

**Settlement Agreement and Consent Order**  
**3M and MPCA, May 22, 2007**

**QUARTERLY PROGRESS REPORT #18**

July 1 – September 30, 2011

On May 22, 2007, 3M and the Minnesota Pollution Control Agency (MPCA) entered into a Settlement Agreement and Consent Order (Settlement Agreement) for the investigation and assessment of perfluorochemicals (PFCs) at sites in Washington County and for the execution of certain other related matters. This report is provided to fulfill the requirement outlined in Part XIII.A of the Settlement Agreement.

**REPORTING PERIOD:** July 1 – September 30, 2011

**ACTIVITIES COMPLETED:**

Response Action Plan and Response Action Implementation (Part VIII)

**Cottage Grove**

As part of the recent state government shutdown, the Public Waters Work Permit that had been issued by the Minnesota Department of Natural Resources on June 22, 2011 to enable remediation of the East Cove area was temporarily terminated. This state action suspended and delayed progress on the East Cove area remediation activities. With the resumption of state government activities, this permit was effectively re-established as an effective permit, thereby enabling remediation activities to proceed.

While state actions adversely affected the construction schedule developed for remediation of the East Cove area, 3M decided to proceed and make every effort to still complete these actions in this calendar year. Towards this end, the contractor completed construction of a loading dock, sheet piling and structures/channels necessary to divert water around the active remediation area. A pre-construction meeting at the site with MPCA staff, to include a site inspection of pre-construction conditions, took place on August 9, 2011. Following completion of the aforementioned items, sediment removal activities began on September 24, 2011.

Sediment removal activities have taken place throughout the time period with a schedule that has been extended to twelve-hour work days and six days per week. Removal of identified material from the sand bar immediately outside the East Cove has been completed. Approximately 400 tons of material were removed from the East Cove area and disposed of at the PFC cell at the SKB Rosemount Landfill during this reporting period.

3M continued to work with MPCA staff on possible approaches to conducting the extended pilot pump test of the new groundwater extraction system that was the subject of the March 10, 2010 submittal to the agency. Meetings were held on August 16 and September 22, 2011 with agency personnel to discuss this work which has been postponed until next year. Options for how best to proceed in this matter continue to be evaluated.

Based on changes to schedules as highlighted above, 3M provided an updated overall schedule to the MPCA for the remaining remedial activities at the site.

### **Oakdale**

The curb cutout on Granada Avenue put in place to enable truck access to the site was repaired in early July.

The new pumpout well to be located in the area north of Highway 5 (well PW26) was installed the week of August 29, 2011. This well was subsequently connected to the on-site groundwater treatment system and tested according to the approved monitoring plan for the site. In addition, two monitoring wells that had to be removed in order to accomplish the soil removal, wells W21 and W26, were replaced during this same timeframe.

On August 18, 2011, 3M submitted correspondence documenting a protocol revision pertaining to the previously approved Groundwater and Surface Water Sampling Plan for the site.

### **Woodbury**

The *Construction Completion Report* for the Northeast Disposal Area activities was prepared and submitted on August 18, 2011 according to the schedule outlined in the Settlement Agreement. In a letter dated September 30, 2011, the MPCA indicated that its time to review this CCR would be extended and that completion of its review was anticipated by November 17, 2011.

On August 18, 2011, 3M submitted correspondence documenting a protocol revision pertaining to the previously approved Groundwater and Surface Water Sampling Plan for the Oakdale Disposal Site. This letter also stated that the referenced new protocol (ISO/IEC Protocol ISO11-01) should be applied as a modification to the Groundwater Sampling Plan for the Woodbury Site, previously submitted to the MPCA for review. In correspondence dated August 23, 2011, the MPCA approved the site Groundwater Sampling Plan, with modifications.

