Force and the three working groups, a number of recommendations were made to improve the program. The Regulatory Working Group provided the Task Force with the majority of recommendations and met twenty-four times over a twelve month time period (10/3/00 to 10/9/01). For the most part, the issues were technically oriented and the group was able to gain tentative or conditional consensus on the majority of the issues discussed. The technical changes may not seem significant to the lay observer, but their impact will provide for improved tanks, systems that make better use of the treatment potential of native soils, assure longevity of leachfields and better protection of critical resources. These changes will accommodate system installation on sloping sites and allow for trench construction techniques that reduce fill and gravel requirements and thereby reduce cost. The recommendations of the Task Force and the working groups are detailed in Section III of the report, but the following are the major results of this effort:

Regulatory Recommendations

The regulations will be revised to incorporate the recommendations of this Task Force. It is anticipated the regulation hearing will be held in November of 2002 and will be preceded by a series of workshops that will be used to inform the environmental and regulated communities of the proposed changes and receive comments from a broader audience. The major regulatory changes include the following:

- **Soil Based Design Criteria**

As of February 1, 2001, any new site tested for future ISDS installation requires a detailed soil evaluation by a DEM licensed soil evaluator. In April 2001, DEM adopted amendments to the regulations that provide exemptions from the requirement for a site evaluation report (which includes a soil evaluation) submittal in certain specific circumstances. The amendment also provides a method to size a system on the basis of soil physical properties identified during the soil evaluation process. This method of sizing a system replaced the percolation test for sites requiring submission of the site evaluation report.

- **Cesspool Removal**

There are approximately fifty thousand (50,000) of cesspools still being used in the state. Cesspools do not treat wastewater. There is no tank to provide primary treatment. Generally, they deliver effluent deep into the soil where there is little biological activity. They also deliver the effluent to a very small footprint compared to a properly sized conventional leachfield. The combination of these factors result in localized groundwater contamination, which poses added public health risks. The group recommended a risk-based approach for removing cesspools that would have a final deadline for removal, but would allow for some accommodations for hardship cases. Success of the program will depend on financial support for homeowners such as low interest loans, grants or tax credits.

- **Use of Field Data**

The April 2001 amendment to the regulations addresses the adequacy of previously collected field data with consideration of exemption from the Site Evaluation Report requirement. Property owners having lots with valid field data, compiled before January 31, 2001 will have until May 10, 2002 to submit an ISDS application for the property under the broadest exemption. Essentially, any lot with valid field data accepted on or after July 21, 1987 and compiled before January 31, 2001 is exempted for one year after the effective

date of the amendment. Sites with valid field data less than five (5) years old at the time the design submittal is made will also be exempt, provided specific conditions cited in the amendment are satisfied. ISDS permits are valid for five years from the date of issuance.

- **ISDS System Sizing – Sewage Design Flows**

Today's homes and businesses are designed differently and family sizes are significantly smaller than they were a generation ago. The sizing of an ISDS system is based on the number of potential bedrooms in a house. Family sizes are generally smaller and houses are often designed with entertainment rooms and home-offices. Future amendments to the ISDS regulations will take these and other factors into account by reducing residential and commercial sewage flows. In addition, the procedure used to determine the number of rooms in a residence meeting the definition of a bedroom for the purpose of sizing the system will be modified.

- **Wetlands / ISDS permit coordination**

ISDS regulations will be amended to require limits of disturbance and erosion controls to be shown on ISDS plans to improve wetland protection and to streamline the review process. DEM Freshwater Wetlands staff could then conduct field checks of the plan and determine if the proposed activities would require an application to the Freshwater Wetlands Program. The objective is to reduce unnecessary delays and expense associated with projects near wetlands but not impacting them.

- **Effluent Filters**

ISDS systems will function more efficiently if solids are prevented from being released to the leachfield. Effluent filters are a cost-effective means of ensuring that solids are not introduced to this part of the system. The filters will be required for all new systems, when a new tank is installed and in repair applications when it is practical to install this device. There was some concern expressed about the added costs of these filters. However, the environmental protection afforded by filters, the benefit of extending the life expectancy of leachfields and the recognition that their use would signal need for maintenance outweigh these concerns. The state of Connecticut has had a similar requirement since January 2001 with positive results.

- **System Suitability Determinations (SSD)**

A system suitability determination (SSD) is required when any alteration, renovation or change of use of an existing structure is proposed. The SSD review process determines if an ISDS upgrade is necessary based on the proposed alteration, renovation or change of use.

Two specific proposals were recommended that impact SSDs. In the first instance a SSD will not be required where sewage flows are not increased. If, however, a home is using a disposal system that has not been approved by DEM or uses a cesspool, it will need to be upgraded if certain criteria are exceeded.

In the second instance an upgrade will not be required if the homeowner is covered by the Imminent Sewer Exemption (ISE). The conditions of the ISE include the following:

- A system suitability determination is conducted, the system (cesspools included) is working and no increase in flow is proposed;
- Verification is obtained from municipality that there is bonding approval for sewers and they are in design or construction phase and the sewer (to which the subject lot could connect) is proposed for construction within five years; and
- The owner agrees to connect as soon as sewers become available.

If these conditions were met, it would allow the homeowner, to undertake building renovations and other improvements and to continue to use the existing system until the sewer tie-in is available. Failure

beforehand would, however, need to be remedied including tank and leachfield replacement where necessary.

- **De-nitrification**

The impacts of nitrogen in the environment were identified as an issue that needed addressing. Excessive nitrogen enrichment in surface waters is a cause of ecosystem degradation. High levels of nitrate nitrogen in groundwater can pollute drinking water supplies; and may ultimately result in environmental problems, where groundwater recharges surface waterbodies. In order to address this issue DEM is considering requiring nitrogen-reducing technology in:

- (a) Densely populated areas which are served by septic systems and drinking water wells;
- (b) Wellhead protection areas;
- (c) Coastal areas where Special Area Management Plans (SAMPs) have identified a need for nitrogen controls from ISDS systems.

Policy Recommendations

There were a number of policy recommendations that would improve environmental protection and would improve program performance. One of the major concerns raised was the length of time it takes DEM to process variance applications. DEM will expedite denial of applications if they do not adequately demonstrate that the proposed system will be at least as protective of public health and the environment as one that meets the requirements of the regulations. Currently, rather than reject these defective applications which do not satisfy this requirement (which is required in the regulations and requested on the Variance Request Form), DEM spends considerable time trying to help applicants correct their designs so as to meet this burden, which increases application decision time. Strictly enforcing this element of the variance request process will allow decisions to be made more expeditiously. DEM will propose new procedures to improve application quality, reduce review time and maintain environmental integrity. These changes include the following:

- The variance application form will be revised to more clearly state that the required information is indeed mandatory and that failure to provide it will result in denial of the application.
- The form will also include an advisory stating that variance applications take longer to process than applications for systems that meet code. This longer review time is due in part to a more complex submission, and the required notice to abutters.
- Encouragement of pre-application meetings to discuss the project and proposed mitigation measures.
- Notifying commenters on the outcome of variance decisions.
- Variance applications will be denied where:
 1. The designer does not demonstrate that granting of the variance will not impact public health; drinking water; any bodies of water; public use and enjoyment of a recreational resource; or cause a public or private nuisance to any surrounding property or persons.
 2. The designer does not demonstrate a good faith effort to address deficiencies and/or respond to questions posed by the Department based upon review of the application or submits erroneous information.

Other issues recommended include:

- DEM should conduct (or contract for) studies to determine coastal embayments that are at risk from nitrogen loadings other than those which are included in the CRMC Special Area Management Plans and those for which TMDL's have been or are being conducted.
- DEM should conduct a Spring ISDS enforcement initiative going door-to-door in SAM Plan areas looking for signs of ISDS failure.
- Loading of phosphorous from septic systems needs to be evaluated for impacts to surface water resources.

- Issues relating to transport and survivability/viability of pathogens from septic systems needs to be evaluated.
- The issue of environmental and public health risks as a result of over-occupancy of rental homes overloading ISDSs requires additional discussion.

Administrative Recommendations

- The pink sheet, used by designers to determine administrative completeness, will be updated to reflect changes in the regulations. (Appendix J).
- The ISDS program has developed a checklist (Appendix K) that helps the designer perform installation inspections. In addition, the field guidance documents will be made available to licensees and will be posted on the web.
- DEM will initiate a review of ISDS applications and will concurrently process appropriate applications with the Wetlands, Water Quality and CRMC programs whenever possible.
- Inspection Reports will be sent to the designer. This process will be used when an inspector notes a problem. In this case a Request for Further Action notice will be sent to the designer.
- The Office of Technical and Customer Assistance and the ISDS program will work together to update the Frequently Asked Questions brochure that can be used to help citizens understand the ISDS application process.

Outreach and Training

- DEM will continue to support the municipalities with technical and other assistance concerning the creation of wastewater management districts.
- DEM should continue to make available the Septic System Checkup - The Rhode Island Handbook for Inspection and the Municipal Programs and Standards Reference Manual. These texts can be used to help inform homeowners, realtors, home inspectors, designers and municipal officials about ISDS issues.
- DEM proposed filling an existing position to work on Innovative / Alternative ISDSs. Due to budgetary concerns the filling of this position is questionable. If filled, this position could be used to inform DEM staff and appropriate municipal officials on the proper use and maintenance of these systems.
- DEM will conduct an annual meeting with licensed designers to review regulatory requirements, explain changes in procedures, accept comments and discuss emerging issues. DEM should look for an organization to sponsor this meeting, spreading out the administrative tasks to another organization, but providing the staff to explain program changes.

II. Introduction

The ISDS Program has undergone several program evaluations including a high-level Governor's Advisory Commission, DEM's consultant (KPMG) program audit and a stakeholder review. DEM has modified the program as a result of these processes. The ISDS regulations have evolved considerably in the last four years and have been revised in 1996, 1997, 1998, 2000 and 2001. Appendix A of the report summarizes the major changes implemented by DEM.

Prior to the first meeting, the Ombudsman met with or conducted phone surveys with the ISDS program staff, and an ISDS users group, which consisted of members of the regulated, academic and environmental communities. They were solicited to assess possible opportunities to improve the existing program. The KPMG and the Governor's Advisory Commission reports were also reviewed and their recommendations were included in the initial draft report that was circulated to the Task Force members (who are listed in Appendix B) prior to the first meeting. The comments were grouped into statutory, regulatory, policy and administrative concerns. After the first meeting additional suggestions were added to the initial list of

concerns (Appendices C through F). The Task Force members then prioritized these concerns. The issues that were determined to be of higher priority were then assigned to working groups for further evaluation.

Three working groups were formed based on common themes of the concerns developed by the Task Force. The working groups created were the Regulatory Working Group led by Russ Chateauf, the Outreach and Training Working Group led by Jim Riordan, and the Administrative Working group led by Brian Moore. The work of these groups provided the basis for the recommendations of this report.

The full Task Force met four times in 2000. Afterwards, the working groups continued meeting to discuss the issues raised in detail. The majority of issues raised was technical in nature and was reviewed by the Regulatory Working Group.

The Regulatory Working Group (Appendix G-1) was an active group and met twenty-four times. This group was assigned all concerns that required changes in the ISDS regulations. There were no recommendations forwarded from the other two working groups that required regulatory changes. This group made recommendations on all twenty-four issues assigned to them and included soil based design criteria, cesspool removal, use of field data, ISDS sizing, Wetland /ISDS permit coordination, effluent filters, system suitability determinations and de-nitrification requirements. As a result of the recommendations of this working group, DEM anticipates issuing public notice of proposed revisions its ISDS regulations in the November of 2002. Before the proposed amendments to the regulations are ready for public notice, two major policy issues will need further discussion. These issues are the removal of cesspools and the need to implement nitrogen-removing requirements in sensitive environmental areas. The final recommendations of this working group can be found in Chart 1 of Section III of this report.

The Outreach and Training Working Group (Appendix H-1) was charged to address thirteen issues identified by the Task Force. In addition to these issues, the working group subsequently identified five additional issues for review. The thirteen issues were furthered categorized as being policy, administrative and outreach concerns. These issues are detailed in Appendix H-2. The program has been active with municipalities interested in setting up wastewater management districts. A number of issues raised concerned this topic. The Outreach and Training Working Group prepared a report of their activities and can be viewed in Attachment H-3 of this report.

The Customer Service Working Group (Appendix I-1) was assigned seventeen areas of concern. This group met once and discussed all the issues (Appendix I-2) assigned to them. The group agreed that the program could address all but three concerns. The three issues that were not supported were:

1. Field Offices were once used by DEM to house field inspectors. This system was used in the past and was not considered an effective use of personnel.
2. DEM has reviewed the information that supports the application form and has determined that this information needs to be collected. The program will certainly be open to discuss specific changes to the form that will make the process more efficient and protective of the environment.
3. DEM has studied the issue of training the clerical staff to be able to respond to more technical questions from the public. Use of staff in this manner would require extensive training, be of limited value and would then take them out of the clerical classification. Since the number of staff will not be increased in the near term due to state budgetary problems, training the clericals may help one customer service issue, but will leave us with a clerical shortfall problem.

All issues discussed were administrative in nature and ranged from providing the regulated community with revised checklists to posting application status information on the DEM website. Administrative recommendations from both working groups can be found in this report in Charts 3 and 4 in Section III.

III. Summary Recommendations

In the last ten years, the ISDS program has been evaluated and the program has initiated many changes to improve the quality of applications and the service to the public. As a result of the ISDS Task Force and subsequent meetings of the working groups, DEM was provided with numerous suggestions that should improve the program. The section below details the specific statutory, regulatory, policy, administrative, training and outreach recommendations that resulted from this review. These changes will clarify and streamline program operations, increase customer satisfaction, improve protection of the environment and meet the mandates of the law. In addition the group also discussed ways of increasing municipal capacity to work on wastewater issues. DEM will implement many of these changes and will track the success in meeting these objectives. Appendices L-1 and L-2 will be tools for tracking these changes.

