

Wetlands and Buffers Working Group

Process Outcomes

Sussex County Council Meeting

September 10, 2019



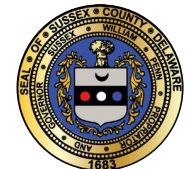
Thank You

Working Group Members

- David Baird
- Chris Bason
- Jay Baxter
- Rich Borrasso
- Jeff Clark
- Ed Launay
- Steve Marsh
- Evelyn Maurmeyer
- Danielle Swallow
- Robert Tunnell
- Bill Ulman
- Bob Wheatley
- RC Willin

Sussex County Staff

- Todd Lawson
- Hans Medlarz
- Vince Robertson
- Janelle Cornwell



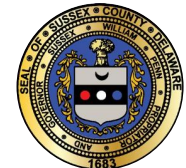
Background

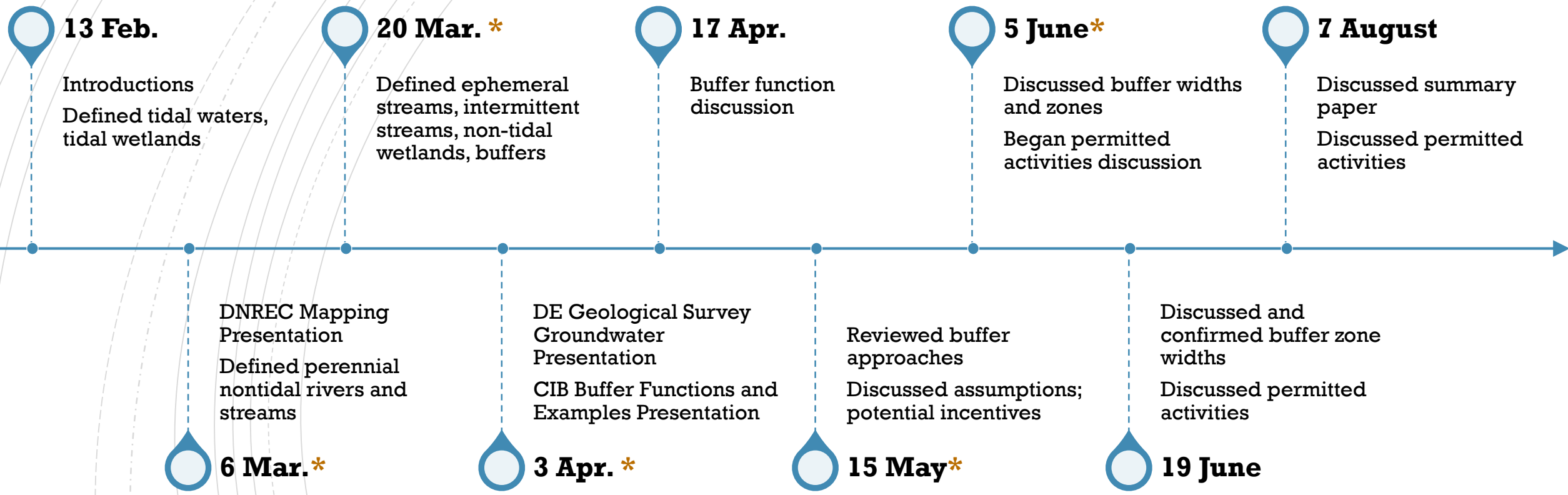
GOAL

Convened to provide recommendations to Sussex County Council for updating the County buffer ordinance as it applies to development projects submitted to Sussex County for new residential developments for major subdivisions, cluster subdivisions, residential planned communities, and residential conditional uses.

