NEPONSET RIVER WATERSHED ASSOCIATION

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September 22, 2006

Robert Golledge
Secretary
Executive Office of Environmental Affairs
ATTN: Bill Gage, MEPA Office
100 Cambridge Street
Suite 900
Boston, MA 02114

Re: EENF for Westwood Station, Westwood
Cabot, Cabot & Forbes, applicant
EOEA # 13826

Dear Secretary Golledge:

The Neponset River Watershed Association (NepRWA) has two overriding concerns that we believe should be addressed in detail in the DEIR for the above-referenced project. As noted in the EENF, the applicant has worked closely with the Town of Westwood and its Environmental Work Group (on which NepRWA participated) to get input on project design prior to filing with MEPA. The Work Group's recommendations on recreation, however, have gone almost totally unaddressed in the EENF.

In its discussion of water-related issues, the applicant largely fails to address ways in which it can improve existing conditions on the portion of the site that is already developed. For example, the applicant's claim to meet DEP Stormwater Policy standards is largely true insofar as runoff from new impervious surfaces is concerned (i.e., those new impervious areas that exceed the current amount of impervious surface on the site). However, the EENF does not address ways in which it will improve stormwater management of existing impervious areas, which currently receive little or no stormwater treatment. Thus the applicant has not demonstrated how it will comply with DEP Stormwater Policy Standard # 7 for the "Redevelopment" portion of the project. The redevelopment standard requires that all other stormwater standards in the DEP Policy be met "to the maximum extent practicable."

RECREATION. The proposed project is just across the railroad tracks from the Neponset River and its surrounding wetlands, and is just across Rte 128 from the Blue Hills Reservation and its trail system (the River and its wetlands are actually managed as part of the Blue Hills Reservation). These areas could be easily accessed for recreational purposes by people living in the proposed development (and others) if the applicant were willing to make some very minor improvements. This is especially important in light of the rather meager amount of open space

that is being proposed for the project site itself. In the DEIR, the applicant should make a commitment, with the approval of landowner DCR as well as AMTRAK and the MBTA, to:

- construct a walking/biking trail from Greenlodge St. (directly across the tracks from the project site) to the point where the Neponset River flows under Rte 128. This is only a couple of hundred yards at most. Mass Highway has committed to building a passageway under the bridge and there are already trails from Blue Hills to the northern side of the Rte 128 bridge.

- provide signage to this walking/biking trail and connecting Blue Hills Reservation trails

    - at the new entrance which the applicant proposes to construct at the train station;
    - along the outbound side of the tracks directing pedestrians to the bridge over the tracks to the inbound side;
    - along the outbound side of the tracks directing bicyclists to the elevators that access the bridge over the tracks;
    - from the inbound tracks to the lane going up to Greenlodge St.;
    - at the junction of the lane and Greenlodge St.; and
    - at the trailhead on Greenlodge St.

- rehabilitate the existing boat launch ramp and parking area, which are only a few hundred feet from the inbound side of the railroad station.

In addition, the EIR should assess the feasibility of constructing a trail through the wetlands along the existing sewer right of way from Greenlodge St. to Dedham St. in Canton, which bridges the tracks to become Canton St. in Westwood near the southern boundary of the proposed project.

WATER SUPPLY. The EENF indicates that the proposed project, in combination with other currently proposed developments in the Dedham-Westwood Water District (DWWD), would consume most of the increased capacity gained through the DWWD's recent admission to the MWRA as a partial supply community. In previous discussions, the applicant has indicated that they expect to ask the DWWD to increase its allocation from the MWRA to cover the increased demand created by the proposed project. The DEIR should discuss the status of this proposal. Furthermore, our understanding is that supply agreements for partially supplied MWRA communities generally require that local sources be managed in a "first on, last off" mode and, in any event, the DWWD has a clear incentive to operate in this manner as the marginal cost per gallon of operating local sources is likely lower that the per gallon cost of MWRA sources. Thus it seems highly unlikely that, as suggested in the EENF, the proposed project will decrease pumping of Neponset wells and thus improve Neponset streamflows. This issue should be addressed in the DEIR.

