

Chapter 4

Wastewater Management Facility Planning

This chapter updates Eastgate’s wastewater management facility planning areas (FPAs). It confirms FPA boundaries and identifies wastewater management and treatment planning options within each FPA. Treatment planning options were established for each county by management agencies (MA), or the agencies responsible for the operation and maintenance of a wastewater treatment system with the input and concurrence of any affected local jurisdiction. These options reflect current decisions regarding sanitary sewer extension and identify wastewater treatment methods for areas where sanitary sewer infrastructure is not available.

4.1 Introduction

The MA’s, their 201 FPA boundaries, and the wastewater treatment planning options are a vital component to the region’s certified water quality management plan. The Ohio EPA bases decisions to grant National Pollutant Discharge Elimination System (NPDES) permits, Permits-To-Install (PTIs), and State Revolving Fund (SRF) loans for wastewater treatment on the consistency with the AWQMP.

This chapter presents policies governing the regional coordination of local wastewater management planning addressing:

- MAs and their FPA boundaries for wastewater management planning;
- Modifications to FPA boundaries;
- Development of Local Wastewater Treatment Planning options;
- Ohio EPA and United States EPA 208 Plan Consistency Actions;
- Utilization of Areawide Population Projections; and
- Modifications to MA information.

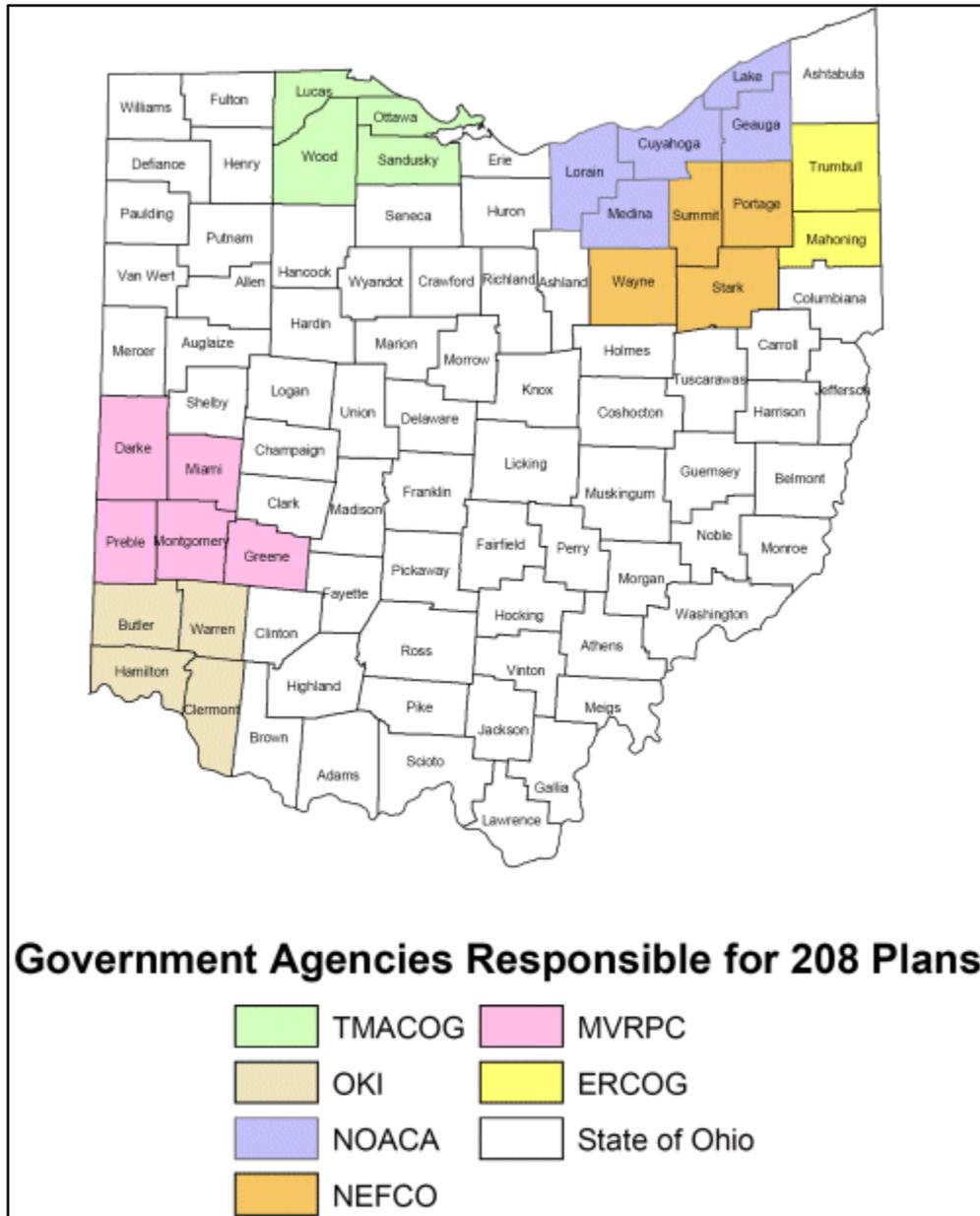
4.2 The Clean Water Act and the Water Quality Management Plan

