

# Southern Kent Island Sanitary Project



Smart Growth Coordinating Committee  
June 18, 2014

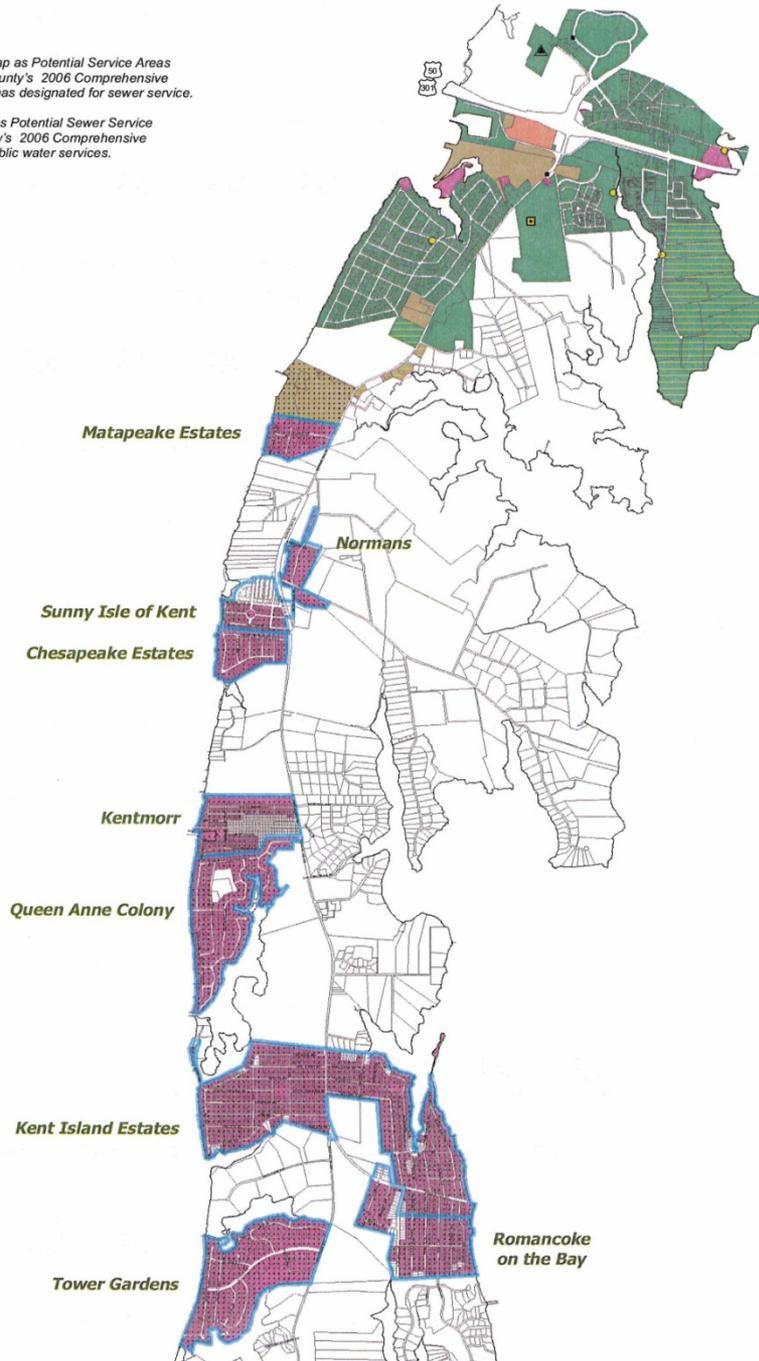
<http://www.qactv.com/home/ski-sanitary-project/>

*\*Note: Areas identified on this map as Potential Service Areas include areas identified in the County's 2006 Comprehensive Water and Sewerage Plan as areas designated for sewer service.*

*No areas identified on this map as Potential Sewer Service Areas are identified in the County's 2006 Comprehensive Water and Sewerage Plan for public water services.*



# South Kent Island (SKI) Service Area



# SOUTH KENT ISLAND PROJECT SUMMARY

- Provide public sewer to 1,518 homes in 9 communities bordering Chesapeake and Eastern Bays where failing septic systems are prevalent
- Environmentally sensitive - 70% of the septic systems are in Critical Areas or 1,000' from a perennial stream
- Vacant lot development restricted to in-fill, with County actions reducing potential lot development from 1,600 now to 632 lots

# SOUTH KENT ISLAND PROJECT SUMMARY

- Provide public sewer service via the existing ENR treatment plant
- End public health risk and reduce nitrogen loads by 17,300 pounds annually
- Constitutes 1/3 of County's WIP septic system goal
- Achieve greatest nitrogen reduction with ENR treatment through public sewer at much lower cost to the BRF vs. upgrading existing individual septic systems to BAT

# SOUTH KENT ISLAND PROJECT SUMMARY

- Bay Restoration Fund and Revolving Loan funding in conjunction with an Economic Benefit Premium charge needed for homeowner affordability
- Target charge to homeowner = \$100/month

# SOUTH KENT ISLAND PROJECT SUMMARY

- Estimated aggregate project cost is \$54 million
  - \$37.4 million for wastewater conveyance infrastructure
  - \$16.6 million for wastewater treatment capacity
- Similar successful projects completed 20 years ago for Cloverfields and Bay City communities using SRL funding

# PROBLEM

Dr. Robert Summers, Secretary, MDE September 2011

"The Queen Anne's County Health Department has documented a very serious public health and water quality problem from septic systems that do not function properly, primarily due to poor soils and a high groundwater table. The Department concurs with this assessment by the County. The small lot size of most homes makes on-site repair or replacement very challenging and infeasible. Given that there are 1,500 improved properties, there is a current, existing issue that cannot be ignored by the public health and environmental agencies."

# PROBLEM HISTORY

- Area subdivided in early 1950's commensurate with building of first Bay Bridge
- Lots developed under no local zoning and minimal septic system regulation
- Due to poor soils and lots being too small to accommodate replacement septic fields, existing septic systems could not be approved under current regulations
- Recognizing the public health dangers, the State Environmental Health Officer revoked 216 perc test approvals on SKI in 1989

# PROBLEM HISTORY

- With septic fields now becoming saturated and insufficient area for replacement fields, the Health Department has implemented a policy of requiring holding tanks, at great expense to the homeowner
- To date, 8 properties are subject to holding tank orders. This number will increase without the provision of public sewer







# Avoid Holding Tanks

Average House

\$200 - \$240 per Pump Out

\$7,200 - \$8,640 per Year

about \$600 per month

# Historical County Efforts - Planning

- 1975 - Designated SKI areas to be served by public sewer based on public health concerns in CWSP
- 2004 - Reserved 500,000 gallons of ENR treatment capacity
- 2007 - Retained nationally recognized waste disposal expert, Dr. Robert Rubin, to determine best solution to SKI problem (\$65,000 cost)

# Historical County Efforts - Planning

- 2010 Comprehensive Plan adopted with future public sewer service SKI Communities
- 2011 Retained an engineering/planning firm, JMT to prepare plans, including engineering projections (\$250,000 cost)
- 2013 - Met regularly with MDE/MDP to craft viable plan
- 2013 - Retained experienced expert counsel Kurt Fischer from Venable, LLC to assure legally defensible actions at considerable cost

# Historical County Efforts - Planning

- 2013 – Researched and developed concept design using STEP system Technology reducing construction cost by \$10 million over traditional vacuum sewer technology
- 2013 – Initiated dedicated SKI webpage for public access
- 2013 – Had independent and professional survey of affected residents commissioned which documented community support
- 2014 – Retained experienced appraiser to assure Economic Benefit Premium viability

