



Royal Oak
SUSTAINABILITY

ROYAL OAK
SUSTAINABILITY PLAN
COMMUNITY FORUM KICK-OFF EVENT
6/29/21

WELCOME!

AGENDA

1. Understand the charge
2. Current city initiatives
3. Share baseline data
4. Call to action
5. Spread the word
6. Q&A



Royal Oak
SUSTAINABILITY



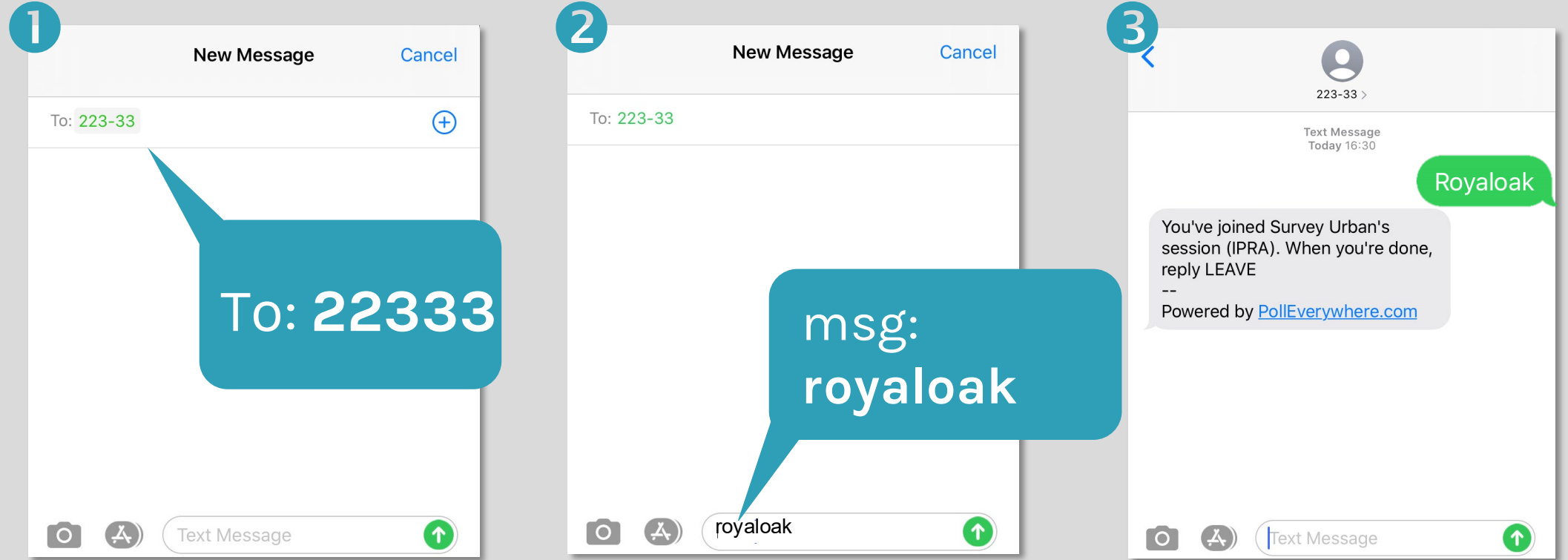
PROTECTING AND RESTORING ROYAL OAK FOR THE NEXT 100 YEARS



POLL EVERYWHERE

Join our real-time polling during this meeting!

Join by
Text:



Join by
Web:

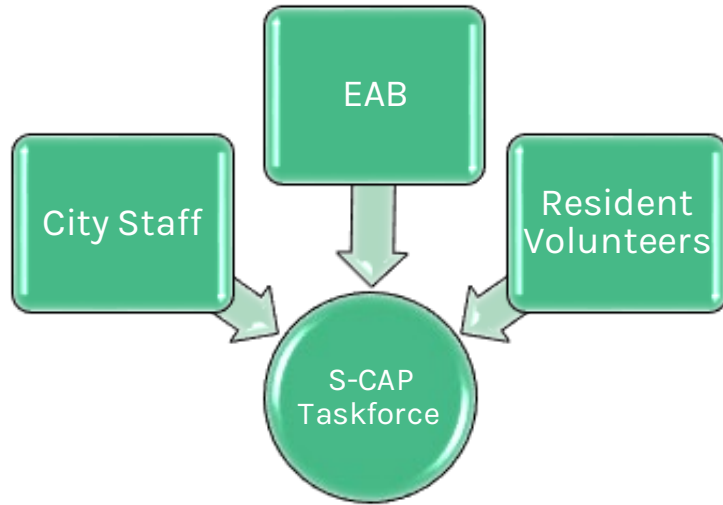
1
Go to PollEv.com/royaloak

2
Respond to question

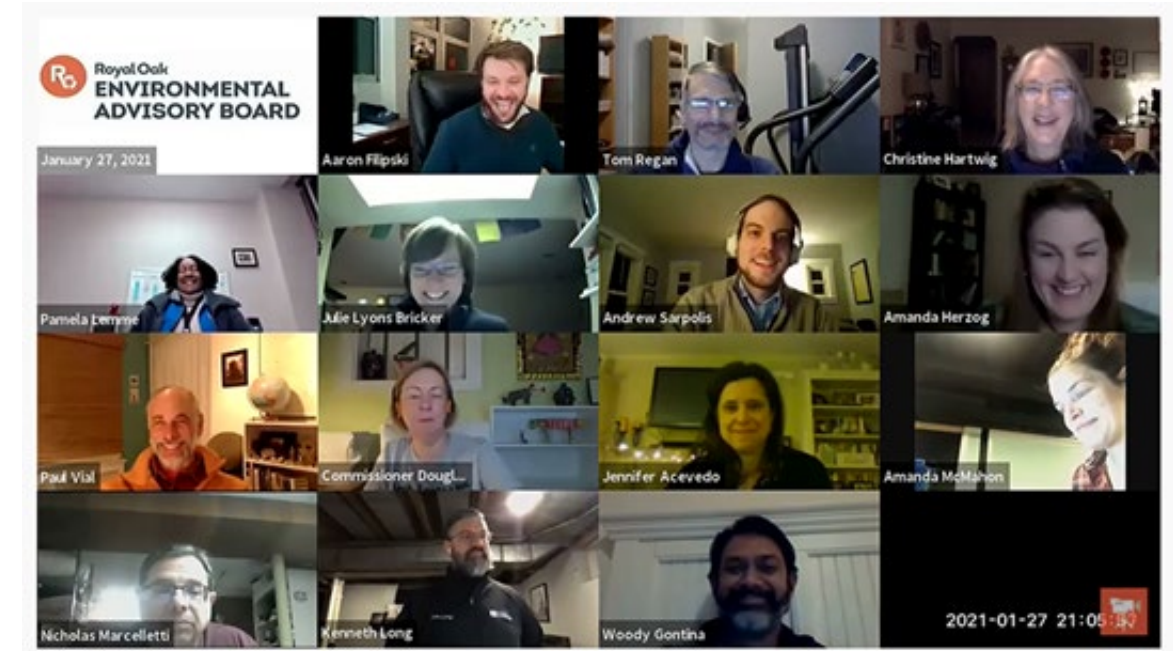
**In one word, what is your vision for the next 100 years of
Royal Oak?**

SUSTAINABILITY TASK FORCE

RESPONSIBLE FOR THE CHARGE



The task force's goal: using lots of stakeholder input, submit the final draft sustainability and climate action plan (S-CAP) to the city commission in January 2022.