In most cases, the discussion of water supply issues in the EENF is presented in terms of total annual consumption and/or mass balance. However, the primary period of concern is the drier

summer months when water withdrawals are at their highest and instream flows at their lowest, making the magnitude of potential water supply impacts on streamflow much more dramatic. It is our understanding that the DWWD's new allocation of 100,000 GPD will not be evenly distributed across the calendar year, but will be zero in low demand months and much more than 100,000 GPD in high demand months. The DEIR should show how MWRA water contributions will be allocated on a seasonal basis and whether they will result in reduced pumping of nearby wells. In the discussion of increasing the DWWD's MWRA draw to offset new demand created by the proposed project, the DEIR should also discuss how such offsetting MWRA contributions would be managed on a seasonal basis.

Finally, it is critical that the EIR consider the option of no development within Zone 1 of water supply wells on the site.

WATER USE AND CONSERVATION

The EENF provides estimates of water consumption based on Title V guidelines and uses these, or variations of these, as the basis of discussion for water supply and wastewater treatment requirements. However, with the described aggressive implementation of water conserving fixtures and appliances and the use of professionally managed "off books" irrigation systems drawing on reuse water, the likely actual water use for this facility should be substantially lower than water use in typical residential and even commercial settings, which are in turn are substantially lower than the Title V guidelines. We would expect consumption levels, at least for the residential component to approach 50 gallons per person per day -- lower than the 15-20% below Title V referenced in the EENF. It would help clarify the discussion if the DEIR were to discuss the actual expected water use and wastewater generation volumes based on the actual experience of similar developments.

We are pleased to see that the EENF indicates that the applicant intends to comply with the provisions of the DEP Water Management Act Guidance and Policy and the EOEA Water Conservation Standards. The DEIR should provide additional details on proposed water conservation strategies. For example:

- Will the referenced sensor-operated fixtures and high efficiency appliances be used in both the residential and commercial components of the project?
- What are the expected performance criteria for water efficient appliances and which appliances are included?
- Will high efficiency toilets be utilized (i.e. toilets averaging 1.0 to 1.2 GPF rather than 1.6 GPF)?
- What will be the extent and nature of drought tolerant plantings?
- What will be the relative extent of drip vs. spray irrigation vs. non-irrigated areas?
- What type of controls will be used to regulate irrigation systems? Will they be based on locally measured precipitation and evapotranspiration estimates? Will the systems apply different levels water to the drought tolerant species than to the non-tolerant species?

WASTEWATER

The EENF indicates that onsite treatment and recharge and/or irrigation reuse is being "considered" for the site. From the discussion, this option appears feasible, especially given the availability of the MWRA sewer system as an emergency backup. It is clear from Table 5-26 in the EENF, the Project-Wide Annual Water Budget Summary, that the proposed project will have a positive effect on the current water budget only if on-site reuse of wastewater occurs for both phases of the project, and that a very substantial negative effect will occur if it isn't used for either phase. It would also seem that the implementation of onsite treatment would be the cornerstone of the applicant's efforts to comply with the offset provisions of the Water Management Act Policy. The DEIR should include a commitment to pursue or not pursue onsite treatment and reuse in both project phases. If there is no such commitment, the DEIR should identify a plan for alternative offset measures.

WATER AND WASTEWATER BUDGET. We would urge the applicant to reconsider Table 5-27 Potential Neponset River Flow Augmentation in the DEIR. While we agree that preparation of such an analysis is a valuable exercise. We have several concerns with the table as presented. Specifically, it:

- is unclear how the values have been computed;
- fails to include a seasonal analysis;
- counts the benefits of onsite wastewater treatment which is currently only being "considered";
- introduces the concept of ditch restoration which has not been thoroughly discussed in the EENF;
- fails to make a distinction between locally supplied and MWRA supplied withdrawals;
- is unclear whether the 100,000 gallons of additional MWRA flow represents the already committed MWRA contribution to the DWWD system or an additional contribution specifically to this project; and
- fails to compare all calculations to true "baseline" conditions that existed before the site was developed in the first place.

