

# South Carolina Drycleaning Restoration Trust Fund

## Program Status Report December 15, 2005



**South Carolina Department of Health and Environmental Control**  
Federal and Drycleaning Remediation Section  
Bureau of Land and Waste Management

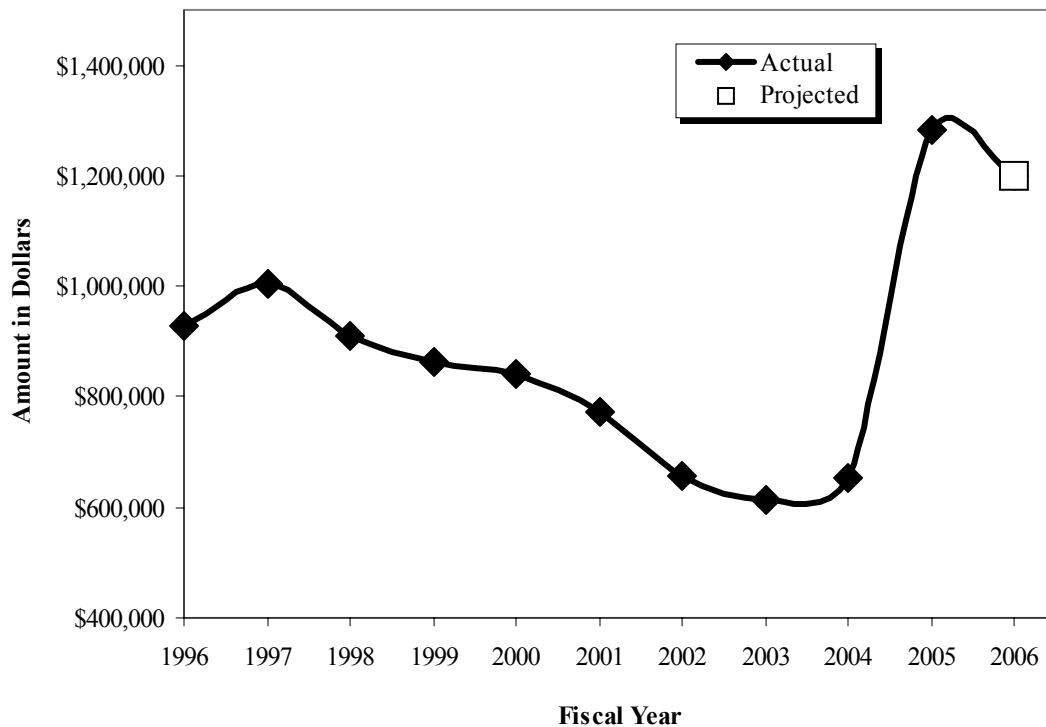
## **Fund Status and Five-Year Funding Projection**

### **Funding Source**

The South Carolina Department of Health and Environmental Control (DHEC) is responsible for administering the South Carolina Drycleaning Restoration Trust Fund (the Fund). The South Carolina Department of Revenue (DOR) is responsible for drycleaner registration and collection of money into the Fund.

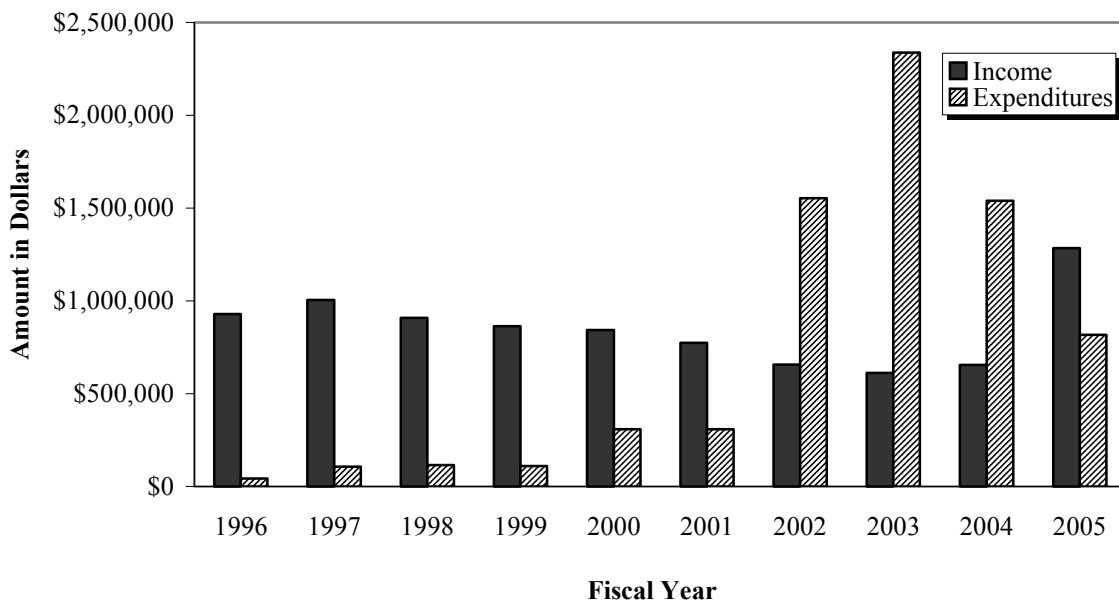
Revenue for the Fund has historically been derived from two sources: 1) Registered facilities pay yearly fees into the Fund based on their number of employees; and 2) A surcharge is assessed on every gallon of drycleaning solvent purchased for use in the state. The annual fees are assessed on a sliding scale that depends on the number of employees at each drycleaning business. Surcharges are not collected from drycleaners that registered with DOR as opting out of the Fund.

