Smarter Government — the Data, the Map, & the Method

University of Virginia
Data Science for the Public Good Forum
Distinguished Speaker Series

Governor Martin O'Malley
Democrat
Maryland 2007–2015

The ability to model, measure, and map our built and our natural environment — in real-time — in ways all can see...

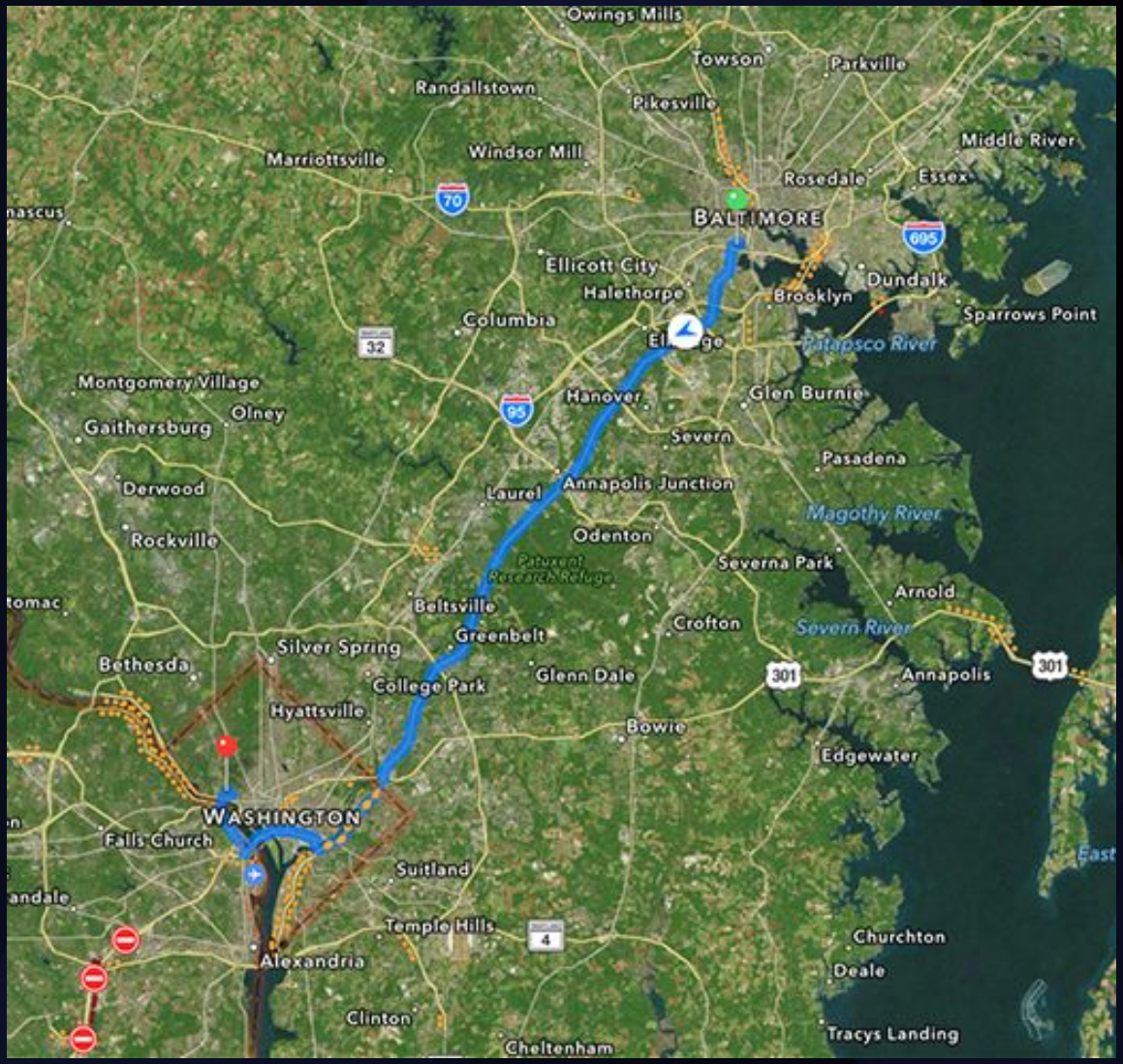
The ability to manage dynamic systems — regardless of scale — in order to achieve better results for individual people.

In this new way of governing,...
collaboration is the new competition.

"It is from the numberless diverse acts of courage and belief that human history is shaped. Each time a man stands up for others, or strikes out against injustice, he sends forth a tiny ripple of hope."

– Robert Kennedy

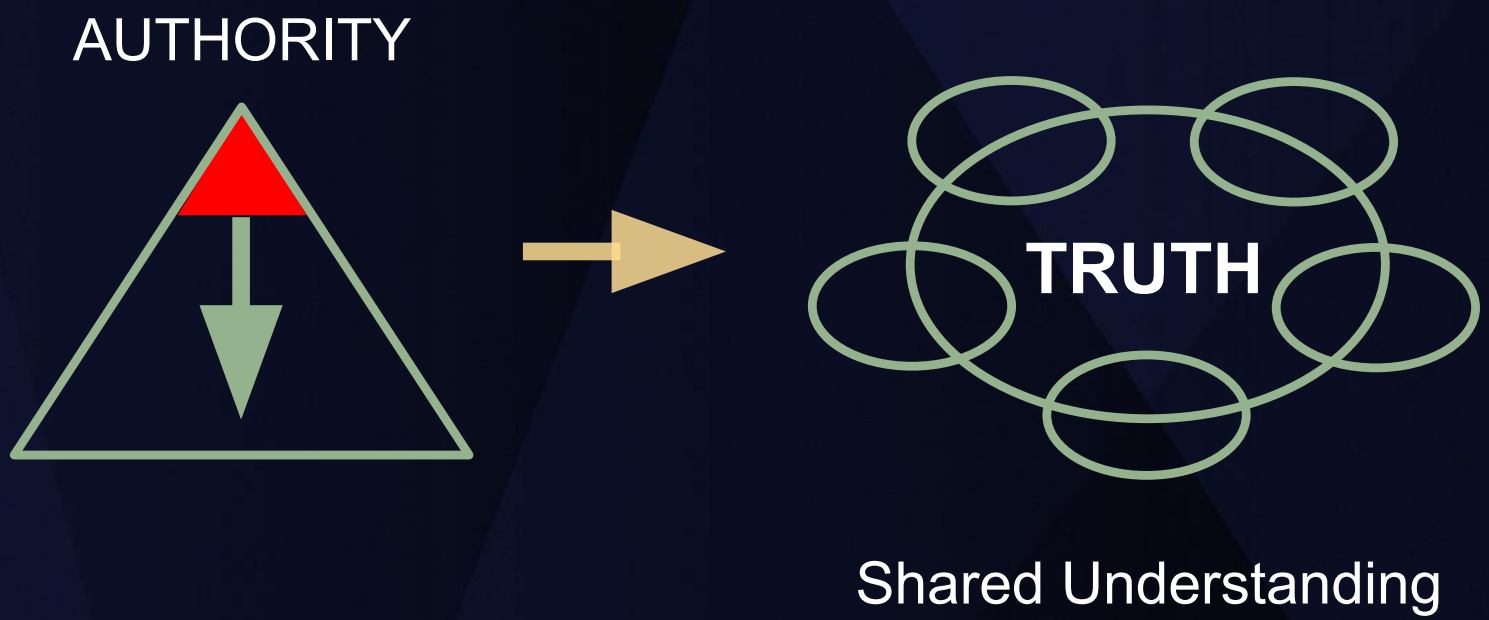
Belief Space and the Internet of Things



Entrepreneurial
Performance Measured
Interactive
COLLABORATIVE
A new way of leadership

The Changing Nature of Leadership

Transforming organizations



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5001
5002
5003

Old Tenets of City Government

- If the Mayor really wants to know, we can find out. But we'll have to pull all of our people off their other jobs. And it will take weeks.

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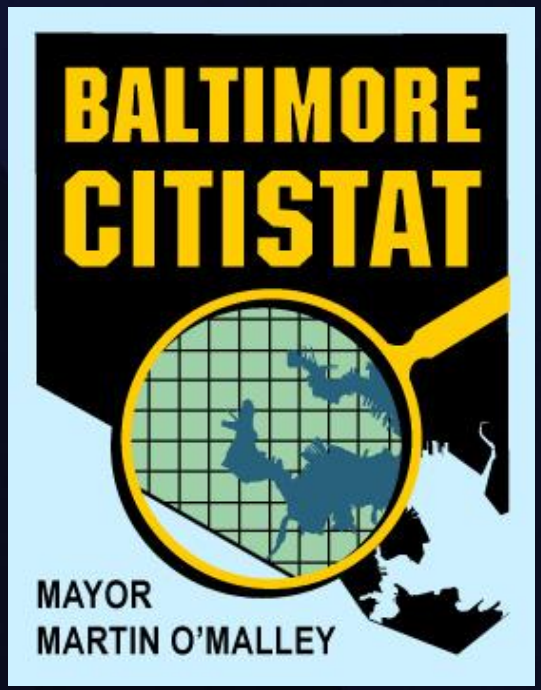
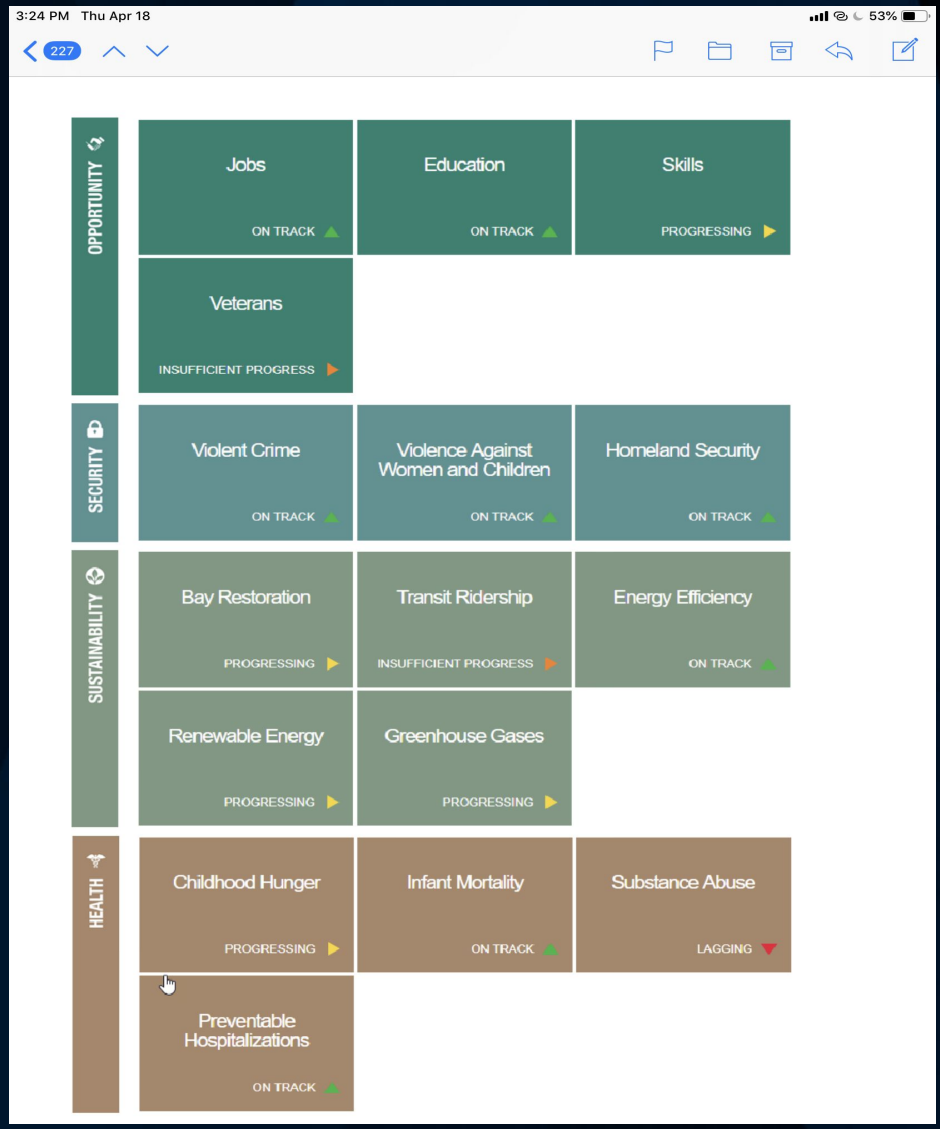
- I hope everyone forgets about this question before next year's annual budget hearing...

