



# Building Climate Resilience in Your Community

Session 3.10

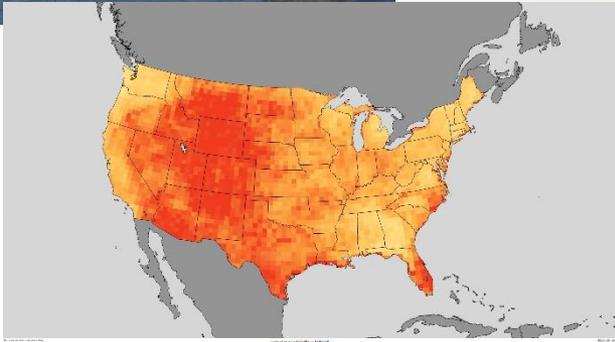
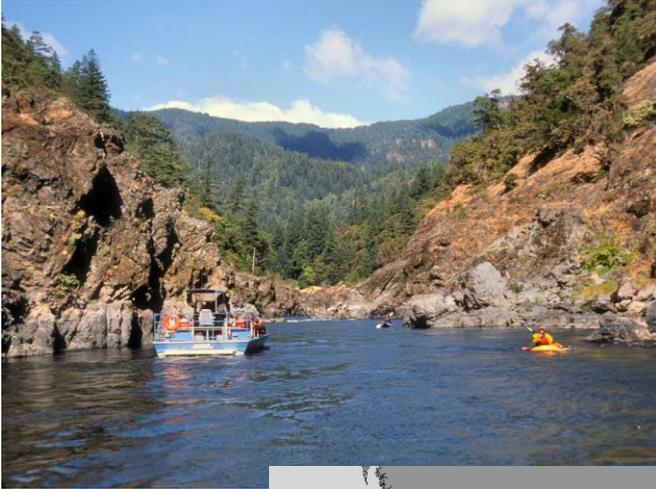
April 20, 2018

Tonya Graham  
Executive Director



Geos Institute:  
Working to keep human and natural  
communities whole in the face of  
climate change

# What have you noticed?



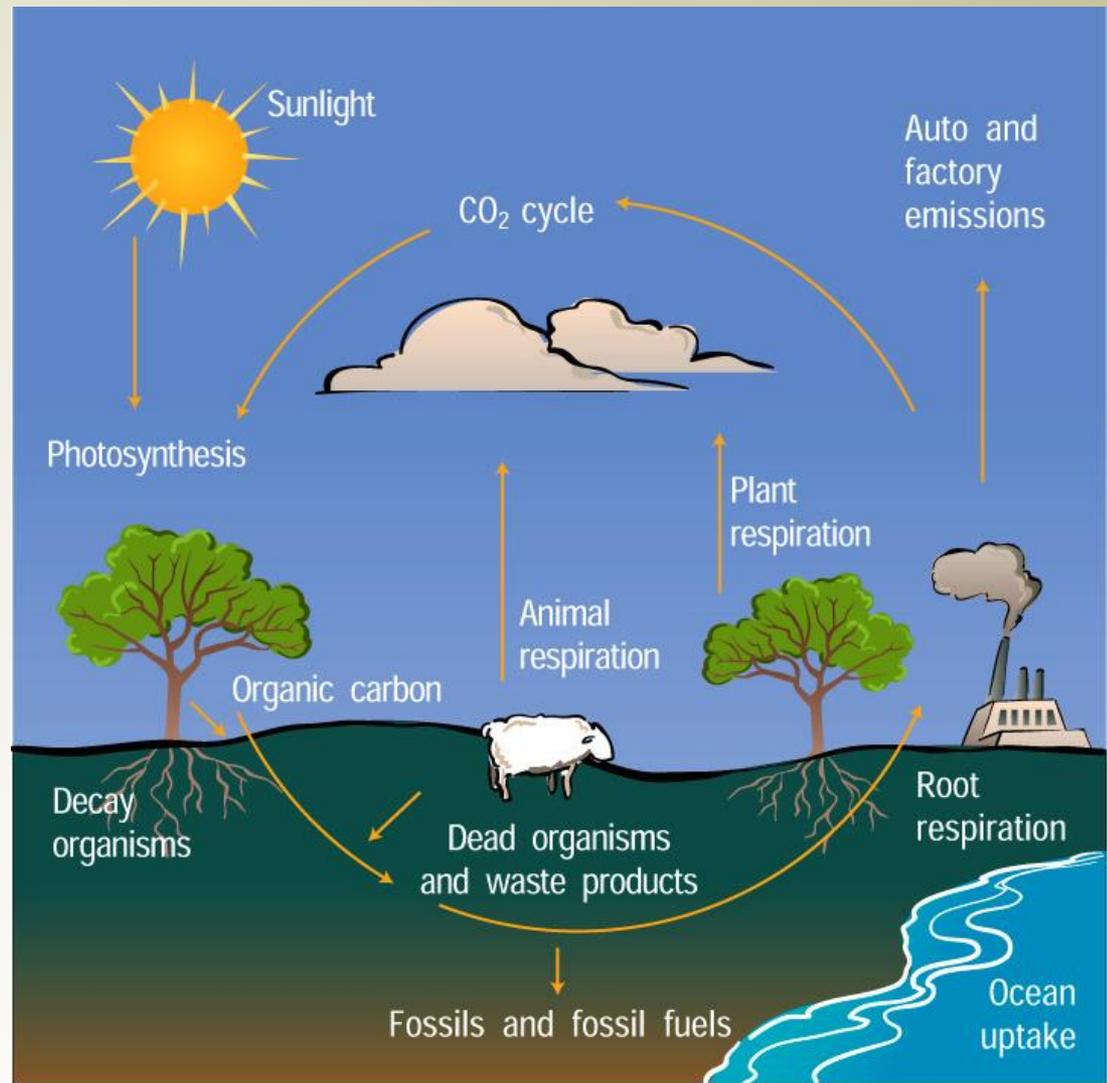
# Weather and Climate



**Trivia Question:** 16 of the 17 warmest years on record have occurred since what year?

**Answer:** 2001

# Greenhouse gases - why we love them



University Corporation for Atmospheric Research

Trivia Question: How many parts per million of carbon dioxide did we have on average in the atmosphere for the last 2,000 years?

