

REVISED
Guidance Document # 1, March 2009
WASTEWATER MANAGEMENT PLAN DEVELOPMENT GUIDELINES
FOR SOMERSET COUNTY AND HIGHLANDS MUNICIPALITIES

The Somerset County Planning Division Staff, in cooperation with officials in New Jersey Department of Environmental Protection's (NJDEP) Division of Watershed Management the NJ Highlands Council and the Council on Affordable Housing, compiled the following guidelines for preparing certain aspects of the Wastewater Management Plan for Somerset County and its Highlands Municipalities. This guidance is intended to facilitate coordination among the requirements of the NJDEP Wastewater Management Planning Process, Executive Order 114, the Highlands Regional Master Plan - Conformance Process and NJ Council on Affordable Housing requirements.

Part 1 of this guidance pertains to the estimation of future wastewater flows and septic system yield using GIS spatial analysis tools, and the relationship of this to the process of delineating Sewer Service Areas, identifying and addressing capacity constraints for Conforming and Non-Conforming Municipalities. Additional guidance developed in coordination with NJDEP, Highlands Council, NJ Council on Affordable Housing and other agencies as appropriate will be provided throughout the development of the Wastewater Management Plan on an as-needed basis.

Part 2 of this guidance document pertains to the delineation of Sewer Service Areas; the preparation of other GIS maps to be included in the Wastewater Management Plan; Municipal Overlay Ordinances and Zoning District Amendments and Build-out requirements specific to Highlands Conforming and Non-Conforming Municipalities. Additional guidance developed in coordination with NJDEP, Highlands Council, NJ Council on Affordable Housing and other agencies as appropriate will be provided throughout the development of the Wastewater Management Plan on an as-needed basis.

PART 1

1) WMP Consistency/Conformance with the Highlands RMP

Wastewater Management Plan (WMP) Chapters for Conforming Municipalities must "conform" to the Highlands RMP, whereas WMP Chapters for Non-Conforming Municipalities must be "consistent" with the Highlands Regional Master Plan (RMP). The wastewater management planning process, standards and requirements specified in the RMP must be applied in Conforming municipalities, whereas the WMP process, standards and requirements defined in the WQMP Rules shall be applied in Non-Conforming Municipalities, with a few changes to achieve consistency with the Highlands RMP and to accommodate the requirements of Executive Order 114. The WQMP Rules prohibit NJDEP from adopting a WMP that is inconsistent with the Highlands RMP.

2) Coordination of the WMP and Conformance Processes

In order to facilitate coordination of the Highlands Conformance and WMP Process, the County WMP Process has been split into two Phases. Phase I will comprise complete Municipal WMP Chapters for Somerset County's Piedmont Municipalities and limited WMP maps for the County's Highlands Municipalities. Phase II will comprise the completed Municipal WMP Chapters for Somerset County's Highlands Municipalities, including any remaining maps not submitted as part of Phase I. Mapped information to be included in the County WMP may be more current and therefore contradict mapped information in the Adopted RMP and

associated Land Use Capability Map because Highlands RMP updates identified through the Conformance Process will not be integrated into the Plan until the Conformance Process is complete. Technical corrections or amendments to the County WMP may be required to reconcile differences in data and mapping that result over time.

2a) Conforming Municipalities: Completion of the Somerset County WMP Chapters for Conforming Municipalities is dependent on the completion of Modules 1 – Current Municipal Conditions and Build-out Analysis and Module 2 – Land Use and Resource Capacity Analysis of the Highlands Municipal Plan Conformance Process. These modules will yield the GIS data necessary for meeting the WMP Mapping requirements; build-out results - including wastewater and water demand; corrections to the “Existing Areas Served” dataset; the identification of “Future” SSAs; and solutions to capacity constraints. The updated Geodatabase resulting from the completion of Module 1 will be available to the County for preparing the maps for inclusion in Phase I of the County WMP. The Module 2 results will be essential for completion of Phase II of the County WMP. The estimated timeline for completion of these two Conformance Modules is June 2009. The deadline for the submission of Plan Conformance Petitions is December 8, 2009. Highlands Council-specified draft ordinances and local water conservation and septic management requirements must be addressed in the Municipal Wastewater Management Plan Chapters. Model documents prepared by the Highlands Council for use by municipalities are anticipated to become available in mid-2009.