Statutory Recommendations

For the most part, the Task Force thought that program changes could be initiated within the existing bounds of the statute. There was only one issue discussed that might require legislative change. There was consensus that cesspools were a problem. In addition there are areas in the state where the groundwater requires a high level of protection. The working group suggested a risk-based approach whereby cesspools that are located in sensitive areas would be replaced first. In order to help homeowners, who have a cesspool or who have a failed system that needs to be upgraded, a financing program should be evaluated to help pay the cost of the upgrade; development and implementation of such a program may require new legislation

Regulatory Recommendations

The Task Force assigned thirty-five issues of concern to be examined by the Regulatory Working Group. The initial list of regulatory issues was prioritized by the working group into short-term (Appendix G-2) and long-term issues (Appendix G-3). The working group added seven other issues as a result of these discussions and are itemized as numbers 25-31 in Chart 1 below. The Work Group recommended additional study for six topics that were added to the long-range issues of concern. Appendix G-4 is a listing of the concerns that were ranked a low priority by the Task Force and no further work was done on these issues. The program staff evaluated the remaining concerns and noted that prior regulatory revisions addressed a number of the concerns (Appendix G-5). This group then focussed on the short-term issues listed in Chart 1.

In all, the Regulatory Working Group discussed thirty-one issues of concern. For the most part, the issues were technically oriented and the group was able to gain conditional consensus on the majority of the issues. The technical changes may not seem significant to the lay observer, but their impact will better protect the environment. Future regulations will improve septic tank standards, increase the performance of leachfields; enhance utilization of the treatment potential of native soils, while allowing for construction techniques which reduce fill and gravel requirements for trench systems thereby reducing cost. A number of the changes will update the regulations to provide additional environmental protection and in some instances, result in lower costs to the homeowner. Other changes will align the Rhode Island regulations with neighboring states' standards.

The chart below reflects the recommendations of this working group and the date the topic was discussed at a meeting. Additional information concerning each topic can be reviewed on the meeting notes that are located on the DEM Ombudsman Website:

<http://www.state.ri.us/dem/programs/ombuds/pstream/isds/regwg/index.htm#minutes>

Chart 1

ISDS Task Force Regulatory Recommendations

No	Date Discussed	Issue	Recommendations
1	11/1/00	Regulations should be amended to improve function of leachfields. Include invert perimeter, gravel fill, step-down systems for sloping sites, and reduce volume of aggregate.	New methods of leachfield construction have been drafted, which address all of the recommended topics.
2	10/3/00, 1/31/01, 2/28/01, 7/24/01	Regulations do not address soil-based design criteria. Discuss the use of the percolation test, soil morphology technique, and minimum leaching area. (Amendment promulgated in April 2001 addressed this issue.)	The April 2001 Mini-amendment addressed sizing with conversion chart which associates each soil category to a percolation rate which must be used for sizing. Loading rates for soil categories to establish leachfield size for new systems have been drafted.
3	12/13/00	Upgrade tank standards (including inlet T vs. baffle, d-boxes, pump chambers, whether to require risers to surface on septic tanks, allow or require two-compartment septic tanks) to be consistent with the Connecticut and Massachusetts standards.	Rules have been drafted.
4	10/3/00	a. Nitrogen removal standards for nitrogen reduction systems must be added to the Rules. b. Determination must be made concerning design authority for sand filters.	a. "Nitrogen reducing technology" added to "Definitions" in draft rules. b. Draft rules address guidance documents in general. The issue of design authority for sand filters has been addressed (DEM has accepted the Technical Review Committee's recommendation that Class II and III may design sand filters and that additional training is necessary for practitioners).
5	2/28/01	Allow use of I/A technology for water tables less than 2-feet.	No change to rules is proposed based on discussion with the Regulatory Work Group; sites with less than a 2-foot water table presents very high risks of failure.
6	10/3/00, 1/3/01, 1/17/01, 1/31/01, 2/13/01	Department must address approved field data when the requirement for soil evaluation takes effect.	April 2001 amendment addresses exemptions from the requirement for soil evaluation, which include field data approved prior to January 31, 2001.
7	10/3/00	1. The regulations should be updated to specify how the new soil evaluation procedure would be used for subdivisions. 2. A separate class of licensed designers should prepare subdivision applications.	1. Rules for soil evaluation of subdivisions have been drafted. 2. Separate license class to prepare subdivision submittals is not being proposed.
8	10/18/00, 11/29/00, 6/20/01, 7/10/01, 7/24/01, 8/21/01	Redefine unit of sizing (number of bedrooms) for residential systems to facilitate evaluation of the system suitability under the policy upgrade.	Rules have been drafted. 7/10/01 and include the following: Table 27.2 indicates those dwellings with 3 or fewer rooms would be assumed to have 1 bedroom. This will be changed to a minimum of 2 bedrooms. Table 27.2 in the draft indicates that an 8 – 10 room home will be assumed to have 4 bedrooms. Rule 27.2.5 states that a property owner may self-restrict use of a residence to one less bedroom than is indicated in Table 27.2. This will be modified such that it applies only to the lower end of the range of rooms listed. For example, an 8-room house will be able to self restrict to 3 bedrooms, but a 9 or 10-room home will not.

Chart 1 (continued)

ISDS Task Force Regulatory Recommendations

No	Date Discussed	Issue	Recommendations
9	11/29/00	Simplify the review process for subdivisions of up to five lots.	Draft rules provide for exemption for subdivisions up to 5 lots. They will also be consistent with CRMC rules.
10	2/13/01, 3/28/01, 4/10/01, 4/27/01, 5/9/01, 6/20/01, 7/10/01	1. DEM should develop a mechanism by which cesspools are evaluated for possible replacement. 2. EPA requires the replacement of large capacity cesspools and DEM should adopt these requirements.	1. A cesspool removal strategy was recommended that had the following elements: <ul style="list-style-type: none"> • Removal of the cesspools should be risk-driven. Protection of groundwater or other environmental concerns should be factored into the need for removal. • Funding is necessary; • A deadline for removal should be established. • There should be some special accommodation for hardship cases. 2. Large capacity cesspools will be defined for purposes of meeting the EPA requirements and deadline.
11	11/1/00	DEM should promulgate policies for trench construction. (See also recommendation Number 1)	Draft rules address new methods of leachfield construction.
12	12/18/00, 7/10/01, 7/17/01, 7/24/01	Design flow for single-family homes should be changed to reflect lower water use due to low-flow fixtures.	Draft rules set new design flow for single-family homes as 150 gallons per day for the first bedroom and 100 for each additional bedroom. Design flows for all other uses have been reevaluated.
13	2/28/01	Review requirement to encase waterlines.	Draft rules require waterline or sewer line to be sleeved 10-feet on both sides.
14	11/1/00	DEM should re-evaluate the foundation drain and sub-drain setback requirements.	Draft rules establish setbacks of 25-feet up-gradient and side-gradient and 75-feet down-gradient. They will also include updated standards for subsurface drain construction.
15	1/31/01	ISDS regulations will be amended to require limits of disturbance and erosion controls are shown on ISDS plans to improve wetland protection. DEM could then conduct field checks of the plan and better determine if the proposed activities would require an application to the Freshwater Wetlands Program.	DEM is developing a rule and procedure to advance this concept.
16	12/13/00	Review technical issues concerning speed levelers, dippers and d-boxes.	Draft rules require levelers for all new systems and dipper d-boxes are an option on sloping sites. Standards for d-boxes have also been revised.
17	11/15/00	Review well setback requirements for large systems and highly permeable soils.	Well setbacks from large flow systems will be increased. The department will not change the minimum setback (100 ft) required between private wells and home septic systems. DEM and DOH met 12/7/00, to discuss the discrepancy between their respective setbacks: <ul style="list-style-type: none"> • DEM to maintain 400 ft. setback to public well; • DEM to notify DOH of any variance regarding a public well (existing or proposed); • DEM/DOH prepare a joint fact sheet for applicants with ISDS and wells.
18	11/1/00, 11/15/00	Review square-footage requirement for galleys.	Prohibit use of galleys, except on repairs where necessary.

Chart 1 (continued)

ISDS Task Force Regulatory Recommendations

No	Date Discussed	Issue	Recommendations
19	12/13/00	Review existing grease trap specifications with respect to capacity and retention times.	Draft rules revise standards for grease traps.
20	11/29/00, 6/20/01	<p>Modify the System Suitability Determination (SSD) process for:</p> <ol style="list-style-type: none"> 1. Imminent Sewer Exemption: Where a dwelling is expected to be connected to a POTW within a short time period, provide clear regulatory language that would enable physical home improvements without triggering an ISDS upgrade or expansion. 2. Other upgrades. 	<p>Two modifications to the System Suitability Determination (SSD) procedure are recommended.</p> <ol style="list-style-type: none"> 1. Eliminate the System Suitability Determination (SSD) Application and allow for an exemption from up-grade if: <ul style="list-style-type: none"> • The community plans to install a sewer line which would service the property, • It is scheduled to be completed within 5 years, • Flow must not be increased, and • The community must explicitly indicate funding is available to complete the sewer project as scheduled. 2. A homeowner will not be required to submit a SSD in instances where wastewater flows are not increased. However, if the home is using a system that has not been approved by DEM or utilizes a cesspool, this system will need to be upgraded.
21	11/15/00	<p>The variance process should be evaluated in these areas:</p> <ol style="list-style-type: none"> 1. The variance process should allow a public interchange. 2. Projects are usually approved, but DEM will stipulate how the project should be designed (Inclusion of designer and applicant in the decision making process). 3. Shorten the time it takes to process variance requests. 	<ol style="list-style-type: none"> 1. DEM agrees that commenters should be notified on the outcome of variance decisions. 2. DEM will attempt to provide more pre-application meetings provided resources are available. 3. Variance Guidance Table eliminated in draft rules. Additional changes to the process are noted in No.22.
23	11/1/00	Review ISDS piping requirements with respect to velocity requirements.	Draft rules address pipe slopes for different parts of the ISDS.
24	11/15/00	Sand filter application should not have to go through the variance process.	No rule change necessary. Sand Filter Guidance Document allows for applications for sand filters to be submitted without variance in critical resource areas. Guidance Document was adopted April 2000.

Chart 1 (continued)

ISDS Task Force Regulatory Recommendations

No	Date Discussed	Issue	Recommendations
<p>The following recommendations (items 25-31) were suggested by the Regulatory Working Group as a result of their deliberations.</p>			
25	10/9/01	DEM needs to require nitrogen reduction requirements in the ISDS regulations.	DEM should evaluate requiring nitrogen-reducing technology in: 1. Densely populated areas which are served by septic systems and wells; 2. Wellhead protection areas; 3. Coastal areas consistent with those addressed by CRMC.
26	7/17/01		DEM should conduct (or contract for) studies to determine other coastal embayments that are at risk from nitrogen loadings
27	7/17/01		*DEM should conduct a Spring ISDS enforcement initiative going door-to-door in SAM Plan areas looking for signs of ISDS failure. (This is a policy issue and does not require regulatory action)
28	8/21/01		Loading of phosphorous from septic systems needs to be evaluated for impacts on resources.
29	8/21/01		Issues relating to transport and survivability/ viability of pathogens from septic systems needs to be evaluated.
30	8/21/01		Leachfield loading rates - The conditions under which time-dosing should be required must be studied.
31	8/21/01		Sewage Flows – The issue of environmental and public health risks as a result of over-occupancy of rental homes overloading ISDSs requires additional discussion.

Policy Recommendations

Policy recommendations were forwarded from the Regulatory and the Outreach and Training Working Groups. The recommendations require DEM to conduct further environmental studies that are impacted by wastewater disposal issues, and to work closer with other partners on wastewater issues. The policy recommendations are outlined in the Chart 2 below.

Chart 2		
ISDS Task Force Policy Recommendations		
Recommendations from the Regulatory Working Group		
No.	Issue	Recommendation
1.	Some ISDS variance applications are not properly prepared. DEM spends too much time fixing problems with the application.	Deny variance applications where the designer does not demonstrate a good faith effort to answer relevant questions that contain erroneous information.
2.	Concern was raised that there are other parts of the state where ISDS effluent may be causing damage to waters of the state.	DEM should conduct (or contract for) studies to determine other coastal embayments that are at risk from nitrogen loadings.
3.	There are some areas in the state where discharges from failed ISDS may be causing adverse water quality impacts.	DEM should conduct a Spring ISDS enforcement initiative going door-to-door in SAM Plan areas looking for signs of ISDS failure.
4.	The Task Force focussed on problems cause by nitrogen. Problems may be cause by discharges of phosphorous.	Loading of phosphorous from septic systems needs to be evaluated for impacts on resources.
5.	The existing rules should be evaluated for their ability to treat pathogens.	Issues relating to transport and survivability/viability of pathogens from septic systems needs to be evaluated.
6.	The impacts of time dosing need to be evaluated.	The conditions under which time-dosing should be required must be studied.
7.	Develop a dual-tiered variance process that separates new or major projects that require a variance, from existing uses where there is a request for an upgrade or repair. Eliminate the public notice requirement for some variance applications	<p>The dual tiered variance process proposed in Regulatory Recommendation Number 22 was intended as a timesaving mechanism, but discussion of the issue did not generate support. Other changes to the variance process were suggested and included the following:</p> <ol style="list-style-type: none"> 1 The variance application form will be revised to include a clearer set of the required information. 2 The form will also include an advisory stating that variance applications take longer to process, than applications for systems that meet code. This longer review time is due in part, to a more complex submission, and the notice to abutters. 3 Deny variance applications where: <ul style="list-style-type: none"> • The designer does not demonstrate that granting of the variance will not impact public health; drinking water; any bodies of water; public use and enjoyment of a recreational resource; or cause a public or private nuisance to any surrounding property or persons. • The designer does not demonstrate a good faith effort to address deficiencies and/or respond to questions posed by the Department based upon review of the application or submits erroneous information.