Answer: 280

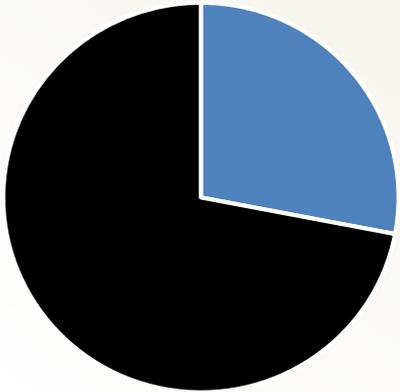
Trivia Question: How many parts per million of carbon dioxide do we have now?

Answer: 410

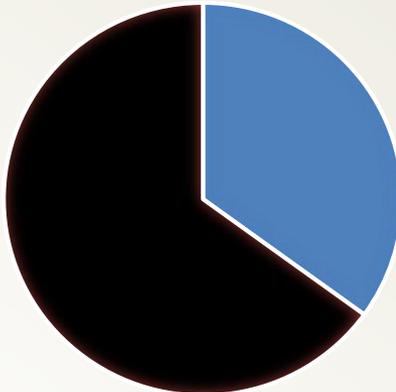
Trivia Question: How many parts per million of carbon dioxide can we have if we are ensure a safe climate?

Answer: 350

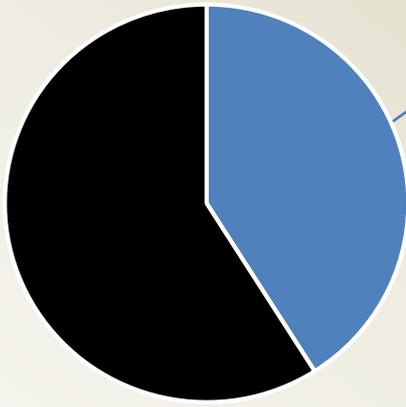
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Historic – 280 ppm



Safe – 350 ppm



Current – 410 ppm

**Black:** Other Gases **Blue:** Carbon Dioxide

# Why does a few degrees matter?



Is 410 really all that bad?

# Responses to Climate Change

Mitigation: brakes

Adaptation/Resilience: airbag



# The GOOD News!

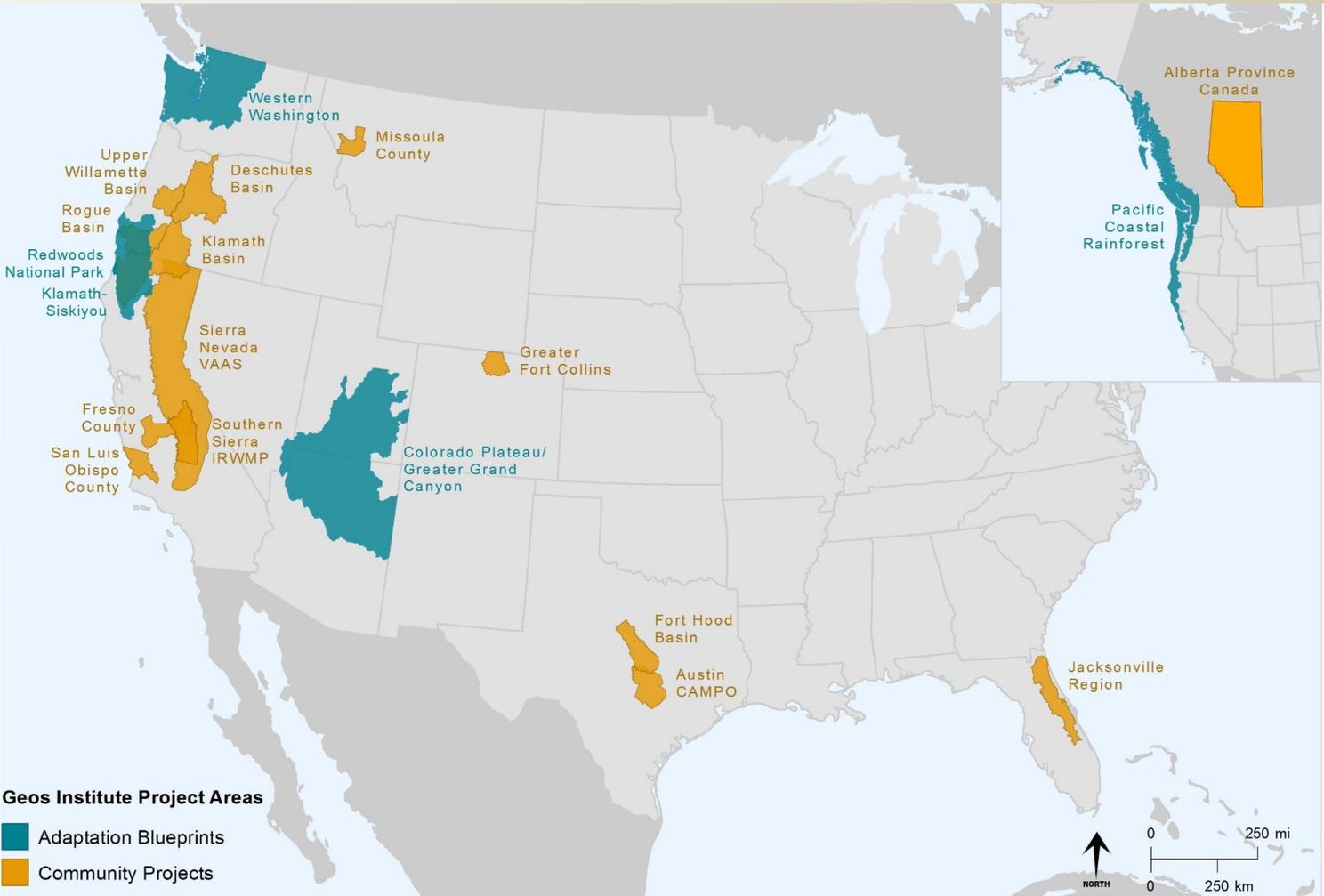
We already know what we need to know to address climate change.