STATISTICS

- **9** three-hour meetings between February and August 2019
- **13** members representing a variety of interests including academia, agriculture, development, environment, land use, and natural resources
- **4** Sussex County staff members
- **2** consultants / facilitators
- **3** presentations from subject-matter experts
- **5** homework assignments (+ reading and reviewing)



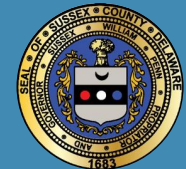


*Indicates homework assignment following meeting



Consensus Points

- Resources subject to the ordinance;
- Definitions for those resources;
- Definition and function of buffers;
- Buffer widths to protect each resource;
- Two-zone buffer management approach;
- The width of each zone in each buffer;
- Some activities allowed or prohibited in each buffer zone;
- Buffer averaging permitted in Zone B; and
- Buffers and resources would not be located on any individual subdivided lots.



Items for Further Discussion

- Criteria for buffer averaging
- Resource mapping
- Management requirements
- Waiver program; and
- Incentive program



Buffer

A managed area between land uses, natural resources, or other features.

| Function | Function Description |
|--------------------------------------|---|
| General | Protect the resources defined in the ordinance and their associated functions |
| Water Quality | Reduce and filter sediment, nitrogen, and phosphorous loads; moderate water temperature; promote infiltration, stabilize water's edge/provide erosion reduction |
| Habitat | Provide nesting and roosting opportunities for wildlife that use protected resources, provide sanctuary/refuge for wildlife during high water events, provide critical water's edge habitat, protect breeding and feeding grounds, protect rare/endangered species associated with these resources and their upland edge. |
| Flood Mitigation and Drainage | Reduce flood velocities, provide additional storage/conveyance, reduce stormwater discharge energy |



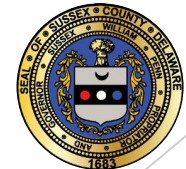
Resource Definitions

Tidal Waters (Mean High-Water Line)

Those waters occurring below the mean high-water line of any tidal water body, tidal stream, or tidal marsh, which is defined as the average height of all the high-tide water recorded over a nineteen-year period as defined by the National Oceanic and Atmospheric Administration tidal datum.

Tidal Wetlands

Areas under the jurisdiction of Title 7, Chapter 66 of the Delaware Code, as regulated and mapped by the Department of Natural Resources and Environmental Control.



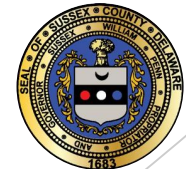
Resource Definitions

Non-Tidal Wetlands

Those areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions and that are not Sussex County-defined Tidal Wetlands.

Perennial Non-Tidal Rivers and Streams

A well-defined channel that contains flowing water year-round during a year of normal rainfall with the aquatic bed located below the water table for most of the year and which is not subject to tidal influence. Groundwater is the primary source of water for a perennial stream, but it also carries runoff. A perennial stream exhibits the typical biological, hydrological, and physical characteristics commonly associated with the continuous conveyance of water.



