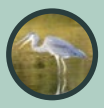

Flood Mitigation Bond

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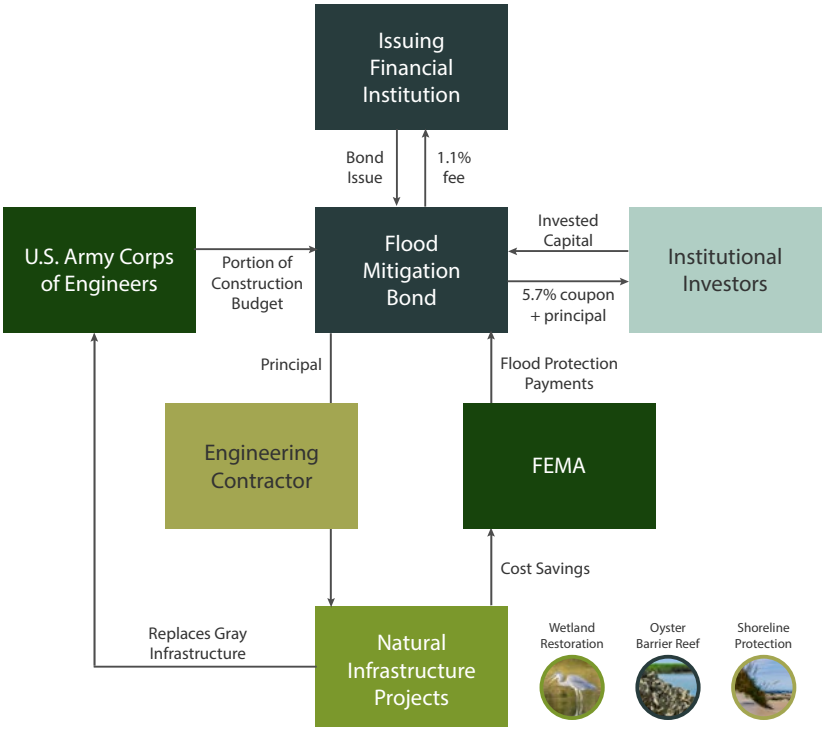
OVERVIEW

The Flood Mitigation Bond finances natural infrastructure projects, such as wetlands and oyster beds, through cost savings at U.S. federal government agencies. Natural infrastructure reduces flood insurance claims, disaster relief spending, and gray infrastructure construction and maintenance costs.



THE CHALLENGE: FLOOD RISK

Flooding is the most damaging natural disaster in the U.S. On average, the U.S. spends over $8 billion in annual flood damage repairs. Large storms can lead to much greater damages. For instance, in 2012, Hurricane Sandy resulted in repairs of over $30 billion. The Federal Emergency Management Agency (FEMA) insures over $1 trillion through the National Flood Insurance Program (NFIP), including over $119 billion for the New York Tri-State area.[1] Homeowners currently pay flood insurance premiums that represent only a fraction of the risk they face. FEMA subsidizes 50-67% of these flood insurance premiums through NFIP.[2] These subsidies are unsustainable and FEMA must explore options to reduce flood risk and reduce future financial liability.

Extreme weather events and associated flooding will increase with a changing climate and as infrastructure failures rise. Flood mitigation infrastructure in the U.S. is in disrepair. The American Society of Civil Engineers recently rated the country's levee system a D-.[3] The U.S. Army Corps of Engineers (USACE) lacks the resources and capacity necessary to maintain infrastructure and is searching for creative strategies to finance infrastructure projects, particularly in the NY Tri-State area.

THE OPPORTUNITY: NATURAL INFRASTRUCTURE

Investor appetite for green bonds is high with issuances of over $14 billion in 2013 alone.[4] The Flood Mitigation Bond (FMB) will mobilize private capital to invest in coastal ecosystem restoration through natural infrastructure projects. Like built infrastructure, natural infrastructure (e.g., wetlands and oyster beds) provides flood protection by dissipating waves. Natural infrastructure is often more affordable than built infrastructure. For example, oyster beds have an installation cost of $1 million/mile, while gray infrastructure rock barriers have a cost of $1.5-3 million/mile.[5] Furthermore, the Homeowner Flood Insurance Affordability Act of 2014 requires FEMA to consider the benefits of natural infrastructure.

FLOOD MITIGATION BOND REVENUE STREAMS

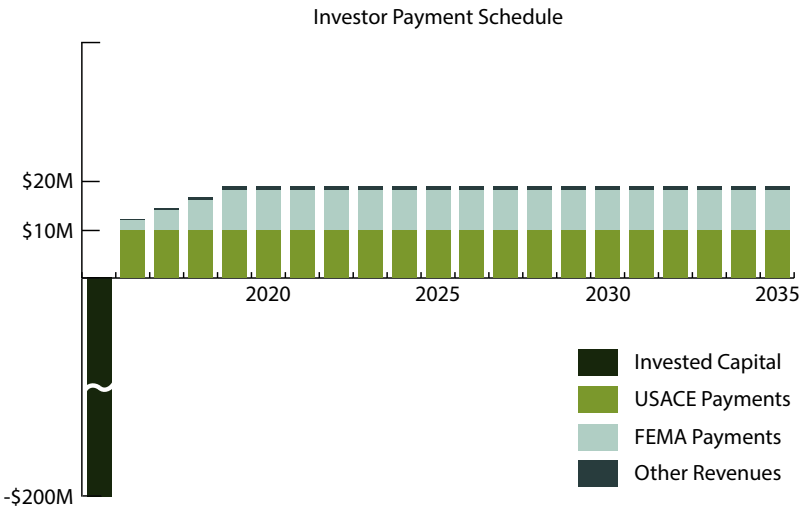
The FMB offers investors a 5.7% return from coastal ecosystem restoration projects in the NY Tri-State Area. Bondholders will receive two primary streams of revenue:

Revenue Stream #1: Natural infrastructure projects will deliver measurable annual reductions in flood risk – $51,000 per hectare for wetlands[6] and $8,600 per hectare for oyster beds[7] – which will lower future FEMA disaster relief spending and NFIP claim payouts. FEMA will issue contractual flood protection payments to FMIB based on conservative projections of the cost savings resulting from the projects. We believe there is significant appetite for this as FEMA already pays homeowners for flood risk reductions through the Community Rating System program. FEMA will also continue to benefit from the projects after the 20-year bond duration has elapsed.

