Southwest Florida Regional Planning Council

Managed Care Model Guidance for Onsite Wastewater Systems Planning, Treatment and Management

Resolution #2008-02

A RESOLUTION RELATING TO ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS WITHIN SOUTHWEST FLORIDA; PROVIDING SPECIFIC RECOMMENDATIONS AND GUIDELINES TO BE CONSIDERED BY LOCAL GOVERNMENT JURISDICTIONS FOR THE REGULATION, MANAGEMENT AND CONTROL OF ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS; PROVIDING RECOMMENDED DEFINITIONS; PROVIDING RECOMMENDATIONS FOR THE REGULAR MAINTENANCE AND INSPECTION OF EXISTING ONSITE WASTEWATER SYSTEMS AND ADOPTING INSPECTION STANDARDS AND REQUIRING TRAINING FOR SYSTEM INSPECTORS; PROOF OF MAINTENANCE AND INSPECTION TO BE PROVIDED TO THE LOCAL GOVERNMENT HEALTH DEPARMENT OR RESPONSIBLE MAINTENANCE ENTITY ON A FORM PREPARED BY THAT ENTITY; PROVIDING PERFORMANCE STANDARDS FOR ONSITE WASTEWATER SYSTEMS; PROVIDING RECOMMENDATIONS ON DEVELOPING INTEGRATED MANAGEMENT PLANS USING MANAGEMENT MODELS FOR CENTRALIZED AND DECENTRALIZED TREATMENT SYSTEMS, PROVIDING RECOMMENDATIONS FOR PUBLIC EDUCATION PROGRAMS; PROVIDING RECOMMENDATIONS FOR APPEALS, ADMINISTRATIVE RELIEF AND PENALTIES; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Southwest Florida is a region where the water quality of the bays, estuaries, rivers, lakes, wetlands, bayous and the Gulf of Mexico is critical to the region's environmental, economic, and recreational prosperity and to the health, safety and welfare of the citizens of this region; and

WHEREAS, recent increased frequency and duration of red tide blooms and increased accumulation of red drift algae on local beaches and other algae and water related problems have heightened community concerns about water quality and cultural eutrophication of surrounding waters; and

WHEREAS, there is a need to develop a stronger knowledge of the connection between activities in yards, streets, and stormwater systems and natural water bodies among all those who live, work and recreate in the Southwest Florida Region; and

WHEREAS, this resolution is part of a multi-pronged effort by the Southwest Florida Regional Planning Council to reduce nutrient leaching and runoff problems by actions including, but not limited to, stormwater management, water conservation, septic systems, central sewage treatment, public education, restoration of surface and groundwater levels; and regional drainage of native habitats; and

WHEREAS, onsite wastewater treatment systems are commonly used in various forms throughout southwest Florida; and

WHEREAS, leaching and runoff of nutrients, pharmaceuticals, personal care products and pathogen contamination from substandard, improperly located or malfunctioning onsite wastewater treatment systems can contribute to pathogen, nitrogen and phosphorus pollution of the Southwest Florida's water resources; and

NOW, THEREFORE, BE IT RESOLVED by the Southwest Florida Regional Planning Council that the following provisions are recommended to local government jurisdictions in Southwest Florida as a basis for controlling, regulating, managing and monitoring the use and application of onsite wastewater treatment systems in Southwest Florida:

SECTION 1: PURPOSE AND INTENT

A. The Southwest Florida Regional Planning Council declares its support for the reasonable regulation and control of onsite wastewater systems and hereby provides specific management guidelines for onsite wastewater systems in order to minimize the negative environmental effects said systems have in and on Southwest Florida lakes, canals, estuaries, interior wetlands, rivers and near shore waters of the Gulf of Mexico. Collectively these water bodies are a natural asset, which are critical to the environmental, recreational, cultural and economic well being of this region and the surrounding areas and contribute to the general health and welfare of the public. Recent bacteriological contamination, red tide blooms, accumulation of red drift algae on local beaches, and the freshwater releases from Lake Okeechobee via the Caloosahatchee River have heightened community concerns about water quality and eutrophication of estuary, bay, river and coastal waters. Regulation of nutrients, including both phosphorus and nitrogen entering the water bodies in this region and prevention of pathogen contamination is a crucial step towards improving and maintaining water and habitat quality.