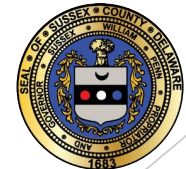
Resource Definitions

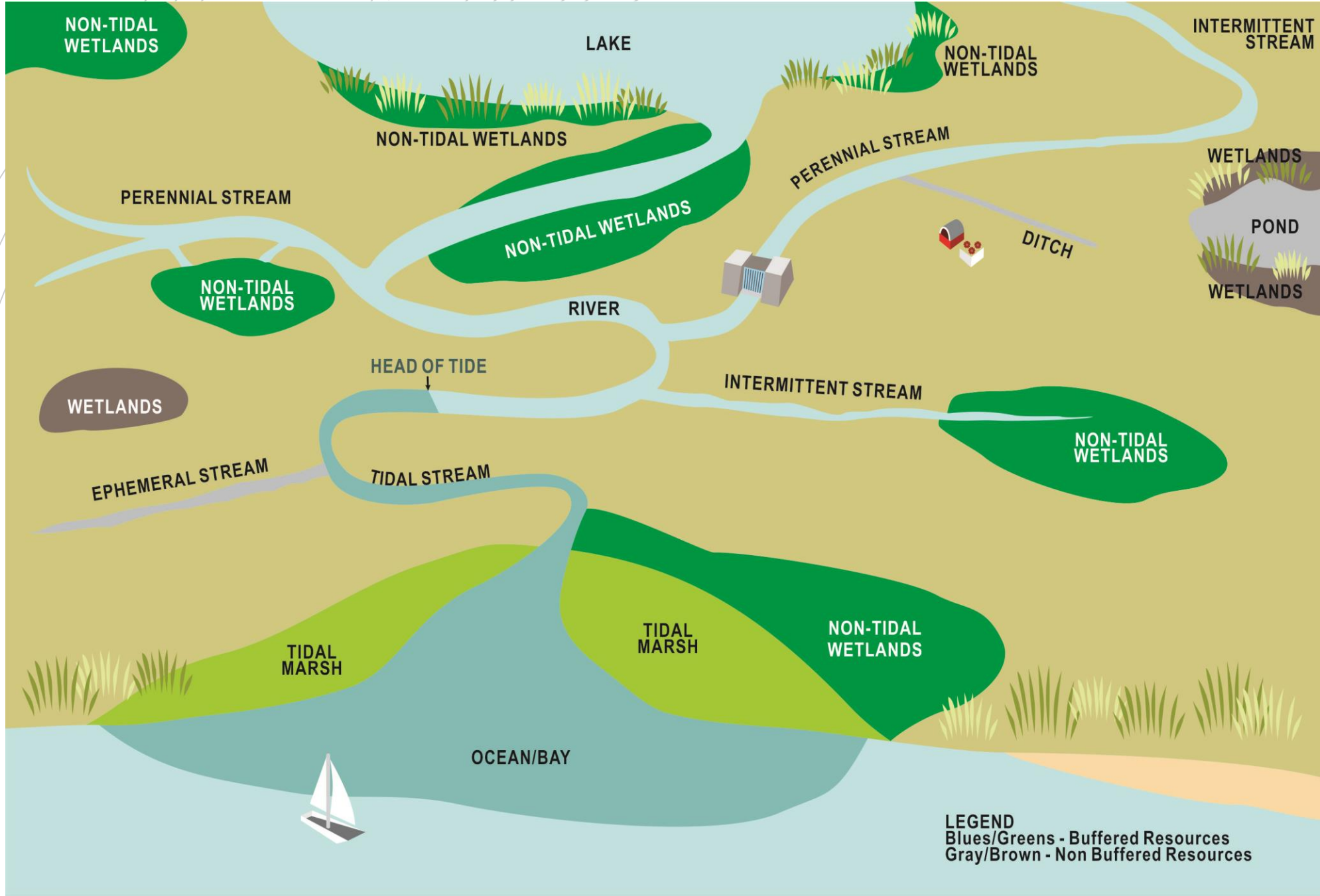
Intermittent Streams

A well-defined channel that contains flowing water for only part of the year, typically during winter and spring when the aquatic bed is below the water table. The flow may be heavily supplemented by runoff. An intermittent stream often lacks the biological and hydrological characteristics commonly associated with the continuous conveyance of water.

Ephemeral Streams

A feature that carries only runoff in direct response to precipitation with water flowing only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the aquatic bed is always above the water table during a year of normal rainfall, and runoff is the primary source of water. An ephemeral stream typically lacks the biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water.





