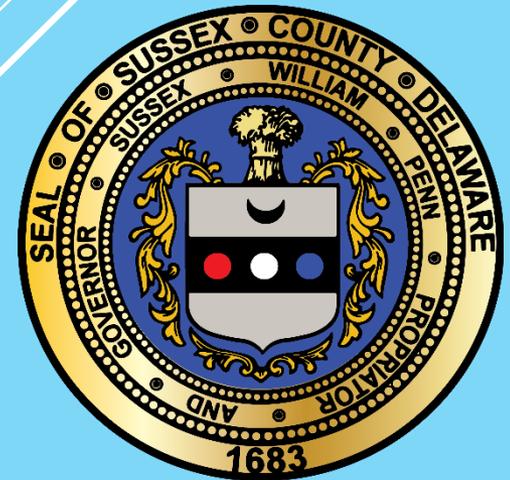


Sussex County Engineering Department

Proposed Herring Creek
Sewer District

Public Meeting
Beacon Middle School
May 7, 2016



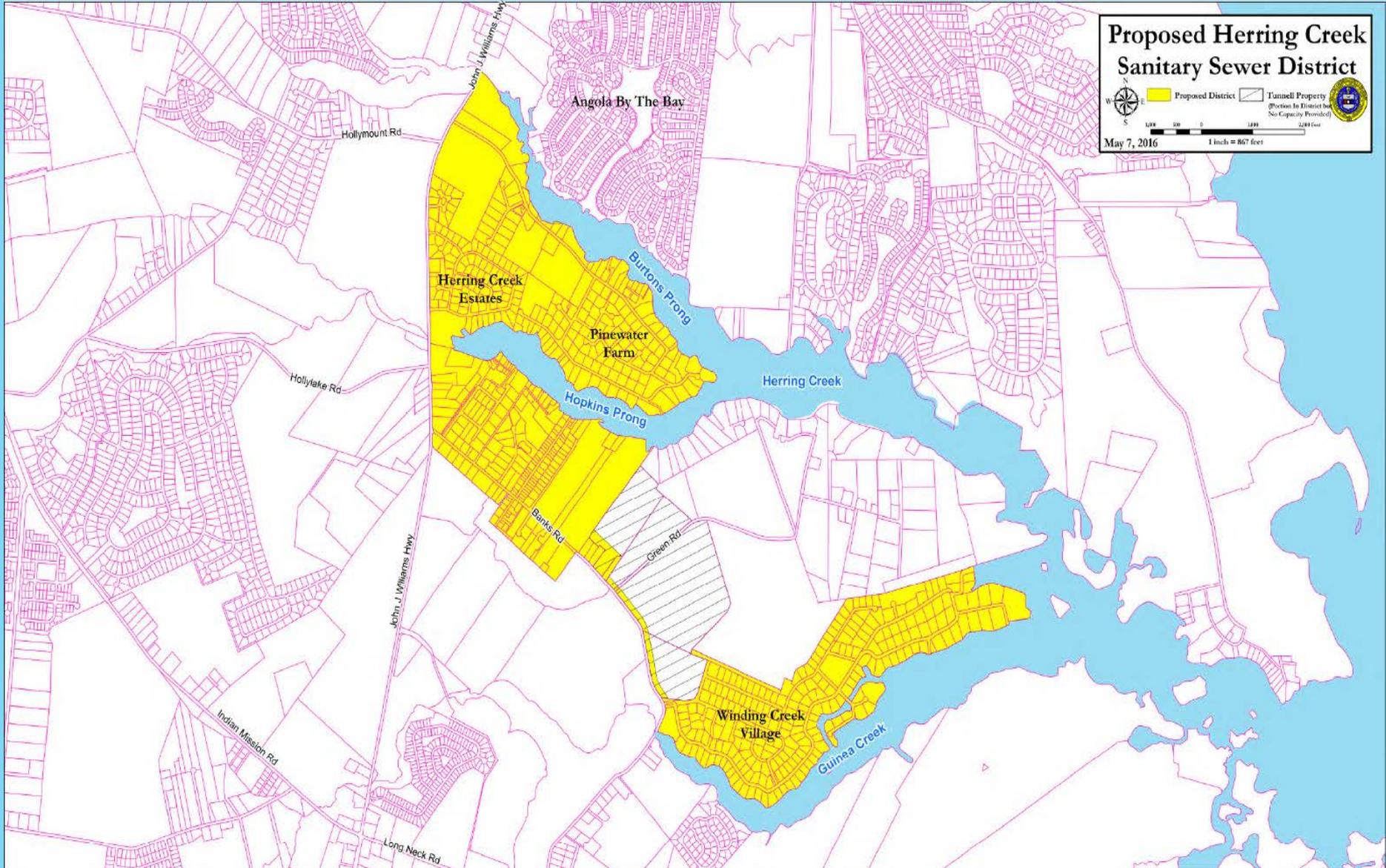
Proposed Herring Creek Sanitary Sewer District

