Middle Peninsula Planning District Commission
Plan for Developing a Water Management Economy

“Fight the Flood”
fightthefloodva.com
New Point Comfort Lighthouse
Mathews, VA
From 1885 to now – shoreline has moved ½ mile
Pre-1968

A-la. Small house washed away during flood of 6 September 1960

1968

NATIONAL FLOOD INSURANCE PROGRAM

[Image of cartoon character with dollar sign eyes and a flooded house on a life preserver]
Mathews Coastline on the Move – Loss of Tax Base
Repetitively Flooded Infrastructure: Coastal lowland development – “by right”
Total Engineered Septic Systems 2000-2008

<table>
<thead>
<tr>
<th>County</th>
<th>Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>King and Queen</td>
<td>102</td>
</tr>
<tr>
<td>King William</td>
<td>277</td>
</tr>
<tr>
<td>Essex</td>
<td>320</td>
</tr>
<tr>
<td>Middlesex</td>
<td>369</td>
</tr>
<tr>
<td>Gloucester</td>
<td>1,092</td>
</tr>
<tr>
<td>Mathews</td>
<td>1,054</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>3,214</strong></td>
</tr>
</tbody>
</table>

3,000 Systems
X
$15,000
$45,000,000
Private investment
• Raise ½ mile of road 10 inches = $320,000
  (no permits and environmental cost)

• 18% of Gloucester Area VDOT Secondary Road Budget

Putting it into perspective:
$320,000 = ½ mile of road
$640,000 = 1 mile of road

$32,409,600 = 50.64 miles of road (amount of road in snapshot to the right)
### New Point Comfort: If Point Road floods consider the amount of infrastructure impacted

<table>
<thead>
<tr>
<th>Infrastructure</th>
<th>Amount of Structures Impacted</th>
<th>Average Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Houses</td>
<td>72</td>
<td>$228,669</td>
<td>$16,464,168</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Estimated median house or condo value in 2007 (City-Data.com)</td>
<td></td>
</tr>
<tr>
<td>Engineered OSDS</td>
<td>20</td>
<td>$18,000</td>
<td>$360,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(MPPDC Regional Estimate)</td>
<td></td>
</tr>
<tr>
<td>Conventional OSDS</td>
<td>52</td>
<td>$4,000</td>
<td>$208,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(MPPDC Regional Estimate)</td>
<td></td>
</tr>
<tr>
<td>Community Well (with 41 connections)</td>
<td>1</td>
<td>$40,000</td>
<td>$40,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(MPPDC Regional Estimate)</td>
<td></td>
</tr>
<tr>
<td>Private Wells</td>
<td>31</td>
<td>$3,000</td>
<td>$93,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(MPPDC Regional Estimate)</td>
<td></td>
</tr>
<tr>
<td>Shoreline Harding</td>
<td>658.122 ft of riprap</td>
<td>$60/foot</td>
<td>$39,487.37</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(University of Minnesota)</td>
<td></td>
</tr>
<tr>
<td>VDOT Road Segments</td>
<td>1,250.67 ft</td>
<td>Short term: $149 /sq ft</td>
<td>Short term: $17,391,005.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long term: $745 /sq ft</td>
<td>Long term: $18,136,404.52</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Additional right away acquisition and when raised 10 inches (VDOT Estimate)</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>Short term: $17,391,005.20</td>
<td></td>
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<td>Long term: $18,136,404.52</td>
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</table>

### Public Policy Questions
- How will residents get to their house?
- How do residents get access to schools?
- How are OSDS and wells serviced?
- How are the roads serviced?
- How will conserved lands be accessed?
- How will EMS service this area?
Public safety-Cost for Public Rescue and Public Services
2015- MPPDC Commission
Less Talk- More Action

Build Solutions
Two Pronged Approach
Building Water Management Economy

Virginia Sea Grant
Commercialize Marine Resiliency Research
• We will Innovate
• We will Create new Jobs
• Build a new industry Cluster

Go Virginia
Premiere Economic Development Program in Virginia

Fight the Flood
Build and Legislate Programs Services
Financial/Insurance Solutions

On-Line Marketplace
Middle Peninsula Costal Resiliency Legislation
Precursor to Fight the Flood

