



Pelee Coastal Resilience Committee

Quarterly Meeting #3

Pete Zuzek, Linda Mortsch, Janice Forsyth, Larry Hildebrand
December 12, 2024

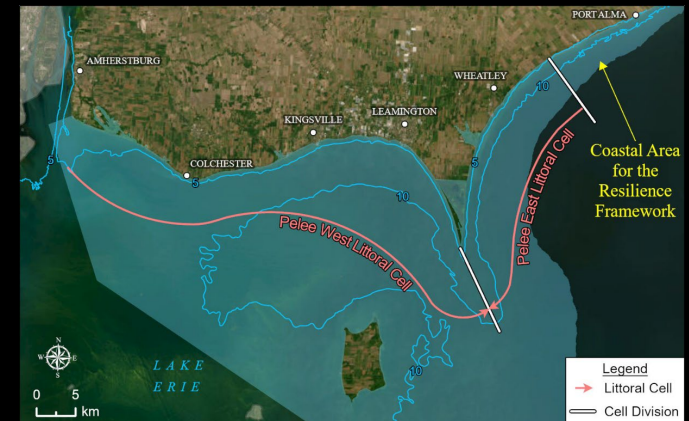


Land Acknowledgement

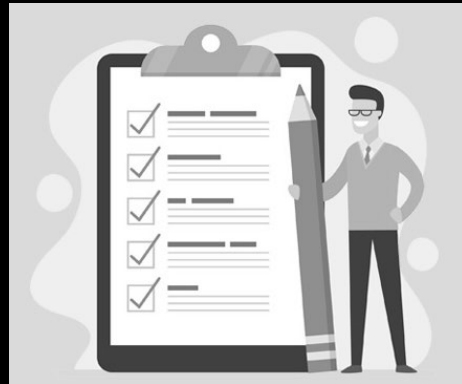
We acknowledge the land on which the County of Essex is located is the traditional territory of the Three Fires Confederacy of First Nations, comprised of the Ojibway, Odawa and Potawatomie Peoples.

We specifically recognize Caldwell First Nation and other First Nations which have provided significant historical and contemporary contributions to this region.

We also value the contributions of all Original Peoples of Turtle Island, who have been living and working on this land from time immemorial.



I – AGENDA AND MEETING GOALS



Date: December 12, 2024; 10 am to 3 pm
Location: County of Essex; 360 Fairview Ave W, Essex, Council Chambers
Meeting Goals: Share key ideas from focus groups and workshops.
 Provide an updated overview of baseline assessments (to frame adaptations)
 Present draft decision-making tool and scorecard.
 Brainstorm draft adaptation concepts.

| | |
|---------------------------|---|
| 1. | Review/Approve Agenda and Minutes |
| | <ul style="list-style-type: none"> Welcome; Land Acknowledgement. Review and approve meeting goals and agenda. Review and approve minutes from September 12, 2024. |
| 2. | Business arising from the minutes and future funding |
| | <ul style="list-style-type: none"> Committee membership. Public announcement of federal funding by NRCan (pending). Harbours Task Team (update from Pete). Opportunities for future funding (all). |
| 3. | Community Engagement Overview |
| | <ul style="list-style-type: none"> Overview of engagement results – focus groups and workshops. Proposed 2025 Committee and Workshop dates. |
| 4. | Year 1 Work Plan |
| | <ul style="list-style-type: none"> Summary of baseline assessment and vulnerability. One overview poster per littoral cell (showing linkages of integrated coastal system – all four dimensions; in development). Present draft Adaptation Decision Support Tool and Scorecard (for screening and ranking/prioritizing). Group discussion. |
| Lunch (brought in) | |
| 5. | Brainstorming Session on Adaptation Concepts |
| | <ul style="list-style-type: none"> Short presentation of types and some potential examples (e.g., planning instruments, restoration, retreat and re-alignment, etc.). Breakouts to brainstorm potential adaptation projects. Reporting out to full group and discussion. |
| 6. | Other Business |
| | <ul style="list-style-type: none"> As required. |
| 7. | Next Meeting and Adjourn |
| | <ul style="list-style-type: none"> March 13, 2025 – location tbd (maybe Grovedale Arts and Culture Centre?) Meeting adjourned. |

DRAFT Minutes

Quarterly Meeting #2: Pelee Coastal Resilience Committee

Date: September 12, 2024

Location: Municipality of Leamington Council Chambers

Attendees:

| Present | Organization | Member | Initials |
|---------|---|---------------------|----------|
| x | Caldwell First Nation | Susan Sullivan | SS |
| | Walpole First Nation | TBD | |
| x | County of Essex | Rebecca Belanger | RB |
| x | County of Essex | Corinne Chiasson | CC |
| | Municipality of Leamington | Bill Fuerth | BF |
| x | Municipality of Leamington | Rob Sharon | RS |
| | Town of Kingsville | Richard Wyma | RW |
| | Town of Kingsville | Tim Del Greco | TDG |
| | Town of Essex | Kevin Girard | KG |
| x | Town of Essex | Erica Tilley | ET |
| x | Municipality of Chatham-Kent | Edward Soldo | ES |
| | Municipality of Chatham-Kent | Brigan Barlow | BB |
| | LTVCA | Jason Wintermute | JW |
| x | LTVCA | Mark Peacock | MP |
| x | ERCA | James Bryant | JB |
| | ERCA | Tian Martin | TM |
| x | Leamington District Chamber of Commerce | Diane Malenfant | DM |
| | Leamington District Chamber of Commerce | Wendy Parsons | WP |
| x | South Essex Community Council | Carolyn Warkentin | CW |
| x | Leamington Shoreline Association | Wayne King | WK |
| | PPNP Citizens Advisory Committee | Charbel Saad | CS |
| | Nature Conservancy of Canada | Kristyn Richardson | KR |
| | Nature Conservancy of Canada | Luke King | LK |
| | Nature Conservancy of Canada | Jill Crosthwaite | JC |
| | Nature Conservancy of Canada | Brett Norman | BN |
| | Ontario Greenhouse Vegetable Growers | Rob Petro | RP |
| | Wheatley Harbour Authority | Bobby Cabral | BC |
| | DFO, Integrated Planning | Cindy Mitton-Wilkie | CMW |
| | DFO, Integrated Planning | Emily Champagne | EC |
| | DFO, SCH | Adele Butcher | AB |
| | DFO, SCH | Jennifer Thomas | JT |
| | DFO, SCH | Annette Winter | AW |
| | DFO, SCH | Mike MacDiarmid | MM |
| | ECCC | Greg Mayne | GM |

| | | | |
|---|---------------------------------|----------------|----|
| x | Canada Water Agency | Jody McKenna | JM |
| x | Parks Canada | Julie Charlton | JC |
| x | Parks Canada | Scott Parker | SP |
| x | Parks Canada | Tammy Dobbie | TD |
| x | University of Waterloo | Linda Mortsch | LM |
| x | Foresight Management Consulting | Janice Forsyth | JF |
| x | Zuzek Inc. | Pete Zuzek | PZ |
| | Natural Resources Canada | Mujtaba Ali | MA |

| | |
|-----------|--|
| 1. | Review/Approve Agenda and Introductions |
| | <ul style="list-style-type: none"> Welcome; Land Acknowledgement. Review and approve meeting goals and <u>agenda</u> Review and approve minutes from June 13, 2024. Approve: Meeting agenda and goals, and minutes motion from Rob, second Mark. None opposed |
| | <i>Action Item(s):</i> |
| | 1. None. |
| 2. | Business arising from the minutes |
| | <ul style="list-style-type: none"> Matching funds from partners, other funding, and leverage opportunities discussed. Pete: Need partners to provide cash contributions for year 1. Pete: First Nation Adapt Funding is very close. \$180K/3 yrs. Purpose is to design and execute detailed engagement with the Caldwell FN Community. Pete: Waiting to hear about MECP funding for beach grass initiative. Rob: Caldwell FN application of \$15M to DMAF was successful. Thrilled and thankful to Caldwell FN for their effort. Three stage process: 1) select Project Management firm, 2) engage an Engineering firm for design, 3) tender and construction. DMAF Program Timeline is out to 2033. Hoping for a project timeline of 3 years. Susan: Community is very proud of this accomplishment. Shows how a project partnership with the FN is powerful (Green leadership given to FN councillor, Tom Giles). Mark P: Cannot underestimate how important this effort is for the region. Brought the federal government back to the table and will help getting other things done on Lake Erie. Jody: introduced herself as a member of the Canada Water Agency (national management of water quantity and quality), which is now a branch of ECCC. Great Lakes program management/implementation model will be adopted across the country. Great Lake Water Quality Program (GLWQP) not changing. Rob S: Like this focus on water. Focus is a <u>similar to</u> U of Ohio and H2Ohio. Very well funded program, with a huge focus on water quality. |
| | PROJECT ANNOUNCEMENT |
| | <ul style="list-style-type: none"> Pete: Explained situation. Can inform internally the <u>group/organizations</u> you represent. |

- James: Want to announce at Board, will wait.
- Rebecca: If we put out internally, it will go out more broadly to media.
- Rob: We should wait to be respectful of the funding agency.
- Jody: Hopefully the Program announcement is soon.
- Linda: Should tell NRCan we will wait to October 1 to announce Pelee Resilience Project
- Jody: Communicate with NRCan on your communication plans.
- James: We can re-evaluate through email and wait until Oct. 1 but we should pressure NRCan since we need some lead-time for our announcement of November workshops.
- Tammy: We need to be aware of the scope of the audience. NRCan wants to tell all Canadians about Resilience. Our goal is to communicate to the local area about a Coastal Resilience Action Plan. We want the public to contribute and participate in November workshops.
- Julie: We have waited up to 2 years for our Program announcements.
- Pete: Will inform Mujtaba, we will wait until Oct. 1 for broad announcement. At that point we will announce a Workshop Series on Coastal Resilience for our Pelee Coastal area.

LOGO

- Pete: introduced the logo. Susan approved. Julie seconded. No-one opposed.

VISION

- Linda: presented the vision. No concerns.
- Goals: #1, Task team of Susan, Emily, Julie, Zack discussed a revised #1 and approved rewording.
- Goals #2: recognize broad engagement with community.
- Goals #3 and #4: previous approved.
- Jody: questioning 'linked' in #2. What does this mean. Linda: explained how the Committee's work is locally focused; however, it needs to be linked to broader research, regulatory, and institutional networks. Jody: will there be a roadmap on how to get there. Pete: yes, Step 4 is evaluating outcome. Work plan has task list.
- Mark P: Will we create links? Pete: we want them and will contribute to developing. James: thinks vague is good and ok with link. Scott: what will we do? Pete: Goal 3 outlines this (baseline, adaptations, and implementation).

CLIMATE CHANGE SCENARIOS

- Pete: explained that we have historical scenarios but need future climate (lake levels, rainfall, wave and ice cover). Tammy: would like to be involved. Yes. Rob: how many scenarios are there to pick (RCP4.5, 8.5). Scott: Scenarios good and important step. Linda: agreeing on common scenarios is important for long-term planning. James: CA already has updated hazard mapping and would like to see consistency with their updated hazard maps. The combined probability of coastal flooding and rainfall is an important scenario consideration.
- Linda: Looking at infrastructure, okay to look at multiple scenarios and understand at what thresholds they fail. Pete: have to be careful with introducing too many scenarios, as it will confuse the assessment.

Action Item(s):

1. Upcoming Pelee Coastal announcement will be coordinated through calls/email for Oct 1, 2024. The focus will be building the excitement for the November workshops.
2. Provide the work plan to Committee.
3. Pete, re-schedule call with Climate Scenarios task team (Tammy, James, Rebecca, Mark, Edward, Linda)

3. Community Engagement

WEBSITE

- Pete: Reviewed the website features. Do you have thoughts on what you want? Currently there is not a lot of content but will be evolving with the project. It will be the resource for meeting information, agendas, minutes, presentations and project resources. We want to list partners on web site; is everyone ok? No objections.
- James: When will it go live? Take out reference to NRCan and include the rest?
- Mark: Would have to make the Resources tab password protected.
- Pete: Could do this.
- Jody: Does the NRCan want to be involved. Pete: Yes, Mujtaba is on the distribution list for Committee meetings.
- Susan: Can we encourage NRCan to announce; delay can create issues/distrust in the community. Pete: Yes, we are in discussions with funding agency.
- Edward: If NRCan is removed from website, could we share now, not wait until Oct. 1? Corrine: If we have Committee Member sign in for the Resources Tab, then we are being clear and transparent.
- Rebecca: Would like to wait to release the website until Oct. 1.
- Susan: Caldwell FN is having election this weekend. Can we inform new members? (Yes)
- Pete: After good discussion, Committee agrees to wait until Oct. 1 to release the website. Currently, remains password protected. Will notify NRCan of this plan. The focus of the launch will be informing people of the November workshops series and inviting them to attend.

COMMUNITY ENGAGEMENT

- Janice: reviews knowledge mobilization (slide 14). We want the Committee to be a voice within your own organizations. Explains diversity, equity, inclusion and importance of project.
- Janice: focus groups could start in later October, then four workshops,
- Janice: format for Workshop #1. Two locations. Two slots per day. Workshop #1 will be more information out to the community, with surveys and opportunities for people to provide feedback. Committee members to have roles to play (e.g., table facilitators, distributed through audience for informal feedback)
- Carolyn: if serious about EDI lens, accessibility and translation, etc. are important. Should include the plugin to translate from English to French and Spanish.
- Rebecca: microphone button on a website can be used to read the content. General support for this.
- James: AODA, Ontario with Disabilities, could be a guide.

- WORKSHOP LOCATIONS: East and West littoral cell locations.
- Tammy: new room in Wheatley (that could be centrally located for CK shoreline towards Port Alma). Rebecca: Lakeside Pavilion in Kingsville, Colchester, Pete/James: Harrow Arena is an option. Colchester Harbour venue may be a bit small. Julie: being on the water provides a nice perspective
- James: Wheatley Resource Center; check if accessible
- NAME TAGS
- Tammy: if you wear your uniforms, help the public give feedback to you personally rather than speaking out in workshop. Name tags with your organization is a good idea (shirt, etc.).
- Rebecca: possibly have special name tags with the logo (produce) for members of Committee to identify to the public for informal feedback and questions.

