

Environmental Research Corps
Saving our Wetlands to Protect our Future.....

July 29, 2005
Mr. Richard Bourre'
Acting Assistant Director – MEPA
Executive Office of Environmental Affairs
Boston, MA

Dear Mr. Bourne,

Environmental Research Corps is the environmental consultants retained by Wasted Away! – a local neighborhood group in New Bedford concerned with the pollutants and contamination of lands and water by PCBs. ERC is submitting comments as requested regarding the submitted Environmental Notification Form submitted to your Department and the Department of Environmental Protection.

ERC is of the opinion that MEPA should deny the application of the City of New Bedford for the following reasons:

- technical deficiencies in the ENF application
- incomplete testing as to the extent of the contamination within wetland resource area
- insufficient methods and plans to restore the wetland after disturbance

Technical deficiencies in the ENF application

The major deficiencies in the ENF application lie with the Wetlands, Waterways, and Tidelands section. Particularly under inland wetlands, the applicant has only indicated that approximately 38,000 SF of wetland will be disturbed.

Unlike the adjacent uplands which has had test probing of soils for PCBs and other contaminants over large areas (but also not all), the testing for pollutants in the wetlands has been limited and in fact is listed in the EPA TOSCA application as incomplete and in need of further testing and review. There is no assurances in the current testing done in the wetlands to indicate sufficiently that the extent of contamination is limited to 38,000 SF of wetlands. In fact, the wetlands contains a flowing stream that traverses off-site to the north into the Appongansett Swamp ecosystem. Various tests for PCBs along this wetland corridor have detected PCBs in these waterways in the past indicating that the extent of contamination is not limited “to base slope areas adjacent to school construction” as indicated in the application narratives.

As well, the applicant fails to note the bank affected by this activity. The maps and plans that accompanied the EPA application clearly defined areas of standing water in excess of 10,000 square feet thus qualifying as ponds under the Wetlands Protection Act. As such, these ponds have defined banks.

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As well, the USGS maps, the Natural Resource Conservation Service soil maps, the Mass GIS maps, and other documentation clearly defines a perennial stream in the wetlands draining to the endangered species zones of the Appongansett Cedar Swamp.

The applicant's failure to identify bank, land under water, and bordering land under water is sufficient to deny approval and reject the MEPA approval for lack of pertinent information.

Incomplete testing as to the extent of the contamination within wetland resource area

It is clear that the applicant is aware of the other types of resources besides bordering vegetated wetlands. The plans indicate the standing water areas and ponds, the consultant denoted during wetlands delineation periods that the area floods during storm events and exceeds the banks of the stream and ponding areas even encroaching upslope of the delineation line and staked hay bales on to slope areas from construction. Obviously the flood and retreat patterns of water movement within this wetlands ecosystem has the ability to add a mobile factor to PCB-laden soils and increase the pollutant transport factor severely. There needs to be a better documentation of the vadose zone hydrological parameters with tracer tests to identify hydrogeologic mapping for a complete understanding of the contamination of the wetlands ecosystem.



The applicant indicates in supplemental documents under the 401 Water Quality Certification and the ACOE section 404 application that "*additional sampling will be done as excavation proceeds in the wetlands*". Regulations require that the applicant document the extent of contamination prior to work within resources areas or wetlands remediation work. To conduct sampling as excavation proceeds is not standard practice.

As well, the applicant only indicates the average concentrations of PCB pollutants as 1.3 ppm and does not disclose the high elevations of PCB contaminations in the application, nor the range and extent of the concentrations.

The application under *Conservation Land* fails to identify that prior to current school construction, the site was an active recreational park used primarily as a soccer field facility until the detention of PCBs terminated that activity,

The applicant under the *Land* section fails to note that the wetlands remediation involves dewatering, and draining of wetlands during construction. The potential for that activity to affect downstream wetlands, particularly since the wetlands are hydrologically connected to the endangered species zones in the Appongansett Cedar Swamp.

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The applicant under the *Soild and Hazardous Waste* section fails to note correctly that the wetlands is part of a locus lot that does contain a hazardous waste disposal process. There is temporary storage of PCB excavated soils from the school construction site processing of excavated materials, and final disposal of those materials after classification. The MEPA filing should describe all activities within the locus lot as defined by the property lines.

Insufficient methods and plans to restore the wetland after disturbance

As well, standard practice for wetlands replication is to complete the mitigation prior to construction. The construction of the Keith Middle School is ongoing without an approved EPA capping plan for the uplands of the site, without an EPA approval under TOSCA for PCBs in the wetlands, and without MEPA approval. Application guidelines clearly state that all needed permitting should be completed before construction begins. To approve wetlands remediation and wetlands replication after the construction is not standard practice.

As well, the narratives clearly indicate that leaf litter, humus, organic muck and other soil materials typical to wetland environments is to be removed from the areas proposed for excavation of PCB laden soils. Yet the fill to be replaced into the wetland is specified as clean sandy soil with an organic content of between 8-10% There is no mention of replacement of leaf litter, of humus mulch, or normal organic soil types. The specification for the construction of Route 44 requiring the creation of over 10 acres of wetlands of which Environmental Research Corps is the subcontractor responsible for planting the replicated wetlands call for an organic soil amendment of no less than 50% organic content. The proposed soil materials are not common in wetlands replication work, and in fact cannot be classified as a hydric soil alone without hydrology infiltration.