Areawide water quality planning and management efforts fall under Section 208 of the Clean Water Act (CWA). Section 208 requires each State Governor to identify areas within their state experiencing significant water quality control problems. Once identified, the boundaries are delineated for those areas and entities designated to develop wastewater treatment management plans.

Ohio’s Governor identified six urban areas for regional pollution control planning in the 1970’s. Eastgate was designated by the governor in 1977 to develop a water quality management plan for Mahoning and Trumbull Counties. Areas not affiliated with an Areawide planning agency are included within the state’s plan managed by the Ohio EPA. Figure 1, taken from the Ohio

EPA’s website, Illustrates the entities responsible for 208 Planning. All 208 Plans from the State, with their significant updates and amendments, are included in a State Water Quality Management Plan, a requirement under the CWA.

Figure 1 Government Entities Responsible for 208 Planning



This document outlines three general wastewater treatment options: publicly owned treatment works (POTWs), communal systems, and on-site systems. These systems are defined as follows:

Publicly Owned Treatment Works or (POTW): A "treatment works" as defined by section 212 of the Clean Water Act (33 U.S.C. 1292), is owned by a City, County, State or other public entity. This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant.

On-site sewage treatment systems: Sewage treatment systems that have a capacity of less than 25,000 gallons/day, that in general are physically located on the property that they serve. These systems provide sanitary wastewater treatment for a single residential, commercial, or industrial building or complex. The local health authority permits systems that treat one, two, or three family residences. Residential systems serving more than three families and commercial or industrial facilities are permitted by Ohio EPA. Examples of this system type include septic tanks, aeration systems, and mound systems among others.

Communal Systems: Treatment works that collect sanitary wastes from more than one building or property and convey that flow to a treatment system that may be located on or off the property or properties being served. Communal systems may be privately or publicly owned. They may serve residential, commercial, or industrial uses. They may discharge treated wastes either to a permitted receiving stream or the discharge may be constrained to a designated area where it can infiltrate the ground and/or be evaporated into the air. Package wastewater treatment systems and spray irrigation systems are examples of communal systems.

Ohio EPA is the agency responsible for permitting Regulated Sewage Treatment Systems (OEPA RSTs). RSTs apply to all development, except one, two and three family dwellings, that are served by an Industrial, Semi-public, Private, or Municipal wastewater treatment system. Some systems are on-site sewage treatment systems and some are communal systems as defined above. RSTs are evaluated for consistency with the Eastgate AWQMP according to these definitions.

