



Partnership for the Delaware Estuary
Oyster Shell Recycling
RAE Living Shoreline Tech Transfer 2021

About Partnership for the Delaware Estuary and our living shoreline projects

■ Clean Waters

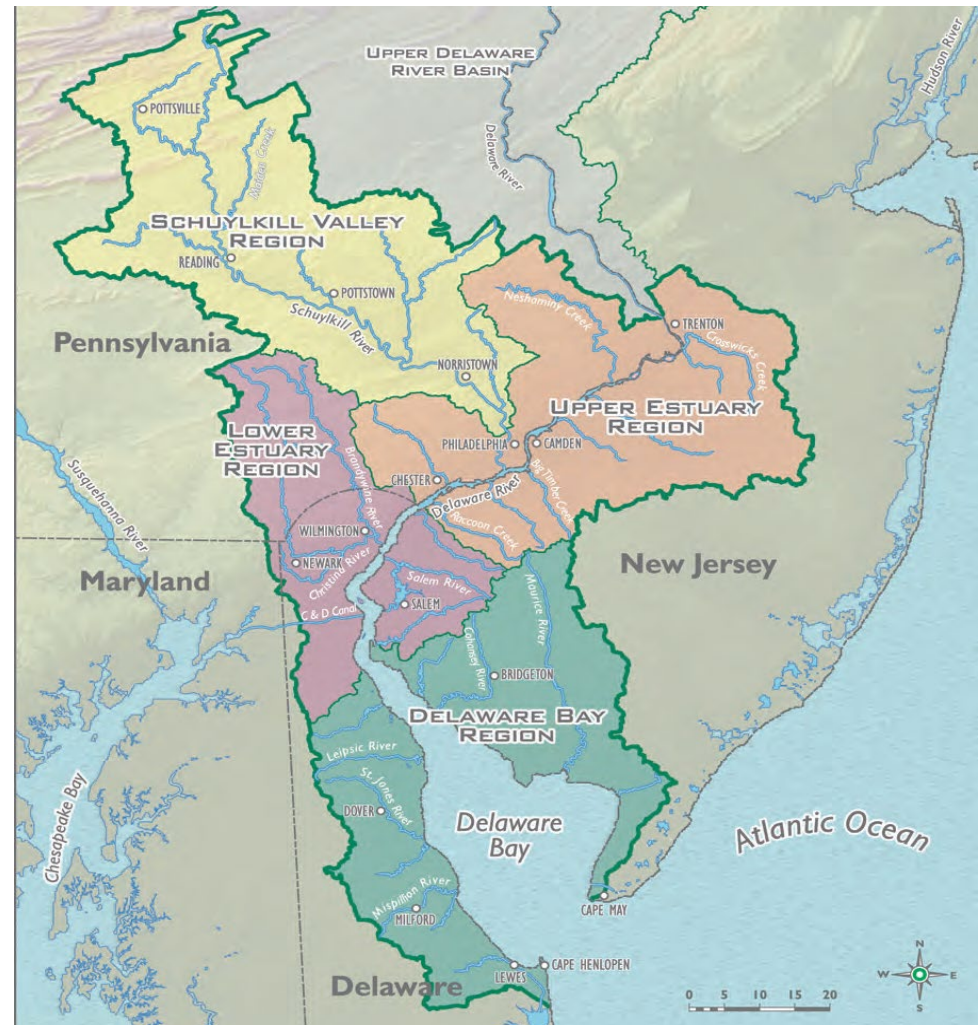
- Nutrient Pollutants
- Other Pollutants
- Sustain Flow