Chart 2		
ISDS Task Force Policy Recommendations		
Recommendations from the Outreach and Training Working Group		
No.	Issue	Recommendation
1.	The environmental and public health impacts of over-occupancy of rental homes overloading ISDSs require additional discussion.	DEM ISDS regulations are not geared to rental properties. Rental homes, especially in South County, may have higher occupancy rates than the ISDS were designed to treat. DEM should study this issue to determine if this is a problem and make recommendations to resolve these issues.
2.	DEM was requested to be more proactive in working with communities and the CRMC on ISDS issues. A mechanism needs to be created to evaluate de-nitrification issues, and the support of new wastewater management districts.	There is an existing Septic System Policy Forum that has been working with the municipalities. DEM should focus this group to work on some of these concerns.
3.	Additional emphasis should be placed on maintenance and inspection of ISDS. A significant number of the existing systems have failed and need to be repaired.	DEM should continue to provide technical support and assistance for these districts. DEM has developed the Septic System Checkup - The Rhode Island Handbook for Inspection. This handbook was produced to assist professionals in the field, but can also be used by homeowners, realtors, home inspectors, designers and municipal officials. The Rhode Island Clean Water Finance Agency--in cooperation with DEM--has established the Community Septic System Loan Program to help municipalities to provide homeowners with a source of financial assistance to upgrade their failed and substandard systems. The state and municipalities should seek additional incentives for homeowners to use this funding.
4.	DEM, the Department of Health and the Department of Administration should provide resources to the municipalities concerning wastewater issues, especially to support wastewater management districts.	DEM should continue their support of the creation of wastewater management districts. DEM is also increasing its effort in encouraging I/A ISDS designs through the dedication of one new employee to this issue. DEM will review the workload of this person to determine if it will be possible to inform municipal officials from wastewater districts in these efforts. At this point in time, due to budgetary issue, DEM is not sure of the support that can be gained from the Department of Health and the Department of Administration.
5.	DEM should review its permitting policies in wastewater management districts to support the installation of innovative alternative ISDS applications	DEM is a member and supporter of the Technical Review Committee that evaluates I/A technology for use in the state.

Administrative Recommendations

There were a number of issues raised concerning administrative improvements that could be achieved by the program. These suggestions were grouped into three categories, i.e., administrative program issues, training and outreach issues. There were sixteen issues discussed in the Customer Service Working Group. Thirteen were recommended to move forward. There was general agreement that the use and design of the Multi-part form should be changed. The form should be revised because the fourth page was often unreadable and was difficult to copy. Other issues raised include:

- 1 The pink sheet application checklist is a useful document, but it needs to be updated.
- 2 DEM should also send deficiency notices to the homeowners in order to keep them advised on the status of their application.

3 Initiation of a one-stop review of Water Quality Certifications, ISDS and Wetlands (CRMC, if necessary) applications.

There were a number of issues raised concerning outreach activities. DEM is encouraged to meet regularly with the regulated community. It was thought that this kind of interchange was beneficial to both parties. DEM was also requested to update a permitting guide that would provide basic permit processing information to the applicants and the designers.

The Regulatory Working Group discussed ways to reduce the time it takes to review variance requests. DEM is proposing a number of ways to reduce review time. The recommendations of these two working groups are consolidated in Chart 3 below.

Chart 3		
Administrative Recommendations		
Regulatory Working Group		
No	Issue	Recommendation
1.	Shorten the time it takes to process variance requests.	Variance applications are more complex and decisions times have been increasing. The following recommendation will be adopted to improve processing times: <ul style="list-style-type: none"> • Variance application form will be revised to include a clearer statement of the required information. • The application must demonstrate that granting of the variance will not impact public health; drinking water; any bodies of water; public use and enjoyment of a recreational resource; or cause a public or private nuisance to any surrounding property or persons. • The use of pre-application meetings to discuss the project or requirements for mitigation. The variance process should allow a public interchange. DEM will notify commenters on the outcome of variance decisions
Customer Service Working Group Recommendations		
1.	Initiate a one-stop review of Water Quality Certifications, ISDS, Wetlands and CRMC (if necessary) applications.	DEM will initiate a review of ISDS applications and will concurrently process appropriate applications with the Wetlands, Water Quality and CRMC programs.
2.	*DEM should dedicate a full time position to I/A activities.	The Office will dedicate a full time position to work on I/A activities. This position will be responsible for assisting in the review of these applications, keeping up to date on the technology and being a source for internal training. The position has been posted and will be filled in the future as soon as the statewide budgetary shortfall is addressed.
3.	The ISDS program should adopt the wetlands program approach of redlining minor changes on applications instead of sending the application back for modifications. Plans are over-reviewed. Plans should be evaluated for the ability of the system to process waste and not for the plans ability to meet all the non-substantive requirements of the regulations.	The ISDS program allows redlining of applications in instances where the changes are minor or are related to a repair application where timing of the application approval is critical and the changes are not substantive.
4.	DEM should develop a checklist that helps define the role of the designer in the field. There are some questions concerning the amount and kinds of oversight a designer has over an ISDS installation.	The ISDS program will develop a checklist (Appendix K) that helps to define the role of the designer in the field. In addition, the field guidance documents will be made available to designers and license holders and will be posted on the web.

Chart 3 (Continued)

Administrative Recommendations

No	Issue	Recommendation
5.	DEM should consider implementing field offices for the inspectors. It would be more efficient for the inspectors to conduct the field visits from these offices rather than from Providence.	Field Offices were once used by DEM to house field inspectors. This system was used in the past and was not considered an effective use of personnel. DEM does not recommend the implementation of this strategy.
6.	Review the information that we collect and ensure it is necessary to process the application.	DEM has reviewed the information that supports the application form and has determined that this information needs to be collected. The program will certainly be open to discuss specific changes to the form that will make the process more efficient and protective of the environment.
7.	The Multi-part form should be revised. The last page is barely legible and is not a standard size and is difficult to copy. Consider issuing the forms on a computer disk and/or allow for electronic submittal of applications. Increase use of e-mail for supplying application information to DEM.	DEM is evaluating the multi-part form to determine in the short term if a better supplier of forms is available to respond to the problem of poor quality of the fourth page of the form. In the long-term, DEM will evaluate the use of electronic submission of the application or parts of the application. This could be an issue that gets studied under another phase of the Kyran Permit Streamlining Process.
8.	Update the pink sheet check list that is submitted with the application.	The pink sheet will be updated to reflect changes in the regulations. (Appendix J)
9.	Place ISDS status information on the Internet.	ISDS application information will be posted on the internet. The Kyran process was envisioned to accomplish this task. Due to budgetary issues, implementation of this process has been pushed back. DEM is evaluating a joint venture with a private concern that may bring this information to the Internet, possibly later this year.
10.	Inspection reports should be sent to the designer and not left with the installer.	Inspection Reports will be sent to the designer and not left with the installer. This process will be used when an inspection notes a problem. In this case a Request for Further Action form will be sent to the designer.
11.	Provide the Office of Customer and Technical Assistance with a Frequently Asked Questions and Answers brochure on typical concerns raised by applicants.	The Office of Technical and Customer Assistance and the ISDS program will work together to update the Frequently Asked Questions brochure that can be used to help citizens understand the ISDS application process.
12.	Return phone calls in a timely manner.	Phone calls being returned in a timely manner can be a problem due to the volume of applications received in some parts of the year. DEM recognizes that this is a problem and has assigned help from other parts of the Water Program to help field calls.
13.	Hire an additional person to handle phone calls to allow technical staff to process applications.	Due to budgetary restraints, another person can not be hired to assist on answering calls.
14.	During wet season, field personnel should not be assigned technical assistance phone duty.	Field personnel will not required to provide general technical assistance but instead will be assigned consistently to permit review.
15.	OTCA should provide more support for programmatic questions.	OTCA will respond to customer phone calls that they are capable of answering that come into the switchboard. This office is also available to hold pre-application meetings as appropriate.
16.	Train clerical staff to be able to respond to more technical questions from the public.	DEM has studied the issue of training the clerical staff to be able to respond to more technical questions from the public. Use of the people in this manner would require extensive training, be of only limited value and would then take them out of the clerical classification. Since the number of staff will not be increase in the near term due to state budgetary problems, training the clericals may help solve one customer service issue, but will leave us with a clerical shortfall problem

Training Recommendations

DEM has taken very significant steps to train its staff and provide learning opportunities for interested members of the private sector. Notwithstanding, there are still gaps that need to be filled. DEM should provide increased training (including technical information transfer) opportunities for the regulated community (i.e., wastewater professionals and homeowners), municipal officials and DEM staff. Professional training should focus on innovative and alternative systems. Homeowner education should focus on conventional system maintenance, water conservation, DEM's permitting process and the pros and cons of owning innovative and alternative systems. Chart 4 below details the Training recommendations of the Task Force.

Chart 4 Administrative Recommendations – Training Issues		
No.	Issue	Recommendation
1.	Support continuing education for wastewater practitioners.	DEM should continue to support the wastewater training facility at the University of Rhode Island.
2.	DEM should sponsor homeowner training on maintenance of ISDS.	DEM will develop a press/outreach to better publicize the information available. This will be coordinated with URI and other stakeholders through the Septic System Maintenance Policy Forum.
3.	Municipalities do not have the expertise to track ISDS issues. If DEM wants to utilize the municipalities in the program, additional training efforts need to be directed to this constituency.	There is an existing Septic System Policy Forum that has been working with the municipalities. DEM should focus this group to work on some of these concerns. DEM should complete development of the Rhode Island Municipal Wastewater Programs Reference Manual. DEM should also develop a yearly evaluation report to track success on this issue.
4.	There are inconsistencies in application review and inspection (by region). DEM should look at instituting internal staff training.	DEM agrees that this was a problem in the past, however this is not considered a major issue and the program has instituted internal training controls to minimize this inconsistency.
5.	Send more DEM employees to training concerning I/A technology. Training opportunities are limited due to the workload of the personnel.	DEM has developed procedures to inform employees of newly approved I/A technology and allows employees to attend training courses on the subject. The OWR should maintain a list of who attends and consider a requirement for staff to attend regular training sessions.

Outreach Recommendations

The use of ISDSs impacts a lot of people in Rhode Island. Unfortunately the systems are not thought about until there is a problem. Routine maintenance would extend the life of these systems and would increase the effectiveness of these systems. DEM needs to work with municipalities on these issues. In addition DEM needs to work closely with the regulated community to ensure they are aware of the latest changes in the regulations. Chart 5 below, details the administrative recommendations that relate to outreach issues.

Chart 5		
Administrative Recommendations – Outreach Issues		
No	Concern	Recommendation
1	DEM should consider utilizing water districts, the local conservation commissions, or municipalities to assist DEM on outreach especially with respect to I/A technology maintenance requirements.	Some of these activities are currently taking place. DEM should form additional partnerships with water districts, the local conservation commissions, or municipalities to assist on public outreach activities, especially with respect to I/A technology maintenance requirements.
2.	There needs to be better communication between the regulated community and DEM.	The ISDS program should continue to meet with the regulated community on a regular basis using seminars and informal meetings to discuss issues of concern.
3.	<p>a. Educate ISDS owners about the benefits of proper maintenance, water conservation and proper use of an ISDS.</p> <p>b. Use the application approval process as an opportunity to convey this information. Homeowners are not aware of the the operation and maintenance requirements of a septic system.</p>	<p>a. DEM will develop a press/outreach to better publicize the information available. This will be coordinated with URI and other stakeholders through the Septic System Maintenance Policy Forum</p> <p>b. DEM should a include a brochure in the application approval material that indicates this handbook is available.</p>
4.	Update the existing ISDS permit guide.	The existing permit guide should be updated. In addition, DEM should expand its website to include links to other websites that provide information about water conservation, like the EPA site located at: http://www.epa.gov/OW/you/chap3.html
5.	Regulations have been changing regularly and the design community is not always aware of DEM regulatory or policy changes. This has an impact on application quality.	DEM should conduct an annual meeting with licensed designers to review regulatory requirements, explain changes in procedures, accept comments and provide discussion on emerging issues. DEM should consider co-sponsoring this meeting with a professional organization.

Appendix A - Summary of ISDS Program Changes 1995-2001

Progress on Governor's Advisory Committee Recommendations of December 1995:

Of the twenty-five recommendations relating to the ISDS program, eighteen have been implemented and the remainder is expected to be implemented within the next eighteen months. Those that have been accomplished are as follows:

- Pursuant to statute, DEM created and implemented a licensing program for ISDS designers and soil evaluators. To date over three hundred professionals have been licensed, including fifty one (as of 12/17/01) soil evaluators.
- ISDS designs approved on or after October 1, 1999 require that the designer oversee the installation of the system. One-third to one-half of systems under construction are now designer witnessed.
- An Innovative or Alternative Technology review process was initiated in 1996. The process involves review by a Technical Review Committee composed of various private and public members or groups. To date sixteen technologies have been approved.
- ISDS permit terms were extended in 1998 to five years and renewals were eliminated.
- Rules for alteration or upgrades to existing systems have been simplified. Water table design depths are commonly determined throughout the year through a special test-hole verification procedure specifically set-up for upgrades. In addition, water-tables can be established throughout the year for all new systems.
- A policy on repairs was adopted in 1998 and officially released.
- The variance procedure for alterations/upgrades was simplified to eliminate abutter notification where such notification is deemed unnecessary.
- Rules for the variance procedure were amended to enable lower staff other than the Division Chief to approve variances.
- Meetings or seminars with designers are held frequently to exchange information and discuss issues.
- Through partnering with URI, DEM has helped to educate homeowners about the importance of water conservation and ISDS maintenance.
- Through efforts of the Septic System Policy Forum and the Clean Water Finance Agency, DEM has helped to implement a means of offering financial assistance to individuals to help replace failed septic systems.
- DEM, through the creation of the Office of Technical and Customer Assistance (OTCA), has established a public information and permitting assistance contact point for applicants.
- In 1999, OWR enhanced computer capabilities to expedite internal processing and enhance communications with external partners. The ISDS permit tracking system was updated to facilitate tracking of permits. In addition, permit information is more quickly obtained; computer systems are now compatible with Wetlands database and more integrated with Enforcement compliance systems.
- In 1996-1997, ISDS permit technicians were upgraded and a career path was established under the environmental scientist tract.
- Vacancies have been filled and one additional position, previously cut, has been re-established.
- Training opportunities for staff have been expanded, including both in-house training and URI courses.
- The vehicle pool available to staff has improved.