INVITATIONS FOCUS GROUPS AND WORKSHOPS

- Edward: who should we invite from CK for the workshop. Janice: workshops completely open to the community/public at large. The focus group are targeted.
- Linda: workshops are learning opportunities (two-way).
- Rebecca: could we do targeted mailouts for the workshops? Carolyn: can do it with Canada Post. Rob: have done targeted mailings with their system (e.g., Cedar Creek). Tammy: got the Hillman Marsh post card and seemed to work well. If we implement post cards, we need to have a contact person/method for the public.
- Rob: with focus groups, have to select them very carefully. Thinking about a meeting and inviting like-minded groups (e.g., socially focused, landowners, businesses). Need to determine what we are focusing on.
- Susan: high schools have eco-clubs, so have an eco-club meeting. If we get the First Nation Adapt funding, can target the General Members Meeting (200 to 300 people).
- Jody: with the initial list of groups, did we do an interested and affected table. If you selected groups that have both, they are more likely to be engaged. Are there other citizens groups west of Leamington? Wayne: no.
- GROUPS
- Diane: Leamington Chamber Board, Amherstburg, CK Chamber. Edward: Rather than one organization, maybe better to invite all the accessibility committees and have a meeting at one location. James: focus on themes/areas, not individual groups. Should include Groups not already on the Committee. Rebecca: themes such as economy, recreation, social, physical (Diane: our four component circle group diagram).
- Focus Groups: theme such as recreation and accessibility. Invite appropriate groups. Corinne: Greenhouse owners, winery owners, agri-tourism, farmers.
- Julie: how do we engage harbours? Pete: create a special task team/working group.
- Rob: shoreline communities (they are definitely interested and affected).
- Carolyn: need chance to connect with those that do not typically engage; everyone is affected as coastline is “everywhere” and people need awareness and a voice. Linda: want those people to be engaged.
- Pete: shoreline landowners are typically very good at attending Workshops; Focus groups want to engage with those who typically have not been engaged.

- Jody: be clear about the role the focus group plays. Julie: Essex County Field Naturalists are an important group for ecosystem perspective. Corrine: want advocates that are involved in the coast already.
- Susan: advocating for the youth voice. Within Caldwell FN, young leaders are important voices. Have eight passionate youth that advocate for water. Perhaps the Caldwell First Nation can take a lead with the youth, reaching out to the High Schools; this could be part of the Caldwell First Nation Adapt funding. With youth, have to meet on their terms.
- Rebecca: when finalizing County Official Plan, sent email to Principals for students to join the planning process. Rebecca has contacts with Principals and could help with this group.
- Rebecca: there are also organized senior groups. Will they be engaged more than once? What about year 2?
- Pete: could use some of the Essex funding for engagement. Expand focus group aspect of the project.
- Jody: develop a PowerPoint presentation to train the trainer on communicating about the Pelee Coastal Resilience project.
- Scott: need clarification of lines on the summary workplan graphic. Add more detail. Pete: Slide 20 is the summary work plan; there is a more detailed version.

Action Item(s):

1. Pete: Notify NRCan of our timeline for launching the website and purpose of communicating with the community.
2. Pete: Pelee Coastal Resilience website (peleecoastal.ca) will go live on Oct 1 (password protection will be removed).
3. Pete: List partner organizations on website.
4. Peter, Linda, Janice: Determine groups to target for Focus Groups

4. Year 1 Work Plan

- Peter: shared one component of the necessary baseline work – vulnerability of land, buildings, and building contents to erosion and flooding. It is based on assessment values for properties (not market value, not current 2024 values) and the recently completed 100-year erosion hazard limit and flood hazard limit. Both hazards were also re-evaluated considering the impacts of a changing climate. There is a lot more to do in developing baseline work for social, environmental, and economic streams for example.
- Peter: have scenarios for flood hazard limits related to lake driving effects – lake levels, storm surge, waves but not rainfall effects on coastal communities.
- Julie: would be useful to have baseline flooding loss information for agricultural lands, tourism.
- Pete: looking for task team members to enumerate baseline assessment needs and data for social, economic, and physical dimensions of the coastal area.
- Rebecca: one more data set that would be useful for the analysis is zoning (e.g., agricultural, residential).
- Pete: erosion line (100-year regulatory line) used to calculate how many buildings are on the wrong side of the line; assumes existing shore protection fails and people will

not invest in new shore protection; historical recession rates increase 50% for the climate change scenario.

- Tammy: gaps include Pelee Park; Pete: analysis will be completed for baseline; also need to complete assessment for Chatham-Kent.
- Scott: what about vulnerability and ability to bounce back. Maps for resilience or resistance (where adaptations have been implemented (e.g., good drainage, stilts))
- Tammy: need to know scenarios for habitat mapping.
- Pete: described issues of sedimentation in Wheatley and Kingsville harbours' navigation channels. These "barriers to nearshore drift" could be evaluated in future adaptation planning. Presently, the dredged sediment is placed on the lake bottom (e.g., around the 4 to 5 m contour) and along the shoreline. At Wheatley, the majority of the sediment is dredged with land-based equipment and placed down-drift on the beach (e.g., trucked to the north beach at the Hillman Marsh). Need to discuss optimization of future placement on beaches with harbour managers and approval agencies. -DFO.
- Jody: would benefit from some idea of context. See slide: 29. What role does nearshore water quality play and sources of nutrients from the land play. Pete: this investigation will be handled by ECCC money to nutrient initiative (led by ERCA), but we can link to their findings.

TASK TEAMS AND MEMBERS

- ED: Would like some guidance on type of person: knowledge holder and technical/GIS person.
- James: clarification needed on what resources and time commitment to do baseline.
- Pete: information needed in October.
- Jody: seems like this is a high level screening assessment and not a detailed assessment of hundreds of reports; based on experts, knowledge, high priority areas.
- Rebecca: will collaborate with ERCA; have datasets including layers used for the ecological baseline and natural systems strategy, which integrate into the County Official Plan.

ECOLOGY

- Rebecca/County, James/ERCA (will identify an ecology person, Tom Dufour for GIS), Tammy/Parks, Greg Mayne/Jody/ECCC, Caldwell FN, DFO, Ed/CK (will identify someone).

BUSINESS/ECONOMY

- Rebecca/Corinne County Essex, Julie Charlton/Parks, Caldwell FN, Ed/CK, Diane/Chamber

SOCIAL BASELINE

- Carolyn/Community Council, Rebecca/County, Wayne/Leamington Shoreline Association, Susan/Caldwell FN, Ed/CK

Action Item(s):

1. Pete: hazard mapping and vulnerability assessment will be extended into PPNP and updated for CK.
2. Pete: send out detailed work plan to Committee.

3. Form task teams on ecosystems, social and economic themes to identify assessment content and data sets to support analysis. Task team members to organize meetings, data submitted in October to Pete (to support analyses for November Workshops).
4. Pete will reach out to DFO Small Craft Harbours to discuss bypassing and sedimentation in federal navigation channels.

5. Adaptation Scorecard/Decision Support Tool

- Janice: need a way to evaluate adaptation concepts. Introduced slides 31/32.
- Group Work to discuss and brainstorm criteria.
- Tammy: is the process to decide on all potential ideas for the Action Plan or just the ones that we can afford with this project?
- Linda: Should be selected for the broad scope of potential adaptations to address issues in the first cut and ultimately selected using scoring to inform
- James: hard. Are we weighing displacement of residents versus ecological threat.
- Scott: look at threats (vulnerability), Open Standards using evidence based approach (Miradi), uses results chain.
- BREAKOUT SESSION AND REPORT OUT – see Appendix A

Action Item(s):

1. Janice to compile the feedback and the consulting team will advance a decision support tool to screen and ultimately select adaptations for review in December.

6. Other Business / Feedback

- Pete: are people open to communications in between meetings. Rebecca, yes!
- Tammy: okay to send emails and look for feedback.
- Carolyn: use Microsoft Teams approach to get feedback on materials.
- Date window for Workshop: November 19-21, 2024.
- Edward: 10 am is a perfect start for quarterly meetings.
- Jody: spoke to Emily/DFO and the morning agenda was very process based. So hard to justify travel. Might need to find different role/way for them to participate.
- Rob: plan for workshops and public engagement, start at basic principles. Tell them why we are here? 150 years ago, area was natural, modified the area. Tell the narrative of disrupted natural processes. These are the things influencing nearshore water quality. This is the habitat loss. And thus, this is the problem (status quo is not a solution). In some locations, may have to consider buyouts.
- Jody: "And, But, Therefore" approach to problem statement.

Action Item(s):

1. Consider Microsoft Teams meeting in between face-to-face quarterly meetings.

7. Next Meeting and Adjourn (3 pm)

- firmed next meeting:
- **December 12, 2024 – 10 am - 3pm**, County of Essex Municipal Offices. Lunch will be provided.
- Adjourn, motion from Carolyn, second James. None opposed.

II – BUSINESS ARISING FROM THE MINUTES AND FUTURE FUNDING





Membership, Announcements, Work Plan

- Committee Membership discussed
- Public Announcement of Federal Funding by NRCan (week Jan. 13)
 - Mujtaba Ali, Science and Policy Advisor at NRCan
- Harbours Task Team
- Opportunities for Future Funding

III – COMMUNITY ENGAGEMENT OVERVIEW





Feedback – Focus groups

LDSS Students (N=26)

- Concerns = Wheatley PP; Pt. Pelee; County Rd. 50 and Cedar Creek
- Impacts = erosion; land loss; damage to buildings, crops & homes
- Priorities = preserve and restore; remove invasive plants; introduce native wetland plants

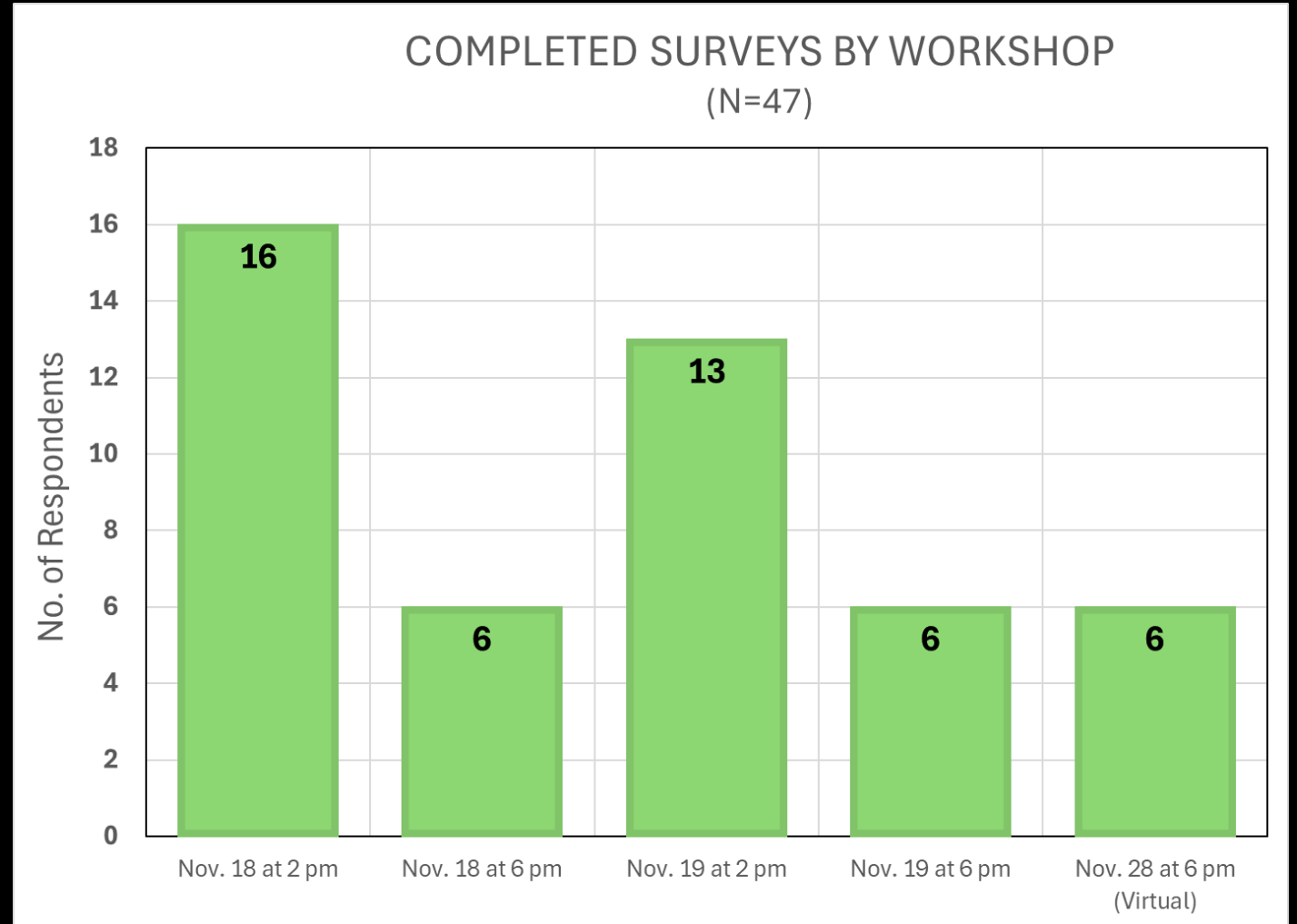
Chambers of Commerce (N=8)

- Concerns = Wheatley PP; Pt. Pelee; Port Alma; Amherst Pt. and Lake St. Clair
- Impacts = wildlife & loss of habitat; avian & aquatic life; insurance claims and increased costs; Tourism industry; local business i.e. marinas, restaurants
- Priorities = sustainability; public/private partnerships; local community buy-in