# ClimateWise® Initiative



**Long-term Vision:** Communities across the country are responding to the threat of climate change by reducing emissions and adapting in ways that are effective and beneficial over the long-term for people and nature.

# ClimateWise® Initiative







# Cleveland Climate Action

## Building Thriving and Healthy Neighborhoods

April 20, 2018

NFBPA, Track/Session: 3.10

Session Title: Building Climate Resilience in Your Community



Matt Gray  
Chief of Sustainability  
City of Cleveland

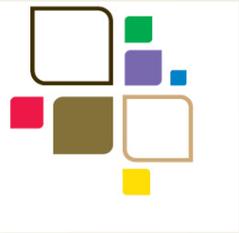


# 1969

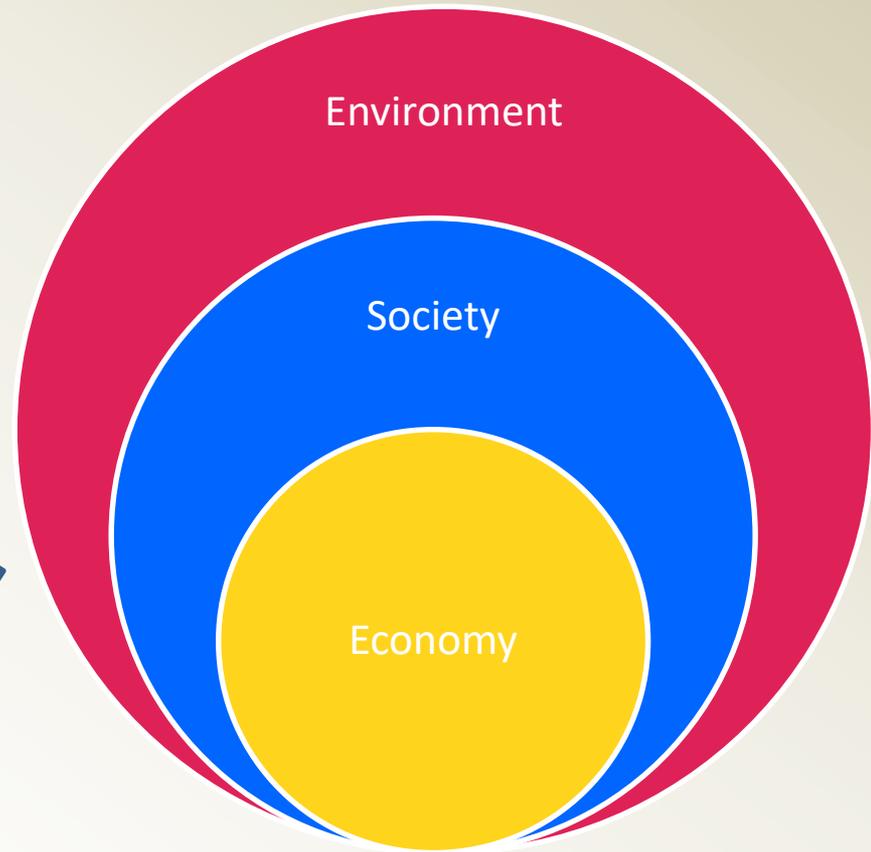
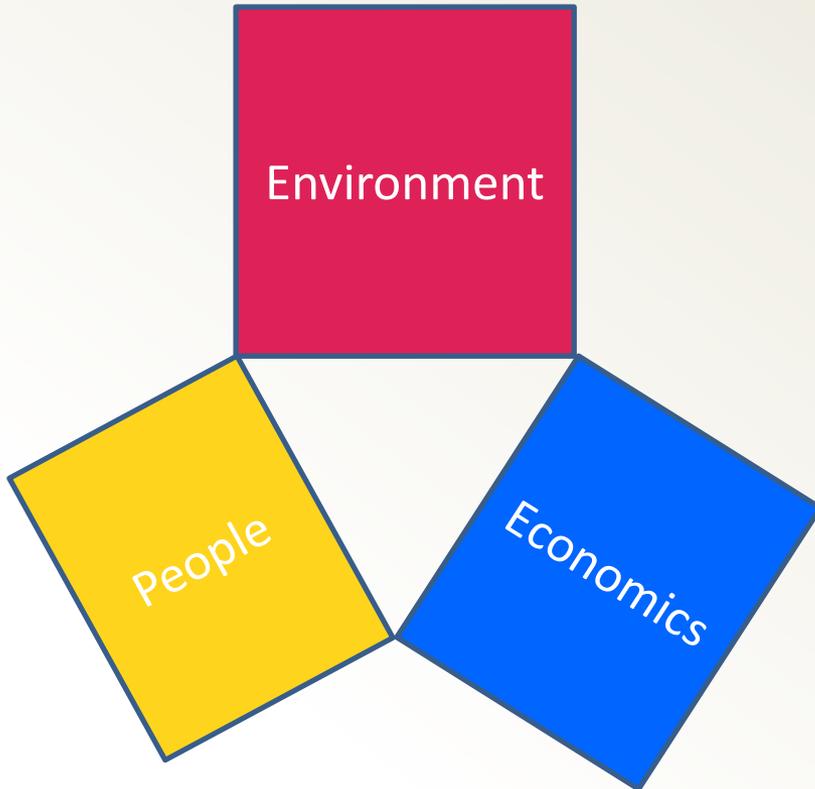


