Sussex County
40-Years of
Central Sewer Initiatives

Planning & Zoning Commission Presentation
March 8, 2017
Sussex County Sewer Service under Delaware Code, Title 9

• Statutory Authorization is petition driven based on existing need and hence inherently “reactive”.

• Enterprise (Sewer) Fund is subject to Governmental Accounting Standards Board (GASB) which does not allow for “planned” expansion with public money.

• State and Federal funding for remediation projects limits growth potential to “infill” development.

• Development driven expansion can only occur when the proposed project is contiguous to an existing sewer district area.
Conventional on-site septic systems have widely varying total nitrogen (TN) effluent concentrations, however numerous research studies show an average of approximately 55 mg/l.

Sussex County started in the central sewer business in the 1970ties and has since then remediated or avoided construction of +/- 69,500 on-site systems, primarily in the Inland Bays watershed resulting in the following nutrient reductions:
- 2,583,800 pounds of nitrogen annually
- 729,298 pounds of phosphorous annually

Since 1990 alone +/- 29,000 on-site systems were transferred to Sussex County central sewer service resulting in the following nutrient reductions:
- 1,078,800 pounds of nitrogen annually
- 304,500 pounds of phosphorous annually

Purpose of Sussex County’s Septic System Remediation Efforts
Challenges to Planned Sewer System Expansion

• Certificates of Public Convenience & Necessity issued by the Public Service Commission “prospectively” to private utilities service on a parcel by parcel basis.

• CPCNs run with the land and private providers can refuse to relinquish certificates w/o compensation since the Public Service Commission is unable to revoke certificates and create more economical service territories.

• Creating contiguous boundaries of County district extensions as required by del Code Title 9 around parcels with CPCNs issued to various private utilities.

• Making remediation projects affordable with new sub-divisions served by private utilities w/o service to surrounding existing improved properties with on-site disposal systems.

• DNREC requirement of PSN3 on-site systems for new installations or failed on-site systems upon property transfer.

• Del DOT’s resistance to add sewer infrastructure in the State maintained right-of-way already burdened with multiple utilities.

• Ever increasing private easement acquisition requirements as well as more complex National Environmental Policy Act (NEPA) compliance.
Septic Remediation Projects Overview

**Current Projects**

- Herring Creek (713 EDUs) in funding application phase
- Route 26 Phase III – (91 EDUs) advertised for construction
- Angola North – (252 EDUs) advertised for construction
  - Sea Country Estates II – 10 Existing EDUs
  - Route 54 West – 43 Existing EDUs in design
- Chapel Branch – 385 Existing EDUs in funding application phase

**Future Projects**

- Mulberry Knoll – (88 EDUs) in voter approval phase
- Bethany Forest – (93 EDUs) in petition phase
- Mallard Creek – (41 EDUs) pending Unified District extension based on petition results
# Sewer Treatment Facilities Overview

<table>
<thead>
<tr>
<th>Facility Name</th>
<th>Permitted Flow</th>
<th>Planned Expansion</th>
<th>Ocean Outfall Capacity</th>
<th>Connected Equivalent Dwelling Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCRWF (South Coastal Regional Wastewater Facility)</td>
<td>6.0 Million Gallons per day on monthly average (MGD)</td>
<td>4.0 MGD</td>
<td>22.0 MGD</td>
<td>+/-28,800</td>
</tr>
<tr>
<td>Wolfe Neck Regional Wastewater Facility</td>
<td>4.0 MGD</td>
<td></td>
<td></td>
<td>+/-300 acres</td>
</tr>
<tr>
<td>Piney Neck Regional Wastewater Facility</td>
<td>0.2 MGD</td>
<td></td>
<td></td>
<td>+/- 55 acres</td>
</tr>
<tr>
<td>Inland Bays Regional Wastewater Facility</td>
<td>2.1 MGD</td>
<td>2.0 MGD</td>
<td></td>
<td>+/- 430 acres</td>
</tr>
</tbody>
</table>

**Sewer Treatment Facilities Overview**

- **SCRWF (South Coastal Regional Wastewater Facility)**
  - Permitted Flow: 6.0 Million Gallons per day on monthly average (MGD)
  - Planned Expansion: 4.0 MGD
  - Ocean Outfall Capacity: 22.0 MGD
  - Connected Equivalent Dwelling Units: +/-28,800

- **Wolfe Neck Regional Wastewater Facility**
  - Permitted Flow: 4.0 MGD
  - Planned Modification: Spray on Demand with limited access Parkland
  - Land Application Area: +/- 300 acres
  - Connected Equivalent Dwelling Units: +/-22,900

- **Piney Neck Regional Wastewater Facility**
  - Permitted Flow: 0.2 MGD
  - Land Application Area: +/- 55 acres
  - Connected Equivalent Dwelling Units: +/-1,200

- **Inland Bays Regional Wastewater Facility**
  - Permitted Flow: 2.1 MGD
  - Planned Expansion: 2.0 MGD
  - Land Application Area: +/- 430 acres
  - Connected Equivalent Dwelling Units: +/-10,600
SOUTH COASTAL REGIONAL WASTEWATER FACILITY
PINEY NECK REGIONAL WASTEWATER FACILITY
WOLFE NECK REGIONAL WASTEWATER FACILITY
Unified Sewer –
Economical with Reduced Complexity and stabile Rates
Sussex County

- Dewey Beach
Sussex County

- Dewey Beach
- Bethany Beach
Sussex County

- Dewey Beach
- Bethany Beach
- South Bethany
Sussex County

- Dewey Beach
- Bethany Beach
- South Bethany
- Fenwick Island
Sussex County

- Dewey Beach
- Bethany Beach
- South Bethany
- Fenwick Island
- Blades
Sussex County
- Dewey Beach
- Bethany Beach
- South Bethany
- Fenwick Island
- Blades
- Henlopen Acres
Sussex County

• Dewey Beach
• Bethany Beach
• South Bethany
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- Blades
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- Bethany Beach
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- Fenwick Island
- Blades
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- North Bethany
- Long Neck
- Dagsboro/Frankford
Sussex County

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- Bay View
- Estates
- Miller Creek
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- Estates
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- Miller Creek
- Millville
- South Ocean View
- Sea Country Estates
- Johnson’s Corner
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• Miller Creek
• Millville
• South Ocean View
• Sea Country Estates
• Johnson’s Corner
• Angola
Comprehensive Plan’s Role in the Central Sewer Expansion Process

- Suggest County Code Changes requiring new major subdivision development to make central sewer available to all surrounding parcels created in the minor subdivision process.
- Refine the County primary and secondary sewer planning areas to better reflect the areas which can readily and economically be served by County sewer service.
- Define a tertiary sewer planning area where CPCN coordination will be required.
- Consider recommendation of an on-site parcel size requirement above the State Standard of ½ acre for a low density zoning classification where no sewer service is expected.
- Include section discussing the challenges to on-site septic system remediation process. However, P&Z members who learn of concerns from communities or localized areas with failing systems can encourage petition process as per Del Code.
Comments and Questions?