Other accomplishments, pursuant to KPMG recommendations and other sources, are as follows:

- Improved coordination with wetlands program since the reorganization of 1996 has lead to better decision-making on when separate wetlands involvement is necessary. Wetland rules were further modified in 1998 to exempt ISDS repairs and alterations from wetland permit requirements provided that ISDS program approval is obtained.
- As of February 2000, copies of deficiency notices are now provided to homeowners so that they are kept apprised of the status of their applications and the reasons DEM was unable to complete processing of the application.

- The administrative manager and the staff have made numerous enhancements to procedures and practices to minimize errors, improve response time to the public, and assist designers and applicants with various administrative permitting issues.
- Beginning in 1999, most transfer applications are being handled by administrative staff. As a result transfers are ordinarily processed within one or two days.
- Initial completeness reviews on variance applications have been assigned to three other staff persons to help relieve the workload.
- Revised ISDS regulations to incorporate a soil evaluation process for determining seasonal high water table design depth. Enables determination to be made throughout the year on most sites. For most sites this eliminates need to wait for wet season which was necessary more frequently in the past.
- File retrieval services were improved during the last year, including the replacement of an outmoded reader/printer and conversion of records to microfilm fiche cards, which enables quicker retrieval.

1996 ISDS Amendments

The primary purpose of the rule change was to:

- Develop a process for reviewing and approving innovative and alternative technologies. The amendments required the creation of a Technical Review Committee, which will guide the adoption of alternative technologies in Rhode Island.
- Allow increased flexibility in approving applications for upgrading ISDSs under the alteration application procedure.
- Amend the field data expiration provisions to be consistent with the related state statute, which was amended in 1995.
- Describe backfill specifications placed within the leachfield area and modifications to the perimeter strip requirements.

1997 ISDS Amendments

DEM's role in regulating ISDS design and installation shifted from the emphasis on plan review and installation inspections to a focus on site suitability factors and oversight of the licensed professionals. The two major components of the procedure were: (1) the licensing of designers who design the systems and then take responsibility for their proper installation, and (2) the move towards a more soils based approach for the siting and design of systems through the licensing of soil evaluators.

The regulation created three classes of licenses that authorized individuals to design, repair and alter ISDS. In addition, the regulation created a Class IV license that authorized the performance of soil evaluations. Design authority varies by license class. The Class I license authorized the design of a repair to an existing ISDS, with a maximum design flow of 900 gallons per day. The Class II license authorized design of repairs to or for new construction, limited to a maximum design flow of 900 gallons per day for residential systems. The Class II license limited the variances for which the designer may apply. The Class III license authorized the design of any ISDS provided for under the ISDS regulations. Once approved by DEM, the designer will witness and inspect the installation of the ISDS. The designer must notify DEM during normal business hours at least 24 hours prior to the installation of any ISDS. DEM, at its discretion, may inspect any aspect of the installation. A DEM-licensed installer must install the system. If the installer encounters any problems during the installation, he must contact the designer.

The designer must submit to DEM a certificate of construction that certifies that the ISDS was installed in conformance with the applicable statutes and regulations and that he witnessed and inspected the installation. During the installation, the designer must collect information that can be used to verify that the ISDS was properly installed. The designer must keep this information on file for a minimum of 10 years from the date of the certificate of construction.

1998 ISDS Amendments

The 1998 ISDS regulation amendments clarified and refined the program established in 1997 to license designers of ISDSs. Changes to the regulations included the following:

- ISDS permits are no longer renewable. Expiration dates have been extended for many permits, and eventually, all new permits will be valid for five years.
- Authority of Class II Designers was expanded to include systems for commercial use with a design flow of less than or equal to 900 gallons per day. Prior to this amendment, regulations limited Class II Designers to the design of residential systems only.
- Required DEM to consult with the Review Panel prior to taking action to suspend or revoke a designer's license.
- The responsibilities of Class I, II, and III Licensed Designers were modified to:
 - i.) Require the licensed designer "to be responsible for witnessing and inspecting the installation of the system." Any person assisting a licensed designer in witnessing and inspecting the installation must be under the designer's direct supervision in respect to witnessing and inspecting the installation.
 - ii.) Place limits on when a property owner can apply to have a replacement designer witness and inspect a system.
 - iii.) Allow any variance previously granted to remain valid provided that the circumstances remained the same.
 - iv) Require the designer to notify the Director within 24 hours after discovery of conditions during construction that indicate that the system cannot be installed in accordance with the permit. The designer must stop construction if a redesign will be required. DEM is required to provide guidance on construction tolerances and conditions under which as-built plans and redesigns will be required.

2000 ISDS Amendments

Purpose: Set standards and procedures for soil evaluations and site evaluations and provide material to enable DEM to administer the first round of examinations for the Class IV Soil Evaluator's License.

Definitions:

Site Evaluation is a comprehensive review of the site's suitability for a septic system and determination of factors to consider in design and siting of a system. The site evaluation will be required for all new construction of ISDSs one year after (January 31, 2001) the issuance of the first Class IV license (January 31, 2000).

Soil Evaluation is a component of the site evaluation that must be conducted by a licensed Class IV Soil Evaluator. The soil evaluation consists of a soil profile analysis and determination of the seasonal high water table.

Highlights of the Amendments

- * Clarifies DEM's administration of soil evaluations – whether or not to witness the soil evaluation and the approval process.
- * Provides specifications and procedures for the Soil Evaluator to conduct the soil evaluation and a format to report findings to DEM:
 - Standards for the construction of the soil observation pits;
 - Requirements for soil profile description using the terminology in a new Appendix; and

- Procedure for determination of the seasonal high water table using hydromorphic features and other characteristics, and conditions under which the seasonal high water table must be conducted during the wet season.
- * Defines seven soil classes that will form the basis for sizing and design of septic systems under future regulations; soil classes are described in new Appendix.

2001 ISDS Amendments

The Department of Environmental Management has adopted amendments to the ISDS regulations to clarify the applicability of the new soil-testing requirement for lots tested under previous procedures. The new requirement employs a state-of-the-art soil evaluation method or "test" for collecting necessary information for the design of all new septic systems. The new test does not pertain to septic system repairs or replacements.

The amendments address the applicability of the new site evaluation requirement for sites tested using previous water-table testing methods and replaced the temporary blanket waiver that went into effect January 11, 2001. The amendment took effect on May 10, 2001.

Under the new amendments, all sites with accepted test results obtained after 1987 are exempt from the new site-evaluation requirement until May 10, 2002. This will enable all landowners with post-1987 test results to apply for a septic system permit within the one-year window, without having to perform the new site-evaluation test. An approved permit will then be valid for five years from the date of approval.

The new amendments further specify that, after May 10, 2002, the new site-evaluation requirement will apply to individual lots with test data more than five years old that are in the vicinity of sensitive resources, as well as to all sites tested prior to 1993.

The amendments also include new provisions for sizing septic systems using the results of the soils testing instead of a mandatory percolation test. The percolation test method has been found to be unreliable. Septic systems designed based on percolation tests may be undersized or oversized. Those that are undersized may fail prematurely and contribute to water quality problems or cause a public health risk and nuisance.

ISDS Proposed Fee Increase

- ISDS Fees have not been increased since 1992 (except for variance application fee, which was not increased in 1992). The fee increase is necessary to increase restricted receipt income to keep pace with modest rising costs of providing the services

Categories of Fees to be Increased:

- Design/Installation permits
- Variances
- Subdivision lots for subdivisions over 10 lots

Fees are raised by varying percentages based on the relative staff time generally required to review and process the permits in question and other related tasks.

Categories Not Affected

- Site Suitability tests
- Transfer permits
- Subdivisions small than 10 lots
- Licensing fees (Installers, designers, soil evaluation)
- SSD (System Suitability Determinations)

Fee Category	Existing Fee	Proposed Fee	% revenue increase
New Building- Residential with soil test	100	150	50%
Repairs –Residential	80	100	25%
New Building- Commercial-Flow greater than 2,000 gallons per day	130	200	54%
Flow between 2,000 and 5,000 gallon per day with soil test	500	500	0%
Flow between 5,000 and 10,000 gallons per day with soil test	750	1000	33%
Flow greater than 10,000 gallons per day	1000	2000	100%
Repairs-Commercial- Flow-greater than 2,000 gallons per day	105	150	43%
Flow between 2,000 and 5,000 gallons per day	205	150	46%
Flows between 5,000 and 10,000 gallons per day	205	600	193%
Flow greater than 10,000 gallons per day	205	1000	388%
Variances (1)	55	300	445%
Subdivisions over 10 lots	25	50	100%

- Alterations included in with new construction applications, rather than repair applications
- Soil Evaluation fee is proposed to be increased from \$50 to \$100 to be consistent with other test hole fees.

(1) Variance application fee increasing from \$55 to \$300. Most of the variance applications being received by the Department are more complicated and include more variances than in the past, as such these applications require rigorous review, which takes more time to complete than other applications. At present the fee income for variances does not support the cost of even the one FTE who works full-time on variance applications.

Appendix B – Task Force Roster

Appendix B				
ISDS Task Force Roster				
Name	Organization	Phone	Fax	E-mail
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Appendix C - Statutory Changes Investigated

Appendix C	Statutory Changes Investigated
1	The statute should allow ISDS applications to be based on either soil or water table data.
2	Require homes with failed or sub-standard systems, like cesspools, to be upgraded upon sale of the house.
3	A fund should be set up to finance the upgrade or repair of failed or sub-standard ISDS.

Appendix D - Regulatory Changes Investigated

Appendix D	Regulatory Changes Investigated
Variance Process	
1.	Develop a dual-tiered variance process that separates new or major projects that require variances from existing uses when there is a request for upgrade or repair. Eliminate the public notice process for some variance applications.
2.	Sand filter applications should not have to go through the variance process.
3.	The variance board process should allow a public interchange. Projects are usually approved, but DEM will stipulate how the project should be designed. There may be other alternatives available for project design and the applicants and designer should be allowed to have input into the decision making process. Shorten the time it takes to process variance requests.
Technical Issues	
1	There needs to be consistency between CRMC, waste management districts and DEM ISDS requirements. DEM should work with these organizations to integrate the regulatory processes.
2	The Innovative / Alternative review process is not clear and decisions should be made in the 90-day time period as specified by the regulations. There should be more public involvement in the process and DEM should consider developing performance standards for these systems.
3	Consider upgrading the tank standards (including inlet T vs. baffle discussion, D-boxes, pump chambers, and risers to surface on septic tanks) to be consistent with the Connecticut standard.
4	The Department adopted the sand filter guidance document by policy for an immediate need in critical resource areas. Nitrogen removal standards for de-nitrification systems must be added to the ISDS Regulations. This policy should go through a public comment procedure and then be promulgated as a regulation. There are outstanding issues that need to be resolved including which design class is authorized to design the system.
5	DEM should evaluate the procedure for determining the suitability of soils testing within subdivisions. Additionally, the Department should consider developing a separate ISDS License Class requirement for those authorized to prepare subdivision submittals.
6	Review the existing site-suitability criteria and alternative system types to ensure the proper systems are being installed.
7	Redefine the unit of sizing (i.e. number of bedrooms) of ISDS systems for residential uses to facilitate evaluation of system suitability under the upgrade policy.
8	ISDS regulations should be amended to improve the function of leach-fields. Topics to be discussed include: invert perimeter issues; gravel fill, step-down systems for drain fields on sloping sites and methods by which the volume of aggregate required would be reduced.
9	Currently, the ISDS Regulations do not address soil-based design criteria. Discuss the use of percolation tests and soil morphology techniques and minimum leaching areas. An amendment to the ISDS Regulations must be promulgated prior to January 19, 2001, which will set forth rules for sizing drain-fields on the basis of site-specific soil conditions.
10	The design flow criteria for single family houses should be revamped. There are requirements for low flow showerheads, flushing capacity for toilets etc. that make the existing assumptions too conservative.
11	Under the current soil evaluation procedure, a soil evaluation cannot be used to determine the seasonal high water table due to the dark color of the soils in the east bay areas. That automatically necessitates wet season testing. Soil evaluation test hole requirement should be eliminated in the east bay and wet season testing should be used instead.
12	DEM should require inspections of large systems (condos etc.) to ensure they are being maintained properly. This is critical when there is a change of ownership in the property.
13	If a water table is higher than two feet, allow the use of alternative technology ISDS.
14	DEM should re-evaluate the foundation drain and sub-drain setback requirements.
15	Systems with a daily design flow of 10,000 gallons per day and larger require a groundwater certification, while systems with a daily design flow of less than 10,000 gallons per day are exempt from groundwater requirements.

Regulatory Changes Investigated

DEM should evaluate the thresholds for such requirements; review the cumulative impacts of multiple systems on one parcel, and, coordinate with the groundwater certification program.
16 The Department must consider how to deal with field data when the requirement for soil evaluation takes effect January 19, 2001. Current ISDS Regulations state that field data shall be considered valid for a period of five years from the time of initial certification by the Department (if the date of certification is on or after 4/21/87) or five years from the date of initial approval of any ISDS application, design, or subdivision suitability where the data were used, whichever occurred most recently. Field data older than five years may be used if required provisions set forth in the Regulations are met.
17 Review technical issues concerning speed levelers, dippers and d-boxes.
18 Review the requirement of the need to encase water lines.
19 Review the requirement of the minimum test hole diameters.
20 Reevaluate the application of percolation test data.
21 Prohibit the inflow of water from water purification unit backwashes, downspouts and drains, and AC overflow from entering an ISDS system.
22 Review well set back requirements.
23 Pumps should be sized to prevent the passage of 2" solids.
24 Evaluate the 25 foot fill requirement in porous soils.
25 Allow piles for buildings or decks to be closer than eight feet from an ISDS system
26 Review the square footage requirement for galleys.
27 Clarify the twenty five-foot fill perimeter over lower trenches on a stepped field.
28 Review licensing eligibility requirements.
29 Review ISDS system piping requirements with respect to velocity requirements.
30 Review existing grease trap specifications with respect to capacity and retention times.
Application Processing
1 Streamline the ISDS alteration or upgrade rules and procedures to provide an incentive for users to replace failing septic systems.
2 Extend the life of approved ISDS permit applications wherein the use of an off-site drinking water supply is proposed (i.e. no private wells use).
3 ISDS Regulations define subdivision as three or more contiguous lots of record under common ownership or the division of a single lot, or parcel of land into three or more lots or other divisions of land. The ISDS application for a subdivision requires preparation of a rigorous submission package. A simplified process should be proposed that would allow for the concurrent submission and review of individual lot ISDS applications for up five lots.
4 A Freshwater Wetland Preliminary Determination application must be filed whenever a proposed ISDS is built within the minimum set backs of the Freshwater Wetland Regulations. The ISDS Regulations could be amended to require that limits of disturbance and erosion controls be shown on ISDS plans. The Freshwater Wetlands Section could then conduct field verification of the plan and determines if the proposed activity would influence the wetland.
5 Extend the life of approved ISDS permit applications for new projects to four year with certification that there have been no changes on site. This would reduce the permit renewal workload and the number of inadvertent permit expirations that are missed by applicants.
6 Review application procedures for applications that require easements.
Other Issues
1 Evaluate the use of outside professionals to perform site investigations to confirm change in conditions.
2 Current EPA rules will require that all large-capacity cesspools and those servicing duplex dwellings or larger must be replaced within the next five years. In addition, the trigger mechanism under which all cesspools are evaluated for replacement should be revisited.
3 Imminent Sewer Exemption: Where dwellings are (or where a dwelling is) expected to be connected to a POTW within a short time period, provide clear regulatory language that would enable physical home improvements without triggering an ISDS upgrade or expansion.