B. The purpose of this Resolution is to provide specific recommendations and guidelines to be considered by local government jurisdictions in Southwest Florida for the regulation of onsite wastewater systems.

C. Properly designed, installed, sited and maintained onsite wastewater systems are an effective means to deal with sewage. Current regulatory requirements only address the installation of septic systems, and there are few systematic educational opportunities instructing homeowners on septic system maintenance requirements. Hence, homeowners frequently do not understand the maintenance requirements of septic systems leading to system failures and a shortened system lifespan. While most operational failures that directly affect the homeowner are identified and

corrected promptly, the detection of functional failure of septic systems generally occurs when the water quality in an adjacent water body degrades and the search for potential sources identifies failing septic systems. The current response mechanism is reactive and results in repairs that are more expensive and time-consuming. In addition, onsite treatment regulations currently rely on prescriptive criteria that specify the type of system that must be installed and the types and depth of soils that must be present. They also require mandatory setbacks from seasonally high water tables, property lines, wells, surface waters, and other landscape features so that sewage impacts to these features do not occur. To be effective, these standards must be location-specific depending on geology, soils, slopes and groundwater tables of the location. Performance-based approaches are an alternative to prescriptive standards that makes use of emerging technology to select and size system technologies appropriate for the estimated flow and strength of the wastewater at the site where treatment is to occur. Therefore, this resolution seeks to establish a proactive approach to onsite wastewater system management and to further the use of performance-based permitting approaches. The principal objectives of this Resolution are as follows:

a. The protection of Southwest Florida's lakes, rivers and streams, wetlands, and groundwater essential to the promotion of public health, safety, welfare, socioeconomic growth and development of the region in perpetuity.

b. The proper management of onsite wastewater treatment systems to prevent the entry and migration of contaminants, thereby ensuring the non-degradation of surface water and groundwater.

c. The establishment of minimum standards for onsite wastewater systems management to prevent contamination and, if contamination is discovered, the identification and control of its consequences and the abatement of its source and migration.

d. The prevention and control of water-borne disease, lake degradation, groundwater related hazards, and public nuisance conditions through regular maintenance and inspections by trained operations and maintenance professionals.

SECTION 2: RECOMMENDED DEFINITIONS

The following are the minimum recommended definitions and the words, terms, and phrases when used in this Resolution shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:
The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Aerobic Treatment Unit (ATU): A mechanical wastewater treatment unit that provides secondary wastewater treatment for a single home, a cluster of homes, or a commercial establishment by mixing air (oxygen) and aerobic and facultative microbes with the wastewater. ATUs typically use a suspended growth process (such as activated sludge-

extended aeration and batch reactors), a fixed-film process (similar to a trickling filter), or a combination of the two treatment processes.

Alternative Onsite Treatment System: A wastewater treatment system that includes components different from those typically used in a conventional septic tank and subsurface wastewater infiltration system (SWIS). An alternative system is used to achieve acceptable treatment and dispersal of wastewater where conventional systems either might not be capable of protecting public health and water quality or are inappropriate for properties with shallow soils over groundwater or bedrock or soils with low permeability. Examples of components that can be used in alternative systems are sand filters, aerobic treatment units, disinfection devices, and alternative subsurface infiltration designs such as mounds, gravel-less trenches, and pressure and drip distribution.

NSF Standard 40 Treatment Units and Advanced Wastewater Treatment Units: a sewage treatment unit which introduces air into sewage to provide aerobic biochemical stabilization within a treatment receptacle.

Onsite Sewage Treatment and Disposal System (OSTDS): Any domestic sewage treatment and disposal facility, including standard subsurface systems, gray-water systems, laundry wastewater systems, alternative systems or experimental systems, installed on land of the owner or on other land to which the owner or owners have the legal right to install a system.

Centralized Wastewater System: A managed system consisting of collection sewers and a single treatment plant used to collect and treat wastewater from an entire service area. Traditionally, such a system has been called a publicly owned treatment works (POTW) as defined at 40 CFR 122.2.