Workshop Survey

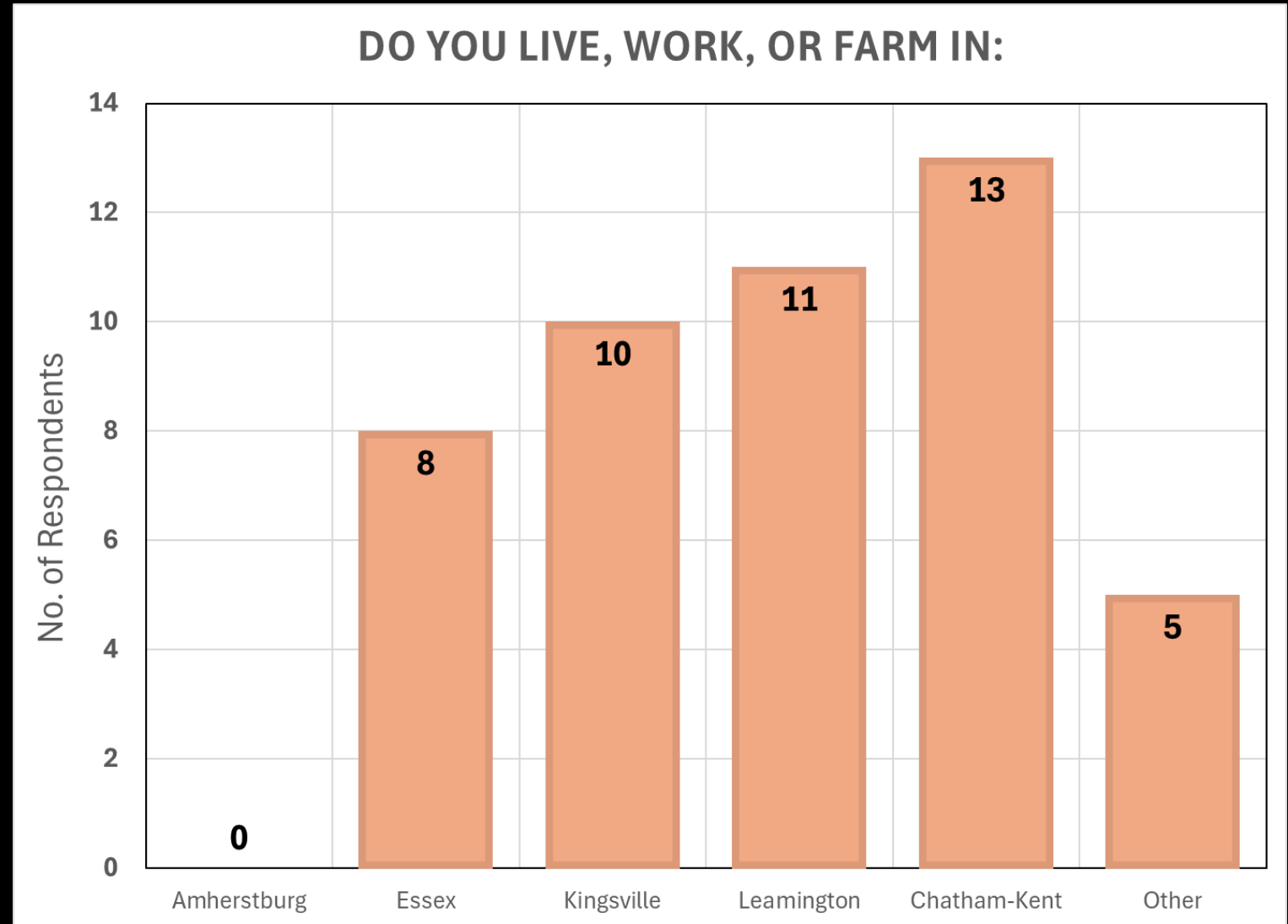
- N=47
- Attendees ~100
- ~50% completion rate





Geographic Representation

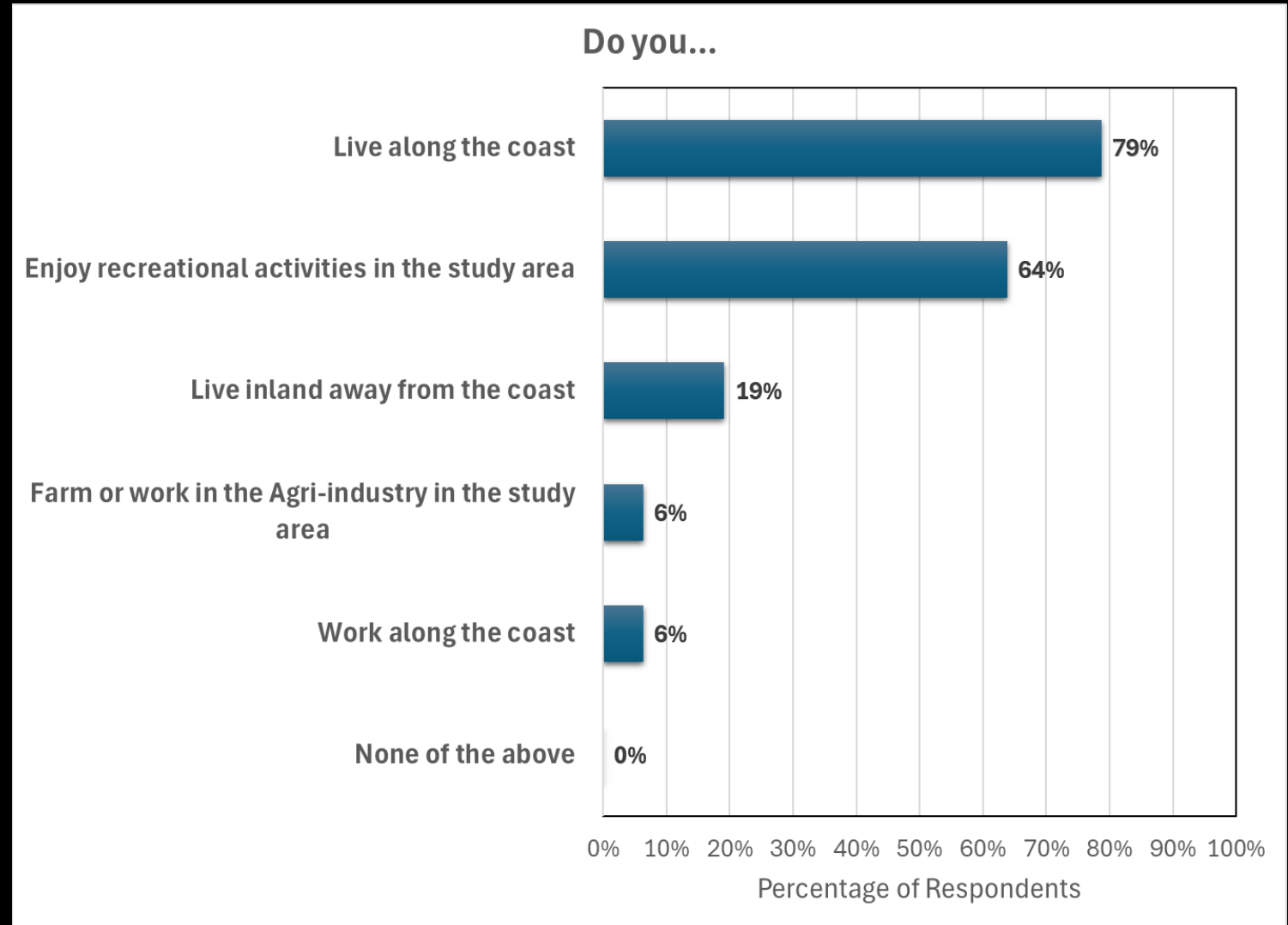
- Zero from Amherstburg





Activities in the Coastal Area

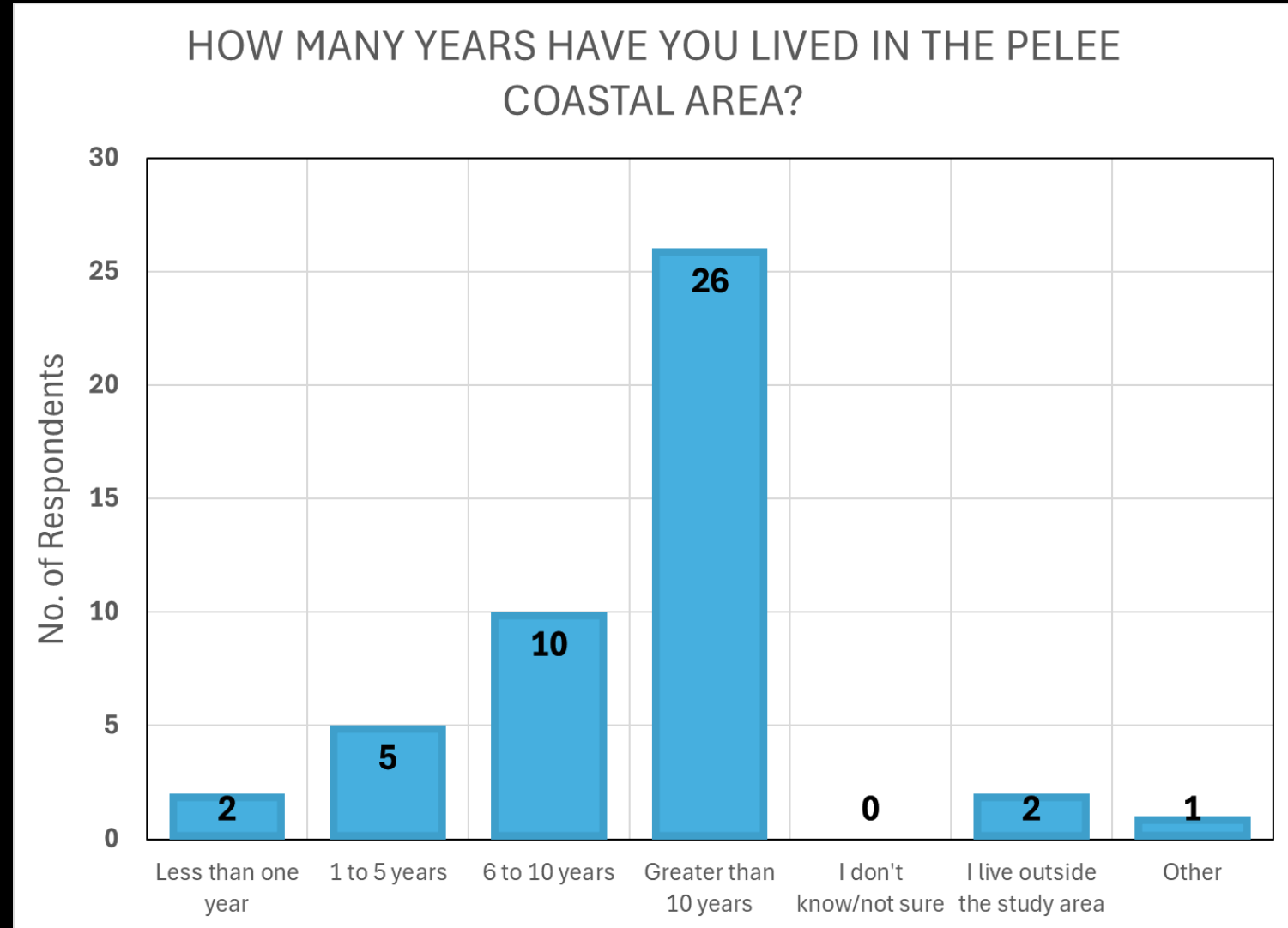
- Majority of attendees live in the coastal area





History with the Area

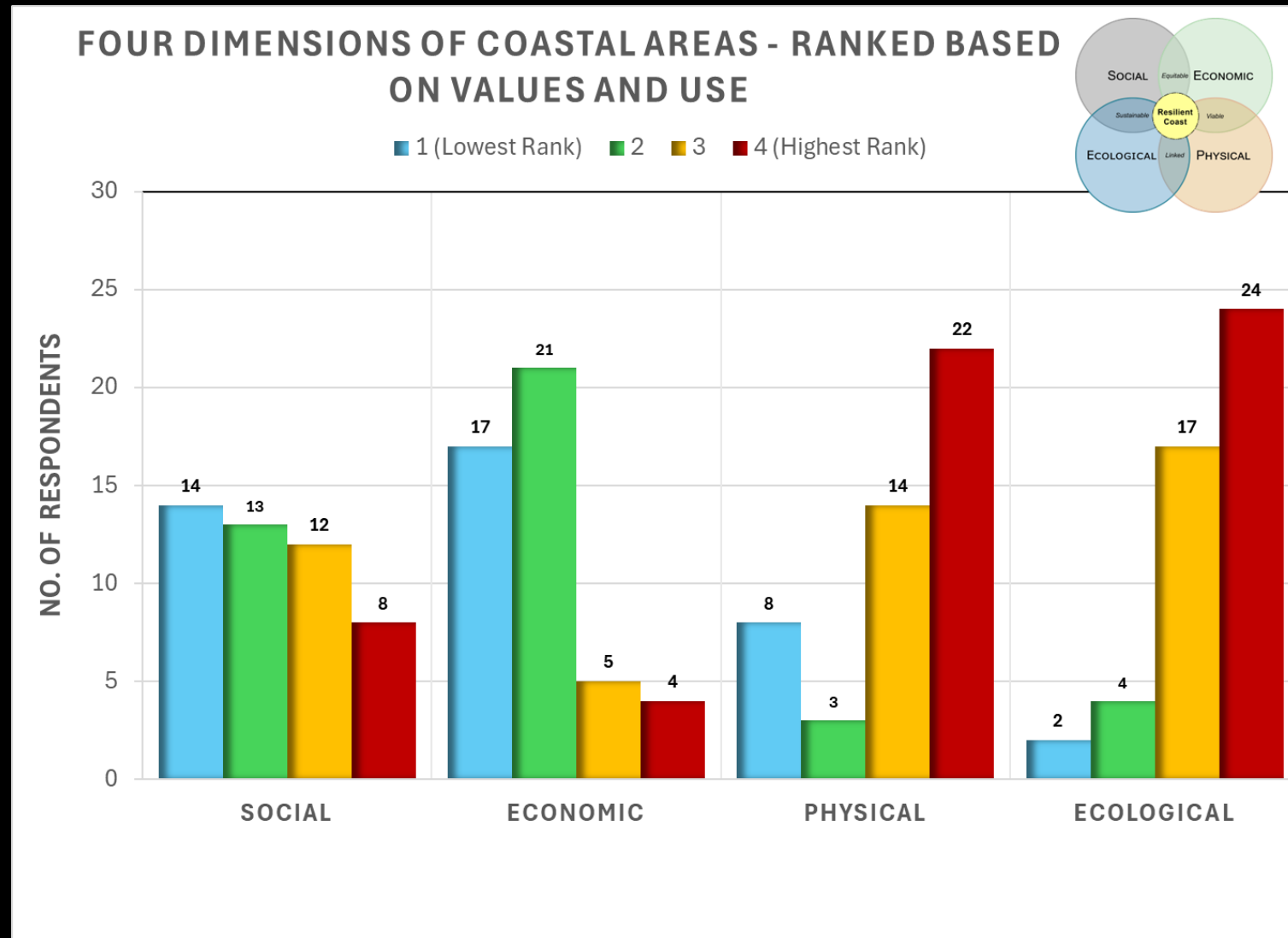
- Majority have lived in the area for more than five years