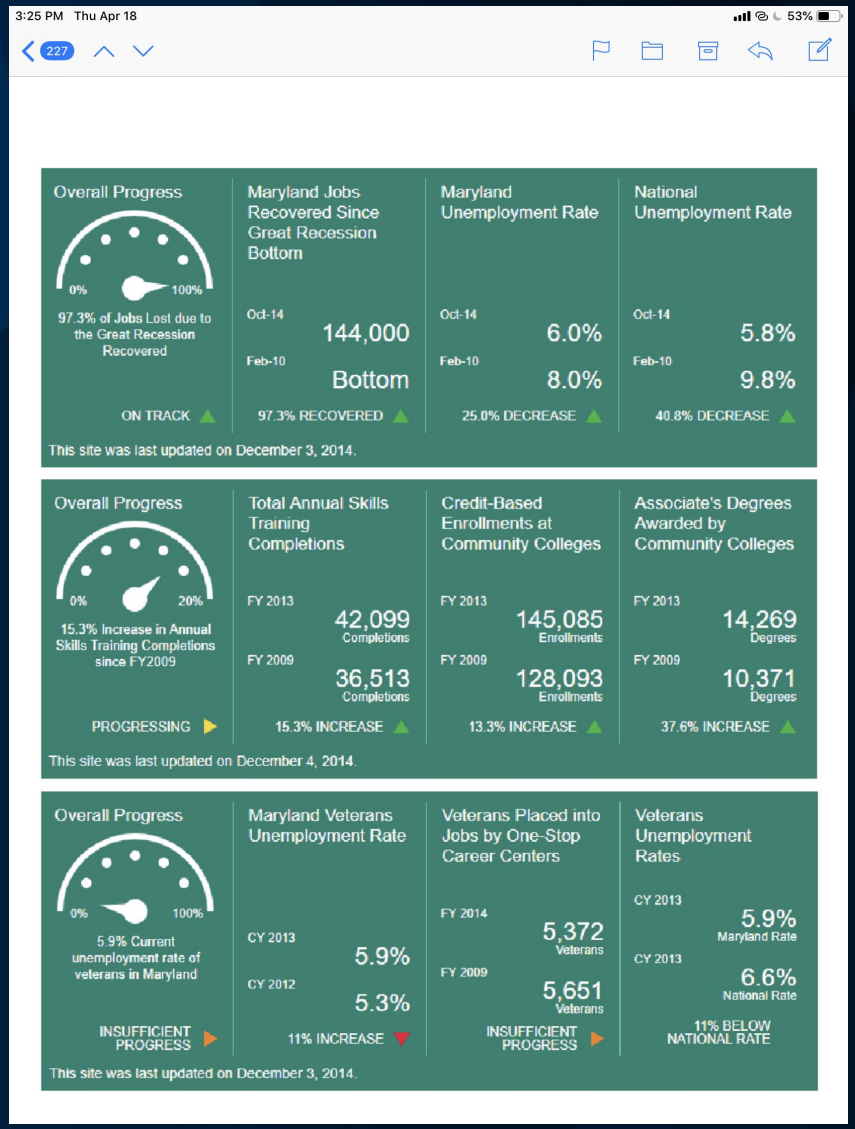
CitiStat Tenets

- Accurate and timely intelligence shared by all
- Rapid deployment of resources
- Effective tactics and strategies
- Relentless follow-up and assessment



Strategic Goals with Public Deadlines



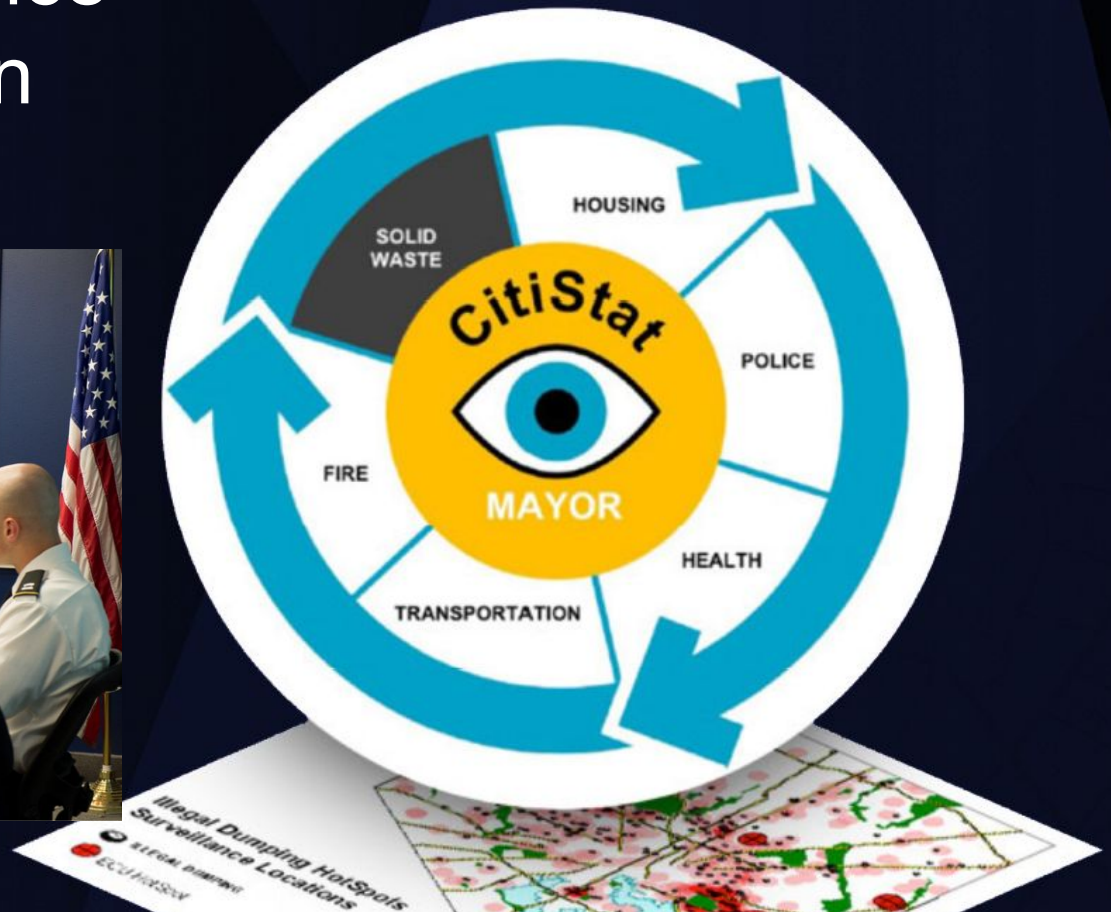


Public Facing Dashboards

But, here's the *thing*,...

None of this works unless the leader insists — *and drives* — a repeating cadence of collaboration and follow-up.

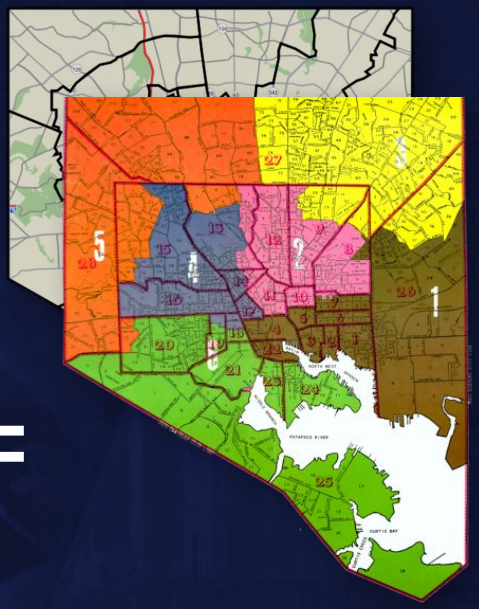
Repeating Cadence of Collaboration



Improving Public Safety

We deployed police to where crime was actually happening…

200 Police thru COPS =



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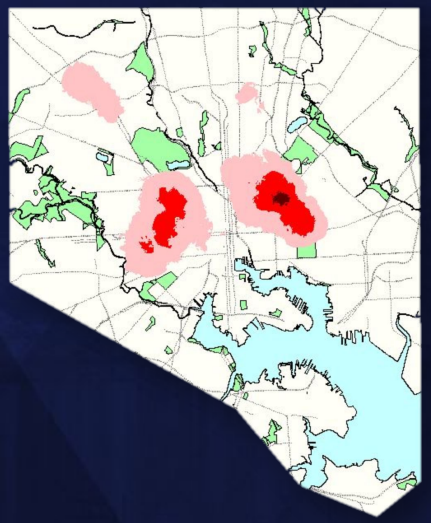
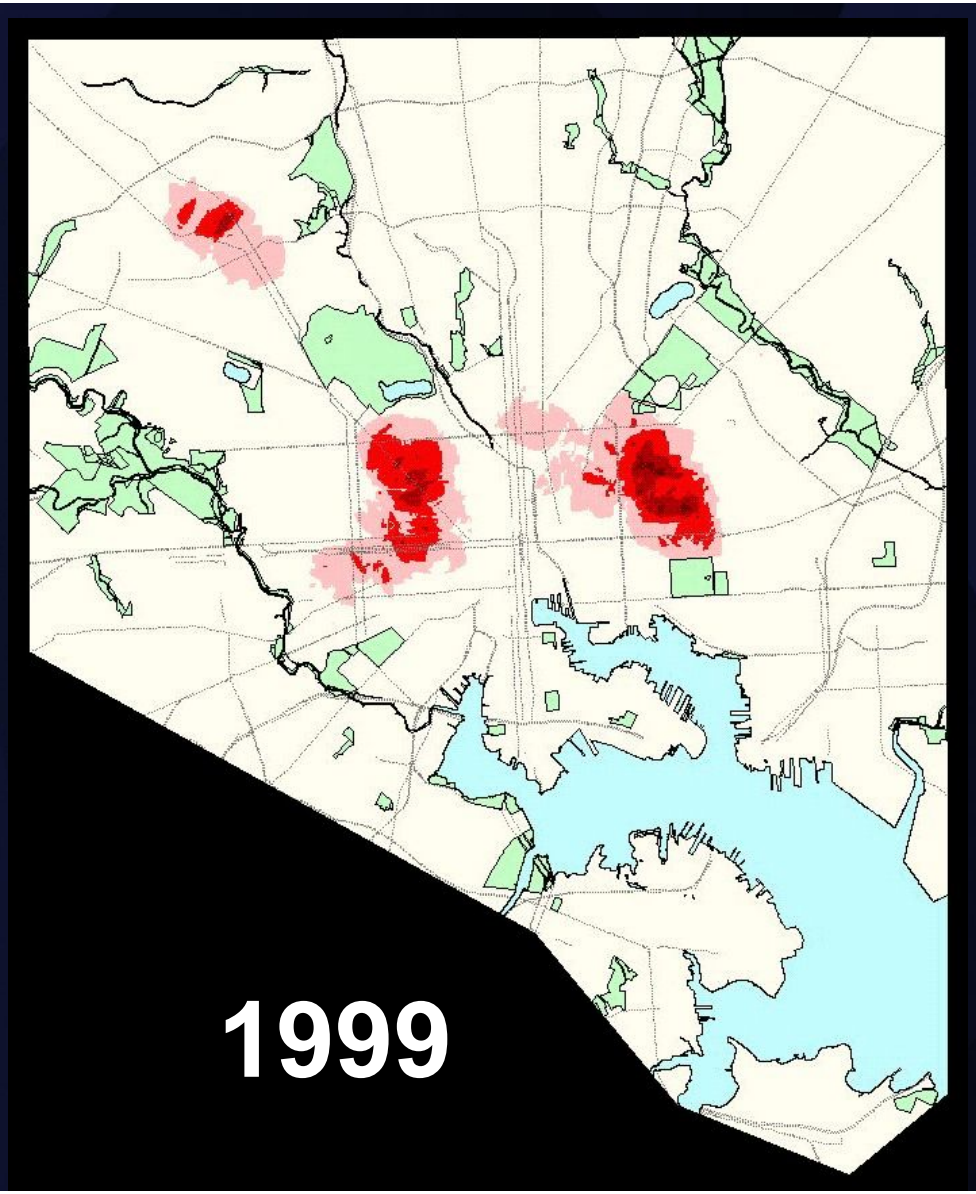
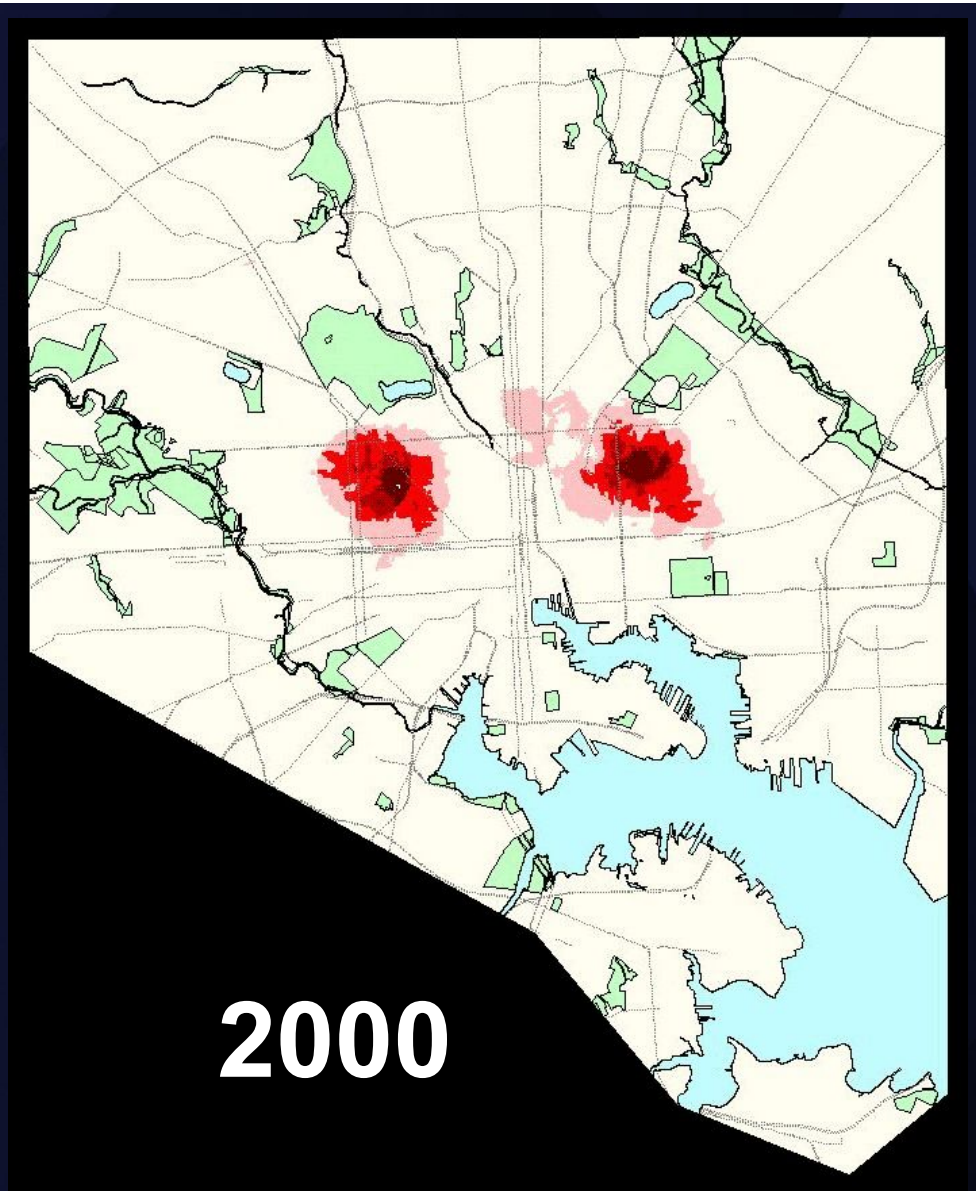
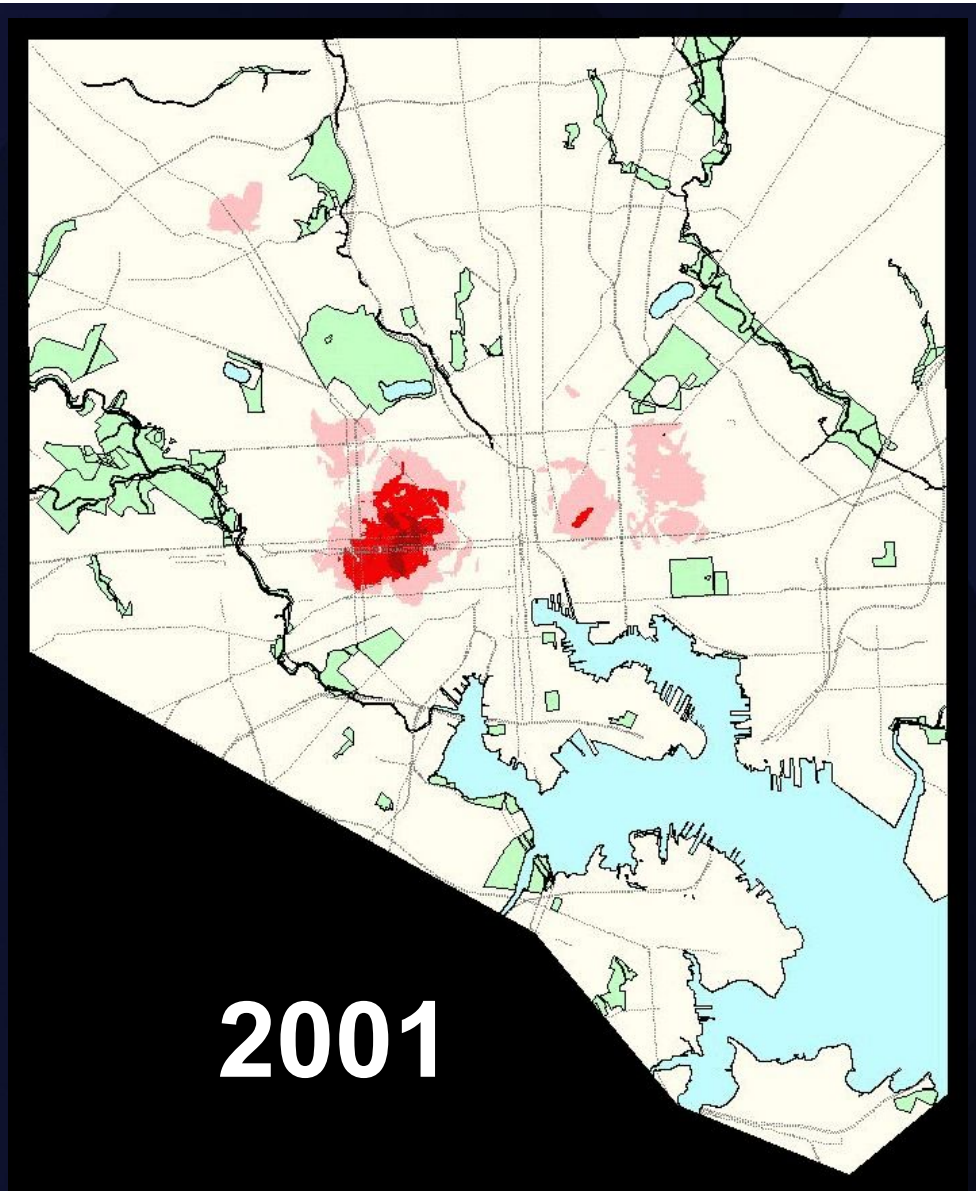




