



# TOWN OF MEDFIELD

*Office of*

## BOARD OF SELECTMEN

TOWN HOUSE, 459 MAIN STREET  
MEDFIELD, MASSACHUSETTS 02052-0315

(508) 359-8505

**MICHAEL J. SULLIVAN**  
*Town Administrator*

July 28, 2009

Secretary Ian A. Bowles  
Commonwealth of Massachusetts  
Executive Office of Energy and Environmental Affairs  
Division of Environmental Affairs  
One Winter Street  
Boston, MA 02108

Re: **MEPA Site #14448**  
Medfield State Hospital  
45 Hospital Road, Medfield, Massachusetts 02052

Dear Secretary Bowles,

On behalf of the residents of Medfield, the Board of Selectmen would like to address the following items in connection with DCAM's MEPA application for clean-up of the D & C Disposal Area, located at the former Medfield State Hospital, 45 Hospital Road, Medfield, MA 02052.

First, we want to commend DCAM and the Commonwealth of Massachusetts for undertaking clean-up of hazardous conditions created at the site by the Department of Mental Health during its long occupancy. Second, we appreciate DCAM undertaking this clean-up of the site prior to the site being turned over to private developers. However, we do have some concerns.

1. This particular project is a small portion of a contamination clean-up at the site of the former Medfield State Hospital. We are concerned whether the size of this particular site has been designed to circumvent the requirements of the Wetlands Protection Act Regulations by limiting the area to 5,000 square feet. Since DCAM is proposing development the entire Medfield State Hospital site as a residential community with 440 housing units, it would appear that the most sensible way to address the pollution on the site is with a comprehensive remediation plan that addresses the site as a whole, rather than dividing it up into smaller parcels. The entire site has issues of illegal land-filling, illegal wetlands filling, lead and asbestos contamination, oil spills and probably other sources of contamination. Would this piecemeal approach be acceptable if it was proposed by a private developer or by a city or town? We feel that the same standards that apply to private or municipal entities should also be applied to the Commonwealth.

2. The proposed solution to this contamination is to excavate 50,000 cubic yards of landfill material, consisting amongst other things of demolition and construction debris, coal, coal slag, coal ash, glass, ceramic, a derelict car and automotive parts. This material reportedly contains “oil and/or hazardous material (OHM) including: metals, pesticides, extractable petroleum hydrocarbon (EPH), and polycyclic aromatic hydrocarbons (PAHs).” According to information given at the on-site public hearing and tour, this material will be moved out of the wetlands, to an adjacent upland a few hundred feet away and covered with one foot of organic soil. There will be no treatment of the excavated material, only a re-location. We question whether this solves the problem. Please note that it moves the material out of the wetlands, but to a site closer to where the Commonwealth is proposing that 440 housing units be built. We again question whether this would be an acceptable solution if it were proposed by a private developer.
3. On page 6 of the WPA FORM 3 – Notice of Intent, under item 6(b.) the reason why the project is exempt is not checked and given the categories listed, this would not appear to qualify for an exemption.

While we understand the financial constraints the Commonwealth is currently under, and are anxious to see the cleanup started and completed, we want the same rules and regulations that apply to private or municipal applicants to apply to this proposed remediation. The pollution problems at this site have been ignored for years. The Department of Mental Health was under a consent order when it closed. As elected officials of the Town of Medfield, we hope that you will insist that the pollution issues at the site of the former Medfield State Hospital be addressed on a comprehensive basis and not divided up into discrete projects that avoid the full Massachusetts Environmental Policy Act review process.

Thank you for your consideration on this matter of utmost importance to the residents of Medfield and to the residents of the entire Charles River Basin.

Respectfully,

Ann B. Thompson, Chairman

Mark L. Fisher

Osler L. Peterson  
Board of Selectmen  
Town of Medfield

cc: Mary Beth Clancy, Senior Project Manager, DCAM  
Purvi Patel, Environmental Analyst, MEPA Office  
Medfield Conservation Commission  
Medfield Board of Health  
Andrea Stiller, ADS Environmental

# ADS ENVIRONMENTAL ENGINEERING, LLC

July 26, 2009

File No. 0115

Town of Medfield  
Medfield Town House  
Selectmen's Office  
459 Main Street  
Medfield, MA 02052

Attention: Ms. Kristine Trierweller

RE: MCP Review  
DCAM Response Actions  
Hazardous Waste Site  
Former Medfield State Hospital  
C&D Disposal Area Closure  
45 Hospital Road  
Medfield, MA  
DEP RTN 2-3025651

Dear Kristine:

At your request, ADS Environmental Engineering, LLC (ADS) has reviewed readily available information regarding the above referenced release site at the former Medfield State Hospital, and the proposed environmental response actions planned by the Division of Capital Asset Management (DCAM) who currently owns the property. DCAM has retained O'Reilly, Talbot & Okun Associates (OTO) to conduct response actions at the site. OTO has prepared a DRAFT Release Abatement Measure (RAM) Plan in accordance with the Massachusetts Contingency Plan (MCP), and DRAFT Bid Specification Documents for the performance of the work. OTO also prepared the Environmental Notification Form (ENF), Notice of Intent (NOI), and related documents for the performance of the remedial work within wetland and riverfront resource areas.