Rank of Dimensions based on Values and Use of the Coastal Area

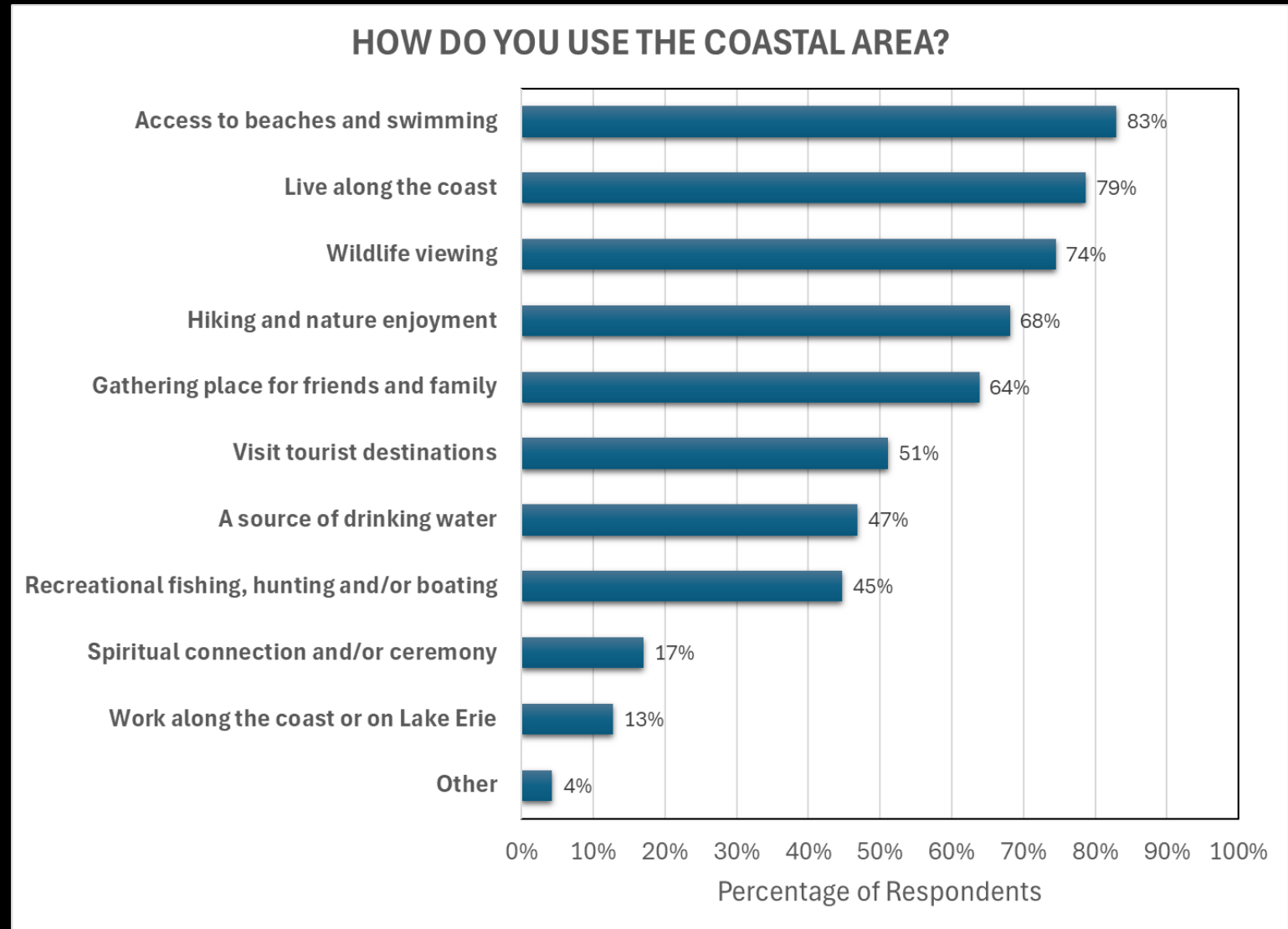
- Ecological – highest, followed by physical
- Lowest rank was economic, followed by social





How do you use the Coast?

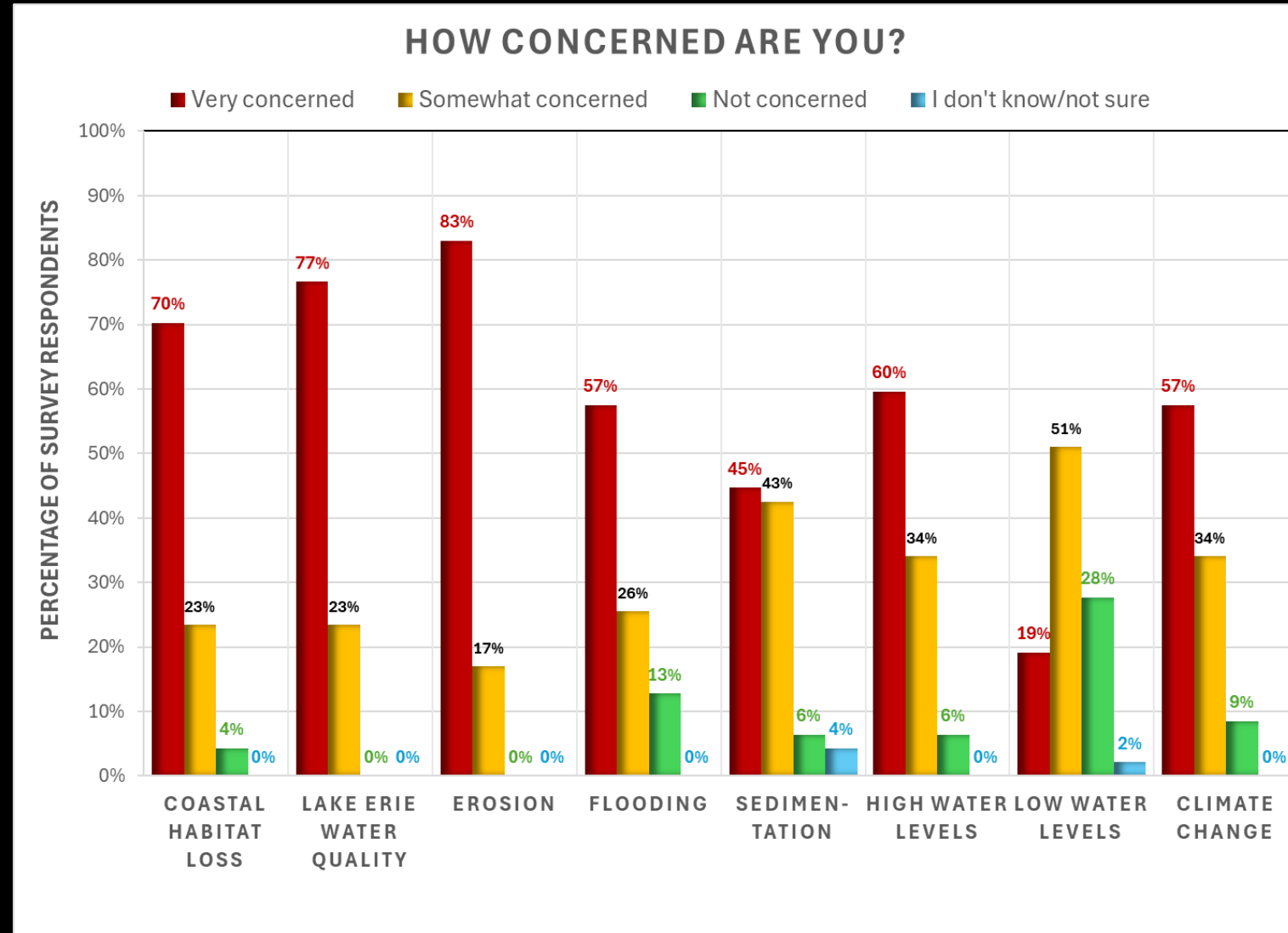
- Access to beaches and swimming most common, followed closely by live along the coast and wildlife viewing





Concerns?

- Many concerns
- Erosion, water quality, and coastal habitat loss were the top concerns

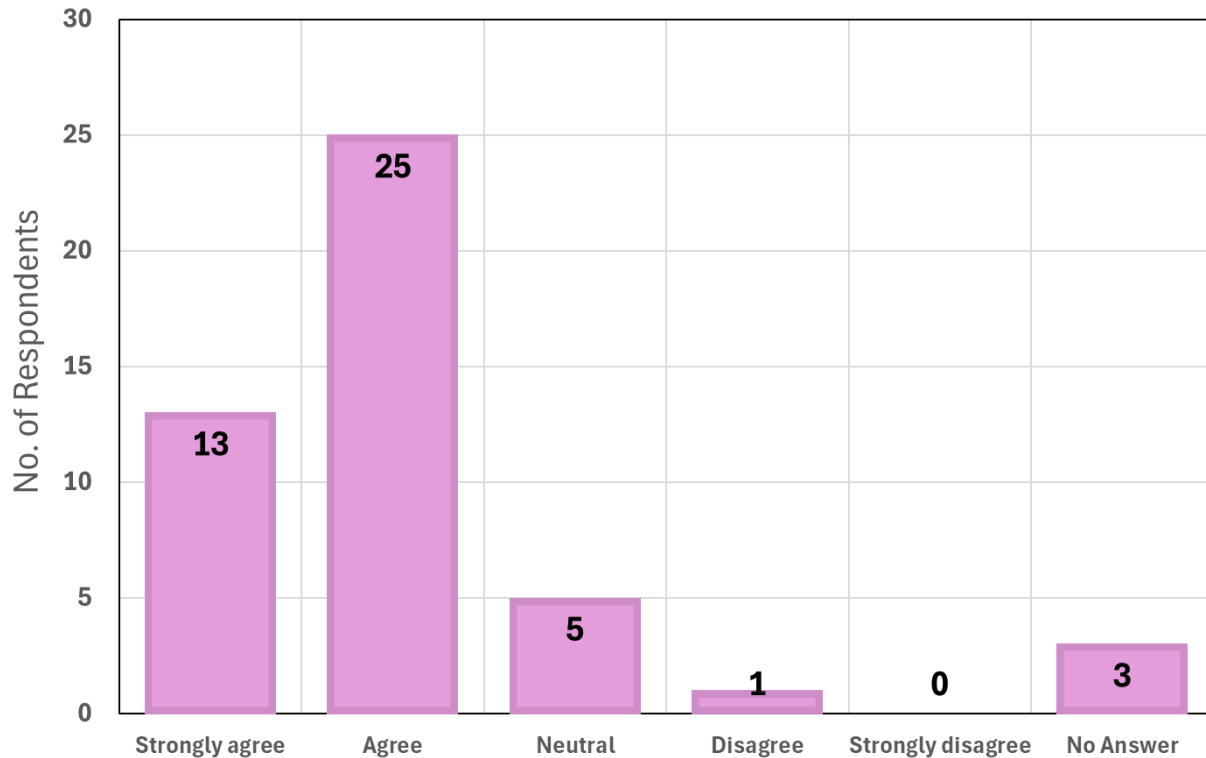




Clarity of Information and Logistics

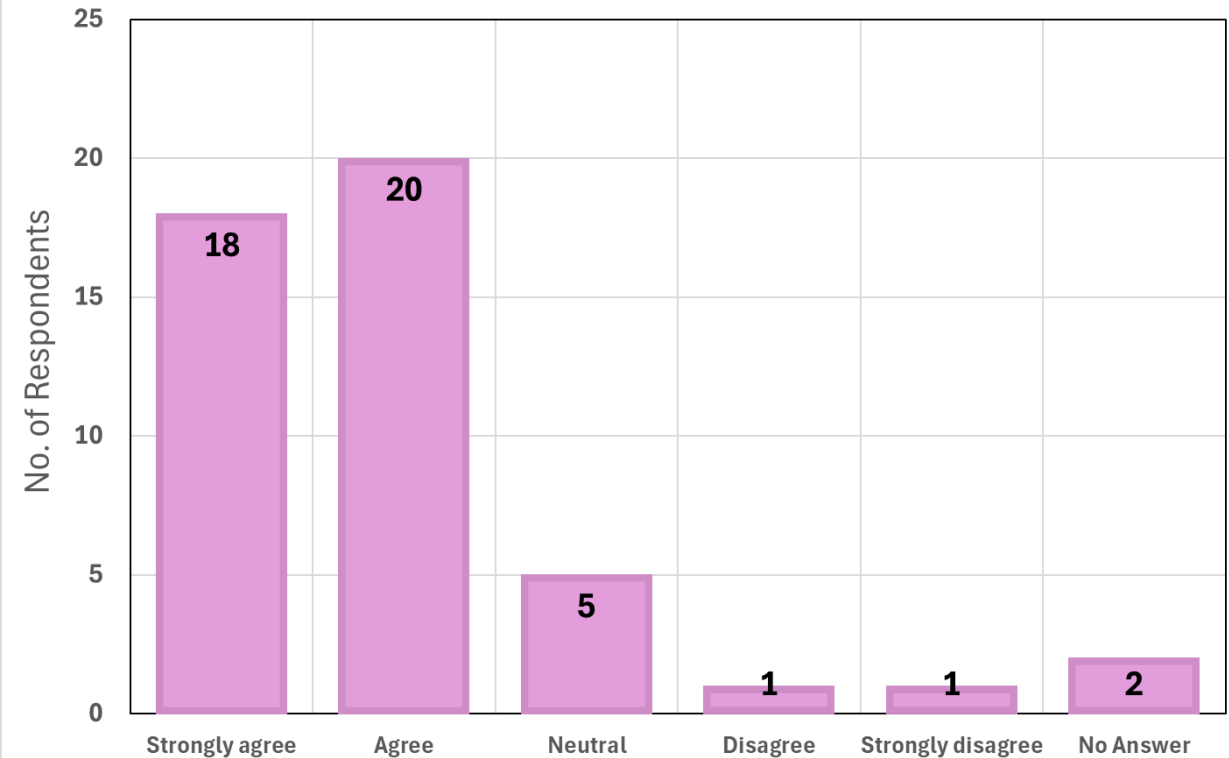
WORKSHOP
FEEDBACK

THE INFORMATION IN THE PRESENTATIONS WAS
EASY TO UNDERSTAND:



WORKSHOP
FEEDBACK

THE LOGISTICS (LOCATION, TIME) OF THE
WORKSHOP WERE SUITABLE:

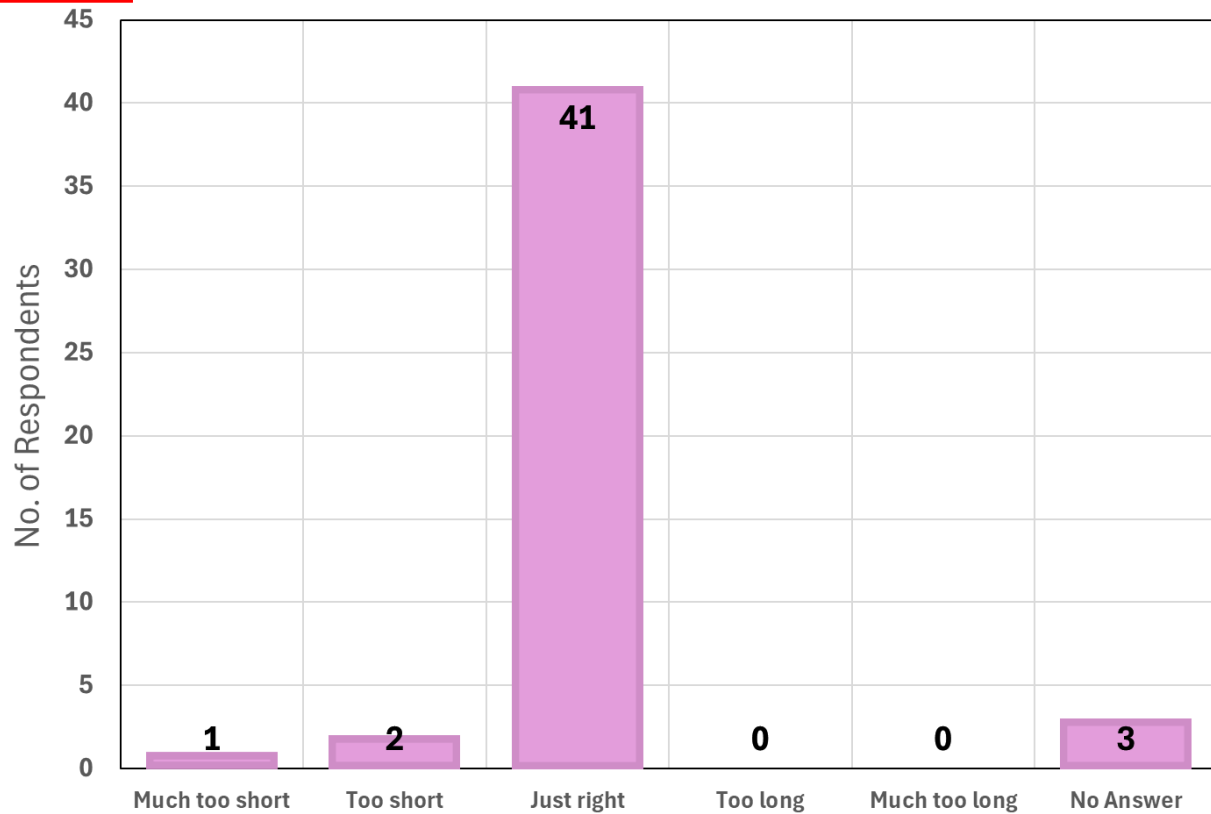




Meeting Duration and Future Meetings

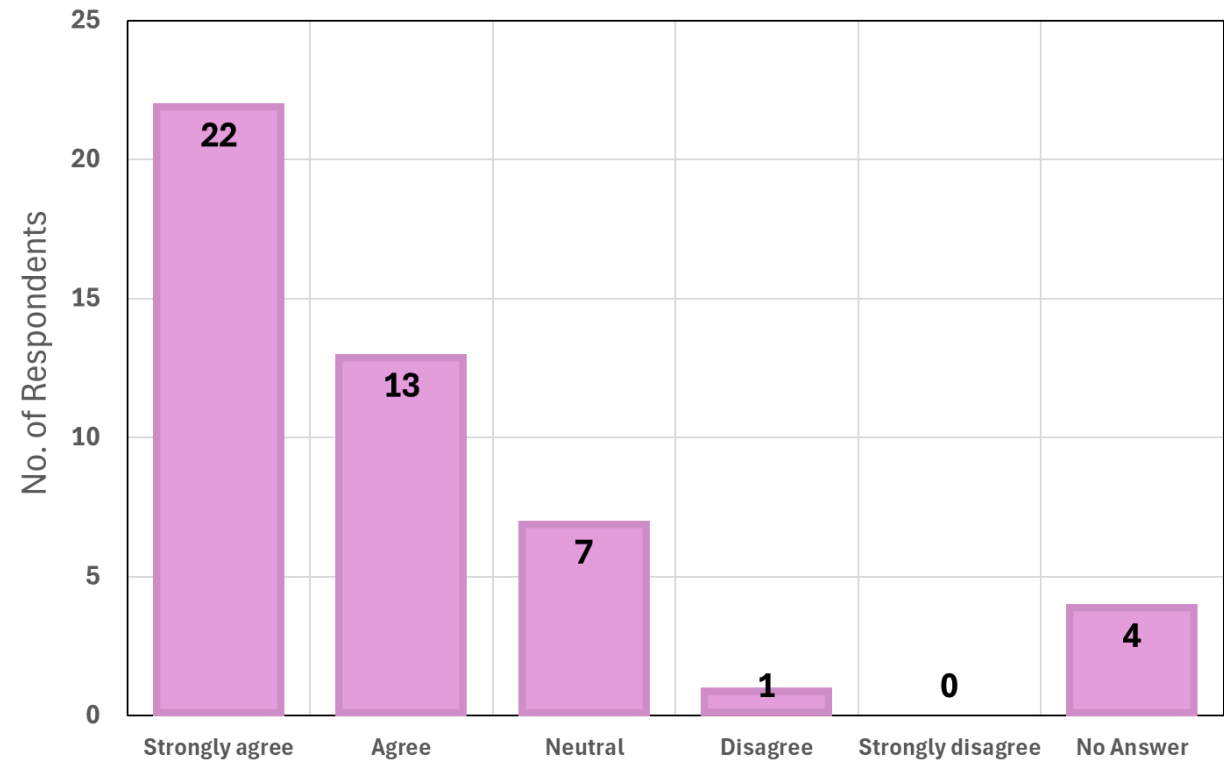
WORKSHOP
FEEDBACK

THE LENGTH OF THE WORKSHOP WAS:



WORKSHOP
FEEDBACK

I WILL PARTICIPATE IN FUTURE PELEE COASTAL
RESILIENCE WORKSHOPS:





What is your definition of a resilient coast?

- Balancing nature and communities/people
- Working together and with nature
- Address a range of stresses
- Forward looking, intergenerational
- Recovery with improvement
- Governance

“A resilient coast rides thru “traumas” and comes out stronger after recovery. Stronger for All species”

“...being prepared and preventative strategies would be a definite benefit.”

“A coast my grandchild can enjoy”.

“A resilient coast ensures that both nature and our communities can thrive despite our local challenges like storms, erosion, and changing water levels. It is about protecting what we love about our coasts while preparing for the future....A resilient coast is achieved by working together and with nature for thriving biodiversity, robust natural defenses, and a shared commitment to safeguarding these special places for future generations.”



What can we do to increase the resilience of the coastal area?

- Explore innovation from other areas, pilot projects
- Guidelines
- Community involvement
- Limit/control development
- Stop/mitigate erosion
- Protect natural coastal area

"I believe there is huge opportunities in taking advantage of applying a little knowledge where it will do the most good. "Best practices" seem to be widely ignored..."

"Define and design options to mitigate/slow coastal erosion"

"Educate everyone including the County, Towns, ERCA and the residents that the first option NOT to build a concrete wall around the southern side of Essex & Kent Counties. It must start with ensuring that the preservation of the natural areas and resisting further development [of] property adjacent to the lake are priorities that are adhered to starting now. The new Official Plans of Essex and Kent County should be updated now to incorporate these steps to ensure long term control."



Are there topics that you would like covered in the next Pelee Coastal Resilience Workshop?

- How will Resilience plan be implemented?
- How will Committee engage with and inform public?
- Identify funding sources
- Support and information for public to take action

“How can individual property owners help with their waterfront...What is available in grants to help the individual property owners help you with this project...Visit homes in the area to see what the homeowner is doing or struggling with to get a better idea of the problems (open house sign up).”

“Individual concepts that would work to mitigate problems in each area, bluff, lower land, swamp areas, farmlands, fisheries, etc.”

“For those of us on the lake side of the 100-year erosion line.....have a support group or learning to help us accept that nature will do what she does in terms of erosion. And maybe a 'succession plan' could be developed to let go. The governments (municipal, provincial and federal) have taxed us for the privilege of access to these lands.....perhaps they provide incentives to return our properties to the lake, so to speak. Incentives to nurture forests on former lakeside farmlands, that farmers now feel aren't "productive".....rather than sell the land to yet another homeowner trying to figure out how not to fall into the lake, clearing lakeside trees for their million-dollar view..... and building, concrete break walls, and, etc. to "save their home".....let the land grow its natural erosion control for the health of the coastline.”



Proposed 2025 Committee and Workshop Dates

| Event | Focus | Timeline |
|---|--|----------------------------|
| Virtual Public Meeting (new to work plan) | Baseline, Adaptations, Decision Support Tool | Early February 2026 (pick) |
| PCR Committee Meeting #4 | Committee applies decision support tool to get short list of potential adaptations | March 13, 2025 |
| Public Workshop #2 (in-person) | -Present short list of adaptations -Co-create/refine adaptation concepts in roundtable format | April 2025 (pick) |
| PCR Committee Meeting #5 | -Committee selects adaptations for focus in FY | June 5, 2025 |
| PCR Committee Meeting #6 | -tbd | September 11, 2025 |
| PCR Committee Meeting #7 | -tbd | December 11, 2025 |
| PCR Committee Meeting #8 | -tbd | March 19, 2026 |

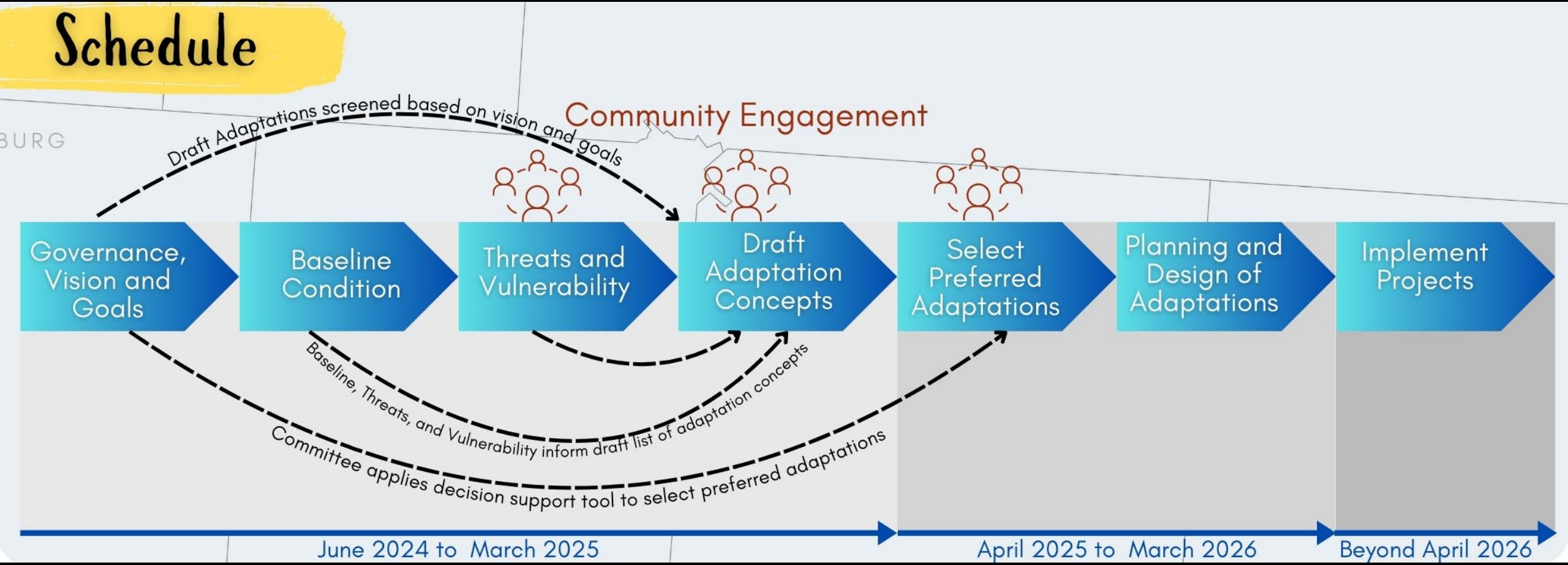
IV – YEAR 1 WORK PLAN

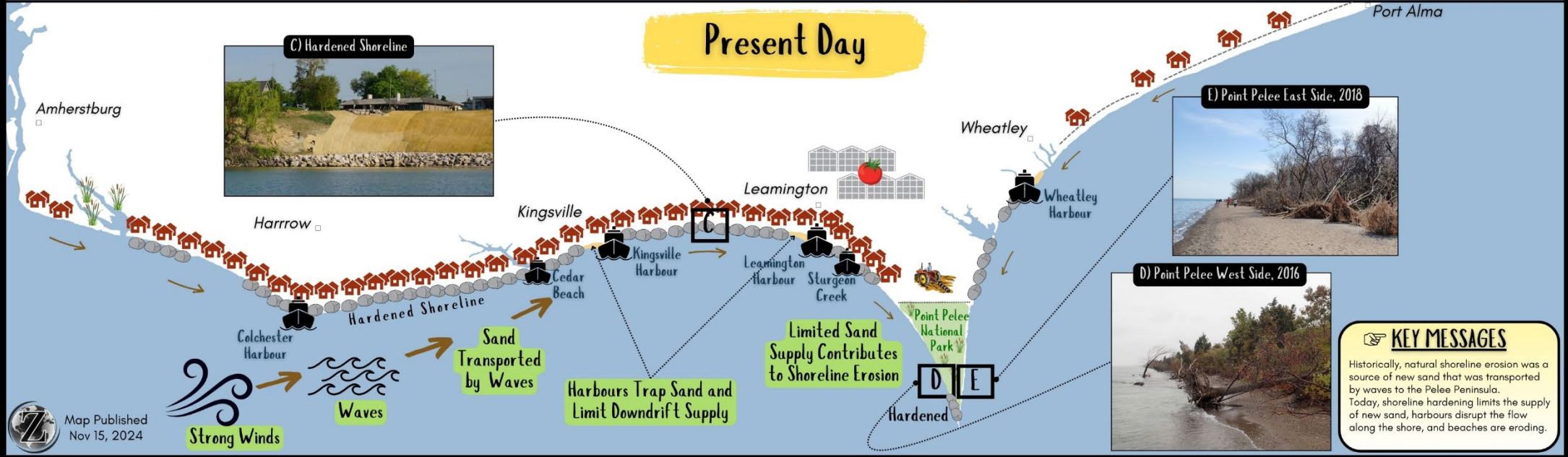
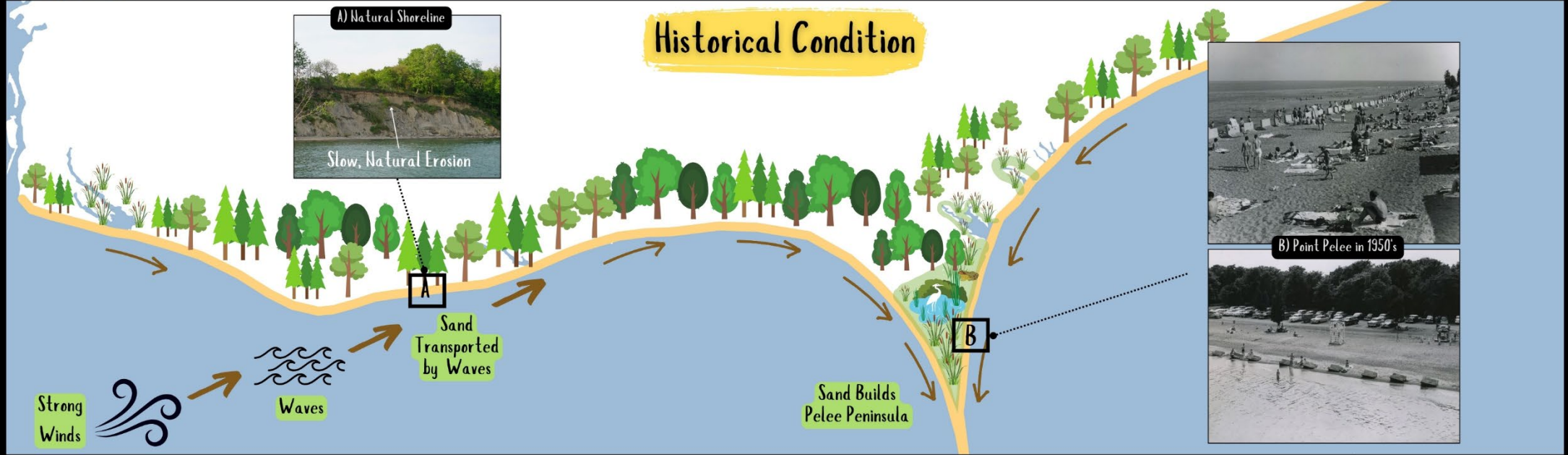
| SUMMARY PROJECT SCHEDULE | STEP 1 - FY24/25 | | | | STEP 2 - FY25/26 | | | | STEP 3 - FY26/27 | | | | STEP 4 - FY27 | | |
|---|---------------------|----|----|----|----------------------|----|----|----|----------------------|-----|-----|-----|----------------|----|----|
| | May '24 to Mar. '25 | | | | Apr. '25 to Mar. '26 | | | | Apr. '26 to Mar. '27 | | | | Ending Dec.'27 | | |
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| GOVERNANCE (COMMITTEE MEETINGS, ETC.) | #1 | #2 | #3 | #4 | #5 | #6 | #7 | #8 | #9 | #10 | #11 | #12 | as required | | |
| STEP 1 - BASELINE ASSESSMENT AND VULNERABILITY | | | | | | | | | | | | | | | |
| STEP 2 - RESILIENCE PLAN DEVELOPMENT | | | | | | | | | | | | | | | |
| STEP 3 - TAKE ACTION TO IMPLEMENT SELECT PROJECTS | | | | | | | | | | | | | | | |
| STEP 4 - EVALUATE OUTCOMES AND REPORTING | | | | | | | | | | | | | | | |