Baltimore City Homicides and Shootings



Baltimore City
Homicides and
Shootings



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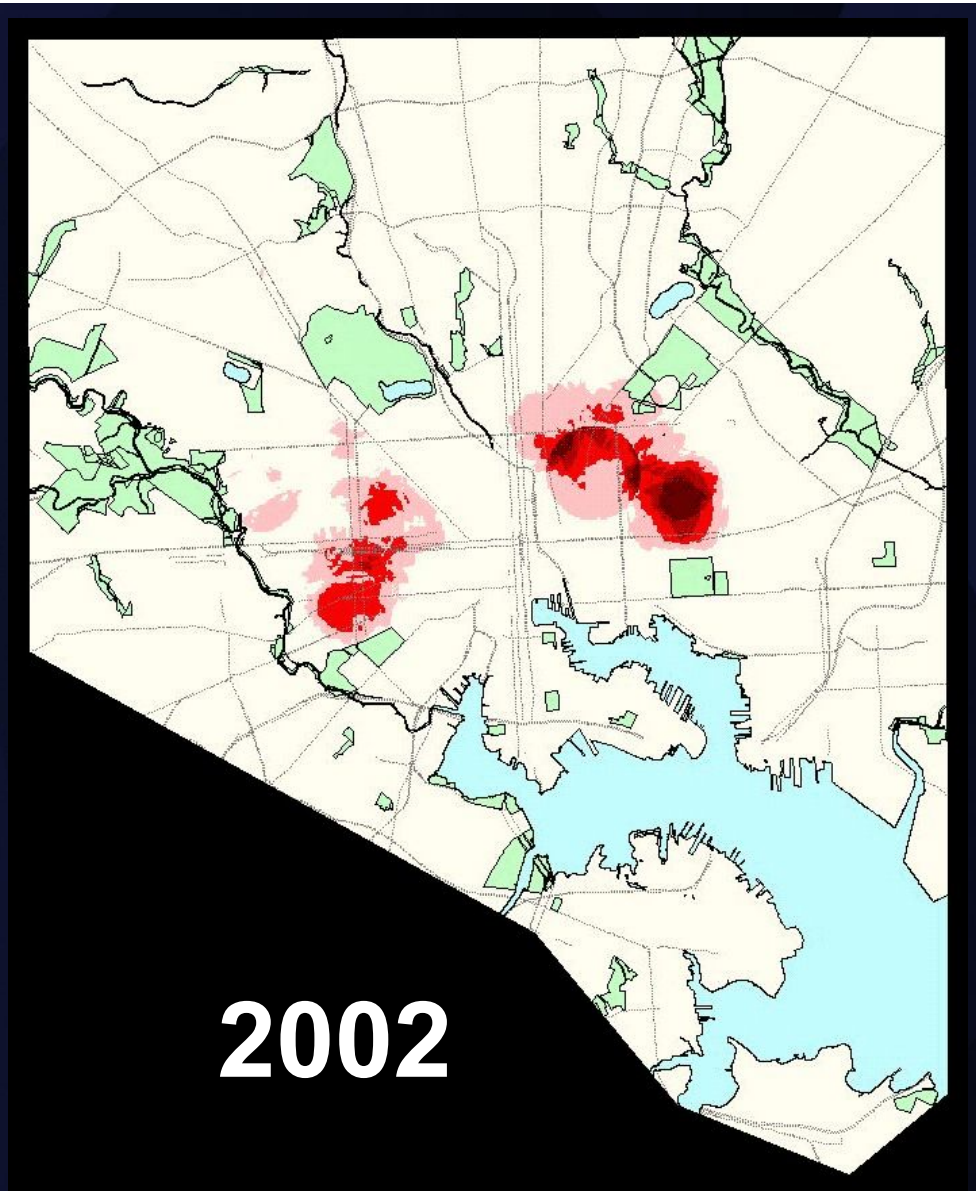

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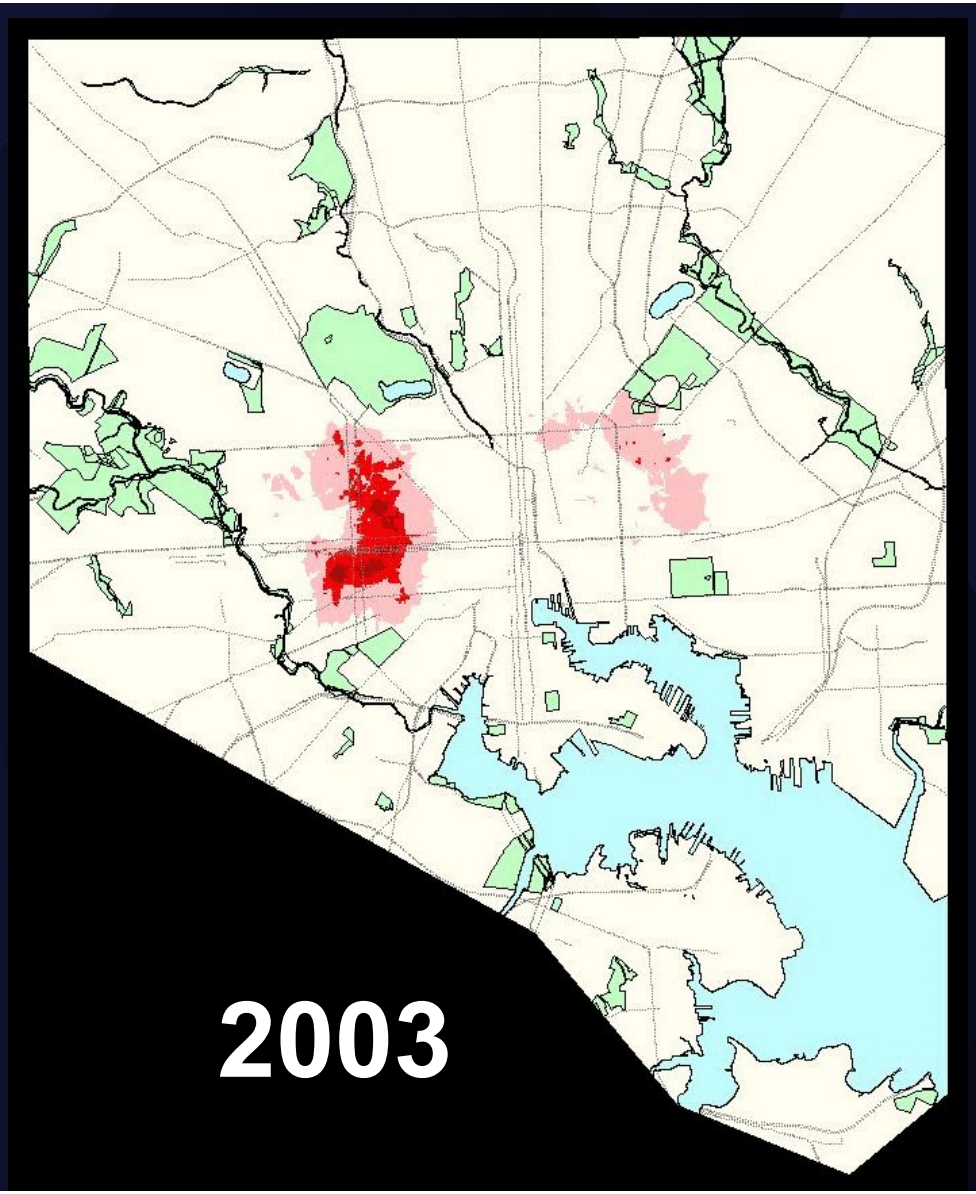

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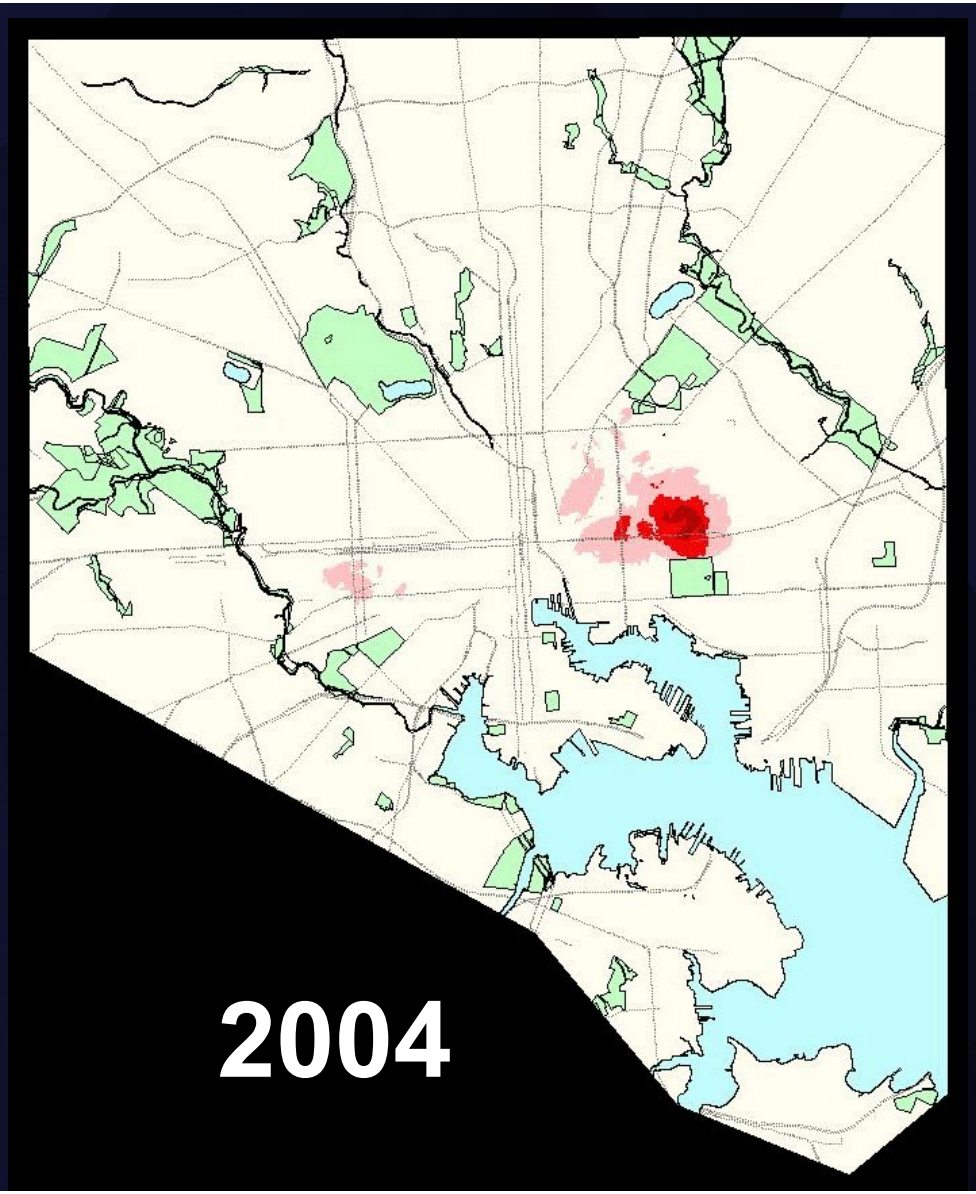