4.3 Updating Eastgate’s Designation of Management Agencies, Facilities Planning Areas, and Creating a Consistency Review Policy

4.3.1 Definition of Primary MA and Secondary MA

Management agencies are separated into two categories: Primary MAs and Secondary MAs. Primary MA’s have the authority to plan for wastewater treatment and conveyance within their respective FPA. Such entities, according to Section 208 (c)(1), consist of existing or newly formed local, regional, or state agency or political subdivision. Section 208 (c)(2)(H) requires the Primary MA to be capable to “refuse to receive any waste from any municipality or subdivision thereof, which does not comply with any provisions of the Clean Water Act”. Other requirements of a Primary MA are as follows:

A Primary MA must have the authority to:

- have legal authority to provide service to its area;
- carry out appropriate portions of an area wide waste treatment management plan;
- manage waste treatment works and related facilities effectively to serve such areas in conformance with the AWQMP and effectively manage POTW and related point and nonpoint source facilities and practices in conformance with the Plan;
- directly or by contract, design and construct new works, and operate and maintain new and existing works as required by the Plan;
- accept and utilize grants, or other funds from any source, for waste (water) treatment management purposes or nonpoint source control purposes;
- raise revenues, including the assessment of waste treatment charges or other necessary funding, to implement its assigned portion of the Plan. Needed revenues may include staff funding, or for MAs that own or operate POTWs, assessments of wastewater treatment charges;
- cooperate with and assist the Eastgate staff in performance of Plan responsibilities;
- incur short- and long-term indebtedness;
- assure implementation of an areawide waste treatment management plan that each participating community pays its proportionate share of treatment costs; and
- accept treatment of industrial wastes (wastewater).

The Primary MA is typically the county or municipality who owns and operates the central POTW. In some instances where an MA utilizes the services of a Primary MA’s POTW or where a 6119/6117 township and county sewer district exists, these entities are considered Secondary MAs. Under a 6119/6117 (ORC 6119) agreement the county may establish areas of one or more contiguous counties or municipalities and are able to form a regional sewer district. A Secondary MA can be a county, municipality, or

a political entity that builds, operates, and maintains the sewers within their jurisdiction, but transports the generated waste to the Primary MA's POTW. Oftentimes, there may be more than one Secondary MA within an FPA due to the size of the FPA boundary. Like a Primary MA, a Secondary MA can propose modifications to the Eastgate AWQMP, within the boundaries covered by their respective sewer district. For unincorporated areas, within or outside an FPA, the respective county is the wastewater planning agency. Tables 7-1 and 7-2 outline the management agencies within Eastgate's planning area.

Table **Error! No text of specified style in document.**-1: Management Agencies (MA) with Facility Planning Areas

Facilities Planning Area (FPA)	Primary Management Agency (MA)		Secondary Management Agency	Area(s) Serviced	Receiving Waterway (Watershed)
	Owner/Operator	Wastewater Destination			
Youngstown	City of Youngstown	Youngstown POTW	MCSE, TCSE	City of Youngstown, Boardman Twp (p), Austintown Twp (p), Canfield Twp (p), Liberty Twp (p)	Mahoning River
Struthers	City of Struthers	Struthers POTW	MCSE	City of Struthers, Boardman Twp (p), Poland Twp (p), Poland Village (p), Springfield Twp (p), Beaver Twp (p)	Mahoning River
Campbell	MCSE	Campbell POTW		City of Campbell	Mahoning River
Lowellville	Village of Lowellville	Lowellville POTW		Village of Lowellville	Mahoning River
Craig Beach	MCSE	Craig Beach POTW		Craig Beach, Milton Twp (p)	Mahoning River
New Middletown	MCSE	New Middletown POTW		New Middletown (p), Springfield Twp (p)	Honey Creek (Beaver Creek)
Boardman	MCSE	Boardman POTW		Boardman Twp (p), Canfield Twp (p), Beaver Twp (p)	Mill Creek (Mahoning)
Meander	MCSE	Meander POTW	TCSE	City of Canfield, Austintown Twp. (p), Canfield Twp., (p), Jackson Twp., (p), Weathersfield Twp (p)	Meander Creek (Mahoning)
		Diehl Lake POTW		Ellsworth Twp (p)	Meander Creek (Mahoning)
Alliance (NEFCO)	City of Alliance	Alliance POTW		Smith Twp (p)	Beech Creek Tributary to Berlin Reservoir
Damascus	MCSE	Damascus POTW		Goshen Twp (p), Perry Twp (p)	Unnamed Stream draining to Westfield Lake

Table 4-1 cont.