# 2019: Surprise and Amaze with our Transformation



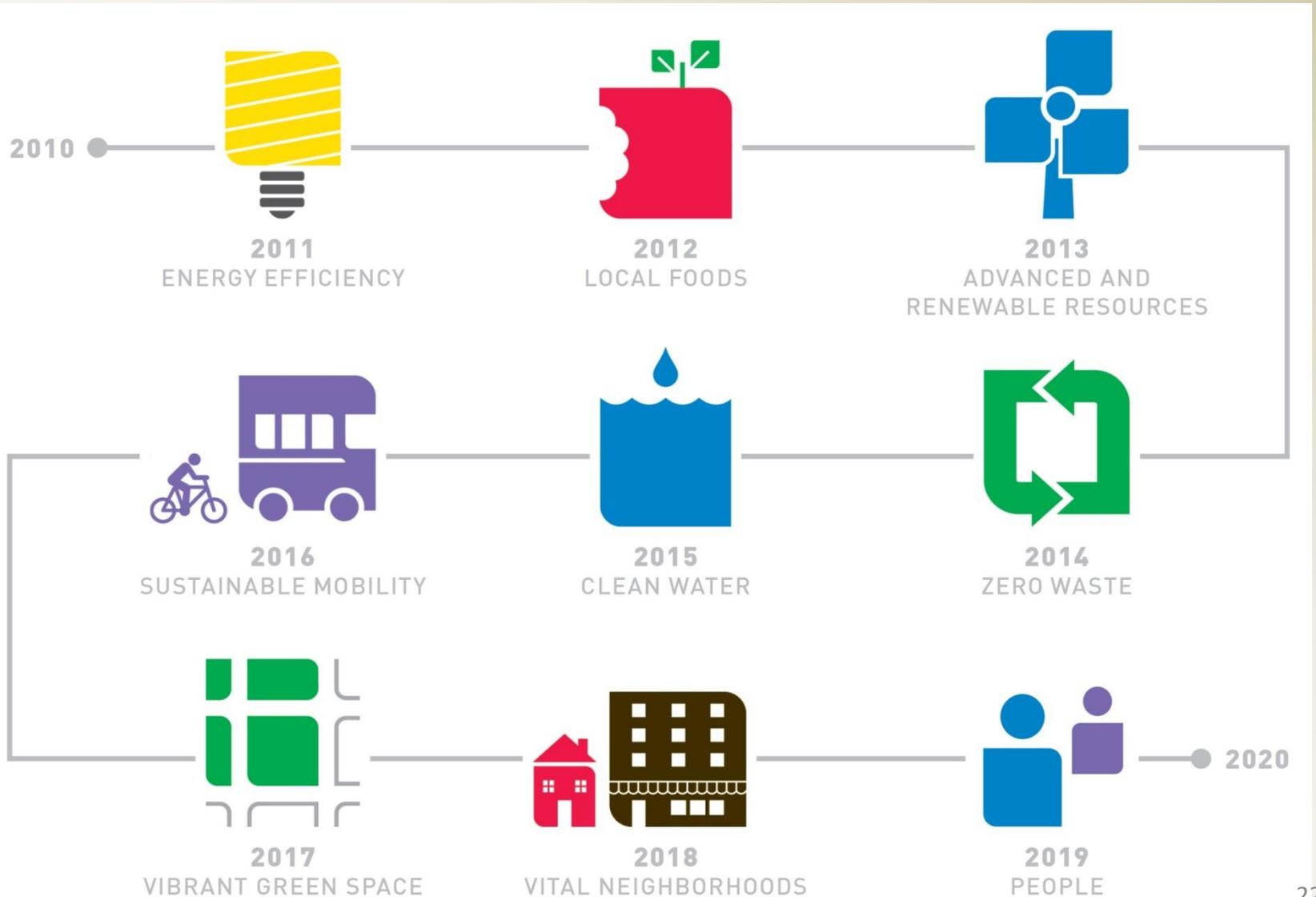


# Triple Bottom Line Thinking



A sustainable economy integrates the goals of economic prosperity, environmental health and social vitality.