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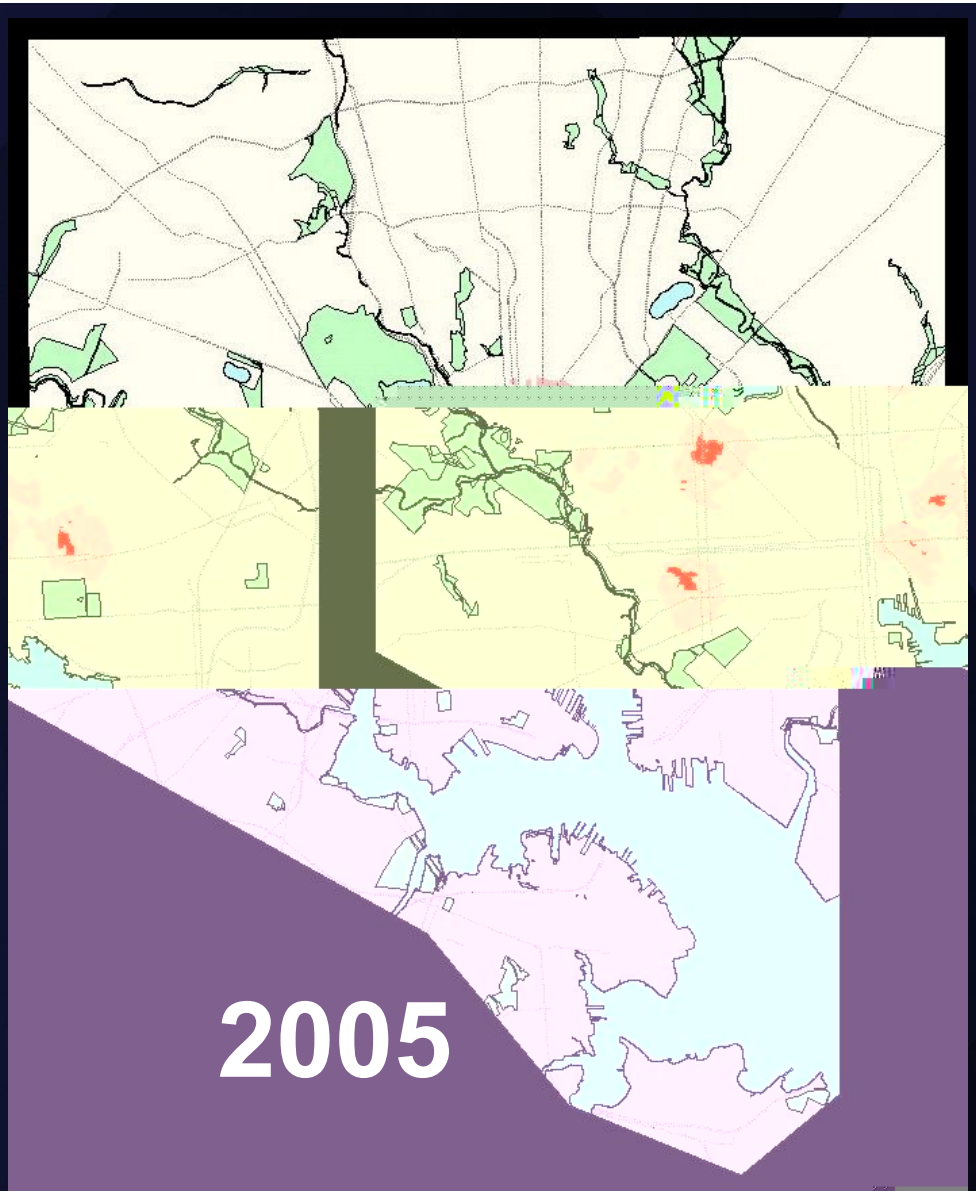

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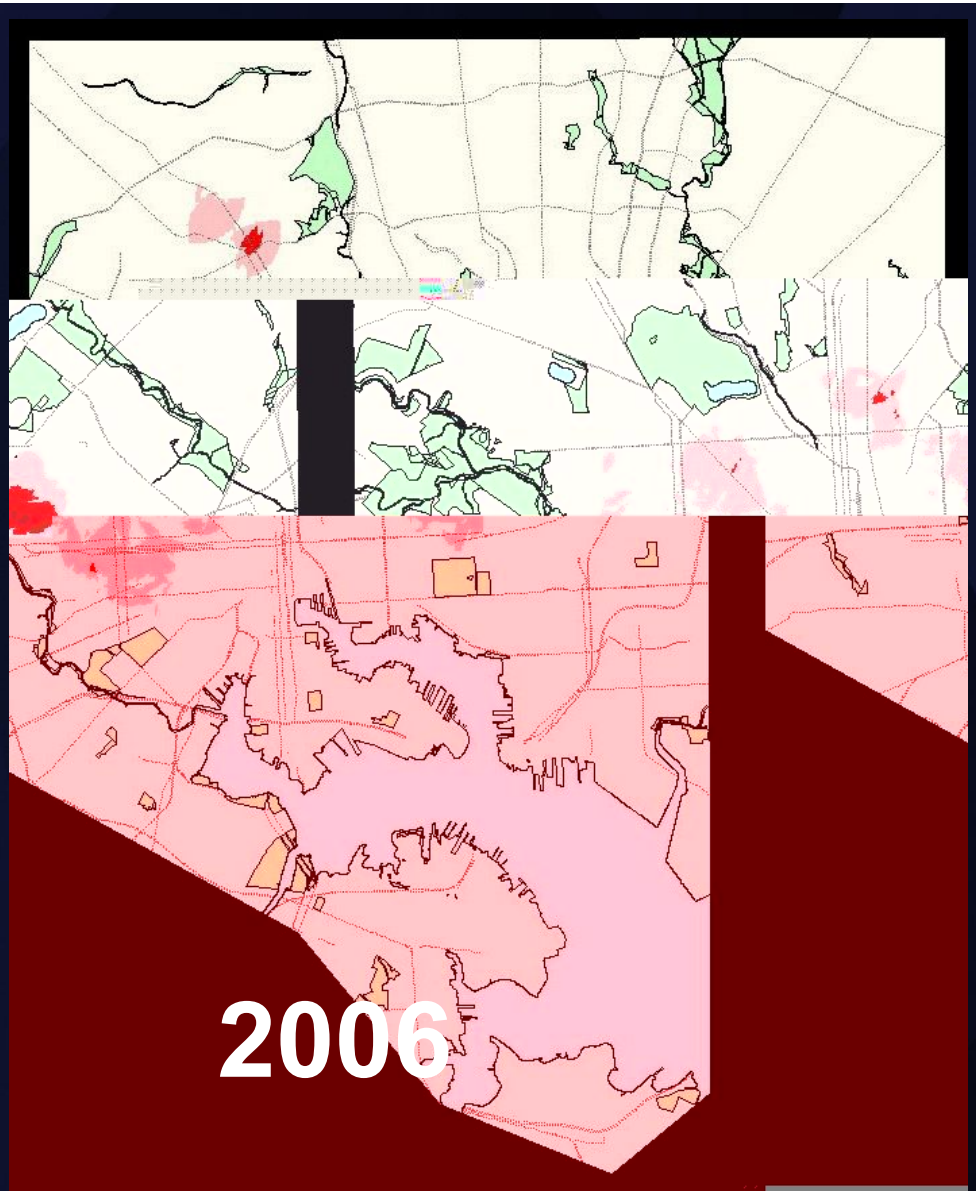

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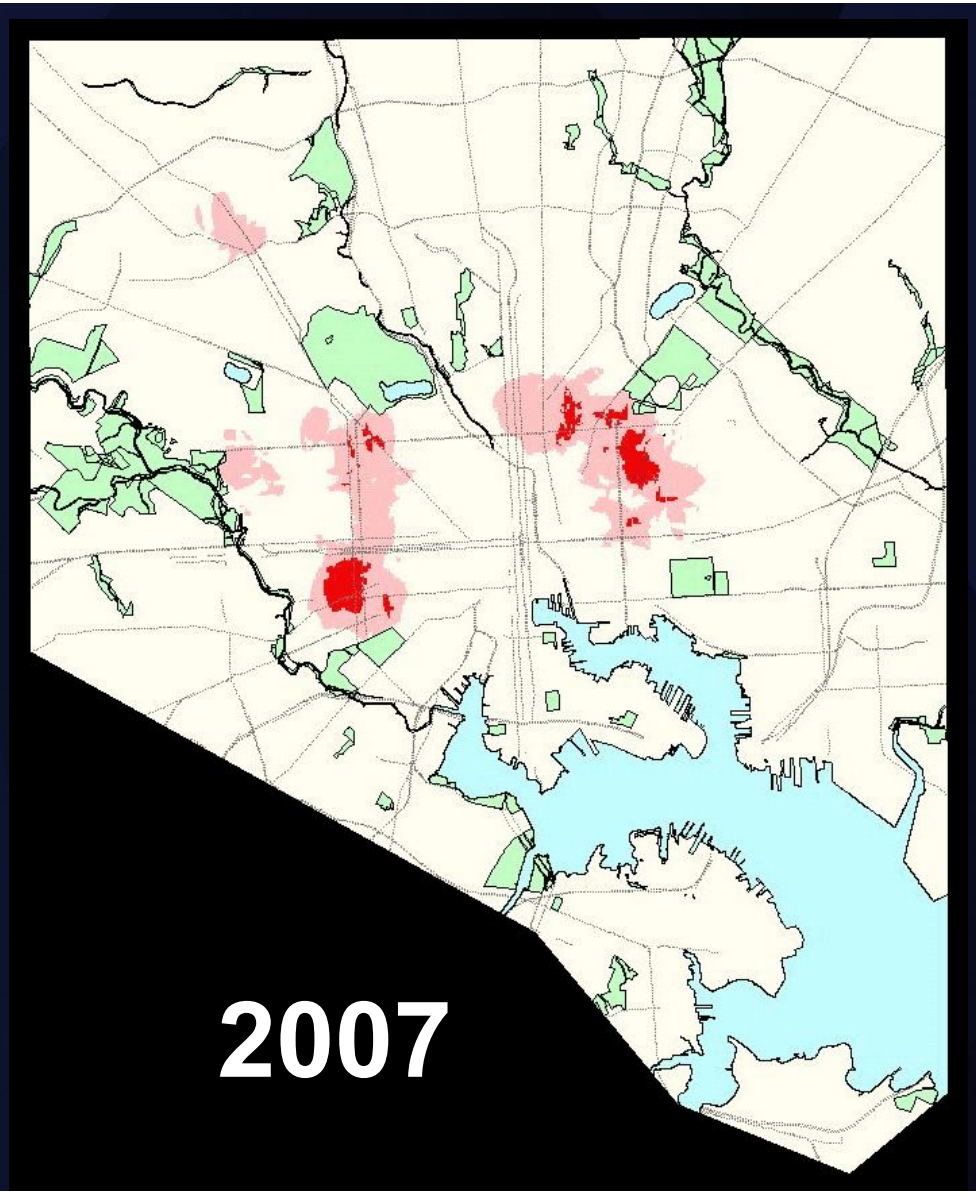
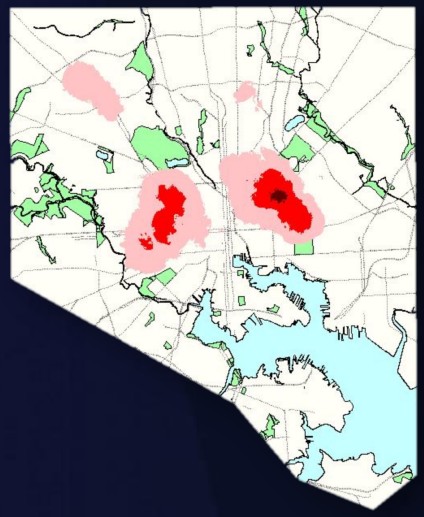
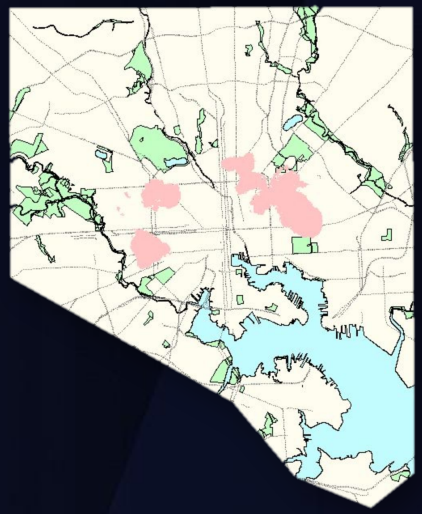
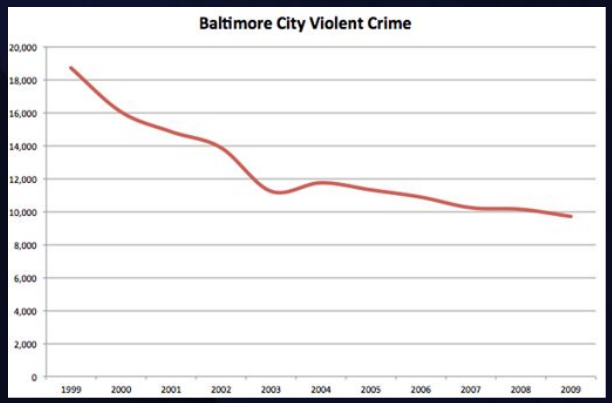