2b) Non-Conforming Municipalities: The WMP Chapters for Non-Conforming Municipalities will be comprised of the same components as Conforming Municipalities, except that GIS data layers and maps will be developed by the County in coordination with municipalities and the County will utilize the Model Builder tool provided by NJDEP. The WMP Chapters for Non-Conforming municipalities can move forward at a faster timeline than those of Conforming Municipalities based on the availability of accurate, current local GIS data.

3) Build-Out and Capacity Analysis

Conforming and non-conforming municipalities will be treated differently in terms of how the build-out analysis associated with the WMP process will be performed. This analysis will determine future treatment plant-specific wastewater flow from any new development, as well as the number of septic systems permitted in General Service Areas (Septic Areas). Highlands Nitrate Dilution Standards will be applied in Conforming Municipalities and NJDEP-Highlands Hybrid Nitrate Dilution Standards will be applied in Non-Conforming Municipalities. The Completion of the Build-out and Capacity Analysis for both Conforming and Non-conforming municipalities and the identification of corresponding capacity solutions will be part of the County Phase II WMP submission.

3a) Build-Out and Capacity Analysis – Conforming Municipalities

The Highlands Council will perform a build-out analysis for Conforming municipalities using the updated Highlands Geodatabase resulting from the Completion of Module 1 of the Conformance Process and Highlands Build-out Model. The Build-out results will be made available to the County upon acceptance by the Municipality and Highlands Council. The model will specify the maximum build-out potential based on available land, infrastructure and environmental carrying capacity consistent with the RMP. Results will be generated at the municipal, zoning district, HUC 14 and Water Purveyor Service Area levels. Municipal zoning will be applied to any available land within “Existing Areas Served by Sewers”; the resulting future demand will be compared with existing water supply and sanitary sewer capacity to identify constraints. The identification of “Future” Sewer Service Areas within additional areas of the Existing Community Zone is dependent on the amount of remaining treatment plant capacity available, as well as water availability – the most limiting of the

two will prevail. The Model will apply the RMP Septic Standards to available land in non-sewered areas. Highlands exemptions are not specifically factored into the analysis. The Highlands Council will advise both conforming Municipalities and the County of allowable septic system yields, and municipalities will be responsible for modifying zoning district densities to conform to them as a County WMP and Conformance requirement. The County and its municipalities must also address any treatment plant capacity constraints as part of the County WMP. The County, conforming municipalities, sewerage authorities and the Highlands Council need to work together to identify appropriate solutions which must be included in the County WMP.

3b) Build-Out and Capacity Analysis – Non-Conforming Municipalities

County Planning Staff will perform a build-out analysis for Non-conforming Municipalities on a town-by-town basis using the NJDEP’s Model Builder Tool using GIS datasets developed in coordination with municipalities. The model will apply municipal zoning and refined County/Municipal Preferred Future SSAs to specify the maximum build-out potential based on available land, and will calculate wastewater flows and water supply demand for comparison with existing treatment plan capacity and water supply availability. Future demand associated with adopted redevelopment areas, approved development projects and planned COAH sites identified by municipalities will be incorporated to improve the accuracy of the analysis. The Model will also generate septic yield based on zoning as well as septic yield based on a Nitrate Dilution Standard specified by NJDEP for comparison so that carrying capacity constraints can be identified. Results will be generated at the municipal, zoning district, HUC 14 and Water Purveyor Service Area levels.

The County may also choose to use detailed, updated parcel and zoning-based build-out analyses performed by municipalities and provided to the County for use in preparing the Phase II WMP submission. Municipalities providing alternative build-out analyses must provide sufficient detail concerning the methodology employed to enable the County and NJDEP to determine its validity.

The County will advise non-conforming Municipalities of allowable septic system yields, and where existing zoning would exceed the allowable yield, municipalities will be responsible for modifying zoning district densities to conform to them. Allowable septic yield by HUC 14 will be apportioned to municipalities based on land area. The County and its municipalities must also address any treatment plant capacity constraints as part of the County WMP. In the EDC Service Area, future wastewater flows will be compared to municipal contracted flow allocations. The County, both conforming and non-conforming municipalities, regional and local sewerage authorities and the Highlands Council will need to collaborate together to identify appropriate solutions to Sewerage Treatment Plant capacity constraints, which must be included in the County Phase II WMP.