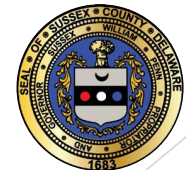
Buffer Widths

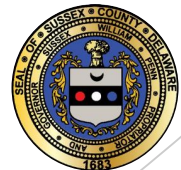
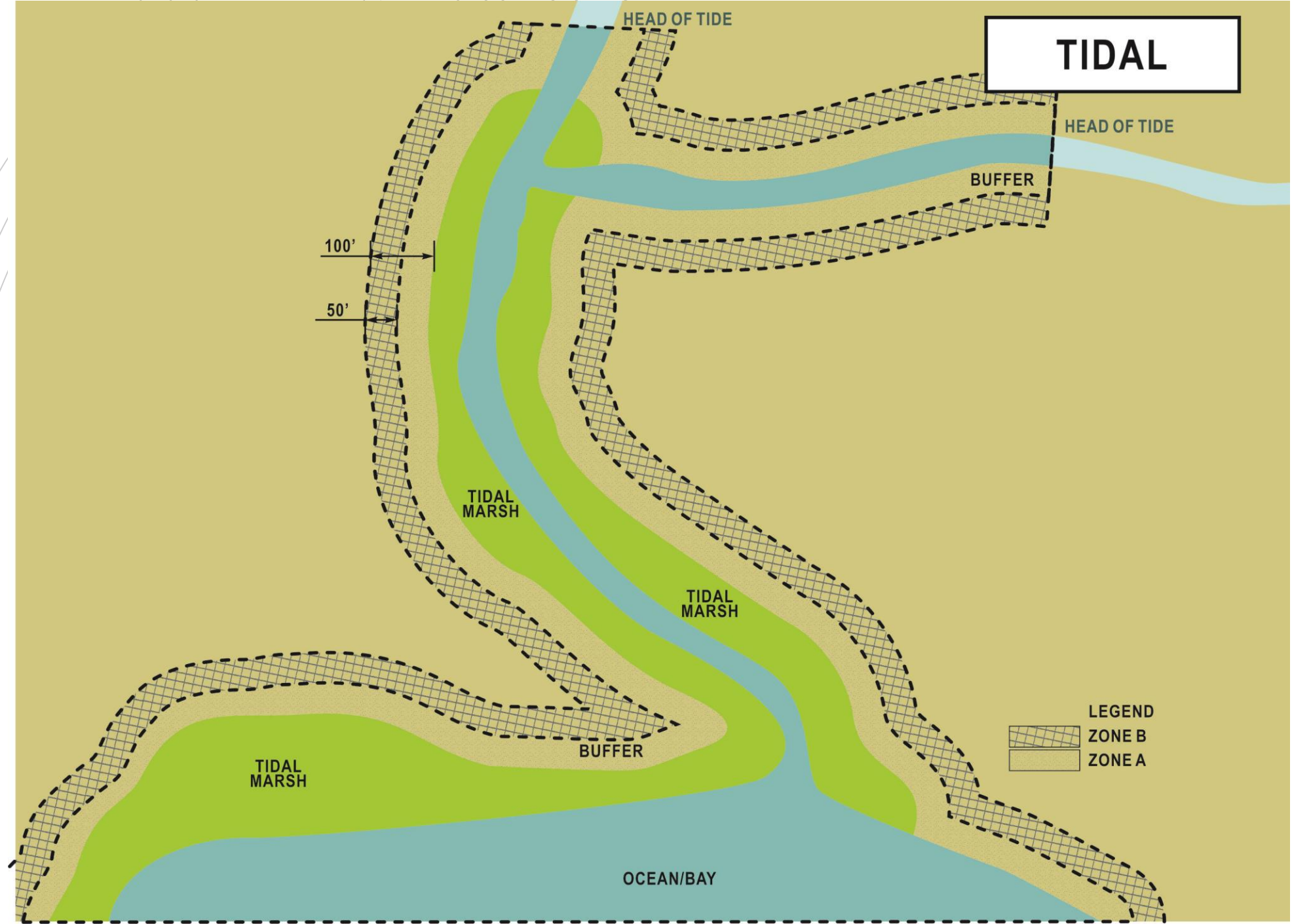
| Resource Type | Current Buffer Width (ft) | Full Buffer Width (ft) | Zone A (ft)* | Zone B (ft) |
|--|----------------------------------|-------------------------------|---------------------|--------------------|
| Tidal Waters | 50 | 100 | 50 | 50 |
| Tidal Wetlands | 50 | 100 | 50 | 50 |
| Perennial Nontidal Rivers and Streams[^] | 50 | 50 | 25 | 25 |
| Non-tidal Wetlands⁺ | 0 | 30 | 15 | 15 |
| Intermittent Streams⁺ | 0 | 30 | 15 | 15 |

