

PRESENTATION

Open Ditch Drainage System Assessment Deal Island, Somerset County



Presented by:

A. MORTON THOMAS AND ASSOCIATES, INC.

December 17, 2019

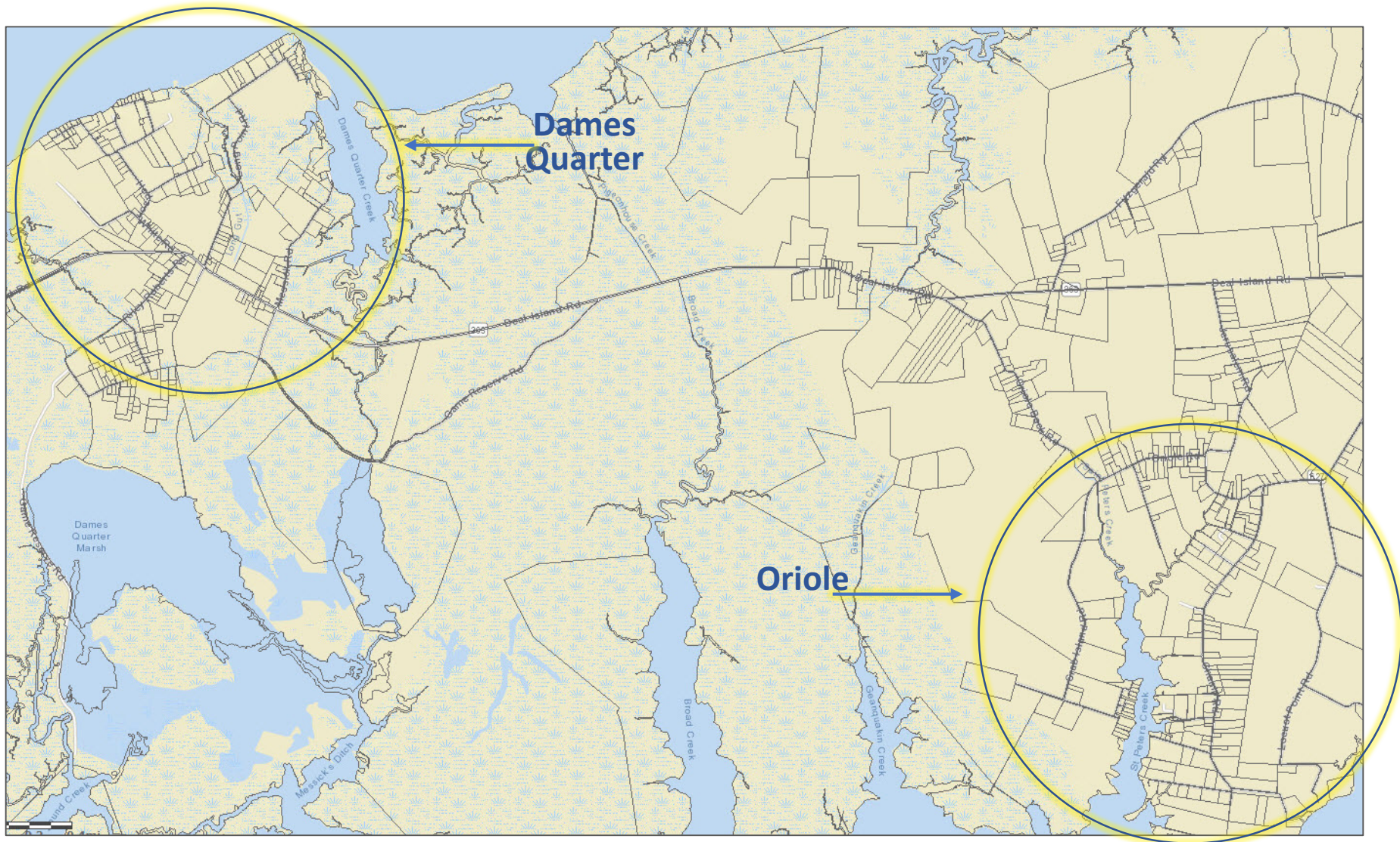
Background

- ▶ NTP May 2019
- ▶ Field Assessments
(Investigate, Field Survey, Drone Survey)