4) Existing Areas Served and Future Sewer Service Areas

NJDEP previously approved Sewer Service Areas remain in effect until the NJDEP adopts the new County WMP, provided the County WMP is completed in accordance with the timeline requested by the County and approved by NJDEP.

The attached letter from Larry Baier explains the difference between “consistency” and “conformance” with respect to the County Wastewater Management Plan. For delineation of future sewer service area boundaries, both conforming and non-conforming municipalities are subject to the same consistency requirements. Therefore, **future sewer service area boundaries in both Conforming and Non-conforming municipalities are limited to “Existing Areas Served, Existing Community Zones (unconstrained only), and Lake**

Community Sub-zones.” No future sewer service areas are permitted in the Existing Community Environmentally Constrained Subzone, Conservation or Protection Zone to serve new development (with the exception of certain cluster development under specific circumstances, or for a Highlands waiver to address documented threats to public health and safety, Highlands redevelopment, or to avoid a “taking”). Future Sewer Service Areas shall be inclusive of the Highlands Council’s Existing Areas Served GIS map.

GIS – based map(s) illustrating Existing Areas Served by Sewers will be included in the **Phase 1** County WMP submission for each Highlands Municipality. Non-Conforming municipalities have the option of providing “Future” Sewer Service Area maps in their Phase I submission. Any Future Sewer Service Areas identified for Conforming municipalities through the Conformance process will be incorporated into the Phase II WMP.

4a) Existing Areas Served and Future Sewer Service Areas - Conforming Municipalities

Conforming municipalities are required to use the Highlands Geodatabase and Module 1 process to identify and substantiate corrections to current municipal conditions for the Highlands Existing Areas Served data layer. As mentioned above, this updated data layer will be used for the Build-out Analysis performed by the Highlands Council and well as for the preparation of required WMP maps. Municipalities can identify “Future” Sewer service Areas and/or “Highlands Redevelopment Areas” consistent with the RMP during the Plan Conformance Process, in coordination with the Highlands Council. Delineation of Future Sewer Service Areas and Highlands Redevelopment Areas must be commensurate with available water supply, sewer system capacity and water availability as determined by the Highlands Council Build-out Analysis, and are to be mapped in accordance with the below delineation criteria. Future Sewer Service Area and Highlands Redevelopment Area maps and associated water and sewer demand will be incorporated into the Phase II WMP submission to NJDEP.

4b) Existing Areas Served and Future Sewer Service Areas – Non-Conforming Municipalities

Non-Conforming municipalities may use the Highlands Existing Areas Served data layer and the County Planning Division’s Existing Parcels Served data layer as a starting point for developing an accurate, parcel-based representation of Existing Areas Served by Sewers. Information from billing records, undeveloped projects with TWA approvals and other suitable sources can be used for preparing this data layer. Future Sewer Service Areas include Existing Areas Served as well undeveloped projects with preliminary or final local approvals, infill and redevelopment areas, and other environmentally unconstrained available lands consistent with the WQMP Rules. The Future Sewer Service Area GIS data layer will be used for the Build-out Analysis performed by the County.

4c) Delineation Criteria: Existing Areas Served

- Subdivisions and site plans with final local approval and wastewater approval (TWAs) consistent with the existing Wastewater Management Plan and that are not yet built should be included within “Existing Areas Served” for Non-conforming Municipalities. (For Conforming Municipalities, these projects are tracked separately but are not considered Existing Areas Served and may or may not be included in the Future Sewer Service Area based on conformance with the RMP – see section 4 d below). In Conforming Municipalities, where the resulting development will leave undeveloped any fragments of larger, contiguous Conservation or Protection Zones or Environmentally Constrained Sub-zones that are greater than 2 acres, these areas should be excluded.
- Recent development not identified by the Highlands Council as “Existing Areas Served” that is currently receiving sanitary sewer service should be added. These corrections can conform to the entire parcel if it is fully developed and cannot be further subdivided in Non-Conforming Municipalities. However, in Conforming Municipalities, remaining undeveloped

fragments of larger, contiguous Conservation or Protection Zones that are greater than 2 acres should be excluded.