Learn more about the advisory board at:
www.romi.gov/EAB

SUSTAINABILITY TASK FORCE

MISSION STATEMENT



Royal Oak
SUSTAINABILITY

S-CAP Task Force Mission: *To build and lead a team of diverse stakeholders who, through thoughtful discussion and data-based decision making, will develop a sustainability and climate action plan that fosters a healthy, equitable, and sustainable future for our community.*



ROYAL OAK PRIORITIZES SUSTAINABILITY

WE'VE BEEN ENGAGED IN THIS WORK FOR YEARS...



- **June 2017-Joined** National Mayors' Support of Paris Climate Agreement – we joined 467 US cities pledging a commitment to adopt, honor, and uphold Paris Climate Agreement goals.
- **November 2018- Created** utility tracking accounts for all municipal buildings to analyze and optimize energy waste reduction. Inventoried all existing sustainability initiatives in the city.
- **May 2019-Awarded** 2019 LEED® for Cities and Communities grant program funded by Bank of America in partnership with USGBC.
- **April 2020-Achieved** the LEED® for Cities Certified designation. Royal Oak is the 1st city in Michigan and the 3rd in the nation to certify under LEED v4.1.
- **July 2020-Adopted** by City Commission the Resolution Acknowledging the Climate Emergency, expanding the EABs scope and Completing a Greenhouse Gas Emission Inventory.
- **September 2020-Completed** the first citywide greenhouse gas (GHG) emissions inventory.
- **January 2021- Adopted** by the City Commission 2030 and 2050 GHG reduction targets and completing the S-CAP by Jan 2022

THE STATE AND COUNTY AIM TO REDUCE GHG EMISSIONS

COMMITTED TO REDUCING GREENHOUSE GAS (GHG) EMISSIONS TO NET ZERO BY 2050



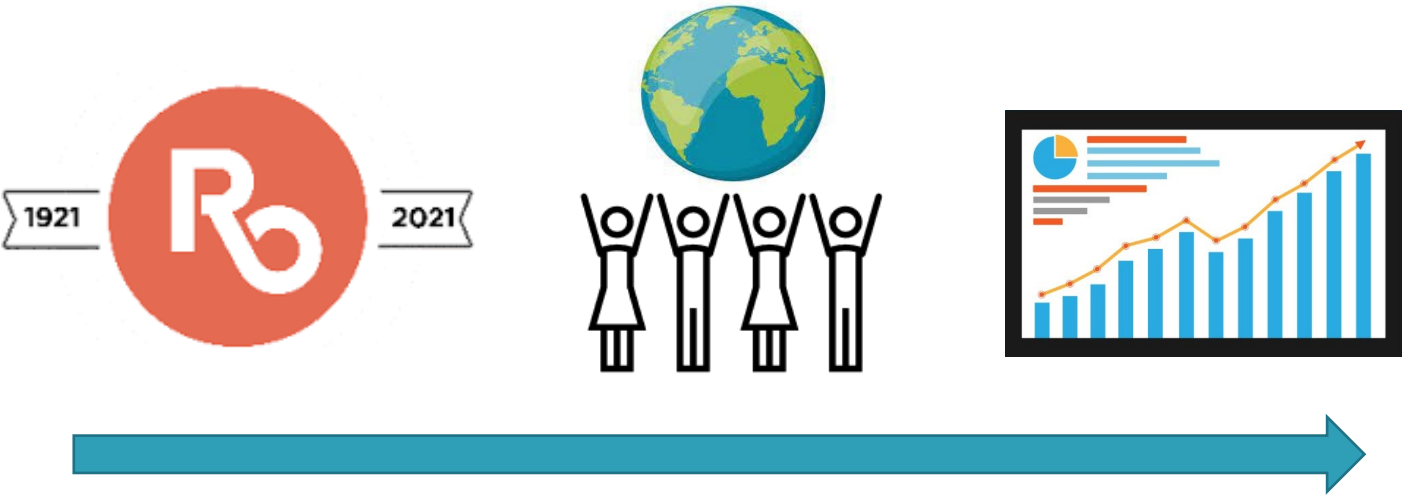
From Gov. Gretchen Whitmer's Office: To ensure steady progress toward this goal, and to prevent irreparable harm to Michigan's ecosystem, residents, and businesses in the interim, the Executive Directive further provides that Michigan will aim to achieve a 28 percent reduction below 1990 levels in greenhouse gas emissions by 2025.

“Oakland County has a quality of life that endures because of its 1,450 lakes, 138 miles of trails, 90,000 acres of parks, and headwaters of five watersheds that flow throughout Southeast Michigan,” Oakland County Executive Dave Coulter said. “We have a responsibility to address climate change so future generations can enjoy better public health, a stronger economy, and our beautiful natural resources.”



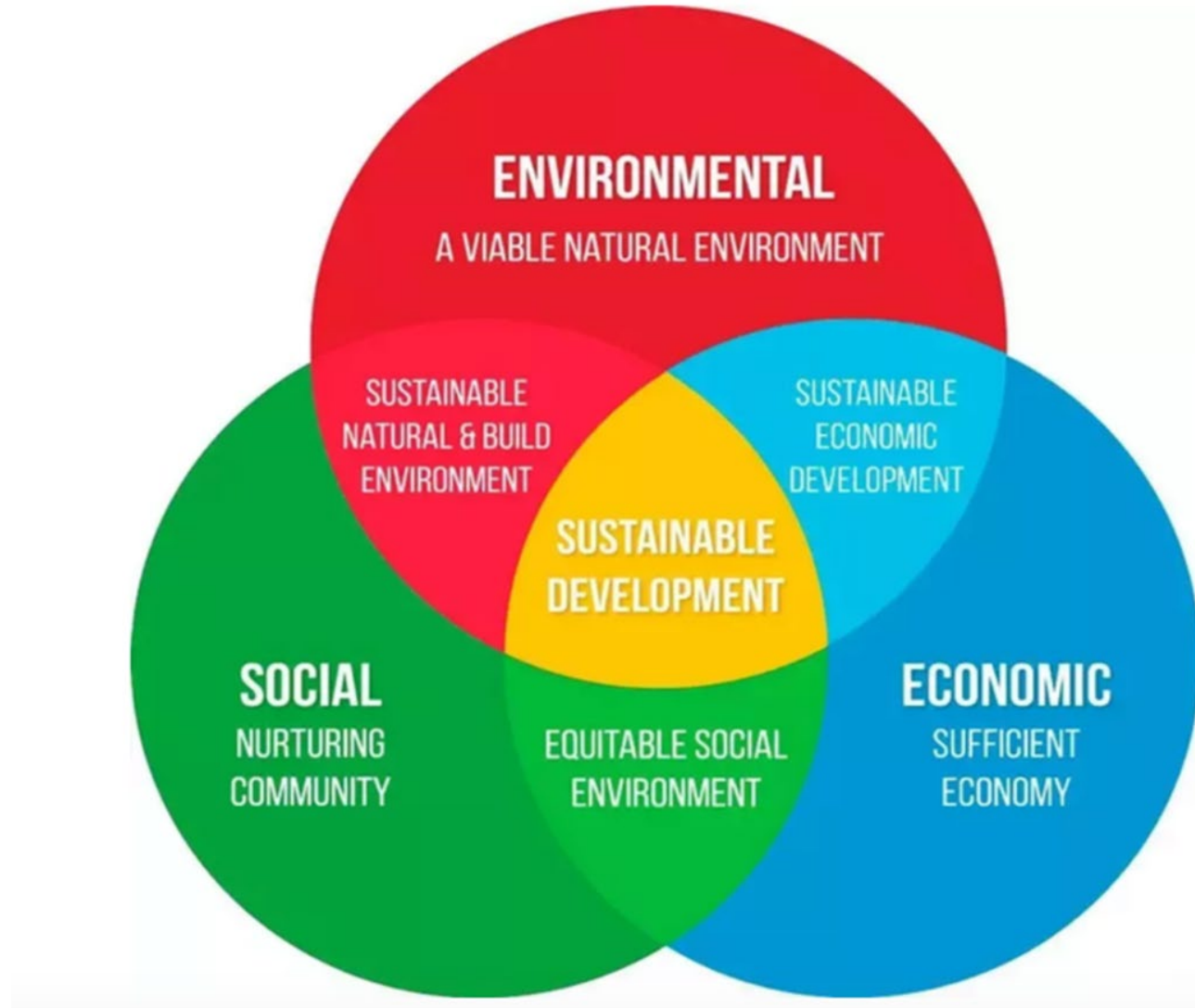
WHERE DO WE GO FROM HERE?