# THE

1799-2014



# STAR

DEMOCRAT

June 4, 2014

SERVING THE MID-SHORE FOR 214 YEARS

EASTON, MARYLAND \$1.00

## QA's OKs south KI sewer project

By ANGELA PRICE

baytimes@kibaytimes.com

**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, sitting as the Sanitary Commission,

**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.**

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 substandard lots, identified as lots consisting of less than 20,000 square feet. The nine communities targeted for sewer expansion, Mata-

peake 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**  
Page A13

# On-site Alternative Treatment Systems Not Viable

- Alternative systems not effective where effluent is disposed into groundwater, unavoidable in SKI project area
- Dr. Rubin also concluded:
  - Systems cannot overcome hydraulic limitations, poor soils and high groundwater
  - Alternative systems are :
    - expensive to construct and operate
    - require comprehensive & continual maintenance
  - Public Sewer service from County ENR plant is most cost effective solution and provides the greatest potential for nutrient reduction

# Proposed Solution

## Project System

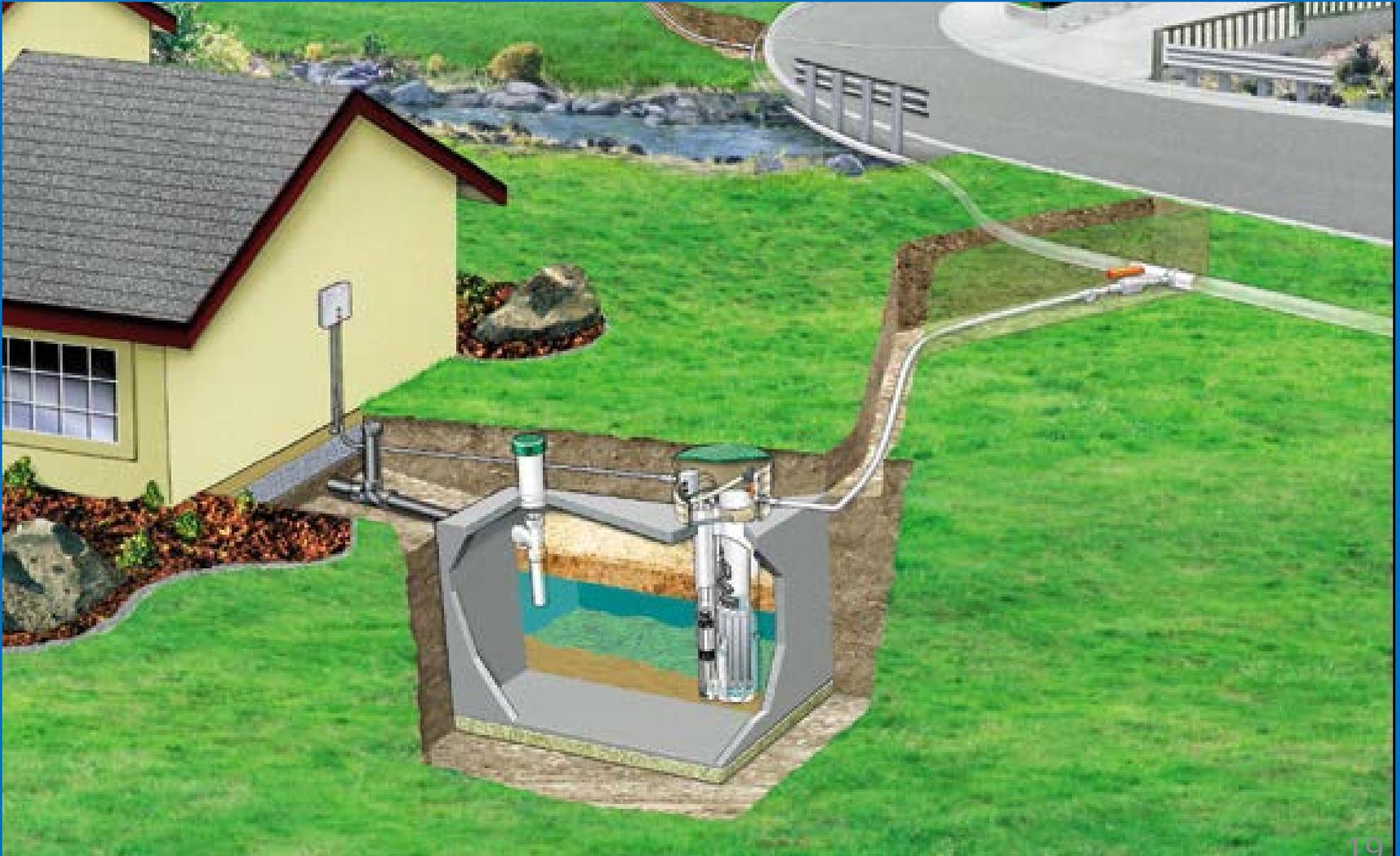
### Overall View of the Project

- 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

## Sepic Tank Effluent Pumping



# 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 – 2022
Phase 4: Chesapeake Estates, Sunny Isle of Kent Batts Neck & Matapeake Estates	2021 - 2023

# Financing Template / Resolution 14-07

Existing homes served	1518
Existing non residential properties served	8
Vacant lots served	560 *
Buildable vacant lots served	12
Estimated Total Construction Cost Of Infrastructure	\$37,433,326
Economic Benefit Premium (vacant lots only)	\$25,600 **
Estimated Average STEP System Cost	\$12,500
Allocation (Treatment ) Fee	\$ 7,750

\*Based on County legislative actions & historical lot consolidation trends

\*\* Final value to be set by the Commissioners

# Financing Template

## Resulting Homeowner Charges

Base Cost *	=	\$ 1,917
STEP Cost	=	\$12,500
Allocation Fee (Bay Restoration Fund Grant)	=	<u>\$ 0</u>
Total cost if paid up front	=	\$14,417
Monthly Debt Service (20 year payoff)	=	\$70
Operations & Maintenance per month	=	<u>\$30</u>
Total Monthly Payment	=	\$100

\* Base cost calculated by Formula in Resolution 14-07

# Financing Template

## Resulting Vacant Lot Owner Charges Prior to Building Permit

Base Cost *	=	\$ 1,917
Economic Benefit Premium	=	<u>\$25,600</u>
Total cost if paid up front	=	\$27,517

Monthly Debt Service (20 year payoff)	=	\$ 134
Operation & Maintenance (ready to serve)	=	<u>\$ 10</u>
Total Monthly Payment before building permit issuance	=	\$ 144

OR

Monthly Debt Service (if deferred for 10-years)	=	\$ 42
Operation & Maintenance (ready to serve)	=	<u>\$ 10</u>
Total Monthly Payment before building permit issuance	=	\$ 52

\* Base cost calculated by Formula in Resolution 14-07

# Financing Template

## Resulting Vacant Lot Owner Charges Upon Building Permit Issuance

Monthly Debt Service	=	\$ 134
Operation & Maintenance per month	=	<u>\$ 30</u>
Monthly Payment	=	\$ 164