Evaluation of data and information pertaining to the pumping rate optimization initiative for the barrier wells continued. Site sampling results for October 2010 and February 2011 were reflective of previous results collected during the remedial investigation process. However, analytical results finalized during this reporting period for samples collected in May of 2011 indicated increases in PFOA and PFOS concentrations above previously measured levels in sentinel well clusters S01 and S02. In addition, monitoring wells MW-6LR and MW-12, located between the site barrier wells, showed increases from previous sampling events. 3M contacted

the MPCA via phone on September 14, 2011 and advised the project managers of the results (a table summarizing these results was also provided to MPCA staff via e-mail on this date). An additional call with MPCA staff took place on September 19, 2011 to further discuss this matter and agree upon “next steps” to be taken. As a result of receiving this data, 3M returned Barrier Well 2 to service and increased the pumping rate at Barrier Well 3 as a precautionary measure. 3M has also temporarily increased the monitoring frequency at wells S01, S02, MW-6LR, MW-12 and Barrier Well 2 in an effort to better understand the situation. In addition, analysis began on the groundwater elevation data that has been collected by the transducers, in conjunction with data from the new flow meters installed on the Barrier Wells. 3M met with MPCA staff on September 28, 2011 to review data, actions underway and possible next additional steps. On September 30, 2011, 3M participated in a meeting with MPCA and MN Dept. of Health personnel to provide an update to the Cities of Cottage Grove and Woodbury.

#### Health and Toxicological Studies (Part XIII.C)

3M continued to cooperate with the Minnesota Department of Health (MDH) in providing health and toxicological information relative to PFCs. The process established in May-June of 2007 to share specific updates on various studies as they are underway has continued with 3M providing monthly written summaries to the MDH. For informational purposes, copies of these updates are also provided to the MPCA.

#### Recovery of Expenses (Part XXIII)

In Part XXXIII.D of the Settlement Agreement, 3M agreed to provide to MPCA a grant in an amount up to five million dollars for expenses incurred for the purpose of investigating and assessing the presence of PFCs in the environment. In a letter dated September 14, 2011, the MPCA requested payment in the amount of \$231,764 towards this commitment. 3M submitted payment in the requested amount via correspondence dated October 18, 2011.

## **ACTIVITIES UNDERWAY &/OR PLANNED FOR OCTOBER - DECEMBER 2011:**

### Response Action Plan and Response Action Implementation (Part VIII)

#### **Cottage Grove**

Sediment removal and disposal activities in the East Cove area will continue. If weather conditions remain favorable, the expectation is that removal of impacted materials and basic restoration activities will be completed by year's end.

3M will continue to work with MPCA staff to explore options for conducting the extended pilot test of the new groundwater extraction system installed in the eastern portion of the Cottage Grove site. Site preparation activities intended to ultimately facilitate treatment of extracted groundwater will proceed.

#### **Oakdale**

Well PW26 officially came "on-line" as part of the site groundwater recovery and treatment system on October 3, 2011.

Once a limited number of waste containers generated during the well installation activities are removed from the site, the fence used to secure the area north of Highway 5 will be removed.

The construction completion report (RA Implementation Report) for the approved soil alternative S-3 will be submitted to the MPCA on or before December 2, 2011.

#### **Woodbury**

The increased monitoring of all four barrier wells and selected critical sentinel and monitoring wells will continue. In addition, a complete sampling of the wells identified in the site monitoring plan will be completed. Analysis will be performed on the groundwater elevation data that has been collected by the transducers, in conjunction with data from the new flow meters installed on the Barrier Wells. As discussed and agreed upon in the October 12, 2011 meeting, a status report summarizing these investigatory and response actions pertaining to the monitoring well increases recently observed will be submitted to the MPCA by November 30, 2011. In addition, geophysical surveys will be conducted in critical areas between the barrier wells and sentinel well clusters S01 and S02 and results will be submitted to the MPCA for review once a final report documenting this work is completed. Regular update meetings will continue with MPCA staff.

Health and Toxicological Studies (Part XIII.C)

3M will continue to share health and toxicological information on perfluorochemicals with MDH as it becomes available. Monthly summary reports as previously described will continue to be provided.