Clustered System: A wastewater collection and treatment system under some form of common ownership that collects wastewater from two or more dwellings or buildings and conveys it to a treatment and dispersal system located on a suitable site near the point of origin.

Comprehensive Plan: The local government comprehensive plan pursuant to Ch 163.3164 et seq, Florida Statutes. Plan recommends the land use densities and intensities. The general sanitary sewer element (Section 163.3177 (6) C) shall incorporate the integrated, comprehensive management plans for onsite/decentralized and centralized wastewater treatments systems as set forth in Section 6 below.

Decentralized wastewater treatment systems: individual onsite or clustered wastewater systems (commonly referred to as septic systems, private sewage systems, individual sewage treatment systems, onsite sewage disposal systems, or "package" plants) used to collect, treat, and disperse or reclaim wastewater from individual dwellings, businesses, or small communities or service areas.

Department: the Local Government Health Department.

Drainfield: a system of open-jointed or perforated piping approved alternative distribution units or other treatment facilities designed to distribute effluent for filtration, oxidation and absorption by soil within the zone of aeration.

Failure: a condition existing within an onsite wastewater treatment or decentralized system which prohibits the system from functioning in a sanitary manner and which results in the discharge of untreated or partially treated wastewater onto ground surface, into surface water, into groundwater, or which results in the failure of building plumbing to discharge properly.

Management Model: A 13-element program designed to protect and sustain public health and water quality through the use of appropriate policies and administrative procedures that define and integrate the roles and responsibilities of the regulatory authority, system owner, service providers, and management entity, when present, to ensure that onsite and clustered wastewater treatment systems are appropriately managed throughout their life cycle. The program elements include public education and participation; planning; performance; training and certification/licensing; site evaluation; design; construction; operation and maintenance; residuals management; compliance inspections/monitoring; corrective actions; recordkeeping, inventory, and reporting; and financial assistance and funding. Management services should be provided by properly trained and certified personnel and tracked through a comprehensive management information system.

Performance-based treatment system: a specialized onsite sewage treatment and disposal system designed by a professional engineer with a background in wastewater engineering, licensed in the state of Florida, using appropriate application of sound engineering principles to achieve specified levels of CBOD5 (carbonaceous biochemical oxygen demand), TSS (total suspended solids), TN (total nitrogen), TP (total phosphorus), and fecal coliform found in domestic sewage waste, to a specific and measurable established performance standard. This term also includes innovative systems.

Performance-Based Management Program: A program designed to preserve and protect public health and water quality by seeking to ensure sustained achievement of specific, measurable performance criteria based on site and risk assessments.

Performance Criteria: Any criteria established by the regulatory authority to ensure future compliance with the public health and water quality goals of the community, the state or tribe, and the federal government. Performance criteria can be expressed as numeric limits (e.g., pollutant concentrations, mass loads, wet weather flow, structural strength) or narrative descriptions of desired conditions or requirements (e.g., no visible scum, sludge, sheen, odors, cracks, or leaks).

Prescription-Based Management Program: A program designed to preserve and protect public health and water quality by specifying pre-engineered system designs for specific sets of site conditions such that systems that are sited, designed, and constructed properly are deemed to meet public health and water quality standards.

Prescriptive Requirements: Specifications for design, installation, and other procedures and practices for onsite or clustered wastewater systems on sites that meet stipulated criteria. Proposed deviations from the stipulated criteria, specifications, procedures, or practices require formal approval from the regulatory authority.

Owner: The fee owner(s). Ownership interests shall be determined by reference to the records of the Local Government. The owner of each lot upon served by an onsite wastewater system is responsible for the lawful operation and maintenance of each onsite wastewater system.

Person: an individual, public or private corporation, company, association, partnership, municipality, agency of the state, district, federal or any other legal entity or its legal representative, agent or assignee.

Repair: modifications or additions to a failing or substandard system that are necessary to allow the system to function or must be made to eliminate a public health or pollution hazard. Pumping of septage from a system or making minor structural corrections to a septic tank does not constitute a repair.

