



January 17, 2006

Mr. W. Calvin Horton, Town Manager
Town of Chapel Hill
405 Martin Luther King Jr. Boulevard
Chapel Hill, NC 27514

Dear Cal:

In accord with the Special Use Permit for the Mason Farm Wastewater Treatment Plant, we are pleased to submit the enclosed annual report on our progress toward our off-site odor elimination goal and in the overall improvements underway at the plant.

The attached report essentially updates the progress report which we submitted at the Town Council's public forum on November 14, 2005. Please note that the attached report refers to but does not include the Odor Elimination Compliance Monitoring Program which we previously submitted to the Town.

Some key items in the attached report include:

- ✓ In late November, our contractor completed the installation of new cover structures on our four solids digesters in accord with the original project schedule as a major step forward in odor elimination.
- ✓ We will meet with interested customers and other stakeholders on January 31st to discuss planning the odor study to be done by a consulting firm. Our approach in developing the objectives and scope of the odor study will be collaborative.
- ✓ In accord with the Town Council's resolution adopted on November 14th, we will work with stakeholders to develop an operational definition of odor elimination, and our quarterly reports to the Town of Chapel Hill and other local governments will also include updates on odor elimination work at the Mason Farm plant.

We remain committed to working with our customers and the Town to achieve results that will be fully satisfactory to the community. We sincerely hope that this process will prove to be a model example of wastewater odor control with open, effective public participation that benefits all parties.

Sincerely,

Ed Kerwin
Executive Director

CC: OWASA Board of Directors

January 17, 2006

Annual report to the Town of Chapel Hill regarding odor elimination at the Mason Farm Wastewater Treatment Plant



Introduction

This annual report is submitted in accord with conditions in the Special Use Permit as modified by the Town Council on March 1, 2004 for the Mason Farm Wastewater Treatment Plant (WWTP).

The special use permit includes the following requirement:

Offsite Odor Elimination, Monitoring and Annual Report: That OWASA shall present an annual report to the Town Council regarding progress in meeting their offsite odor elimination goal to report on progress during construction, and to report on maintenance and the continuing efficacy of the program post-construction. The Town Council may reduce the frequency or end the annual report requirement at such time as it determines reasonable.

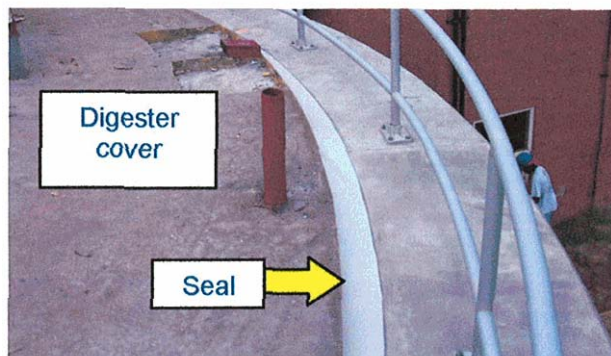
Actions and Improvements in 2005

Odor-related improvements

Digester covers: Our contractor completed the installation of new cover structures on the four “solids digesters” at the WWTP in late November, 2005 in accord with our original project timetable. (Our “solids digesters” are tanks where solids separated from wastewater are converted into biosolids for reuse on farms to help grow crops for non-human consumption.)

The first two of the new digester cover structures were installed in 2004. In 2005, the two remaining digesters received new covers and one of the previously installed new covers was repaired in the fall after leaks were found.

We believe the digester cover improvements, which cost about \$3.5 million, were a significant step forward in reducing odor releases. The covers were originally installed with a circumferential gap that enabled the covers to slide up and down as needed during biosolids treatment, but the gap also allowed releases of odor. The new digester covers are fixed and they have a perimeter seal to contain foul air in the digester tanks for transport through pipes for burning as fuel or for disposal.



Left: Part of a fixed digester cover structure including the seal installed to prevent leaks at the perimeter of the cover.

Number of reports of odor releases from the WWTP

The table below shows the number of reports of odor from the WWTP from 2002 through 2005.

Several customers have informally reported to us that odor conditions improved as the installation of digester covers progressed over the last year or so.