AGENDA

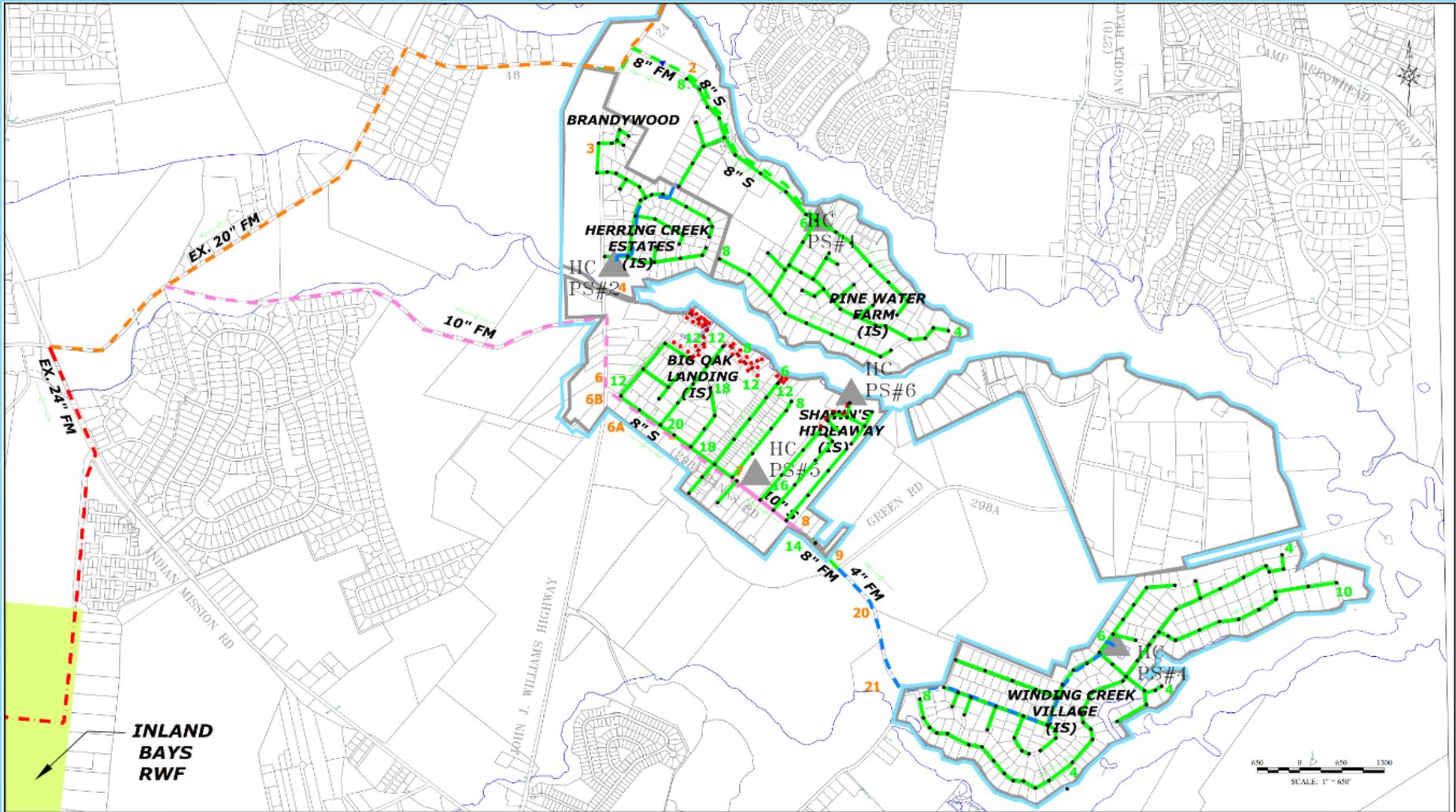
- 1. Welcome & Introduction.....Todd F. Lawson
County Administrator
- 2. Proposed BoundariesJohn Ashman
Director of Utility Planning
- 3. Preliminary System LayoutJohn Ashman
- 4. ScheduleJohn Ashman
- 5. Sewer Rate & Cost InformationHans Medlarz, P.E
County Engineer
- 6. Septic Systems.....James Cassidy
Ground Water Discharge, DNREC
- 7. Eligible Voters / Absentee Process.....Todd F. Lawson
- 8. Questions and Comments.....Audience
- 9. Closing RemarksTodd F. Lawson