DEVELOPMENT OF THE SUSTAINABILITY AND CLIMATE ACTION PLAN



SUSTAINABILITY: PEOPLE, PLANET, PROFIT

MEETING THE NEEDS OF THE PRESENT WITHOUT COMPROMISING THE ABILITY OF FUTURE GENERATIONS TO MEET THEIR OWN NEEDS.



DEFINING SUSTAINABILITY SUCCESS

HOW CAN WE ENSURE FAIR AND EQUAL
ACCESS TO SUSTAINABILITY RESOURCES?



HOW CAN WE ENHANCE
LOCAL PURCHASING AND A
LOCAL GREEN ECONOMY?



HOW CAN WE REDUCE OUR
CONSUMPTION TO REDUCE
OUR ENVIRONMENTAL
IMPACT?

WHAT IS A SUSTAINABILITY PLAN?

PLANNING FOR THE NEXT 100 YEARS

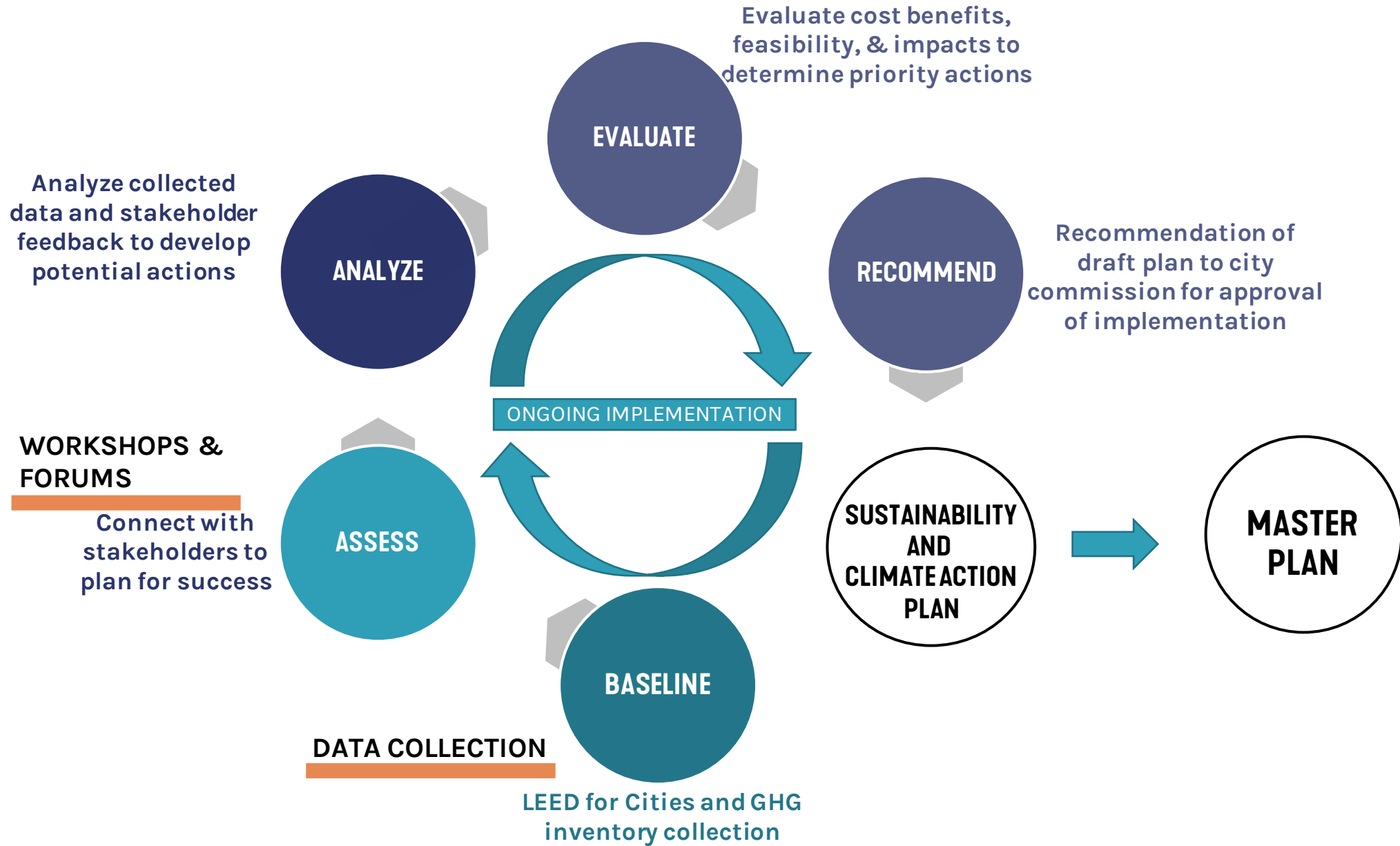
SUSTAINABILITY PLANNING IS AN EVOLVING EXERCISE THAT ASKS ROYAL OAK RESIDENTS:
“WHAT DO WE NEED TO DO TODAY TO MAKE THE BEST ROYAL OAK NOW AND INTO THE FUTURE?”

Benefits of a Plan:

- ✓ Use resources more efficiently
- ✓ Promote smart economic development
- ✓ Improve the environment
- ✓ Create a more equitable and inclusive community
- ✓ Lay the groundwork for major investments



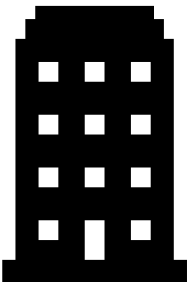
OUR PLANNING PROCESS...



