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DRAFT - FOR CONSIDERATION AT THE MAY 1, 2008 MEETING OF THE HIGHLANDS COUNCIL

Guidance for Evaluation of Water Transfers between Subwatersheds

The Regional Master Plan (RMP) is proposed to include the following requirement, with the amendment as underlined:

Objective 2B10f: Allow water resource transfers between or from Highlands subwatersheds only when there is no other viable alternative and where such transfers would demonstrably not result in impairment of resources in any subwatershed. Potential effects on upstream and downstream subwatersheds should be included in any such evaluation.

This policy applies to transfers within the Highlands Region and between subwatershed within and outside of the Region. The question then is what constitutes proof that there is no “viable alternative” to the proposed interbasin transfer, and that such transfers have acceptable impacts. Council staff recommends that the following steps be used as guidance for project sponsors:

1. Update to at least the most recent full calendar year the net water availability calculations for the HUC14 subwatersheds from which water for the development will be derived, based on the methods in the Regional Master Plan (RMP) at Policy 2B2 and Water Resource Technical Report (as amended in the Technical Report Addenda, November 2007). It is not appropriate to consider the net water availability from a subwatershed not directly used as a water source for the project unless the applicant can show that the subwatershed is hydrogeologically connected to and is a significant source of water to the directly affected subwatersheds. Note: Well pumping tests completed in compliance with NJDEP water allocation rules address localized impacts of well pumping and do not address the issues of net water availability for a subwatershed.
2. Show that ground water recharge upon completion of development will at least equal pre-construction recharge in compliance with N.J.A.C. 7:8. Note: any additional recharge required for the project as mitigation (see #7, below) is in addition to the NJDEP stormwater management rule requirements. Encroachment on Prime Ground Water Recharge Areas, as identified in the RMP, may also affect the recharge requirement.

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3. Develop a water demand profile for the proposed project based on anticipated water needs, showing anticipated monthly demands and total seasonal demands. Water usage should be quantified, both in terms of total demand and consumptive demand. The proposed wastewater treatment alternative should be identified so its potential depletive effects (exportation to another subwatershed) can be evaluated.
4. Develop a detailed water use protocol for the project, showing how the various sources of water will be used over a drought year. What sources will be relied upon under what conditions, and to what extent and at what rate, over the growing season months and other seasons, by month? Show how limits in water storage, surface water diversions, stormwater runoff capture, on-site reclaimed water for beneficial reuse (RWBR), and ground water allocation restrictions affect the use of each water source under the water use protocol. Show that the water source used for each major type of water demand (e.g., potable, irrigation, cooling) relies on the lowest quality water source that is both appropriate for that use and economically viable, as defined by NJDEP Water Allocation Rules. For instance, the interbasin transfer of RWBR shall be used for irrigation in preference to ground water or potable surface water supplies unless the transfer will create significant harmful environmental or growth impacts; conversely, use of on-site stored stormwater for irrigation shall have preference over interbasin transfers of RWBR.
5. Show and commit to (as a condition of approval) that (a) any proposed ground water use during the months of June through August or (b) any proposed surface water diversion in September will result in a consumptive or depletive water use that is less than the water availability (net or conditional) for the affected subwatersheds. The proposed consumptive and depletive use must not exceed Net Water Availability (if positive) for the subwatershed, or exceed the Conditional Water Availability for a deficit subwatershed unless a Water Use and Conservation Management Plan has been approved for that subwatershed by the Highlands Council. Where a Water Use and Conservation Management Plan has been approved, see #7 below.
6. Determine whether and the extent to which the use of all proposed water supplies based on #4 (e.g., stormwater storage, wells, on-site RWBR, off-site RWBR) is not sufficient to meet anticipated monthly demands without violation of RMP policies and objectives.
7. Determine the management response to any shortfalls identified in #6, including consideration of options such as project changes, irrigation restrictions and importation of untreated water or potable water to the subwatershed. If Conditional Water Availability in any subwatershed is used, then show and commit to (as a condition of approval) compliance with the approved Water Use and Conservation Management Plan for that subwatershed (if any) or mitigation of the consumptive and depletive use based on reduction of water demands or increases in ground water recharge in the same subwatershed in accordance with Objective 2B4b of the RMP.
8. If a water transfer (other than RWBR, see #4) between or from Highlands subwatersheds is determined to be the only viable option to meet any predicted shortfalls, then determine the minimum amount of imported water required while maximizing use of appropriate sources based on #4. Determine the feasibility of providing that amount of water to the proposed project. If economically infeasible at this minimum delivered flow, determine

the minimum imported water flow that would be necessary to achieve economic feasibility.

9. Based on the transfer need identified in #8, determine whether the source subwatershed has sufficient water supply based upon the relevant threshold below:
 - a. Net water availability for a Highlands Region subwatershed as described by the RMP;
 - b. Conditional water availability for a Highlands Region subwatershed as described by the RMP, including compliance with the adopted Water Management Plan for that subwatershed (if any) or the mitigation requirement as discussed in #7;
 - c. Safe yield available under contract from a surface water supply, with approval of the contract from NJDEP-Division of Water Supply;
 - d. Water availability for a non-Highlands Region HUC11 watershed, including approval from NJDEP-Division of Water Supply and, where applicable, from the NJDEP-Division of Watershed Management.
10. Where a transfer is proposed to the Highlands Region from an outside subwatershed, or where a transfer is proposed within the Highlands Region that will reduce the potential water availability (e.g., reservoir supplies) to an area outside of the Region, the transfer must have approval of the NJDEP-Division of Water Supply and be for the purpose of either reducing an existing Highlands Region deficit or supporting development that is otherwise in conformance with the RMP.
11. The Highlands Council may approve an interbasin transfer in advance of the process above, subject to approval as necessary from the NJDEP-Division of Water Supply, as necessary to address an imminent public health and safety threat that cannot be addressed in another manner within a reasonable schedule and where a binding commitment is made to address the requirements of this policy within one year of Council approval.