Goals

- ▶ ASSESS
- ▶ QUANTIFY
- ▶ CATEGORIZE
- ▶ PRIORITIZE

Study Areas – Dames Quarter & Oriole



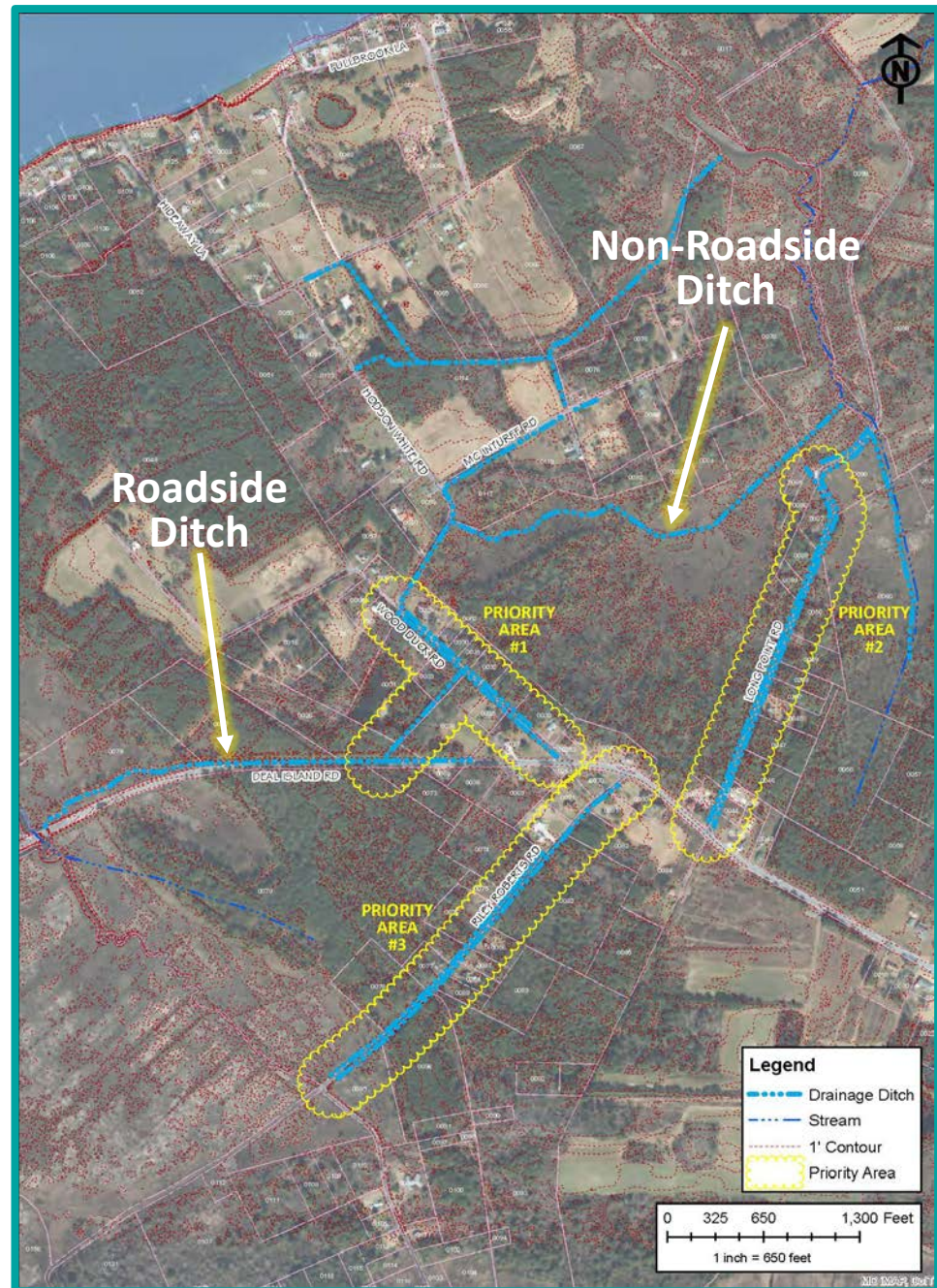
Dames Quarter

Roadside Ditches

13,600 feet
(2.60 miles)

