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Introduction

The threat of credit rating downgrades is expected to be a developing non-regulatory driver to municipal future flood risk planning and sea level rise adaptation. Exposed communities that have experienced major disasters have seen property values reduced and have been downgraded due to lost tax base. As sea level rise manifests along the coasts, impacts on revenue will present new challenges in servicing debt. Proactive communities are likely to be spared the need to increase revenues to counter the higher borrowing costs that are coincident with a bond rating downgrade. Municipalities that do not engage now in addressing the threats associated with climate change may have to increase taxes to offset the increased bond returns demanded by investors.

Participants in Municipal Bonds

Municipal Issuer



<http://www.nyc.gov>

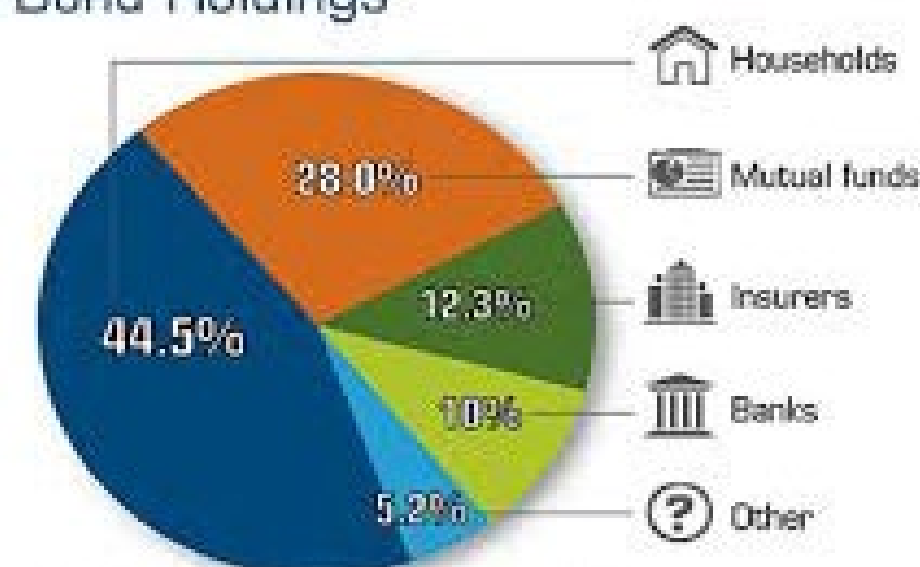
Bond



<http://kalw.org>

Investor

Investors' Share of Municipal Bond Holdings



Source: National Association of Insurance Commissioners, 2013

Broker/
Underwriter



Credit Rating
Companies

MOODY'S
S&P Global
Ratings

FitchRatings

Sea Bright Borough, New Jersey – A Case Study in Exposure



(Kutner, 2014)

In a 2050 time horizon, with sea level rise expected at 1.5 feet (Miller, et al., 2013), 20 percent of the Borough's tax parcels or 17 percent of the tax base will have some permanent inundation (Kutner, 2014). This inundation will impact 43 percent of the commercial tax base (Kutner, 2014). Considering the same sea level rise in 2050 with 1 percent annual chance storm flooding, Sea Bright experiences a dramatic 91 percent inundation of tax parcels and 95 percent of the tax base will be impacted (Kutner, 2014).

References

Miller, K. G., Kopp, R. E., Horton, B. P., Browning, J. V. and Kemp, A. C. (2013, December 5). A geological perspective on sea-level rise and its impacts along the U.S. mid-Atlantic coast. *Earth's Future*, 1: 3–18. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1002/2013EF000135/full>

Kutner, D. (2014, May 20). Borough of Sea Bright – Strategic Recovery Planning Report. Retrieved from <http://www.nj.gov/dca/divisions/lps/SRPRs/Sea%20Bright%20SRPR.pdf>

Inflection points in climate change and municipal bond rating

March 6, 2015	Moody's Questionnaire returned by Virginia Beach
June 18, 2015	Moody's issues report on Hampton Roads, Virginia municipalities
September 16, 2015	Fitch: sea level rise may play greater role in rating
October 17, 2017	Standard & Poor's issues FAQ on municipal ratings and climate change
November 28, 2017	Moody's issues report describing how climate change is evaluated in rating
January 8, 2018	Breckinridge Capital issues press release on sea level rise score

Key Findings

- Credit rating companies are beginning to look at the climate change threats to municipal revenue; interest will increase especially in coastal areas;
- Investors are asking questions about climate change as a material risk and will be driving transparency, detail and refinement in climate change risk evaluation; expect investors to demand more detailed assessments;
- Local government must start planning and being proactive; they should not have empty answers for credit agencies and investors;
- Additional study of this issue is warranted to help guide the realization of climate change influences on revenue and debt, and to assist communities with measures that are appropriate responses to credit risk.

Conclusion

Communities that prepare and adapt to future flood and sea level rise risks will not only be safer and more resilient in recovering from inundation and storm events, but will be more fiscally sustainable and economically secure with public support offered to proactive elected officials and professionals.