Regulatory Authority: The unit of government that establishes and enforces codes related to the permitting, design, placement, installation, operation, maintenance, monitoring, and performance of onsite and clustered wastewater systems.

Responsible Maintenance Entity: A legal entity responsible for providing various management services with the requisite managerial, financial, and technical capacity to ensure the long-term, cost-effective management of decentralized onsite or clustered wastewater treatment facilities in accordance with applicable regulations and performance criteria.

Septic tank: a watertight receptacle constructed to promote separation of the solid and liquid components of wastewater, to provide limited digestion of organic matter, to store solids and to allow clarified liquid to discharge for further treatment in soil absorption systems and other treatment devices.

Septic tank contractor: a contractor whose services are unlimited in the septic tank trade and is registered and licensed by the department of health in accordance with the provisions of F.S. § *489.552.*

Surface water: a recognizable body of water, including swamp or marsh areas, bay heads, cypress ponds, sloughs and natural or constructed ponds contained within a recognizable boundary. This does not include storm water retention or detention areas designed to contain standing or flowing water for less than 72 hours after a rainfall. The landward extent of waters shall be demarcated by F.A.C. 62-4.022; however, in no case shall the landward extent of such waters extend above the elevation of the one in ten-year recurring flood extent, or that area of land occupied by standing or flowing water for more than 30 consecutive days per year, as calculated on an average annual basis, whichever is more landward. Such extent shall be defined by species of plants or soils that are characteristic of those areas subject to regular and periodic inundation.

SECTION 3: RECOMMENDATIONS RELATING TO ONSITE WASTEWATER DISPOSAL SYSTEMS; INSPECTION PROCEDURES; ASSESSMENT

A. Inspection Procedures: All inspections shall be performed by registered septic tank contractors, licensed plumbers, licensed wastewater treatment plant operators, or certified environmental health professionals with training on the units being inspected. Procedures used by the inspector shall be documented. At a minimum, the inspection shall include a tank inspection, a drainfield inspection, and a written assessment of the condition of the system. At any time where the inspector finds that the system is in failure, or has been in failure, the inspector shall inform the owner and the County Health Department and Responsible Maintenance Entity of the findings.

1. Existing septic systems or other onsite sewage treatment and disposal systems shall be inspected every three to five years at a minimum. .

2. The inspection is designed to assess the condition of a system at a particular moment in time. The inspection will identify obvious substandard systems, for example, systems without drainfields, systems with overflow pipes, or systems otherwise discharging improperly treated sewage. The inspection is not designed to determine precise code compliance, nor precise information to demonstrate that the system will adequately serve the use to be placed upon it by this or any subsequent owner. Nothing in this section shall be construed to limit the amount of detail an inspector may provide at their professional discretion. Inspectors must receive advanced training in operations and maintenance of onsite wastewater systems and inspector training.

3. Aerobic treatment units and performance-based treatment systems shall not be evaluated using these criteria; rather the responsible management entity or inspector shall obtain an operating permit from the Department of Health. These inspection procedures are intended to be used as a minimum standard when these types of inspections are performed. Additional inspections may be performed. This procedure shall be used for onsite sewage treatment and disposal system inspection at a minimum of once every three to five years to ensure that systems are not harming the environment or public health.

4. Tank Inspection: The tank must be pumped at the time of inspection to determine its capacity. Visual inspection of the tank must be made when the tank is empty to: a) detect cracks, leaks, or other defects, b) check baffles and tees to ensure they are intact and secure, c) note the presence and condition of outlet device, effluent filters and compartment walls, d) note any structural defects in the tank, e) note the condition and fit of the

tank lid, including manholes. If the tank, in the professional opinion of the inspector, is in danger of being damaged by leaving the tank empty after inspection, the tank will be refilled with water prior to concluding the inspection. Where proof of a tank pumping, permitted new installation or permitted repair, or permitted modification can be documented within the previous repair, or permitted modification can be documented within the previous three years, and where the document states the capacity of the tank and that the condition of the tank does not constitute a sanitary nuisance, the inspector may waive the pumping requirement.