STORMWATER MANAGEMENT. Perhaps the greatest opportunity to improve existing degraded site conditions lies in the improvement of current stormwater treatment systems. Options for stormwater retrofits, implemented on a parcel by parcel basis, should be addressed in some detail in the DEIR. We urge the proponent to pursue these opportunities vigorously. In regard to applicant's commitment to meeting all DEP Stormwater Policy standards, we have the following comments:

Groundwater Recharge (DEP Stormwater Policy standard s # 3 and # 6)
In determining the groundwater recharge goal for the site, the EENF applies the appropriate hydric soil group requirement to the total number of acres of increased

impervious surface to establish a recharge baseline goal of 28,387 CF, which the proposed project would improve upon by a factor of two. However, the recharge goal required by the Stormwater Policy is the hydric soil group requirement multiplied by the total impervious area on the site, not the increase in impervious area. The correct computation yields a recharge goal of roughly 183,000 CF or approximately 2.75 times the volume of recharge proposed. If it is not possible to meet this standard for the redevelopment portion of the project (see discussion of redevelopment, below), the DEIR should provide a detailed discussion of why and describe alternative stormwater management systems that were evaluated. Incorporating an estimate of pre-development recharge and runoff into Table 5-25 would also be helpful to give a better sense of the benefits of the project.

Maximum recharge is important due to the sensitive nature of the project site and its surroundings, especially since the project lies within a Zone II of a public drinking water supply and hence must comply with standard # 6 as well as standard # 3 of the Stormwater Policy. As stated on p. 1-29 of DEP's "Stormwater Management Volume One: Stormwater Policy Handbook":

> The conservation commission should evaluate the adequacy of the recharge volume proposed by the applicant on a case-by-case basis, considering the project site and its surroundings. In areas with low stream flow, drinking water supply, (and) groundwater-dependent wetlands … groundwater recharge may be critical and every effort to ensure adequate recharge should be made.

Although this portion of the Neponset River is officially "unassessed," it is a fact that low stream flows occur frequently. As noted above, the entire site is in a Zone II of a drinking water supply, and some of the development is within Zone I. And as indicated in the "waste water reuse fact sheet" in Appendix G of the EENF, "as much as 50% of well water infiltrates from the river." The DEIR should assess the project's compatibility with DEP recharge requirements in light of this increased scrutiny.

Pollution Removal (DEP Stormwater Policy standard # 4)
It seems that the project is not taking full advantage of Low Impact Development techniques to maximize the effectiveness of the stormwater management system from a water quality perspective. The appeal of decentralized bioretention practices is that they can be incorporated into even intensive development schemes by utilizing what would otherwise be "wasted" landscaped areas. Prefabricated bioretention practices such as the "Filterra" product are specifically intended for applications such as this. While it may not be possible to treat 100% of the site using these practices, some 41 acres of pervious surfaces will remain in the developed condition and thus it should be practicable to apply them to large portions of the site

The treatment systems proposed in the EENF are rather traditional in nature, and while they certainly can be designed to support the 80% TSS removal requirement of the DEP

Stormwater Policy, these sorts of systems (with the possible exception of the constructed wetland) cannot be reasonably expected to remove bacteria, nutrients or metals from stormwater runoff, nor to comply with the fecal coliform load allocation of 200 CFU/100 mL required by the Neponset River Watershed Bacteria TMDL under the Clean Water Act.

