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

**Mitigation of New Consumptive or Depletive Water Uses in
Subwatersheds Having Water Deficits**

The Final Draft RMP includes Objectives regarding Conditional Water Availability in HUC14 subwatersheds that are Current Deficit Areas. The “Efficient Use of Water” Program (Chapter V) includes the provisions related to implementation of these objectives. Some public comments indicated that the assurances for mitigation were insufficient. The following procedure is recommended for ensuring that appropriate mitigation occurs:

1. Revise Objective 2B4b to clarify that the objective refers to the use of conditional water availability and is limited to the amount identified in Objectives 2B5a and 2B5b for the aggregate of all applications in a subwatershed. As currently written, Objective 2B4b has no apparent limitation on new consumptive and depletive water uses. The Council staff would track new uses against the conditional water availability over time. A cross-reference to Objective 2B4a makes clear that conformance with an approved Water Use and Conservation Management Plan can be used to replace the standard mitigation requirement. In addition, Objective 2B4b should not allow the creation of a new deficit area. Finally, the 125% mitigation requirement should be revised to reflect a range of thresholds (see white paper on “Water Deficit Policy Options”).

Objective 2B4b	Proposed increases in consumptive or depletive water uses within a Current Deficit Area shall provide mitigation equal to 125% of the proposed new consumptive or depletive water uses (up to an aggregate of the total conditional water availability of Objectives 2B5a or 2B5b) or as required by a Water Use and Conservation Management Plan approved under Objective 2B4a within the same HUC14 subwatershed through: a permanent reduction of existing consumptive and depletive water uses; ground water recharge in excess of the requirements of N.J.A.C. 7:8 (Stormwater Management Rules); or other permanent means.
Objective 2B5a	A Current Deficit Area subwatershed that is primarily within the Existing Community Zone shall be assigned a Conditional Net Water Availability of 2 percent of Ground Water Capacity, based on the Low Flow Margin Method, conditioned upon prior implementation or commitment for implementation of the 125% mitigation requirement in Objective 2B4b.
Objective 2B5b	A Current Deficit Area subwatershed that is primarily within the Protection Zone or Conservation Zone shall be assigned a Conditional Net Water Availability of 1 percent of Ground Water Capacity, based on the Low Flow Margin Method, conditioned upon prior implementation or commitment for implementation of the 125% mitigation requirement in Objective 2B4b.

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2. Modify the Planning Area and Preservation Area thresholds in the “Efficiency of Water Use” program to lower values more in keeping with the maximum conditional water availability values of approximately 50,000 gpd per subwatershed. Use 20,000 gpd in the Planning Area and 10,000 gpd in the Preservation Area; both values are consumptive plus depletive uses.

**Ensuring
Implementation of
Water Management
Plans**

Where a water utility or water user chooses to make a commitment to implementation of water use efficiency rather than implementing the measures prior to a new consumptive or depletive use, the following requirements shall apply:

1. All implementation measures shall be completed within one year of approval if the amount is less than 20,000 gallons per day in the Planning Area or 10,000 gallons per day in the Preservation Area, on average. Implementation may occur within a longer time period for larger amounts, up to five years from approval;
 2. If the implementing entity is a public agency, the commitment must be in the form of a binding resolution or ordinance of the governing body, and the cost of implementation must be bonded to ensure sufficient resources;
 3. If the implementing entity is a private corporation or individual, they must establish either an escrow account or provide bonding to ensure that the commitments are met. A public entity must be named as recipient of the escrow account or bonds in the event of default by the implementing entity, to be used by the public entity to complete implementation.
4. Each applicant shall identify the amount of total water use, new consumptive or depletive water use, the subwatershed(s) from which the water supply is derived, and (where applicable) the public water supply and wastewater systems that would provide service to the project site. The Highlands Council shall determine whether sufficient conditional water availability exists for the project. If not, the project shall be revised so that the conditional water availability for the relevant subwatershed is not exceeded.
 5. Where a Water Use and Conservation Management Plan has been approved by the Highlands Council, the applicant shall demonstrate compliance with that plan, including mitigation amounts, implementation schedules, cost contributions, monitoring, etc.
 6. Where a Water Use and Conservation Management Plan has not been approved by the Highlands Council, the applicant shall identify the amount of mitigation required, relative to the new consumptive or depletive water use.
 7. The applicant shall provide a **detailed mitigation plan**, including engineering drawings where constructed mitigation facilities are proposed, of the mitigation measures that will provide the necessary mitigation. The mitigation plan must include sufficient information to demonstrate that the mitigation measures are individually feasible and in the aggregate will meet or exceed the mitigation need. Where recharge is used, either off site or on site, the mitigation plan must show that the facility will recharge the ground water table such that it reasonably can be expected to support aquifer recharge or stream flow; in the latter case the estimated time of travel must be two months or more. The mitigation plan must also include operation, maintenance and monitoring requirements to ensure that sufficient recharge is maintained over time. An entity