Appendix E – Policy Changes Investigated

Appendix E	Policy Changes Investigated
1	Establish a definitive policy on ISDS repairs including minimum requirements and expedited processes for approval while maintaining cost sensitivity to homeowners while protecting the environment.
2	DEM needs to put their policies in writing and make them available for review by the regulated community. DEM should adopt and promulgate policies for the following topics: <ol style="list-style-type: none"> a. Trenching b. Construction Tolerance Guidelines c. Dosing Guidelines d. Well data factors throughout the state
3	Review the policy for subdivisions that requires two holes to be evaluated per lot.
4	Additional emphasis should be placed on maintenance and inspection of ISDS. A significant number of the existing systems have failed and need to be repaired.
5	DEM should review its policy on how many staff inspections are being conducted. In some instances, there is a duplication of effort between DEM and the designers who are certifying their work.
6	*DEM, the Department of Health and the Department of Administration should provide resources to the municipalities concerning wastewater issues, especially to support wastewater management districts. DEM should review its permitting policies in these districts to support the installation of innovative alternative ISDS applications.
7	*DEM's enforcement policy concerning ISDS cases should be reviewed.
8	*DEM should be proactive in working with communities, CRMC on ISDS issues. A mechanism should be created to evaluate de-nitrification issues, etc. and the support of new wastewater management districts.
9	Establish a definitive policy on ISDS repairs including minimum requirements and expedited processes for approval while maintaining cost sensitivity to homeowners while protecting the environment.
10	DEM needs to put their policies in writing and make them available for review by the regulated community. DEM should adopt and promulgate policies for the following topics: <ol style="list-style-type: none"> e. Trenching f. Construction Tolerance Guidelines g. Dosing Guidelines h. Well data factors throughout the state
11	Review the policy for subdivisions that requires two holes to be evaluated per lot.
12	Additional emphasis should be placed on maintenance and inspection of ISDS. A significant number of the existing systems have failed and need to be repaired.
13	DEM should review its policy on how many staff inspections are being conducted. In some instances, there is a duplication of effort between DEM and the designers who are certifying their work.

Appendix F - Administrative Changes Investigated

There were a number of issues raised concerning administrative program improvements that could be achieved by the program. These suggestions were grouped into the following categories, i.e., application processing, training, outreach and personnel issues.

There seemed to be general agreement that the use and design of the Multi-part form should be changed. The form should be revised because the fourth page was often unreadable and was difficult to copy. Other issues raised include:

1. The pink sheet application checklist is a useful document, but it needs to be updated.
2. DEM should also send deficiency notices to the homeowners in order to keep them advised on the status of their application.
3. Initiation of a one-stop review of Water Quality Certifications, ISDS and Wetlands (CRMC, if necessary) applications.

There were two issues raised concerning outreach activities. DEM is encouraged to meet regularly with the regulated community. It was thought that this kind of interchange was beneficial to both parties. DEM was also requested to develop a permitting guide that would provide basic permit processing information to the applicants and the designers.

Appendix F	
Administrative Changes Investigated	
Application Processing	
1	The Multi-part form should be revised. The last page is barely legible and is not a standard size and is difficult to copy. Consider issuing the forms on a computer disk and/or allow for electronic submittal of applications. Increase use of e-mail for supplying application information to DEM.
2	Initiate a one-stop review of Water Quality Certifications, ISDS, Wetlands and CRMC (if necessary) applications.
3	Update the pink sheet check list that is submitted with the application.
4	Provide a copy of deficiency notices to property owners and the system designer.
5	The ISDS program should adopt the wetlands program approach of redlining minor changes on applications instead of sending the application back for modifications. Plans are over-reviewed. Plans should be evaluated for the ability of the system to process waste and not for the plans ability to meet all the non-substantive requirements of the regulations.
6	If a plan was sent back for deficiencies, the original reviewer should process the resubmitted application.
7	Review the information that we collect and ensure it is necessary to process the application.
8	Allow more staff to have signature authority on application review.
9	DEM should develop a checklist that helps define the role of the designer in the field. There are some questions concerning the amount and kinds of oversight a designer has over an ISDS installation.
10	There is some confusion on when and how designers should be contacting DEM for inspections. This is an immediate problem and needs to be resolved. There are instances of installers requesting inspections and the designers are not notified of the request. How does DEM confirm the identity of the caller who is requesting an inspection?
11	When DEM waives a bottom of bed inspection, the installer and the designer needs to be called. Designers would like to be notified by 10AM if a bottom inspection is waived. Develop a database of designer /installer cell phones, or pager numbers, so people can be notified in the field.
13	Inspection reports should be sent to the designer and not left with the installer.
14	The new soil test is expensive to conduct due to the time it takes to evaluate the soil and to record the data. Review the information submitted for the new soil evaluation procedure and determine if all the information is needed.
15	Create a consolidated ISDS/wetlands application form or land development package that would include copies of both ISDS and wetlands applications.
16	The Department should inform impacted neighbors about variance decisions upon completion of the review of the variance request.
17	Provide procedures to enable concurrent submittal of site-suitability and design approval applications.

Administrative Changes Investigated

Training Issues

- 1 DEM should sponsor homeowner training on maintenance of ISDS.
- 2 Municipalities do not have the expertise to track ISDS issues. If DEM wants to utilize the municipalities in the program, additional training efforts need to be directed to this constituency.
- 3 There are inconsistencies in application review and inspection (by region). DEM should look at instituting internal staff training.
- 4 Send more DEM employees to training concerning I/A technology. Training opportunities are limited due to the workload of the personnel.
- 5 *Support continuing education for wastewater practitioners. (* Added at the August 21, 2000 meeting of the ISDS Task Force.)

Outreach Activities

- 1 The ISDS program should meet with the regulated community on a regular basis using seminars and informal meetings to discuss issues of concern.
- 2 Develop an ISDS permit guide that targets both applicants and designers to include:
 - a. Instructions for completing forms
 - b. Application submittal requirements, including fees
 - c. Process flow chart detailing steps in the process, mailings, etc
 - d. Addresses and telephone numbers for assistance
 - e. Sample design types and design notes
 - f. Review sheet checklist
 - g. Information concerning the Wetlands application process
 The guide should be reviewed annually and updated as needed.
- 3 Place ISDS status information on the Internet.
- 4 I/A applications require follow-up work. Concern was raised that DEM that may not always get to this work. System failures caused by poor maintenance could cause the public to lose trust in this technology. DEM needs to focus on this issue to insure the pollution reduction potential of these systems is reached.
- 5 DEM should consider utilizing water districts, the local conservation commissions, or municipalities to assist DEM on outreach and possibly inspection functions especially with respect to I/A technology maintenance requirements.
- 6 Conduct an annual informational seminar that is mandatory for licensed designers to review regulatory requirements, explain changes in procedures, accept comments, and provide for discussion of emerging issues.
- 7 Educate ISDS owners about the benefits of proper maintenance, water conservation and proper use of an ISDS. Use the application approval process as an opportunity to convey this information.
- 8 Provide the Office of Customer and Technical Assistance with a Frequently Asked Questions and Answers brochure on typical concerns raised by applicants.

Personnel Issues

- 1 DEM should consider implementing field offices for the inspectors. It would be more efficient for the inspectors to conduct the field visits from these offices rather than from Providence.
- 2 Return phone calls in a timely manner.
- 3 Hire an additional person to handle phone calls to allow technical staff to process applications.
- 4 During wet season, field personnel should not be assigned technical assistance phone duty.
- 5 OTCA should provide more support for programmatic questions.
- 6 Allow employees in the Engineering Technicians level or below to review and process Applications to Transfer.
- 7 Fill vacant positions as quickly as possible to reach optimal program effectiveness and improve customer service.
- 8 Train clerical staff to be able to respond to more technical questions from the public.
- 9 Establish a land development team using existing staff to focus specifically on applications involving ISDS/wetland issues.
- 10 Train additional staff to review Applications for Variances as back-ups in periods of heavy activity. Develop a variance review checklist to assist in consistency of reviews.
- 11 *DEM should dedicate a full time position to I/A activities.

Administrative Changes Investigated**Other Comments**

- | | |
|---|---|
| 1 | Concerns were raised that there may not be sufficient licensed soil evaluators by next year. There are only nineteen people certified to date. |
| 2 | Very satisfied with the program. Staff works well with municipalities to resolve problems. |
| 3 | The program is not broken and there would be fewer problems if there were more staff. |
| 4 | Have DEM stamp additional copies of plans when provided. |
| 5 | The ISDS staff is doing a great job considering the staffing levels, the need to run dual programs, I/A technology reviews, regulation rewrites etc. The program does not have enough staff to be more proactive. |
| 6 | The innovative / alternative technology program works well and the program has been improved with the use of this technology. This is a volunteer group and has a lot of work to do. |
| 7 | DEM should provide a copy of the readings and factors when the water table is disclaimed. |

Appendix G-1 - ISDS Regulatory Working Group Roster

Appendix G-1				
ISDS Regulatory Working Group Roster				
Name	Organization	Phone	Fax	E-mail
Adler, Rob	USEPA	617-918-1396	617-918-2064	Adler.Robert@epa.gov
Beaver, Kendra	Save the Bay	2723540 X122	273-7135	kbeaver@savebay.org
Chateauneuf, Russ (Chair)	RIDEM	222-4700X7700	222-6177	rchateau@dem.state.ri.us
D'Angelo, Tom	The Terry Lane Corp.	568-8006	568-7909	tom@sites-etc.com
Frisella, Joe	Frisella Engineering	783-5949	783-5997	jfrisella@frisella.com
Gardner, Darlene	Superior Septic Services	789-9360	789-8246	darlenegrdr@aol.com
Getz, Tom	RIDEM	222-4700X2417	222-6802	tgetz@dem.state.ri.us
Licardi, Sue	N. Kingstown Water Dept.	294-3331 X233		slicardi@northkingstown.org
Loomis, George	URI	874-4558	874-4561	gloomis@uri.edu
Marks, Eugenia	Audubon Society, Rhode Island	949-5454		audubon_ri@ids.net
Moore, Brian	RIDEM	222-2306	222-6177	bmoore@dem.state.ri.us
Moorhead, Scott	SFM Engineering Assn.	826-3736	826-1711	sfengineer@earthlink.net
Quinlan, Patrick J.	RI Septic Contractors Association	272-5300 X127	331-7454	quinlaw@ids.net
Stasiunas, Tim	Advanced Wastewater Technology	783-9332	783-9332	tastasiunas@aol.com
Walsh, Alison	EPA	617-918-1593	617-918-1029	Walsh.alison@epa.gov
Richard Welch	Apple Construction Corp.	885-4111	885-4111	apple@bigplanet.com

Appendix G-2 - ISDS Regulatory Working Group Short-term Issues Evaluated

Appendix G-2
ISDS Regulatory Working Group Short-term Issues Evaluated
1. ISDS regulations should be amended to improve the function of leach-fields. Topics to be discussed include: invert perimeter issues; gravel fill, step-down systems for drain fields on sloping sites and methods by which the volume of aggregate required would be reduced.
2. Currently, the ISDS Regulations do not address soil-based design criteria. Discuss the use of percolation tests and soil morphology techniques and minimum leaching areas. An amendment to the ISDS Regulations must be promulgated prior to January 19, 2001, which will set forth rules for sizing drain-fields on the basis of site-specific soil conditions.
3. Consider upgrading the tank standards (including inlet T vs. baffle discussion, D-boxes, pump chambers, and risers to surface on septic tanks) to be consistent with the Connecticut standard.
4. The Department adopted the sand filter guidance document by policy for an immediate need in critical resource areas. Nitrogen removal standards for de-nitrification systems must be added to the ISDS Regulations. This policy should go through a public comment procedure and then be promulgated as a regulation. There are outstanding issues that need to be resolved including which design class is authorized to design the system.
5. If a water table is higher than two feet, allow the use of alternative technology ISDS.
6. The Department must consider how to deal with field data when the requirement for soil evaluation takes effect January 19, 2001. Current ISDS Regulations state that field data shall be considered valid for a period of five years from the time of initial certification by the Department (if the date of certification is on or after 4/21/87) or five years from the date of initial approval of any ISDS application, design, or subdivision suitability where the data were used, whichever occurred most recently. Field data older than five years may be used if required provisions set forth in the Regulations are met.