# Celebration Years



# SustainableCleveland.org Performance Indicators



ABOUT ▾

YEAR OF SUSTAINABLE TRANSPORTATION

LEARN MORE ▾

DO MORE ▾

STAY UPDATED ▾

## 1 CHOOSE AN ENVIRONMENT



Business



Personal/  
Social



Built



Natural

Sustainable Cleveland Engagement

Summit Participants

Working Groups

Education

Population

Health

Cost Of Living

Local/National Recognition

## Health

When we create a sustainable community, we create a place where people can be healthier. For this reason, many of the actions in the [Cleveland Climate Action Plan](#) were prioritized for improving health outcomes. This indicator tracks life expectancy, adults reporting poor/fair health, obesity, population in food deserts, and asthma.

Source: Compiled by Cuyahoga County – more info at [www.healthdatamatters.org/health-overview](http://www.healthdatamatters.org/health-overview)

	U.S.	Cuyahoga	Cleveland
Life expectancy, years	79	78	74
Adults reporting poor/fair health, %	15	15	27
Obese adults, %	38	26	35
Population in food deserts, %	10	25	56
Asthma, %	9	10	14

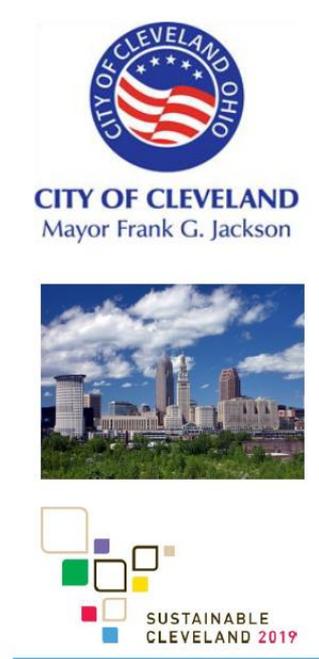
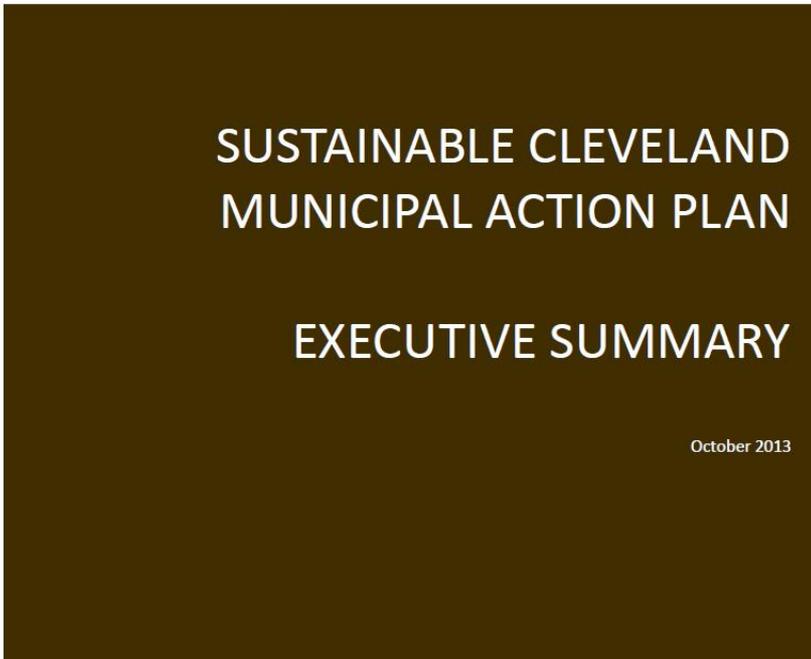
(All data from 2009, 2010)

■ Worse than the U.S.  
■ Better or same as the U.S.



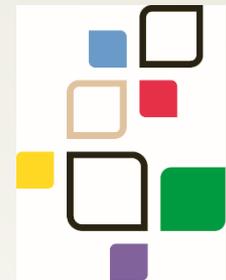
33  
Actions

25  
Actions



# Cleveland Climate Action Plan Update

- **Title:** Equitable Climate Action in Cleveland: Building Thriving, Healthy, and Resilient Neighborhoods
- **Project Goal:** Improve outcomes in health, access to green jobs, resiliency, and engagement through equitable climate action.
- **Context:** Paris Agreement, Growing Inequality, Local Progress & Challenges
- **Cross-Cutting Priorities:**
  - Equity and Neighborhood Engagement
  - Climate & Social Vulnerability
  - Green Jobs and Workforce Development
  - Corporate Environmental and Social Governance
  - Data & Indicators