- HB 1734 Living shorelines; loans for creation 2015
- HJ 642 Recurrent flooding from outfall ditches; VDOT to conduct a one-year study. 2015
- HB 526 Living shorelines; tax exemption from local property taxes 2016
- HB 1774 Stormwater management; work group to examine ways to improve 2017
- HB 1091 Virginia Resources Authority; dredging projects 2018
- HB 1092 Dredging projects; tax increment, financing 2018
- SB 693 Virginia Waterway Maintenance Fund and Grant Program; established, awarding a grant of funds
- HB 1094 Chesapeake Bay Preservation Areas; regulations, local permit to raise land. 2018,19,20
  - Yielding Fruit- People will protect their assets.
- HB 2783 Living shorelines; loans to businesses. 2019
- HB 1313 Chief Resilience Officer; Governor to designate 2020
- HB 1375 Living shorelines; resiliency 2020
I have a flooding problem.

Property Owners

Grant and Loans

I can help property owners.

Contractors or Consultants
Companies

Education
Loans
Insurance
Discounted Professional Services

MARKETPLACE

Grants
Consultation
Connection

Consumers

*Participating companies are pre-vetted and/or evaluated.*
MPPDC “Fight the Flood” program is a Business to Consumer online-market place

What

Goal: Middle Peninsula Fight the Flood Program

- To generate and facilitate resiliency business growth targeting and attracting companies to provide flood mitigation products and services for shorelines and buildings as well as enhance water quality.

How

Objectives: Fight the Flood Program

- Provide financial products to influence consumer behavior
  - Offer a suite of financial products (loans, grants, insurance) with a correlation to lower interest rates and grants for shorelines under greater risk; higher rates and less grant funding for lower risk shorelines

- Provide consumer to professional services connections through Fight the Flood Program
  - Registered consumers with a flood mitigation issue will have direct access to a pool of established resiliency professionals.
  - Asking Resiliency professional to provide discounted professional services to registered Fight the Flood consumers in need

- Utilize reach-based Shoreline Implementation “Battle Plans”
  - Solicit multiple property owner collaboration for multi parcel- larger scale shoreline protection projects to seek federal and state grant funds
  - Leverage § 58.1-3228.1. Partial exemption from real property taxes for flood mitigation efforts
Concept Matrix of Selected Solutions

A. Encourage People to Purchase Flood Insurance.

B. Encourage those with flood insurance policies to evaluate cost effectiveness for premium relief. Current flood insurance policy evaluation; mitigation project analysis (Flood vents, sand under the home, moving utilities, etc.); before and after mitigation flood quotes to determine ROI.

C. Encourage people to protect their coastal lands from flood damage. Build nature-based flood mitigation structures (e.g. living shorelines, oyster reefs, wetland creation, etc.)

Upon registering to the Fight the Flood Program and selecting any combination of:
- A and/or B
- A+C
- B+C

The homeowner can receive a combination of:
-5% cost savings from a mitigation expert on mitigation services

and/or

Interest rate reduction for higher Hazard Areas from the MPPDC Living Shoreline Loan Program

-Access to Grants
And
-Access to New Insurance Products
I have a flooding problem.

Property Owners

I can help property owners.

Contractors or Consultants

Grants and Loans
Sure, many homes and families on the Middle Peninsula have never experienced the devastation that comes with flooding. But the times are changing.

While all the water in our rural coastal Virginia region is a tremendous source of pride, economic value, and enhances our quality of life (you don’t have to walk or drive far in any direction to hit the shoreline), the sea level is rising. The storms keep coming. And it’s vital for homeowners to protect their property.

Put simply, for most residents on the Middle Peninsula, whether you can see water outside your back door or not, you could be at risk of flooding.

Fight the Flood on the Middle Peninsula connects property owners facing rising flood waters with tools and funding to contract with specialized businesses who can help evaluate, design, and build solutions to FIGHT THE FLOOD.

Read on for more, and then register to gain access to the tools available in this program.

Understanding Flood Insurance

Why do you need flood insurance?
Understanding Risk

Anywhere it can rain, it can flood. Period.

High-risk areas, including many parts of the Middle Peninsula, have an increased chance of experiencing a flood over the life of a 30-year mortgage. Over the past 70 years, heavy rainfall events have become more intense and frequent in our area and will only continue to increase. Based on previous records, it is also likely that water levels will be higher than the average daily high tide when a rainfall event occurs.