### Additional Fees & Costs **\$\$\$**

Allocation Fee (payable at time of permit issuance) = \$ 7,750

STEP System (included in the home's cost) = \$12,500

Impact Fee = \$11,800

Total Addition Fees & Costs for Vacant Lots = **\$\$\$ 32,050**

# County Efforts - Financing

- County requesting to receive no more than the \$1 million it now receives from BRF annually, expecting to dedicate \$600,000 annually over 20 years for principal debt reduction
- Remaining \$400,000 annually being reserved for BAT upgrades in other areas of the County
- State Revolving Fund funding of \$37.4 million requested incrementally over 4 phases
- County enacted legislation May 27 authorizing imposition of benefit charges within service area to fund project, with authorization to assess greater charge to vacant lots, eg. an Economic Benefit Premium (EBP)

# County Efforts - Financing

- EBP supported by appraisal prepared by same appraiser who was expert witness in 1993 case affirming validity of EBP for Cloverfields
- \$100 per month proposed charge to existing homeowners is high relative to other users, but considering the benefits, believed to be reasonable

# State Funding Eligibility

## The HB 11 Role

- HB 11 authorized extended BRF uses for public sewer to relieve failing septic systems outside of a Priority Funding Area (PFA) consistent with Septics Task Force limitation
- Grant limited to allocation charge for each existing system, to extent it does not exceed the available grant to upgrade the septic system to best available technology (BAT), which it does not, at \$7,750

# State Funding Eligibility

## The HB 11 Role

- Grant only available if public sewer is more cost-effective for nitrogen removal than upgrading the individual septic systems, which it clearly is as:
  - The BAT cost for all systems is almost \$19 million
  - Maximum BRF disbursement over 20 years is less than \$12 million for allocation (treatment) fees at County ENR Plant

# State Funding Eligibility

## The HB 11 Role

- Nitrogen reduction from connecting the homes to the ENR treatment plant is vastly greater:
  - 80% with ENR treatment
  - 50% with BAT treatment
- Upgrading to BAT does not alleviate the public health and environmental risks from the bacteria and viruses present as a result of the septic systems being within the water table and breaking out to the surface

# State Funding Eligibility

## The HB 11 Role

- BRF grant subject to funding agreement that limits access to public sewer and MDE review of four (4) specified considerations
- County expects funding agreement to restrict sewer connections to only that number proposed in the project

# HB 11 Compliance

- Public Notification initiated November, 2013
- Public workshop held on 12/19/13 during which State and County officials were available
- Public Hearing convened on 5/1/14
- Project approved by County Commissioners on 5/27/14
- Four required HB 11 considerations addressed with public notification process, particularly with postings on dedicated County website established on 11/27/13

# HB 11 Consideration #1

## Public Health

- 1990 Health Department Sanitary Survey "70% to 90% septics directly discharge into groundwater"
- 1995 Health Department Sanitary Survey " confirmed 80% septics directly discharge into groundwater"
- 1998 and 2004 Health Department affirmed septic failures on SKI
- 2007 Health Officer concludes "clear evidence" of continuing septic system failures" and "permanent solution is warranted"

# HB 11 Consideration #1

## Public Health

- 2011 John Nickerson, Director Environmental Health Services documented:  
"It is my professional opinion public sewer is the proper permanent solution to the SKI sewage disposal issues. The County has a well-run ENR sewage treatment plant with 500,000 gallons of capacity dedicated for this purpose."
- 2014 Dr. Joseph Ciotola, County Health Officer affirms, "solution for wastewater disposal on SKI is a public sewer collection system conveyed to ENR Treatment Plant,"  
"Not considered prudent to delay project further"

# HB 11 Consideration #2

## Potential Infill Development

- Ongoing concern with potential development of 1,600 vacant lots in area, if public sewer provided
- Lot development potential reduced now to 632 through rigorous design and refinement of the system service area and effective lot consolidation
- Service area defined to serve only those vacant lots interspersed among existing homes, (infill) eliminating large undeveloped, but subdivided blocks

# HB 11 Consideration #2

## Potential Infill Development

- Lot consolidation ordinance enacted May 27 requires adjoining lots in common ownership to combine to comply with existing zoning, with any remaining square footage not meeting zoning (“orphan lot”), required to be consolidated with compliant adjoining lot
- Approximately 40 lots will likely not develop due to environmental constraints, e.g. wetlands and forest, size, and public/community ownership

# HB 11 Consideration #2

## Potential Infill Development

- Development patterns indicate no more than 85% of the vacant lots available for development will actually ever develop, meaning no more than around 560 vacant lots will ultimately develop

# HB 11 Consideration #3

## Growth Impact Mitigation Measures

- Vacant lot development will be phased over many years due to the construction schedule and a housing market still recovering from the recession
- Economic pressure to develop the vacant lots mitigated by deferring principle payments from vacant lot owners for up to 10 years

# HB 11 Consideration #3

## Growth Impact Mitigation Measures

- According to State standards, there is capacity in the county school system to accommodate growth arising from ultimate anticipated full build-out of the project
- Level of service will not be below D on MD Route 8, the road which serves SKI, with the ultimate anticipated full build-out

# HB 11 Consideration #3

## Growth Impact Mitigation Measures

- Recreational facilities are sufficient to accommodate anticipated build-out
- Impact Fees and new property and income tax revenues generated through new development and improvements to existing properties will provide a viable resource for funding infrastructure needed to accommodate infill

# HB 11 Consideration #3

## Growth Impact Mitigation Measures

- Not designating SKI as a PFA provides for the development potential reduction
- With the limited access public sewer, essentially renders SKI “as is” henceforth after the anticipated full build-out

# HB 11 Consideration #4

## Nitrogen Reduction

- Removal of existing septic systems through connection to County ENR plant
  - 17,300 lb annual reduction of nitrogen (including new 560 lot infill) per MDE analysis
  - 33% of County Septic System WIP Goal
  - To meet Septic System WIP goal without this project over 90% of septic systems in County would need to be upgraded to BAT at a \$120 million cost



# County Efforts

## Litigation Risk Management

- Anticipating litigation, County retained experienced counsel to assure Project's legal defensibility
- Retained counsel had previously successfully defended the County in 1993 regarding implementation of EBP for similar project in Cloverfields Community
- Consolidation ordinance has legal precedence in Maryland and throughout country

# County Efforts

## Litigation Risk Management

- Denial of hookups to lots outside of service area is authorized by well-reasoned Attorney General's opinion, which also notes obligation to offer service to vacant lots interspersed among developed lots. See 90 *Opinions of the Attorney General* 60 (2005)
- A signer of the opinion, Robert McDonald, who was then Chief Counsel, Opinions and Advise, is now an Associate Judge on the Court of Appeals

# Community Revitalization

- Failing Septic systems detrimental to community vitality
  - Home sale contracts fail
  - Additions to homes cannot be approved
  - Septic effluent often present with resulting odor
  - More holding tanks will be required at great homeowner expense

# Community Revitalization

- Experience in Cloverfields and Bay City, documents project completion will revitalize communities
- Without public sewer, as holding tanks will be required for more homes, marked community deterioration will occur

# Low Income Assistance

- Department of Community Services will facilitate programs to qualified owner occupied homes/residents
  - Opportunities include:
    - Rural Development 504
    - Community Development Block Grants
    - County Revolving Loan Funds
- Funds target low/moderate income owner-occupied homes
- Successfully used these programs in Cloverfields (1994) & Bay City (1995)

# Sea Level Rise/Storm Surge Risks Mitigated

- 2014 FEMA Flood Insurance rate maps have reduced flood zone compared to prior maps by 313 acres or 70% in SKI Communities
- Pending new County Floodplain Ordinance proposes to increase freeboard requirement from 1 to 2 feet
- Application of building code will mitigate future property damage from flooding
- Environmental degradation from effluent backwash much greater with storm surge over individual failing septic systems, than over proposed closed STEP sewer system