Proposed District Boundary



Preliminary System Layout



INLAND BAYS RWF

LEGEND

- 8" SEWER PIPE
- 10" SEWER PIPE
- 12" SEWER PIPE
- 20" SEWER FORCE MAIN
- 24" SEWER FORCE MAIN
- 28" SEWER FORCE MAIN
- 36" SEWER FORCE MAIN
- 48" SEWER FORCE MAIN
- 60" SEWER FORCE MAIN
- 72" SEWER FORCE MAIN
- 84" SEWER FORCE MAIN
- 96" SEWER FORCE MAIN

- Herring Creek Study Area
- Pump Station

- 3 Node (From NCPA)
- 20 Ground Elevation
- GRINDER PUMP
- MANHOLE
- PS SERVICE BOUNDARY



SUSSEX COUNTY ENGINEERING DEPARTMENT
GEORGETOWN, DELAWARE

HERRING CREEK PLANNING AREA
Proposed Regional Infrastructure Layout



FIGURE
1



“Typical” Pump Stations & Grinder Pump



Grinder Pump



Pump Station
Landscaped



Pump Station
Fenced



Proposed Schedule

Time Frame	Phase
January 2016	Facilities Plan / Environmental Assessment
February 13, 2016	Public Hearing on the Boundary
May 7, 2016	2 nd Public Meeting on the Boundary
June 7, 2016	Final Boundary Consideration by County Council
July 7, 2016	Absentee Ballot Deadline @ 4:30 PM
July 9, 2016	Referendum Vote (Location: Conley's UM Church – Jolyn's Way)
August 2016*	Design Phase Begins
Spring 2017*	Advertise/Bidding Phase
Summer 2017*	Begin Construction
Fall 2019*	Project Start-up

* Depends on outcome of the Referendum



Estimated Costs

Annual Service Charge:¹ \$302.00/year per Equivalent Dwelling Unit (house, mobile home, apartment, etc.); billed quarterly to connected customers.

Annual Assessment Charge: \$8.24 per front foot per year. \$329.60 per year (Minimum for 40 front feet lot) - \$824.00 per year (Maximum for 100 front feet lot or larger). Billed quarterly to all lots; capped at 100 feet.

System Connection Charge (SCC): \$0.00 per existing homes. One-time charge built into financing for existing homes. Any future connection will be charged the SCC rate at that time.

