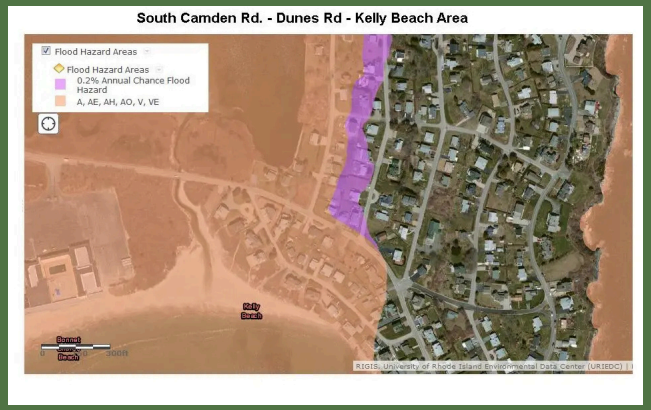

SOUTH CAMDEN RD. - KELLY BEACH

CAMDEN RD.

ACKNOWLEDGEMENTS

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Bonnet Shores Community
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Bonnet Shores Land Trust
Founded 1991

PROTECT YOUR POND!

PREVENTING THE COMMON REED INVASION

Mason Bailey
Shannon McGrath
Cassie Wolfe

HISTORY AND BIOLOGY

The Common reed, *Phragmites australis,* was introduced to the U.S. from Europe in the 19th century. *Phragmites* is highly successful in coastal marshes, and particularly disturbed areas, because of its multiple methods of reproduction (seeds and fragmentation) and robust root system for nutrient uptake making it an exceptionally tolerant plant.

MANAGEMENT

Methods include mechanical, chemical, and biological controls. Mechanical can involve cutting and mowing stems, excavating the stems and roots, or burning. Chemical involves application of herbicides, glyphosate and imazapyr most commonly. Biological ("biocontrol") introduces herbivorous species, like goats or insects, to feed on the plant. A novel method is tidal flow restoration, which increases the water's salinity to high levels for *Phragmites*.

All methods have their drawbacks--mechanical is costly and can spread *Phragmites* seeds further, chemicals can potentially harm non-target species, and biocontrol may introduce non-native species. Each method requires careful consideration of seasonal timing and sensitivity of the local environment. Management is most effective when combining methods at a multi-year scale, and planned goals should be highly site-specific.

COST ESTIMATES

Treatment Method	Estimated Cost (per acre, per year)
Herbicide hand-application	$13,487-$16,115
Spading (cutting below water line)	$14,890-$19,268

WESQUAGE POND

Formation: Natural breaching of the ocean to this area. A permanent channel connecting the pond to Narragansett bay.

Habitat: Coastal salt pond, brackish water from tidal influence and sand deltas.

Sighted species of interest: Red-winged black bird, Mute swans (invasive), Canada geese, Green crabs (invasive,) Gulls.

SOURCE: FACEBOOK, PATRICK RYNNE

Site issues: Road flooding/pooling, runoff contamination, *Phragmites* dominating native species, reducing pond water storage capacity, and habitat degradation.

Management: The Bonnet Shores Land Trust manages the pond through a conservation easement. A grant, in 2025, was awarded to enhance the drainage of storm water. The project includes removing small areas of *Phragmites* to increase water storage of the pond while retaining the possible buffering benefits of the *Phragmites*. The removed *Phragmites* may be replaced with native salt pond vegetation.

REMOVAL TRADEOFFS

Pros	Cons
Native plant restoration	Lost breakwater capacity
Preventing further takeover	Expenses
Improves water access	Reduced nutrient uptake
Natural nutrient cycling	Destabilizes current ecosystem
Rid of dry reeds - fire hazard	Repeated maintenance

REGULATIONS

1. Bonnet Shores Fire District ordinances
2. CRMC permitting
3. RIDEM permitting

HOW YOU CAN TAKE ACTION

Issue: Monitoring often does not last multiple years due to the effort and costs required.
Action: Upload photos of the *Phragmites* extent to a shared folder, join seasonal treatment applications if possible.

Issue: Seeds and stem fragments spread easily through mowing and sticking to clothes or vehicles.
Action: Consider washing tires and clothes after being in areas of dense *Phragmites.*

Issue: Nutrient runoff from lawn fertilizer can enhance *Phragmites* growth.
Action: Opt for safer fertilizers or consider native plants, which do not require fertilizer, as lawn alternatives.