

Old Landfills: Racing to a 1st Place Finish in Redevelopment



Nicole Garcia, ASP

Allison Amram, PG

**Environmental Protection Commission of
Hillsborough County**

Establishment of EPC



Chapter 67-1504, Laws of Florida

The Environmental Protection Commission of Hillsborough County (EPC) was created in 1967 by a special act of the Florida Legislature to control and regulate activities which are or may reasonably be expected to cause pollution or contamination of air, water, soil and property, or cause excessive and unnecessary noise.



What is our Purpose?



- ❧ **Mission:** To protect our natural resources, environment, and quality of life in Hillsborough County.
- ❧ **Vision:** Environmental excellence in a changing world.
- ❧ **Values:** Environmental stewardship, integrity, transparency, and accountability
- ❧ **Core Functions:** Citizen Support & Outreach, Ambient Air and Water Quality Monitoring, Permitting, Compliance Assurance, Enforcement

What Makes EPC Unique!



- ☞ Only local Agency in the State enacted by legislation
- ☞ Hillsborough County Commissioners (7) serve in a separate capacity as the Board of EPC
- ☞ Jurisdiction includes unincorporated Hillsborough County, City of Temple Terrace, Plant City, and Tampa
- ☞ 2016 Florida Governor's Sterling Award Recipient (GSA)



Major Permitting Programs Delegated to EPC (15)



- Petroleum Cleanup Program (1987)
- Petroleum Compliance Verification Program (1989)
- Minor Source Industrial Air Permits (1993)
- Asbestos Notification & Inspection Program (1993)
- Title V Major Source Industrial Air Pollution Permits (1995)
- Domestic Wastewater Facility Permits (1995)
- Domestic Wastewater Collection/Transmission Systems Permits (1995)
- Approval of Completion of Construction for Collection/Transmission Permits (1995)
- Industrial Wastewater Facility Permits (2000)
- **Brownfields Redevelopment Program (2004)**
- Mangrove Trimming Permits (2006)
- Professional Mangrove Trimmer Authorization Program (2006)
- Port Tampa Bay Minor Work Permits (2009)
- Single Family Home & Coastal Activities - ERP (2011)
- Army Corp Minor Work Authorizations (2013)

Agency Organizational Chart

Board of the Environmental Protection Commission



Janet Dougherty
Executive Director



Air Mngt Div
Sterlin Woodard, PE
Director



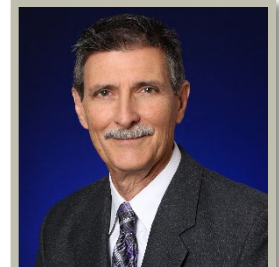
Waste Mngt Div
Hooshang Boostani, PE
Director



Water Mngt Div
Sam Elrabi, PE
Director



Wetlands Mngt Div
Andy Schipfer, PE
Director



Legal Finance & Admin
Richard Tschantz, Esq
Director

Programs for Redevelopment of Old Landfills

Director's Authorization - Required for any construction over waste, or disturbance of waste to ensure public safety and environmental protection.

Brownfields Program - Optional for redevelopment of OLFs. Requires full Chapter 62-780 FAC site rehabilitation, but provides financial incentives and liability protection.