ISDS Regulatory Working Group Short-term Issues Evaluated

7. DEM should evaluate the procedure for determining the suitability of soils testing within subdivisions. Additionally, the Department should consider developing a separate ISDS License Class requirement for those authorized to prepare subdivision submittals.
8. Redefine the unit of sizing (i.e. number of bedrooms) of ISDS systems for residential uses to facilitate evaluation of system suitability under the upgrade policy.
9. ISDS Regulations define subdivision as three or more contiguous lots of record under common ownership or the division of a single lot, or parcel of land into three or more lots or other divisions of land. The ISDS application for a subdivision requires preparation of a rigorous submission package. A simplified process should be proposed that would allow for the concurrent submission and review of individual lot ISDS applications for up five lots.
10. Current EPA rules will require that all large-capacity cesspools and those servicing duplex dwellings or larger must be replaced within the next five years. In addition, the trigger mechanism under which all cesspools are evaluated for replacement should be revisited.
11. DEM should adopt and promulgate policies for trenching.
12. The design flow criteria for single family houses should be revamped. There are requirements for low flow showerheads, flushing capacity for toilets etc. that make the existing assumptions too conservative.
13. Review the requirement of the need to encase water lines.
14. DEM should re-evaluate the foundation drain and sub-drain setback requirements.
15. A Freshwater Wetland Preliminary Determination application must be filed whenever a proposed ISDS is built within the minimum set backs of the Freshwater Wetland Regulations. The ISDS Regulations could be amended to require that limits of disturbance and erosion controls be shown on ISDS plans. The Freshwater Wetlands Section could then conduct field verification of the plan and determines if the proposed activity would influence the wetland.
16. Review technical issues concerning speed levelers, dippers and d-boxes.
17. Review well set back requirements.
18. Review the square footage requirement for galleys.
19. Review existing grease trap specifications with respect to capacity and retention times.
20. Imminent Sewer Exemption: Where dwellings are (or where a dwelling is) expected to be connected to a POTW within a short time period, provide clear regulatory language that would enable physical home improvements without triggering an ISDS upgrade or expansion.
21. The variance board process should allow a public interchange. Projects are usually approved, but DEM will stipulate how the project should be designed. There may be other alternatives available for project design and the applicants and designer should be allowed to have input into the decision making process. Shorten the time it takes to process variance requests.
22. Develop a dual-tiered variance process that separates new or major projects that require variances from existing uses when there is a request for upgrade or repair. Eliminate the public notice process for some variance applications.
23. Review ISDS system piping requirements with respect to velocity requirements.
24. Sand filter applications should not have to go through the variance process

Appendix G-3 Regulatory Changes Long Term Issues

Appendix G-3	Regulatory Changes Long Term Issues
1.	Review the existing site-suitability criteria and alternative system types to ensure the proper systems are being installed.
2.	The Innovative / Alternative review process is not clear and decisions should be made in the 90-day time period as specified by the regulations. There should be more public involvement in the process and DEM should consider developing performance standards for these systems.
3.	Systems with a daily design flow of 10,000 gallons per day and larger require a groundwater certification, while systems with a daily design flow of less than 10,000 gallons per day are exempt from groundwater requirements. DEM should evaluate the thresholds for such requirements; review the cumulative impacts of multiple systems on one parcel, and, improve the coordination between the ISDS program and the groundwater certification program.
4.	Provide procedures to enable concurrent submittal of site-suitability and design approval applications.
5.	DEM should conduct (or contract for) studies to determine whether other coastal embayments are at risk of impairment from nitrogen loadings from ISDSs.
6.	DEM should conduct a Spring ISDS enforcement initiative going door-to-door in SAM Plan areas looking for signs of ISDS failure.
7.	Loading of phosphorous from septic systems needs to be evaluated for impacts on resources.
8.	Issues relating to transport and survivability/viability of pathogens from septic systems needs to be evaluated.
9.	Leachfield design - The conditions under which time-dosing should be required must be studied.
10.	Sewage Flows – The issue of environmental and public health risks as a result of over-occupancy of rental homes overloading ISDSs requires additional discussion and study.
11.	Require nitrogen-reducing technology in: <ul style="list-style-type: none"> (c) Densely populated areas which are served by septic systems and wells; (d) Wellhead protection areas; (e) Coastal areas consistent with those addressed by CRMC. Also refer to recommendation Number 25 of Appendix G-6, suggesting that protection of water bodies should be provided on a broader basis than that which CRMC provides.

Appendix G-4 Regulatory Issues Ranked Low Priority

Appendix G-4	Regulatory Issues Ranked Low Priority
1.	Under the current soil evaluation procedure, a soil evaluation cannot be used to determine the seasonal high water table due to the dark color of the soils in the east bay areas. That automatically necessitates wet season testing. Soil evaluation test hole requirement should be eliminated in the east bay and wet season testing should be used instead. (This can NOT be done, since evaluation of soil physical characteristics determined during a soil evaluation is necessary for sizing systems, for sites requiring a site evaluation, since May 10, 2001 when the 4/01 amendment became effective.)
2.	DEM should require inspections of large systems (condos etc.) to ensure they are being maintained properly. This is critical when there is a change of ownership in the property.
3.	Review the requirement of the minimum test hole diameters.
4.	Reevaluate the application of percolation test data. (Percolation test has been replaced by site evaluation except for those sites satisfying the exemption criteria set forth in the 4/01 amendment. Note that percolation test may still be conducted if a designer wishes (for his or her own satisfaction).
5.	Prohibit the inflow of water from water purification unit backwashes, downspouts and drains, and AC overflow from entering an ISDS system.
6.	Pumps should not be required to pass 2" solids.
7.	Allow piles for buildings or decks to be closer than eight feet from an ISDS system
8.	Review licensing eligibility requirements.
9.	Review application procedures for systems that require easements.

Appendix G-5

Appendix G-5	Regulatory Changes Completed
1. Look for more opportunities to streamline the ISDS alteration or upgrade rules and procedures to provide an incentive for users to replace failing septic systems.	
2. Extend the life of approved ISDS permit applications wherein the use of an off-site drinking water supply is proposed (i.e. no private wells used).	
3. Extend the life of approved ISDS permit applications for new projects to five year with certification that there have been no changes on site. This would reduce the permit renewal workload and the number of inadvertent permit expirations that are missed by applicants.	
4. Evaluate the use of outside professionals to perform site investigations to confirm change in conditions.	
5. April 2001 amendments on use of field data and sizing of ISDS based on soil criteria.	
6. November 2001 amendments on fees.	

Appendix H-1 - ISDS Outreach and Training Working Group Membership

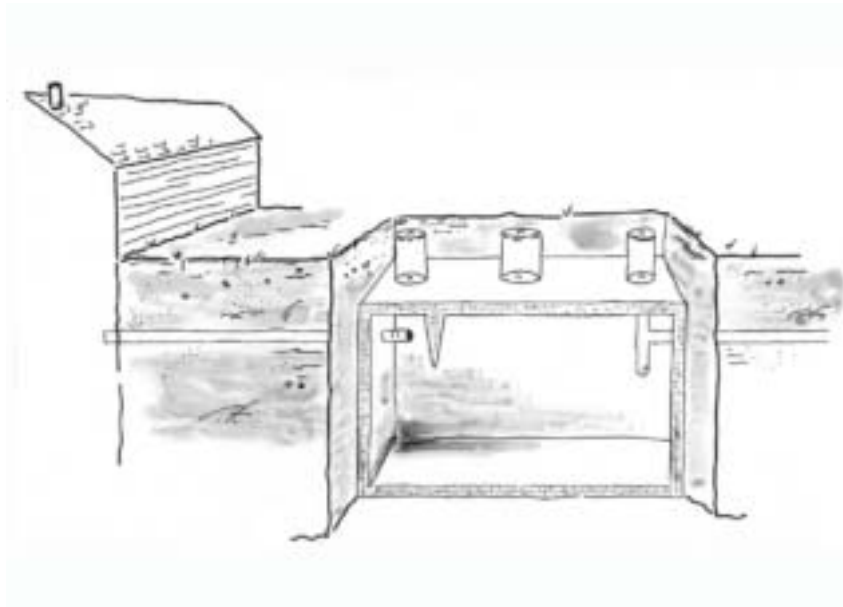
Appendix H-1 ISDS Outreach and Training Working Group Membership				
Name	Organization	Phone	Fax	E-mail
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Gardner, Darlene	Superior Septic Services	789-9360	789-8246	darlenegrdr@aol.com
Getz, Tom	RIDEM	222-4700X2417	222-6802	tgetz@dem.state.ri.us
Jedele, Tricia	RIAG	274-4400X2400		tjedele@riag.state.ri.us
Licardi, Sue	N. Kingstown Water Dept.	294-3331 X233		slicardi@northkingstown.org
Loomis, George	URI	874-4558	874-4561	gloomis@uri.edu
Riordan, Jim	RIDEM	222-4700X4421	521-4230	jriordan@dem.state.ri.us
Walsh, Alison	EPA	617-918-1593	617-918-1029	Walsh.alison@epa.gov

Appendix H-2 - ISDS Outreach and Training Working Group Issues Evaluated

Appendix H-2 ISDS Outreach and Training Working Group Issues Evaluated
Policy Issues
1. *DEM should be proactive in working with communities, CRMC on ISDS issues. A mechanism should be created to evaluate de-nitrification issues, etc. and the support of new wastewater management districts.
2. Additional emphasis should be placed on maintenance and inspection of ISDS. A significant number of the existing systems have failed and need to be repaired.
3. *DEM, the Department of Health and the Department of Administration should provide resources to the municipalities concerning wastewater issues, especially to support wastewater management districts. DEM should review its permitting policies in these districts to support the installation of innovative alternative ISDS applications.
Administrative Issues
Training Issues
1. *Support continuing education for wastewater practitioners.
2. DEM should sponsor homeowner training on maintenance of ISDS.
3. Municipalities do not have the expertise to track ISDS issues. If DEM wants to utilize the municipalities in the program, additional training efforts need to be directed to this constituency.
4. There are inconsistencies in application review and inspection (by region). DEM should look at instituting internal staff training.
5. Send more DEM employees to training concerning I/A technology. Training opportunities are limited due to the workload of the personnel.
Outreach Activities
1. DEM should consider utilizing water districts, the local conservation commissions, or municipalities to assist DEM on outreach especially with respect to I/A technology maintenance requirements.
2. Educate ISDS owners about the benefits of proper maintenance, water conservation and proper use of an ISDS. Use the application approval process as an opportunity to convey this information.
3. Update the existing permit guide.
4. The ISDS program should meet with the regulated community on a regular basis using seminars and informal meetings to discuss issues of concern.
5. Conduct an annual meeting with licensed designers to review regulatory requirements, explain changes in procedures, accept comments and provide discussion of emerging issues.

RIDEM Director's ISDS Task Force Outreach and Training Subgroup

Final Report



Prepared by
Jim Riordan
RIDEM, Office of Water Resources

Introduction

RIDEM formed the ISDS Outreach and Training Working Subgroup as an outgrowth of the Director's ISDS Task Force. The subgroup met twice in 2000--on October 3 and October 23--to address 13 issues identified by the larger task force as priorities. In addition to these 13, the subgroup subsequently identified 5 additional issues that its members considered to be very important. Jim Riordan, Principal Environmental Scientist, of RIDEM's Office of Water Resources, chaired the subgroup. The following individuals were invited to participate as subgroup members:

Kendra Beaver, Save the Bay
Joe Frisella, Frisella Engineering
Darlene Gardner, Superior Septic Services
Tom Getz, RIDEM
Tricia Jedele, RI Department of Attorney General
Sue Licardi, North Kingstown Water Department
George Loomis, URI
Jim Riordan, RIDEM
Alison Walsh, EPA

The following summarizes the subgroup's findings:

Outreach

Septic systems need regular inspection and maintenance to function properly. While RIDEM has been responsible for septic system permitting for the better part of the last three decades, the department does not have the resources to shoulder all wastewater management tasks. Municipalities are beginning to develop programs to ensure proper routine inspection and maintenance.

RIDEM already supports technical information transfer through such groups as the Septic System Maintenance Policy Forum. Using the policy forum as a sounding board RIDEM developed two technical manuals:

1. *Septic System Checkup--The Rhode Island Handbook for Inspection*. This 100 (plus)-page handbook provides detailed information on how inspect a septic system for maintenance purposes as well as property transfer. RIDEM develop the handbook primarily for wastewater professionals. However, homeowners may also find it useful. It is available on the web at:

<http://www.state.ri.us/dem/pubs/regs/regs/water/isdsbook.pdf>

2. *Rhode Island Municipal Programs and Standards Manual*. This reference summarizes all Rhode Island municipal policies and programs related to septic system design and management. The manual also includes a copy of each municipality septic system ordinances and regulations. It is available on the web at:

<http://www.state.ri.us/dem/programs/benviron/water/finance/non/pdfs/munisep.pdf>

Municipalities continue to benefit from RIDEM's technical assistance. RIDEM should continue to work with municipalities to develop wastewater management programs. This should include promoting use of nitrogen reduction and other advanced septic system technologies; upgrade of failed and substandard systems; education and training for homeowners; improved tracking systems (e.g., computerized tracking); and septic disposal.

RIDEM also continues to provide municipalities with financial assistance through its onsite wastewater management planning grant program, which the department developed in conjunction with the septic system maintenance policy forum. The department has already provided 20 communities with planning and program implementation grants. Six of these grants were awarded on July 27, 2001 pursuant to the most recent grant round.

RIDEM has also made assistance available to implement approved onsite wastewater management plans. The first competitive grant round for this funding was opened in May 2001. Proposals are currently under review.

Though financial assistance is being made available to homeowners through the Community Septic System Loan Program, additional financing will probably be necessary to ensure the expedient removal of failed and substandard systems and to ensure grassroots support for municipal wastewater management programs. RIDEM in partnership with other state agencies as well as municipalities should continue to seek out and develop new conduits for homeowner financial assistance.

Communities with an RIDEM-approved plan become eligible to participate in the Community Septic System Loan Program (CSSLP). CSSLP is a low-interest loan program designed to provide municipalities with access to funding for homeowners that will allow the owners upgrade their failed and substandard ISDS. Ultimately, funds are lent to individuals at 4% for a 10-year term. The Rhode Island Clean Water Finance Agency, which administers the program, developed CSSLP in conjunction with RIDEM and with input from the Septic System Maintenance Policy Forum. Two communities have established loan programs and several others are on the cusp of implementation.