# Floodplain Comparison

Southern Kent Island  
Queen Anne's County  
MARYLAND



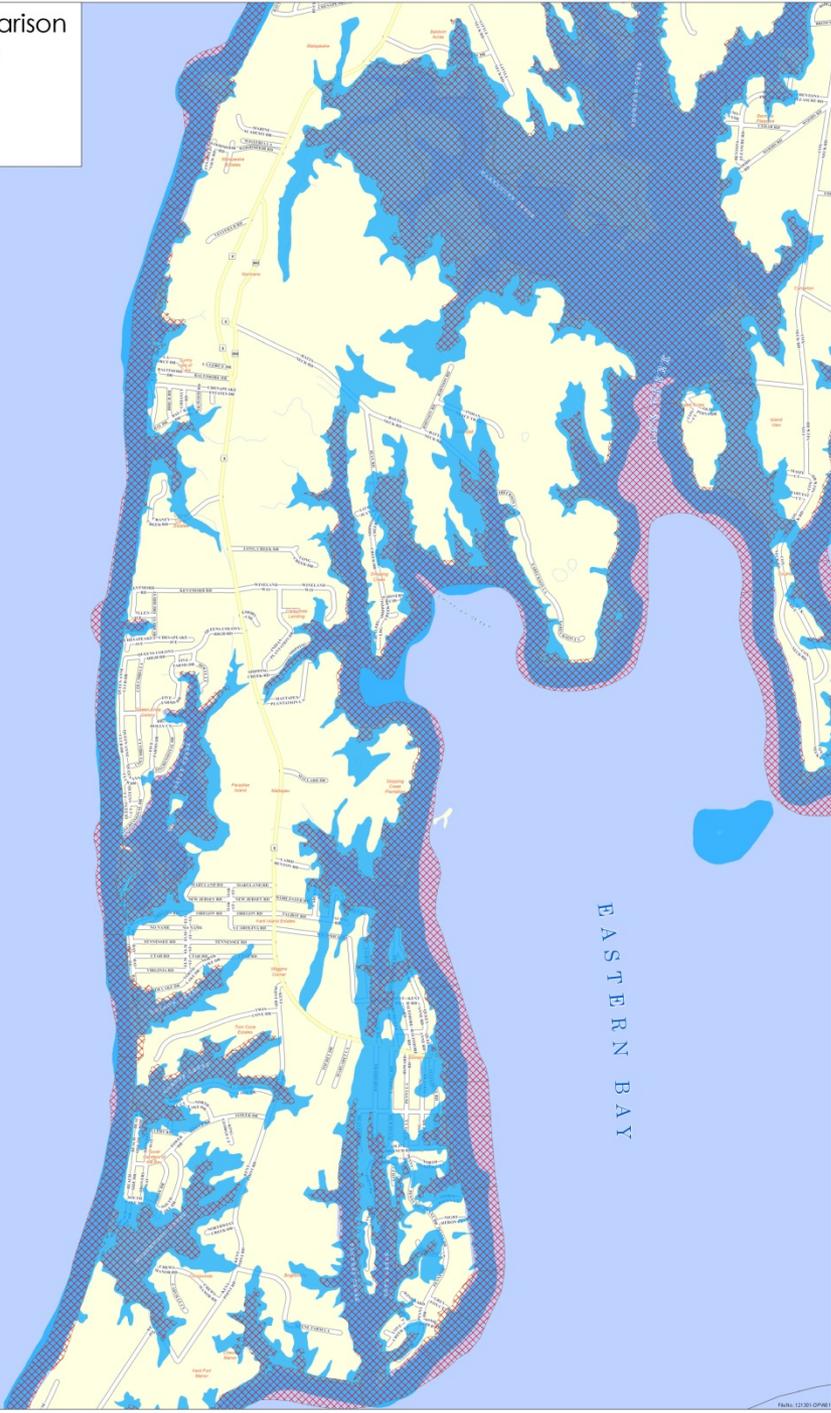
1 inch equals 1,000 feet

## Legend

-  Preliminary Floodplain
-  Effective Floodplain

C H E S A P E A K E B A Y

E A S T E R N B A Y



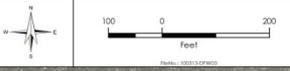
# Aerial Project Overview

**Matapeake Estates**  
 KENT ISLAND, QUEEN ANNE'S COUNTY  
 MARYLAND

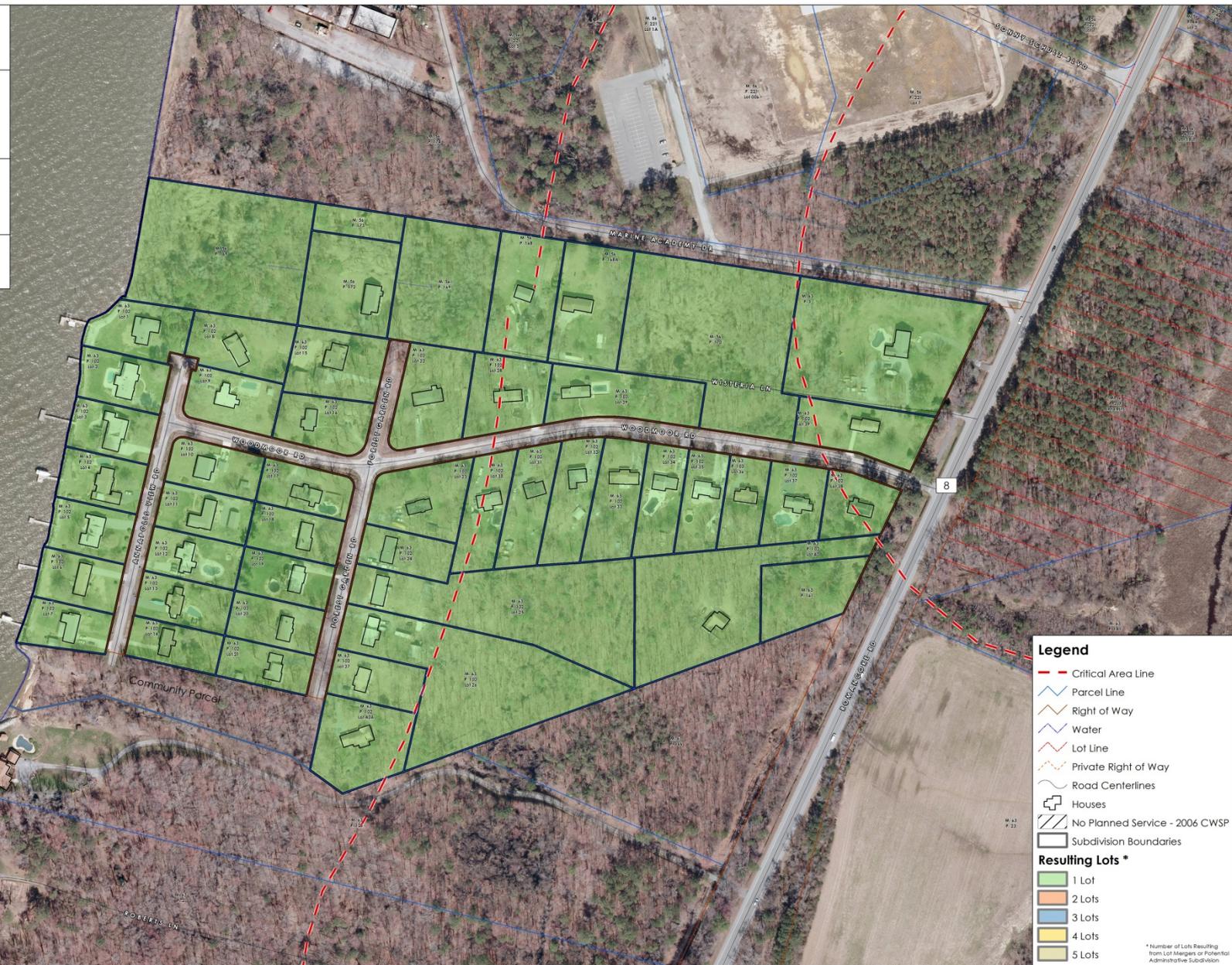
50 Total Lots  
 50 Lots in Sewer Service Area  
 50 Lots After Lot Consolidation