Staff Involved in the Programs

Janet L. Dougherty,
Executive Director

Waste Management Division

Hooshang Boostani, P.E.
Division Director

Ronald Cope, CHMM
Solid Waste Dept Manager
DAs and Brownfields

★ Nicole Garcia, ASP
Old Landfill Program Manager
DAs

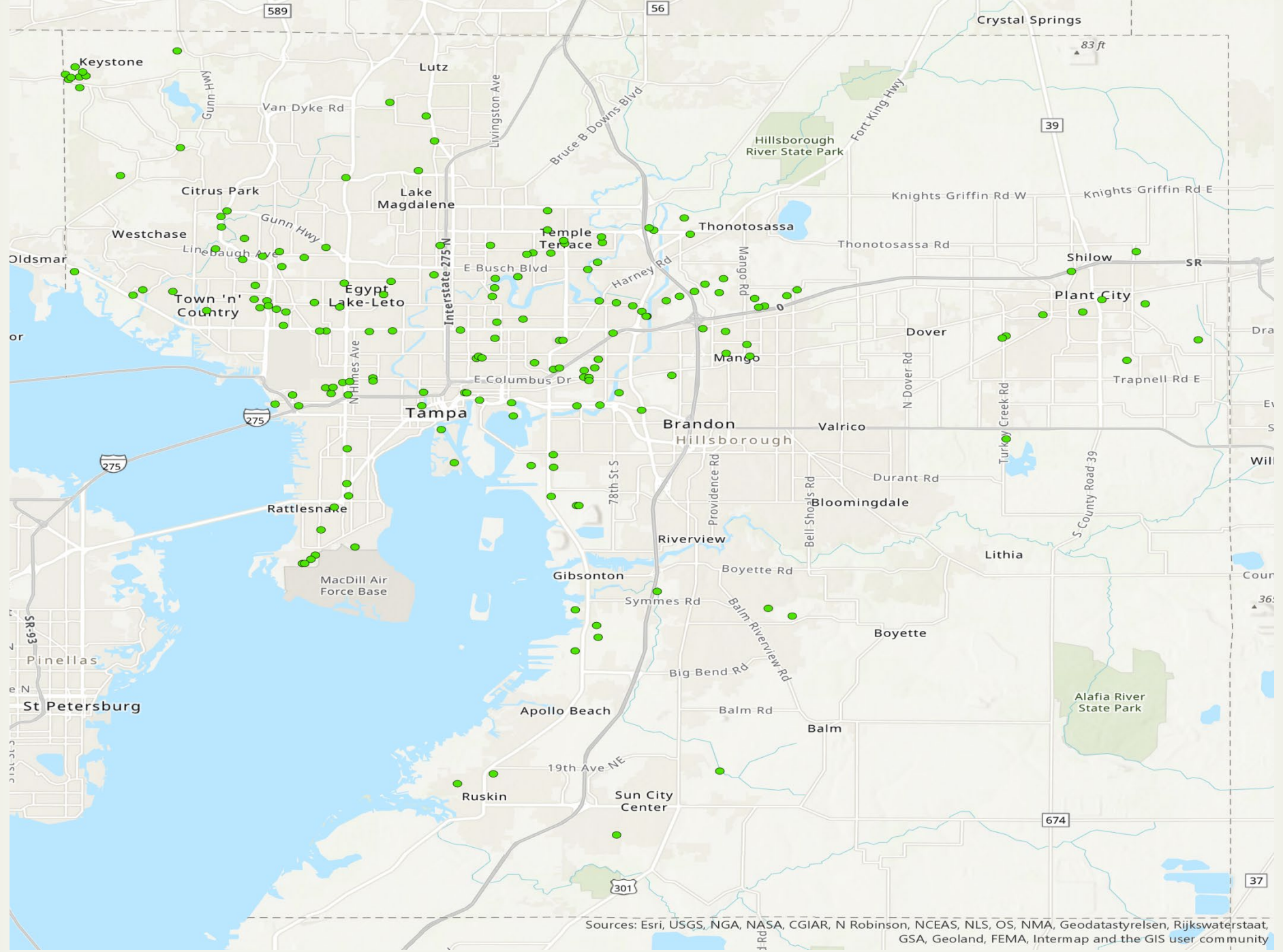
★ Allison Amram, P.G.
Brownfields Coordinator