# 28 CAP Objectives



at HOME



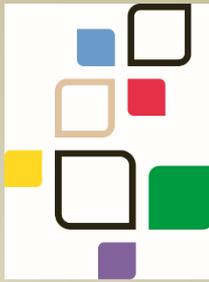
at WORK



in your COMMUNITY

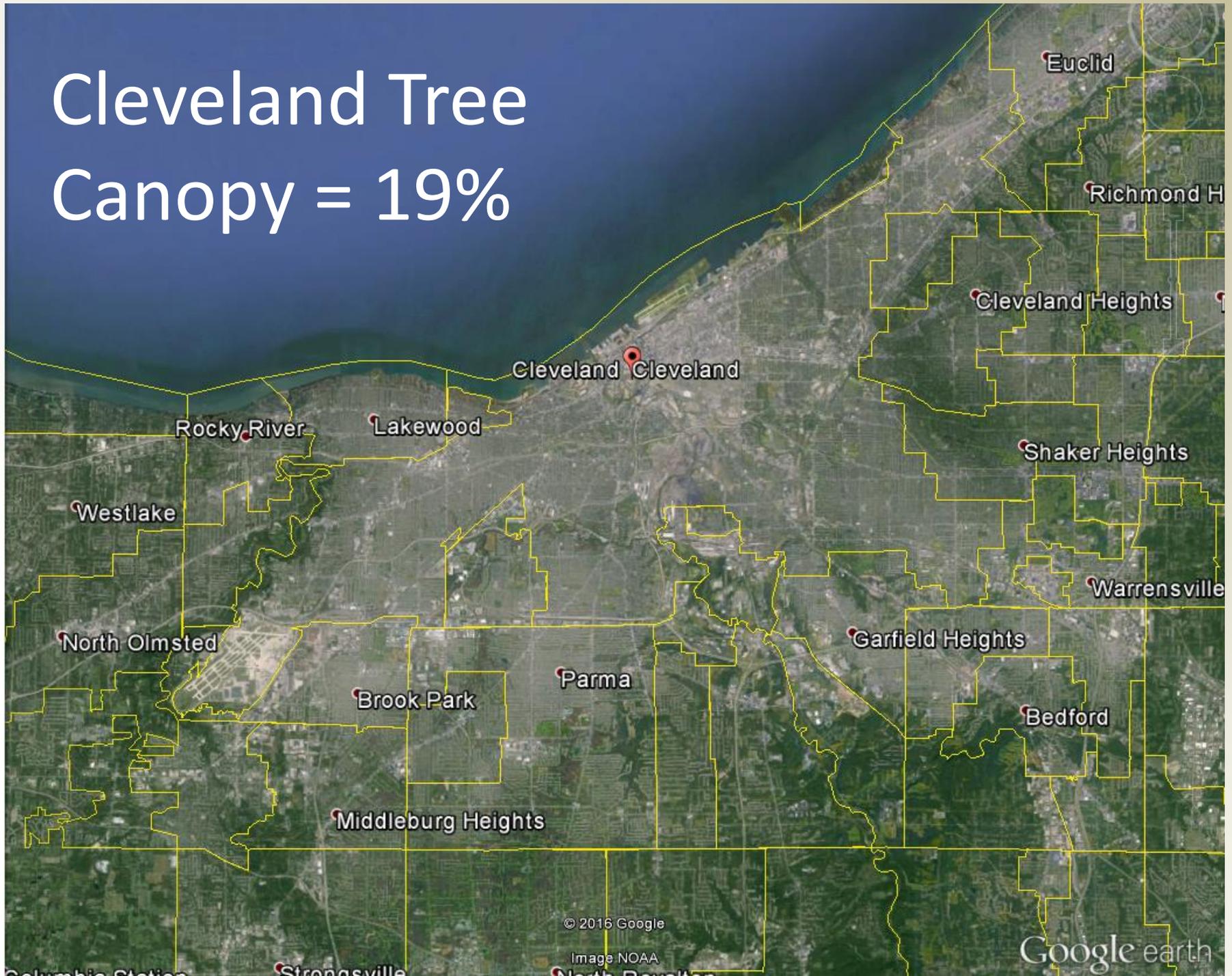
Focus Area	# of Obj.
Energy Efficiency & Green Building	4
Advanced & Renewable Energy	6
Sustainable Mobility	5
More Local Food, Less Waste	3
Green Space & Clean Water	6
Cross-Cutting Objectives	4

