Erosion History of WBTS
2013-Present
Value of WBTS to the County and City of Westport

- WBTS represents a total assessed value of $30,000,000
- Tax revenues flowing from WBTS to the city and county: $540,000
  - Schools: $191,000
  - City of Westport: $116,000
  - Hospital: $23,000
- These revenues are increasingly at risk
- WBTS is struggling to hold the dune line against the sea
- WBTS will ultimately require state and federal help in order to prevail
- WBTS costs of repairs and reinforcements to date (in round figures):
  - Feb 2016 repairs: $38,600 [50,600]
  - March 2017 repairs: $29,000 [37,700]
  - November 2017 Reinforcement: $8,100
- **Total to date: $75,600 [96,000]**
Progress of Dune Retreat
• All distances were measured to dune crest which differed little from dune toe.
• In 2017, wave forces caused the crest to retreat substantially more than the toe, creating more inclined dune face.
• Toe remained generally static until Jan 2018 when strong storm scoured it out and drove dune face back 4 more feet.
Dune toe remained almost static but crest retreated due to erosion
Dune toe suffered extensive scour-out in Jan 2018 making a new sheer face
First Catastrophic Damage
March 2016

March 3, 2016
Nature’s assist next day
Random logs were anchored in place
Coir mat and sand laydown on top of straw bale reinforcement of dune face
Finished Repair
March 2016
Subsequent Storm Damage
March, 2016

Damage to straw bales and eroded dune fill
Second New Washout

March 2016

April 2016

Aug 2016

Self initiated repairs by HOA
Wind drifted sand buildup on top of coir mats
Next Storm Damage
January 2017

Repeat washout despite HOA self repair action
Additional Storm Damage

February 2017

Additional teardown of hay bale buttress and dune face washout
Second Repair Project
February 2017

Major project repaired damages from successive Jan and Feb 2017 storms
Reinforcement of Feb 2017 Repair
November 2017

Wind drifted overfill from previous month

Buildup and extension of dike
Completed dike
Subsequent Destruction of Most of What had been Achieved in 2017
January 2018

This kind of event is happening during Jan-Feb King Tide period simultaneous with powerful storms. WBTS fears this is becoming a new norm. [Photos by G. Blackmore-unit 721]
Most Recent Self Help
Dune Condition North of WBTS
Lighthouse State Park – Jan 2018

Public trail washouts and dune bank undercuts
(Can this be used to persuade the Corps of Engineers, i.e., save a public facility?)
Localized severe undercutting and dune face collapse
Suggested Actions
(Time is of the essence)

• Redouble efforts to persuade the Corps of Engineers to apply harbor dredging spoils to dune replenishment from the south jetty southward

• Contact State Parks to propose it weigh in with the Corps on grounds of protecting Lighthouse State Park
In the Near Term

- **WBTS-3:**
  - Has executed due diligence by attempting to implement soft solutions in keeping with ECY recommendations first offered in March 2015
  - Has concerns that while the soft solution has significantly retarded our dune erosion, it nevertheless exhibits important limitations
  - Worries that a better solution is needed because January-February King Tides coincident with one or more 35 foot sea-state storms must be considered a definite recurring phenomenon
Summary
The way we were and the way we are