

**Oxford Area Sewer Authority**  
**Act 537 Regional Sewage Facilities**  
**Plan**

**DRAFT**

**July 2000**

**(Amended and Restated June 2002)**  
**(Amended and Restated March 2007)**  
**(Revised May 2010)**

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## PLAN SUMMARY

### **Background**

The Oxford Area Sewer Authority (“OASA”) and its member municipalities, consisting of East Nottingham Township, West Nottingham Township, Lower Oxford Township and Oxford Borough, submitted for review on July 6, 2007 the proposed official sewage facilities plan update titled “*Oxford Area Sewer Authority Act 537 Regional Facilities Plan*” (the “Act 537 Plan”), dated July 2000 and Amended and Restated in June 2002 and March 2007. The Pennsylvania Department of Environmental Protection (“PADEP”) conducted a preliminary review and by letter dated December 27, 2007 indicated that the plan update is not in accordance with the provisions set forth in Chapter 71. The PADEP provided comments that needed to be addressed by OASA and the member municipalities.

This revised Act 537 Plan submission titled “*Oxford Area Sewer Authority Act 537 Regional Sewage Facilities Plan, dated July 2000 and Amended and Restated in June 2002, March 2007, and Revised May 2010*” (2010 Plan), addresses the PADEP review comments and updates OASA’s plans to provide sewerage to the area. OASA has had to reevaluate the area needs and alternatives due to events that have occurred since the 2007 submission. The PADEP’s comments to the 2007 submission have been addressed in the 2010 Plan with new requested data, information, and/or formatting, as well as with modifications to the area needs and selected alternatives.

### **Impacts on the Act 537 Plan**

During the interim period starting with the July 6, 2007 submission, a number of events have occurred that have had a direct impact on the 2007 Act 537 Plan’s vision for the service area’s needs over the 0-10 year planning horizon. These events include the formation of a Regional Comprehensive Planning group, updates to the Chester County Planning Commission’s *Landscapes 2*, and changes in the economy.

The first event that occurred was the formation of a Regional Comprehensive Planning group (RCP) in conjunction with the Chester County Planning Commission. The RCP includes OASA's municipal members and the Townships of Elk and Upper Oxford. While OASA is not officially a member of the RCP, it is an active participant. The RCP's goal is to complete an Oxford Region Multimunicipal Comprehensive Plan. A part of this plan includes evaluation and development of future growth projections and policies. OASA has therefore revised the 2010 Plans growth projection and the sewerage needs, based on this regional plan.

The second event is the Chester County Planning Commission's update of *Landscapes 2*. The proposed Livable Landscapes and Land Use Policies that are part of *Landscapes 2* are being incorporated into the revised Act 537 Plan.

The final event is the economic downturn in the housing industry and the economy as a whole. This change in the economy has effected not only growth projections but also what alternatives are available to OASA to address these needs. Two (2) major elements of the Act 537 Plan that are referred to as the "Needs Analysis" and the "Facilities Evaluation" are restated in this document to reflect the changes that have occurred. Each municipality working with OASA has amended their respective Needs Analysis to reflect current economic conditions and development activity. OASA is amending the Facilities Evaluation portion to reflect a new treatment/storage/disposal capacity availability strategy; time tables for commencement and completion of construction; a revised collection and conveyance strategy; and the financial resources to install the necessary infrastructure.