ROYAL OAK’S CURRENT INITIATIVES

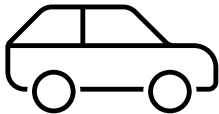
BASELINE DATA COLLECTION

ENERGY AND BUILDINGS



- Reducing energy waste in municipal buildings
- Tracking utility usage
- Approved energy plan March 2018

MOBILITY



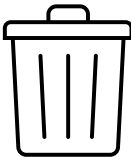
- Non-motorized plan in Master Plan
- Dedicated bike lanes, sharrows, traffic calming islands, crosswalks, etc.
- Mogo bike share program
- Senior transport service
- 3 fleet hybrids and 8 EV charging stations

WATER



- 7 municipal rain gardens/bioswale installations
- DIY residential raingarden guidebook

WASTE



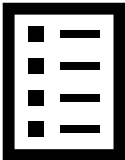
- Single stream recycling
- Municipal building recycling program
- Food composting program (municipal buildings)

GREENSPACE



- 50 Community parks
- Tree city USA since 1977
- No-idle policy (municipal)

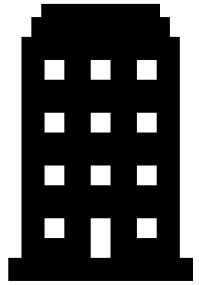
POLICIES



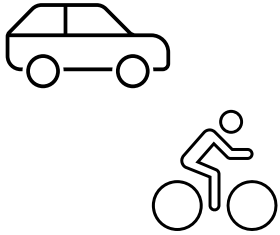
- Human rights ordinance 402
- Rain gardens 302.43
- Solar & wind installations
- Stormwater detention ordinance
- Tree replacement policy
- Permeable surfaces
- Ribbon drive

DEFINING THE AREAS OF THE PLAN

TENTATIVE FOCUS TOPICS



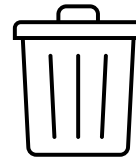
**REDUCE
CARBON AND
ENERGY
INTENSITY**



**DIVERSIFY
MOBILITY**



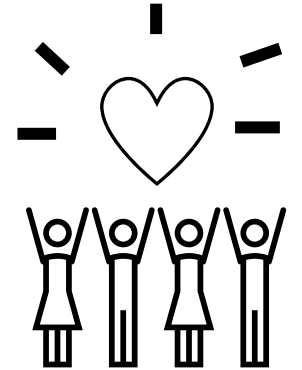
**REDUCE
WATER
CONSUMPTION**



**MINIMIZE
WASTE**



**PROTECT AND
CREATE
GREENSPACE**

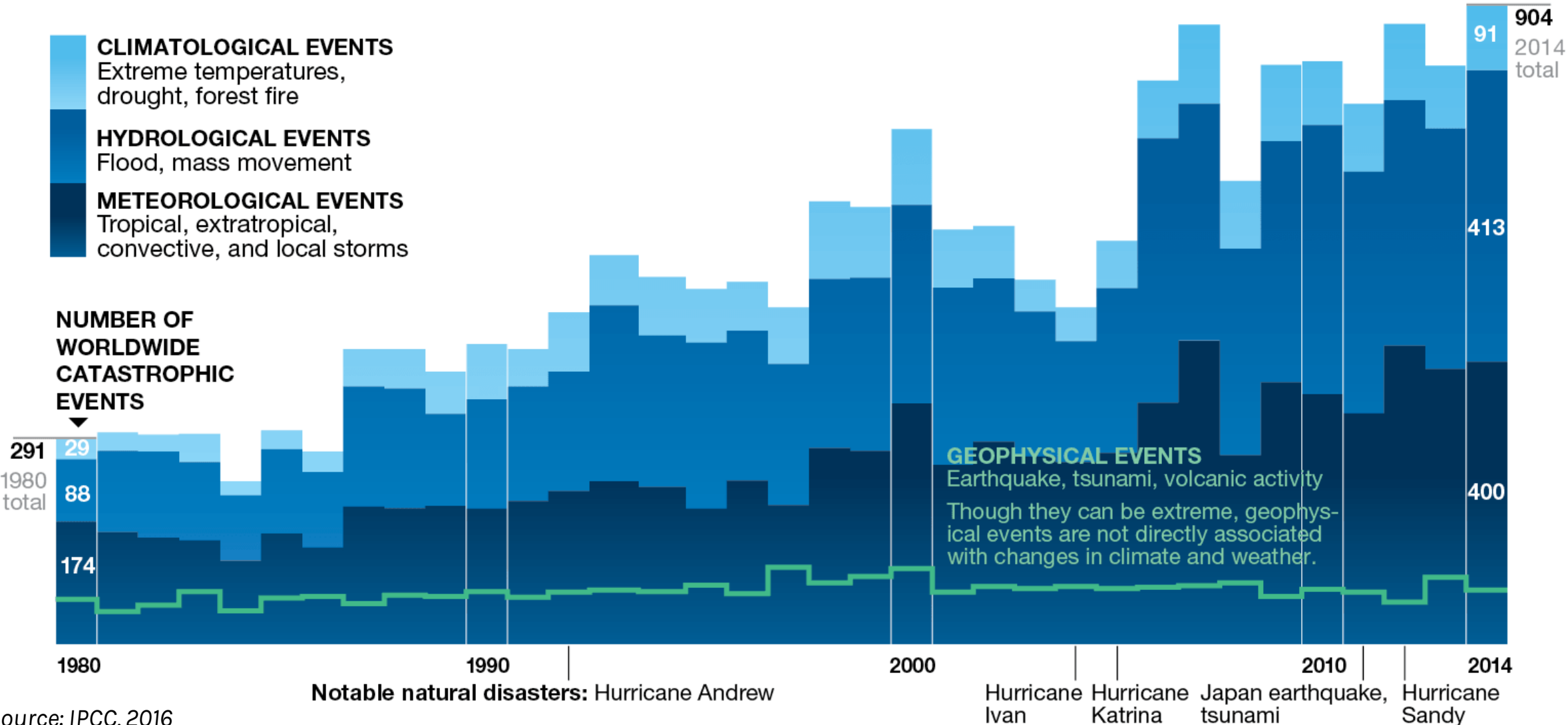


**ENHANCE
QUALITY OF LIFE**

In a few words, what sustainability measures are you doing already and proud of?