- Technical corrections can also be made to remove parcels or areas from Existing Areas Served that are deed restricted or constrained by easements or other mechanisms such that they will not be developed so as to generate future wastewater demand. NJDEP does not require these to be removed unless they are environmentally constrained.
- Corrections to the Existing Areas Served dataset can also be accomplished by Conforming municipalities through the use of the Highlands Geodatabase in Module 1 as indicated above. Corresponding corrections to the Highlands LUCM Zones may be made by the Highlands Council based upon submittal of all required data for RMP Updates.

4d) Delineation Criteria: Future Sewer Service Area Boundaries

- Future SSA Boundaries should generally follow parcel boundary lines, provided that any Conservation or Protection Zones or Environmentally Constrained Sub-Zones located within the parcels are excluded from the Future SSA unless they are less than two acres in area.
- Future SSA Boundaries can include subdivisions and site plans with preliminary or final local approval and unconstrained infill parcels that are consistent with the Highlands RMP Existing Community Zone (unconstrained), NJDEP approved SSA boundaries and 7:15- 5.24 in Non-conforming Municipalities. They should also be consistent with municipal zoning and master plans, approved variances and court settlements; and correspond to water availability and sewer capacity. For Conforming Municipalities, Future SSA boundaries must conform to the RMP and meet the RMP requirements regarding utility capacity and water availability.
- The location of proposed COAH Sites should be consistent with the Highlands RMP and WQMP requirements. In Non-conforming Municipalities, proposed COAH inclusionary and all-affordable development projects that rely on sanitary sewer service should be located within the Highlands RMP Existing Community Zones and NJDEP approved Existing SSA boundaries, and avoid impacting environmentally constrained areas pursuant to 7:15-5.24. The County recommends that Municipal Chapters distinguish between future water and wastewater demand associated with COAH projects and total future demand since the COAH Rules specify that available capacity allocation to COAH projects must be prioritized. Additional guidance will be issued by the Highlands Council regarding where and how future COAH obligations can be met in Conforming Municipalities consistent with the State Fair Housing Act Amendments adopted in July 2008.
- Permanently preserved open space and farms should be excluded from SSA Boundaries, except for areas within parks that have or are planned to have sanitary facilities, provided areas to be served are within the Existing Community Zone. Such areas that are already served can be within any Highlands RMP Zone.
- Existing developments that are located within the Existing Community Zone, and adjoin previously approved SSA Boundaries and Existing Areas Served that contain clusters of documented failing septic systems that pose a documented threat to public health and cannot be remedied through on-site systems should be included within SSA Boundaries. Similarly, the Highlands Council will consider including existing developed parcels with failing septic systems located outside the Existing Community Zone and adjoining Existing Areas Served provided appropriate documentation is provided by local or county health officers. Such areas may be addressed by appropriate communal or public wastewater systems, depending on their location.
- Should the Highlands Council approve local designation of targeted growth areas such as Transfer of Development Rights receiving areas, Transit Oriented Developments, Highlands

Redevelopment Areas and brownfield redevelopment sites that are consistent with the Highlands RMP and that will rely on sanitary sewer service, these should be included within SSA Boundaries for existing or new sewage treatment facilities as appropriate.

- Other adjustments can also be made to SSA boundaries based on municipal conditions data provided in Module 1 for the Highlands Council’s Geodatabase. Municipalities can also revise SSA boundaries based on wetland “Letters of Interpretation”, riparian buffer modifications approved by NJDEP, habitat suitability analyses, etc., where those constraints were the basis for initial exclusion from the SSA boundaries.
- Linear, fragmented or isolated Environmentally Constrained Subzone areas, regardless of size, that are scattered within Sewer Service Area Boundaries do not have to be removed from SSA boundaries, provided appropriate written statements are included within the County WMP and on the associated SSA maps precluding the extension of sanitary sewer facilities into these areas pursuant to the Highlands Regional Master Plan. Such statements must be backed by ordinance language, such as that used for RMP Conformance.
- Future Sewer Service Areas identified through the Plan Conformance Process will be incorporated in the County WMP may be integrated into the Highlands RMP through the Plan Update Process.

5) Other GIS WMP Maps – Conforming and Non-Conforming Municipalities

The Phase I County WMP will include maps that illustrate the following features for all Conforming and Non-Conforming Municipalities:

- Wastewater Planning Areas as appropriate
- Sanitary Sewer Infrastructure (interceptors, mains, trunk lines, pump stations and treatment plans)
- Inclusionary and “All Affordable” COAH housing developments that depend on sanitary sewer service
- State, County and Local Permanently Preserved Farms
- Federal, State, County and Local Permanent Open Space
- Highlands LUCM Zones

Maps that illustrate proposed Future Service Areas, Adopted Redevelopment Areas and COAH sites may be included in the Phase I County WMP for Non-Conforming Municipalities.