Training

RIDEM has taken very significant steps to train its staff and provide learning opportunities for interested members of the private sector. Notwithstanding, there are still gaps that need to be filled. RIDEM should provide increased training (including technical information transfer) opportunities for the regulated community (i.e., wastewater professionals and homeowners), municipal officials and RIDEM staff. Professional training should focus on innovative and alternative systems. Homeowner education should focus on conventional system maintenance, water conservation, RIDEM's permitting process and the ins and outs of owning innovative and alternative systems.

Achievements

Municipal Wastewater Programs Reference Manual in final draft. The reference manual is now on the web.

<http://www.state.ri.us/dem/programs/benviron/water/finance/non/pdfs/munisep.pdf>

Hard copies have been distributed to town managers, public works directors, municipal planners and chief elected officials.

An Onsite Wastewater Management Planning Request for Grant Proposals was issued March 12, 2001. An RFP package was sent to town managers, public works directors, municipal planners and chief elected officials. RIDEM received proposals from 6 municipalities. All were approved and \$135,000 in grants was awarded to the municipalities.

Septic System Checkup has been distributed to town managers, public works directors, municipal planners and chief elected officials. Hardcopies are available at RIDEM's Office of Technical and Customer Assistance. The handbook is also on the web at:

<http://www.state.ri.us/dem/pubs/regs/regs/water/isdsbook.pdf>


RIDEM discussed the potential for a septic system improvement tax credit in the November 29, 2000 and February 7, 2001 Septic System Maintenance Policy Forum meetings. Legislation for a tax credit for upgrade/repair of septic systems (2001--H 6173) was drafted by the Charlestown Wastewater Management Board and by submitted by Rep. Gene Garvey (Charlestown) at the board's request.

RIDEM discussed a potential section 106(b) grant proposal for statewide septage-receiving facility planning. The grant proposal was submitted, but was not accepted for funding. RIDEM will continue to pursue money for planning through venues.

The following pages comprise a report of subgroup activities and include:

- A tabular summary of strategies, tasks and expected outcomes of the issues addressed by the subgroup.
- Meeting summaries of the two subgroup meetings.

Outreach and Training Working Group Recommendations

Issue	Strategy	Task	Who	When	Measure of Success
Policy Issues					
1.*DEM should be proactive in working with communities, CRMC on ISDS issues. A mechanism should be created to evaluate de-nitrification issues, etc. and the support of new wastewater management districts.	There is an existing Septic System Policy Forum that has been working with the municipalities. We should focus this group to work on some of these concerns.	<ul style="list-style-type: none"> - Complete development of the Rhode Island Municipal Wastewater Programs Reference Manual. - Develop a yearly evaluation report to track success on this issue. 	DEM (Jim Riordan)	<ul style="list-style-type: none"> - End of Calendar Year '00 - Oct. '01 	<ul style="list-style-type: none"> - Reference Manual complete. - See discussion of report (below). - Survey RI communities to determine levels of implementation
2. Additional emphasis should be placed on maintenance and inspection of ISDS. A significant number of the existing systems have failed and need to be repaired.	DEM has a strategy for this item, which includes development of an inspection procedure, community planning grants and low-interest loan moneys for system repair and upgrade. However, homeowners are still not getting all the information they need.	<ul style="list-style-type: none"> - DEM will develop a press / outreach plan to better publicize information available. This will be coordinated with URI and other stakeholders through the Septic System Maintenance Policy Forum. - DEM will reissue the grant RFP for community planning this fall. 	DEM (Jim Riordan)	<ul style="list-style-type: none"> - Outreach plan to be developed Nov '00 and Feb '01 (next two policy forum meetings) - RFP is planned for Dec '00 	<ul style="list-style-type: none"> - Outreach plan - Response to RFP
3. *DEM, the Department of Health and the Department of Administration should provide resources to the municipalities concerning wastewater issues, especially to support wastewater management districts. DEM should review its permitting policies in these districts to support the installation of innovative alternative ISDS applications.	<p>This is being addressed as described above.</p> <p>Consider holding a conference on I/A technology and municipal program development</p>		TBD	TBD	 Attendance at conference

Outreach and Training Working Group Recommendations

Issue	Strategy	Task	Who	When	Measure of Success
Administrative					
Training Issues					
1. *Support continuing education for wastewater practitioners.	URI currently has a training facility, which provides professional training. DEM has supported URI with a number of grants.	Evaluate effectiveness of training programs with a yearly evaluation.	DEM (Jim Riordan) in cooperation with URI (George Loomis)	Oct '01	
2. DEM should sponsor homeowner training on maintenance of ISDS.	See above.				→
3. Municipalities do not have the expertise to track ISDS issues. If DEM wants to utilize the municipalities in the program, additional training efforts need to be directed to this constituency.	<ul style="list-style-type: none"> - Municipalities are able to use planning grants as described in Issue 1-2 for this purpose. - Consider developing a training course in cooperation with URI. 	<ul style="list-style-type: none"> - Report on effectiveness of current initiatives. - Coordinate with URI on the development of a training program if desired. 	<ul style="list-style-type: none"> - Report—DEM (Jim Riordan) - TBD 	<ul style="list-style-type: none"> - Oct '01 - TBD 	<ul style="list-style-type: none"> - See report. - Contingent on tasks.
4. There are inconsistencies in application review and inspection (by region). DEM should look at instituting internal staff training.	This has been less a problem than in the past. There is an internal process to minimize inconsistencies.	N/A			→
5. Send more DEM employees to training concerning I/A technology. Training opportunities are limited due to the workload of the personnel.	DEM is hiring an I/A coordinator to developed procedures to inform employees of newly approved I/A technology and allows employees to attend training courses on the subject.	<ul style="list-style-type: none"> - Keep a list of who attends. - Consider a requirement for staff to attend regular training sessions. 	DEM (Russ Chateau-neuf, Brian Moore)	TBD	→

Outreach and Training Working Group Recommendations

Issue	Strategy	Task	Who	When	Measure of Success
Outreach Activities					
1. DEM should consider utilizing water districts, the local conservation commissions, or municipalities to assist DEM on outreach especially with respect to I/A technology maintenance requirements.	- This is being done.	Analyze each type of I&A technology to determine management capacity, make recommendations and develop strategy for improvement. Refer also to Task 4 under Parking Lot.	DEM (Jim Riordan), Policy Forum	TBD	A comprehensive strategy for improvement.
2. The ISDS program should meet with the regulated community on a regular basis using seminars and informal meetings to discuss issues of concern.	Russ and Brian meet extensively with the regulated community and the Associations that work on ISDS systems.	N/A			→
3. Educate ISDS owners about the benefits of proper maintenance, water conservation and proper use of an ISDS. Use the application approval process as an opportunity to convey this information.	DEM OWR recently completed a handbook that addresses maintenance and inspection issues extensively.	A plan for distribution of outreach materials will be developed in cooperation with the policy forum.	DEM (Jim Riordan)	Nov '00	Outreach plan and subsequent distribution of materials
4. Develop a permit guide	→	Develop a permit guide	Deb Knauss	TBD This would be nice to budget into the rule change supportive material (summer 02?)	Permit guide
5. Conduct an annual meeting with licensed designers to review regulatory requirements, explain changes in procedures, accept comments and provide discussion of emerging issues.	This is done informally. We should consider a yearly DEM sponsored forum on ISDS issues with this constituency.	Hold a formal meeting in February, or March etc.	Deb Knauss	TBD The program is developing a memo to designers. A series of meetings would be a nice follow-up, but we must consider the rule change timeline (pre-notice workshops)	- Annual meeting. Recommendations for emerging issues.

Outreach and Training Working Group Recommendations

Issue	Strategy	Task	Who	When	Measure of Success
Other Issues					
1. Not enough people are upgrading their substandard systems. Lack of financial assistance for homeowners impedes the development of inspection-based management programs	Some states, such as MA, offer tax credits for repair of failed/substandard systems. RI should consider this.	Consider legislation to offer a tax credit (e.g. MA's credit = \$1,500/yr for up to \$6,000).	Policy Forum (Jim Riordan) Director's Office	TBD	→
2. Better and more extensive standardization of I, O & M procedures for I & A systems. (No specific recommendations were developed for this issue)					
3. Inspection, operation and maintenance of innovative and alternative systems is not occurring on a routine basis.	Increased homeowner accountability for I, O & M of I & A systems once they are installed.	- Increase tracking of these systems through DEM or another entity (e.g. utility, local district, etc.). - Require liens and deed restrictions for I, O & M as part of mortgages. This would probably require new legislation.	TBD		→
4. Homeowners are ill informed regarding the implications of owning an I & A technology.	Increase homeowner education and awareness. Encourage designers to provide this information up front.	Develop a fact sheet with a matrix of different types of I & A technology by characteristics and implications. Include information such as system cost, appropriate applications of technology, pollutant removal capacity, etc.	DEM, Policy Forum	TBD	→
5. Septage receiving facilities lack the capacity to accept peak-level disposal especially in the summer	Provide incentives to increase capacity.	Develop financial assistance (e.g., grants) to upgrade septage-receiving capacity at local plants. Consider requiring reduced tipping fees as a condition of grants. This might require a bond issue.	DEM, Policy Forum	TBD	→

* Added at the August 21, 2000 meeting of the ISDS Task Force.

ISDS Task Force
Outreach and Training Workgroup
October 3, 2000 Meeting Notes

Attendants

Joe Frisella, Darlene Gardner, Tom Getz, Jim Riordan

Opening remarks

Jim Riordan gave opening remarks and recommended that the workgroup focus on categories of issues (e.g., septic system inspection).

Issues discussed

- Addressed 3 recommendations related to inspection, operation and maintenance (I, O & M) Policy Issue 2, Administrative Training Issue 2 and Administrative Outreach Issue 3.
- Also discussed homeowner understanding of implications associated with installing and owning an I & A system (e.g., O & M responsibility, electricity costs, aesthetics, etc.).

Current resources available

- DEM has developed an inspection handbook for conventional systems, which is currently in press and will be fully printed later this month.
- URI offers training courses on I, O & M for both the layperson and professional.
- 6 RI communities have adopted the handbook as an inspection standard by ordinance. 15 RI communities have or are currently working on the development of onsite system maintenance programs. DEM has provided 14 grants for this work.

Current needs and recommendations

- A plan to publicize the availability of resources for homeowners, bankers, realtors, professionals and communities. DEM plans to develop a strategy for distribution of the inspection handbook and to reissue the grant RFP for onsite system maintenance programs this fall. The Septic System Maintenance Policy Forum will be used for stakeholder input on these tasks.
- Better and more extensive standardization of I, O & M procedures for I & A systems. (No specific recommendations were developed for this issue)
- Increased homeowner accountability for I, O & M of I & A systems once they are installed. Suggestions were made to increase tracking of these systems through DEM or another entity (e.g. utility, local district, etc.). Require liens and deed restrictions for I, O & M as part of mortgages. This would probably require new legislation.
- Homeowners are ill informed regarding the implications of owning an I & A technology. The group recommended developing a fact sheet with a matrix of different types of I & A technology by characteristics and implications.

Agenda for next meeting (Oct. 23)

- Opening remarks
- Review of 10/3 meeting summary
- Facilitated discussion of issues:
 - What should be done to improve standardization of I, O & M for I & A systems?
 - What can be done to increase owner accountability for I, O & M of I & A systems?
 - Identify and address next issue (recommendation: mechanism to evaluate denitrification issues).
- Adjourn

ISDS Task Force
Outreach and Training Workgroup
October 23, 2000 Meeting Notes

Attendants

Darlene Gardner, Jim Riordan

Opening remarks

Jim Riordan gave opening remarks and recommended that the workgroup continue to identify tasks and work participants issue by issue, giving consideration to the work of the previous meeting.

Policy

Issue 2--Place more emphasis on inspection/maintenance and reduce ISDS failure rate.

- DEM currently has a strategy for this item, which includes providing information, financial and technical assistance to communities. A low-interest loan program for system upgrade and repair has been developed. To further work on this issue, DEM will develop a press/outreach plan with the Septic System Maintenance Policy Forum (SSMPF). DEM will reissue a grant solicitation for communities interested in developing wastewater management programs.
- Q: Can DEM send out a fact sheet on ISDS maintenance as mass mailing to everyone in RI who owns a septic system? A: This is not practical. Address information is often not in new system permits as systems may be permitted in new subdivision where street names and addresses do not exist.

Administrative--Training

Issue 1--Education for wastewater practitioners.

- URI currently provides training. URI may also generate reports on attendance. Jim Riordan should contact George Loomis to determine if attendance could be reported under the following categories--class of designer, pumpers and municipal officials.
- Municipal officials may wish to attend the URI training as part of grants they receive for wastewater management planning.

Issue 3--Municipalities need increased capacity and training to track ISDS issues.

- Communities can currently undertake this work as part wastewater management planning grants.

Issue 4--Inconsistency in application review.

- This issue has been previously addressed by DEM and should no longer be a problem.

Issue 5--DEM ISDS inspectors should have more opportunity to get I/A training.

- DEM makes this training available.

Administrative--Outreach

Issue 1--DEM should use local agencies to provide outreach, especially on I/A technologies.

- DEM will analyze I/A technologies to determine local and state capacity for management, recommendations for improved management and develop an improvement strategy.

Issue 2--The ISDS program should meet with the regulated community on a regular basis to discuss issues of concern.

- Russ and Brian are already doing this.

Issue 4--DEM should develop a permit guide.

- Consider whether the Office of Technical and Customer Assistance could do this.

Issue 5--Conduct an annual meeting with licensed designers.

- This is already being done informally. DEM will consider making it formal.

Parking Lot

- Consider incentives for repair/replacement of failed/substandard ISDS. Consider development of a tax credit for repair/replacement such as is being used in MA.
- Septage receiving facilities are often over capacity in the summer. Consider seeking a grant to examine this issue, plan improvements and implement changes as necessary.

Exit Strategy

- Presentation in the full workgroup for comment.
- Present findings of the workgroup to the Septic System Maintenance Policy Forum.
- Revise findings as necessary and finalize.
- Make a report on progress in one year.