Non-Roadside Ditches

6,645 feet
(1.25 miles)



Dames Quarter - Assessment Photos



Deal Island Road
Existing Culvert with rubber tire jam



Hodson White Road
Crossing ditch to Deal Island Road



Hodson White Road
18" RCP Culvert crossing into the Deal Island
Road crossing ditch



Hodson White Road
Buried driveway HDPE culvert

Dames Quarter - Assessment Photos



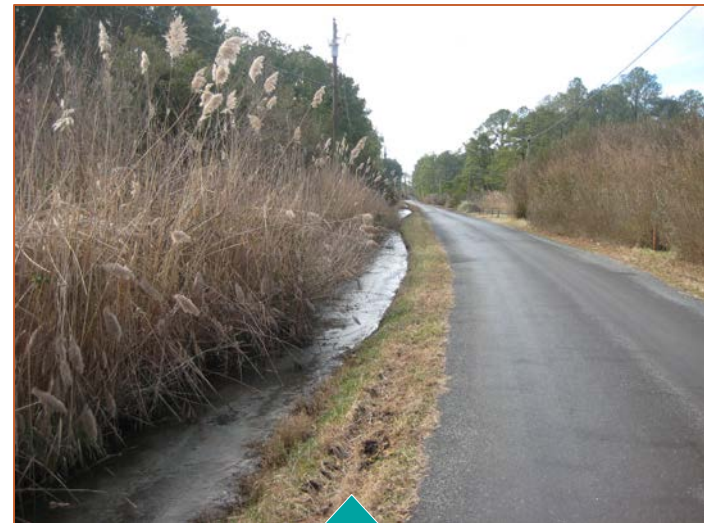
Hodson White Road
Clogged grate inlet and culvert at
Deal Island Road intersection



Long Point Road
Standing water and vegetative blockage



McInturff Road
Dense phragmites into Non-Roadside Ditch



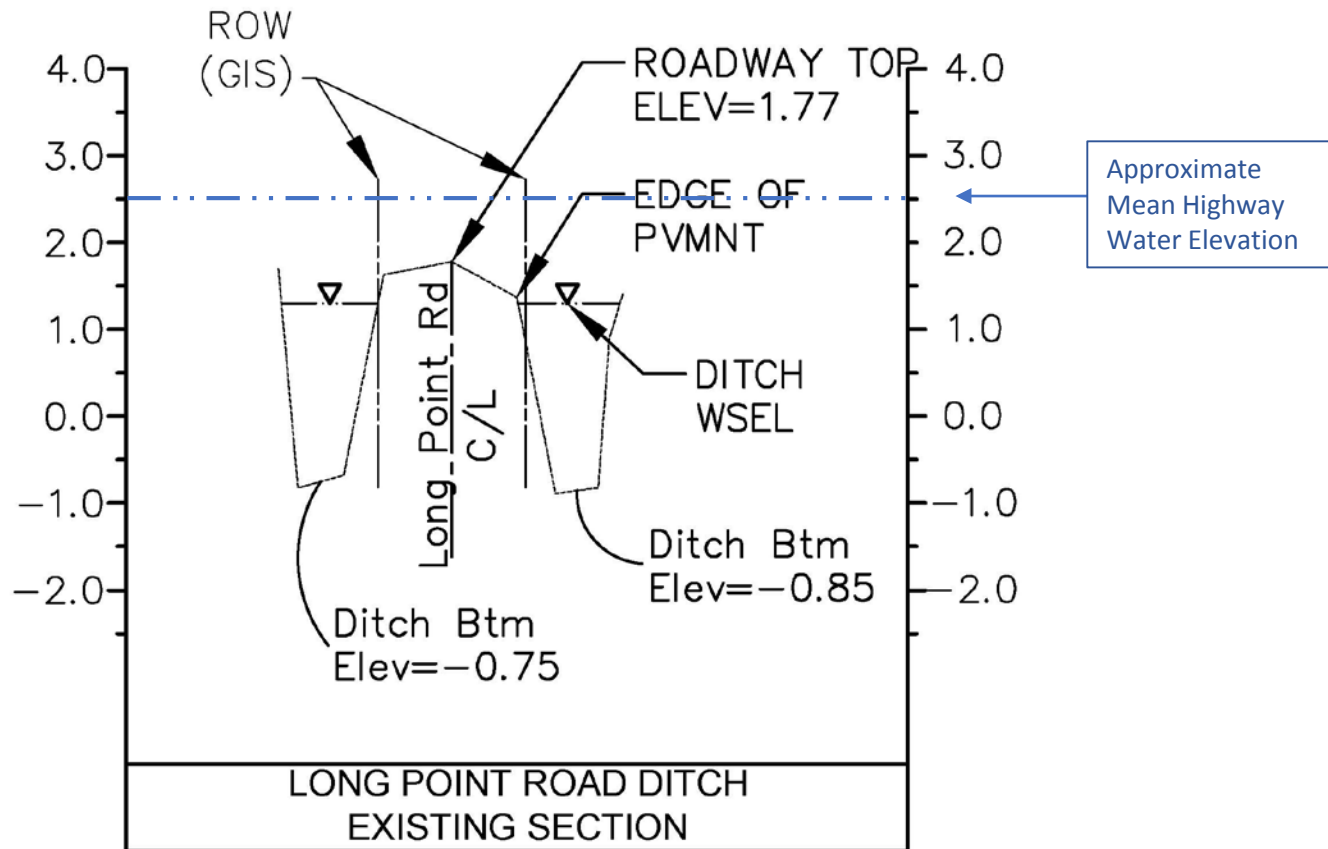
Riley Roberts Road
(looking south)