MITIGATING ENVIRONMENTAL RISKS

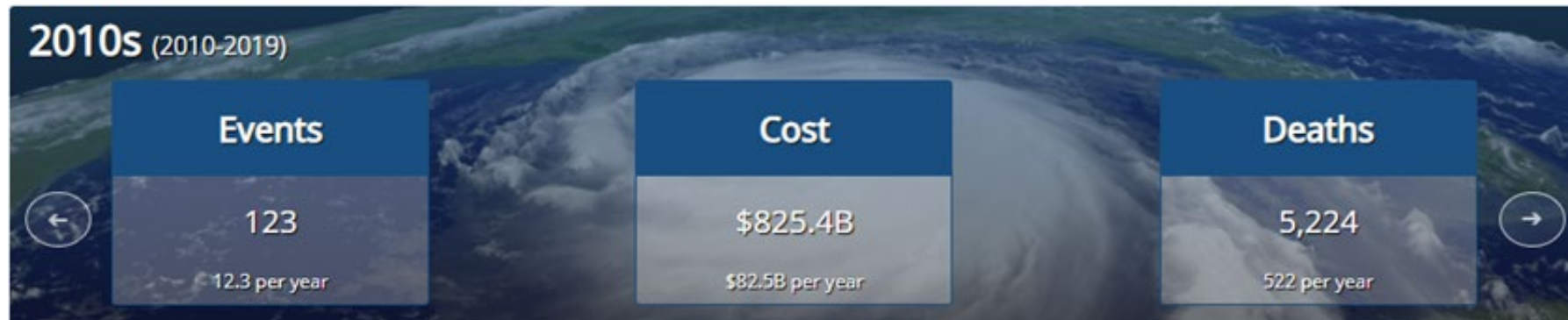
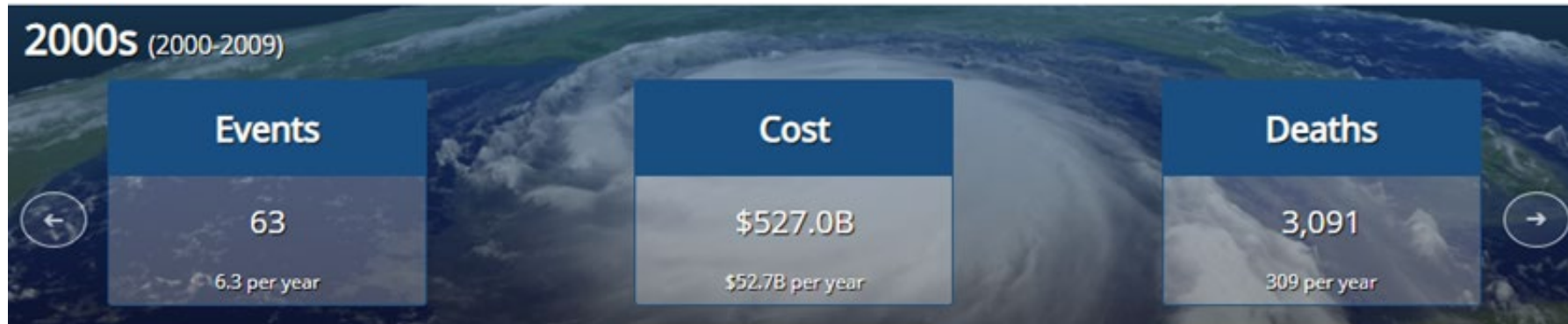
HISTORIC AVERAGES ARE NO LONGER INDICATIVE OF FUTURE CONDITIONS



Source: IPCC, 2016

THIS TURNS INTO MITIGATING FINANCIAL RISKS

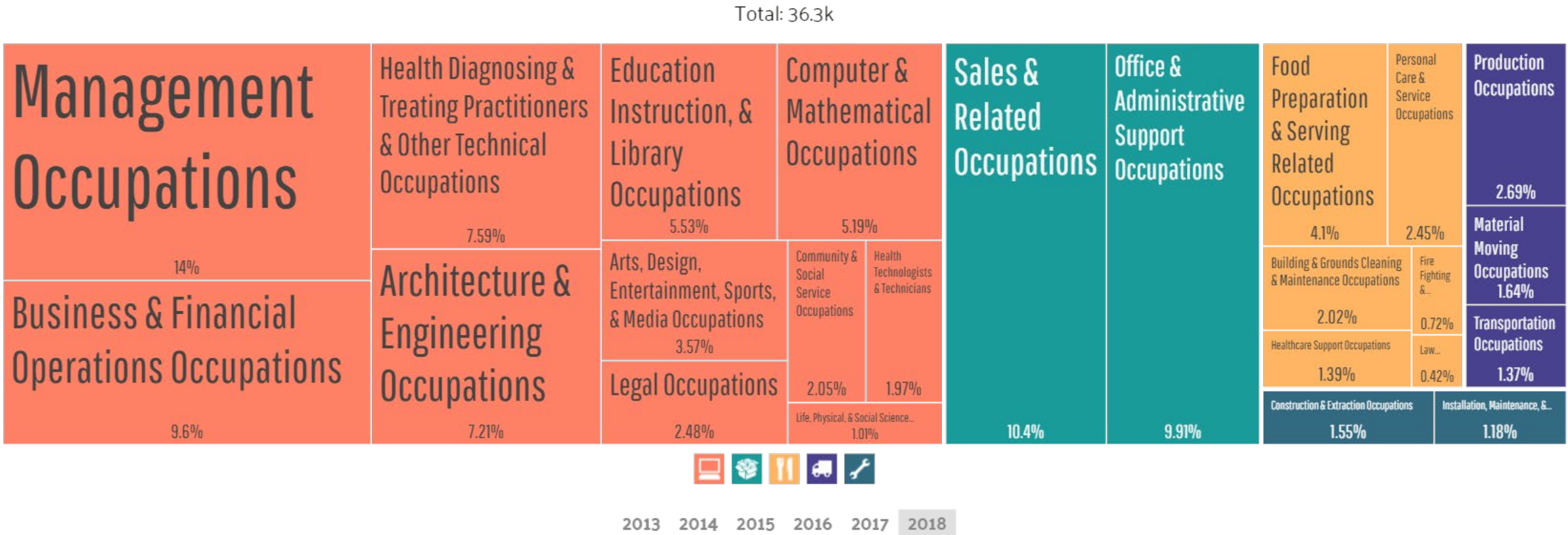
GOOD ENVIRONMENTAL MANAGEMENT IS GOOD FISCAL MANAGEMENT



*NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2021). <https://www.ncdc.noaa.gov/billions/>

EMPLOYMENT OPPORTUNITIES

CURRENT JOBS SHOW THAT ARTS, DESIGN, ARCHITECTURE, AND ENGINEERING CAN ALL GROW!