Baltimore City Homicides and Shootings

Managing by politics and excuses….
...giving way to managing for better results







Results: From 2000 – 2009
Baltimore Achieved the Biggest Reduction in Part One Crime of any Major City in America

Data-driven Decision Making

LAPD's data-driven crime fighting evolution

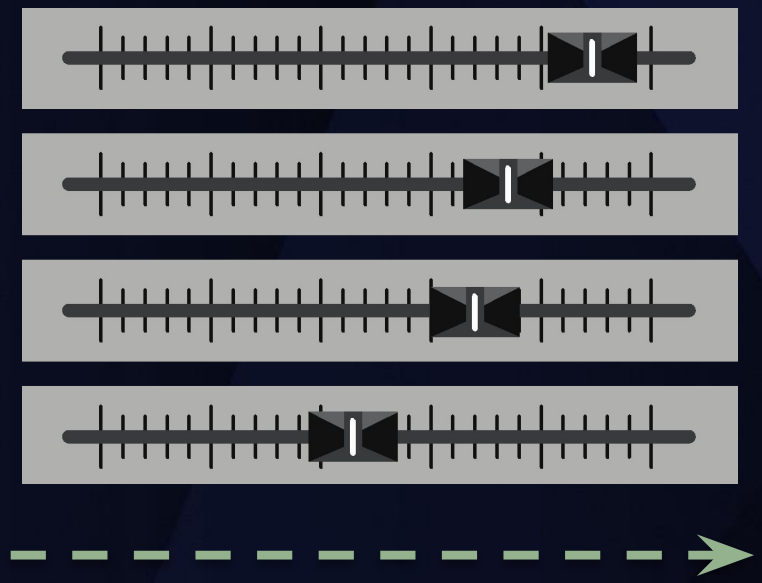
Stove-piped

Intuition based

Query based

Map-Making

2012



Shared by All

Evidence based

Alert based

Analytics

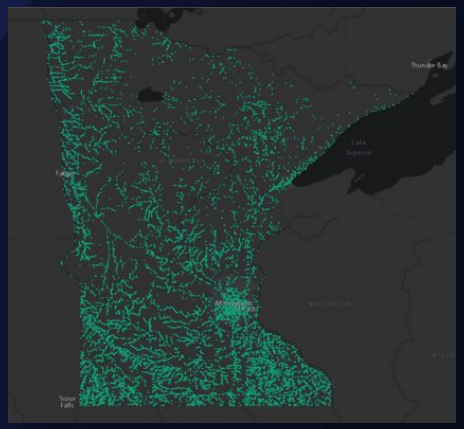
2017

Repairing Roads and Bridges

Minnesota’s I-35w
Bridge Collapse
Evening Rush Hour
August 1, 2007

A New Way of Governing is Emerging

Focused on results; driven by “what works?”



All Bridges

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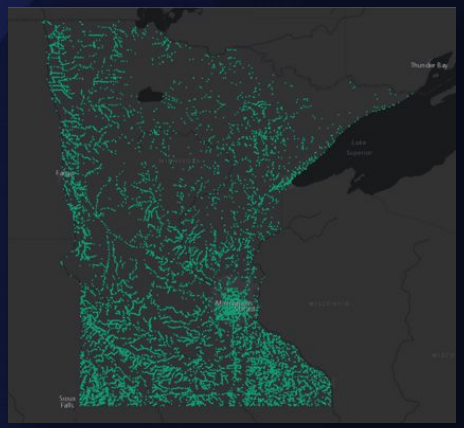

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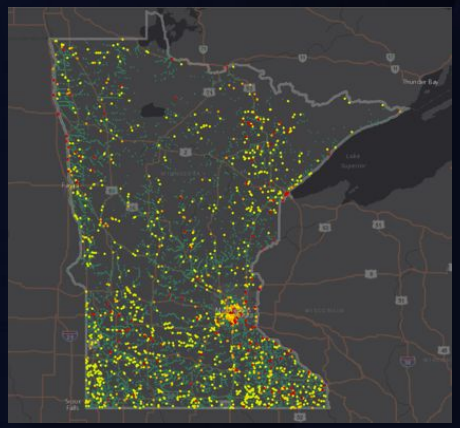

Bridge Conditions

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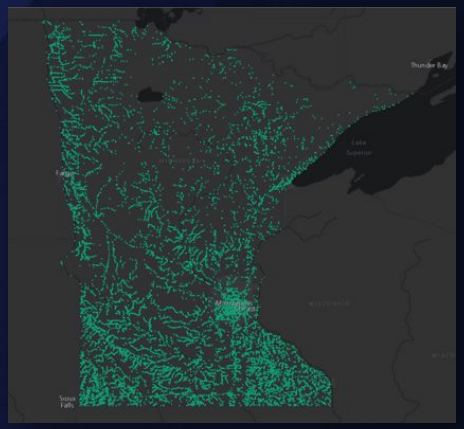

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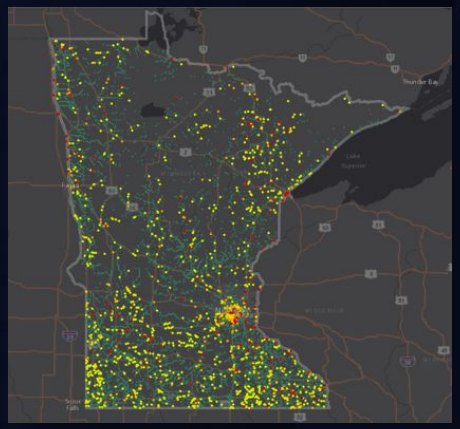
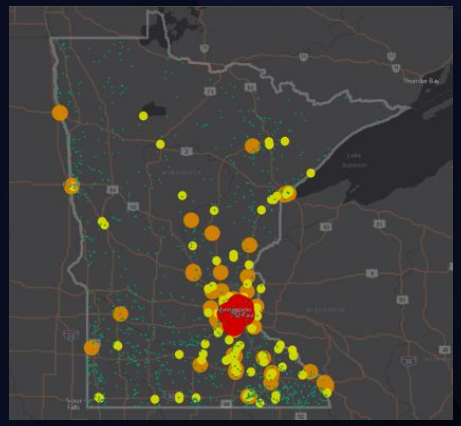


Bridge Conditions



Traffic Volume

A New Way of Governing is Emerging

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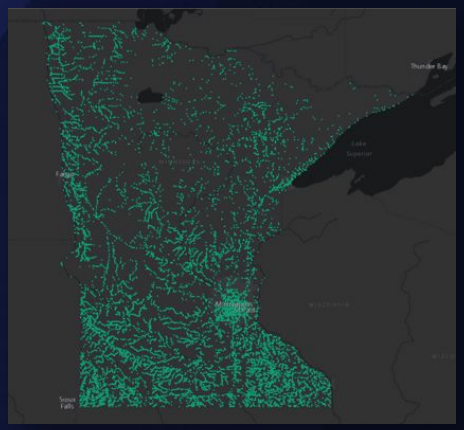
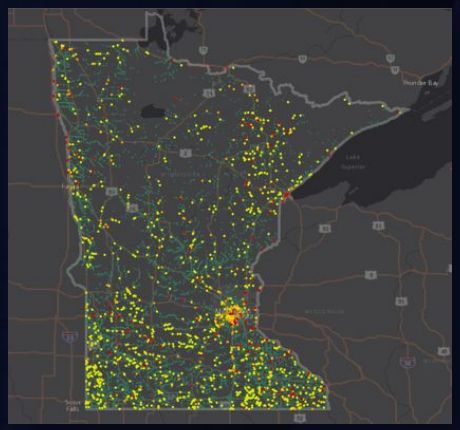
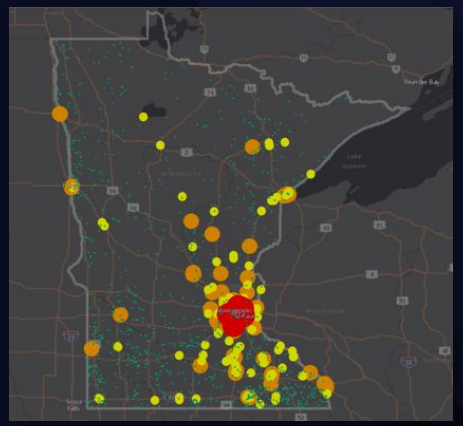