TOTAL ANNUAL ESTIMATE				
<u>Minimum Scenario</u> ²			<u>Maximum Scenario</u> ²	
\$302.00	Service charge		\$302.00	Service charge
+ \$329.60	40 front ft.		+ \$824.00	100 front ft. max
= \$631.60	Total		= \$1126.00	Total

1. Annual Service Charges are set by County Council in the annual budget and subject to change.
2. Estimate lists the min. and max. Annual Assessment to show potential full range of the charge.

In addition, private plumbing charges could range from \$800-\$1,200 per unit. This includes abandonment of existing septic tanks and County permit fee. Assistance for low to moderate income households is available from the State and County.



Proposed Herring Creek Sanitary Sewer District

Connection fee for existing homes

\$0

You pay the \$100 permit fee and your plumber cost



Proposed Herring Creek Sanitary Sewer District

Plumber Information

- Per County Code, the application for a permit must be made in person by a duly licensed plumber in the State of Delaware who will install or supervise the installation of the sewer.
- The application for a permit shall be made on forms furnished by the county and shall be supplemented by plans and specifications and shall be signed by the licensed plumber and the owner of the building having the building sewer connected thereto.
- For leased property, the decision of paying the plumbing expenses is made between the property owner and the tenant.
- All costs and expenses incident to the installation and connection of the building sewer shall be borne by the owner.



DELAWARE DEPARTMENT OF NATURAL
RESOURCES
AND ENVIRONMENTAL CONTROL

DIVISION OF WATER

Jim Cassidy

Program Manager I

(302) 856-4561

James.Cassidy@state.de.us



POLLUTION CONTROL STRATEGY (PCS)?

▶ **What is it ?**

- ▶ Set of actions that are designed to reduce nutrient loading to the Inland bays

▶ **Where did it come from ?**

- ▶ The “Tributary Action Team” was formed in the mid 90’s. They met for over a decade, eventually drafting the PCS and recommending it to the Department for promulgation

▶ **When did it go into effect ?**

- ▶ Effective date November 11, 2008

▶ **How was it implemented ?**

- ▶ Implementation took place through regulation, although the components may be a combination of voluntary and regulatory actions.



ON-SITE WASTEWATER SYSTEMS PERFORMANCE STANDARDS

- ▶ PSN1
 - ▶ New large on-site wastewater treatment and disposal systems with flows >20,000 gpd
 - ▶ Average annual TN 5 mg/l
- ▶ PSN2
 - ▶ New and existing large on-site wastewater treatment and disposal systems with flows greater than 2,500 and less than 20,000 gpd
 - ▶ Average annual TN 10 mg/l
- ▶ PSN3
 - ▶ All new septic systems and existing septic systems requiring component replacement that have a design flow equal to or less than 2,500 gallons per day flow
 - ▶ Average annual TN 20 mg/l or 50% reduction
 - ▶ Requires a Class H inspection prior to sale of home



PSN3 – HOW DO WE GET THERE???

- ▶ Incorporating advanced treatment units
- ▶ Purpose of Innovative/Alternative (I/A) treatment units
 - ▶ Reduce strength of septic tank effluent through aerobic or aerobic/anaerobic processes; reduce nutrient concentrations
 - ▶ Parameters
 - ▶ BOD < 30 mg/l, TSS < 30 mg/l, reduce TN by 50%
 - ▶ Accomplishes this through use of
 - ▶ Pumps, jets, blowers, alarms, filtered media
 - ▶ The use of PSN-3 technology is Regulatory.
 - ▶ Required by the Pollution Control Strategy for the Inland Bays Watershed and by the Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems.
 - ▶ Class H Inspection is mandatory.
 - ▶ Required by the Pollution Control Strategy for the Inland Bays Watershed and by the Regulations Governing the Design, Installation and Operation of On-Site Wastewater Treatment and Disposal Systems.



WHEN DO I HAVE TO MEET THIS STANDARD ?