# CLIMATE ACTION ADVISORY COMMITTEE





# Cleveland Tree Canopy = 19%



# Planting with a Purpose

Neighborhoods	HIGH NEED	MEDIUM NEED	LOW NEED	Socio-Economic Factors				Risk of Stormwater Runoff Ranking	Energy Savings	Urban Heat Island Ranking	Human Health			Increases in Property Value from Canopy	Median Household Income
	Canopy Cover	Relative Canopy Cover	Population Density (pp per sq mi)	% of Workforce Unemployed	Child Poverty Rate	Combined Needs/Equity Ranking	Value of Air Quality Benefits from Trees				Population with Asthma	% Elderly Population			
Bellaire-Puritas	15%	21%	1,242	16%	33%	9	21	\$114,537	6	\$49,269	11%	21%	\$168,371	\$32,861	
Broadway-Slavic Village	18%	25%	921	29%	35%	20	24	\$205,774	15	\$79,590	11%	16%	\$252,807	\$23,332	
Brooklyn Centre	24%	32%	4,476	19%	39%	24	22	\$78,192	18	\$33,720	13%	14%	\$89,266	\$27,152	
Buckeye-Shaker Square	25%	35%	9,052	13%	26%	13	3	\$70,632	34	\$28,101	14%	23%	\$108,067	\$31,191	
Buckeye-Woodhill	24%	33%	5,036	41%	47%	34	5	\$46,395	24	\$28,333	14%	21%	\$96,566	\$15,013	
Central	13%	18%	2,036	41%	50%	32	7	\$13,683	8	\$28,981	14%	12%	\$66,759	\$10,258	
Clark-Fulton	20%	29%	8,630	26%	36%	26	9	\$71,804	19	\$17,893	13%	15%	\$57,919	\$26,456	
Collinwood-Nottingham	14%	19%	1,197	22%	34%	12	19	\$76,410	5	\$42,312	11%	19%	\$149,325	\$27,168	
Cudell	16%	24%	7,625	23%	37%	27	14	\$46,520	7	\$16,572	15%	11%	\$58,637	\$24,082	
Cuyahoga Valley	5%	7%	354	17%	36%	7	33	\$3,908	2	\$17,831	15%	9%	\$18,802	\$19,811	
Detroit Shoreway	19%	27%	4,295	18%	29%	16	16	\$67,157	22	\$26,864	15%	17%	\$80,934	\$24,430	
Downtown	4%	8%	1,257	13%	10%	3	32	\$353	3	\$10,891	14%	9%	\$12,613	\$37,393	
Edgewater	30%	40%	8,850	10%	21%	8	25	\$43,748	30	\$23,429	15%	14%	\$76,371	\$32,405	
Euclid-Green	39%	50%	4,125	18%	33%	11	31	\$75,405	23	\$42,556	11%	18	\$197,542	\$41,660	
Fairfax	18%	25%	2,210	28%	44%	22	10	\$42,307	14	\$27,195	14%	32%	\$95,162	\$19,934	
Glenville	26%	35%	1,800	20%	39%	29	18	\$323,668	28	\$94,394	11%	28%	\$321,309	\$20,998	
Goodrich-Kirtland Park	8%	15%	1,381	14%	28%	4	27	\$9,224	4	\$13,696	14%	23%	\$25,930	\$24,092	
Airport (Hopkins)	9%	17%	165	18%	49%	14	34	\$10,701	1	\$33,850	11%	22%	\$39,735	\$33,310	
Hough	24%	33%	4,631	28%	43%	33	8	\$97,169	31	\$39,018	14%	26%	\$157,976	\$22,223	
Jefferson	17%	24%	2,346	12%	38%	18	4	\$171,045	11	\$42,664	11%	18%	\$142,677	\$40,560	
Kamm's	34%	44%	1,027	10%	26%	5	28	\$403,185	29	\$160,761	11%	20%	\$459,043	\$49,377	
Kinsman	22%	29%	2,871	32%	45%	30	1	\$49,363	16	\$34,805	14%	23%	\$111,817	\$13,899	
Lee-Harvard	20%	26%	3,605	20%	37%	21	2	\$134,957	32	\$31,222	11%	41%	\$109,730	\$39,142	
Lee-Seville	21%	26%	2,421	30%	33%	17	26	\$67,533	10	\$28,020	11%	35%	\$102,304	\$35,563	
Mount Pleasant	22%	31%	3,348	25%	35%	23	6	\$162,431	33	\$46,822	11%	26%	\$192,622	\$23,772	
North Shore Collinwood	22%	31%	2,977	17%	30%	15	20	\$123,889	26	\$48,065	11%	22%	\$177,095	\$36,293	
Ohio City	22%	34%	5,180	14%	32%	10	13	\$42,323	21	\$23,657	15%	13%	\$63,575	\$20,655	
Old Brooklyn	22%	29%	961	12%	31%	6	23	\$358,912	17	\$126,266	13%	20%	\$350,141	\$40,890	
St. Clair-Superior	19%	27%	2,519	28%	34%	19	29	\$57,261	12	\$29,723	14%	18%	\$84,734	\$21,434	
Stockyards	16%	22%	3,755	27%	37%	25	12	\$64,264	13	\$25,501	13%	17%	\$75,968	\$22,896	
Tremont	17%	24%	1,987	9%	26%	1	15	\$33,937	9	\$26,154	15%	14%	\$68,706	\$25,994	
Union-Miles	22%	29%	1,849	30%	40%	31	17	\$255,206	25	\$66,627	11%	30%	\$263,988	\$25,973	
University	26%	38%	2,675	10%	6%	2	30	\$16,822	20	\$37,833	14%	22%	\$61,769	\$10,609	
West Boulevard	20%	29%	5,287	18%	36%	28	11	\$145,758	27	\$36,801	13%	14%	\$131,073	\$33,659	

# Some Next Steps on Climate and Equity

- Make bike share more equitable
- DOE Better Buildings - Clean Energy in Low Income Communities Accelerator; 100% for 100%
- Complete update of Cleveland Climate Action Plan in 2017; begin implementation
  - Racial Equity tool
  - Workforce development
- Implement Climate Resilience and Urban Opportunity Plan (2016-2018), determine path forward



## Resilient Midwestern Cities

Improving Equity in a Changing Climate

By Cathleen Kelly, Miranda Peterson, Erin Auel, Gwynne Taraska, and Philine Qian April 2016