■ Strong Communities

- Resilience and Access
- Engagement

■ Healthy Habitats

- Wetlands
- Forests
- Fish & Shellfish

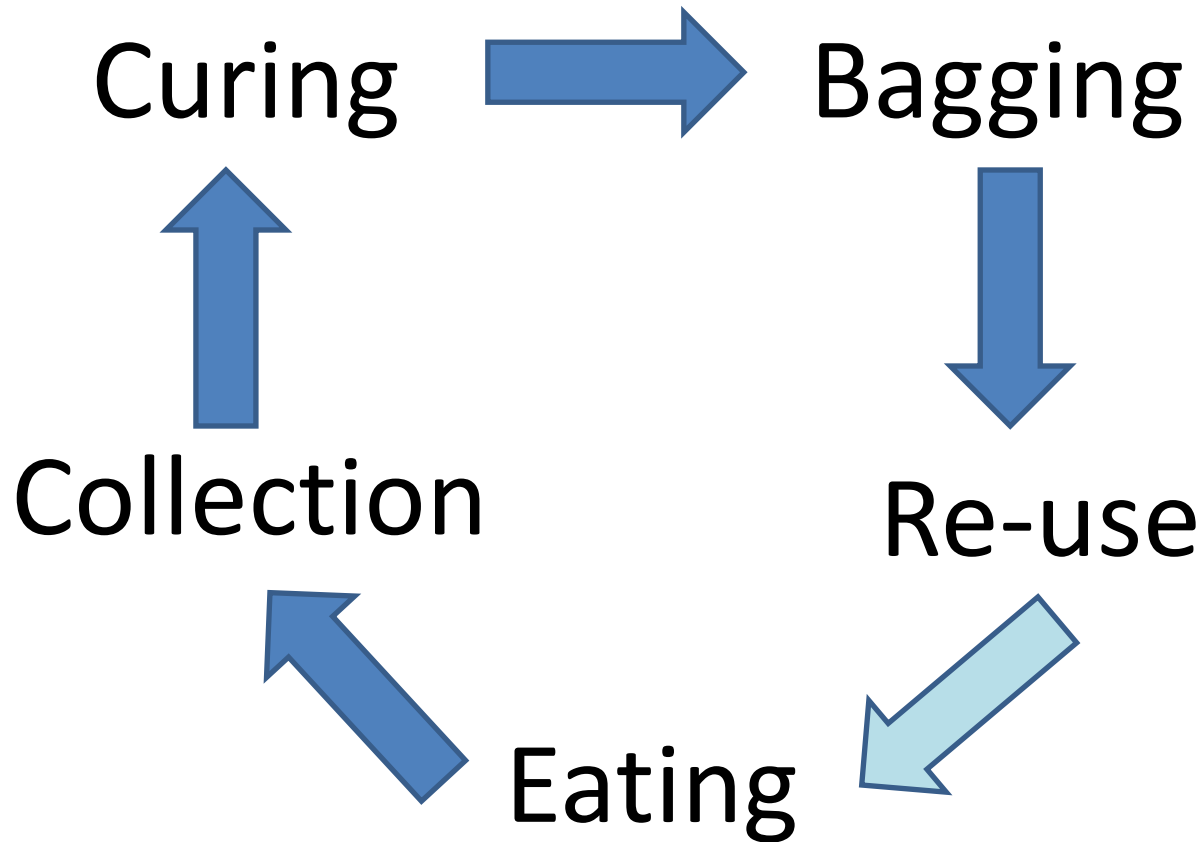


Beginnings

- Needed Shell for LS projects
- Began in 2016
- Funding and shell management area constraints
- Wilmington, DE
 - Currently rental space is free