Documents provided to ADS from the Selectmen's office and OTO include the following:

DRAFT RAM Plan for RTN 2-3025651, Medfield State Hospital, 45 Hospital Road, Medfield, MA, dated July 23, 2009, Prepared by OTO

DRAFT Specifications for MA State Project No.: DCPO505-HC1 Disposal Area Closure – Medfield State Hospital, C&D Disposal Area Closure – Medfield State Hospital, Medfield, Massachusetts, dated June 25, 2009, prepared by OTO

Notice of Intent application, Former Medfield State Hospital, D&C Disposal Area, Medfield, Massachusetts, dated June 17, 2009, prepared by OTO  
Environmental Notification Form, Former Medfield State Hospital, 45 Hospital Road, Medfield, Massachusetts, dated June 10, 2009, prepared by OTO

ADS also found online on the DEP's website the Phase I – Initial Site Investigation and Tier Classification Report, Former Medfield State Hospital, 45 Hospital Road, Medfield, Massachusetts, RTN 2-25651, dated September 27, 2007, prepared by Maguire Group, Inc.

ADS reviewed portions of the above referenced documents that relate to the characterization of the C&D Disposal Site (RTN 2-30256513), and the proposed response actions under the Massachusetts Contingency Plan, 310 CMR40.0000 (MCP). This review was conducted in short order; it is not based on scientific and engineering analyses beyond the scope of services described in our proposal dated July 22, 2009, and the time and budgetary constraints.

In general, the remediation plan as currently presented by OTO and DCAM involves removing some of the contaminated fill adjacent to the Charles River to make the slope of fill at the river bank less steep; placing fill removed from the steep banks in an area identified by OTO that is further upland; removing exposed concrete and metal debris along the river banks and in the wetlands; and, covering a portion of the disposal site with 12-inches of loam, and seeding and planting the cover. Institutional controls (an Activity and Use Limitation) are proposed to limit exposure to the contaminated debris in the future.

Following is a summary of ADS' general findings and comments on the site conditions, environmental site characterization, and plans for addressing the contamination. Some of these comments may already have been identified by DCAM and OTO. The summary below is divided into the following four subheadings: Technical Comments and Additional Data Needs; Regulatory Items; Stormwater, Erosion, and Dust; and, Bid Document Specifications.

### **Technical Comments, Additional Data Needs**

1. ADS understands that certain areas within the release site boundary are not going to be cleared of vegetation and covered with the topsoil buffer. In particular, changes are not proposed in the northeastern portion of the disposal site, and possibly other areas. The plans and specifications need to identify what areas specifically will have a cap, and what areas will be undisturbed, etc.

In order to support that a Condition of No Significant Risk has been achieved in these areas that are not proposed to have a cover, surface and near surface soil sampling is needed, and the data should be reviewed in a Risk Characterization for the release site.

2. The proposed work involves removal of vegetation, re-grading and "capping" a portion of the C&D Disposal Area. ADS understands that a 12-inch cap of topsoil is proposed as the cover. ADS does not believe that this is adequate for several reasons, some of which are listed below:
  - a) Erosion is likely in the short and long term, and hard to predict. This would expose the underlying contaminated soils, and could result in transport of contaminated soil to the wetlands/river.
  - b) One foot will settle over time as underlying voids are filled, and become less than one foot.
  - c) Earthwork to place a 1 foot layer will result in less than one foot in places.

- d) Proposed residential use of nearby land requires an adequate buffer to mitigate direct contact with contaminated soils.
3. In addition to a thicker cover, ADS recommends that a geotextile fabric be placed in between the clean soil cap and the underlying contaminated soils. The fabric will provide a temporary and long term erosion barrier in the event that future erosion of the cap is not identified right away, and the geotextile will provide a visual and physical marker/barrier to the underlying soils.
  4. The plans and specifications for the remediation project need to identify what areas specifically will have a cap, what areas will be undisturbed, etc.
  5. Most soil and groundwater data are from 2005. ADS recommends updating the groundwater data in the near future to assess whether conditions remain the same, and to obtain a pre-construction baseline data set. This data can also be used in the Risk Characterization. At a minimum, testing of all existing wells should include: VOCs, EPH, VPH, soluble metals (at a minimum As, Ba, Cd, Cr, Pb, Hg, Ni, Zn) pH, ORP, and DO.
  6. The northeastern region of the site discussed above, does not have monitoring wells or groundwater data. The installation of monitoring wells and analyses for contaminants to include at a minimum VOC, EPH, VPH, soluble metals (at a minimum, As, Cd, Cr, Pb, Hg, Ni, Zn) pH, ORP, and DO is recommended.
  7. The Phase I Report prepared by Maguire Group, Inc. dated September 27, 2007 reviewed online by ADS appears to be missing standard Phase I environmental site history research information that is critical to understanding and defining the nature and extent of the release site. This information includes a summary of Historic Fire Insurance Maps, historic topographic maps that show filling activity, and other historical information on the Medfield State Hospital waste management and disposal practices.