- 5 Potential Vacant Lots
- 1 Vacant lot would not meet the size requirement of the zoning district
- 45 Improved Lots

- Matapeake Estates is located in the NC-20 Zoning District
- Based on 2006 CWSP Planned Service Areas
- Lot lines covered by primary structures are considered abandoned when determining administrative subdivision potential
- Based on Queen Anne's County GIS Parcel Data (August 2013)
- Area used to determine resulting lots for consolidation was calculated using the Queen Anne's County GIS parcel data, and not the assessed area



CHESAPEAKE BAY



**Legend**

- - - Critical Area Line
- ~ Parcel Line
- ~ Right of Way
- ~ Water
- ~ Lot Line
- ~ Private Right of Way
- ~ Road Centerlines
- ⊕ Houses
- ▨ No Planned Service - 2006 CWSP
- ▭ Subdivision Boundaries

**Resulting Lots \***

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

\* Number of Lots Resulting from Lot Mergers or Potential Administrative Subdivision

**Normans**  
 KENT ISLAND, QUEEN ANNE'S COUNTY  
 MARYLAND

49 Total Lots  
 49 Lots in Sewer Service Area  
 48 Lots After Lot Consolidation  
 - 12 Potential Vacant Lots  
 - 7 Vacant lots would not meet the size requirement of the zoning district  
 - 36 Improved Lots

- The Normans is in the HC-2B (South of South Neck Rd) and HC-17 North of South Neck Rd Zoning Districts.
- Based on 2006 CWSP Planned Service Areas.
- Lot lines covered by primary structures are considered abandoned when determining administrative subdivision potential.
- Based on Queen Anne's County GIS Parcel Data (August 2013).
- Area used to determine resulting lots for consolidation was established using the Queen Anne's County GIS parcel data and not the assessed area.



**Legend**

- Critical Area Line
- Parcel Line
- Right of Way
- Water
- Lot Line
- Private Right of Way
- Road Centerlines
- Houses
- No Planned Service - 2006 CWSP
- Subdivision Boundaries

**Resulting Lots \***

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

\* Number of Lots Resulting from Lot Mergers or Potential Administrative Subdivision

**2014 CWSP DRAFT**

**Sunny Isle of Kent**

KENT ISLAND, QUEEN ANNE'S COUNTY  
MARYLAND

250 Total Lots  
113 Lots in Sewer Service Area  
54 Lots After Lot Consolidation

- 23 Potential Vacant Lots
- 17 Vacant lots would not meet the size requirement of the zoning district
- 31 Improved Lots

- Sunny Isle of Kent is located in the NC-20 Zoning District
- Based on 2014 Draft CWSP Planned Service Areas
- Lot lines covered by primary structures are considered abandoned when determining administrative subdivision potential
- Based on Queen Anne's County GIS Parcel Data (August 2013)
- Area used to determine resulting lots for consolidation was calculated using the Queen Anne's County GIS parcel data, and not the assessed area



CHESAPEAKE BAY



**Legend**

- - - Critical Area Line
- Parcel Line
- Right of Way
- Water
- Lot Line
- Private Right of Way
- Houses
- Road Centerlines
- No Planned Service 2014 CWSP (Draft)
- Subdivision Boundaries

**Resulting Lots \***

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

\* Number of Lots Resulting from Lot Mergers or Potential Administrative Subdivision

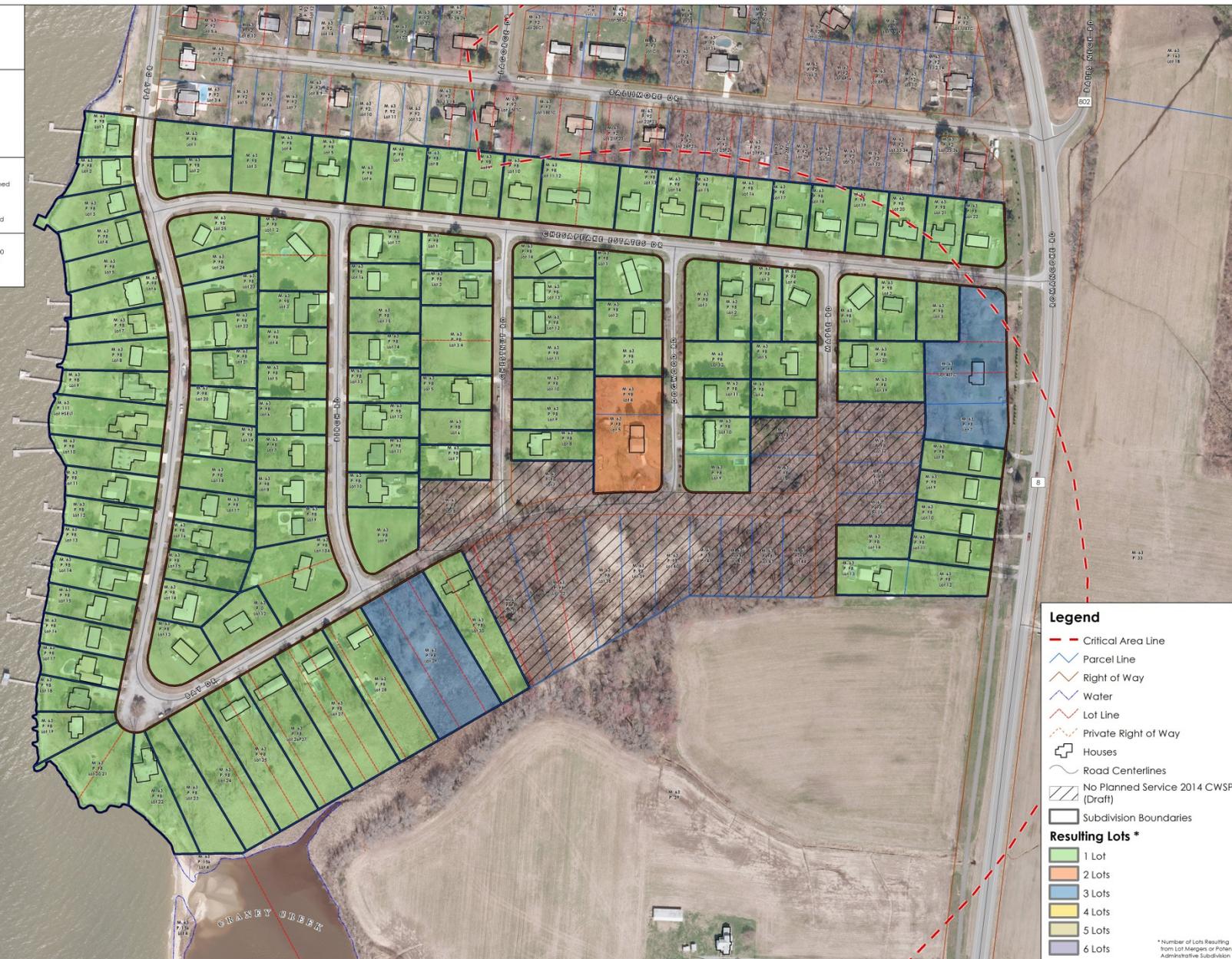
**2014 CWSP DRAFT**  
**Chesapeake Estates**  
 KENT ISLAND, QUEEN ANNE'S COUNTY  
 MARYLAND