Facilities Planning Area (FPA)	Primary Management Agency (MA)		Secondary Management Agency	Area(s) Serviced	Receiving Waterway (Watershed)
	Owner/Operator	Wastewater Destination			
Warren	City of Warren	Warren POTW	Village of Lordstown, TCSE	City of Warren (p), Village of Lordstown, Champion Twp (p), Warren Twp (p), Howland Twp (p)	Mahoning River
Niles	City of Niles	Niles POTW	Village of McDonald, TCSE	City of Niles, Weathersfield Twp (p), Howland Twp (p), Village of McDonald (p)	Mahoning River
Girard	City of Girard	Girard POTW	TCSE	City of Girard, Weathersfield Twp (p), Liberty Twp (p)	Little Squaw Creek (Mahoning River)
Hubbard	City of Hubbard	Hubbard POTW	TCSE	City of Hubbard, Hubbard Twp (p)	Little Yankee Run (Pymatuning Creek)
Newton Falls	City of Newton Falls	Newton Falls POTW	TCSE	City of Newton Falls, Newton Twp (p), Braceville Twp (p)	Mahoning River
Mosquito Creek	TCSE	Mosquito Creek POTW	City of Warren, City of Niles, City of Cortland	City of Warren (p), City of Niles (p), City of Cortland, Howland Twp (p), Mecca Twp (p), Bazetta Twp (p), Vienna Twp (p)	Mosquito Creek (Mahoning River)
Brookfield	TCSE	Brookfield POTW		Brookfield Twp (p), Hubbard Twp (p)	Little Yankee Run (Pymatuning Creek)

Table 7-2: MA's with Sanitary Sewer Infrastructure and No Facility Planning Area

Management Agency	Owner/Operator	Wastewater Destination	Area(s) Serviced	Receiving Waters
City of Sebring	City of Sebring	Sebring POTW	City of Sebring	Fish Creek
Village of Beloit	Village of Beloit	Beloit POTW	Village of Beloit, Smith Twp (p)	Unnamed Trib to Mahoning River
City of Columbiana	City of Columbiana	Columbiana POTW	City of Columbiana (Mahoning County)	Mill Creek
Village of Washingtonville	Village of Washingtonville	Washingtonville POTW	Village of Washingtonville (Mahoning County)	Cherry Valley Run

4.3.2 Eastgate's FPAs and Wastewater Treatment Planning Options

Eastgate has established the following wastewater treatment prescription options:

- Areas currently sewered (yellow);
- Wastewater planning areas (orange); and
- Areas that may be serviced by POTW or OSND (green).

Areas currently sewered, represented by a yellow color on the maps, delineate areas within a 201 FPA that are serviced by sanitary sewer. Wastewater planning areas (orange) are areas determined by Eastgate as suitable for sanitary sewer extensions based on expected future development and areas where there are failing septic systems. Areas that may be serviced by POTW or OSND (green) are areas outside of the two previously delineated areas.

4.7 Recommended Policies for Determining Consistency with the Eastgate AWQMP

This section presents recommended policies for managing changes to the MAs, FPAs, and AWQMP consistency procedures. These policies include:

- 4-1 MAs and their current FPA boundaries for wastewater management planning;
- 4-2 Endorsement of modifications to FPA boundaries;
- 4-3 Development of local wastewater management and treatment options;
- 4-4 208 Plan consistency actions for the Ohio EPA and USEPA;
- 4-5 Updating/Revising the FPA's of the MA's; and
- 4-6 Nomination of New Management Agencies.

Policy 4-1: MAs and their current FPA boundaries

With the adoption of this plan update by Eastgate's General Policy Board, the local entities identified in Table 4-1 are the acknowledged MAs for wastewater management planning within the FPAs.

Management agencies were given copies of their respective FPA boundaries and requested to adjust according to changes occurred since 2001 and to account for any future sewerage plans. This process allowed the MAs to redefine sewer expansions and those areas where sanitary sewer service is not programmed.

