Southern Kent Island Sanitary Project

Eastern Shore Sewer Extension Workshop
December 14, 2016

www.qac.org/ski
Southern Kent Island Sanitary Project
Goal

Correct a longstanding public health problem within existing 1950’s & 60’s era communities that were developed before modern public health and land use regulations.

• Affordably
• Growth Limits
South Kent Island (SKI) Service Area
Southern Kent Island Sanitary Project

Problem

Failing Onsite Septic Systems

- 1,518 existing homes
- 1,600 Vacant Lots of Record

80% of existing homes discharging directly into groundwater

Communities situated miles away from public Sewer Service Area

Not within a PFA or designated Growth Area

Concerns about Growth from a public sewer line extension

Huge project cost with long term impacts
Historical County Efforts

1975 - SKI Communities identified as areas to be served by public sewer in Water & Sewer Plan

1989 - 216 Previously Approved “Perc” tests over-turned

2004 - Reserved 500,000 gallons of ENR treatment capacity

2005 – Attorney General Opinion affirmed specific Service Area Boundaries could be established

2007 - Nationally recognized de-centralized waste disposal expert, Dr. Robert Rubin, concluded “extension of public sewer as most cost effective solution and best for Nutrient reduction”
Historical County Efforts

2008 - Retained engineering/planning firm, JMT to evaluate options for a public sewer system to serve South Kent Island

2010 - Comprehensive Plan adopted reflecting future public sewer service to SKI Communities

2011 – Local Advisory Board concludes that “public sewer collection and treatment is warranted.”

• Limit Infill
• Establish an Economic Benefit Premium (EBP)
• Obtain State Grants
Project Attributes Identified for Success

- Affordable Cost to Residents
- Minimize Growth Potential
  - Only 9 existing Communities to receive service
  - Limit service within Communities to developed areas
- Unbuildable / interspersed “Infill Lots” within Communities pay more via EBP
- State Assistance still needed
State & County Efforts - Planning

Began regular meetings with MDE & MDP to craft a plan to balance infill development with project financing and costs to residents

- Bay Restoration Fund
- State Revolving Loans

Local Health Department adopts “Holding Tank Policy” for failed septic system areas

- 7 homes and 2 businesses currently on holding tanks
- 500+ additional homes identified for holding tanks
Avoid Holding Tanks

Average House

$200 - $240 per Pump Out

$7,200 - $8,640 per Year

about $600 per month
Retained experienced Expert Counsel

Introduced Lot Consolidation Ordinance #13-24

• Merged adjacent lots under common ownership
• Must conform with existing zoning district NC-20

Final Project Service Area Boundaries established

• Authorizing denied access force main
• Only offer service to vacant interspersed lots

Vacant Lot Inventory Reduced   - 1,600 down to 632
2014 CWSP DRAFT
Kentmorr
KENT ISLAND, QUEEN ANNE'S COUNTY, MARYLAND

622 Total Lots
345 Lots in Sewer Service Area
125 Lots After Lot Consolidation
-23 Potential Vacant Lots
-19 Vacant Lots would not meet the site requirement of the zoning district
-60 Improved Lots

- Kentmorr located in the 100-year flood CWSP-1 0.33
- Based on 2014 Draft CWSP Planned Service Areas
- Lot sizes may vary by primary developer and conditions established when submitting application
- Based on Queen Anne's County OMA Parish Data August 2019
- No planned service 2014 CWSP PA

Legend
- Critical Area Line
- Parcel Line
- Right of Way
- Water
- Lot Line
- Private Right of Way
- Houses
- Road Centerlines
- No Planned Service 2014 CWSP

Subdivision Boundaries

Resulting Lots
- 1 Lot
- 2 Lots
- 3 Lots
- 4 Lots
- 5 Lots
- 6 Lots

Commercially Zoned Properties Omitted From Lot Counts
County Efforts - Planning

Developed concept design using STEP system Technology with consultants H50 Solutions and “Virtual Utilities” Software

Appraisal to set EBP value for vacant lots that become buildable

Introduced Special Benefit Resolution #14-07 with EBP component to levy project costs
County Efforts - Planning

November 2013 – Launched Public Outreach Campaign

- Announced SKI sewer extension proposal
  - $100 month target charge for homes over 20-years
  - EBP of $25,600 for vacant infill lots
- SKI project webpage for public access
- Held Outreach Open House Style Workshops
- Provided Citizens direct access with County and State Officials
- Completed an independent and professional survey of residents – Anne Arundel Community College
State & County Efforts - Planning

MDE sponsored legislation to change state law

Supported HB 11 Legislation to facilitate BRF grant eligibility - Delegate Steve Arentz BILL PASSED!