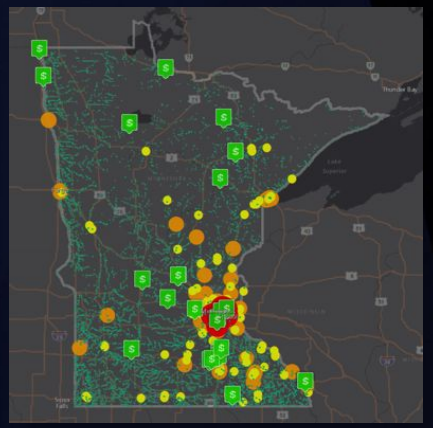
All Bridges



Bridge Conditions



Traffic Volume

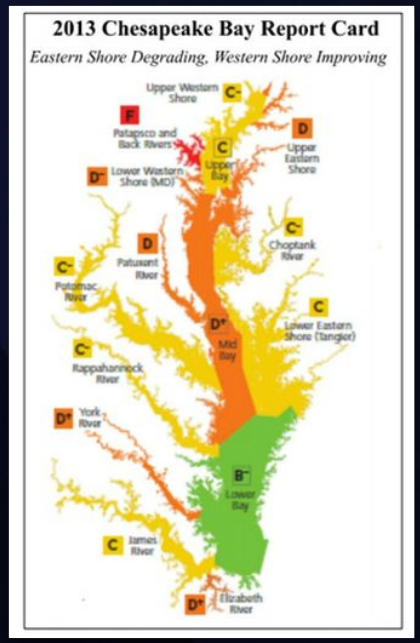


Bridge Investments

Clean Water

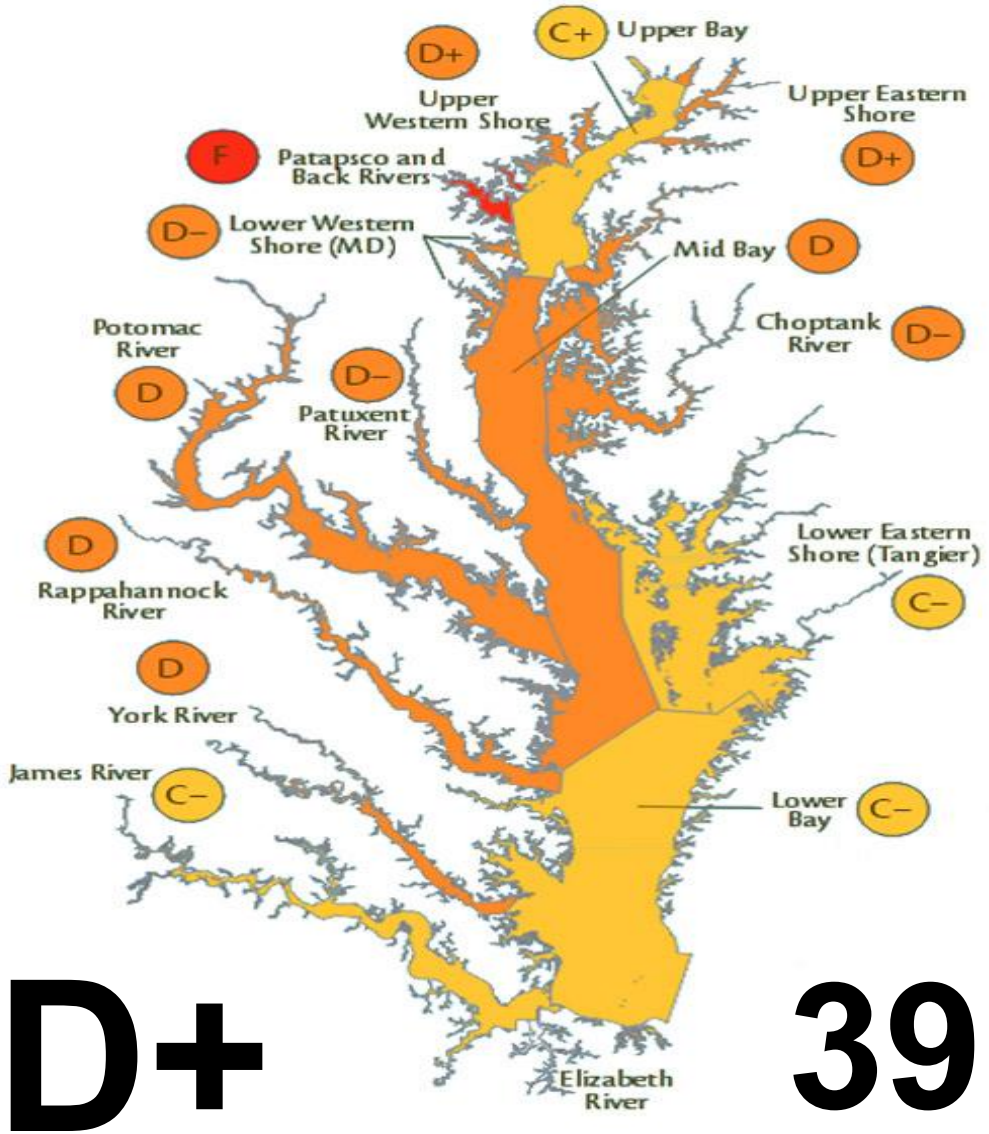
Predictive Analytics

Restoring the health of the bay



2006

Chesapeake Bay Health Report Card



D+

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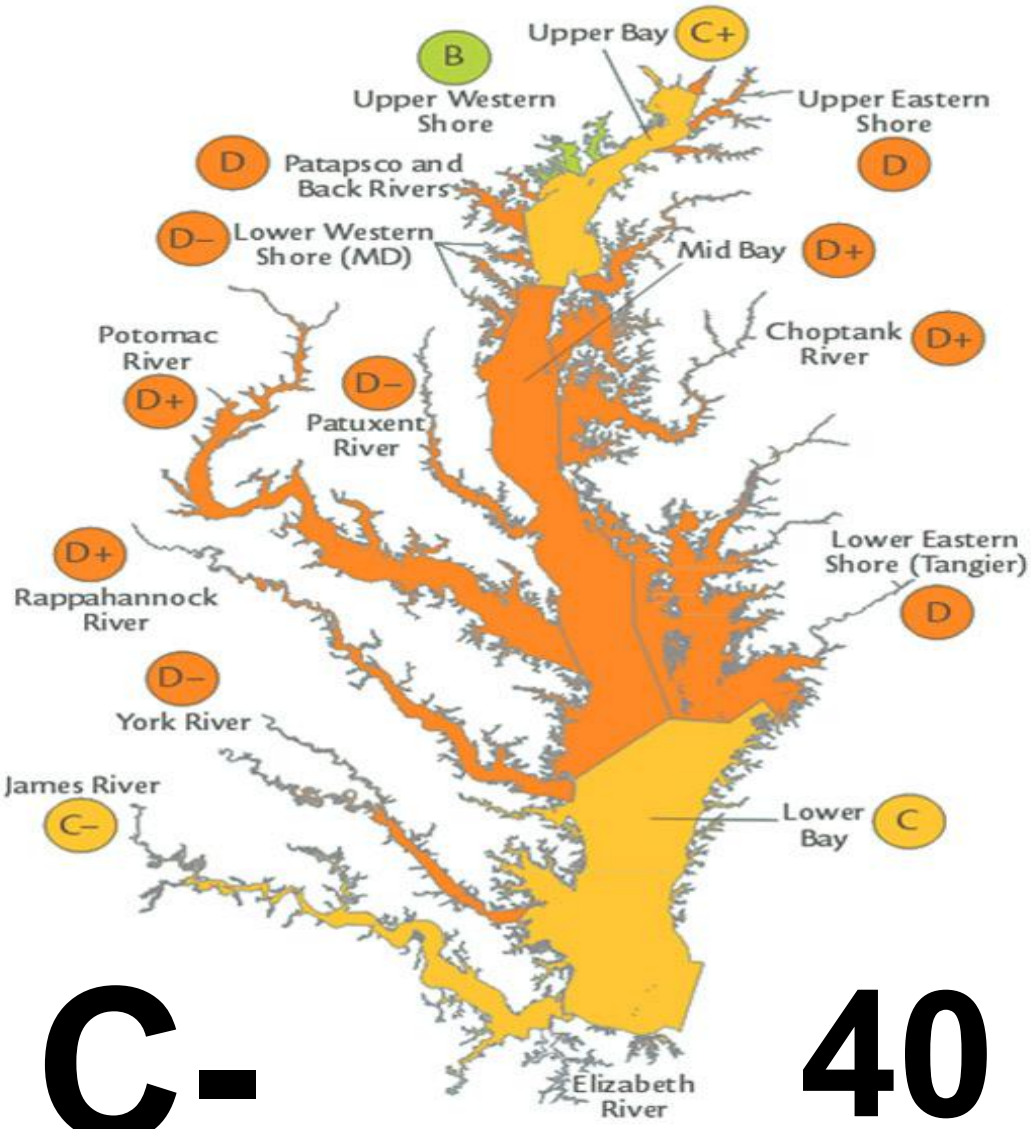
2007
Chesapeake Bay Health Report Card



C-

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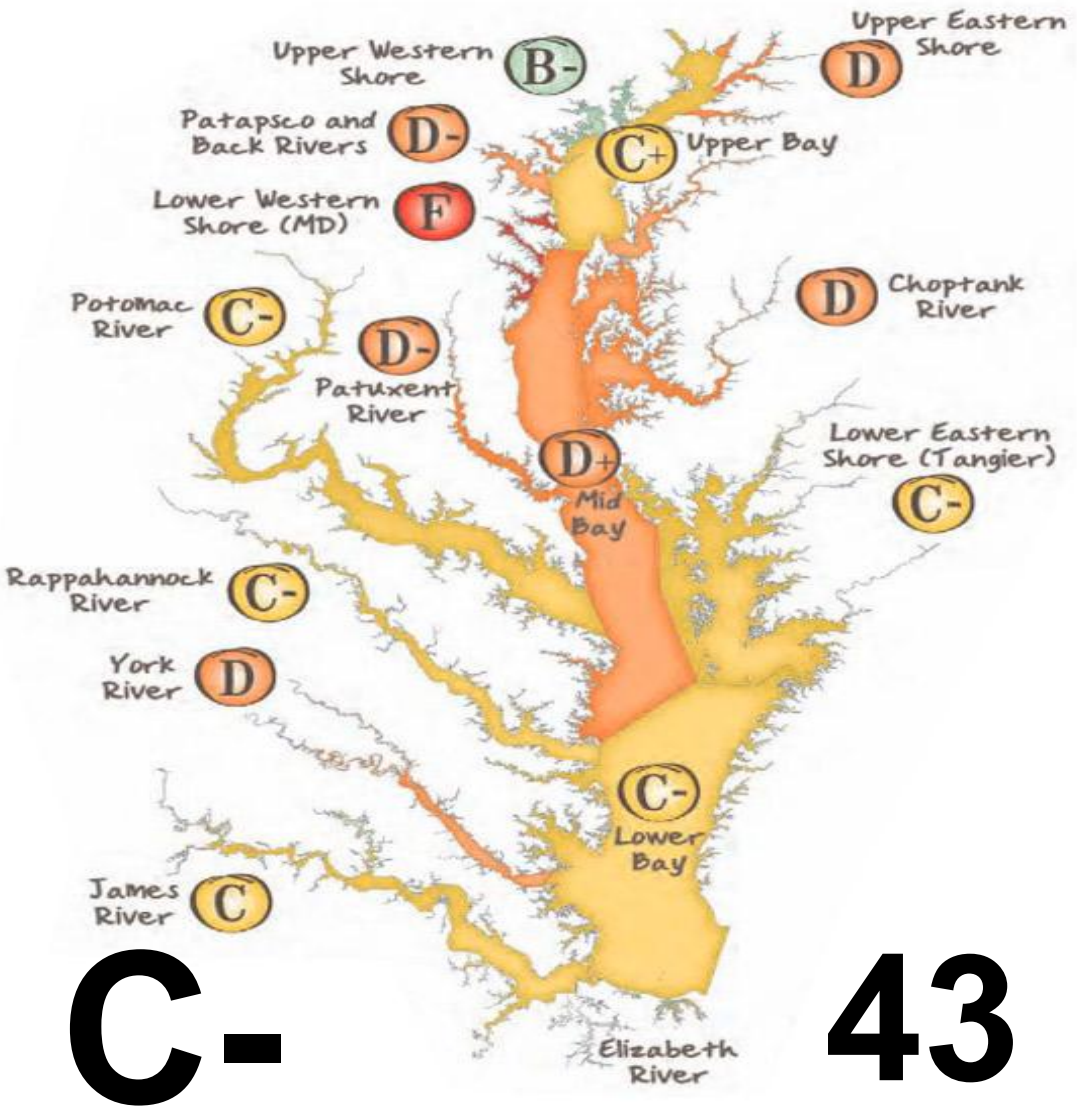
2008
Chesapeake Bay Health Report Card



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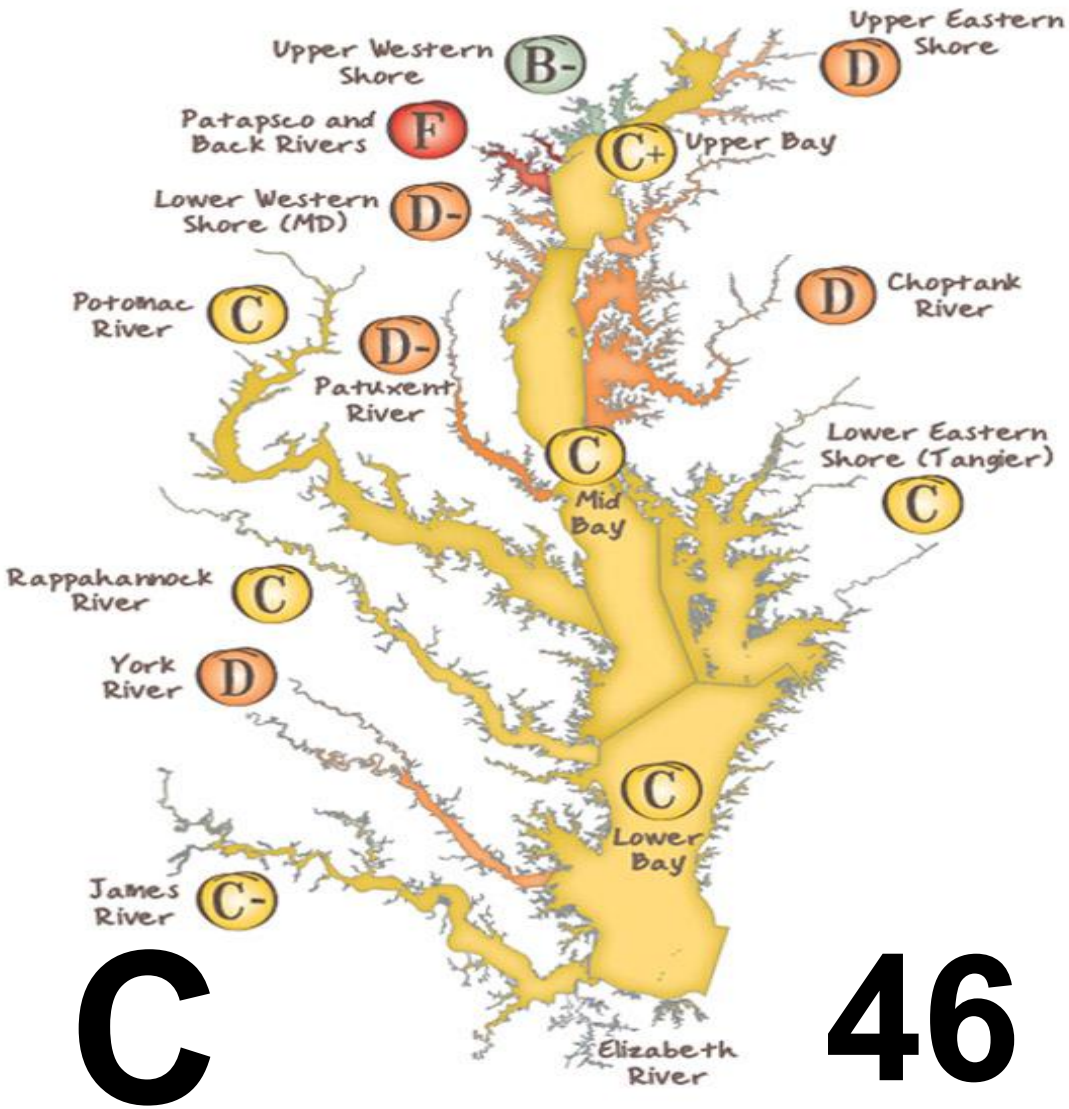
2009