But it’s not just rain we have to worry about. Another concern is storm surge.

And then there’s the nuisance or “sunny day” flooding that can be caused by high tide and the direction the wind is blowing.

Understanding Options

In the average one-story house with 2,500-square-feet, one inch of water inside the home could mean $25,000 house costs and more than $3,000 personal-property costs.

So how do you protect yourself?

There are lots of options, and they all start with an evaluation of your flood insurance.

Did you know flood insurance pays whether or not federal disaster assistance is available? And federal disaster assistance is only available after a Presidential Disaster Declaration. What’s more, even if a Presidential Disaster Declaration has been made, the money offered through disaster assistance is typically a low-interest loan that need to be paid back, and if you do qualify for a grant, it will most likely provide much less than you would

Understanding Financial Tools

All of that sounds good, but it sounds expensive? That may be what you are thinking if you’ve read this far.

It doesn’t have to be. Thanks to regional, state and federal programs, grants, loans and special discounts and funding are available through the Middle Peninsula Planning District Commission thanks to this Fight the Flood program. Want to learn more? Get access. It’s free.

Get Access and Register Now! REGISTRATION
Contractors or Consultants

If you've arrived here, on this page, chances are you are a contractor or consultant who works with property owners in areas prone to flooding.


If you help people build more resilient properties and plans to help them Fight the Flood, then we want you.

How Fight the Flood Works

In many ways, Fight the Flood is something like an online dating site. We connect property owners to the right contractors and consultants to help them with their flooding challenges and then help provide financial tools to pay for it (thanks to grants and loans our team is able to secure).

But just like any dating app, there can be a cost to get connected. For the businesses Fight the Flood connects to property owners, the cost is a discount or special that only registered members of the Fight the Flood program can redeem.
Property Owners

Register here if you are interested in becoming a member of the Fight the Flood program and gaining access to financial tools and discounts to properly protect your property from flood waters.

By filling out this registration form to get access to the Fight the Flood membership portal, you give the Fight the Flood program administrators permission to use your information for data collection, trending analysis, demographic studies on waterfront properties and other research that will be used to help the entire region fight the flood.

Owner Registration

Businesses

Please fill out this form if you are a business interested in providing your services to property owners to help them Fight the Flood.

Business Name (required)

Business Website Address

Business Point of Contact

Email Address (required)

Phone Number (required)

I'm not a robot

Send
Biogenic Solutions Consulting, LLC

Assessment

127 Edmond Drive
Newport News, Virginia 23606, US
804-815-0272
rpburke@biogenicsolutionsconsulting.com
http://biogenicsolutionsconsulting.com/

Biogenic Solutions Consulting, LLC will offer a 15% discount to verified Fight the Flood members....

ReadyReef, Inc.

504 Smoketree Court
Richmond, Virginia 23236, US
804-338-3103
chris.readyreef@gmail.com
http://readyreef.com

ReadyReef will offer a 10% discount to verified Fight the Flood members. ReadyReef provides shore...
Grants and Loans

Middle Peninsula Planning District Commission
Revolving Loan Program Funding

- Septic Repair Program to assist flooded septic systems: capitalized with ~$700,000 loan funds.
- Living Shorelines: capitalized with $250,000-$500,000. Can include nature-based shoreline BMP construction and coastal stormwater BMP construction.
- Energy Efficiency Revolving Loan Program: ~$45,000

Middle Peninsula Planning District Commission Grants

Grants will be leveraged and utilized to provide protection for hazard and flood prone areas with an enhanced focus on socioeconomically vulnerable property owners in the region. Grants can be awarded for nature-based shoreline BMP construction, coastal stormwater BMP construction, and residential infrastructure resiliency improvements including structures, septic systems, utilities, etc.

$75,000 (grant) loan forgiveness available.

VCAP Grants offered by SWCD.
Insurance Programs

- New Paradigm Underwriters: parametric insurance for living shorelines and septic systems available.
- Middle Peninsula Planning District Commission Living Shoreline
- Plant Insurance Program

Collaborative Community Based Funding Projects

- Ware River, Gloucester County Targeted Areas: $170,000 grants and loans available.
- Mathews County Target Area: $150,000 grants and $70,000 + loan funds available.

*Taking applications for other targeted areas.
https://fightthefloodva.com