Administrative & Legal
Services Division

Richard Tschantz
Chief Counsel

Andrew Zodrow,
Sr. Asst. Counsel

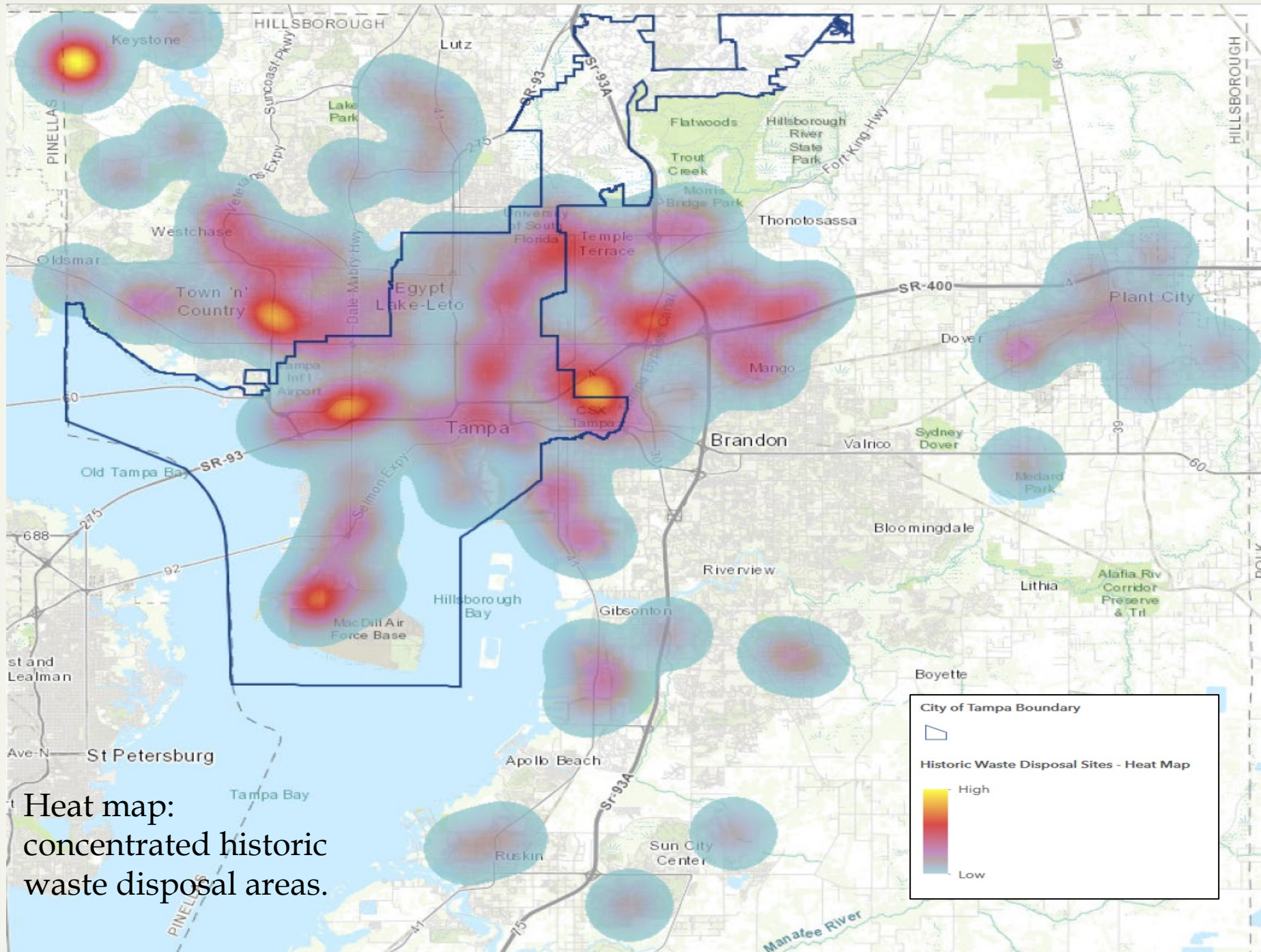




Sources: Esri, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastylelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

