



Lake Erie Ohio Communities and Coastal Resilience 2022 Grant Application

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PLEASE NOTE: PRINT CLEARLY OR TYPE

This project is a resubmission of a previous application.

Project Title: Coastal and Shoreline Resilience Planning in Jerusalem Township

50 character limit

Amount Requested: \$83,200

Project Director: Mark Sattler Title: Township Trustee

Organization: Jerusalem Township

Address: 9501 Jerusalem Road, Curtice, OH 43412

Email: Mark.Sattler@twp.jerusalem.oh.us Phone: (419) 836-8921

Signature: [Handwritten Signature] Date: October 3, 2022

Authorizing Officer: Mark Sattler; David Bench; Beau Miller Title: Township Trustees

Organization: Jerusalem Township

Address: 9501 Jerusalem Road, Curtice, OH 43412

Email: Mark.Sattler@twp.jerusalem.oh.us; David.Bench@twp.jerusalem.oh.us; Beau.Miller@twp.jerusalem.oh.us Phone: (419) 836-8921

Signature: [Handwritten Signatures] Date: October 3, 2022

Fiscal Agent: Joel Moszkowicz Title: Fiscal Officer

Organization: Jerusalem Township

Payment Address: 9501 Jerusalem Road, Curtice, OH 43412

Email: fiscal@twp.jerusalem.oh.us Phone: (419) 836-8921

Federal Tax ID (required): 34-6400719

Signature: [Handwritten Signature] Date: October 3, 2022

	Requested Funds	Match Provided	Description
A. Salaries & Wages			
B. Fringe Benefits			
<b>C. Total Salaries &amp; Benefits (A+B)</b>			
D. Non-expendable Equipment			
E. Expendable Materials & Supplies			
F. Travel			
G. Services or Consultants			
H. Computer Costs			
I. Publications/Presentations			
J. All other direct costs			
<b>K. Non- Salary Direct Costs (D thru J)</b>			
L. Indirect Costs (not to exceed 10%)			
M. Total Salaries & Benefits (from C)			
N. Non-Salary Direct Costs (from K)			
O. Indirect Costs (from L)			
Total Cost			

## General Project Summary

Jerusalem Township (the Township), in partnership with the Reno Beach/Howard Farms Conservancy District (RBHFCD), is pursuing funding for strategic planning related to coastal and shoreline resiliency. The Township includes 21,760 acres of land and 138,240 acres of water. Approximately 1,200 acres of land is contained within the RBHFCD. Dikes and levee systems surround portions of the Township, including the “Project Foresight Segment” built by the US Army Corps of Engineers (USACE) in 1973, reinforced in 1993, and maintained by the RBHFCD; new structures related to the Howard Marsh restoration and maintained by Metroparks Toledo; and, privately installed, legacy dikes built between 1902 and 1943. Once mainly agricultural, the Township supports a growing residential community, particularly along the lakeshore between Cedar Point National Wildlife Refuge and Metzger Marsh. With the conversion of agricultural land to residential subdivisions, many legacy dikes are no longer maintained due to lack of expertise and/or necessary equipment. Segments are below the 100-year flood elevation or are in disrepair. Flood damage estimates exceed \$100M if a breach occurs, and costs to repair/reinforce the system would be overburdensome to this underserved community.

The Township proposes to establish a framework for risk assessment of the comprehensive water control system to develop a strategic implementation plan for shoreline protection through infrastructure reinforcement and improvements to build resiliency in the face of potential large-scale flooding and intense storm events related to climate change and rising lake levels in Lake Erie. This framework will include an assessment of the system’s existing conditions to evaluate the integrity of the current infrastructure and identification and prioritization of system components that pose the most risk to catastrophic failure. Prioritized areas of risk will be detailed within an implementation plan to guide the Township’s pursuit of future financial assistance to build resiliency in this vulnerable community.