The literature indicates that some stormwater BMPs can meet not only TSS removal requirements, but are also able to remove some bacteria, Total Phosphorous, Total Nitrogen, and certain metals. Studies have found that the following BMPs remove at least some of each of these four pollutants:

- Constructed wetlands can remove around 75% of bacteria, 40% to 60% of TP, 20% to 55% TN, and 50% of lead and zinc. The applicant proposes to build only one on the project site.
- Wet retention ponds can remove 40% - 90% of bacteria, 30% -70% of TP, 10% - 50% of TN and 30% - 75% of metals. The applicant does not propose to construct any wet retention ponds.
- Infiltration basins can remove 90% of bacteria, 60% - 70% of TP, 50% - 60% of TN, and 85% - 90% of metals. The applicant proposes to use these only for roof runoff, which is already largely free of pollutants.
- Infiltration trenches can remove 90% of bacteria, 40% - 70% of TP, 40% - 80% of TN, and 85% - 90% of metals. The applicant does not appear to be proposing any of infiltration trenches.

Four other BMPs have the ability to significantly reduce TP, TN and metals, although their bacteria removing capabilities are poor or unknown. These are Vegetated filter strips (applicant has proposed just one), Detention Ponds (applicant does propose some), Extended Detention Basins (none proposed by applicant) and Bioretention areas/rain gardens (none proposed by applicant). In the EIR the applicant should investigate maximum use of all eight of these BMPs, with preference given to the first four.

Higher Potential Pollutant Loads (DEP Stormwater Policy standard # 5)

It is unclear from the EENF whether the proponent is considering 100% of the project site to be an area of higher potential pollutant loads and hence has proposed no recharge from paved surfaces, or whether no recharge from paved surfaces is proposed because the applicant feels the recharge requirement was satisfied using only roof runoff. Clearly some areas of the development would be considered higher potential pollutant load areas while others, arguably the majority of the site, would not. We would therefore encourage the applicant to delineate which specific areas fall into this category

For areas with higher potential pollution loads, Stormwater standard #5 requires both source reduction and pretreatment. The DEIR should discuss in greater detail alternatives for meeting this requirement. Many LID BMPs, such as bioretention, provide stormwater

treatment (i.e. pre-treatment) before recharge, as pollutants are removed at the soil surface level (generally much more effectively that would be the case with conventional pre-treatment) before being recharged at the sub surface level.

The current major discharge points to the river are also located within the Zone II, upstream of several of the wells and thus are also subject to DEP Stormwater Policy standard # 6. The DEIR should take a careful look at whether its proposed discharge points are in fact optimal for protecting both the river and the wells.

Redevelopment (DEP Stormwater Policy standard # 7)
As noted above, the applicant in the EENF shows only that it will meet DEP stormwater criteria for the additional impervious surfaces that the project will entail, but not that it will meet Standard 7 for Redevelopment. As stated on p. 1-29 of DEP's "Stormwater Management Volume One: Stormwater Policy Handbook":

> Components of redevelopment projects which include development of previously undeveloped sites do not meet the definition (of redevelopment). The portion of the project located in previously developed area must meet Standard 7, but project components within undeveloped areas must meet all the Standards.

The Redevelopment Standard requires that projects meet the Stormwater Policy to the "maximum extent practicable." This should be demonstrated in the DEIR. If it is not practicable to fully meet the standards, the DEIR should provide a detailed explanation of why not.

CONCLUSION. From water supply, wastewater, stormwater and streamflow perspectives, the proposed project presents extraordinary opportunities to re-establish more natural hydrologic patterns in a severely impacted area of the Neponset Watershed. The proponent has advanced a number of innovative ideas to bring these possibilities to fruition. However additional information should be provided in the DEIR, and we urge the proponent to take a more aggressive approach to realizing these opportunities, particularly in the areas of groundwater recharge and bioretention practices.

Sincerely yours,

Steve Pearlman
Advocacy Director

misc. proposed developments/westwoodstatoineenfcomments.final.doc