161 Total Lots  
 142 Lots in Sewer Service Area  
 125 Lots After Lot Consolidation  
 - 27 Potential Vacant Lots  
 - 16 Vacant lots would not meet the size requirement of the zoning district  
 - 98 Improved Lots

- Chesapeake Estates is located in the NC-20 Zoning District
- Based on 2014 Draft CWSP Planned Service Areas
- Lot lines covered by primary structures are considered abandoned when determining administrative subdivision potential
- Based on Queen Anne's County GIS Parcel Data (August 2013)
- Area used to determine resulting lots for consolidation was calculated using the Queen Anne's County GIS parcel data, and not the assessed area



CHESAPEAKE BAY



**Legend**

- - - Critical Area Line
- Parcel Line
- Right of Way
- Water
- Lot Line
- Private Right of Way
- Houses
- Road Centerlines
- ▨ No Planned Service 2014 CWSP (Draft)
- ▭ Subdivision Boundaries

**Resulting Lots \***

- 1 Lot (Green)
- 2 Lots (Orange)
- 3 Lots (Blue)
- 4 Lots (Yellow)
- 5 Lots (Light Green)
- 6 Lots (Purple)

\* Number of Lots Resulting from Lot Mergers or Potential Administrative Subdivision

# 2014 CWSP DRAFT

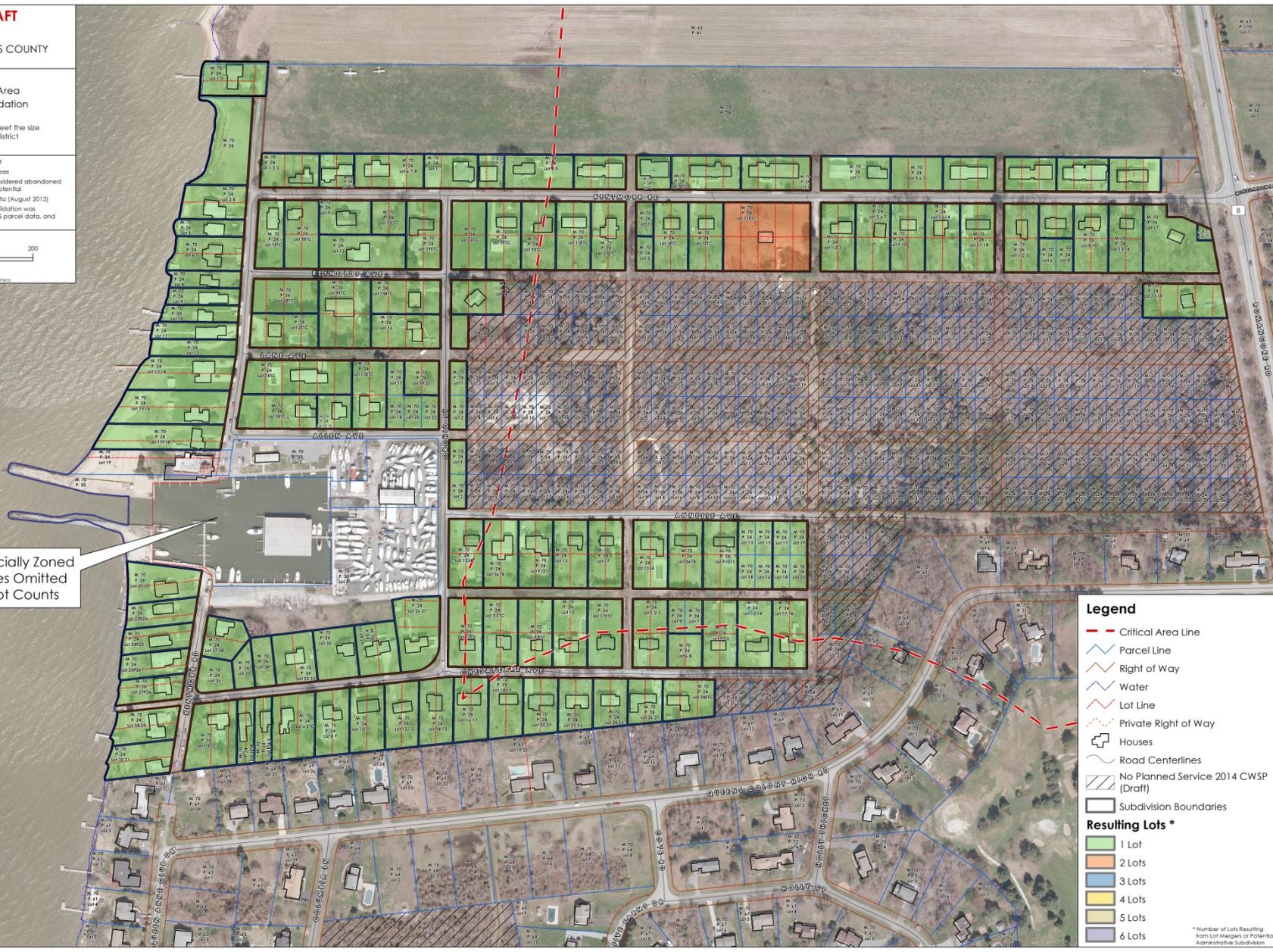
## Kentmorr

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 size requirement of the zoning district
- 102 Improved Lots

- Kentmorr is located in the NC-20 Zoning District
- Based on 2014 Draft CWSP Planned Service Areas
- Lot lines covered by primary structures are considered abandoned when determining administrative subdivision potential
- Based on Queen Anne's County GIS Parcel Data (August 2013)
- Area used to determine resulting lots for consolidation was calculated using the Queen Anne's County GIS parcel data, and not the assessed area



Commercially Zoned Properties Omitted From Lot Counts

**Legend**

- Critical Area Line
- Parcel Line
- Right of Way
- Water
- Lot Line
- Private Right of Way
- Houses
- Road Centerlines
- No Planned Service 2014 CWSP (Draft)
- Subdivision Boundaries

**Resulting Lots \***

- 1 Lot (Green)
- 2 Lots (Orange)
- 3 Lots (Blue)
- 4 Lots (Yellow)
- 5 Lots (Light Purple)
- 6 Lots (Dark Purple)

\* Number of Lots Resulting from Lot Mergers of Potential Administrative Subdivision

**Queen Anne Colony**  
**KENT ISLAND, QUEEN ANNES COUNTY**  
 MARYLAND

322 Total Lots  
 316 Lots in Sewer Service Area  
 297 Lots After Lot Consolidation  
 - 67 Potential Vacant Lots  
 - 1 Vacant lots would not meet the size requirement of the zoning district  
 - 230 Improved Lots

- Queen Anne Colony is located in the NC-19 Zoning District
- Based on 2006 CWSP Planned Service Areas
- Lot lines covered by primary structures are considered abandoned when determining administrative subdivision consent
- Based on Queen Annes County GIS Parcel Data (August 2013)
- Acrea used to determine resulting lots for consolidation was calculated using the Queen Annes County GIS parcel data, and not the assessed area



