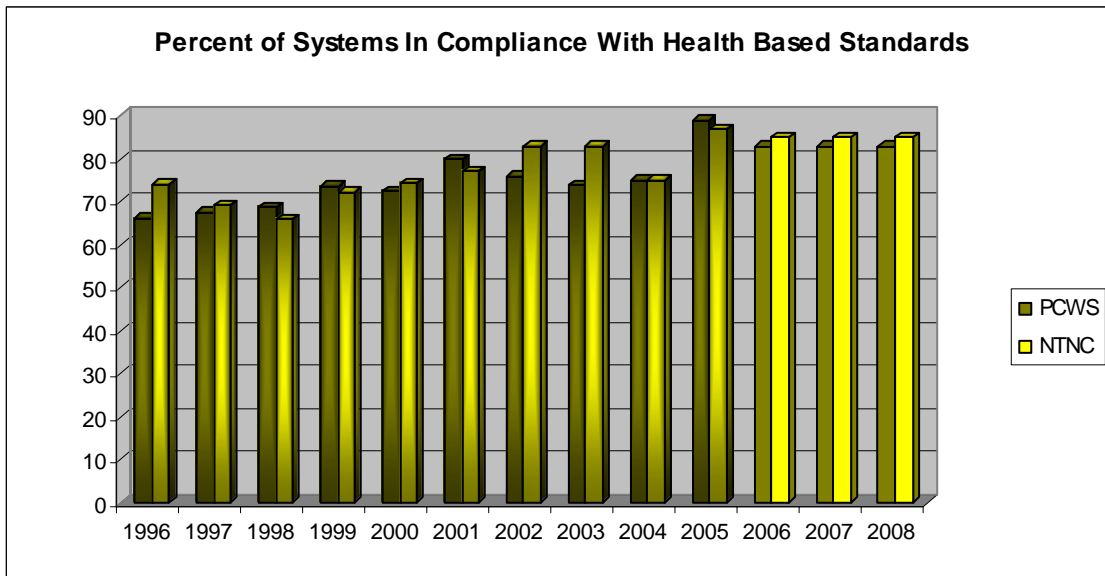


**Desired Results**

Increased protection and development of safe drinking water through operational review of water systems, compliance review and assistance, operator training, and enforcement.

**Key Indicators**

Percent of Systems Meeting Performance Based Standards



**Story Behind Baseline Performance**

Vermont is committed to promoting public water system compliance through providing outreach and technical assistance, conducting sanitary survey inspections, education and training, operator certification, and using enforcement activities as a last resort.

**Strategies/Projects**

Starting in 2004, the division awarded two contracts effective 4/1/04-3/31/05: one to conduct quarterly monitoring for total coliform bacteria and educate TNCs on sampling technique and monitoring requirements; and the other to provide technical assistance in response to coliform bacteria contamination or system deficiencies. Both of these contracts were extended to 2005: the monitoring contract until June 30, 2005, and the technical assistance contract until September 30, 2005. The primary goal of this project is to help TNC staff transition from annual to quarterly bacteriological monitoring; and to help systems with contamination to find and eliminate the source of contamination.

The Division coordinated coliform bacteria and nitrate testing (at no fee to TNCs) for this project with the Department of Environmental Conservation Lab which all test results electronically to the WSD computer inventory. The Division continues to work closely with the Department of Health regarding potential health risks and requiring public notice for non-routine situations.

To date, the project has been as a success in helping TNCs to transition to quarterly monitoring. As of April 2005, at least 500 of the 700 TNCs were visited at least once.

The remaining 200 systems were not visited either because the system decided to sample themselves or the contractors could not reach system personnel. By the end of the project, TNCs that participated in the project will be fully trained to do their own sampling and have a bacteriological sampling plan.

#### NTNC and PCWs sanitary surveys and permits to operate-

Per the Vermont Water Supply Rule, all public water systems in Vermont are required to have a permit to operate in place prior to operation. Permits outline information about the system, identify system deficiencies, and include a compliance schedule.