WWW.AMERICANPROGRESS.ORG

# Thank You!

Matt Gray

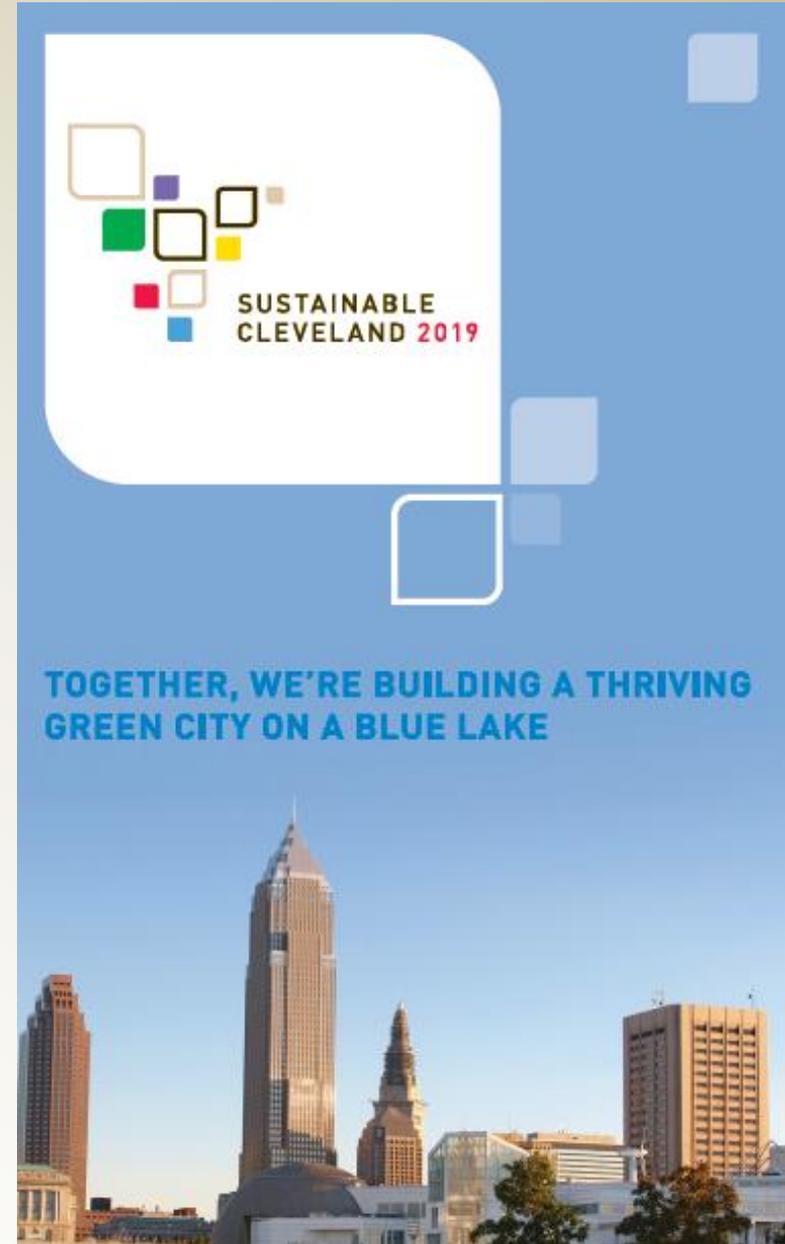
Chief of Sustainability

City of Cleveland

[mgray@city.cleveland.oh.us](mailto:mgray@city.cleveland.oh.us)

Join us at :

[www.SustainableCleveland.org](http://www.SustainableCleveland.org)





# Climate Ready Communities

**Technical services for  
small to mid-sized  
communities and  
those with few  
resources**

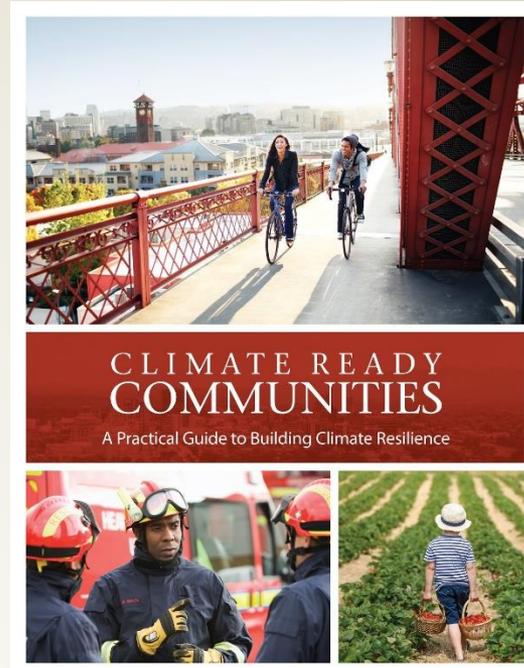


# Climate Ready Communities

Free, downloadable guide

## Subscription Service

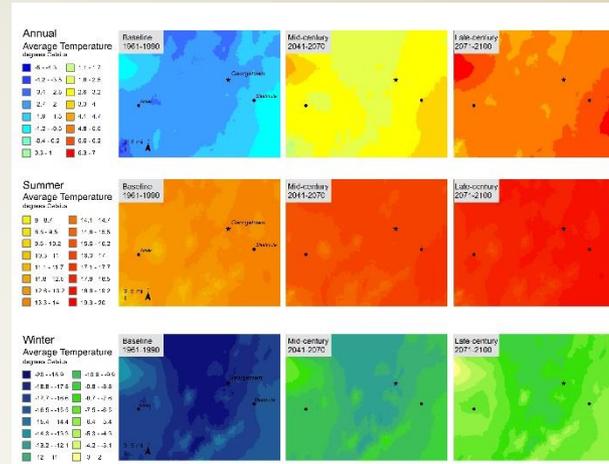
- *Tutorials and templates*
- *One-on-one consulting hours*
- *Monthly, live, call-in forum*
- *On-line forum*
- *Technical support*
- *Subscriber portal*
- *Annual cost: \$2,499/\$1,499*



# Climate Ready Communities

## Additional Services

- *Blocks of additional consulting time*
- *Local climate change projections*
- *Workshop facilitation*
- *Final report writing*
- *Webinars on resilience-related topics*



# Climate Ready Communities

## Subscription Service Pilot Program

- Final pilot slots are being filled
- Pilot begins May, 2018
- Full release fall, 2018



# Climate Ready Communities

**Tonya Graham: [tonya@geosinstitute.org](mailto:tonya@geosinstitute.org)  
541.482.4459 x301**

**Thank You**