* Zone A is the zone closest to the resource

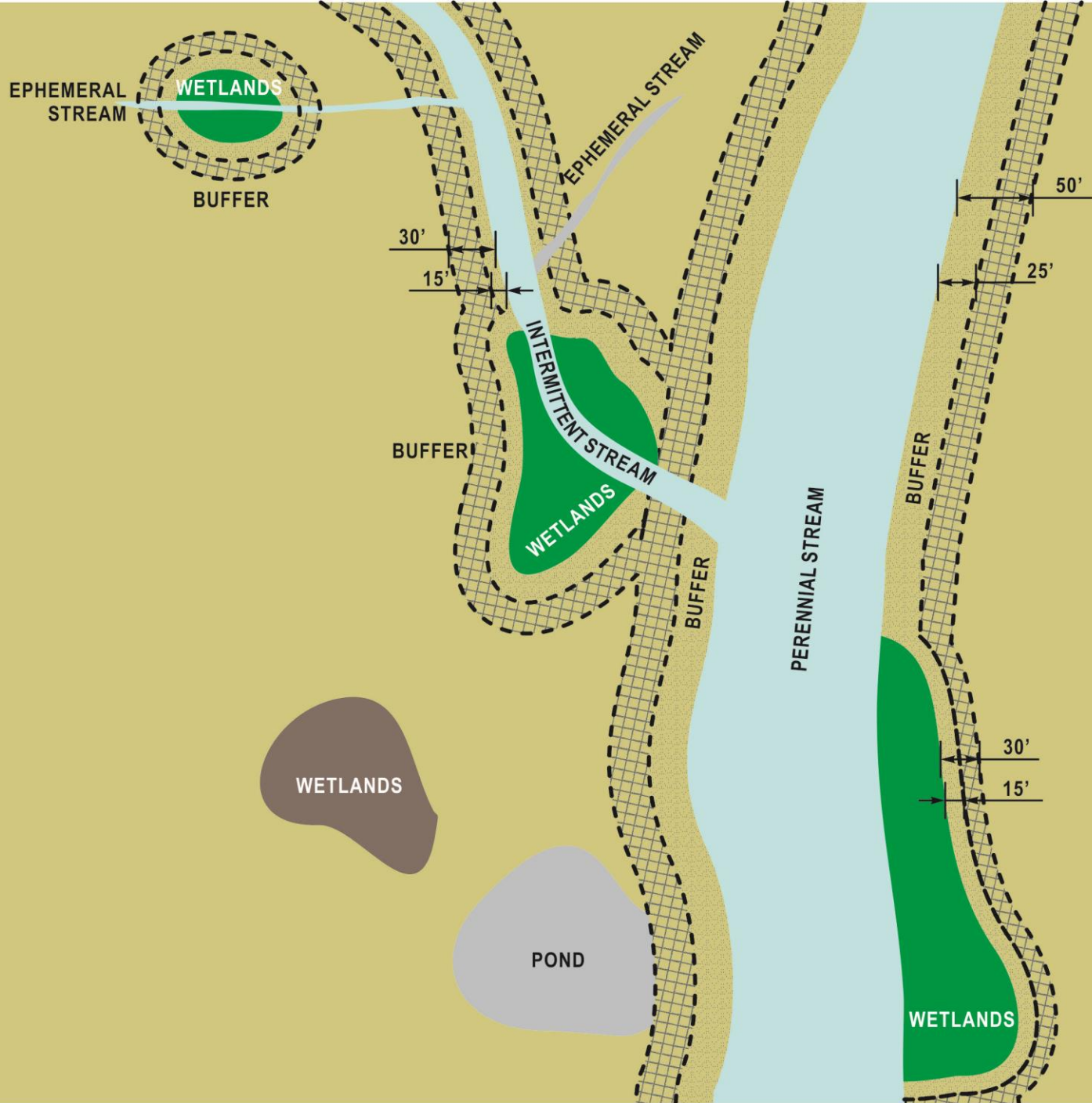
⁺ Buffers only apply to resources subject to regulation by the U.S. Army Corps of Engineers