In February 2005 the division eliminated the permit backlog and has worked toward staying current with issuing permits for the remainder of 2005. Following completion of the project, in March 2005, one permit writer position was made permanent which has helped us in our efforts.

The operating permit was redesigned and redefined to match the mandates of the division. The division has developed an effective process of writing comprehensive permits which clearly and consistently communicate Vermont Water Supply Rule requirements. The permit also serves as an effective tool for moving recalcitrant water systems along to enforcement.

In May 2005, the division initiated a pilot to evaluate the use of SWIFT-TAD (a purchased add-on module to SDWIS) for three months. On October 26, 2005, following the pilot, WSD staff met with the SDWIS consultant to discuss proposed changes the division would like to make to SWIDT-TAD to better suit our needs. This work is in process.

#### Assessment, Technical Assistance and Direct Services 2006

Major efforts in this area for the Operations and Compliance Section include providing on-site technical assistance, (including selective water quality sampling) to systems with fecal coliform contamination, major deficiencies, or other circumstances potentially affecting the quality and quantity of water and public health of customers served by community, non-transient non-community and transient non-community water systems. EPA provided sanitary survey training for all field staff in September 2004 which will enhance our efforts to provide technical assistance.

#### Grants and Contracts 2006

Grants and contracts affiliated with the Operations and Compliance Section include:

- 1) Operator training/assistance funding under the EPA Expense Reimbursement Grant. The section will review the ERG work plan annually and continue to reimburse operators for course fees, certification and exam fees. Two contracts have been award under the ERG: a) VRWA for a training coordinator and part-time assistance, and b) GMWEA for operator training;
- 2) Drinking Water State Revolving Fund Set-aside funding to fund an expert in water chemistry (temporary employee) to provide technical assistance to our surface water systems and ground water systems requiring to modify or install treatment; and
- 3) Two contracts to help TNC systems transition from annual to quarterly bacteriological monitoring, and to help systems with contamination to find and eliminate the source of contamination; and

- 4) Drinking Water State Revolving Fund Set-aside funding for emergency assistance which will be used on a case by case basis to help water systems facing an immediate crisis;

#### Regulations, Compliance Assistance, Monitoring and Enforcement 2005, 2006

Efforts in this area for the Operations and Compliance Section for 2004 - 2005 focused on implementation of Stage 1 Disinfectants and Byproducts Rule and LT1 Enhanced SWTR. In early 2005, the Chemist (employed by the set-aside funds) and the Compliance Staff revised the monthly operations report form to mirror the reporting requirements for the LT1WTR. Our Chemist has assisted water systems in completing the form correctly and is reviewing the information on the monthly report to assess compliance with the rule. This work has been ongoing and has helped us to identify systems which may not be in compliance with the rule.

Compliance assistance continues through sanitary survey inspections, including a written summary of the sanitary survey which outlines system deficiencies; providing technical assistance with operational issues and emergency situations; automatically generating monitoring schedules; operator training; and the two contracts for the TNCs as described under #1 above.

The Enforcement Workgroup is challenged with prioritizing systems and types of problems for enforcement actions, and managing the large volume of systems not meeting their permit to operate milestones. The group continues to focus on systems on boil water and do not drink for extended periods of time; systems with major deficiencies who have violated temporary operating permit milestones; unpermitted sources; non compliance with the surface water treatment rules; systems who have failed to conduct water quality monitoring; and non compliance with new federal regulations.

#### Implementation of Stage 1 and 2 Disinfection/Disinfectant Byproduct, and LT1 and LT 2 Rules.

The Compliance and Certification Section has devoted a great deal of time implementing these rules. All water systems required to monitor under Stage 1 D./DBP were notified no later than August 2005. The next phase is to review monitoring plans for the smaller systems and continue to work with those systems with MCL violations.

Staff has dedicated a substantial amount of time mid 2005 to learning the Stage 2 and LT2 rules to be ready for the early implementation of these rules.