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responsible for the mitigation plan must be identified and approved by the municipality and Highlands Council. Proof of acceptance of the mitigation plan by the responsible entity must also be provided. Where water conservation is used, either off site or on site, the mitigation plan must include a means by which water savings will be verified over time, such as metered flows. Any project unable to provide sufficient mitigation shall modify the project to reduce the consumptive or depletive water uses such that full mitigation is feasible.

8. The applicant shall provide a cost estimate with 10% contingency for implementation of the mitigation plan.
9. As a condition of Highlands Project Review or local approval for site development, the applicant shall provide an **escrow fund** or performance/maintenance bond (at the discretion of the entity responsible for the mitigation) equal to the mitigation plan cost estimate, to be available to the municipality and the Highlands Council for implementation of the necessary mitigation measures should the applicant fail to properly implement the measures according to the mitigation plan schedule. The escrow fund shall be established in the normal manner for a project development escrow account, and shall remain in effect until two years after implementation of all mitigation measures.
10. Where mitigation measures are to be implemented **on site through water conservation** (applicable only where the site includes existing land uses), the applicant shall implement the measures prior to receiving a certificate of occupancy for the new construction. If conservation measures include reduced irrigation of landscaping, protective covenants (e.g., homeowners association by-laws) must be enacted so that these measures are enforceable. Where the project development is in phases, implementation of mitigation measures must at a minimum be phased in proportionally over the same period, but can be implemented more quickly.
11. Where mitigation measures are to be implemented **off site through water conservation** in existing land uses, the applicant shall contract with the site owner(s), water utility or municipality for implementation, permanent operation and maintenance and routine monitoring of the mitigation measure(s). The measures shall be implemented prior to local approval of a certificate of occupancy for the new construction or within one year of project approval, whichever is later, if the mitigation amount is less than 20,000 gallons per day in the Planning Area or 10,000 gallons per day in the Preservation Area. Where the project development is in phases, implementation of mitigation measures must at a minimum be phased in proportionally over the same period, but can be implemented more quickly. Where the mitigation amount is greater than these Planning Area and Preservation Area thresholds, the mitigation plan must include a detailed schedule for implementation that maximizes the conservation achieved in the early years of the schedule, achieves full implementation in the shortest feasible time, and shall require no more than five years from project approval for complete implementation.
12. Where mitigation measures are to be implemented **on site through recharge**, the applicant shall include the mitigation measures in the project stormwater management plan, stormwater operation and maintenance manual, and site design. The stormwater management plan and O&M manual shall achieve permanent maintenance and routine monitoring of the mitigation measure(s) so that it continually achieves the required rate of recharge. Implementation shall occur within the same schedule as project development. Where the project development is in phases or longer than two years, implementation of mitigation measures must at a minimum be phased in proportionally over the same period, but can be implemented more quickly. If on-site recharge is

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not feasible due to site conditions, then provisions for off-site recharge must be provided. On-site conservation may still be implemented subject to the conditions described above.

13. Where mitigation measures are to be implemented **off site through recharge**, the applicant shall contract with the site owner(s) for construction, permanent operation and maintenance and routine monitoring of the mitigation measure(s) so that it continually achieves the required rate of recharge. Implementation must occur within the same schedule as project development, up to five years, if the mitigation amount is less than 20,000 gallons per day in the Planning Area or 10,000 gallons per day in the Preservation Area. Where the project development is in phases or longer than two years, implementation of mitigation measures must at a minimum be phased in proportionally over the same period, but can be implemented more quickly. Where the mitigation amount is greater than these Planning Area and Preservation Area thresholds, the mitigation plan must include a detailed schedule for implementation that maximizes the conservation achieved in the early years of the schedule, achieves full implementation in the shortest feasible time, and shall require no more than five years from project approval for complete implementation.
14. The responsible entity identified through #7, above, is responsible for reporting annually to the Highlands Council regarding implementation of the mitigation plan through the life of the escrow account, unless reporting is achieved through the Water Use and Conservation Management Plan. The applicant is responsible for establishing an ongoing system of reporting to the Highlands Council prior to release of the escrow account. The reporting system must operate until net water availability is no longer in deficit for the relevant subwatershed, or until the responsibility is absorbed into implementation of the Water Use and Conservation Management Plan.