## Project Narrative

In recent decades, global rainfalls have increased in frequency and intensity, increasing water levels and flood risks across the world, including the Great Lakes Region, with water levels fluctuating by over 2m in recent decades, mostly attributed to climate-induced changes in the hydrological regime (Zhang et al. 2021; Gronewold et al. 2016). Scientific models coincide with these observations, and predict general upward trends. Specifically within Lake Erie, annual water levels are projected to change -0.09 to +0.54m by 2040 – 2049 (Kayastha et al. 2022). If the higher-end predictions are realized, catastrophic flooding along the shores of Lake Erie is imminent. Proactive management is necessary to mitigate sociological and economic impacts of flooding, especially for populations who are socioeconomically vulnerable to flooding (Siman 2020).

Jerusalem Township is a low-lying coastal area east of Toledo, consisting of rich farmland, residences, and water recreation areas (see Figure 1). Historically, local property owners began constructing flood protection levees in 1902. In 1972, the USACE launched a large-scale effort to protect against flooding along the Lake Erie shoreline, extending from Cooley Canal to Wards Canal along the northwesterly bank of Lake Erie (“Project Foresight”). The USACE upgraded the original levee with a more permanent barrier in 1993. The top of the existing levee system ranges from 575.8 to 582.8 feet above sea level (asl). Lands behind the levee are at 568.0-574.0 feet asl. The Federal Emergency Management Agency indicates that the 100-year flood elevation for this area is 578.0 asl.

The RBHFCD is responsible for maintaining the USACE-constructed levee (Project Segment); however, the privately owned, legacy dikes are beyond the RBHFCD’s jurisdiction (Non-Project Segment). While these legacy dikes originally protected agricultural land, current land use is substantially residential. Within these residential subdivisions, many legacy dikes are aging, susceptible to erosion, animal

destruction and root damage and are no longer maintained by owners who have neither the expertise nor the equipment to do so. Residential growth is a priority for the Township, as listed in its 2040 Comprehensive Plan.

The Township proposes to establish a framework for risk assessment of the comprehensive levee system in order to develop a strategic implementation plan for shoreline and erosion protection through infrastructure reinforcement/improvements to build community resiliency in the face of potential large-scale flooding and intense storm events related to climate change and rising lake levels in Lake Erie. This framework will include an assessment of the system's existing conditions (Task 1: Engineering Reconnaissance) to evaluate the integrity of the current infrastructure and identification and prioritization of system components that pose the most risk to catastrophic failure (Task 2: Risk Assessment and Prioritization). Prioritized areas of risk will be detailed within an implementation plan, which will guide the Township's pursuit of future financial assistance to build resiliency in this growing community (Task 3: Implementation Plan Development).

Briefly, the Township will procure a qualified consultant through the process outlined by Ohio Administrative Code. The consultant will review existing relevant information including Ohio Department of Natural Resources Coastal Erosion Surveys, design plans, Emergency Action Plans, etc., and conduct a field reconnaissance of the levees and associated appurtenances to identify deterioration and deficiencies. Literature and observed conditions will be catalogued, assigned a risk score based upon severity of condition and mapped within a Geographic Information System (GIS). Available topographic data from the Lucas County Engineers Office will be coupled with reconnaissance data and compared with potential flood inundation levels. Levee segments will be prioritized based upon risk score for failure or breach, as well as proximity risk to critical structures impacted by potential failure, and preliminary, conceptual improvements will be developed for high-risk segments. Proposed improvements may include traditional engineered systems, natural system design or a hybrid combination. The conceptual improvements will be slotted into a strategic plan to guide pursuit of implementation funding for proactively building coastal resiliency throughout this necessary system. The implementation plan will outline potential permits or real estate/easement requirements needed, as well as a matrix of potential funding sources for the conceptual projects.