Recycling Process Overview



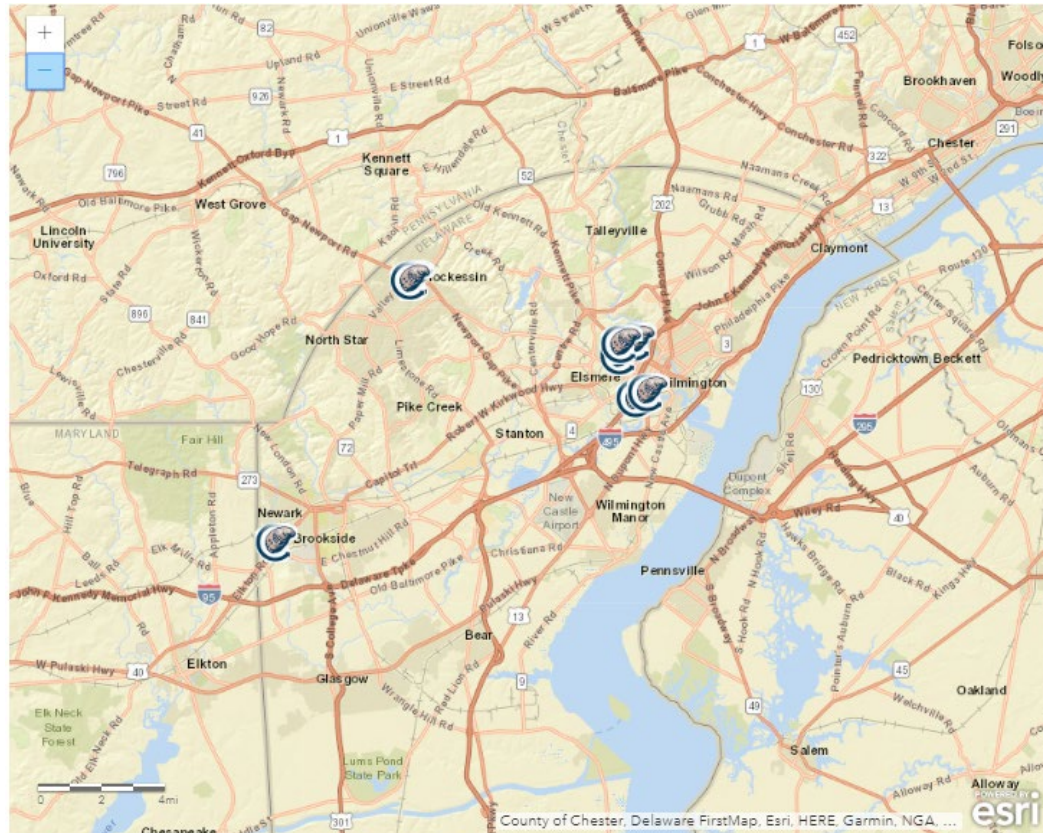
Recycling Process

- Eating



Current Status

- Collecting from **7 restaurants** in New Castle County
- **4,300** bushels collected since inception (Over 100 tons)
- 110 bushels a month, 2018 average (~3 tons)
- **3,800** bags and 1,176 loose bushels of shell “in stock”
 - Some bags are ear marked for NJ projects
- 1,400 bags & 980 loose bushels used in restoration efforts





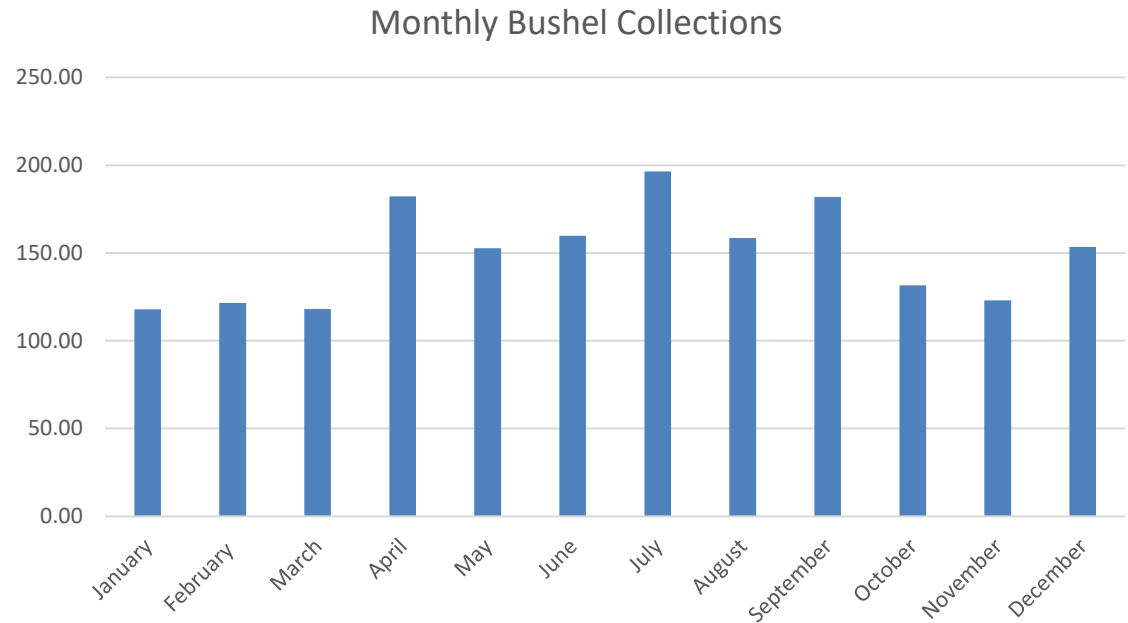
Recycling Process

- Collection



Current Status

- Collecting from **8 Restaurants** in New Castle County
- **5600** bushels collected since inception (**Over 140 tons**)
- **~110** bushels a month pre-COVID, 75 bushel average 2021
- **3,800** bags and 1,176 loose bushels of shell “in stock”
 - Some bags are earmarked for NJ projects
- 1,400 bags & 980 loose bushels used in restoration efforts



Recycling Process

- Curing





Recycling Process

- Bagging











Volunteers

- Over 100 volunteers
- Totaling more than 300 volunteer hours
- **12,000** bags-4,000 feet of shoreline!
- Lots of help from PDE Staff!



Recycling Process

- Re-use, Living Shorelines



Current Status

- Collecting from **8 Restaurants** in New Castle County
- **4,300** bushels collected since inception (Over 100 tons)
- **110** bushels a month, 2018 average (~3 tons)
- **3,800** bags and 1,176 loose bushels of shell “in stock”
 - Some bags are ear marked for NJ projects
- 6000 bags & 980 loose bushels used in restoration efforts











Collaboration

- States of Delaware and New Jersey
- Haskin Shellfish Research Laboratory
- USFWS
- University of Delaware
- Delaware Sea Grant

In collaboration with Philadelphia Water Department, we have plans to expand collections into PA in 2022



Ongoing Development

PWD is providing shell management area in Philadelphia

- Developed first Waste Management General Permit for oyster shells in Pennsylvania
- Many restaurants interested in Philly
- Have start-up grant (PACZM) to fund Pick-ups



Current Struggles

- Funding for Pick-ups
- Space
- Volunteers
- Up-tick in need
- Plastic Bags





Thank You!