Old Landfills: Historic Waste Disposal Areas

- ❧ **Why are there so many OLFs in Hillsborough County?**
(no written regulations, exemptions, uses)
- ❧ **Early 1980s, EPA requested States >Local governments to identify old landfills**
 - 1984 City of Tampa inventory included 49
 - 1984 Hillsborough County inventory included 16
 - 1985 EPC inventory included 98 sites
 - *Additional sites identified through EPC activities
 - *Current inventory includes 176 sites
- ❧ **OLFs were located at the edge of existing development. With growth, OLFs are now prime land for redevelopment**

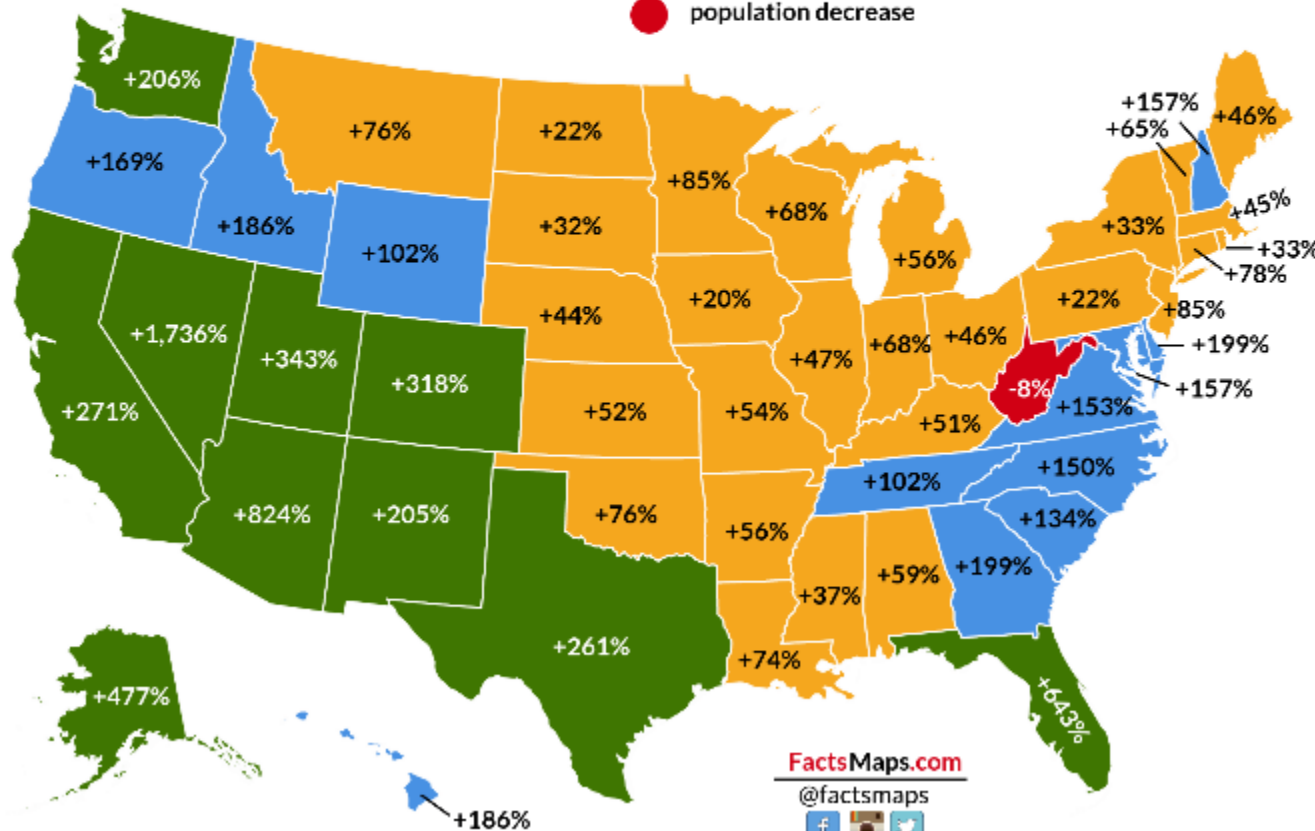


Heat map:
concentrated historic
waste disposal areas.