Appendix I-1 ISDS Customer Service Working Group Membership

Appendix I-1 ISDS Customer Service Working Group Membership				
Name	Organization	Phone	Fax	E-mail
Scott Moorhead	SFM Engineering Assn.	826-3736	826-1711	sfmengineer@earthlink.net
Brian Moore	DEM	222-2306	222-6177	bmoore@dem.state.ri.us
Nancy Sousa	DEM	222-6820 x7717	222-6177	nsousa@dem.state.ri.us

Appendix I-2 Customer Service Working Group Summary

Customer Service Working Group Issues	
Policy Issues	
1.	Establish a definitive policy on ISDS repairs including minimum requirements and expedited processes for approval while maintaining cost sensitivity to homeowners while protecting the environment.
Administrative Issues	
1	Initiate a one-stop review of Water Quality Certifications, ISDS, Wetlands and CRMC (if necessary) applications.
2	*DEM should dedicate a full time position to I/A activities.
3	The ISDS program should adopt the wetlands program approach of redlining minor changes on applications instead of sending the application back for modifications. Plans are over-reviewed. Plans should be evaluated for the ability of the system to process waste and not for the plans ability to meet all the non-substantive requirements of the regulations.
4	DEM should develop a checklist that helps define the role of the designer in the field. There are some questions concerning the amount and kinds of oversight a designer has over an ISDS installation.
5	DEM should consider implementing field offices for the inspectors. It would be more efficient for the inspectors to conduct the field visits from these offices rather than from Providence.
6	Review the information that we collect and ensure it is necessary to process the application.
7	The Multi-part form should be revised. The last page is barely legible and is not a standard size and is difficult to copy. Consider issuing the forms on a computer disk and/or allow for electronic submittal of applications. Increase use of e-mail for supplying application information to DEM.
8	Update the pink sheet check list that is submitted with the application.
9	Place ISDS status information on the Internet.
10	Inspection reports should be sent to the designer and not left with the installer.
11	Provide the Office of Customer and Technical Assistance with a Frequently Asked Questions and Answers brochure on typical concerns raised by applicants.
12	Return phone calls in a timely manner.
13	Hire an additional person to handle phone calls to allow technical staff to process applications.
14	During wet season, field personnel should not be assigned technical assistance phone duty.
15	OTCA should provide more support for programmatic questions.
16	Train clerical staff to be able to respond to more technical questions from the public.


*Included as a concern at the initial Task Force Meeting.

Appendix J - Revised “Pink Sheet” Application Checklist

From Brian Moore

Appendix K - Designer Field Checklist
From Brian Moore

Appendix L-1 Outreach and Training Recommendations Implementation Schedule

Appendix L- 1 Outreach and Training Recommendations Implementation Schedule					
Issue	Strategy	Task	Who	When	Measure of Success
Policy Issues					
1. *DEM should be proactive in working with communities, CRMC on ISDS issues. A mechanism should be created to evaluate de-nitrification issues, etc. and the support of new wastewater management districts.	There is an existing Septic System Policy Forum that has been working with the municipalities. We should focus this group to work on some of these concerns.	- Complete development of the Rhode Island Municipal Wastewater Programs Reference Manual. - Develop a yearly evaluation report to track success on this issue.	DEM (Jim Riordan)	- End of Calendar Year '00 - Oct. '01	- Reference Manual complete. - See discussion of report (below). - Survey RI communities to determine levels of implementation
2. Additional emphasis should be placed on maintenance and inspection of ISDS. A significant number of the existing systems have failed and need to be repaired.	DEM has a strategy for this item, which includes development of an inspection procedure, community planning grants and low-interest loan moneys for system repair and upgrade. However, homeowners are still not getting all the information they need.	- DEM will develop a press / outreach plan to better publicize information available. This will be coordinated with URI and other stakeholders through the Septic System Maintenance Policy Forum. - DEM will reissue the grant RFP for community planning this fall.	DEM (Jim Riordan)	- Outreach plan to be developed Nov '00 and Feb '01 (next two policy forum meetings) - RFP is planned for Dec '00	- Outreach plan - Response to RFP
3. *DEM, the Department of Health and the Department of Administration should provide resources to the municipalities concerning wastewater issues, especially to support wastewater management districts. DEM should review its permitting policies in these districts to support the installation of innovative alternative ISDS applications.	This is being addressed as described above. Consider holding a conference on I/A technology and municipal program development		TBD	TBD	Attendance at conference 

Outreach and Training Recommendations Implementation Schedule

Issue	Strategy	Task	Who	When	Measure of Success
Administrative					
Training Issues					
6. *Support continuing education for wastewater practitioners.	URI currently has a training facility, which provides professional training. DEM has supported URI with a number of grants.	Evaluate effectiveness of training programs with a yearly evaluation.	DEM (Jim Riordan) in cooperation with URI (George Loomis)	Oct '01	
7. DEM should sponsor homeowner training on maintenance of ISDS.	See above.				→
8. Municipalities do not have the expertise to track ISDS issues. If DEM wants to utilize the municipalities in the program, additional training efforts need to be directed to this constituency.	<ul style="list-style-type: none"> - Municipalities are able to use planning grants as described in Issue 1-2 for this purpose. - Consider developing a training course in cooperation with URI. 	<ul style="list-style-type: none"> - Report on effectiveness of current initiatives. - Coordinate with URI on the development of a training program if desired. 	<ul style="list-style-type: none"> - Report—DEM (Jim Riordan) - TBD 	<ul style="list-style-type: none"> - Oct '01 - TBD 	<ul style="list-style-type: none"> - See report. - Contingent on tasks.
9. There are inconsistencies in application review and inspection (by region). DEM should look at instituting internal staff training.	This has been less a problem than in the past. There is an internal process to minimize inconsistencies.	N/A			→
10. Send more DEM employees to training concerning I/A technology. Training opportunities are limited due to the workload of the personnel.	DEM is hiring an I/A coordinator to develop procedures to inform employees of newly approved I/A technology and allows employees to attend training courses on the subject.	<ul style="list-style-type: none"> - Keep a list of who attends. - Consider a requirement for staff to attend regular training sessions. 	DEM (Russ Chateau-neuf, Brian Moore)	TBD	→

Outreach and Training Recommendations Implementation Schedule

Issue	Strategy	Task	Who	When	Measure of Success
Outreach Activities					
1. DEM should consider utilizing water districts, the local conservation commissions, or municipalities to assist DEM on outreach especially with respect to I/A technology maintenance requirements.	- This is being done.	Analyze each type of I&A technology to determine management capacity, make recommendations and develop strategy for improvement. Refer also to Task 4 under Parking Lot.	DEM (Jim Riordan) , Policy Forum	TBD	A comprehensive strategy for improvement.
2. The ISDS program should meet with the regulated community on a regular basis using seminars and informal meetings to discuss issues of concern.	Russ and Brian meet extensively with the regulated community and the Associations that work on ISDS systems.	N/A			→
3. Educate ISDS owners about the benefits of proper maintenance, water conservation and proper use of an ISDS. Use the application approval process as an opportunity to convey this information.	DEM OWR recently completed a handbook that addresses maintenance and inspection issues extensively.	A plan for distribution of outreach materials will be developed in cooperation with the policy forum.	DEM (Jim Riordan)	Nov '00	Outreach plan and subsequent distribution of materials
4. Develop a permit guide	→	Develop a permit guide	Deb Knauss	TBD This would be nice to budget into the rule change supportive material (summer 02?)	Permit guide
5. Conduct an annual meeting with licensed designers to review regulatory requirements, explain changes in procedures, accept comments and provide discussion of emerging issues.	This is done informally. We should consider a yearly DEM sponsored forum on ISDS issues with this constituency.	Hold a formal meeting in February, or March etc.	Deb Knauss	TBD The program is developing a memo to designers. A series of meetings would be a nice follow-up, but we must consider the rule change timeline (pre-notice workshops)	- Annual meeting. Recommendations for emerging issues.

Outreach and Training Recommendations Implementation Schedule

Issue	Strategy	Task	Who	When	Measure of Success
Other Issues					
6. Not enough people are upgrading their substandard systems. Lack of financial assistance for homeowners impedes the development of inspection-based management programs	Some states, such as MA, offer tax credits for repair of failed/substandard systems. RI should consider this.	Consider legislation to offer a tax credit (e.g. MA's credit = \$1,500/yr for up to \$6,000).	Policy Forum (Jim Riordan) Director's Office	TBD	→
7. Better and more extensive standardization of I, O & M procedures for I & A systems. (No specific recommendations were developed for this issue)					
8. Inspection, operation and maintenance of innovative and alternative systems is not occurring on a routine basis.	Increased homeowner accountability for I, O & M of I & A systems once they are installed.	<ul style="list-style-type: none"> - Increase tracking of these systems through DEM or another entity (e.g. utility, local district, etc.). - Require liens and deed restrictions for I, O & M as part of mortgages. This would probably require new legislation. 	TBD		→
9. Homeowners are ill informed regarding the implications of owning an I & A technology.	Increase homeowner education and awareness. Encourage designers to provide this information up front.	Develop a fact sheet with a matrix of different types of I & A technology by characteristics and implications. Include information such as system cost, appropriate applications of technology, pollutant removal capacity, etc.	DEM, Policy Forum	TBD	→
10. Septage receiving facilities lack the capacity to accept peak-level disposal especially in the summer	Provide incentives to increase capacity.	Develop financial assistance (e.g., grants) to upgrade septage-receiving capacity at local plants. Consider requiring reduced tipping fees as a condition of grants. This might require a bond issue.	DEM, Policy Forum	TBD	→

* Added at the August 21, 2000 meeting of the ISDS Task Force.

Appendix L-2 Customer Service Recommendations Implementation Schedule

Appendix L-2			Customer Service Recommendations Implementation Schedule		
Customer Service Working Group Issue		DEM Action		Completion Date	
No	Policy Issues				
1.	Establish a definitive policy on ISDS repairs including minimum requirements and expedited processes for approval while maintaining cost sensitivity to homeowners while protecting the environment.	Completed			
No	Administrative Issues				Completion Date
1.	Initiate a one-stop review of Water Quality Certifications, ISDS, Wetlands and CRMC (if necessary) applications.	DEM will initiate a review of ISDS applications and will concurrently process appropriate applications with the Wetlands, Water Quality and CRMC programs.			
2.	*DEM should dedicate a full time position to I/A activities.	The Office will dedicate a full time position to work on I/A activities. This position will be responsible for assisting in the review of these applications, keeping up to date on the technology and being a source for internal training. The position has been posted and will be filled in the future as soon as the statewide budgetary shortfall is addressed.			
3.	The ISDS program should adopt the wetlands program approach of redlining minor changes on applications instead of sending the application back for modifications. Plans are over-reviewed. Plans should be evaluated for the ability of the system to process waste and not for the plans ability to meet all the non-substantive requirements of the regulations.	The ISDS program allows redlining of applications in instances where the changes are minor or are related to a repair application where timing of the application approval is critical and the changes are not substantive.			
4.	DEM should develop a checklist that helps define the role of the designer in the field. There are some questions concerning the amount and kinds of oversight a designer has over an ISDS installation.	The ISDS program has developed a checklist (Appendix K) that helps to define the role of the designer in the field. In addition, the field guidance documents will be made available to designers and license holders and will be posted on the web.			
5.	DEM should consider implementing field offices for the inspectors. It would be more efficient for the inspectors to conduct the field visits from these offices rather than from Providence.	Field Offices were once used by DEM to house field inspectors. This system was used in the past and was not considered an effective use of personnel.			
6.	Review the information that we collect and ensure it is necessary to process the application.	DEM has reviewed the information that supports the application process and has determined that this information needs to be collected. The program will certainly be open to discuss specific changes to the form that will make the process more efficient and protective of the environment.			

Customer Service Recommendations Implementation Schedule

Customer Service Working Group Issue		DEM Action	Completion Date
7.	The Multi-part form should be revised. The last page is barely legible and is not a standard size and is difficult to copy. Consider issuing the forms on a computer disk and/or allow for electronic submittal of applications. Increase use of e-mail for supplying application information to DEM.	DEM is evaluating the multi-part form to determine in the short term if a better supplier of forms is available to respond to the problem of poor quality of the fourth page of the form. In the long-term, DEM will evaluate the use of electronic submission of the application or parts of the application. This could be an issue that gets studied under another phase of the Kyran Permit Streamlining Process.	
8.	Update the pink sheet check list that is submitted with the application.	The pink sheet will be updated to reflect changes in the regulations. (Pre-update pink sheet available as Appendix J)	
9.	Place ISDS status information on the Internet.	ISDS application information will be posted on the internet. The Kyran process was envisioned to accomplish this task. Due to budgetary issues, implementation of this process has been pushed back	
10.	Inspection reports should be sent to the designer and not left with the installer.	Inspection Reports will be sent to the designer and not left with the installer. This process will be used when an inspection notes a problem. In this case a Request for Further Action form will be sent to the designer.	
11.	Provide the Office of Customer and Technical Assistance with a Frequently Asked Questions and Answers brochure on typical concerns raised by applicants.	The Office of Technical and Customer Assistance and the ISDS program will work together to update the Frequently Asked Questions brochure that can be used to help citizens understand the ISDS application process.	
12.	Return phone calls in a timely manner.	Phone calls being returned in a timely manner can be a problem due to the volume of applications received in some parts of the year. DEM recognizes this is a problem and has assigned help from other parts of the Water Program to help field calls.	
13.	Hire an additional person to handle phone calls to allow technical staff to process applications.	Due to budgetary restraints, another person can not be hired to assist on answering calls.	
14.	During wet season, field personnel should not be assigned technical assistance phone duty.	Field personnel will not required to provide general technical assistance but instead will be assigned consistently to permit review.	
15.	OTCA should provide more support for programmatic questions.	OTCA will respond to customer phone calls that they are capable of answering that come into the switchboard. This office is also available to hold pre-application meetings as appropriate.	
16.	Train clerical staff to be able to respond to more technical questions from the public.	DEM has studied the issue of training the clerical staff to be able to respond to technical questions from the public. Use of the people in this manner would require extensive training and would then take them out of the clerical classification. Since the number of staff will not be increase in the near term due to state budgetary problems, training the clericals will solve one customer service issue, but will leave us with a clerical shortfall problem	N/A