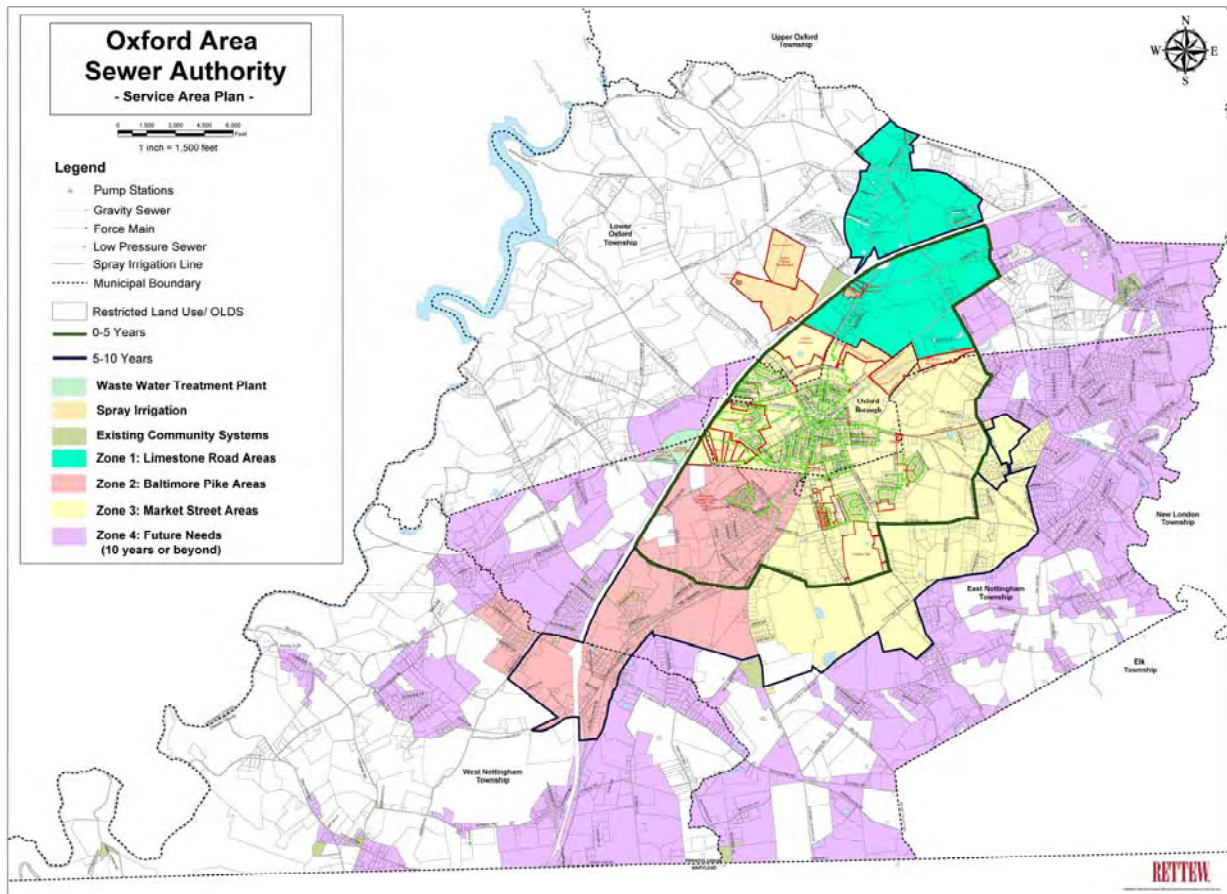
### **Area Needs**

Based on revised projections from each of OASA's member municipalities, the Needs Analysis report and tables have been revised to reflect a new vision for providing centralized sewer service. The sewer service area has been segmented into "ZONES". The concept of ZONES evolved from a close examination of the infrastructure needs; the magnitude of expansion needs; and a realistic look at the timetable for service. The distribution of projected "NEEDED EDUs"

and a timetable for when the EDUs can be anticipated to connect to the sewer system are incorporated in ZONES.

The following are the labels for the four (4) ZONES and a description of each:

1. ZONE 1 – Limestone Road Areas
2. ZONE 2 – Baltimore Pike Areas
3. ZONE 3 – Market Street Areas
4. ZONE 4 – Future Needs, On-Lot, Community Systems



**ZONE 1** encompasses an area north and east of Oxford Borough, predominately located in Lower Oxford Township. Sewer service for ZONE 1 will be provided by a series of sewer extensions (the exact routing still to be determined) built by developers, which will incorporate a mixture of gravity sewer lines, low pressure mains with grinder pumps, force mains and pump

stations sized to provide future service to ZONE 1. The new infrastructure will be unique to this ZONE and will converge with the existing sewer system at the Oxford Borough line.