Chesapeake Bay Health Report Card



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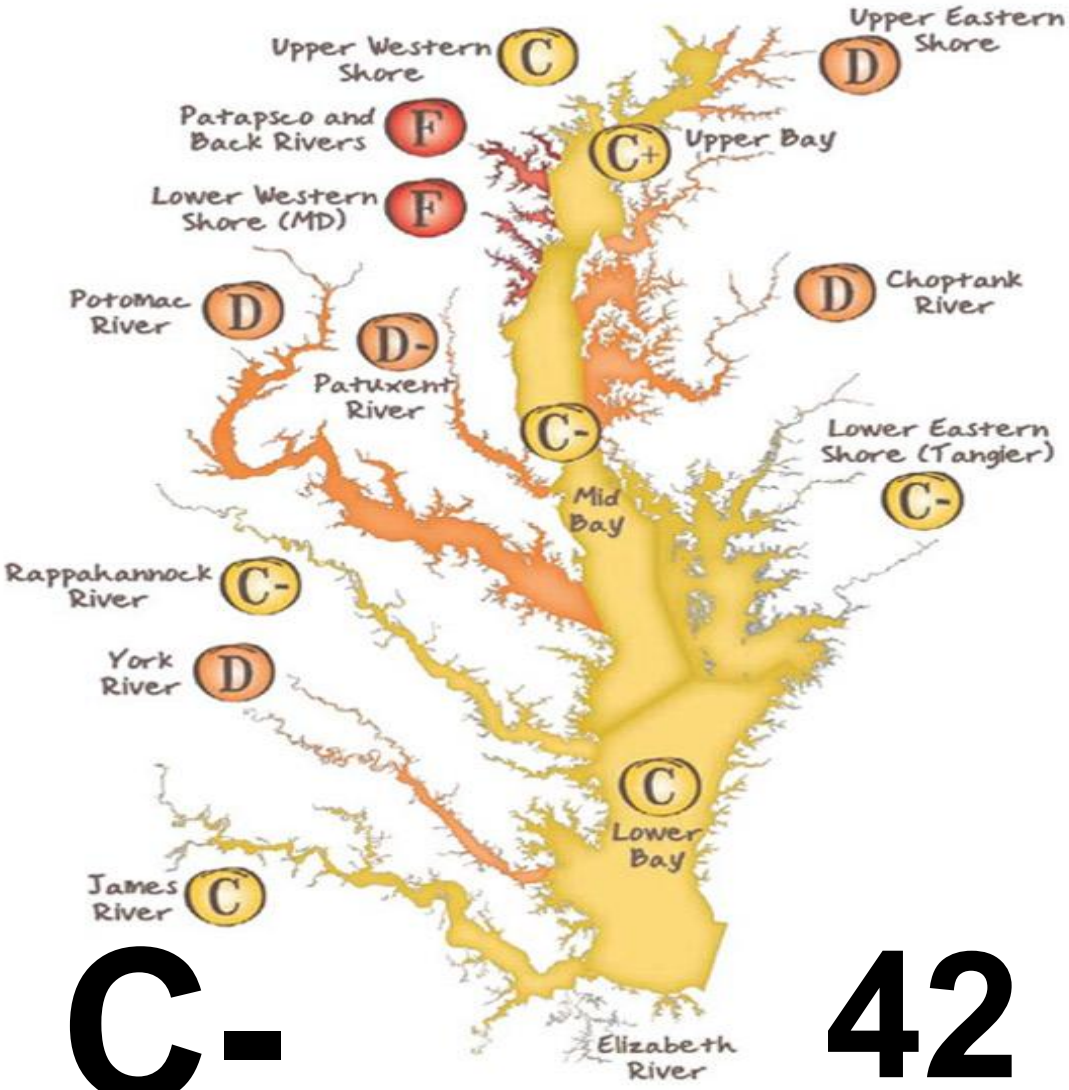
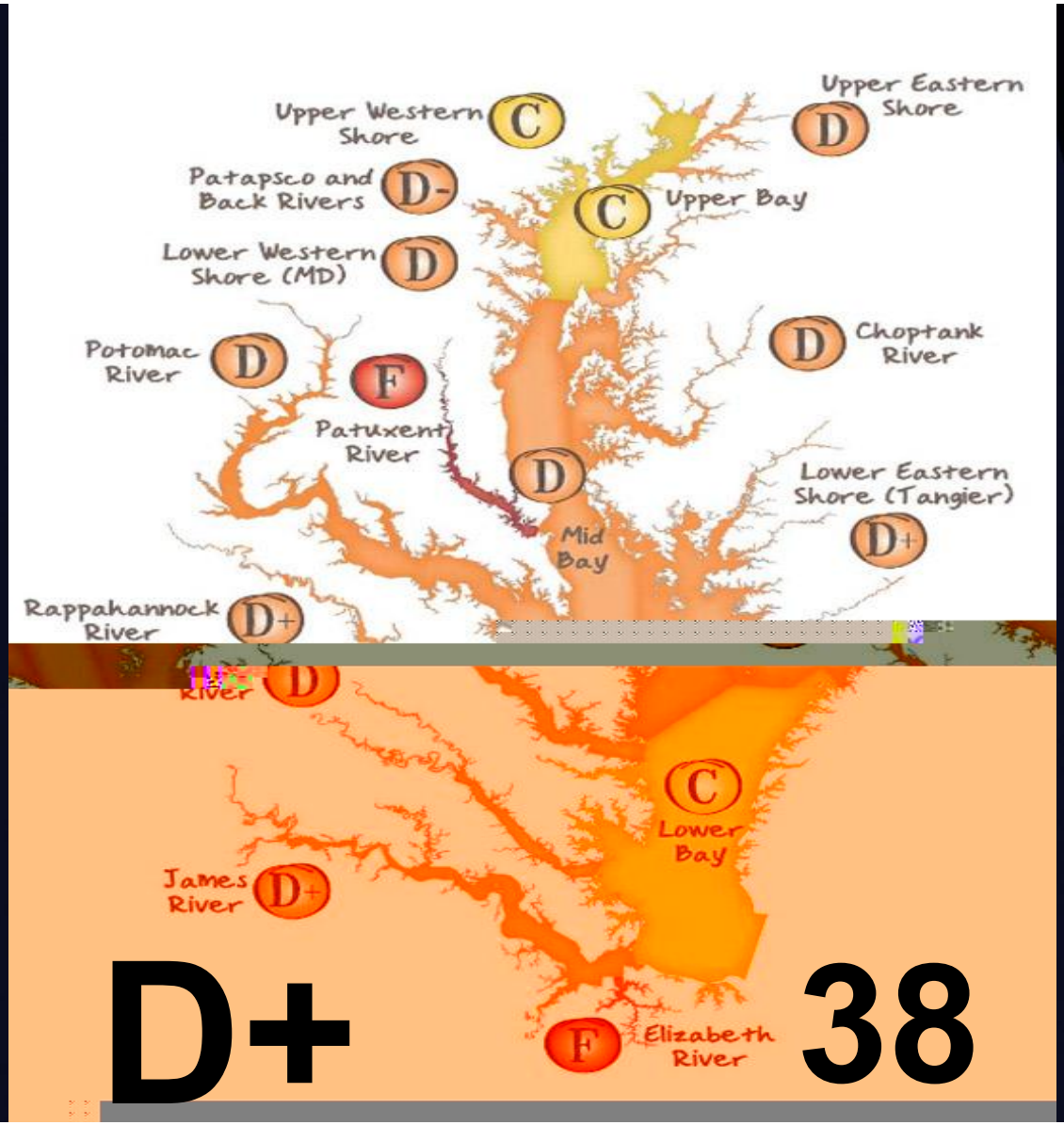
2010
Chesapeake Bay Health Report Card

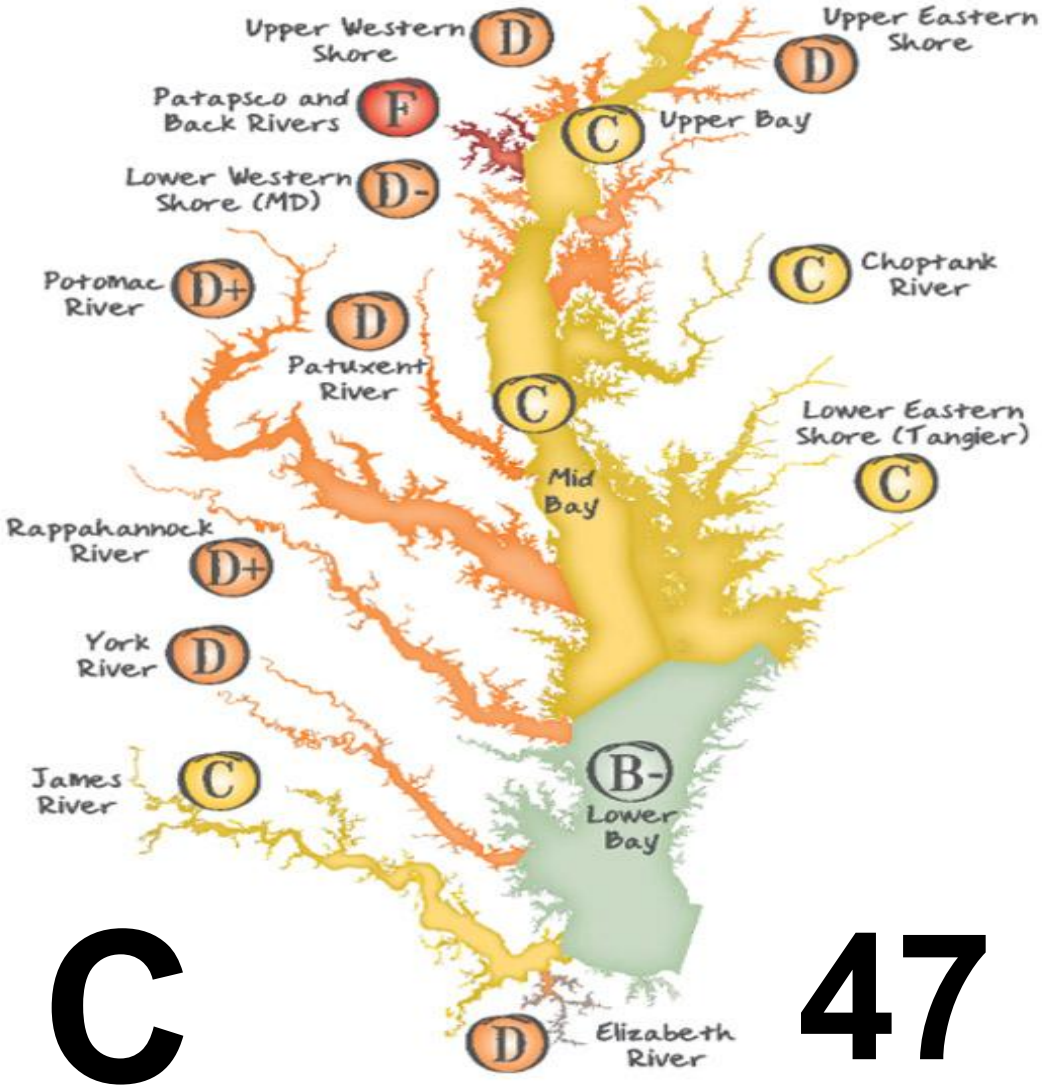


C- 42

2011
Chesapeake Bay Health Report Card



2012
Chesapeake Bay Health Report Card



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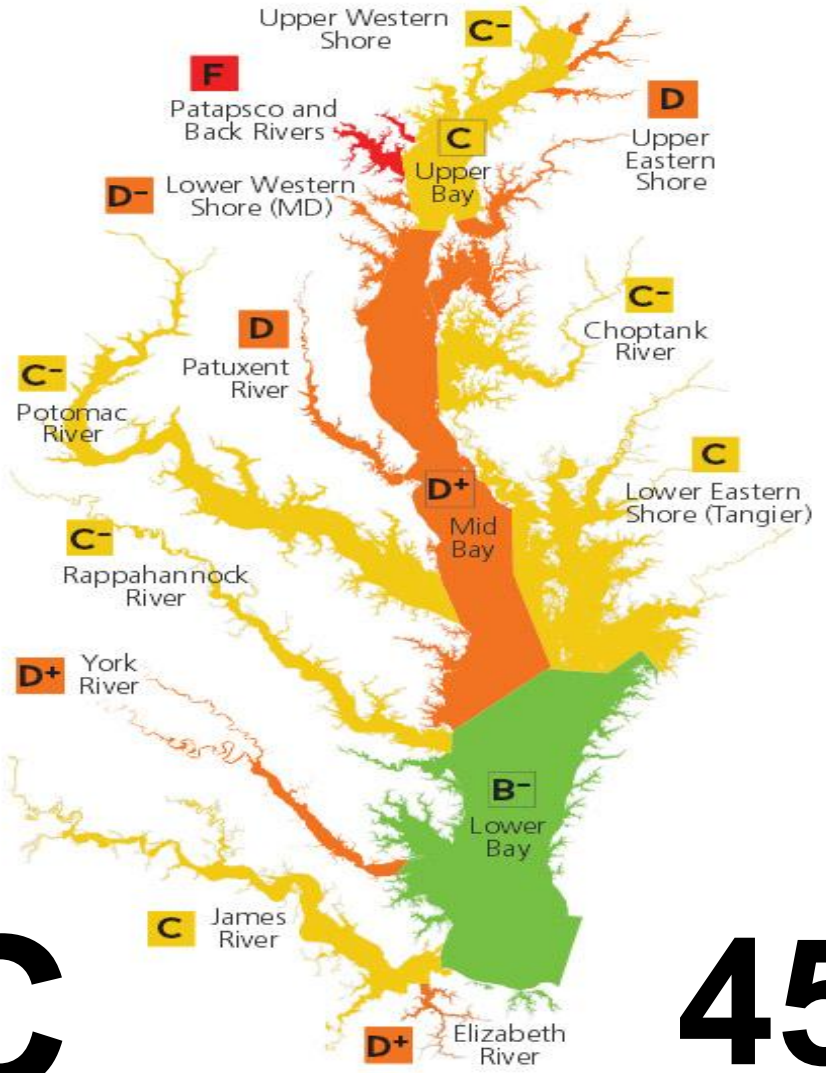
2013
Chesapeake Bay Health Report Card



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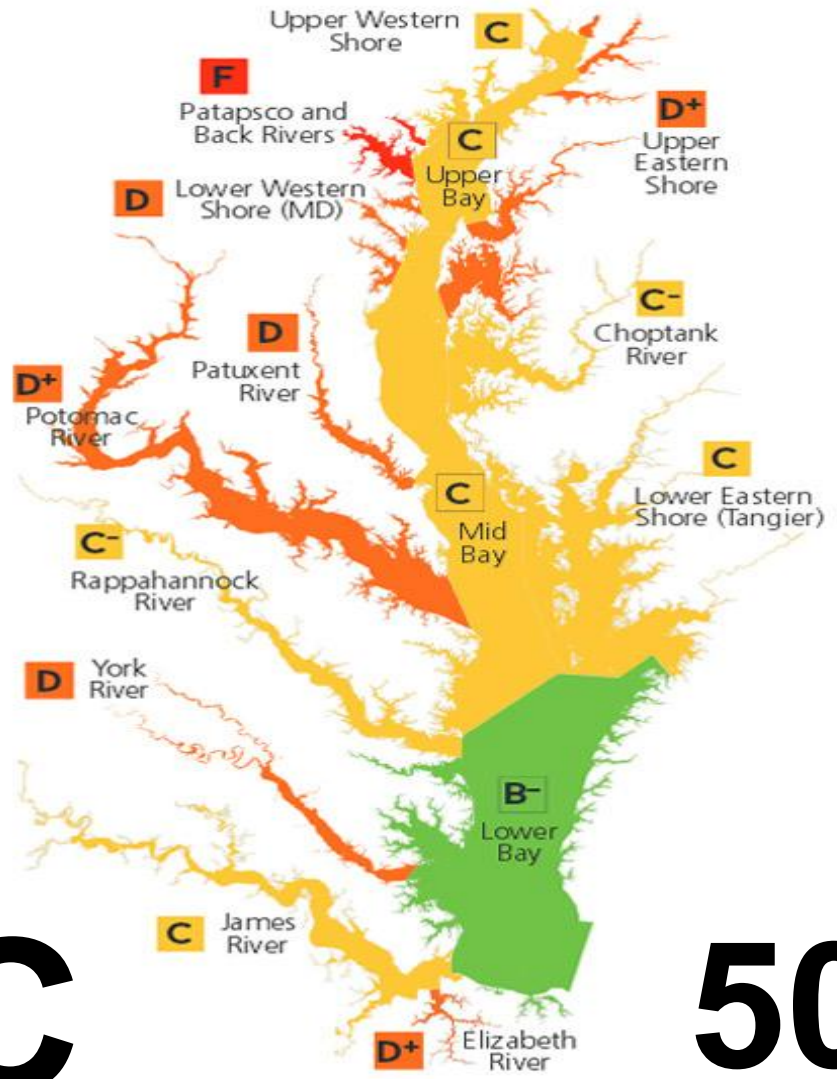
2014
Chesapeake Bay Health Report Card