Dames Quarter – Drone Photo



Long Point Road

Dames Quarter - Cross Section

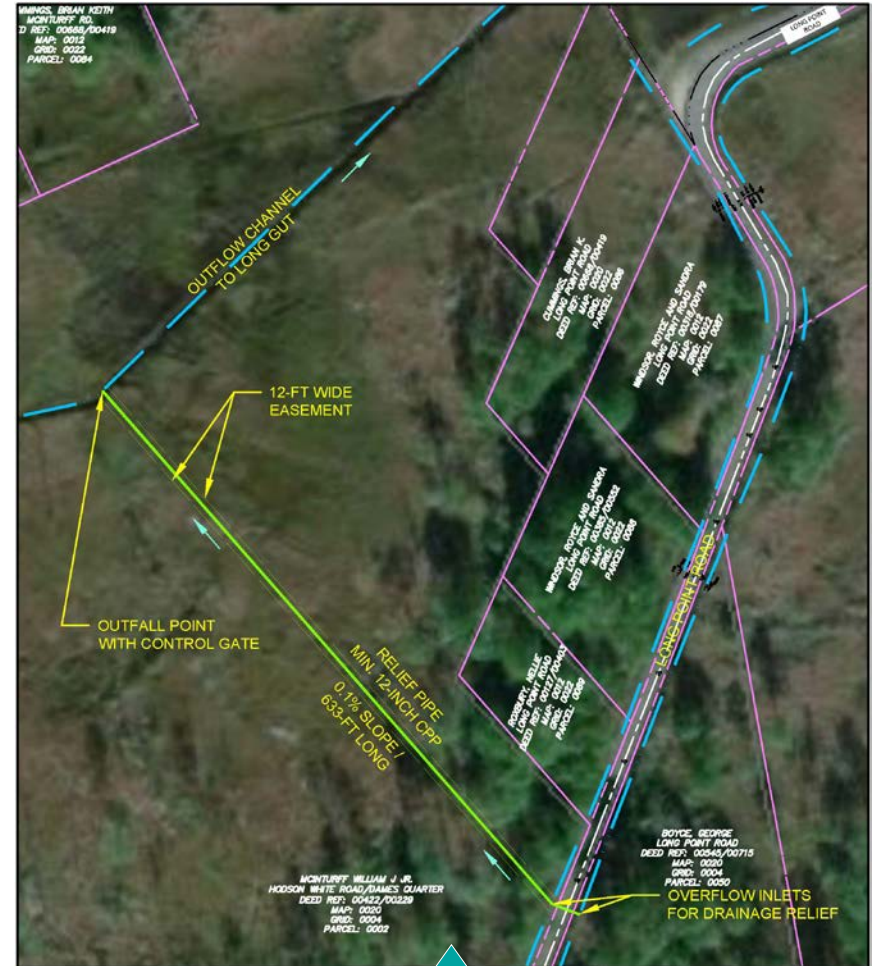


NOAA TIDE PREDICTIONS 2019	ELEVATION (FEET)	REFERENCE
Mean High Water (MHW) (Average)	2.42	<i>Great Shoals Light, Monie Bay, MD. Station ID: 8571416</i>
Mean Low Water (MLW) (Average)	0.096	Datum: MLLW