The implementation plan creates necessary documentation to allow the Township and RBHFCD to partner and improve the levee system under the RBHFCD's jurisdiction to better protect the citizens of the Township, an underserved population and collectively leverage resources to reinforce levee infrastructure, reduce shoreline erosion and build coastal resiliency. Collapse of any portion of this levee system could result in widespread flooding throughout the Township, and sea level rise to the 100-year flood level would result in loss of life and exceed \$100M in damages that would devastate residences, businesses, crops, marinas and ecotourism locales (RBHFCD, 2021). Environmentally, floodwaters would exacerbate excessive sediment and nutrient input to an already oversaturated lake system, as well biological contaminants from overwhelmed sanitary and septic systems. The Township contains all or portions of sensitive coastal wetlands areas, including Howard Marsh, Ottawa and Cedar Point National Wildlife Refuges, Maumee Bay State Park, Mallard Club Wildlife Area and Metzger Marsh, which sustain key habitat for migratory birds and wetland species and attract millions of tourists to the area each year. Protection of these key areas is a driving component of many lake-related plans.

**Project Location and Map**

The project is located within Jerusalem Township, in eastern Lucas County, Ohio (Figure 1).



Figure 1. Jerusalem Township location map

**Underserved Community/Population Data**

Jerusalem Township includes three census blocks, each of which meets at least one criterion to be considered underserved by Ohio EPA’s Division of Environmental Assistance (Table 1; Figure 2). The unemployment rate in Blocks 1 and 2 are 3.4 and 1.0 percentage points higher than the statewide average, respectively. The unemployment rate in Block 3 is 1.2 percentage points lower than the statewide average; however, 35% of households have income lower than 200% of the poverty level, which is 4.6 percentage points higher than the statewide average.

Table 1. 2020 Census Block Data

Criteria (statewide average)	Block 1	Block 2	Block 3
Median Household Income ≤ \$58,116	\$67,083	\$76,859	\$65,547
Individuals with income below 200% of poverty level ≥ 30.4%	28.7%	20.7%	<b>35.0%</b>
Civilian unemployment rate ≥ 5.3%	<b>8.7%</b>	<b>6.3%</b>	4.1%

(Source: <http://data.census.gov>)

**NOTES**

Values in bold exceed statewide average.



Figure 2. Jerusalem Township - 2020 Census Blocks

Currently, the RBHFCD has the legal authority to assess residents within the district boundaries who realize a benefit from Project Segment infrastructure improvements; however, the RBHFCD cannot currently administer improvements to Non-Project Segments without a joint implementation plan. This project fulfills a crucial step toward the Township's ability to provide resilient flood protection in the face of rising lake levels for its residents by allowing improvements on private levees to fall under the jurisdiction of the RBHFCD. The cost of levee improvements to provide FEMA-standard protection along the levee corridors is beyond reasonable assessment of citizens for those residing within the levee boundaries (Census Block 3), where the greatest amount of low-income households are concentrated. The implementation plan will provide direction for the Township to actively and strategically pursue funding to stabilize and improve the levee system, better protect the residents of this limited-income, coastal region and build long-term resilience from climate-impacted conditions. The Township views this plan as a short-term investment to lead to implementation of infrastructure improvement over a long term (10+ year) timeframe.

#### Alignment with Lake Erie Plans

The proposed project aligns with Priority Area: Tourism, Jobs and Economy in the Lake Erie Protection and Restoration Plan. The proposed project promotes new infrastructure design that will not only sustain the current quality of life of residents and economic sectors within this community by providing enhanced flood protection, but a resilient community will attract new residents and businesses to an area that has the capacity to adapt to changing Lake Erie conditions. The project also advances the objectives of the Lake Erie Lakewide Action and Management Plan through the protection of critical infrastructure in coastal communities through planning natural and engineered systems to improve resiliency. Where natural design systems may be integrated into the plans, coastal habitat may also be restored, which provides additional ecological benefits as outlined through Focus Area 4 of the Great Lakes Restoration Action Plan III.