UNDERSTANDING ROYAL OAK'S BASELINE

REVIEWING THE WORK WE'VE DONE TO DATE

2018 GHG INVENTORY RESULTS: ENTIRE COMMUNITY*

*Emission sources not included:

- Food consumption
- Durable and non-durable consumer goods consumption
- Leisure travel
- Gasoline powered yard equipment for residential, commercial, and industrial (municipal was counted)
- Off-road vehicles for residential, commercial, and industrial (municipal was counted)
- Leakage from a/c, chillers and refrigerators for residential, commercial, and industrial (municipal was counted)
- Upstream energy sector construction and processing

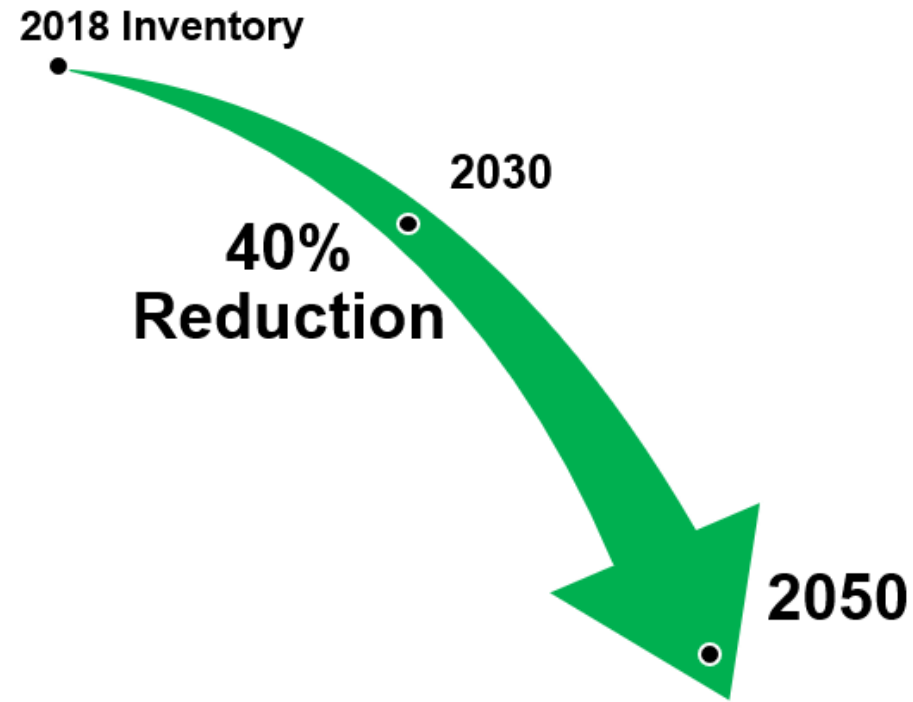
Categories	CO2e (MT)	Percent of Total	Top 7
Commercial Electricity	221,811	24.9%	94.1%
Transportation Gasoline	161,668	18.1%	
Residential Electricity	148,302	16.6%	
Residential Natural Gas	145,364	16.3%	
Industrial Electricity	58,923	6.6%	
Transportation Diesel	57,728	6.5%	
Commercial Natural Gas	44,394	5.0%	
Electric Grid Transmission Losses	21,085	2.4%	
Landfilling of Solid Waste	8,321	0.9%	
Natural Gas System Leakage	6,268	0.7%	
Transportation SMART	4,508	0.5%	
Wastewater Treatment	4,138	0.5%	
Street Lighting	3,045	0.3%	
Industrial Natural Gas	2,398	0.3%	
Potable Water Treatment	1,922	0.2%	
Waste Collection and Transport	1,274	0.1%	
TOTAL	891,149	100%	

2018 GHG INVENTORY RESULTS: MUNICIPAL OPERATIONS

Categories	CO2e (MT)	Percent of Total
Buildings & Facilities Electricity	4,885	39.1%
Street Lights & Traffic Signals	3,045	24.4%
Buildings & Facilities Natural Gas	1,705	13.7%
Employee Commute	1,389	11.1%
Vehicle Fleet	1,317	10.6%
Off-road Equipment	91	0.7%
Air Conditioning Fugitive Emissions	46	0.4%
TOTAL	12,478	100.0%

City Government	12,478	CO2e (MT)
Entire Community	891,149	
City's Percentage	1.4%	

ROYAL OAK'S GOALS...



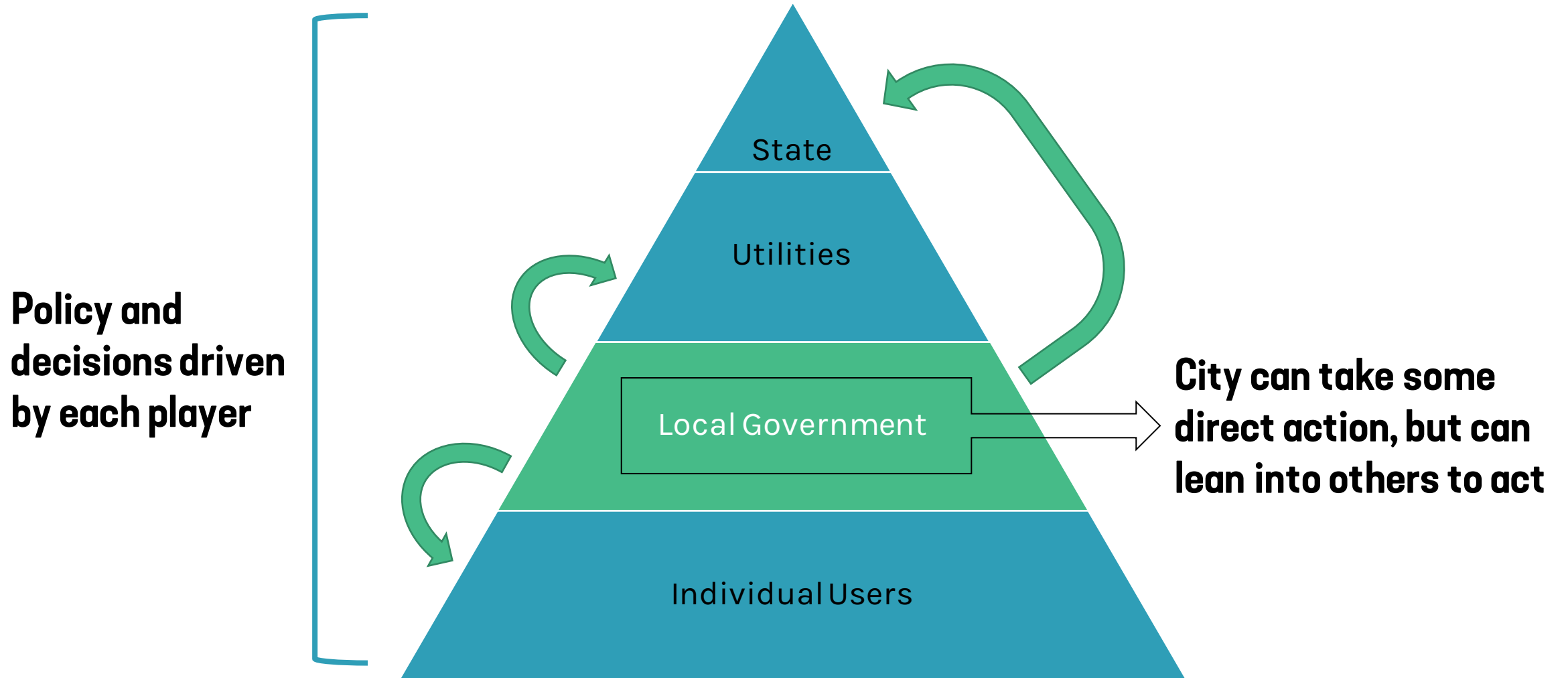
WE EACH PLAY A ROLE

Sustainability and Climate Action Plan is about how we get there

Net Zero GHG Emissions

CITY'S ROLE IN ACTION

POTENTIAL SUSTAINABILITY ACTION STRATEGIES AND LAYERS OF INFLUENCE



MEETING OUR GOALS REQUIRES UTILITY PARTICIPATION

The logo for Consumers Energy, featuring the company name in white italicized font inside a blue oval shape on a blue rectangular background.