5. Drainfield Inspection: The drainfield area should be probed at the time of inspection to determine its location and approximate size. Note whether the drainfield is a trench or bed configuration and whether it is made of mineral aggregate, non- mineral aggregate or plastic chambers. In addition, note any indications of previous failure, such as the condition of surface vegetation. For example, is there any seepage visible or excessively lush vegetation. The inspection should note if there is ponding water within the drainfield and if there is even distribution of effluent in the field. The inspection should note any downspouts or drains that encroach or drain into the drainfield area. Where the system contains pumps, siphons, alarms, the following information is required:

a. Dosing tank integrity, approximate volume and material used in construction (i.e., concrete, fiberglass, plastic)
b. Pump elevated off the bottom of the chamber
c. Pump operational status
d. If there is a check valve, is a purge hole present?
e. Is there a high water alarm present?
f. Type of alarm (audio/visual/both) and the location
g. Does the alarm work?
h. Do electrical connections appear satisfactory?
i. Can surface water infiltrate into the tank?
j. Indicate whether the pump tank was pumped out

B. Assessment: The inspector shall provide a copy of a written signed inspection report to the person requesting the assessment and the owner of the system and to the county health department within 5 days of completing the inspection. The report shall indicate whether the system is or is not, in the professional opinion of the inspector:

a. A sanitary nuisance through:
• allowing the discharge of untreated or improperly treated waste.
• an improperly built or maintained sewage treatment tank.
• the creation, maintenance, or causing of any condition capable of breeding flies, mosquitoes, or any other arthropods capable of transmitting diseases directly or indirectly to humans.
b. The report will indicate any maintenance that needs to be performed on the system.

C. Disclosure Statements:

The following conditions, when determined during the course of an inspection, shall be disclosed using the appropriate disclosure statement(s) below:
1. When the inspector detects cracks, leaks, improper fit or other defects in the tank, manholes or lid; the report shall state that the damaged or defective item or tank be properly corrected.
2. When the inspector detects any missing or damaged component of the system, the report shall state that the missing or damaged component be replaced or an approvable replacement reinstalled in the system.
3. When the inspector detects previous failure indicators, these should be documented in the report.
4. When the inspector detects ponding of the drainfield or uneven distribution of effluent, documentation of the extent of such ponding or uneven distribution shall be included in the report.
5. When the inspector detects downspouts or other storm water or other source of water directed toward the system, the report shall state that these sources be directed away from the system.
6. When the inspector finds that any portion of the drainfield is covered by pavement or driveways that the pavement or driveway be removed from that location.

D. Any condition or situation existing on the site at the time of the inspection that, in the opinion of the inspector, would possibly interfere with the proper function or restrict any future repair to or modification to the existing system shall be included in the report.

SECTION 4: RECOMMENDATIONS RELATING TO ONSITE WASTEWATER DISPOSAL SYSTEMS; BEST AVAILABLE TECHNOLOGY; RELATIONSHIP TO CENTRAL SYSTEMS

A. No new onsite wastewater treatment systems should be permitted on Barrier Islands, Bay Islands, Sound Islands, Pass Islands or the like unless they meet performance criteria described in Section 5 below.

B. Existing systems on Barrier Islands, Bay Islands, Sound Islands, Pass Islands or the like shall be upgraded until the system meets performance criteria described in Section 5 below including evaluation criteria.

C. No new onsite wastewater treatment systems should be permitted on the mainland unless there is no available connection to a centralized sewer system and the onsite systems meet performance criteria described in Section 5 below including evaluation criteria.

D. When centralized wastewater collection systems are in or come into contact with onsite wastewater treatment systems, the onsite wastewater treatment system owners will hook up to the Central Wastewater Treatment System and apply for a permit to decommission the onsite system. Exemptions are allowed for those communities who choose to implement Management models 4 or 5 of Section 6(c) below and in addition whose systems meet performance criteria in Section 5 below.

E. Existing onsite wastewater treatment systems within the service area of an existing Central Wastewater Treatment System will hook up to that Central Wastewater Treatment System and apply for a permit to abandon the onsite system. Exemptions to this provision E are allowed for those communities who choose to implement Management models 4 or 5 of Section 6(c) below and in addition whose systems meet performance criteria in Section 5 below.