### Plan or Program of Focus

The proposed project incorporates components of several programs, including the following (in order of highest focus):

1. Shoreline Erosion Plan Preparation: Deficient areas will be identified and conceptual plans will be developed to address areas in need.
2. Natural Hazard Mitigation Plan Implementation: The implementation plan developed will allow the Township to pursue project funding in the future to proactively mitigate potential flooding hazards.
3. SRF Plan Preparation: Conceptual projects identified throughout the project area may be eligible for SRF funding.
4. Evaluation of coastal hazards and cost benefit analysis of alternatives to prepare projects for EMA funding: Conceptual projects identified throughout the project area may be eligible for EMA funding.
5. Community Outreach & Engagement in Underserved Communities: Township residents will be informed of proactive activities being taken to improve current levee conditions and mitigate potential natural hazards.

### Outreach and Engagement Plan

The Township will employ a multi-faceted approach to public outreach and engagement with the goal of reaching every resident within the Township. The Township will convene a meeting with local stakeholder organizations, including the Lucas County Engineers Office, TMACOG, the RBHFCD and Metroparks Toledo to discuss project components and additional considerations for public engagement. Communication to these stakeholder partners will occur at least quarterly.

The Township will host two public meetings, once at the onset of project activities in order to obtain information from the public regarding priorities and potential problem areas related to the levees, and once near the end of the project to inform the public of the results and potential next actions. These public meetings and project developments will be advertised through project press releases, the Township, RBHFCD and TMACOG websites and social media outlets, and signage placed in high-visibility local areas and businesses, as well on the Township marquee sign.

A direct mailing regarding project details will be provided to Township residences with Township contact information for those individuals who may not have internet access at home. Public meetings will be held in a centralized, ADA-compliant location. Interpretive assistance will be provided to individuals who identify the need for it.

### Project Team and Partners/Qualifications

The Township is internally equipped to execute this grant if awarded. The Township is experienced in the administration of grant funds from different sources, including American Rescue Plan funding, and has internal accounting capacity to track grant activities separate from operating expenses.

Mark Sattler is a Township Trustee, elected to the 2020-2023 term. He holds an MBA in Finance from the University of Toledo and is retired from a 40 year career in radiology, healthcare finance and healthcare administration. Mr. Sattler will serve as the Township Project Manager and direct liaison to the Board of Trustees for project activities. He will provide oversight to the Project and will coordinate with local partners for the consultant procurement and public outreach activities.

Adam Hoff, PE is a Board Member of the RBHFCD and a professional engineer of over 30 years. Mr. Hoff specializes in supporting infrastructure development projects throughout Northwest Ohio. Mr. Hoff will

assist the Township with procurement services, attend project-related meetings, provide input on project development and participate in public outreach activities.

The selected professional services firm will be experienced in conducting projects of similar size and scope and will demonstrate expertise in flood studies, dam safety, water resources engineering and grant-related administration and public outreach.

**Project Timeline**

The project timeline assumes a January 1, 2023 start and completion by December 31, 2023.

**Table 2. Project Schedule**

Task Description / Milestone	2023											
	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
<b>1. Consultant Procurement</b>	X	X										
<b>2. Engineering Reconnaissance</b>		X	X	X								
<b>3. Risk Assessment and Prioritization</b>				X	X	X	X	X				
<b>4. Implementation Plan Development</b>								X	X	X	X	X
<b>5. Public Engagement Meetings</b>		X									X	
<b>6. Stakeholder Engagement Meetings</b>		X			X			X			X	

**Budget Justification – see Budget Application Sheet**

1. Salaries & Wages
  - a. Requested Funding – No funds are requested.
  - b. Voluntary in-kind leveraged funds provided from:
    - i. Township Project Manager Mark Sattler: 10 hours per month @ \$50/hour = \$6,000
    - ii. RBHFCD Assistance: Project Manager Adam Hoff: 5 hours per month @ \$50/hour = \$3,000
2. Fringe Benefits
  - a. Requested Funding – No funds are requested.
  - b. No leveraged funds are available under the line item.
3. Non-expendable Equipment
  - a. Requested Funding – No funds are requested.
  - b. No leveraged funds are available under the line item.
4. Expendable Materials & Supplies
  - a. Requested Funding – No funds are requested.
  - b. No leveraged funds are available under the line item.
5. Travel
  - a. Requested Funding – No funds are requested.
  - b. No leveraged funds are available under the line item.