Dames Quarter – Potential Mitigations



Hodson White Road



Long Point Road

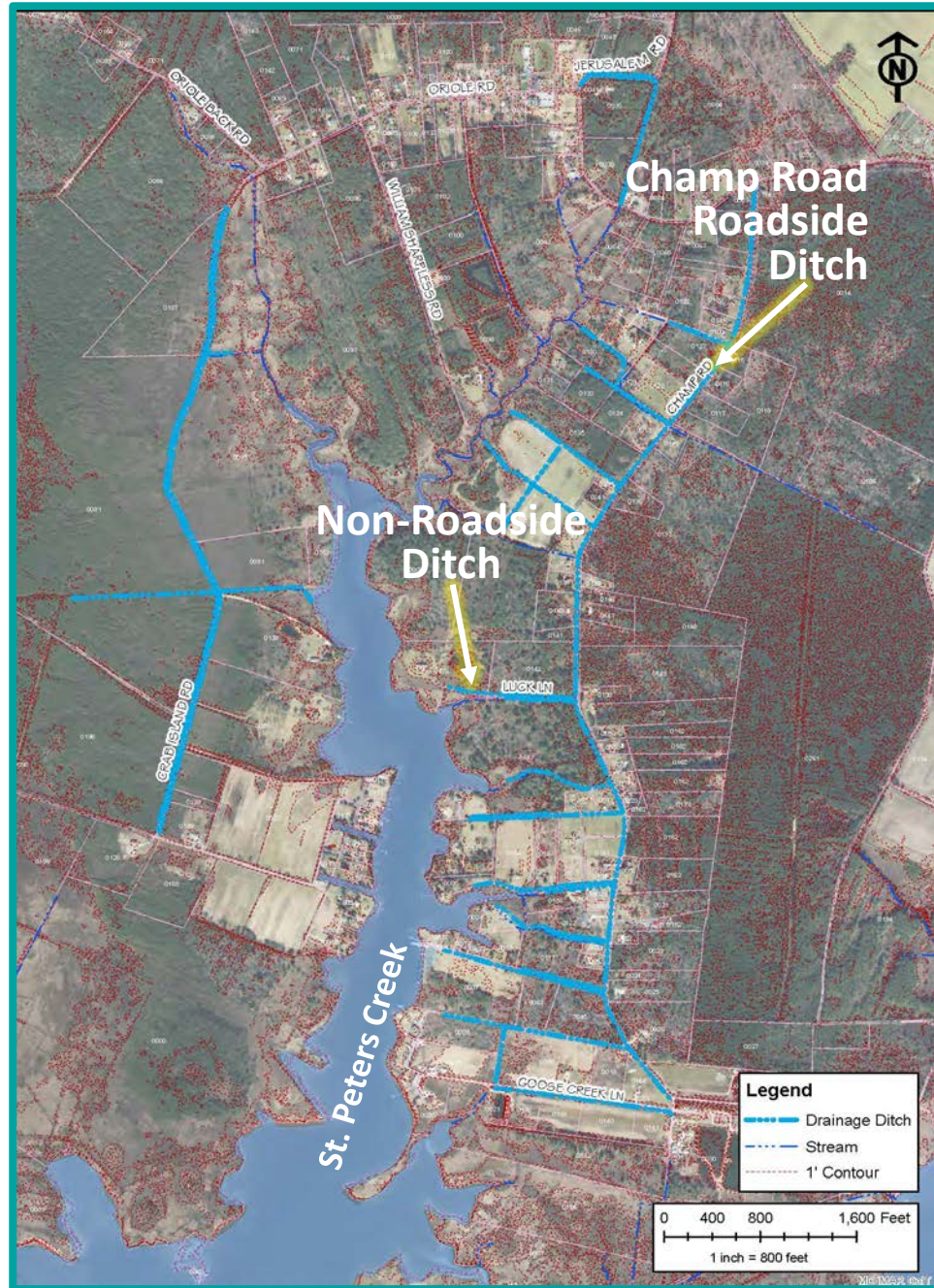
Oriole

Roadside Ditches

21,020 feet
(3.98 miles)