**Legend**

- - - Critical Area Line
- Parcel Line
- Right of Way
- Water
- Lot Line
- Private Right of Way
- Road Centerlines
- ☐ Houses
- ▨ No Planned Service - 2006 CWSP
- ▭ Subdivision Boundaries

**Resulting Lots \***

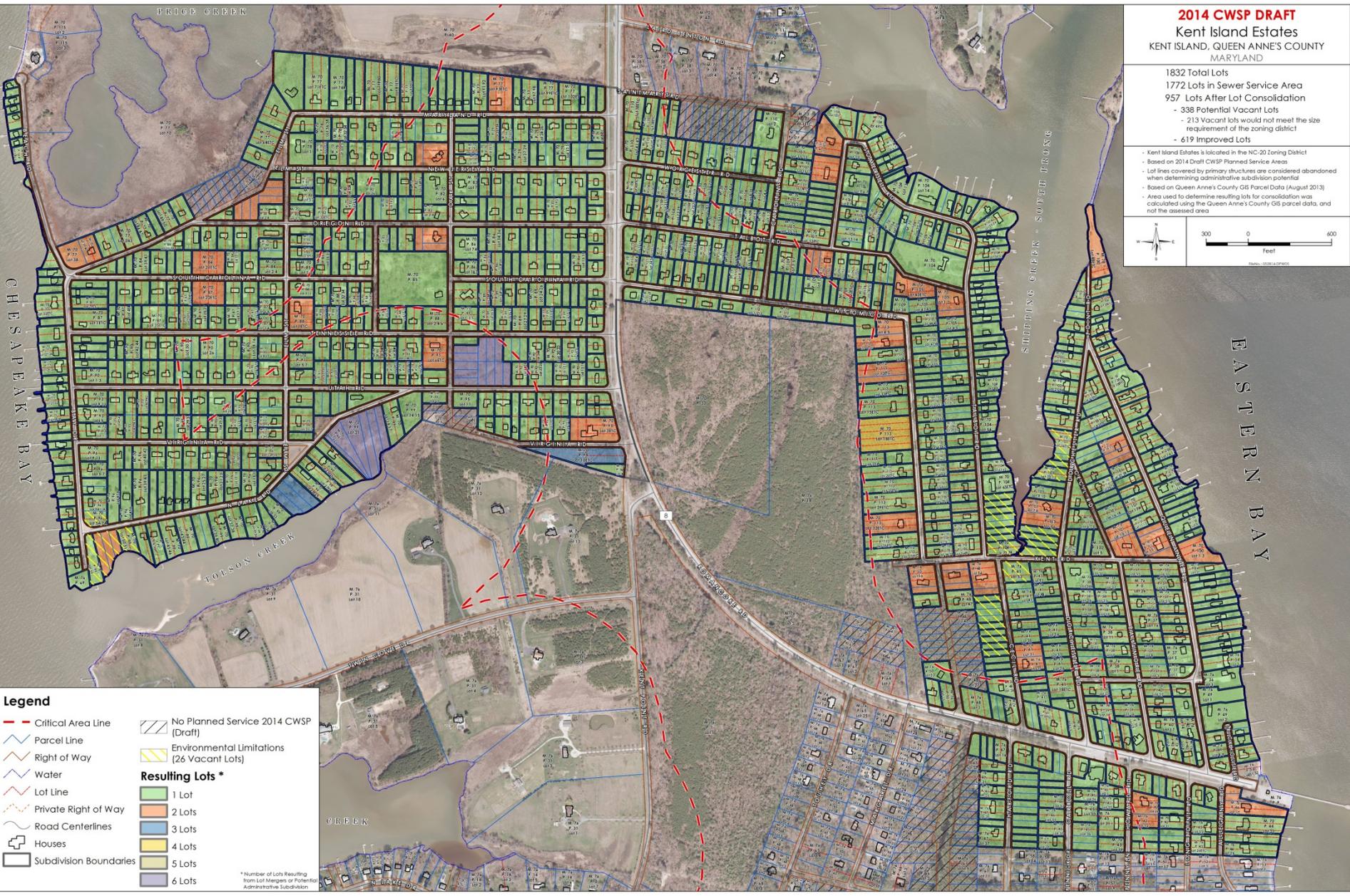
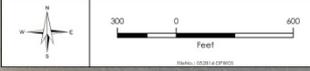
- ☐ 1 Lot
- ☐ 2 Lots
- ☐ 3 Lots
- ☐ 4 Lots
- ☐ 5 Lots

\*Number of Lots Resulting from Lot Consoliation or Potential Administrative Subdivision

**2014 CWSP DRAFT**  
**Kent Island Estates**  
 KENT ISLAND, QUEEN ANNE'S COUNTY  
 MARYLAND

1832 Total Lots  
 1772 Lots in Sewer Service Area  
 957 Lots After Lot Consolidation  
 - 338 Potential Vacant Lots  
 - 213 Vacant lots would not meet the size requirement of the zoning district  
 - 619 Improved Lots

- Kent Island Estates is located in the NC-20 Zoning District
- Based on 2014 Draft CWSP Planned Service Areas
- Lot lines covered by primary structures are considered abandoned when determining administrative subdivision potential
- Based on Queen Anne's County GIS Parcel Data (August 2013)
- Area used to determine resulting lots for consolidation was calculated using the Queen Anne's County GIS parcel data, and not the assessed area



**Legend**

- - Critical Area Line
- - Parcel Line
- - Right of Way
- - Water
- - Lot Line
- - Private Right of Way
- - Road Centerlines
- - Houses
- - Subdivision Boundaries
- - No Planned Service 2014 CWSP (Draft)
- - Environmental Limitations (26 Vacant Lots)

**Resulting Lots \***

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

\* Number of Lots Resulting from Lot Mergers or Potential Administrative Subdivision

# 2014 CWSP DRAFT

## Romancoke

KENT ISLAND, QUEEN ANNE'S COUNTY  
MARYLAND

426 Total Lots  
362 Lots in Sewer Service Area  
270 Lots After Lot Consolidation

- 112 Potential Vacant Lots
- 73 Vacant lots would not meet the size requirement of the zoning district
- 158 Improved Lots

- Romancoke is located in the NC-20 Zoning District
- Based on 2014 Draft CWSP Planned Service Areas
- Lot lines covered by primary structures are considered abandoned when determining administrative subdivision potential
- Based on Queen Anne's County GIS Parcel Data (August 2013)
- Area used to determine resulting lots for consolidation was calculated using the Queen Anne's County GIS parcel data, and not the assessed area



ASTERN BAY

### Legend

- - - Critical Area Line
- Parcel Line
- Right of Way
- Water
- Lot Line
- Private Right of Way
- Houses
- Road Centerlines
- No Planned Service 2014 CWSP (Draft)
- Environmental Limitations (4 Vacant Lots)
- Subdivision Boundaries