LEGEND Workshop Consultation



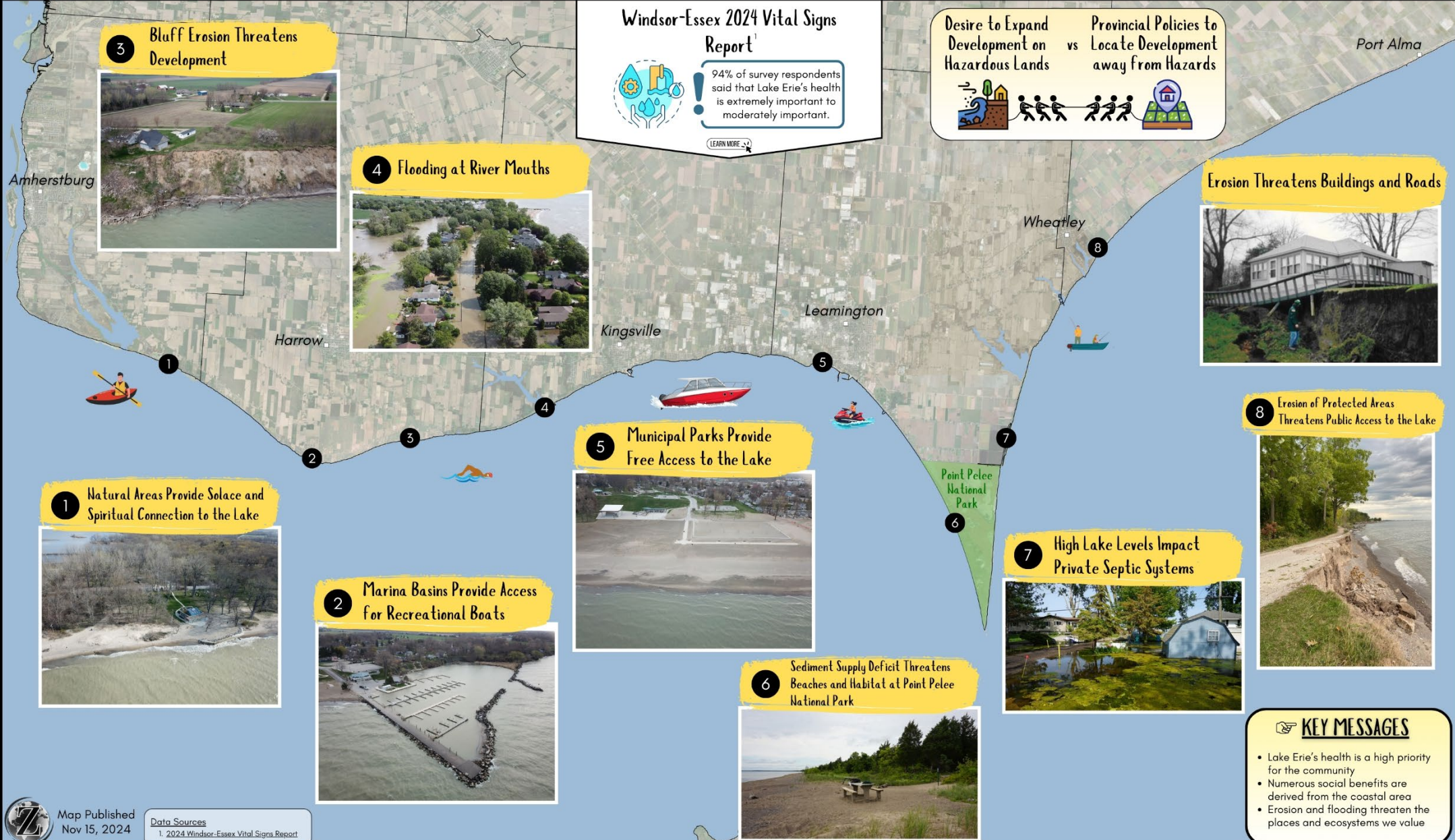
How We Use the Baseline, Threats, and Vulnerability





KEY MESSAGES

Historically, natural shoreline erosion was a source of new sand that was transported by waves to the Pelee Peninsula. Today, shoreline hardening limits the supply of new sand, harbours disrupt the flow along the shore, and beaches are eroding.



Windsor-Essex 2024 Vital Signs Report¹

94% of survey respondents said that Lake Erie's health is extremely important to moderately important.

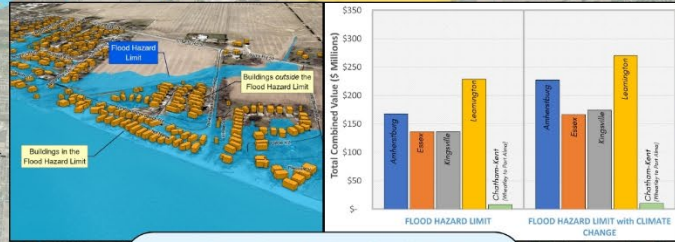
[LEARN MORE](#)

Desire to Expand Development on Hazardous Lands vs Provincial Policies to Locate Development away from Hazards

KEY MESSAGES

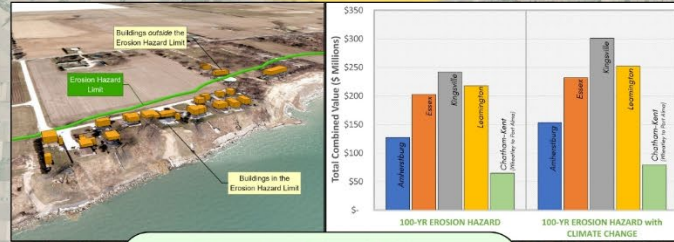
- Lake Erie's health is a high priority for the community
- Numerous social benefits are derived from the coastal area
- Erosion and flooding threaten the places and ecosystems we value

Flood Risk for Buildings and Contents



\$ The combined value of buildings and contents within the flood hazard is \$670 million, increasing to \$838 million when Climate Change is considered.

Erosion Risks for Buildings and Contents



\$ The combined value of buildings, contents and land within the erosion hazard is \$855 million, increasing to \$1 billion when Climate Change is considered.

4 Bluff Erosion Disrupts Traffic and the flow of Goods



100-year Flood Hazard

Financial Burden of Post-storm Recovery



Gross Domestic Product of Agricultural outputs is \$4.6 million annually. Source: Sustainable Management Strategy for Southeast Leamington (Baird, 2007)



The coastal wetlands of the Pelee Peninsula generate ecosystem goods and services of \$40 million annually.

Overland Flood Insurance Difficult to Secure Due to Coastal Flood Risks



1 Disruptions in Transportation Corridors during Flood Events



Point Pelee National Park attracts 500,000 tourists to Essex County each year, generating \$87 million in economic benefits.

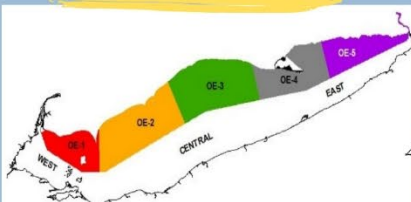
3 Wheatley is the World's Largest Freshwater Commercial Fishery



2 Southern Most Point of Mainland Canada



Lake Erie Fishery Districts



2023 COMMERCIAL FISHERY LANDINGS
OE-1: 8.6 million landed weight with a value of \$18.7 million
OE-2: 4.8 million landed weight with a value of \$9.4 million

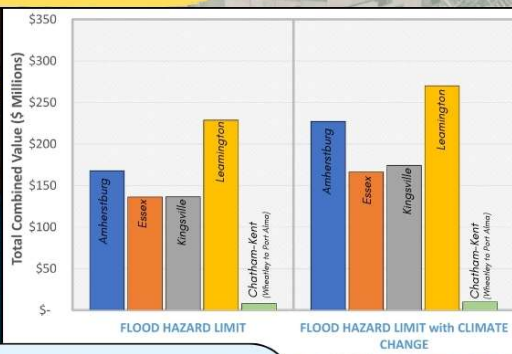
KEY MESSAGES

- Existing development is vulnerable to flooding and erosion hazards
- Tourism, coastal ecosystems, the commercial fishery, and agriculture create significant economic benefits
- Natural hazards disrupt the local economy



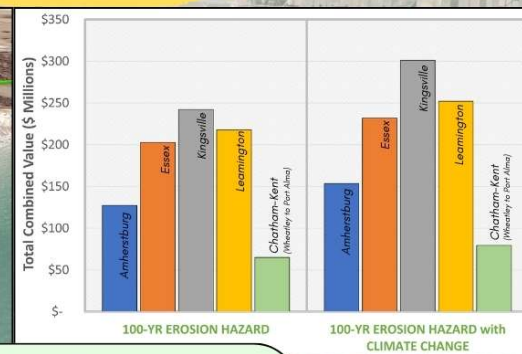
Value of Buildings and Contents Vulnerable to Flooding and Erosion

Flood Risk for Buildings and Contents



\$ The combined value of buildings and contents within the flood hazard is \$670 million, increasing to \$838 million when Climate Change is considered.
(Values (\$) based on MPAC assessment data)