C

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2015
Chesapeake Bay Health Report Card

C

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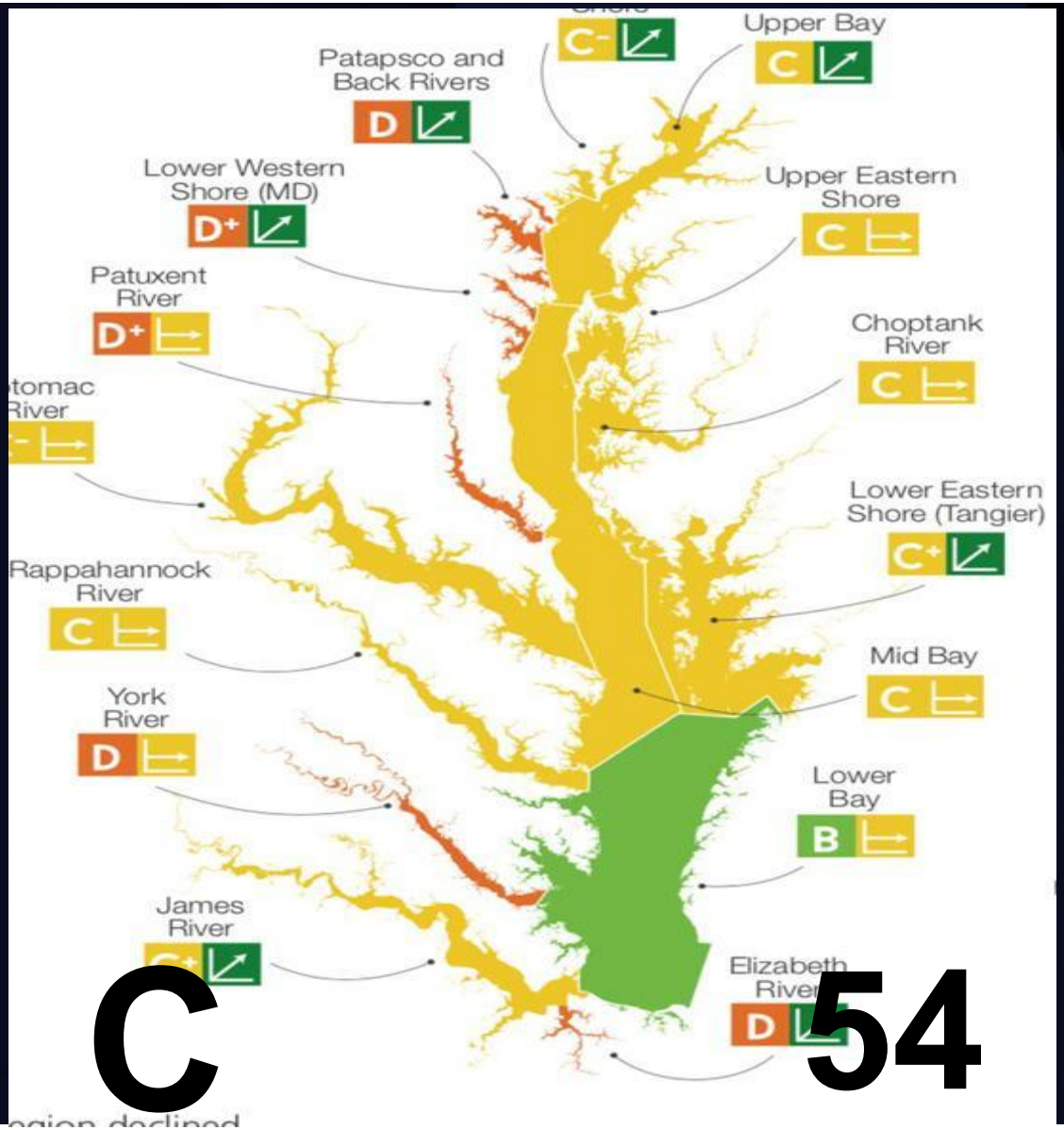
2016
Chesapeake Bay Health Report Card



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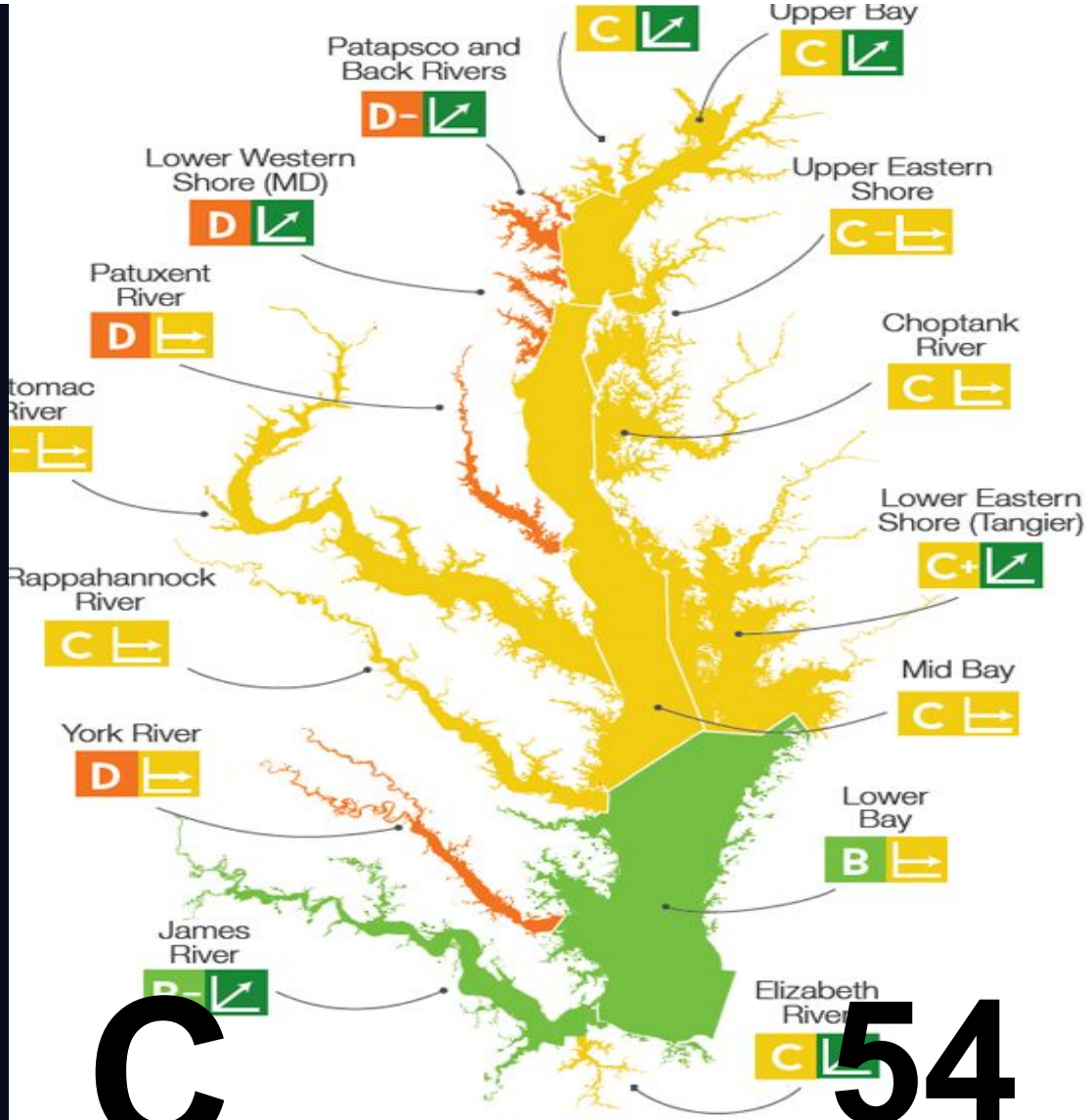
2017 Chesapeake Bay Health Report Card



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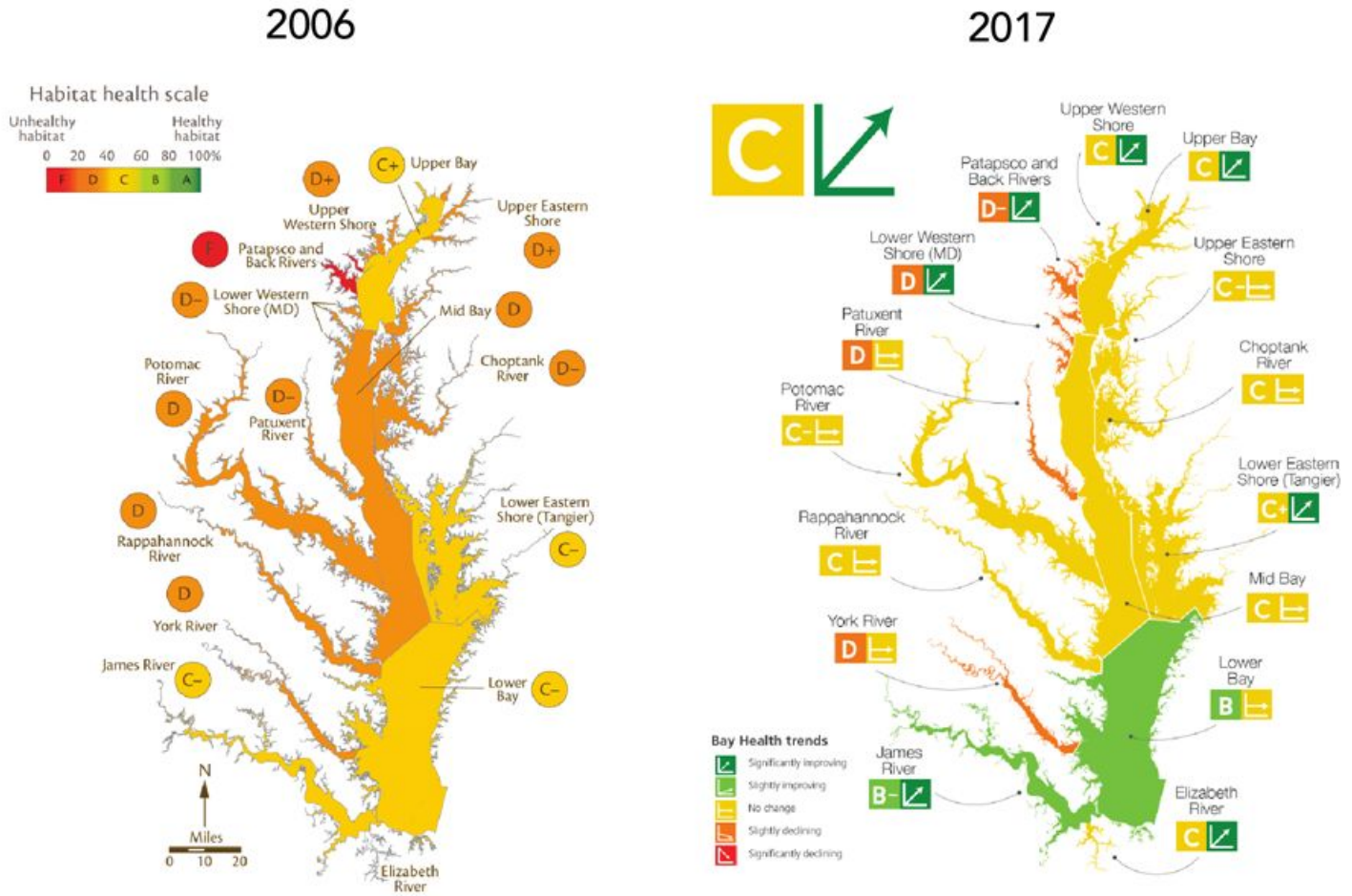


Chesapeake Bay health shows a significantly improving trend despite many pressures on the Bay and its watershed. From 2006 to 2017, the overall average grade improved from a D+ to a C. For more information, visit chesapeakebay.ecoreportcard.org.

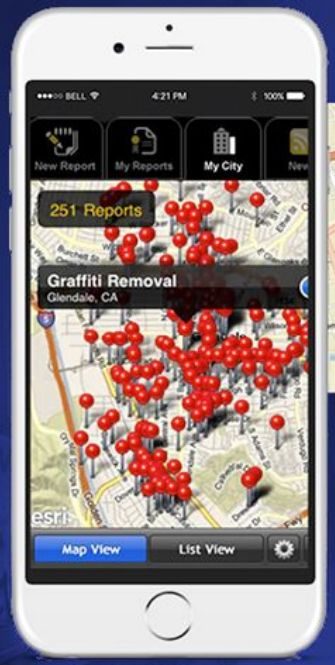
So,...

Embrace a radical commitment to openness and transparency.

Measure Performance to lift up your leaders.

Have the courage to set Public Goals with Deadlines.

Start, and don’t stop.

Getting things done

Citizens Affecting Real Change