## Regulatory Items

8. The DRAFT RAM Plan states that a Phase IV Remedy Implementation Plan (RIP) will need to be filed along with the RAM Completion Report due to the requirements in 310 CMR 40.0446(7). These regulations allow for remediation waste to be stored, treated, managed, disposed, recycled or reused at a site following the submission of a RAM Completion Report only if a RIP is submitted to the DEP as an attachment to the RAM Completion Statement.

We understand that there is an economic need for expedience in conducting the proposed response actions. Notwithstanding those concerns, since these comprehensive reports will need to be filed anyway, it seems that it would be advantageous to complete the Phase II assessment work, Risk Characterization, Environmental Risk Characterization (Charles River, etc.), and Phase III – Identification, Evaluation and Selection of Comprehensive Remedial Action Alternatives **Prior To** implementing the RAM Plan, or alternatively, conduct the response actions under Phase IV and V, and not under a RAM Plan. That way, there is a greater level of certainty that appropriate remedial measures are being conducted toward a Permanent Solution.

9. Other separate releases have occurred at the Medfield State Hospital property. The extent to which any plumes are comingled with the C&D Disposal Area is unknown by ADS. Response actions for the C&D Disposal area should not exacerbate conditions or preclude future response actions for the other releases (e.g., adjacent former Power Plant site).
10. The proposed response actions include the use of an Activity and Use Limitation (AUL) to prevent future unauthorized direct contact with the contaminated soils by nearby future residents, and to maintain the protective cover. The nearby residential development, which ADS understands will be multi-family units, will need to maintain regulations so that such institutional controls can be implemented.

### **Stormwater, Erosion, Dust**

11. It is the opinion of ADS that long term, more comprehensive stormwater management systems throughout the disposal area and upland, will need to be implemented in addition to planned short term stormwater management during the response action work. Currently, stormwater flows to the river from upland areas of the former hospital property and paved areas, through engineered structures and via swales eroded through the contaminated soils. Since future erosion of the cap soils in the C&D Disposal Area will result in exposure of the underlying contaminated debris and mobilization of contaminants to the wetlands and river, proper long term stormwater management through this area will need to be designed. Such stormwater management structures should not allow for transport of contaminated sediments to the wetlands and river. The need for an NPDES Permit should be reviewed.
12. Existing and future drainage swales within the release site may need filter fabric, rip rap and/or other measures of protection from erosion, scouring, etc.
13. The proposed slope on the bank adjacent to the Charles River as depicted on the RAM Plan Final Grading Plan seems steep given potential erosion issues. A more gradual slope should be designed. Also temporary soft slope stabilization measures (bioengineered) should be reviewed for this slope.
14. As acknowledged by OTO, the contractor should be prepared to encounter asbestos in the western region of the subject release site where mechanical debris and boiler housing materials were found (the area of test pit TP-5, below a depth of 4 feet). Dust control measures will be critical here to mitigate airborne exposures.
15. There will need to be a long term Operation and Maintenance program to maintain the protective cover or cap over the buried debris, and to maintain other engineering structures (stormwater management) in the C&D disposal site area.

### **Bid Document Specifications**

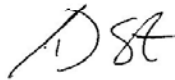
16. A section detailing the contaminants present, proposed specific MCP response actions and objectives, needs to be included.

17. The Storm Water Pollution Prevention Plan needs to address concerns specific to release site conditions and contaminants.
18. The Dewatering Plan should address the concerns specific to release site conditions and contaminants, including temporary storage of pumped water in frac tanks or similar structures, discharge treatment, testing, etc.
19. The cross section for EB to EB' is missing in Sections & Details drawing No. 7 (only EA to EA' is shown).
20. The Specification Sections & Details drawing No. 8 shows only 6 to 12 inches of topsoil over the buried debris. This does not appear sufficient (see Comment #2 above). Also, a plan view drawing showing the area proposed to have the topsoil cover placed over it should be included for clarity.

It has been a pleasure assisting the Town of Medfield with this project. I look forward to further discussions regarding this site.

Sincerely,

ADS ENVIRONMENTAL ENGINEERING, LLC



Andrea D. Stiller, LSP  
Principal

ADS/ads