Why does this matter?

U.S. states by population growth rate 1950-2016

- population growth above 200%
- population growth between 100% and 199%
- population growth between 1% and 99%
- population decrease



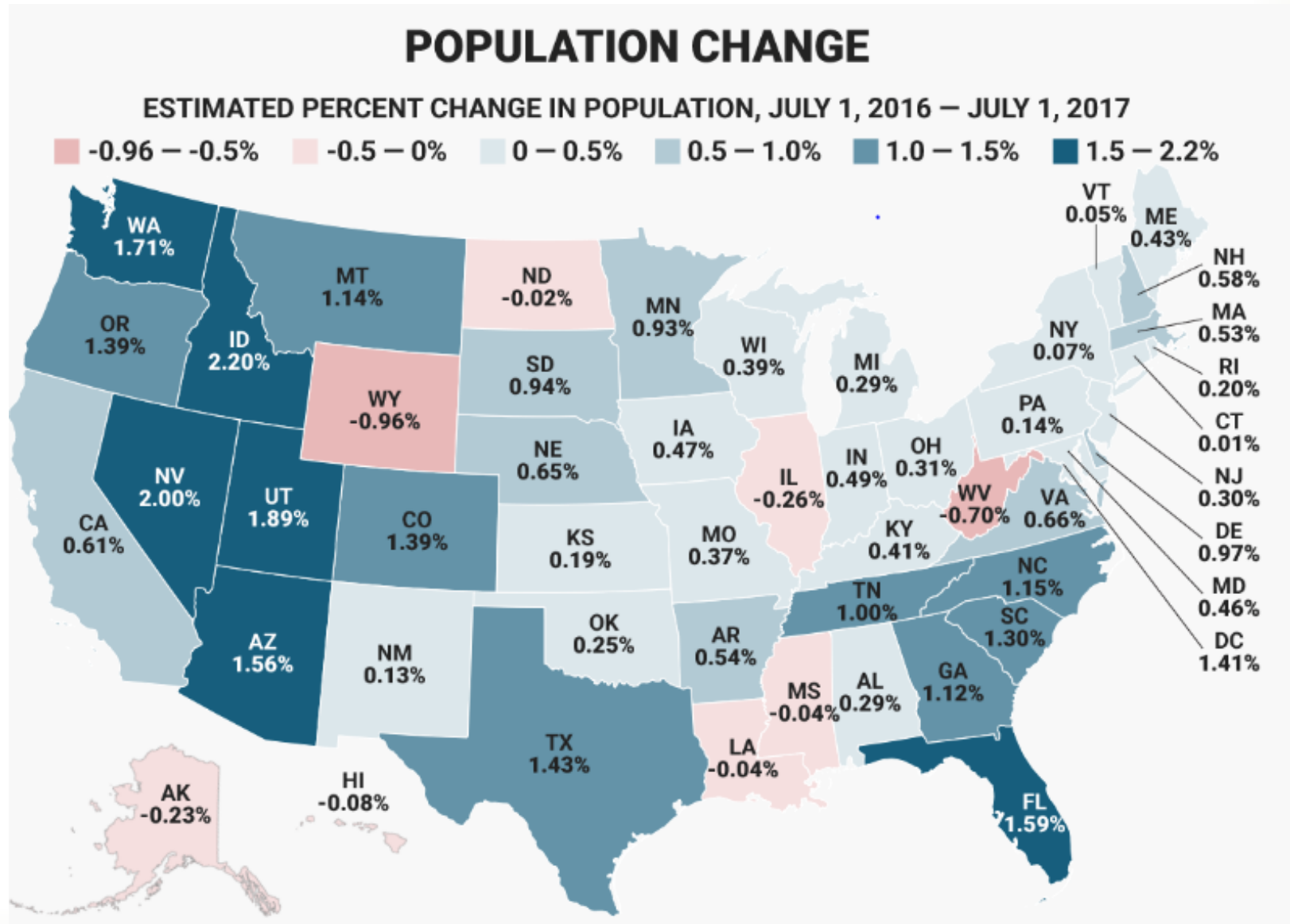
FactsMaps.com

@factsmaps

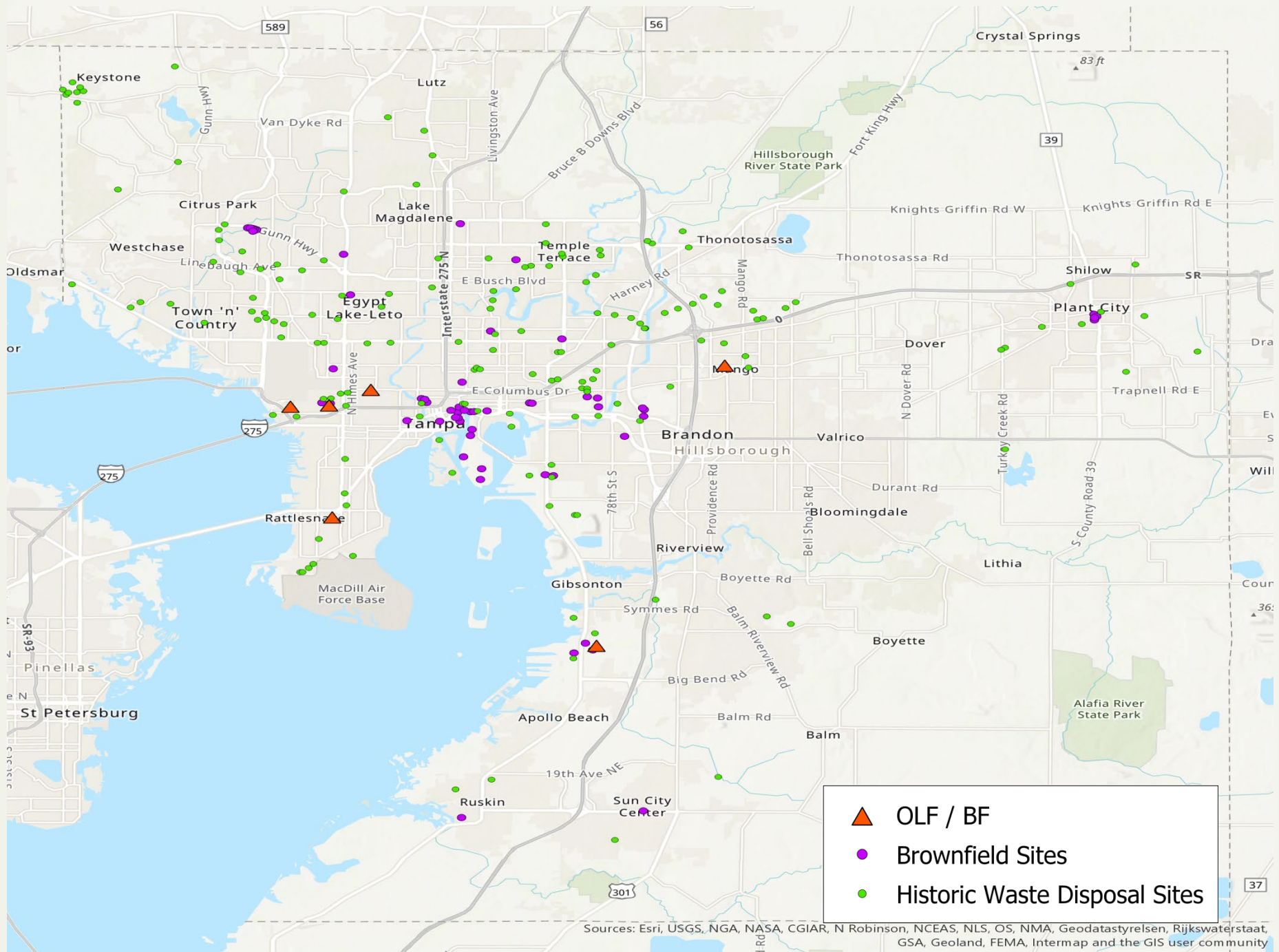


- Nevada +1,736%
- Arizona +824
- Florida +643
- Alaska +477
- Utah +343
- Colorado +318
- California +271
- Texas +261
- Washington +206
- New Mexico +205
- Delaware +199
- Georgia +199
- Hawaii +186
- Idaho +186
- Oregon +169
- Maryland +157
- Virginia +153
- New Hampshire +150
- North Carolina +150
- South Carolina +134
- Tennessee +102
- Wyoming +102
- Minnesota +85
- New Jersey +85
- Connecticut +78
- Montana +76
- Oklahoma +76
- Louisiana +74
- Indiana +68
- Wisconsin +68
- Vermont +65
- Alabama +59
- Arkansas +56
- Michigan +56
- Missouri +54
- Kansas +52
- Kentucky +51
- Illinois +47
- Maine +46
- Ohio +46
- Massachusetts +45
- Nebraska +44
- Mississippi +37
- New York +33
- Rhode Island +33
- South Dakota +32
- North Dakota +22
- Pennsylvania +22
- Louisiana +20

Urban infill redevelopment makes sense!



Source: U.S. Census Bureau



	OLF / BF
	Brownfield Sites
	Historic Waste Disposal Sites

Sources: Esri, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