County held Public Hearings for

- Lot Consolidation Ordinance #13-24
- Special Benefit Resolution #14-07
- Project as required by ratified HB11
QA’s OKs south KI sewer project

Existing homeowners will see a $100 a month fee for the next 20 years, while owners of buildable vacant lots would pay $216 a month under the current economic benefit projections.

By ANGELA PRICE
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STEVENSVILLE — Queen Anne’s County Commissioners approved the $53.1 million plan to extend public sewer service to communities with failing septic systems on southern Kent Island in a 4-1 vote May 27, with Commissioner Dave Olds opposing.

The commissioners previously voted to address the three measures related to the project together: the sewer project as a whole; a resolution by the county commissioners, siting as the Sanitary Commission, to establish a South Kent Island Wastewater Subdistrict, defining its boundaries and financing a public sewage collection and transmission system for it; and County Ordinance 13-24, regarding the use and merger of substandard lots in the neighborhood conservation district. And they voted on them as one block.

Under Ordinance 13-24, owners of adjoining lots zoned NC-20 (neighborhood conservation) will be required to merge sub-standard lots, identified as lots consisting of less than 20,000 square feet. The nine communities targeted for sewer expansion, Matapeake Estates, Normans, Sunny Isle of Kent, Chesapeake Estates, Kentmorr, Queen Anne Colony, Kent Island Estates, Tower Gardens and Romancoke on the Bay, are all zoned NC-20.

The plan received a favorable recommendation from the planning commission Dec. 12 after more than three hours of discussion and the stated understanding that the ordinance was a necessary first step in the county’s long-term goal of obtaining Bay Restoration Fund dollars from the state.

The planning commission recommended final approval of Ordinance 13-24 be delayed until the county commissioners are satisfied that state funding for the extension of sewer for southern Kent Island has been authorized by all relevant state agencies.

The passage of House Bill 11, signed April 8 by Gov. Martin O’Malley, opened the way for the project to obtain state funding. The new law allows specified fee revenue collected for the Bay Restoration Fund to pay specified debt issued by a local government for the cost of connecting

See SEWER
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State Smart Growth Committee

Approval of SKI Sewer Extension and eligibility for use of BRF Funds and SRL Grants

1. Limited to 1518 existing homes and max of 632 infill vacant lots
2. Report new connections annually to MDP
3. Limit treatment capacity to 500,000 gpd
4. No increased capacity for existing non-residential uses
5. Denial of service for any future connection outside of SKI service area
6. Adopt MD model floodplain ordinance -2 foot freeboard
7. Evaluate climate change vulnerability and outline strategies to enhance resilience
Proposed Project System in Virtual Utility

Red — 16” Dia.
Purple — 12” Dia.
Brown — 10” Dia.
Dark Blue — 8” Dia.
Light Blue — 6” Dia.
Pink — 4” Dia.
Yellow — 3” Dia.
Green — 2” Dia.
Project System

Septic Tank Effluent Pumping
Project System

STEP System Advantages

- Uses directional drill technology
- Closed system minimizes I & I
- Eliminates need for intermediate pump stations
- Provides emergency storage during power outages
- Service call issues are minor (isolated to individual home vs. hundreds of homes)
- Easy to pinpoint and correct problems
- Pumps are economical yet robust
Design/Construction Schedule

Phase 1: Trunk Line
  Kent Island Estates
  & Romancoke  2015 – 2020

Phase 2: Tower Gardens  2019 – 2021

Phase 3: Queen Anne Colony
  & Kentmorr  2020 – 2024

Phase 4: Chesapeake Estates, Sunny Isle of Kent
  Batts Neck & Matapeake Estates  2021 - 2025
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Community Revitalization

With SKI Project Implementation

- Holding tanks will be eliminated
- Home sale contracts are no longer denied
- Additions to homes can be approved
- Limited development increases property values

Permanently solve the public health problem

Reduce nutrient loadings – 17,300 lbs. less

Helps local WIP – 33% of State Septic Goals
SKI Current Status

Phase 1 - Kent Island Estates & Romancoke

Design Contracts Authorized February 2015

• STEP Systems Contract #16-01
• Transmission Main Contract #16-02
• Community Mains Contract #16-03
• Out for Bid April 2016

Construction Contracts Awarded August 2013

Construction Now Underway!

Community Public Outreach Continuing
Financial Parameters

- Estimated total cost of Infrastructure  $50 million
- Phase 1 cost is $32 million
- State Revolving Loan with 30-year term
- Assessments will be levied as work is completed
- BRF Offsets expense to existing homes @ $10,000 per home
- Vacant Lots Pay EBP charge $25,600
- Final Cost to Homeowners – $100 month
- Final Cost to Vacant Lot Owners – $159 month + allocation fee with an option to defer for up to 10-years
Queen Anne’s County Department of Public Works
Todd R. Mohn, PE
Director

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