Erosion Risks for Buildings and Contents

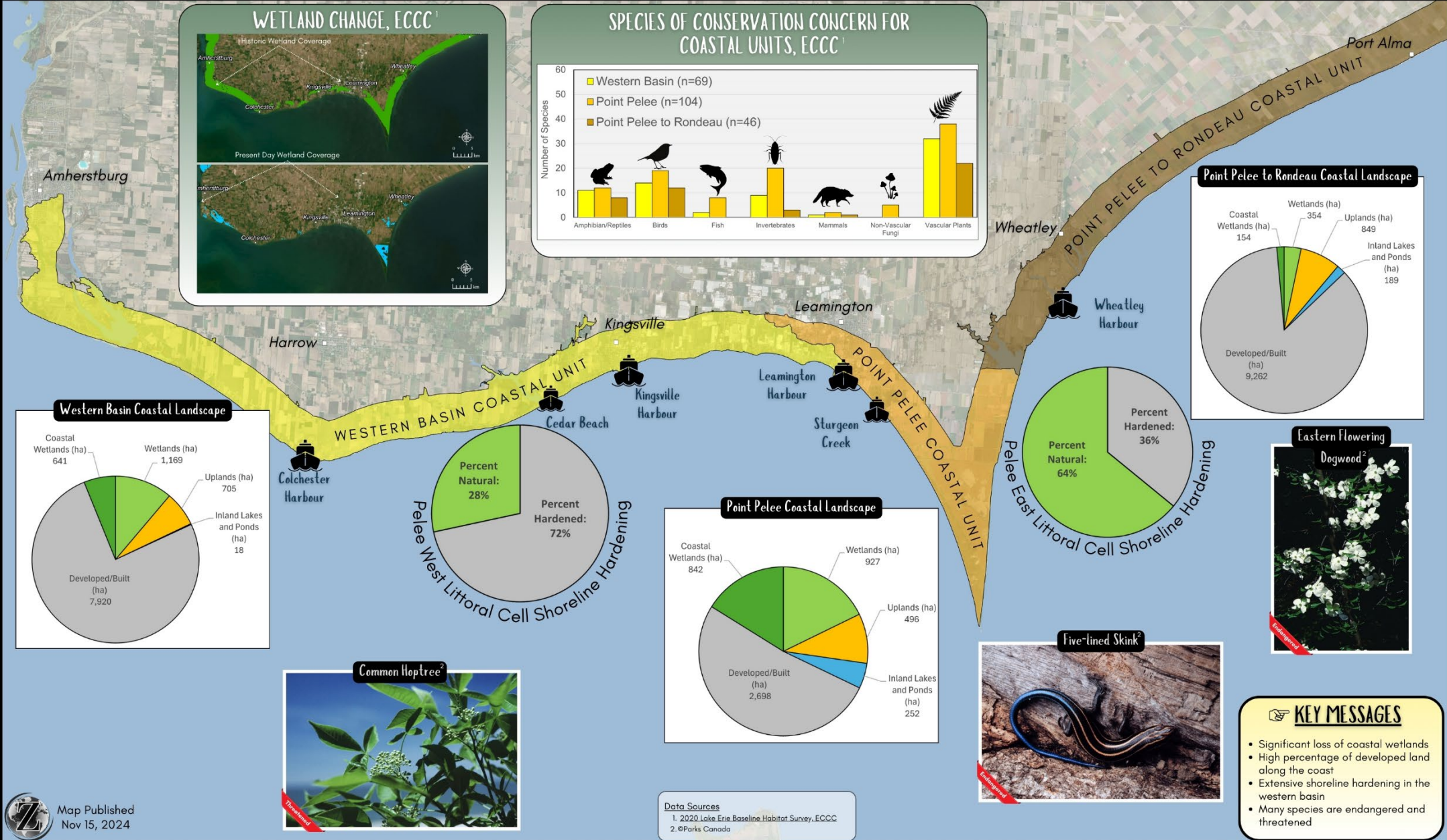


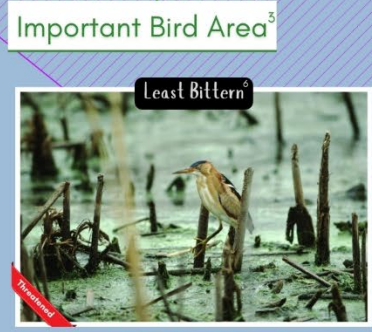
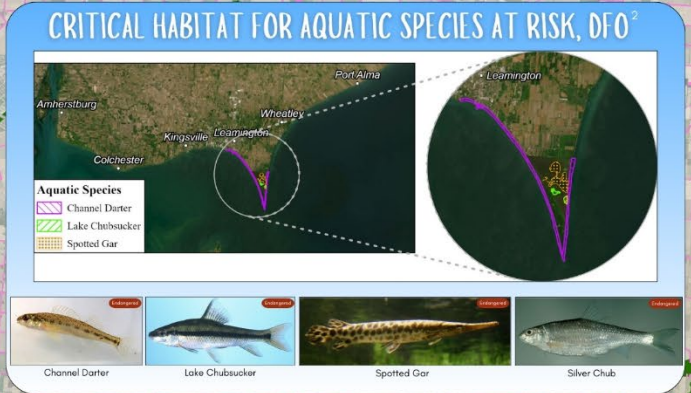
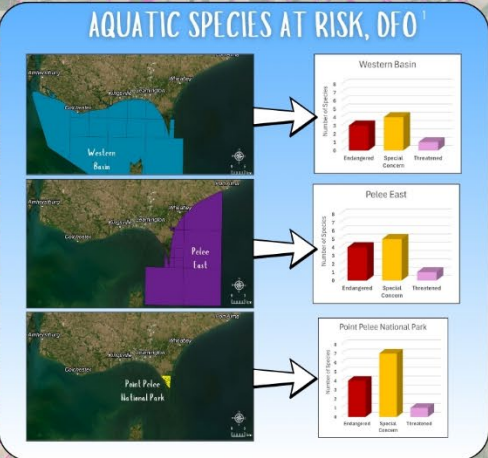
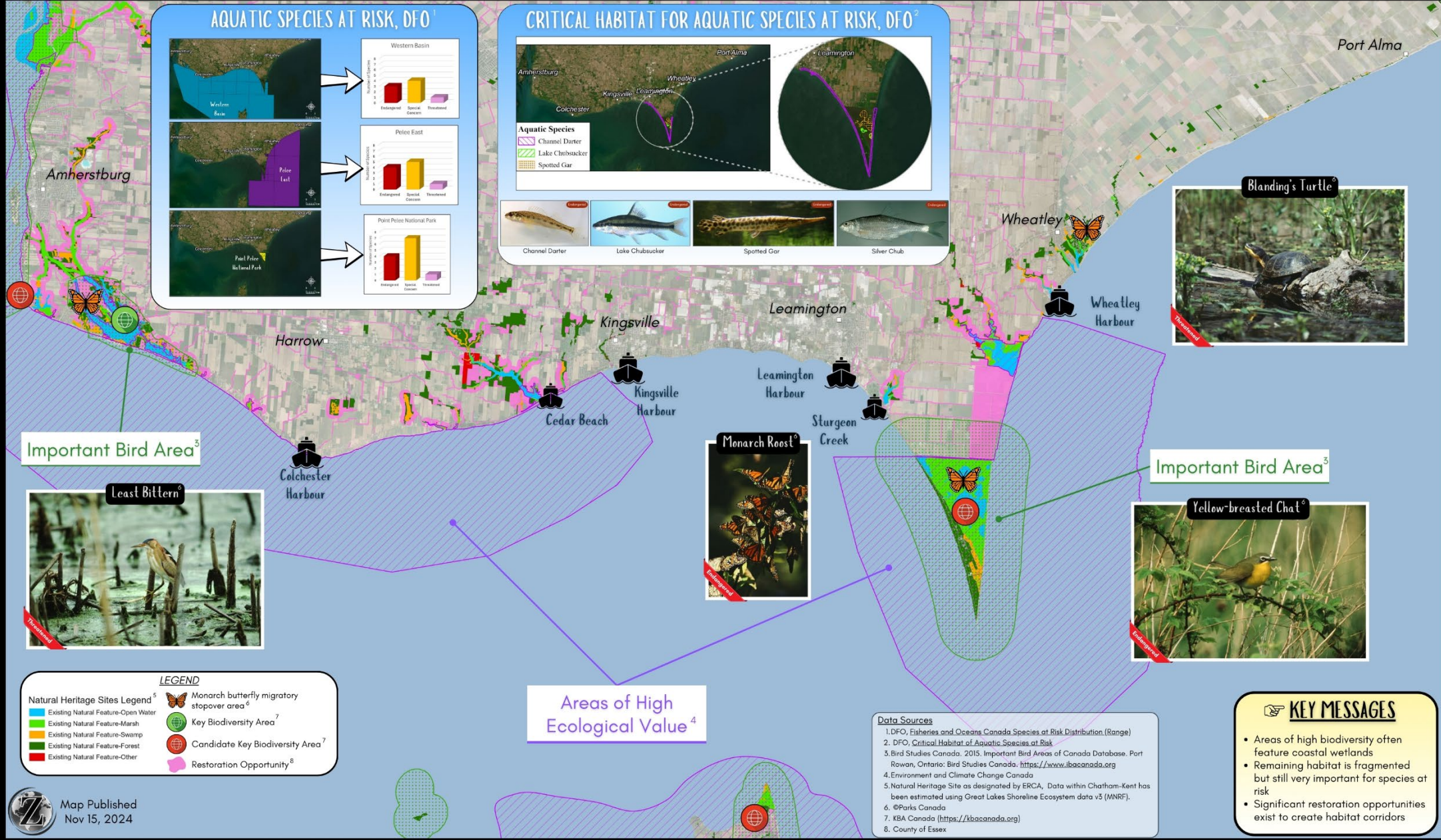
\$ The combined value of buildings, contents and land within the erosion hazard is \$855 million, increasing to \$1 billion when Climate Change is considered.
(Values (\$) based on MPAC assessment data)

100-year Flood Hazard

Kingsville

Leamington





LEGEND

Natural Heritage Sites Legend⁵

- Existing Natural Feature-Open Water
- Existing Natural Feature-Marsh
- Existing Natural Feature-Swamp
- Existing Natural Feature-Forest
- Existing Natural Feature-Other

Other Legend:

- Monarch butterfly migratory stopover area⁶
- Key Biodiversity Area⁷
- Candidate Key Biodiversity Area⁷
- Restoration Opportunity⁸

Areas of High Ecological Value⁴

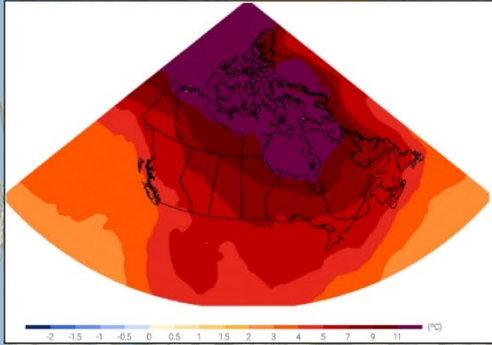
- #### Data Sources
- DFO, Fisheries and Oceans Canada Species at Risk Distribution (Range)
 - DFO, Critical Habitat of Aquatic Species at Risk
 - Bird Studies Canada, 2015. Important Bird Areas of Canada Database. Port Rowan, Ontario: Bird Studies Canada. <https://www.ibacanada.org>
 - Environment and Climate Change Canada
 - Natural Heritage Site as designated by ERCA. Data within Chatham-Kent has been estimated using Great Lakes Shoreline Ecosystem data v3 (MNR).
 - ©Parks Canada
 - KBA Canada (<https://kbaCanada.org>)
 - County of Essex

KEY MESSAGES

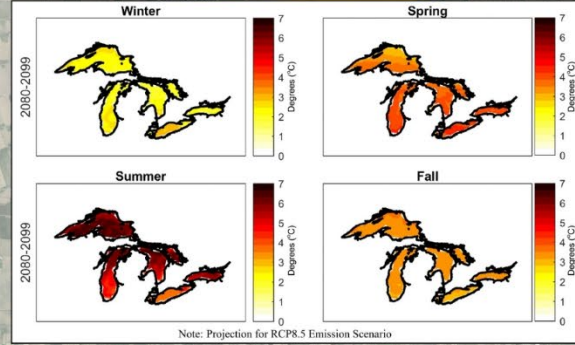
- Areas of high biodiversity often feature coastal wetlands
- Remaining habitat is fragmented but still very important for species at risk
- Significant restoration opportunities exist to create habitat corridors



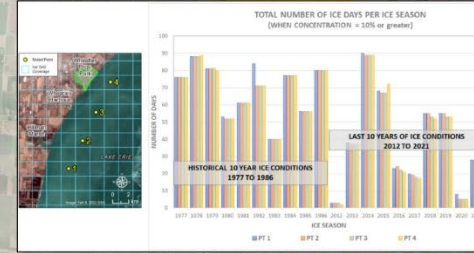
Late Century (2081-2100) Projected Winter Air Temperature Increase



Late Century Warming Projections for Lake Temperature



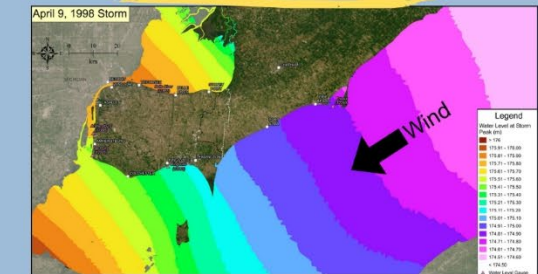
Example of Ice Loss with a Warming Winter



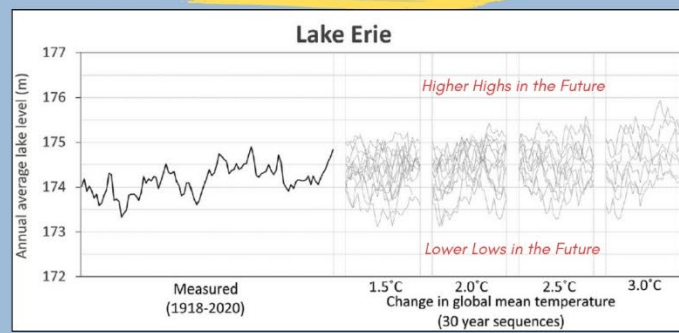
Increased Exposure to Flooding and Erosion Hazards