Consumers Energy

In February 2020, Consumers Energy committed to becoming net-zero emissions by 2040

The logo for DTE, featuring the letters "DTE" in white bold font on a blue rectangular background.

DTE

In June 2020, DTE committed to becoming net-zero emissions by 2050

WHEN LOOKING AT ENERGY, ROYAL OAK HAS THREE BIG FOCUS AREAS

Residential energy



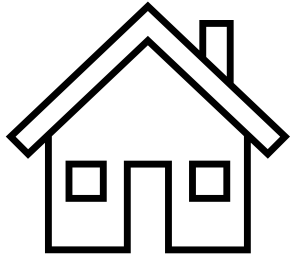
Commercial energy



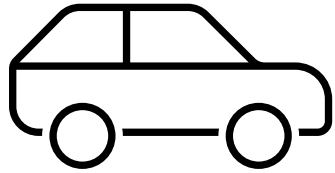
Transportation



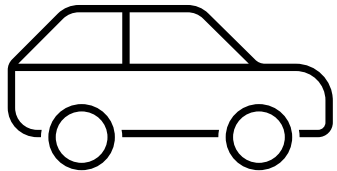
SO, WHAT POTENTIAL ACTIONS CAN WE TAKE NOW?



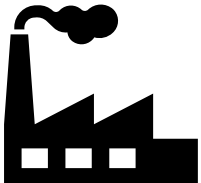
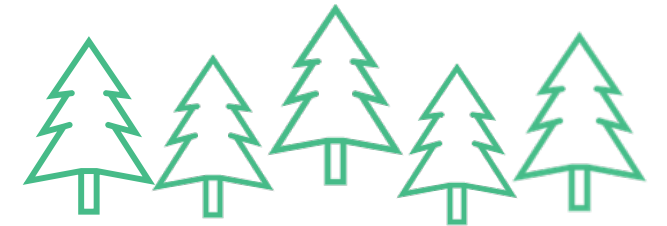
**INSTALL ENERGY EFFICIENCY MEASURES
ADJUST ENERGY USE BEHAVIORS
INSTALL ROOFTOP SOLAR
ELECTRIFY HEATING.**



**CONSIDER ALTERNATIVE MOBILITY OPTIONS-
WALK, BIKE, CARPOOL
CREATE ACCESS FOR ALL AGES AND ALL
ABILITIES!!**



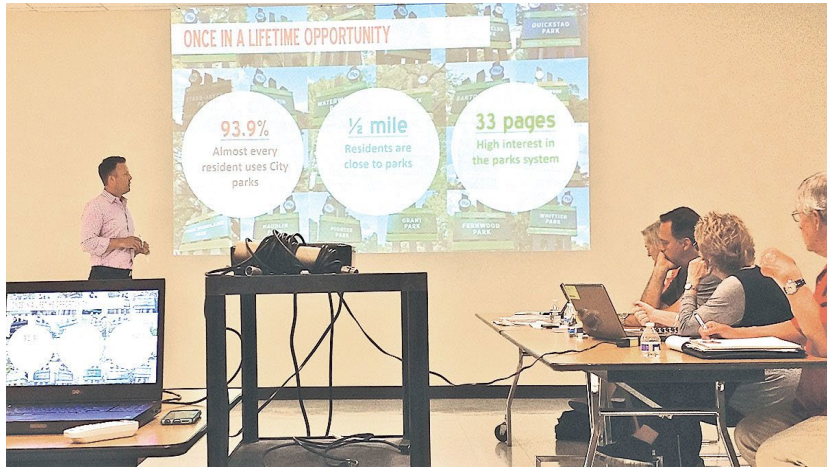
**PROTECT & RESTORE OUR ECOLOGICAL
CONDITIONS**



**EDUCATE AND ADVOCATE FOR THE LARGER-
SCALE CHANGES WE NEED!!**

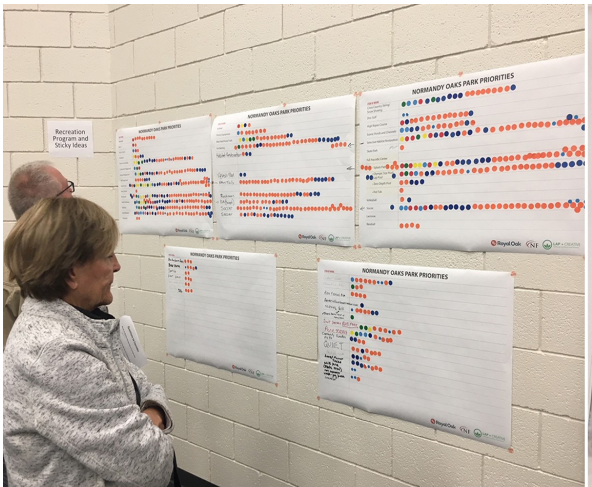


WHAT SHOULD ROYAL OAK IMPLEMENT?



YOU TELL US!

**WE WANT THE
PLAN TO BE
ROYAL OAK
SPECIFIC.**



PLANNING FOR THE FUTURE

CALL TO ACTION

WE NEED YOUR INVOLVEMENT!

**TAKE THE
SURVEY**

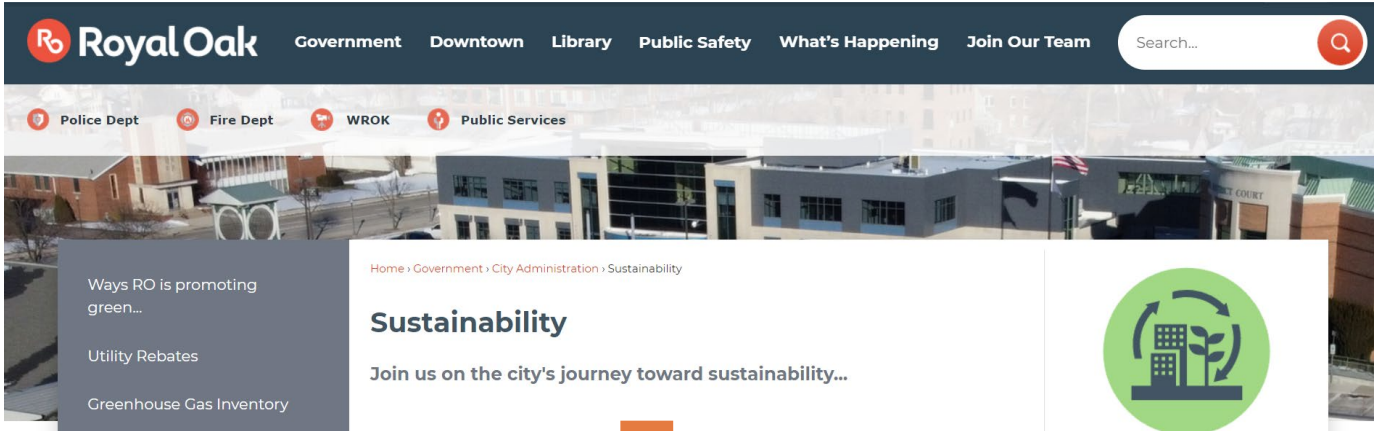
**CONTINUE ACTING
SUSTAINABLY!**

**JOIN A FOCUS
WORKGROUP**


No matter how much time you have, we need you!