Revenue Stream #2: The FMB will also receive funds from the USACE, who are expected to pay into the fund in exchange for the natural infrastructure projects. Not only will the projects fulfill USACE's mandate, the natural infrastructure projects will be less costly for the USACE to maintain in the future. Projects will be implemented through existing USACE-approved engineering contractors, such as AECOM or CH2MHill, allowing the FMB to function within USACE's normal budget allocation process.

Other Revenue Streams: Wherever possible, the FMB will sell biodiversity and carbon credits, conservation easements, and high-value products like oysters to further enhance investor returns.

ASSUMPTIONS



- Flood insurance claims and disaster relief spending are projected to rise. NFIP policyholders will increase by 80-100% by 2100. As a result, annual NFIP premiums are expected to increase from $3.2 billion to $6.4-11.2 billion by 2100.[8] Climate change is also expected to increase the frequency and severity of flooding in the United States.[9]
- Government agencies are liquidity constrained, creating a need for private capital. The NFIP has been at high risk for fiscal insolvency since 2006, with a deficit of $24 billion currently owed to the U.S. Treasury.[10]
- FEMA and USACE will be willing to pay a portion of future cost savings to bondholders. Past political activity, such as the Homeowner Flood Insurance Affordability Act of 2014, are evidence of the political appetite to relieve the government from its flood insurance liabilities. Natural infrastructure is also an efficient use of funds; each $1 spent on mitigation results in a savings of $4.[11] Agencies will also benefit from the projects in perpetuity, while only paying for 20 years.

RISK FACTORS

- Volatility of flood events: Design contracts with FEMA and USACE to levelize payments over time based on projected cost savings. The long term 20-year bond offering will also smooth volatility from the perspective of government partners.
- Securing contractual agreement among government partners: Many precedents exist, such as the U.S. Forest Service Wildfire Pay-For-Success program. The FMB team will also develop relationships with contingency partners, such as state and local governments and private insurance companies, in the event that FEMA and USACE cannot participate.
- Ability to quantify flood mitigation performance: By leveraging data from existing pilot projects completed by the Nature Conservancy, sophisticated modelling, and the expertise of engineering partners, we will be able to demonstrate measurable performance of natural projects.

ENVIRONMENTAL AND SOCIAL IMPACT: The FMB will restore 500 acres of wetlands and 1,200 acres of oyster beds, providing numerous measurable ecosystem benefits: water quality improvement, erosion control, wildlife habitat, and recreation and tourism. These projects will benefit millions of NY Tri-State area residents across the socioeconomic spectrum.

SCALABILITY: Our target region for this bond only represents 22% of FEMA's insurance obligations. This model has significant replication potential in other U.S. areas vulnerable to coastal flooding such as the Gulf Coast and North Carolina's Outer Banks. In addition, the FMB structure can be expanded to different natural infrastructure project types around the world. We have targeted coral reefs in Mexico and mangroves in Vietnam as early expansion opportunities.

BOND OVERVIEW

Target Bond Offering: $200MM	Asset Class: Fixed Income	Investment Criteria: • FEMA-designated high flood risk zones • 10-50 contiguous acres & ecological significance • 20 year minimum commitment from partners and agencies	Expected Project-Based Cash Flows: • Coupon payments from FEMA • Principal payments from USACE • Other Revenues: recreational fees, oyster beds leases & oyster sales, biodiversity credits sales, etc. • Easement sales to USDA NRCS Agricultural Conservation Easements Program on qualified wetlands
Target Investors: Institutional	Bond Life: 20 years		
IRR: 5.7%	Fee: 1.1% on principal		

[1] FEMA. Policy & Claim Statistics for Flood Insurance. FEMA, 2015.
[2] White Paper: True Market-Risk Rates for Flood Insurance. Property Casualty Insurers, June 2011.
[3] ASCE. 2013 Report Card for America's Infrastructure. ASCE, 2013.
[4] Goldman Sachs Environmental Markets Group. White Paper: Environmental Finance Innovation Summit Summary. Goldman Sachs, 2014.
[5] Green Infrastructure Case Studies: Case Studies evaluated by participating companies for creation of the White Paper "The Case for Green Infrastructure." The Nature Conservancy, 2013.
[6] Costanza, et al. "The Value of Coastal Wetlands for Hurricane Protection." AMBIO: A Journal of the Human Environment 37(4):241-248. 2008.
[7] Grabowski, et al. "Economic Valuation of Ecosystem Services Provided by Oyster Reefs." BioScience 62: 900–909. 2012.
[8] AECOM. The Impact of Climate Change and Population Growth on the National Flood Insurance Program through 2100. AECOM, 2013.
[9] National Oceanic and Atmospheric Administration. "Sea Level Rise and Nuisance Flood Frequency Changes Across the United States." NOAA, 2014.
[10] National Flood Insurance Program. U.S. Government Accountability Office, 2015.
[11] FEMA. 2013 Budget Request: Federal Emergency Management Agency. FEMA, 2013.