6. Services or Consultants
  - a. One professional services subcontract for 640 hours of assistance totaling \$83,200. These estimates are inclusive of necessary equipment, software and mobilization costs associated with the following tasks:
    - i. Engineering Reconnaissance: 210 hours @ \$130 = \$27,300
    - ii. Risk Assessment and Prioritization: 130 hours @ \$130 = \$16,900
    - iii. Implementation Plan Development: 240 hours @ \$130 = \$31,200
    - iv. Public Engagement Assistance: 60 hours @ \$130 = \$7,800
  - b. Leveraged funds/services are as follows:
    - i. Drone topographic survey data has been captured and provided by the Lucas County Engineers Office in advance of this grant award. The Township appropriated \$2,465 and the RBHFCD appropriated \$5,600 towards this cost.
7. Computer Costs
  - a. Requested Funding – No funds are requested.
  - b. No leveraged funds are available under the line item.
8. Publications/Presentations
  - a. Requested Funding – No funds are requested.
  - b. No leveraged funds are available under the line item.
9. All other direct costs
  - a. Requested Funding – No funds are requested.
  - b. No leveraged funds are available under the line item.
10. Indirect Costs
  - a. Requested Funding – No funds are requested.
  - b. No leveraged funds are available under the line item.

### Letters of Support

Letters of support from supporting partners, including the RBHFCD, Lucas County Engineers Office, TMACOG and Metroparks Toledo, are attached.

### References

Gronewold, A.D., J.B.D. Durnford, J.P. Simth, A.H. Clites, F. Seglenikes, S.S. Qian, T.S. Hunter, and V. Fortin. 2016. Hydrological drivers of record-setting water level rise on Earth's largest lake system. *Water Resources Research*, 52(5): 4026 – 4042. doi: <https://doi.org/10.1002/2015WR018209>.

Kayastha M.B., X. Ye, C. Huang, P. Xue. 2022. Future rise of the Great Lakes water levels under climate change. *Journal of Hydrology*, 612(B): 128205. doi: <https://doi.org/10.1016/j.jhydrol.2022.128205>.

Reno Beach Howard Farms Conservancy District. 2021. Reno Beach and Howard Farms Conservancy District home page. Accessible at: <https://rbhfcd.org/>.

Siman K. 2020. Social-ecological risk and vulnerability to erosion and flooding along the Ohio Lake Erie shoreline. A dissertation. The University of Akron. Accessible at: [https://etd.ohiolink.edu/apexprod/rws\\_etd/send\\_file/send?accession=akron1597092923090799&disposition=inline](https://etd.ohiolink.edu/apexprod/rws_etd/send_file/send?accession=akron1597092923090799&disposition=inline).

U.S. Census Bureau, 2020. Census block data. Accessible at: <https://data.census.gov>.

Zhang, J., W. Xu, X. Liao, S. Zong, and B. Liu. 2021. Global mortality risk assessment from river flooding under climate change. *Environmental Research Letters*, 16: 064036. doi: <https://doi.org/10.1088/1748-9326/abff87>.

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**LETTERS OF SUPPORT**

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# **Reno Beach / Howard Farms Conservancy District**

**Curtice, OH 43412**

**Telephone 419-972-4571**

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

September 28, 2022

Ohio Lake Erie Commission

lakeeriecommission@lakeerie.ohio.gov

## **BOARD MEMBERS**

### **President:**

LT Elvis Shepherd

### **Vice-President:**

Chris Fleitz

### **Alternate:**

Adam Hoff, PE

### **Secretary/**

### **Treasurer:**

Chrissy Schmitz

**Re: Jerusalem Township, Lucas County  
Ohio Lake Erie Commission  
Lake Erie Ohio Communities and Coastal  
Resilience Grant application**

Dear Director Mulinex:

The Reno Beach/Howard Farms Conservancy District (RBHCD), a conservancy district created under Section 6101 of the Ohio Revised Code, fully supports the Jerusalem Township Lake Erie Ohio Communities and Coastal Resilience Grant application, titled "Coastal and Shoreline Resilience Planning in Jerusalem Township". The Township's application outlines necessary planning actions needed to prioritize resiliency risk throughout this coastal community, identify major threats to levee infrastructure and outline a strategy for future implementation efforts that will bolster the Township's ability to withstand expected impacts from lake level changes related to extreme weather events that periodically impact our community. We applaud the Township's foresight to plan for improvements that will not only protect its residents, businesses and visitors, but also improve the community's ability to adapt to potential environmental threats and maintain infrastructure and access within this key coastal economic area.