Several FPAs extend into other political jurisdictions lying outside the political jurisdictional boundary of the MA responsible for wastewater planning (Table 4-1). In such instances, Eastgate's AWQMP recognizes the service agreements existing between the which wastewater planning functions are assumed by the MAs involved. All plans developed for the MAs are recognized by this AWQMP.

Eastgate's GIS Department maintains detailed mapping files of the Eastgate AWQMP. With the adoption of each update by Eastgate's GPB, the files are the determined boundaries unless an MA produces a more detailed map. In the event an MA produces a map of its boundaries that has been submitted to and approved by the Ohio EPA, Eastgate will accept the boundary with the consent of all affected jurisdictions. A request for a boundary change must be submitted to Eastgate by the requesting MA. Such request will follow the amendment procedure discussed in Chapter 8 of the plan and will be recognized in the AWQMP once Eastgate's Technical Advisory Committee (TAC), Citizens Advisory Board (CAB) and GPB review and approve the change. Eastgate will provide the appropriate Ohio EPA's Northeast District Office (NEDO) staff with all approved updates.

Policy 4-2: Endorsement of Modifications to FPA boundaries

The TAC, CAB, and ultimately the GPB must approve changes to FPA boundary definitions and approve any new FPAs. These changes are effective upon GPB approval and are reflected in the following updates submitted for certification.

After updates to the AWQMP have been certified, any FPA change requests must be submitted to Eastgate by the FPA's respective MA for governing board approvals. The MA is required to follow Eastgate's adopted amendment process. This request will require the MA to solicit comments from affected parties (Primary MAs, Secondary MAs, cities, villages, townships, and counties) and any other MA that may be affected by such changes.

Policy 4-3: Development of Local Wastewater Management and Treatment Planning Options

Eastgate's MAs are encouraged to develop and update their wastewater management and treatment planning options within their FPA in conjunction with affected government agencies. The options must comply with provisions set forth by the CWA. In the event a treatment option involves the enlargement of an existing POTW, the construction of a new POTW, or the extension of sewers, the option must conform with this plan.

Currently, the Primary MAs develop sewerage plans considered cost effective within their FPAs. Many of these plans address state and local environmental issues and fulfill the needs of local communities. Because Eastgate's two-county planning area is highly diversified regarding wastewater needs, communication between affected governing agencies is critical for wastewater planning. Disagreements between multijurisdictional entities regarding sewerage plans are encouraged to be worked out **prior to** Eastgate's review.

Both county health and sanitary engineering departments communicated effectively to produce wastewater treatment options for areas currently not seweraged. In cases where planning identified wastewater treatment can be on-site systems only, several conditions must be met:

- 1) The county or municipal health departments responsible for managing home sewage treatment systems (HSTS) must authorize their use for the area in discussion; and

2) The provisions of ORC 6111 and/or applicable local city or county regulations (Trumbull County Combined Health District and Mahoning County District Board of Health, HSTS Regulations Sec. 3701-29-02 (L)(M)) require connection to sanitary sewer when they become available by order of the respective county health department or the Ohio EPA.

Some governmental units within the planning area are serviced by neighboring sewer systems owned by a different government entity. The preferences expressed by these units of government are subject to the acceptance of the MA providing service.

Existing policies of state and local management agencies that have legal responsibility and authority to influence wastewater treatment are recognized under this proposed policy. The policies of the Trumbull General Health Department and Mahoning County District Board of Health are specifically recognized.

This plan recognizes all documented wastewater related problems currently existing or occurring in the future need remediated in a timely manner and by the best means available. In areas where wastewater related problems do not exist, MA's with authority can decide if they want to protect water quality via on-site HSTSs or sanitary sewer. By identifying areas that may be serviced by a POTW or OSND (green option), jurisdictions are notifying landowners of the need for the installation, operation, maintenance, and replacement of HSTS systems until sanitary sewers become available, if they do become available. Under this wastewater treatment prescription, the option for sanitary sewer is still available for the outlying areas and can be built/extended if feasible. In areas where sanitary sewers are likely to be extended, a repair or maintenance and/or complete system upgrade may be warranted for problematic HSTSs, depending on the governing county health department's decision. The FPA maps indicate the generalized preferences of local officials regarding the future of sanitary sewer service for Mahoning and Trumbull Counties. In all cases, landowners are encouraged by this Plan to consult with local governing entities before proceeding with wastewater plans