**ZONE 2** encompasses an area south and west of Oxford Borough incorporating portions of East Nottingham and West Nottingham Townships. Sewer service for ZONE 2 will be provided by a series of sewer extensions (the exact routing still to be determined) built by developers which will incorporate a mixture of gravity sewer lines, low pressure mains with grinder pumps, force mains and pump stations sized to provide future service to the entire ZONE. The new infrastructure will be unique to this ZONE and will converge with the existing sewer system at the Oxford Borough line.

**ZONE 3** encompasses all of Oxford Borough and a portion of East Nottingham Township south of the Borough. The majority of this ZONE can be served by the existing sewer system or by minor extensions to various existing collection/conveyance system lines. There will need to be some upgrades to existing infrastructure to accommodate future growth. These upgrades will be made by developers as needed.

**ZONE 4** represents the balance of the service area that requires the expansions envisioned in the other three (3) ZONES before extensions can be made to service these areas. ZONE 4 also encompasses a wide area that is restricted in use for agriculture and open space. The majority of ZONE 4 will remain serviced by on-lot systems or small community systems. East Nottingham and Lower Oxford Townships have each adopted a Septage Management Plan to manage their on-lot systems. West Nottingham has received permission from the PADEP to develop their own program to address the needs in their Township located outside Zone 2. A prime example of a small community system is the sewerage of the Lincoln Village area in Lower Oxford Township with connection of the collection/conveyance system to the Lincoln University treatment plant. This project was completed in the fall of 2009 with connections currently underway by the existing property owners.

ZONES 1, 2, and 3, are further broken down into 0-5 year NEEDED EDUs and 5-10 year projected EDUs based upon the schedule presented in the 2010 Plan. More in depth discussion regarding exact infrastructure for each ZONE, the distribution of projected NEEDED EDUs and a construction/connection timetable is also presented. The Zone concept when compared to Chester County's Livable Landscapes map mirrors the County's vision for the service area and is the base map for the Oxford Regional Comprehensive Plan "Land Use Plan". Further, the improvement projects that make up this Plan's Selected Alternative have been reviewed by Commonwealth of Pennsylvania agencies as part of a USDA loan application by the Authority. In their comment letters to USDA, the PA Fish and Boat Commission and the PA Department of Conservation and Natural Resources expressed support for the projects and the overall concept of this Act 537 Plan. Those letters are included at the end of Appendix F.

### **Sewerage Alternatives**

The current alternative selected in the Facilities Evaluation required modification due to the impact the economy has had on various participants. Some of the parties originally planning to construct a 1.72 MGD mechanical treatment plant and the associated storage/disposal/infrastructure have decided not to participate and others have reduced their scope of needs. The originally selected short term capacity solution has also changed in scope due to the availability of stimulus funding on the state and national level. The Authority has received \$5,000,000 in H2OPA grants and is applying for a US Department of Agriculture low interest loan to finance the balance of projects. It is OASA's intent to solely finance the construction of a 1.25 MGD mechanical treatment facility and associated lagoon storage and spray capacity.

### **Schedule**

Based on the schedule provided in the 2010 Plan, construction of the Osborne Lagoon is slated to begin in September 2010. Construction of the Lagoon will fulfill the final requirement of the PADEP Consent Order and will restore the treatment facilities 600,000 GPD rating. While construction of the Lagoon is underway, the Authority by way of the 2010 Plan will be requesting approval to equip the Ross Tract for spray disposal. By equipping the Ross Tract, the

Authority will have put in place disposal capacity to match the additional 90 days of storage capacity built into the Osborne Lagoon and request a rating of 770,000 gpd.

The final step will be the construction of a new 1.25 MGD mechanical treatment plant. The financing for the new facility will be from a USDA loan. Upon receipt of financing approval, the Authority in conjunction with RETTEW Associates, Inc. will begin the design work for the facility. OASA has established a target of September 2011 for public bidding of the new wastewater treatment plant.