F. Where existing onsite wastewater treatment systems are not within or adjacent to a central wastewater treatment system, onsite wastewater treatment systems will be replaced or improved as needed to Best Available Technology (BAT) Standards with no discharge to surface waters and that meet performance standards described in Section 5 below, including evaluation criteria

G. New facilities will be constructed in such a way as to minimize the cost and logistical problems for later hook-ups to centralized systems at such time as this option becomes available. New developments will run dry pipe for connection to the central service. Exemptions to this provision G are allowed for those communities who choose to implement Management models 4 or 5 of Section 6(c) below and in addition whose systems meet performance criteria in Section 5 below.

SECTION 5: RECOMMENDED PERFORMANCE STANDARDS FOR ONSITE/DECENTRALIZED TREATMENT SYSTEMS

A. New onsite/decentralized treatment systems including retrofits of existing systems shall meet performance criteria set forth herein or at a minimum those set forth in Florida Administrative Code, Chapter 64E-6.025(2) Advanced Wastewater Treatment Standards for performance-based systems. Existing systems will be upgraded to meet these criteria as soon as practicable as determined in local management plans for onsite/decentralized and centralized treatment systems described in Section 6 below.

1) Sewage waste and effluent from onsite treatment systems shall not be discharged onto the ground surface or directly or indirectly discharged into ditches, drainage structures, groundwater, surface waters, or aquifers.

2) No net increase in suspended material, nutrients or pathogens will result from onsite treatment systems to surface waters or groundwater.

3) Effluent from onsite treatment units shall be disposed of in conformance with requirements of the Department of Health, Responsible Maintenance Entity (RME), Department of Environmental Protection and local government wastewater treatment management plans.

4) Applications for new individual onsite system permits shall be made to the Department of Health and the local RME if the latter is required by the local wastewater management plan. The application and all supporting information shall be signed, dated and sealed by an engineer, registered in the State of Florida. Applications shall include at a minimum:

   (a) System design criteria, to include performance levels for the performance-based system and monitoring requirements and monitoring locations, and method of monitoring flow through the system.
   (b) System design calculations for the performance-based system.
   (c) A monitoring protocol designed to validate that the system will meet performance criteria herein and perform to the engineer's design specifications.
   (d) Compelling evidence that the system will function properly and reliably to meet these requirements. Such compelling evidence shall include one or more of the following from a third-party testing organization approved through the NSF Environmental Technology Verification Program:
      1. side stream testing.
      2. testing of systems in other states with similar soils and climates.
      3. laboratory testing.
   (e) Other information as required by Florida Administrative Code Chapter 64E-6.

5) Evaluation criteria: A monitoring plan shall be implemented to evaluate the system's performance to ensure the system is meeting the performance criteria herein. At minimum, monitoring will encompass sampling a location upstream and another downstream of the system. Compliance with required performance standards shall be met at the downstream property line. If the system is non-compliant, a plan must be created and implemented to put the system into compliance.

6) Implementation and enforcement methods: Local requirements can be enforced through a variety of methods. These include developing building permitting procedures that require proof of installation of a compliant system prior to issuing the certificate of occupancy. They may also include identifying the county health department as the enforcement agency. Local governments should also identify the responsible legal counsel for enforcement activities.

B. Decentralized or clustered wastewater systems (commonly referred to as septic systems, private sewage systems, individual sewage treatment systems, onsite sewage disposal systems, or "package" plants) used to collect, treat, and disperse or reclaim wastewater from individual dwellings, businesses, or small communities or service areas will meet or exceed prescribed criteria described in SWFRPC Resolution #2007-05, hereby incorporated by reference.

SECTION 6: RECOMMENDATIONS RELATING TO DEVELOPING INTEGRATED, COMPREHENSIVE MANAGEMENT PLANS FOR ONSITE/DECENTRALIZED AND CENTRALIZED TREATMENT SYSTEMS

A. Local governments will ensure the development of integrated, comprehensive management plans for planning and managing all wastewater treatment systems, including onsite/decentralized and centralized systems for the communities within their jurisdiction **by no later than 2012**. Communities contiguous with or otherwise impacting those waterbodies listed as verified impaired by the Florida Department of Environmental Protection will receive prioritization in this process. Local governments will ensure community residents and other citizens are involved in the creation of the management plans.