What's involved for a Director's Authorization OLF Redevelopment?

- ☞ **D.A. is Required in Hillsborough County.**
- ☞ EPC Rules 1-1 , 1-6, and 1-7
- ☞ Historic Solid Waste Disposal Area” means a property, group of properties, portion of property or localized area at which solid waste is disposed through burial and for which **no federal, State or local permit for such disposal had been obtained or had been required at the time of solid waste disposal or at the time of site closure or completion.**
- ☞ “Old Landfill” is a term commonly used and has the same meaning as “Historic Solid Waste Disposal Area”.
- ☞ Recovered Screen Material (RSM) the fines and/or soils fraction of the material generated through the screening or processing of excavated solid waste or construction and demolition debris.
- ☞ 1st step: Define proposed project

Chapter 1-7 Rules of the Environmental Protection Commission allows and encourages redevelopment of Old Landfill sites but requires appropriate environmental safeguards, controls and monitoring.



RSM Reuse

- material characterization required
- groundwater impacts prevented
- direct exposure controlled
- landfill generated gas mitigated

Landfill Gas Mitigation

- required in 100% of redevelopment projects

Structural Considerations

- slab integrity ensured
- sealed/protected slab (LFG)

Cover/Impervious Cap

- impacted soils controlled
- RSM controlled
- waste left in place controlled

Storm Water Design

- no uncontrolled impoundment
- waste removal required
- lined ponds/sealed vaults required
- plastic or impervious conveyance piping required

Restrictive Covenants

- Required in 99% of redevelopment projects

Examples of Engineering Controls



Examples of Engineering Controls



Why's this important?

Potential hazards from not addressing LFG

Settlement & Buckling issues



Pool house: cracks, outside shower area



LFG Explosion Hazards



Unexpected Complications



Site Specifics of a Hillsborough County Park



- ❖ Site inspection revealed historic debris warranting further site investigation
- ❖ Soil Analyses confirmed As, Ba, [B(a)P], B(a)P equivalents > SCTLs
- ❖ Groundwater analyses confirmed Iron > GCTL

Happy Endings to a Successful Redevelopment



What does the Florida Brownfields Program offer for OLF redevelopment?



Incentives!!

- Financial incentives and liability protection
- Site Rehabilitation Completion Order (SRCO) goal for contaminated sites



BUT...

Must complete Ch. 62-780 site rehabilitation!!