As a result of declining revenues to the Fund (Figure 1), a legislative change enacted in May 2004 added a 1% sales tax on drycleaning as a third source of revenue. Imposition of the 1% tax began on July 1, 2004 (Fiscal Year 2005, FY05). With the addition of the 1% tax, revenue into the Fund increased from \$655,000 in FY04 to \$1,284,000 in FY05.



**Figure 1: Drycleaning Restoration Trust Fund Yearly Income  
(actual dollar amounts in Table 1)**

The historical total income into the Fund through July 1, 2005 is \$8,531,000, and historical total expenditures through July 1, 2005 have been \$7,240,000 (Figure 2). For the first three years, the only expenses to the Fund were minor amounts necessary to cover DHEC's expenses while regulations and procedures were developed. Expenses increased slightly over the next two years as a limited amount of fieldwork was conducted to obtain information necessary to prioritize the large number of sites that had applied to become eligible for the Fund. By FY01, expenditures started increasing as assessment activities began on several sites and remediation systems were implemented. By early FY04, the Fund balance had dropped to a point that work had to be suspended on most sites. With the addition of the sales tax as a revenue source, DHEC has begun assessing and remediating sites once again.



**Figure 2: Yearly Comparison of Income versus Expenditures (actual dollar amounts in Table 1)**

### **Funding needs**

There are 272 drycleaning plants that have registered into the Fund as of July 1, 2005. Not all of these plants are still operating. In addition, there are 182 former drycleaning plants that stopped operating prior to 1995 (when the original legislation was enacted) that are also eligible for the Fund. Altogether, there are 454 known drycleaning sites that may use Fund monies plus an unknown number of sites that can still register and become eligible for assessment and remediation funding.

To date the Trust Fund has assessed twenty-nine (29) drycleaning sites to determine the nature and extent of contamination. As of July 1, 2005, nine (9) sites have Record of Decisions (ROD) documenting the selected cleanup option after receiving public input. Of these nine sites, two sites are no further action required; two sites are in monitoring

only; four sites are in active groundwater remediation; and one site is in the remedial design phase.

It is estimated that \$147 million will be required over the lifetime of the Fund to assess and clean up eligible sites. This amount may be considerably under-estimated because it is based on assumptions that future sites will not require the level of funding expended thus far and has not been adjusted for inflation. The actual amount may be higher by the time all drycleaning sites are cleaned up. This figure includes estimates of \$59 million for assessment costs and \$88 million for remediation costs including funds needed for long-term operations and maintenance of remedies installed at drycleaning plants. The 1% sales tax increase in 2004 is providing enough funds to sustain progress in assessing and cleaning up drycleaning sites. However, this increase still does not provide an adequate funding source to address all eligible sites within a reasonable timeframe.

### **Assessment Costs**

Assessment costs are incurred during activities to delineate the nature and extent of contamination. A large portion of the assessment costs at drycleaning plants is due to the expense of investigating groundwater contamination. To date completed assessments at drycleaning sites have costs ranging between \$51,000 and \$477,000. The average cost of assessing each site is \$182,000. It is anticipated that the average cost will drop at least 10% due to increased efficiencies of the program as experience is gained with more sites. It is also assumed that some lower priority sites will be less expensive to evaluate because it is probable that the contamination will be less extensive than has been found at the higher priority sites.

Assuming the average assessment cost can be decreased to \$161,000, it will require at least \$59 million for assessment costs to investigate the sites.



**One of the most common field assessment methods is the Color-Tec screening procedure. During the initial phases of assessment, water or soil from the site is collected into a small vial and heated. The air in the vial is then tested for the presence of hydrocarbon compounds. Such real-time assessment in the field allows for faster and more economical delineation of a contaminant plume.**

## Remediation Costs

Once the sites are investigated, they usually require some type of remedy in order to meet the clean-up standards. Of the sites investigated to date, approximately 75% will require a full remediation system. Even if a full remediation system is not needed because the levels of contamination are below clean-up standards, approximately 20% of the sites will likely require a few years of monitoring to verify that the contamination has stabilized or is decreasing. It is likely that less than 5% of all sites investigated will not need any follow-up expenditure for either remediation or long-term monitoring.