B. Management plans will include a description of how each community will implement a comprehensive, life-cycle series of elements and activities that address public education and participation, planning, performance, site evaluation, design, construction, operation and maintenance, residuals management, training and certification/ licensing, inspections, monitoring, corrective actions, recordkeeping/ inventorying/ reporting, and financial assistance and funding for all wastewater treatment systems, including onsite/decentralized and central sewer. The management plan will establish the distinct roles and responsibilities of participants, which will include at minimum: regulatory and elected officials, developers and builders, soil and site evaluators, engineers and designers, contractors and installers, manufacturers, pumpers and haulers, inspectors, management entities, utilities and property owners. Management plans should also recognize and address the inter-relationship between potable water sources and wastewater discharge. Replenishment of water supply aquifers is beneficial and can avoid adverse impacts including drawdown of water tables and saltwater intrusion. Reuse systems should be considered as a potential source of irrigation water for both centralized and decentralized systems.

C. Management plans will provide detailed information on locations where onsite/decentralized systems will be considered a permanent or near-term treatment option and those locations projected to be connected to central sewer systems. Soils, geology, groundwater tables, distance to surface waters, sensitive lands and other factors will be considered when developing the management plan and the determination of types of wastewater treatment option appropriate for each community. For those locations whereby onsite/decentralized systems will be considered a permanent or near-term treatment option, one or more of the following U.S. EPA management models will be applied depending on the sensitivity and suitability of the environment. Five separate model programs are briefly presented below as a progressive series; more detailed descriptions are included in the Attachment. Management requirements of onsite/decentralized wastewater systems become more rigorous as the system technologies become more complex or as the sensitivity of the environment increases. Each of the model programs shares the common goal of protecting human health and the environment and includes elements and activities needed to achieve the management objectives. The five model management programs are as follows:

1. Management Model 1 - "Homeowner Awareness" specifies appropriate program elements and activities where treatment systems are owned and operated by individual property owners in areas of low environmental sensitivity. This program is adequate where treatment technologies are limited to conventional systems that require little owner attention. Systems are properly sited and constructed based on prescribed criteria. System owners are made aware of maintenance needs through reminders. There exists an inventory of all systems.
2. Management Model 2 - "Maintenance Contracts" specifies program elements and activities where more complex designs are employed to enhance the capacity of conventional systems to accept and treat wastewater. Because of treatment complexity, contracts with qualified technicians are needed to ensure proper and timely maintenance. Systems are properly sited and constructed. Systems require service contracts to be maintained. There exists an inventory of all systems and service contract tracking system.
3. Management Model 3 - "Operating Permits" specifies program elements and activities where sustained performance of treatment systems is critical to protect public health and water quality. Limited-term operating permits are issued to the owner and are renewable for another term if the owner demonstrates that the system is in compliance with the terms and conditions of the permit. Performance-based designs may be incorporated into programs with management controls at this level. Regulatory authority establishes system performance and monitoring requirements that allows engineered designs but may provide prescriptive designs for specific receiving environments. There exists regulatory oversight by issuing renewable operating permits that may be revoked for noncompliance. There exists an inventory of all systems and a tracking system for operating permit and compliance monitoring. This model is a minimum for large-capacity and cluster systems. This is the minimum model recommended for

environmentally sensitive areas (e.g. sites with poor soils, high seasonal water tables, high densities of existing systems, systems near surface waters or in floodplains).