[^] Wetlands presence consideration





NON-TIDAL



LEGEND
ZONE B
ZONE A



RK&K

Permitted Activities

| Activity | Zone A | Zone B |
|---|-----------|-----------|
| Water-related facilities and amenities which are required to support water-dependent projects approved by a federal or state permit, including but not limited to: marinas, wharfs, community docking facilities, boat ramps, and canoe/kayak launches | PERMITTED | PERMITTED |
| Installation, repair, or maintenance of infrastructure or utilities, including roads, bridges, culverts, water lines, and sanitary sewer lines | PERMITTED | PERMITTED |
| Temporary impacts resulting from installation of utilities by trenching methods with proper permitting | PERMITTED | PERMITTED |
| Stormwater Management conveyances as approved by the Sussex Conservation District | PERMITTED | PERMITTED |
| Tax Ditch Maintenance as approved by DNREC | PERMITTED | PERMITTED |
| Maintenance of other drainage channels (as approved by Sussex Conservation District) | PERMITTED | PERMITTED |
| Structural crossings such as bridges or boardwalks which may be exempt from State or Federal Regulations | PERMITTED | PERMITTED |
| Impacts to resource buffers resulting from State and/or Federally permitted disturbances to wetland and water resources such as resource maintenance, utilities, roads, bridges, docks, piers, boat ramps, bulkheads, shoreline stabilization, and resources authorized to be filled or disturbed for development | PERMITTED | PERMITTED |

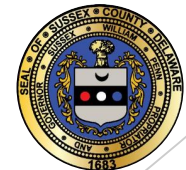
| Activity | Zone A | Zone B |
|--|-----------|-----------|
| Maintenance or modification to previously existing structures and improvements within existing footprint | PERMITTED | PERMITTED |
| State or Federally approved wetland restoration, creation, and enhancement projects | PERMITTED | PERMITTED |
| State or Federally approved Flood Plain Restoration, Creation, enhancement, or Expansion and/or Stream Restoration | PERMITTED | PERMITTED |
| Soil Erosion and Sediment Control measures as approved by Sussex Conservation District | PERMITTED | PERMITTED |
| Walking Trails (pervious materials only) if approved by DNREC and the USACE within the adjoining resource | PERMITTED | PERMITTED |
| Forest Management Activities conducted under supervision of a Licensed Forester or Arborist | PERMITTED | PERMITTED |
| Invasive Species Control (plant, insect, animal) | PERMITTED | PERMITTED |
| Planting/establishment of native vegetation (as listed by DNREC) to reforest buffers or to enhance unforested buffer areas | PERMITTED | PERMITTED |

Activities with Restrictions

| Activity | Zone A | Zone B |
|---|---------------|---------------|
| Walking trails parallel to a resource | NOT PERMITTED | PERMITTED |
| Installation, repair, maintenance, and removal of wells (potable, monitoring, injection as approved by state/federal agencies) | NOT PERMITTED | PERMITTED |
| Stormwater Management Water Quality BMPs as approved by the Sussex Conservation District | NOT PERMITTED | PERMITTED |
| Sewage disposal facilities | NOT PERMITTED | NOT PERMITTED |
| Storage of hazardous materials and siting of industrial sites, landfills, or junkyards | NOT PERMITTED | NOT PERMITTED |
| Swimming pools, community clubhouses, and all non-water-dependent or related improvements not specifically permitted under this section | NOT PERMITTED | NOT PERMITTED |

Additional Topics Discussed

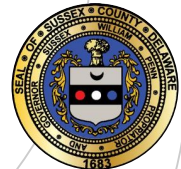
- Community resilience in regards to flooding and sea level rise
- Drainage network maintenance
- State of Delaware tidal wetlands regulatory map updates
- Increasing density as an incentive for additional resource protection
- Using information about future conditions (sea level rise, population changes) in site design and SWM
- Inclusion of commercial development in this ordinance



Thank You

Jim Eisenhardt, RK&K

Sari Rothrock, RK&K



RK&K