Policy 4-4: 208 Plan consistency actions for the Ohio EPA and USEPA

Consistency reviews of the current AWQMP, by the Ohio EPA will be required when an application is submitted to the Ohio EPA for (1) a permit to discharge pollutants into the waters of the state (NPDES) or (2) a PTI. In addition, a consistency review will be performed for applications for grants and/or loans under the Clean Water Act, as per Ohio EPA's Division of Environmental and Financial Assistance (DEFA) policy. The following minimum standards were developed in 2017 by the Northeast Ohio Areawide Coordinating Agency for the areawide's to use in determining consistency with the region's 208 Plan:

Minimum Standards:

1. An Areawide will contact Ohio EPA if:
 - Ohio EPA does not provide enough information to perform a review; OR
 - A PTI application has a potential 208 Plan conflict; OR

- A PTI application is for an area in close proximity to a FPA boundary
2. Areawide's method of communication with Ohio EPA:
 - Request additional PTI application information; including location, project description and project name:
 - Email or phone Ohio EPA contact person for the PTI application
 3. Potential PTI application conflict with the 208 Plan:
 - Email Ohio EPA contact person for the PTI application and the appropriate Division of Surface Water Manger at the District Office

Information submitted by Areawides to Ohio EPA for potential PTI application conflicts with the 208 Plan:

- Email narrative describing potential 208 Plan conflict; and
- Relevant maps and prescriptions of the 208 Plan conflict area

Policy 4-5: Updating/Revising the FPAs of the MAs

MAs owning POTWs are the lead responsible parties for sewerage plans that include revising and updating FPA boundaries. The county sanitary engineer continues the responsibility for sewer planning, in accordance with the MA and 201 Facility Plan, for all unincorporated areas either outside or inside an FPA, and where sanitary sewer agreements with the county exist. All updates or revisions must go through the appropriate Eastgate 208 Amendment Process and are subject to Eastgate's General Policy Board approval, as mentioned under this Policy.

This process discusses the responsibility of sewer planning and the procedure that must be taken to update sewer plans. It also provides affected jurisdictions direction for challenging MA decisions. The Ohio EPA will not issue a permit for any sewerage action inconsistent with a AWQMP. Disputes regarding FPA boundaries are encouraged to be resolved **prior to** review by Eastgate staff.

Policy 4-5a: In the event of a challenge, the Primary MA in each established FPA has the responsibility for sewer planning when it can demonstrate any of the following:

- 1) The existing POTW or its collection system affordability would be negatively impacted by the proposed change;
- 2) The POTW would not be able to meet its NPDES permit requirements;
- 3) The rated capacity of the sewer system would be exceeded;
- 4) If the MA illustrates it would suffer significant hardship, or if it can demonstrate that the proposed change will affect the integrity of the system, then it must be given the opportunity to retain primacy; or

5) That the current Primary or Secondary MA has expended funds to construct infrastructure for their sewer systems (POTW or collection system) to service the requested area change in the FPA. No change will proceed without just compensation for the expended capital improvements.

Conflicts may arise from time to time related to established FPA boundaries. When this happens, FPA boundaries may take on new dimensions not recognized during the development of the original Plan. For instance, an MA may want to extend sewers into an area where the POTW owner does not have plans to allow the request for sanitary sewer service. To resolve this conflict, an MA can request a boundary change in which the amendment process would have to be followed.