Non-Roadside Ditches

18,280 feet
(3.46 miles)



Oriole – Assessment Photos



Champ Road
Standing water
(south of 10006 Champ Road)



Champ Road
Standing/stagnant water at non-roadside
ditch



Champ Road
Submerged and partially clogged culvert
(10260 Champ Road)



Right of Champ Wharf Road
(9940 Champ Road) – Dense phragmites
(looking west)

Oriole – Assessment Photos



Luck Lane (1)
Looking south-east from residence property



Luck Lane (1)
Typical ditch section



Right of Mason Lane
Woody debris behind shed



Champ Wharf Road
Phragmites growth and standing water

Oriole – Drone Photo

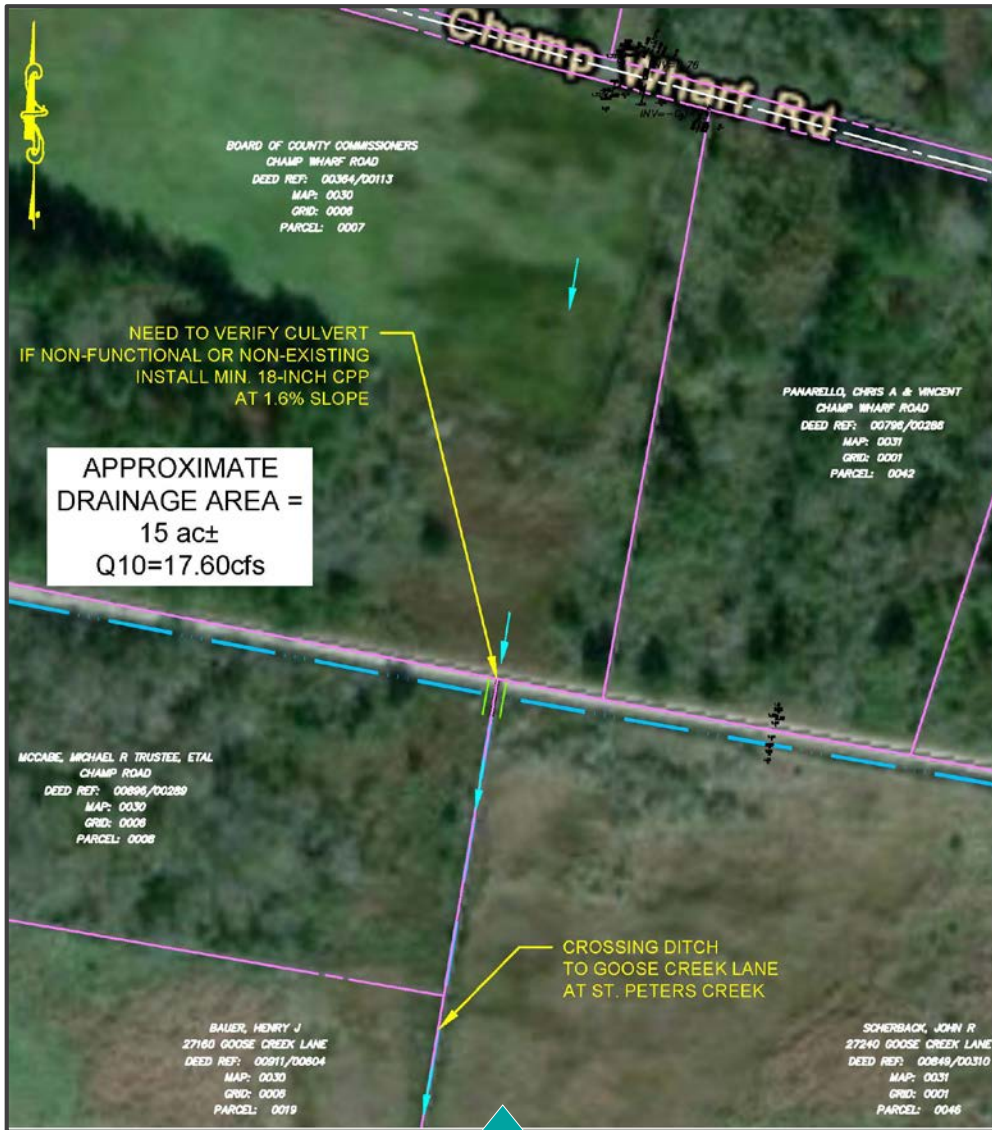


Between Jerusalem and Oriole Road

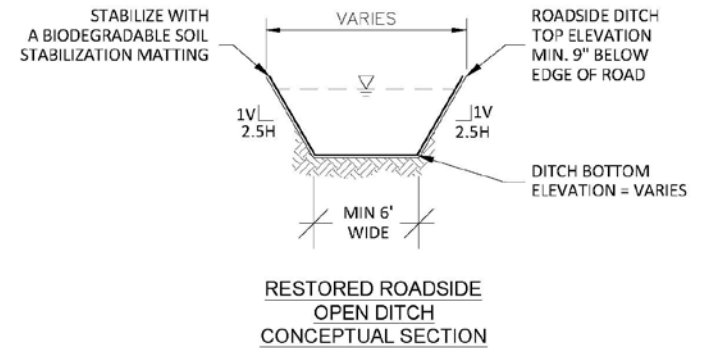
Oriole – Panorama



Oriole– Potential Mitigations



Private Lane



Not To Scale

Environmental Concerns

- ▶ Sea Level Rise – On-line viewers
- ▶ NOAA Sea Level Rise Viewer
- ▶ Merlin On-Line – Sea level rise vulnerability
- ▶ Maryland Department of Transportation, State Highway Administration – Climate change vulnerability

Ditch Maintenance - Who is Responsible

Right-of-Way (ROW)

- ▶ Along County roads, Somerset County maintains ROW.
- ▶ Along Champ Road, for example, the County maintains a 30-foot ROW. This assumes 15-feet from centerline of roadway.
- ▶ Non-roadside ditches that cross within private parcels or ditches alongside private roads are not routinely maintained by Somerset County Roads Department.
- ▶ Somerset County has an off-road drainage program that assists communities to improve drainage.



Permits

- ▶ Maryland Department of Environment (MDE) work or activities in tidal or non-tidal wetlands, waterways, floodplains require authorization from MDE (Joint Permit Application)