However, odor reports from citizens increased in November and December, 2005 due to malfunctions in the system of “gas handling” pipes that carry foul air away from the digesters for use or disposal.

We identified these pipes as an additional odor source in the late fall and are planning to renovate or replace them in 2006.

REPORTS OF ODOR FROM THE MASON FARM WASTEWATER TREATMENT PLANT,
 2002-2005

	2002	2003	2004	2005
January	11	3	9	0
February	7	5	2	0
March	9	0	7	1
April	9	2	4	0
May	6	0	2	5
June	4	1	1	1
July	1	0	2	0
August	1	0	4	3
September	2	5	2	2
October	2	6	1	1
November	0	0	1	7
December	3	3	2	5
TOTALS	55	25	37	25

Communications with our neighbors and the Town of Chapel Hill

Construction-related notices: In 2005, we sent several notices by paper and/or e-mail to customers in the area around the WWTP to advise them about noisy work, increases in construction traffic and anticipated odor releases related to construction.

Community Meeting: On September 15th we held a community meeting to discuss a draft Odor Elimination Compliance Monitoring Program with our neighbors. We invited more than 700 people to this meeting by e-mail and paper mailings. A summary is attached.

The OWASA Board approved the Compliance Monitoring Plan, with changes reflecting feedback we received from stakeholders, in a public meeting on October 13, 2005.

Town Council's Public Forum: On November 14th, we made a presentation to the Town Council and the community in a televised public forum on our progress in eliminating odor releases from the WWTP. We reported that completion of the digester cover installations was pending, additional odor elimination work is needed and we will do an odor study beginning in 2006 in consultation with stakeholders. We also presented the Odor Elimination Compliance Monitoring Program.

In accord with the Council's decisions at the end of the public forum, we will work with stakeholders in the WWTP area to draft an operational definition to clarify the practical meaning of "odor elimination." We appreciate the recognition by the Town and other stakeholders that perfect odor elimination is not practical although it continues to be our goal.

In addition, we will include updates about the WWTP improvements and odor-related matters, including tabulations of odor reports from the community, in our future quarterly reports to the Towns of Chapel Hill and Carrboro and Orange County.

Upcoming Actions

Next community meeting

We will meet with interested stakeholders to discuss planning the odor study and related matters on Tuesday night, January 31st, 2006 at 7:00 pm in the OWASA Community Room. The primary purpose of this meeting will be to enable citizens to meet and talk with our odor consultant and OWASA staff about what the study should accomplish, how it will be done and how citizens should be involved and informed during the study process.

We want to involve stakeholders at this early stage, before the scope of work for the odor study has been prepared, with the objective of reaching consensus on how it will proceed and what it will provide when complete. At the community meeting, we will also discuss developing an operational definition of odor elimination as a follow up to comments from citizens and the Town Council's discussion in November.

Gas handling system improvements

As discussed above, we recently identified the pipes that carry foul air away from our solids digesters as an odor source and we plan to rework or replace them in 2006. Design work has begun and it should be complete this winter in preparation for the contracting process.

The work may take 6 to 9 months, depending on the specific scope of work, weather conditions and so forth. Unfortunately, some temporary releases will likely be necessary during the construction.

Plant improvements under contract for completion by 2007

As indicated in previous reports, the odor-related improvements scheduled to be completed at the WWTP by May, 2007 include:

- ✓ Enclosing the WWTP “headworks,” where wastewater enters the west side of the plant in concrete channels and goes through preliminary treatment tanks that are now open to the air. When this area is enclosed, the foul air from it will be treated in our odor scrubber. (Please see Attachment 2 for background information about the scrubber, which was installed in 2004.)
- ✓ Installing equipment to remove foam that floats on the surface of wastewater while it is treated biologically in “aeration basins” to remove phosphorus. The foam can be an odor source.
- ✓ Covering a new sewage pump station to capture foul air for treatment in the scrubber.

Conclusion

We welcome the opportunity to receive comments and respond to any questions about this report or the Mason Farm Wastewater Treatment Plant improvement project and our odor elimination plans.

We look forward to making further progress in the odor elimination program and continuing our discussions with customers in the area around the Mason Farm Wastewater Treatment Plant and with the Town.

Attachments:

1. Summary of community meeting on September 15, 2005
2. Additional background information