The RBHCD was formed to provide flood protection and runoff control within northeasterly Jerusalem Township and in response to significant lake flooding events that have occurred multiple times. The RBHCD, in cooperation with the US Army Corp of Engineers (USACE) constructed a shoreline protection levee completed in 1993 that protects the lands within the District from wave and ice impacts from Lake Erie. The remaining levees surrounding the District were privately constructed, with some portions dating back to the early 1900's and varying in height. Some portions of the private levee systems are at or below the FEMA-defined 100-year flood elevation for the area. A small portion of the USACE levee is also in need of repair. Based upon recent estimates provided by USACE, damages exceeding \$100MM and potential loss of life could occur if these levees are breached.

The goal of the RBHCD is to update and modify the existing levee systems to minimize the risk of catastrophic flooding within our District. The RBHCD has collaborated with the Lucas County Engineer's Office to complete a drone survey of our boundary and provide initial representation of areas of concern (approximately 7.5 mile perimeter). The acquisition of

grant funding to facilitate further assessment of available data and long-range planning for future capital investment is imperative for the RBHCD and Jerusalem Township to improve the resiliency of our flood protection systems.

The RBHCD will offer the assistance of our three (3) Board Members, all of whom were appointed by the Lucas County Court of Common Pleas, and our Secretary/Treasurer to support the Coastal and Shoreline Resilience Planning in Jerusalem Township by:

- Providing project-specific data and information, including (but not limited to): the levee system drone survey noted above, as-built drawings, Operations & Maintenance Manuals and Emergency Action Plan;
- Assisting Jerusalem Township in completing the Quality Based Selection (QBS) process required for selecting an engineering and planning firm to execute the proposed work;
- Dedicating time to attend and participate in progress/plan development meetings and reviews;
- Attendance and participation in local stakeholder meetings and public outreach efforts;
- Continued collaboration with the Township Trustees to develop funding and implementation strategies for future phased capital programs.

In closing, the Reno Beach/Howard Farms Conservancy District applauds the forward thinking efforts of the Township and offers its support of this important project. Thank you for your thoughtful consideration of funding for this vital project for our community!

**Sincerely,**



LT Elvis Shepherd  
Reno Beach Howard Farms Conservancy  
Board President  
eshepherd@rbhcd.org

*Office of the Lucas County Engineer*

1049 S. McCord Road  
Holland, Ohio 43528

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Phone: 419-213-2860  
FAX: 419-213-2829



*Mike Pniewski, P.E., P.S.*  
County Engineer

September 28, 2022

Ms. Joy Mulinex  
Ohio Lake Erie Commission  
lakeeriecommission@lakeerie.ohio.gov

Dear Director Mulinex,

The Lucas County Engineer's Office fully supports the Jerusalem Township (Township) Lake Erie Ohio Communities and Coastal Resilience Grant application, titled "Coastal and Shoreline Resilience Planning in Jerusalem Township". The Township's application outlines necessary planning actions needed to prioritize resiliency risk throughout this coastal community, identify major threats to levee infrastructure and outline a strategy for future implementation efforts that will bolster the Township's ability to withstand expected impacts from lake level changes related to climate change.

Our office has been working with Township officials and officials from the Reno Beach/Howard Farms Conservancy District to develop a comprehensive plan to protect its residents from the risk of coastal flooding. We applaud the Township's foresight to plan for improvements that will not only protect its residents, businesses and visitors, but also improve the community's ability to adapt to potential environmental threats and maintain infrastructure and access within this key coastal economic area.