**Performance Measures** (calendar year)

<u>Performance Measures</u>		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Number Operator Certificates Issued	P							240	250	250	350	350	350
	A	409	473	184	272	143	435	400	448	653			
% of NTNC in Compliance with Health-Based Standards	P					76	77	78	83	83	85	85	85
	A		66.0	72.3	74.3	77	83	83	75**	87			
% of PCWS in Compliance with Health-Based Standards	P					74	77	80	80	82	83	83	83
	A		68.7	73.7	72.6	80	76	74	75**	89			
% of NTNC Population in Compliance with Health-Based Standards	P					79	81	84	85	87	87	87	87
	A		73.3	73.6	77.6	82	88	85	75**	87			
% of PCWS Population in Compliance with Health-Based Standards	P				92	93	94	95	90	91	93	93	93
	A	88.3	92.7	91.3	93	87	91	87	90**	95			
Number of NOAVs issued	P								100	100	100	100	100
	A	8	9	63	274	230	163	61	100	201			
Number of Monitor Waivers	P			30	30	35	35	35	35	35	35	35	35
	A	28	26	55	62	57	30	35	40	118			
% of PCWS Population Issued Timely Monitoring Schedules	P		100	100	100	100	100	100	100	100	100	100	100
	A	100	100	100	100	100	100	100	100	100			
Number of ANR Final Enforcement Actions	P								15	15	10	10	10
	A			3	17	25	7	3	3	1			
Number of Sanitary Surveys (PCWS)	P		96	96	100	100	150	150	130	140	150	150	150
	A	111	105	235	116	73	79	74	147	114			
Number of Sanitary Surveys (NTNC)	P							90	100	70	70	70	70
	A	93	26	29	65	42	104	52	77	58			
Number of Sanitary Surveys (TNC)	P								35	40	50	50	50
	A	0	1	1	6	38	62	30	193	91			
Systems issued Operating Permits (PCWS & NTNC)	P								100	115	125	125	125
	A	146	124	230	214	79	87	80	164	214			
Systems issued Operating Permits (TNC) *	P								50	75	100	100	100
	A							18	21	11			

\*2003 is first year for issuing TNC permits

\*\*Rational for low difference with projected and actual numbers:

Health based standards for Non Community Water Systems – The division did not meet the projected numbers in 2004. The division does not have a good explanation for the decrease from the previous year but believe it may be due to the addition of new regulations such as the D/DBP rule and LT1ESWTR which diffused WSD resources from pre-existing rules used to determine the health based standard; or perhaps the computer program which generated these numbers was inaccurate. The division has re-defined health based standards and will use a new method to calculate this information starting in fiscal year 2006.

The division believes there are a few reasons why lower numbers of final enforcement numbers have been reported for the past 3 years. This category reflects final enforcement actions taken by the Agency of Natural Resources. New staff joined the division in 2003 and with the addition of new regulations such as the D/DBP rule and ESWTR/LT1, time allocated for final enforcement actions has diminished. Because of the lengthy time it takes the ANR Enforcement Division to finalize an enforcement action, the WSD had improved and modified the enforcement approach to include writing more complete permits with milestones; tracking the milestones and routinely sending milestone tracking letters; issuing NOAVs and including a new step in which the division attorney routinely contacts a system and negotiates compliance before a case is referred to the enforcement division. Only as a last resort are cases referred to the enforcement division.

### **Proposed Accomplishments**

*Sanitary Surveys and Operating Permits Issuance – Sanitary Surveys* – Staff in the operations program is on their way to meeting their goal of accomplishing complete sanitary surveys over the next 5 years for all PCWS. The division eliminated the permit to operate backlog in early 2005, completed several surveys, and will continue efforts to keep surveys and permits current.

*TNC GWUDI determinations and monitoring requirements* – The Division has set goals of completing the Ground Water Under the Direct Influence of Surface Water (GWUDI) determinations for TNCs. The TNC Section Supervisor continues to assess GWUDI when conducting sanitary surveys for TNCs; requires additional water quality monitoring and tracks compliance; writes permits to operate to those systems determined to be GWUDI, and drafts NOAVs as necessary.