- ▶ Tidal – Up to the Mean High Water (MHW) line
- ▶ Non-Tidal – Beyond MHW Line
- ▶ U.S. Army Corps of Engineers (USACOE) - If Federal authorization needed – MDE submits application to U.S. Army Corps of Engineers
- ▶ Process – MDE conducts a pre-application meeting.

“The following activities are exempted from the requirement to obtain a license from the Board or a license, general license, general permit, or permit from the Department under this subtitle.....(5) Routine maintenance, repair, or replacement of a highway structure, pier, boathouse, a structure on a pier, bulkhead, revetment, tidal impoundment dike, water control structure, aboveground transmission facility, agricultural drainage ditch, or highway drainage ditch when the existing structure is functional and there is no increase in the original length, width, height, or channelward encroachment.”

Permits (continued)

Erosion and Sediment Control

- ▶ Greater > than 5,000 square feet of disturbance
- ▶ And 100 cubic yards or more
- ▶ Plan review and approval by local Soil Conservation District (SCD)

Access Permits

- ▶ Temporary Easements

Tax Ditch System

What Is It

- ▶ Organizations formed to maintain a drainage system
- ▶ Formed on a watershed basis
- ▶ Managed by officers, elected by participant

Advantages

- ▶ Public benefit for maintenance upkeep of drainage system
- ▶ Provides incentive to upkeep system
- ▶ Receive administrative and technical assistance
- ▶ Provides guidelines and rules

How Formed

- ▶ Petition
- ▶ Planning order
- ▶ Commissioners report
- ▶ Hearing a referendum or 100% agreement

Questions?