6) WMP Overlay Ordinances

6a) Non-conforming Municipalities: Non-conforming Municipalities within the Highland Region will be required to provide the below WMP overlay zone ordinances, copies of which must be included in the Phase II County WMP. Draft or adopted ordinances that are consistent with the sample ordinances provided by NJDEP are acceptable. However, evidence that the required ordinances have been adopted shall be submitted to the County and NJDEP prior to adoption of the Phase II County WMP.

- Steep Slope Protection Ordinance
- Riparian Protection Ordinance
- Septic Management Plan and Ordinance
- Stormwater Management Plan and Ordinance

6b) Conforming Municipalities: Conforming municipalities will be required to adopt a “Highlands Land Use Ordinance”, and other ordinances required to achieve Plan Conformance. Model Ordinances are being developed by the Highlands Council for this purpose. A letter of Approval of Plan Conformance by the

Highlands Council shall be provided for inclusion in the County Phase II WMP as evidence that the Highlands Council's ordinance requirements have been met.

NJDEP approval of the County WMP – Municipal Chapters - may be granted conditionally to Non-conforming Municipalities based on the preparation, adoption and implementation of Municipal Water Use and Conservation Management Plans and Ordinances in water supply deficit areas, pending completion of the Rulemaking Process associated implementation of EO 114. For Conforming Municipalities, Municipal Water Use and Conservation Plans and Ordinances should be completed as part of the Plan Conformance Process. The Highlands Council will provide model documents that can be used for meeting these requirements.

7) Zoning District Amendments

Amendments to municipal zoning districts in terms of their area, allowable densities and uses will be required that address capacity constraints as part of the Phase II submission for both Conforming and Non-conforming municipalities. Draft or adopted Zoning District Amendments will be required with the submission of the County Phase II WMP to NJDEP and the Highlands Council. Evidence that said amendments have been adopted by non-conforming municipalities must be provided to the County and NJDEP within 6 months of NJDEP adoption of the Phase II WMP. For conforming municipalities, approval of Plan Conformance by the Highlands Council will be considered proof of this step.

8) County and Municipal Roles

The deadline for submission of the County Wastewater Management Plan remains April 2009 while petitions for Highlands Plan Conformance are due by December 8, 2009. Approval of Highlands Plan Conformance Petitions will be scheduled by the Highlands Council during 2010. The County will request an extension of the April 2009 deadline for completing the Phase I and Piedmont portion of the County WMP, as well as identify a separate timeline for completing the Phase II Highlands portion of the County WMP, to coordinate with the Highlands Plan Conformance Process as reflected in the Phased WMP submission described above. Please note that the NJDEP will allow additional changes to the County Wastewater Management Plan resulting from municipal actions to comply with the requirements for Highlands Plan Conformance through the WMP amendment process. The new timeline for completing Phase I and Phase II of the County WMP will be coordinated with Municipal WMP Committees and will be forthcoming.

A revised work plan reflecting the new roles and responsibilities of the Consultant and the County Planning Division pursuant to the County's agreement with NJDEP to serve a pilot in creating a model WMP consistent with the WQMP Rules adopted July 7, 2008 has been prepared.

The County has prepared an overview of the public involvement process and public notification requirements per the WQMP rules, as well as additional recommendations for public involvement at the County and Local level, which have been incorporated into the revised work plan. Additional guidance is being pursued from NJDEP regarding this topic, and will be forthcoming. The County will be posting maps and other components of the Municipal WMP Chapters and the County WMP on the Planning Board's Website once they are finalized. The County will be holding additional public meetings, and will request a Hearing on the draft County WMP be conducted by NJDEP, with public notice published in the NJ Register in accordance with the WQMP Rules. The County is also requiring municipalities to endorse the County WMP and associated Municipal WMP Chapter via resolution, copies of which shall be included in the County WMP.

Municipalities will be responsible to act in a timely manner in providing information and feedback on draft maps and documents, and to cooperate fully with the County Planning Board to meet the new project completion timelines.