As well, there is no plan for the removal of phragmites from the work zones. Documentation only indicates that a seeding of the New England Wetlands Seed Mix will be used to attempt to increase diversity of species. It is well documented that dense stands of phragmites will not allow seed establishment without removal or treatment. As the rhizomes of phragmites can reach depths as far as 7', and as some prior soil probes indicate that organic wetland soils exist in this region as deep as 12', it is entirely possible that the hydraulic gradient of the plant tissues can transport PCB molecules from the surface to lower regions, which is another reason for requiring complete testing, and removal of phragmites.

In conclusion, MEPA strongly discourages the fracturing of projects within a subject locus. The application is for a locus lot that includes the described wetlands, but also hazardous waste remedial work in adjacent uplands on the same lot. The applicant is applying for permits in a piecemeal fashion, often not in the proper sequencing normal for site development, and is proceeding with construction without securing the necessary permits. To allow a wetlands remediation project to go forward without complete testing and documentation as to the extent of the contamination, without documenting sufficiently the MEPA application for all pertinent information regarding all activities

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within the property boundaries, and without requiring that remediation work be completed before construction continues is contrary to normal MEPA procedures and policies. Environmental Research Corps is of the opinion that given these facts, MEPA should return the application without approval for lack of sufficient information and require a re-file of a corrected application.

Mark A. Howland
CEO & Chief Biologist

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enclosure: CV of Mark Howland

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Curriculum Vitae

Current Professional Position – Chief Biologist and Chief Executive Officer
Environmental Research Corps 1970- present

Manager of subsidiaries of ERC – BioMass Farms 1993 - present
Farm Ventures 1980 – present

Co-Owner of EcoCultural Advisors, LTD, Ireland 2001-present

Services

wetland delineations, wildlife habitat studies, erosion control designs and products, environmental impact studies, coastal studies, wetland replication and restoration services, stormwater mitigation designs and products, wetland species nursery, wetland and wildlife protection products, slope and bank stabilization designs and products.

Personal Achievements

State Representative – 12th Bristol District for New Bedford, Freetown, Lakeville, Middleboro, and East Taunton 2003 - 2005

Chairman – Board of Selectman, Town of Freetown 2002-2003

Member – Board of Health – past chairman; Member - Soil Conservation Board; Member – Personnel Board;

Police Commissioner; Member – Open Space Committee;

Member – Long Pond Action Group

Editorial Board Member – *Land and Water Magazine*

1998 EPA Environmental Technology Innovator Award winner for stormwater mitigation design – the *Howland Swale*TM

1999 EPA Environmental Technology Innovator Award winner for erosion control product – *BioFence*TM

1999 Business Delegate – Massachusetts European Trade Mission to France, Northern Ireland, and Ireland with Gov. Cellucci & Speaker of the House Thomas Finneran

2000 Business Delegate – Massachusetts German Trade Mission to Munich and Berlin with Governor Swift, then Lt. Gov.

2000 Business Delegate – Massachusetts Japan/Australia Trade Mission with Governor Cellucci & Speaker of the House Thomas Finneran

2001 EPA Environmental Merit Award for outstanding efforts in preserving New England's Environment

2001 Environmental Award of the Decade – Hands across the River

2001 Community Merit Award – Concerned Citizens of Freetown

Past Member of New England Fisheries Steering Committee and associate member of Fisheries Development Council.

Past President of N.E. Chapter of IECA – International Erosion Control Assoc.

Past Member of Conservation Commissions, Historical Commission

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Education

B.S. Biology – Southeastern Massachusetts University 1977
Equivalency advance level work – Soil Science, Natural Resource Management, Business Management 1980-83
Currently enrolled in UMASS Boston – Master of Science Program in Public Affairs 2004 – expected graduation 2006

Certifications & Acknowledgments

Botanist on federal and state level, Soil Scientist, Hydrologist, Biologist, Published Author, Erosion Control Professional, Pollution Investigator, Manufacturer, Endangered Species Review, Vernal Pool Reviews, Runoff Calculations, Real Estate Evaluation, etc...
Course Instructor in aquaculture at Cape Cod Community College and Southeastern Massachusetts University (now UMASS Dartmouth) 1989-91
Honorarium Lecturer on EcoPolitics, Emerson College 2004

Highlights &

Recent Accomplishments

Completed largest wetland delineation project in USA in 1999 - flagged 447 miles of New Jersey Turnpike, Garden State Parkway, and Atlantic Cross Expressway for fiber optic project.

Providing Massachusetts largest wetland replication projects in 2001-04 for Mass Highway Route 44 project (10 acres), and Hingham Reservoir (3.5 acres) from ERC nurseries

BioFence is rapidly becoming the erosion control product of choice replacing weed invasive hay bales and pollutant generating black plastic silt fences. 5 of 6 New England states prefer BioFence, and the product in 1995 and 1996 saved the MBTA tens of thousands of dollars in product cost on the Old Colony line from Braintree to Plymouth, Framingham to Worcester, and Boston Mainline. As a Massachusetts trade mission member for the past and present Governors, ERC was a finalist for a prestigious Exporter of the Year award, recognized for accomplishments gained in introducing erosion control, stormwater mitigation, and wastewater treatment products and techniques to Ireland and Australia.

Political Achievements were highlighted in 2000 by election to the Freetown Board of Selectmen starting a contribution to public service by defeating a decade-long incumbent on a platform of common sense, courtesy, and compassion. In 2002, the September Democratic Primary resulted in Mark Howland's election to the 12th Bristol District State Representative seat of the General Court, and Mark Howland assumed office in January 2003 as a Massachusetts Legislator.

Additional information on ERC may be found on www.wetlandsandwildlife.com

Additional information on BioFence and ERC's products and services may be found on www.biofence.com