Under this policy, the MA for the approved FPA will continue to have primacy over sewer planning, but to a limited extent. The requests of any MA to remove an area from an established FPA may be considered. A process to address the evaluation of each application must follow established guidelines. For example, an existing MA can continue to provide sewer service to the designated area provided they can demonstrate that they will not be harmed by the redesignation. The MA will need to demonstrate the proposed change will cause significant economic harm to the existing or future affordability, as set forth by federal guidelines for wastewater treatment affordability. Should a disagreement occur between the MAs involved, an approval for the FPA boundary change will be dependent upon any existing prorated capital (POTW or sewer collection system) for established or future servicing of the requested area being reimbursed to the existing Primary/Secondary MA. System efficiency and integrity concerns must be tied to reasonable expectations that a POTW will be unable to meet their compliance standards with its discharge limitations. The USEPA or Ohio EPA must certify the cases where 201 Facility Grant or State Revolving Loan Fund conditions prevent a requested FPA boundary change.

In cases where central sewers are needed and are the only resources available to comply with an Ohio EPA order to correct existing water quality issues, the Primary and/or Secondary MA's primacy standing would be dependent upon its ability and willingness to extend sanitary sewer and expand its plant capacity if necessary. In the event the Primary and/or Secondary MA is not ready to or able to proceed in a timely manner, the MA applicant for change can request a redrawing of the FPA boundary to accompany its request. However, the Primary MA will have the authority to extend sanitary sewers and make any capacity upgrades should the Secondary MA be unable to or unwilling to make such extensions or upgrades.

Policy 4-5b: Planning responsibility for limited areas can be transferred from the MA in an established FPA in cases of challenge when a MA applicant for change can demonstrate all of the following:

- 1) None of the conditions in Policy 7-5a are applicable;
- 2) The existing MA is unprepared or unwilling to extend sanitary service to the area of challenge, or they have conditions that are unreasonable for the MA applicant community;

- 3) An alternative sewerage plan exists that protects the environment, is technically achievable, economically feasible, and politically acceptable; and
- 4) The proposed MA has the authority to act.

All transfers must be approved by the Ohio EPA and an amendment to the Eastgate AWQMP adopted. A MA's planning standing would be dependent upon its ability and willingness to extend sanitary sewer and expand its plant capacity if necessary. In the event the Primary and/or Secondary MA is not ready or able to proceed in a timely manner, the MA applicant for change can request a redrawing of the FPA boundary to accompany its request. A request for a redraw of an FPA boundary would indicate the intention of identifying alternative wastewater alternatives. The applicant for change would be required to show evidence an alternative exists, and the alternative is technically achievable, economically feasible, and politically acceptable. When required, Eastgate will facilitate a forum for all affected parties to reach a consensus.

Should no other acceptable alternatives be available, a community that is part of another community's FPA can request to develop plans to direct their wastewater to an alternative treatment works, such as an existing POTW, or to a newly constructed POTW (if feasible). All applications requesting a redraw of an FPA boundary must be accompanied by plans demonstrating environmentally acceptable and affordable alternatives exist. These plans must demonstrate the receiving POTW will not jeopardize the conditions set forth in its NPDES permit by accepting additional waste. The plans must also estimate the impacts on the existing rate structure of the POTW.

Policy 4-6: Nomination of New Management Agencies

New MAs can be created to provide sanitary sewer service to a newly created FPA. Both the proposed MA and FPA, if applicable, are to be submitted to the Ohio EPA for review, comment, and approval. An amendment to the Eastgate AWQMP is required for the new MA and FPA to be recognized in the plan. Once amended, the new MA and FPA will be incorporated into the AWQMP.

Government entities not designated as MAs, but seeking such designation, must apply for such status before their permit application can be processed. Applicants must have adequate legal authority under Ohio law and must clearly identify the geographical boundary of the proposed facility planning and sanitary sewer service area. The proposed MA must demonstrate it has consulted with all affected local governments involved in the development of the projects. Comment letters by all affected jurisdictions (municipalities for incorporated areas and county government for unincorporated areas) must be requested and copies submitted to Eastgate at the time of application. Any FPA infringements are encouraged to be resolved with the approval of the infringed upon MA, prior to Eastgate's amendment process.

Applicants may propose an FPA area larger than the current or proposed projected service area to accommodate future sewer plans. Eastgate staff will seek comment from the Ohio

EPA on all new MAs and FPAs. Following the amendment procedure and Eastgate GPB approval, the Ohio EPA will utilize the new designation in its permitting process.