### Resulting Lots \*

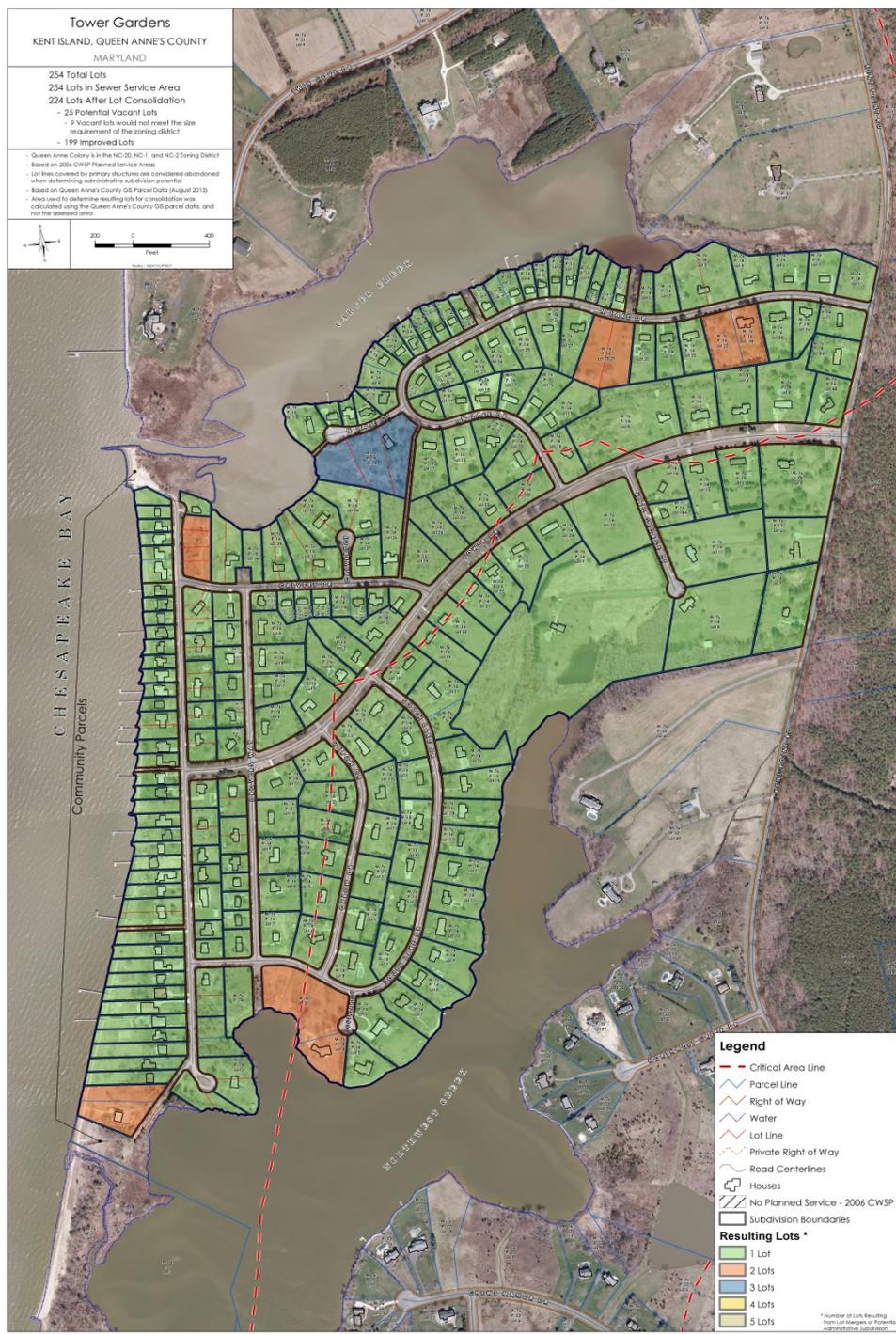
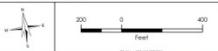
- 1 Lot
- 2 Lots
- 3 Lots
- 4 Lots
- 5 Lots
- 6 Lots

\* Number of Lots Resulting from Lot Mergers or Potential Administrative Subdivision

**Tower Gardens**  
 KENT ISLAND, QUEEN ANNES COUNTY  
 MARYLAND

254 Total Lots  
 254 Lots in Sewer Service Area  
 224 Lots After Lot Consolidation  
 - 25 Potential Vacant Lots  
 - 9 Vacant lots would not meet the size requirement of the zoning district  
 - 199 Improved Lots

- Queen Anne Colony is in the NC-50, NC-1, and NC-2 Zoning District
- Based on 2006 CWRP Planned Service Area
- Lot lines covered by primary structures are considered abandoned when determining administrative subdivision potential
- Based on Queen Anne's County GIS Parcel Data (August 2013)
- Areas used to determine resulting lots for consolidation was calculated using the Queen Anne's County GIS parcel data, and not the assessed area



**Legend**

- Critical Area Line
- Parcel Line
- Right of Way
- Water
- Lot Line
- Private Right of Way
- Road Centerlines
- Houses
- No Planned Service - 2006 CWSP
- Subdivision Boundaries

**Resulting Lots \***

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

\*Number of Lots Resulting from Changes or Potential Administrative Subdivision

## Draft 2014 CWSP

Community	Total Number of Lots <sup>1</sup>	Commercial Lots <sup>2</sup>	Out of Service Area <sup>3</sup>		In Service Area							
			Lots	Number of Property Owners	Lots	Number of Property Owners	After Mergers					
							Lots <sup>4</sup>	Potential Vacant Lots <sup>5</sup>	Non-Conforming Vacant Lots <sup>6</sup>	Improved Parcels		
										Resulting Parcels <sup>7</sup>	Improved <sup>8</sup>	Vacant <sup>9</sup>
Matapeake Estates	50	0	0	0	50	50	50	5	1	45	45	0
Normans	49	0	0	0	49	45	48	12	9	36	36	2
Sunny Isle of Kent	250	0	137	27	113	50	54	23	17	31	56	28
Chesapeake Estates	161	0	19	9	142	120	125	27	16	98	107	9
Kentmorr	622	8	269	4	345	124	125	23	19	102	210	90
Queen Anne Colony	322	3	3	3	316	279	297	67	1	230	244	20
Kent Island Estates	1832	0	60	34	1772	909	957	338	213	619	1120	167
Romancoke	426	0	64	49	362	255	270	112	73	158	207	33
Tower Gardens	254	0	0	0	254	216	224	25	9	199	215	15
<b>Totals</b>	<b>3966</b>	<b>11</b>	<b>552</b>	<b>126</b>	<b>3403</b>	<b>2048</b>	<b>2150</b>	<b>632</b>	<b>358</b>	<b>1518</b>	<b>2240</b>	<b>364</b>

<sup>1</sup> Gross lot count for each community

<sup>2</sup> Commercially zoned properties in Queen Anne Colony and Kentmorr that were excluded in the remainder of the analysis

<sup>3</sup> Lots outside of the Service Area based on the Queen Anne's County 2006 Comprehensive Water and Sewerage Plan

<sup>4</sup> Total number of both improved and vacant lots resulting from lot mergers

<sup>5</sup> Maximum number of lots resulting from administrative subdivisions

<sup>6</sup> Vacant lots not meeting the minimum size requirement for the zoning district

<sup>7</sup> Number of improved parcels resulting from mergers

<sup>8</sup> Lots occupied by primary structures

<sup>9</sup> Vacant lots in common ownership with improved lots that lack the area to administratively subdivide

# Unique Features of SKI

- Likely greatest concentration of failing septics in State
- Soils too poor to have any tolerance for septic systems
- ENR plant upgraded using BRF, with capacity specifically reserved to relieve failing septic systems in 2004
- Compelling public health concerns identified since 1975 in County's CWSP

# Unique Features of SKI

- Continual actions to address public health concerns, including reversing 216 previously approved percolation tests in 1989
- Huge and ongoing County commitment to project
- Upon project completion area will essentially remain “as is”
- Without project, due to recently implemented holding tank policy, communities will deteriorate

# Southern Kent Island Sanitary Project



Smart Growth Coordinating Committee  
June 18, 2014

<http://www.qactv.com/home/ski-sanitary-project/>