- ▶ All new and replacement systems are required to meet PSN-3 standards
 - ▶ This means that when you need a new system it will be required to meet the standard
- ▶ The typical life of a septic system is ~20 years
 - ▶ Some last longer but some also fail a lot sooner.
- ▶ Of the 713 homes currently in the proposed sewer district, over 285 or 40% were permitted and installed over 25 years ago
 - ▶ This means that at least 40% of the existing systems in the proposed sewer district are already past their typical life expectancy and will no doubt need to be replaced in the not so distant future



HOW MUCH IS IT GOING TO COST ?

- ▶ On average PSN-3 technology increases the price of a septic system ~\$6000, at the time of installation.
- ▶ Systems that require PSN-3 technology require mandatory operation and maintenance, provided by a Certified Service Provider, annually. The cost associated with that is typically in the range of \$300-\$400 per year
 - ▶ Property owners may become Certified Service Providers for their own systems.



HOW MUCH IS IT GOING TO COST ?

- ▶ Some average costs of new on-site wastewater systems (Septic Systems)
 - ▶ Cost estimate are by system type with PSN-3 included.

CATEGORY	SYSTEM TYPE FDG	SYSTEM TYPE CFG	SYSTEM TYPE LPP	SYSTEM TYPE ESM
Site Eval, Permitting & Inspection Fees	\$1,500.00	\$1,500.00	\$1,750.00	\$1,750.00
System Installation Cost	\$10,600.00	\$12,133.00	\$12,900.00	\$19,500.00
Total Installation Cost	\$12,100.00	\$13,633.00	\$14,650.00	\$21,250.00
Annual Operation & Maintenance Fee	\$325.00/yr.	\$325.00/yr	\$325.00/yr	\$325.00/yr
O&M Over Life of System (21yrs)	\$6,175.00	\$6,175.00	\$6,175.00	\$6,175.00
Total cost of System over 21 years	\$18,275.00	\$19,808.00	\$20,825.00	\$27,675.00
Annual cost Over Life of the System	\$870.25	\$943.25	\$991.70	\$1,317.90



PROPOSED HERRING CREEK SEWER DISTRICT

- ▶ 713 Existing Homes on septic systems
- ▶ Average nitrogen load from a septic system is ~20-25 pounds/year
- ▶ The 713 homes discharge ~16,400 pounds of Nitrogen to ground water annually
- ▶ **Alternative to Septic Systems: Connect to Inland Bays Regional Wastewater Spray Irrigation Facility**
 - ▶ Complies with the Pollution Control Strategy
 - ▶ Reduces nitrogen load by ~75%
 - ▶ Keeps over 12,300 pounds of Nitrogen from entering the Inland Bays (~4100 lbs. of nitrogen make it to the bays)



PROPOSED HERRING CREEK SEWER DISTRICT

- ▶ Comparison:
 - ▶ Currently the 713 on-site wastewater treatment and disposal systems in the proposed sewer district, contribute ~16,400 pounds of nitrogen to the inland bays per year.
 - ▶ The homes and businesses going to the City of Rehoboth Beach's plant discharged 20,224 lbs. and 20,945lbs. of nitrogen, into the inland bays, in 2014 and 2015 respectively.
 - ▶ **Conclusion:** The nitrogen contributed to the inland bays by the 713 on-site wastewater disposal systems in the proposed sewer district is equal ~80% of the nitrogen discharged to the inland bays by the entire City of Rehoboth. This can be greatly decreased with the connection of those 713 homes to central sewer.



PROPOSED HERRING CREEK SEWER DISTRICT CONCLUSION

- ▶ Division of Water supports the proposal to create the Herring Creek Sewer District:
 - ▶ Complies with the Pollution Control Strategy
 - ▶ Eliminates over 700 septic systems
 - ▶ Eliminates a significant nutrient load from the Inland Bays



Voting Information

- Governed by Delaware Code (TITLE 9, DEL CODE § 6519). The same requirements for every referendum.