4. Management Model 4 - "Responsible Management Entity (RME) Operation and Maintenance" specifies program elements and activities where frequent and highly reliable operation and maintenance of decentralized systems is required to ensure water resource protection in sensitive environments. The operating permit is issued to an RME instead of the property owner to provide the needed assurance that the appropriate maintenance is performed. Regulatory authority establishes system performance and monitoring requirements and is provided regulatory oversight by issuing operating or NPDES permits directly to the RME. (System ownership remains with the property owner.) There exists an inventory of all systems and a tracking system for operating permit and compliance monitoring.
5. Management Model 5 - "RME Ownership" specifies that program elements and activities for treatment systems are owned, operated, and maintained by the RME, which removes the property owner from responsibility for the system. This program is analogous to central sewerage and provides the greatest assurance of system performance in the most sensitive of environments. Regulatory authority establishes system performance and monitoring requirements and is provided regulatory oversight by issuing operating or NPDES permit. Qualified, trained, licensed, professional management of all aspects of onsite/decentralized systems through public/private RMEs that own or manage individual systems. There exists an inventory of all systems and a tracking system for operating permit and compliance monitoring.

The program elements and activities listed for each management model are considered to be the minimum elements and activities necessary to achieve the stated management objectives. Elements from 2 or more models can be combined depending on the needs of the community and sensitivity of the local environment. The general framework for the management plan regarding onsite/decentralized treatment types should be derived from the above descriptions, but it should be tailored to suit local circumstances and preferences.

D. The Management Plan shall be incorporated into local government planning, including County Comprehensive Plans. A map depicting locations where onsite/decentralized systems will be considered a permanent or near-term treatment option and those locations projected to be connected to central sewer systems will be included in the sanitary sewer section of the local government Comprehensive Plan. The section will also include information indicating which management model(s) will be employed for each region or district throughout the jurisdiction. Management Plan requirements will be incorporated into the local government land development regulations.

SECTION 7: RECOMMENDATIONS RELATING TO ONSITE WASTEWATER DISPOSAL SYSTEMS; LOW-INCOME REPAIR ASSISTANCE PROGRAMS

The Local Government shall make every reasonable effort to assist onsite wastewater system owners who are at or below 200% of the federal poverty level to pay for the needed repairs or maintenance in order to bring their system into compliance with all Florida laws and regulations. As a result of a mandatory inspection, if an onsite wastewater system requires repairs, maintenance or replacement, the County will assist qualified individuals in applying for the State Revolving Loan Program, the State Housing Initiative Program, or other relevant programs available to assist individuals to repair and maintain onsite wastewater systems.

SECTION 8: RECOMMENDED PUBLIC EDUCATION PROGRAM

A. Public Education is highly recommended regarding the appropriate use and maintenance of Onsite Wastewater Treatment facilities. Local governments will work with the Health Department the Florida Onsite Wastewater Association and IFAS Cooperative Extension staff to offer courses and educational materials to all current and future owners.

B. A general education program will be coordinated with local media to advise the public on the proper use and maintenance of Onsite Wastewater Treatment facilities and the environmental and health problem associated with mis-use and mis-management. Such education program will be based upon and utilize materials from the Health Department and the Florida Onsite Wastewater Association.

SECTION 9: IMPLEMENTATION SCHEDULES

Currently plants that manufacture performance based treatment systems have a limited production capacity. It takes several months to install new equipment to begin the manufacture of the inventory needed. In order to enable the region's manufacturing facilities to provide adequate supply of systems required by section 5, an implementation schedule shall be included in the implementing ordinance. The schedule shall allow adequate time for the regional manufacturers to install the equipment and manufacture the supply of the treatment units required by the ordinance. Input from regional suppliers should be sought when developing the schedule.

SECTION 10: RECOMMENDATIONS FOR APPEALS, ADMINISTRATIVE RELIEF AND PENALTIES.

Each local government jurisdiction should establish provisions for proof of compliance, appeals of administrative decisions and/or denials, provisions for administrative relief in the event of unique circumstances not addressed by local government onsite wastewater treatment system regulations, and penalty and enforcement provisions necessary to accomplish the goals and objectives of the local jurisdiction's onsite wastewater treatment regulations.

PASSED AND DULY ADOPTED BY THE SOUTHWEST FLORIDA REGIONAL PLANNING COUNCIL this 15 day of May, 2008.

SOUTHWEST FLORIDA REGIONAL PLANNING COUNCIL

Andrea Messina

Andrea Messina, Chairman

ATTEST:

Kenneth Heatherington

Kenneth Heatherington, Executive Director