As the Floodplain Administrator for Lucas County having jurisdiction over Jerusalem Township, we are committed to develop sustainable solutions to better manage flood risk in our community. Improved coastal resiliency will greatly assist with developing these solutions. As the Township's Engineer, we will advise the Township as they develop their planning efforts.

We strongly support the efforts and the commitment of resources by the Township to support this important planning effort.

Yours very truly,

Mike Pniewski, P.E., P.S.  
Lucas County Engineer



## Toledo Metropolitan Area Council of Governments

300 Martin Luther King Jr. Drive Toledo, Ohio 43604

P.O. Box 9508 Toledo, OH 43697-9508

Phone 419.241.9155 | Fax 419.241.9116 | [www.tmacog.org](http://www.tmacog.org)

September 27, 2022

Dear Director Mulinex,

I am writing to offer TMACOG's support for Jerusalem Township's Lake Erie Ohio Communities and Coastal Resilience Grant application, titled "Coastal and Shoreline Resilience Planning in Jerusalem Township". Toledo Metropolitan Area Council of Governments (TMACOG) is dedicated to coordinating regional partners on water quality issues in northwest Ohio.

The Township's application outlines necessary planning actions needed to prioritize resiliency risk throughout this coastal community, identify major threats to levee infrastructure and outline a strategy for future implementation efforts that will bolster the Township's ability to withstand expected impacts from lake level changes related to climate change. TMACOG applauds the Township's foresight to plan for improvements that will not only protect its residents, businesses and visitors, but also improve the community's ability to adapt to potential environmental threats and maintain infrastructure and access within this key coastal economic area.

If funded, Jerusalem Township's coastal resiliency plans will offer benefits not only to the Township, but also to the TMACOG region through improvements to water quality, quality of life, and recreational opportunities in an important coastal community. We will provide in-kind support for this project by sharing information about the project in TMACOG's *The Big Picture* newsletter, social media pages, and through email distribution to TMACOG members.

TMACOG applauds Jerusalem Township's forward-thinking efforts and fully supports funding of this important project.

Sincerely,

Kari Gerwin  
Vice President of Water Quality Planning



## **METROPARKS TOLEDO**

September 28, 2022

Joy Mulinex  
Executive Director  
Ohio Lake Erie Commission  
P. O. Box 1049  
Columbus, Ohio 43216

Dear Director Mulinex:

Metroparks Toledo is happy to provide this letter in support of the Jerusalem Township (Township) Lake Erie Ohio Communities and Coastal Resilience Grant application, titled "Coastal and Shoreline Resilience Planning in Jerusalem Township". The Township's application outlines necessary planning actions needed to prioritize resiliency risk throughout this coastal community, identify major threats to levee infrastructure and outline a strategy for future implementation efforts that will bolster the Township's ability to withstand expected impacts from lake level changes related to climate change. We applaud the Township's foresight to plan for improvements that will not only protect its residents, businesses and visitors, but also improve the community's ability to adapt to potential environmental threats and maintain infrastructure and access within this key coastal economic area.

The mission of Metroparks Toledo is to conserve the region's natural resources by creating, developing, improving, protecting, and promoting clean, safe, and natural parks and open spaces for the benefit, enjoyment, education, and general welfare of the public. Through development of Howard Marsh Metropark in Jerusalem Township, Metroparks Toledo has worked in partnership with the Township and other government agencies to help strengthen the surrounding flood control levy system. We look forward to continuing to partner with the Township and provide assistance with this project through public engagement and technical expertise.

In closing, Metroparks Toledo applauds the forward thinking efforts of the Township and offers its support of this important project. Please do not hesitate to contact me if I may be of further assistance.

Sincerely,

**TIM SCHETTER, PhD, CWB®**

Chief Natural Resources Officer

Mobile: 419-461-0501

Email: [tim.schetter@metroparkstoledo.com](mailto:tim.schetter@metroparkstoledo.com)

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