Eligible Voters Include:

1. A **RESIDENT** who has had their principal place of residency within the proposed district for at least six months immediately preceding the date of the election.
2. Any **PERSON WHO OWNS REAL ESTATE** in the proposed district on the date of the election, regardless of where they reside, unless such real estate is subject to a lease (see No.4 below).
 - If a property has multiple owners listed on the tax records, only one single vote for the property is permitted.
3. Any **CORPORATION WHICH OWNS REAL ESTATE** in the proposed district on the date of the election, unless such real estate is subject to a lease (see No. 4 below).
4. Any **LEASEHOLDER WITH A VALID LEASE** with an original term of not less than 10 years, recorded in the Recorder of Deeds, with an improvement of at least \$1,000, on the date of the election.
 - A copy of the lease showing the Recorder's stamp must be presented by the leaseholder.
 - If a property has multiple leaseholders on the tax records, only one single vote for the leased property is permitted.

Additional Information:

1. No person or corporation shall be entitled to more than 1 vote in any election.
2. Jointly or severally owned real estate shall be entitled to only 1 vote.

Valid Identification Required:

1. Identification and property address will be verified at the referendum poll.
2. Driver's license, utility bill, mortgage statement, property deed are all acceptable forms of identification.

*A Department of Elections official will be on hand to oversee the referendum



Delaware Code

Eligible Voters

TITLE 9, DEL CODE § 6519 (verbatim)

(a) Notwithstanding any other provisions of this title, for the purposes of this chapter the terms "voter," "voters," "legal voters," and "elector" shall be deemed to include all the following persons:

- (1) Persons whose principal place of abode has been within the proposed sanitary and water district for at least 6 months immediately preceding the date of the election or the date of the petition, whichever is applicable;
- (2) Persons who own real estate in the proposed sanitary and water district on the date of the election or the date of the petition, whichever is applicable, regardless of where they reside, unless such real estate is subject to a lease described in paragraph (a)(4) of this section;
- (3) Corporations which own real estate in the proposed sanitary and water district on the date of the election or the date of the petition, whichever is applicable, unless such real estate is subject to a lease described in paragraph (a)(4) of this section; and
- (4) Each leaseholder holding land under a valid lease in which the original term is specified at not less than 10 years and whose lease is recorded in the office of Recorder of Deeds in and for Sussex County and who has erected upon his or her leasehold an improvement having an assessed valuation of at least \$1,000 on the date of the election or the date of the petition, whichever is applicable, but in no case shall there be more than 1 vote per lease.

(b) No person or corporation shall be entitled to more than 1 vote in any election.

(c) Jointly or severally owned real estate shall be entitled to only 1 vote.

(d) The president or vice-president of a corporation shall exercise the vote on behalf of the corporation, provided that such president or vice-president exhibits a notarized resolution of the corporation authorizing him or her to cast such vote.



Voting Information

-Absentee Voting-

- Sussex County Engineering Department (SCED) does have an absentee voting process.
- **Only for those unable to attend the referendum.**
- This is a complicated, multiple-step process. Please make the request early.
- **Due Date: Thursday, July 7, 2016**
- Ballots are due back at the SCED before 4:30 p.m. No exceptions.
- Contact Mrs. Sharon Smith at (302) 855-7706.



Proposed Herring Creek Sanitary Sewer District

Questions / Comments



Sussex County Engineering Department

P.O. Box 589

Georgetown, DE 19947

www.sussexcountype.gov

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Aref Etemadi (Planning Technician): Aref.etemadi@sussexcountype.gov 302-856-2759

Assessment Questions:

Utility Permits Division: 302-855-7719

Jayne Dickerson (Division Director): jdickerson@sussexcountype.gov

Stephanie Lynch (Utility Acct. Specialist): slynch@sussexcountype.gov 302-854-5087

Blair Lutz (Utility Acct. Specialist): blutz@sussexcountype.gov 302-855-7701

Billing Questions:

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Katrina Mears (Billing Service & Collections Manager): kmears@sussexcountype.gov

Grant Assistance Questions:

Taren Hall: thall@sussexcountype.gov 302-855-7871