TAKE THE SURVEY


COMMUNITY STAKEHOLDER SURVEY [ROMI.GOV/SUSTAINABILITY](https://romi.gov/sustainability)




To learn more about various stakeholder opportunities, click on the links below:



Tell Us About Your Sustainability Interests on this Form...



Register for the Community Forum on June 29, 2021



Coming Soon... Community Stakeholder Survey

5. Please rank each of the following climate-related threats facing Royal Oak in the order of most important to you, (1) being most important.

	1	2	3	4	5	6	7
Air Quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sudden rain events and flooding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Grid disruption	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extreme heat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drought	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water quality and safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="text" value="Enter another option"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Who do you feel is most responsible for addressing climate change and sustainability issues? (1) being most responsible.

	1	2	3	4	5
Residents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local governments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
State governments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Federal governments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Businesses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Current and Possible Practices

11. **Energy:** Please answer for each energy efficiency option below in terms of which you would be most willing to do or already doing, which you are not willing to do, or would not consider doing.

	Never heard of	Already doing	Would like to do, but not sure how to get started	Would like to but face obstacles	Don't think I will try in the next five years	Don't think I would ever try this	City should support a program on this
Switch to an induction cooktop electric stove	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Convert household heating to a heat pump	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Add solar panels to my house or garage rooftop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Convert all of my household lighting to LED	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

JOIN A FOCUS WORKGROUP!

WE NEED ADDITIONAL INPUT TO THE PROCESS

- Understand community priorities
- Review survey results
- Evaluate and determine priority actions
- Participate in objective and task driven meetings (August – October)



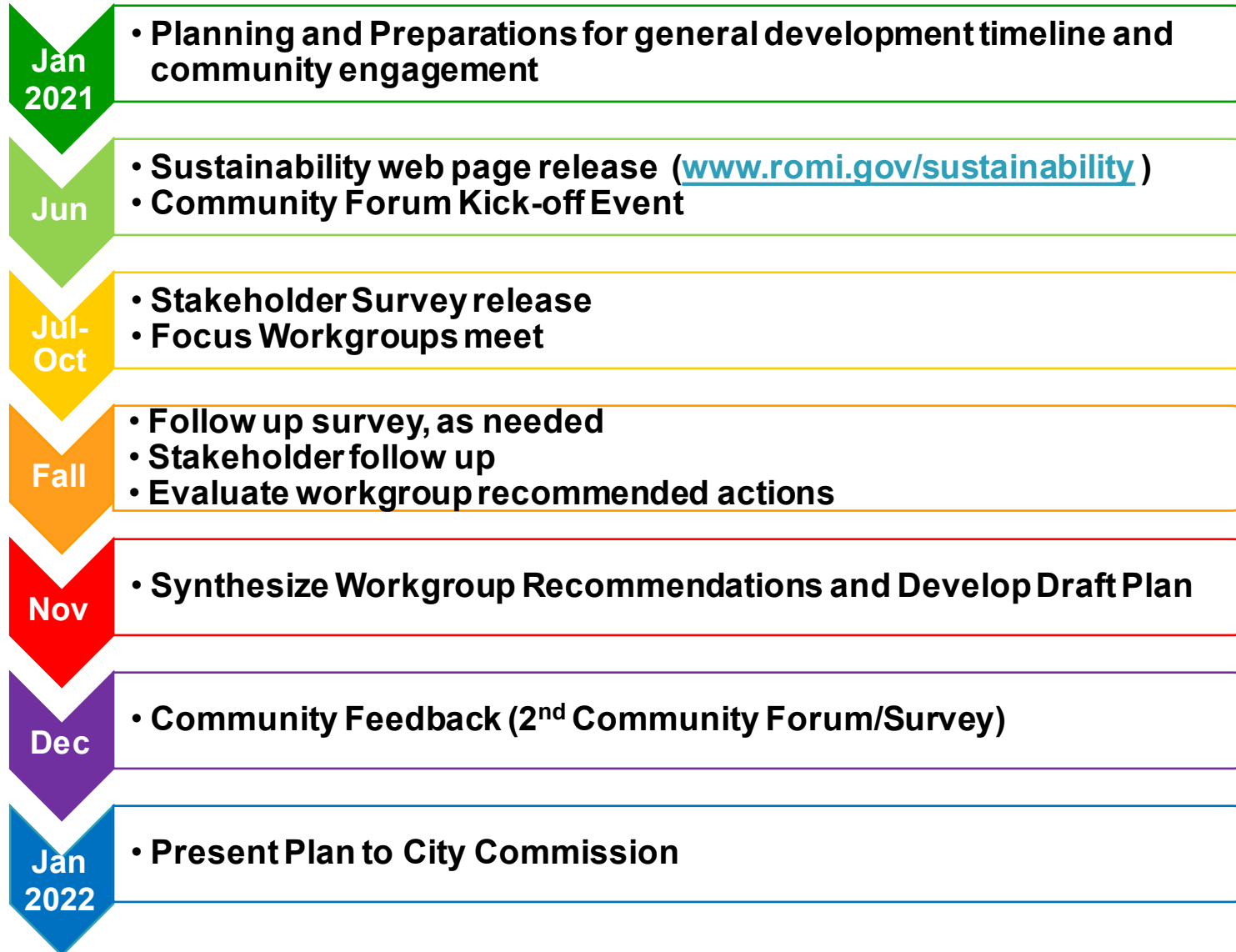
TAKE ACTION

VISIT [ROMI.GOV/SUSTAINABILITY](https://romi.gov/sustainability) TO LEARN MORE!

- Consider energy efficiency upgrades
- Take advantage of utility rebates
- Enroll in DTE MIGreenPower
- Drive less
- Recycle
- Compost
- Plant more trees
- Share with neighbors
- Call your legislators – including city commission!



2021 DEVELOPMENT PLAN TIMELINE...



ROYAL OAK SUSTAINABILITY TASK FORCE



Amanda Herzog, Ph.D.
EAB Chair and
Engineer



Paul Vial- EAB Board
Member and
Engineer



Ann Bueche-Royal
Oak Planning
Commission



Woody Gontina, LEED AP BD+C
EAB Board and Royal Oak
Planning Commission



Andrew Sarpolis-
EAB Board Member and
Sierra Club Organizer



Paula Martinos-Mantay
Business owner,
Organizer



Aaron Filipski, MSA
Royal Oak DPS
Director and EAB Ex
Officio



Julie Lyons Bricker, LEED AP O+M
Royal Oak Energy and Sustainability
Manager and EAB Ex Officio

Thank you.

For more information about
how to participate in the S-CAP
development, please visit our
website

www.romi.gov/sustainability

or email Julie Lyons Bricker at
julieb@romi.gov



Royal Oak
SUSTAINABILITY



Royal Oak
**ENVIRONMENTAL
ADVISORY BOARD**



Royal Oak
SUSTAINABILITY

WWW.ROMI.GOV/POLL