Financial Incentives – VCTC

“Voluntary Cleanup Tax Credits”



Solid Waste Incentive

VCTC = 50% of these costs, capped at \$500,000

Removal → Processing → Transportation → Disposal

To qualify, need to show that the OLF was never permitted, never operated for money. Rule reference: ***FS 376.30781(3)(e)***

VCTCs are issued as credit for Florida's Corporate Income Tax

INTERNATIONAL PLAZA

BOY SCOUT BLVD.

N. LOIS AVE.

W. SPRUCE ST.

N. MANHATTAN AVE.

15 OLD LANDFILL
REDEVELOPMENT
PROJECTS

3 BROWNFIELDS
REDEVELOPMENT
SITES



Google earth

Varela Brownfield Site Spruce & Clark Streets

∞ DA started
November
2002; new
DA 2007

∞ Brownfield
program
entered
December
2008



Varela: Good Outcomes

- **From the DA:** Safe redevelopment
- **From the BF:** SRCO with conditions, VCTCs for solid waste removal and site rehabilitation; liability protection



Varela: Not-As-Good Outcomes

No VCTC for Engineering Controls because the RSM was not characterized (tested)



Redeveloped: Varela Apartments



Spruce Street Brownfield Site

DA and BF in
2014

- All Solid Waste Removed
- No RSM used
- 3.5 acres landfill surrounded by landfill



Spruce Street Brownfield Site

Landfill gas vents
to prevent intrusion
from waste left on
adjacent parcels



Contaminated Site Definition



A “*Contaminated Site*” means any contiguous land, sediment, surface water or groundwater areas that contain contaminants that may be harmful to human health or the environment.

FS 376.79(6)



Spruce Street Redeveloped: Novus Westshore Apartments



Former Tampa Jai Alai



Former Tampa Jai Alai



☞ Site grading, former Tampa Jai Alai

☞ Waste removed and processed; land surface elevated more than 2 feet.



RSM Layout and Engineering Controls



EPC's Authorization vs. Brownfields Program

Director's Authorization

- ❧ **Required** for development of solid waste impacted properties
- ❧ Onsite assessment only – not a cleanup program
- ❧ Landfill gas systems and monitoring are required
- ❧ No Closure Order issued, no liability protection

Brownfields Program

- ❧ **Optional** for redevelopment over solid waste
- ❧ Must do 62-780 assessment; may go offsite. May be more \$\$ and longer time frame than DA.
- ❧ Sign a BSRA, get Brownfield benefits – VCTC for up to \$500K for waste removal
- ❧ VCTC only available for EC for documented contamination
- ❧ SRCO issued; liability protection
- ❧ No monitoring after SRCO

Why sign a BSRA for an OLF??

- ∞ Liability protection
- ∞ VCTC for Solid Waste Removal, Site Assessment and placement of Engineering Controls

When does it REALLY Pay Off?

- ∞ When your Brownfield site includes the entire former solid waste disposal area
- ∞ When you remove solid waste
- ∞ When you don't have to chase groundwater contamination offsite.



Old Landfill Redevelopment Project Flow in Hillsborough County



- ❧ Know that each site has different conditions of concern
- ❧ Be in the KNOW-- Contact EPC with Redevelopment proposal for old landfill area
- ❧ Meet with EPC to discuss Pros & Cons for the DA and BF programs
- ❧ Check to who will manage the Brownfields program-EPC or DEP
- ❧ Consider using both programs to meet your specific redevelopment plans.





Questions?

Old Landfill Redevelopment

Nicole D. Garcia, ASP, MPH
(813) 627-2600 x 1296
garcian@epchc.org

Brownfields and Site Rehabilitation

Allison Amram, P.G.
(813) 627-2600 x 1294
amrama@epchc.org

Visit us at www.epchc.org

*Old Landfills- Racing to a 1st Place Finish in
Redevelopment*



*On behalf of EPC of Hillsborough County,
Thank you!*