The costs of the installed remedial systems have averaged \$457,000 per site, including all costs of installation and the projected costs of operation and maintenance (O&M) for the number of years that will be required until the clean-up goals are met.

For cost estimating purposes it is assumed that 75% of the sites will need a full remedy. It is also assumed that the average cost of remediation can be reduced 30% (to \$320,000) because lower priority sites should not have the same extent of contamination as the higher-priority sites. Most of the remaining sites will require monitoring to ensure the contamination is adequately addressed. Based on these assumptions, \$86 million will be needed for remediation costs over the lifetime of the Fund.



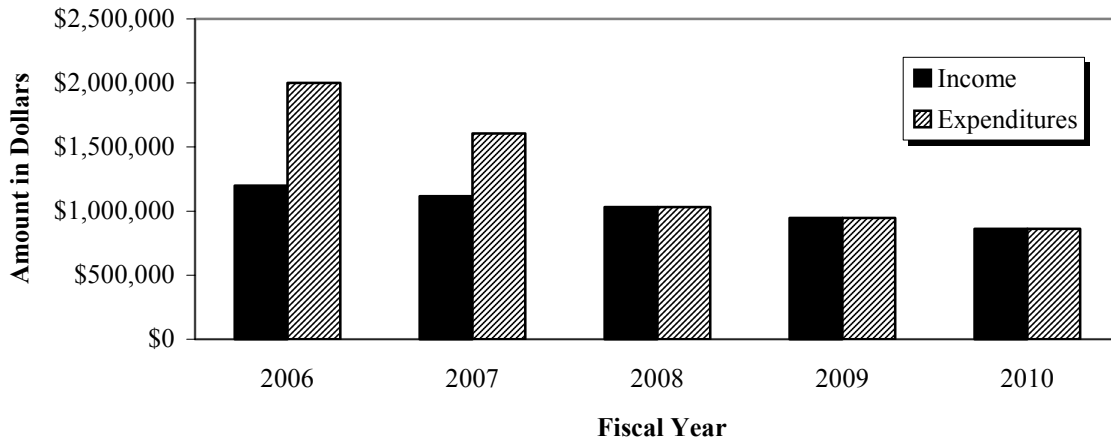
**Direct-push (DP) methods have allowed Fund contractors to rapidly delineate contaminant plumes on most sites. This technology requires use of a small drill rig that pushes and hammers a metal core barrel into the ground. Soil and groundwater samples can be acquired by DP technology for rapid screening of contaminants in the field and eventual laboratory analysis. Unlike groundwater monitoring wells, which are installed and can be re-sampled many times, DP wells are designed to be temporary and inexpensive and are usually abandoned the same day they are drilled.**

**Five-Year Funding Projection**

At the end of FY05, the Fund had a balance of \$1,291,000. However, DHEC has commitments for assessment and remediation totaling \$326,000. This leaves the uncommitted balance as of July 1, 2005 at \$965,000. Due to the uncertainty of the amount of money that the sales tax would generate, the program has delayed starting new site work. During FY06, DHEC anticipates expenditures and commitments of \$2,000,000 as new work is started.

To complete the funding projection, the program projected income into the Fund over the next five fiscal years. The historical trend shows income declining steadily from a high in 1997 until the sales tax was implemented (Figure 1). Using trend analysis, the projected income to the Fund will decline over the next five years to a level of \$863,000 in FY10 (Figure 3). It is possible, however, that the funding level will stabilize and the decreasing trend will not be realized over the next five years.

Figure 3 also includes a five-year projection of expenditures. This projection indicates that expenditures in FY06 and FY07 will exceed the income into the Fund. However, by FY08 the projection indicates that income and expenditures will be equivalent.



**Figure 3: Five-Year Projection of Income versus Expenditures (actual dollar amounts in Table 1)**

Fiscal Year	Income to Fund	Total Spent
1996	\$928,545.65	\$42,582.84
1997	\$1,005,142.60	\$106,383.46
1998	\$908,516.14	\$115,929.62
1999	\$864,553.81	\$111,067.06
2000	\$842,913.75	\$308,156.47
2001	\$773,511.14	\$308,078.22

2002	\$657,242.36	\$1,553,734.08
2003	\$612,189.97	\$2,337,642.77
2004	\$654,508.34	\$1,540,095.94
2005	\$1,284,353.96	\$816,404.12
<i>2006</i>	<i>\$1,200,000</i>	<i>\$2,000,000</i>
<i>2007</i>	<i>\$1,115,646</i>	<i>\$1,607,049</i>
<i>2008</i>	<i>\$1,031,292</i>	<i>\$1,031,292</i>
<i>2009</i>	<i>\$946,938</i>	<i>\$946,938</i>
<i>2010</i>	<i>\$862,584</i>	<i>\$862,584</i>

**Table 1: Income and expenditures for the Fund, 1996-2005.  
Data for 2006-2010 (in *italics*) are projected.**