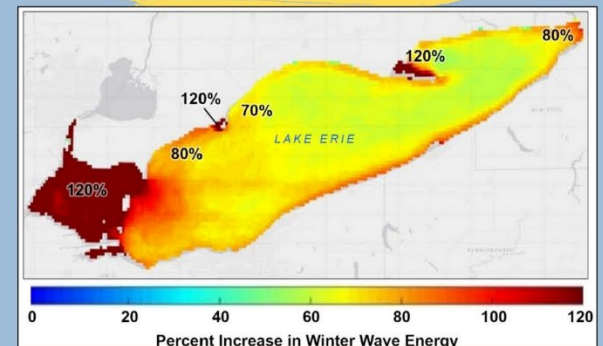
More Exposure for Storm Surge



Future Climate Change Lake Level Projections

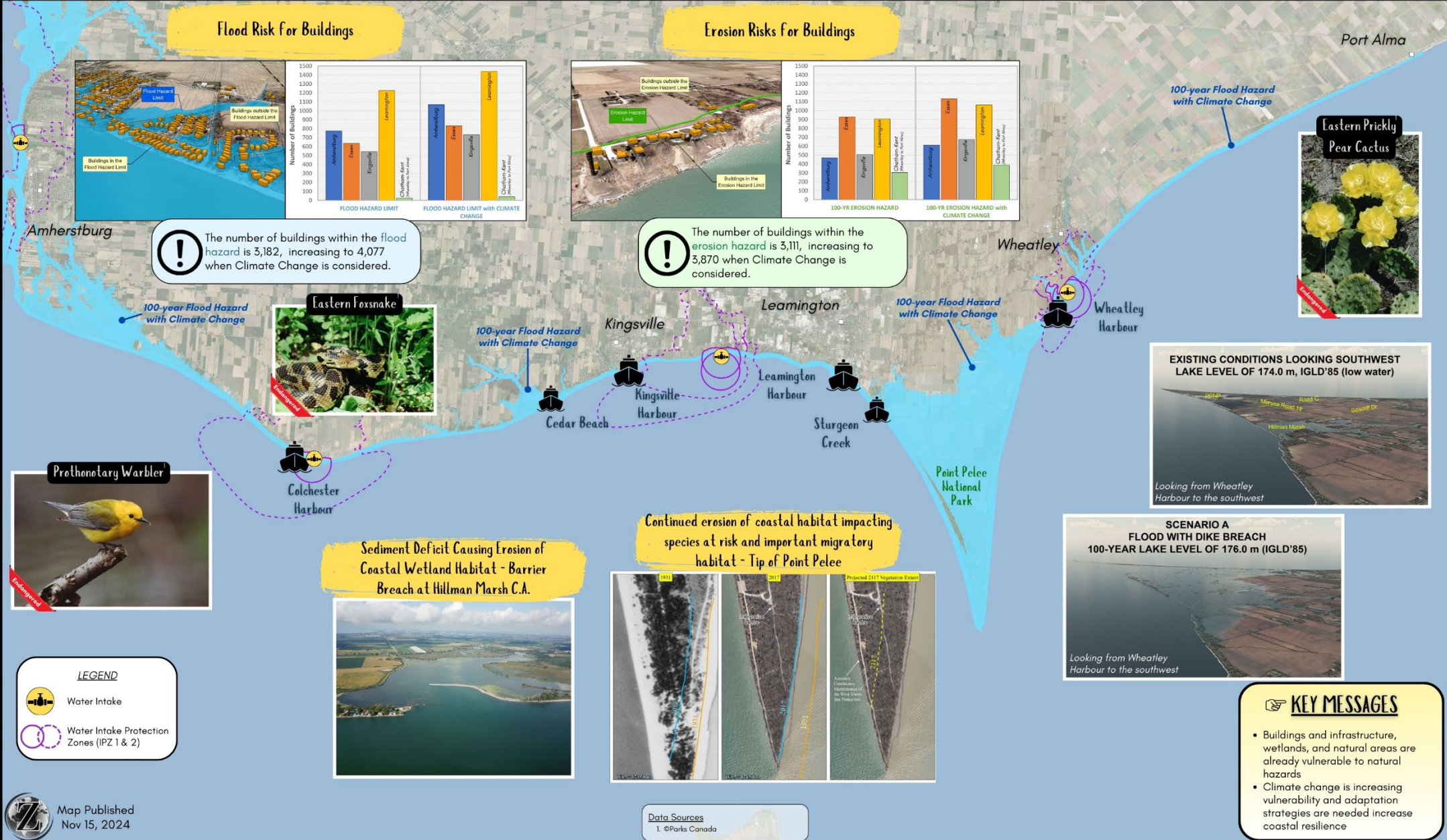


Winter Wave Energy Increase for Ice-free Conditions



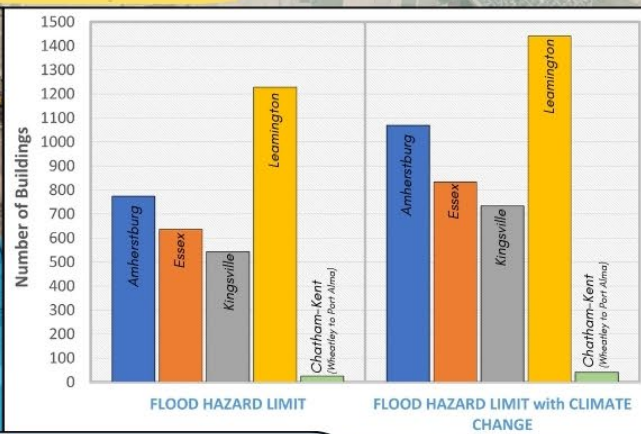
KEY MESSAGES

- Our climate is changing. Historical extremes will not be representative of the future
- A warming atmosphere is leading to less ice cover, more winter storm exposure, more frequent floods, and higher erosion rates



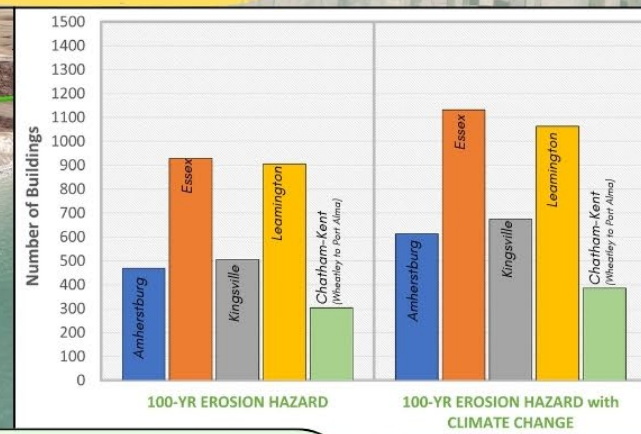
Number of Buildings Vulnerable to Flooding and Erosion

Flood Risk for Buildings



! The number of buildings within the flood hazard is 3,182, increasing to 4,077 when Climate Change is considered.

Erosion Risks for Buildings



! The number of buildings within the erosion hazard is 3,111, increasing to 3,870 when Climate Change is considered.



Baseline Assessment Narrative

- The health of the Lake Erie ecosystem is a top priority to the community
- Erosion and flooding threaten the places and ecosystems we value
- The value of land, buildings, and contents threatened by natural hazards is close to 1 billion dollars
- The coastal area generates economic benefits which are threatened by natural hazards and climate change
- Significant coastal wetland loss over time and decline in biodiversity
- Important coastal wetlands remain and supporting species, but are fragmented and threatened by erosion, pollution, and further development
- Shoreline hardening reduces sediment supply and barriers disrupt the flow
- Climate change is amplifying threats and coastal resilience continues to decline



Vulnerability Assessment Narrative

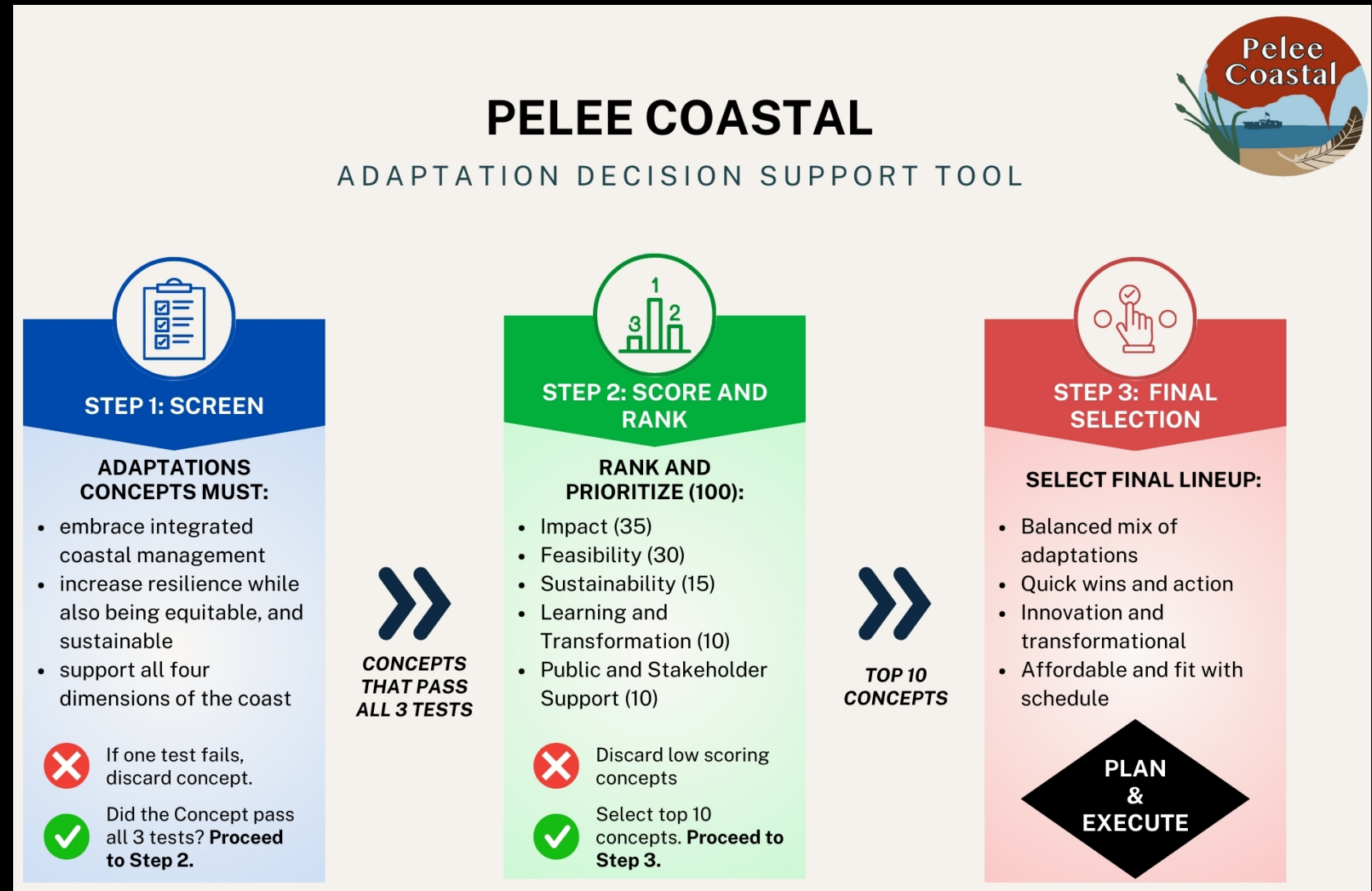
- Approximately 4,000 buildings are threatened by flooding and erosion
- Coastal infrastructure (roads, water systems) are vulnerable
- Many endangered terrestrial and aquatic species, especially those that rely on coastal wetlands
- Species that rely on coastal habitat for migration are particularly vulnerable
- Barrier beaches and sheltered coastal wetlands erode in response to high lake levels, coastal storms, and reduced sediment supply
- Sedimentation at harbours results in expensive dredging, while other parts of the littoral cells feature a sediment deficit compared to historical conditions



DRAFT

Three Step Decision Support Tool

- Work in progress ...
- Task Team needed to advance and present final proposal to Committee





STEP 1 – SCREENING OF INITIAL IDEAS

- Adaptation must be consistent with Vision and Goals for the project (if not consistent with all screening criteria, discarded):
 - Embrace integrated coastal management (systems approach, maintain physical processes in littoral cell, no downdrift impacts)
 - Works towards desired resilience outcomes (equitable, sustainable)
 - Adaptation respects the interconnected nature of the coastal system in the littoral cells (all 4 dimensions improved, or at a minimum, not negatively impacted)



STEP 2 – SCORING TO RANK AND PRIORITIZE ADAPTATIONS THAT PASS SCREENING

- Impact (35 pts)
 - Feasibility (30 pts)
 - Sustainability (15 pts)
 - Learning and Transformation (10 pts)
 - Public Support (10 pts)
-
- Each adaptation scored out of 100



IMPACT (35 points)

[1=low impact, 3= moderate, 5=high impact]

- Resilience increase by dimensions:
 - Social (1 to 5)
 - Economic (1 to 5)
 - Physical (1 to 5)
 - Ecological (1 to 5)
- Improves impaired coastal processes (1 to 5)
- Contributes to the protection and restoration of coastal habitat (1 to 5)
- Decreases exposure of coastal development to natural hazards (1 to 5)

Others?

- Consequence of no action (1=low impact, 5 high impact)



FEASIBILITY (30 points)

[1=low feasibility, 3=moderate, 5=high feasibility]

- Partners and landowners are supportive (1 to 5)
- Opportunities exist to build partnerships and secure matching funding (1 to 5)
- Institutional and local capacity (1 to 5)
- Permits from our legislative and regulatory framework are attainable within the project schedule (1 to 5)
- The adaptation can be designed and implemented within the project schedule and budget, or significantly advanced to warrant inclusion (1 to 5)
- Adaptation is robust to future climate scenarios (1 to 5)



SUSTAINABILITY (15 points)

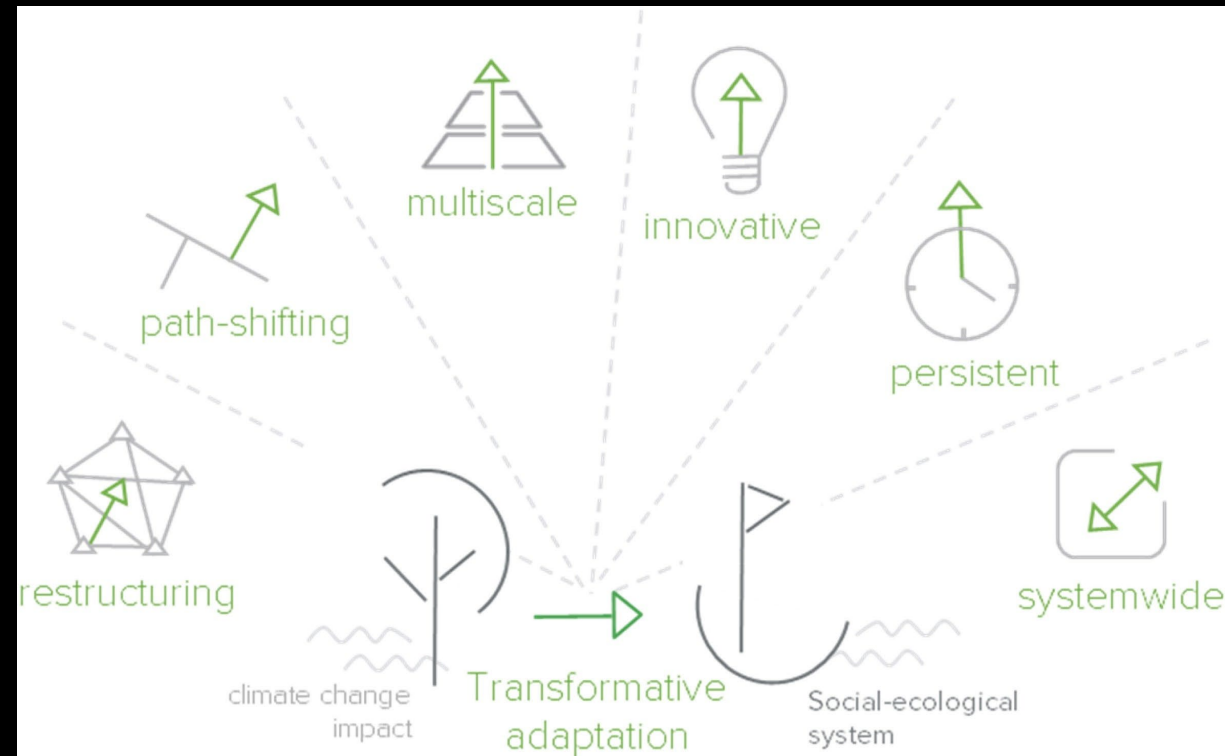
[1=low, 5=high]

- Longevity of adaptation (1 to 5)
- Avoids negative impacts (near- or far-field) (1 to 5)
- Maintenance and additional future planning/implementation/funding
 - High ongoing maintenance (1)
 - Moderate future maintenance (3)
 - Low future maintenance (5)



LEARNING AND TRANSFORMATION (10 points)

- Learning and transferability (1 to 5)
- Transformative adaptation (1 to 5)



Fedele et al, 2019



PUBLIC SUPPORT (10 points)

- Adaptation is supported by public and stakeholders (1 to 10)



Draft Score Card to Rank and Prioritize

| Adaptation Concept | Impact (1 to 35) | Feasibility (1 to 30) | Sustainable (1 to 15) | Learning and Transformation (1 to 10) | Public Support (1 to 10) | Overall Score (max=100) |
|-------------------------------|-----------------------------|----------------------------------|----------------------------------|--|-------------------------------------|--|
| 1. | | | | | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |



STEP 3 – FINAL SELECTION

HOW TO SELECT ADAPTATION PROJECTS THAT PASS STEP 2?

- Challenge: perhaps 10 make it past Step 2, but only labour and funding for 5

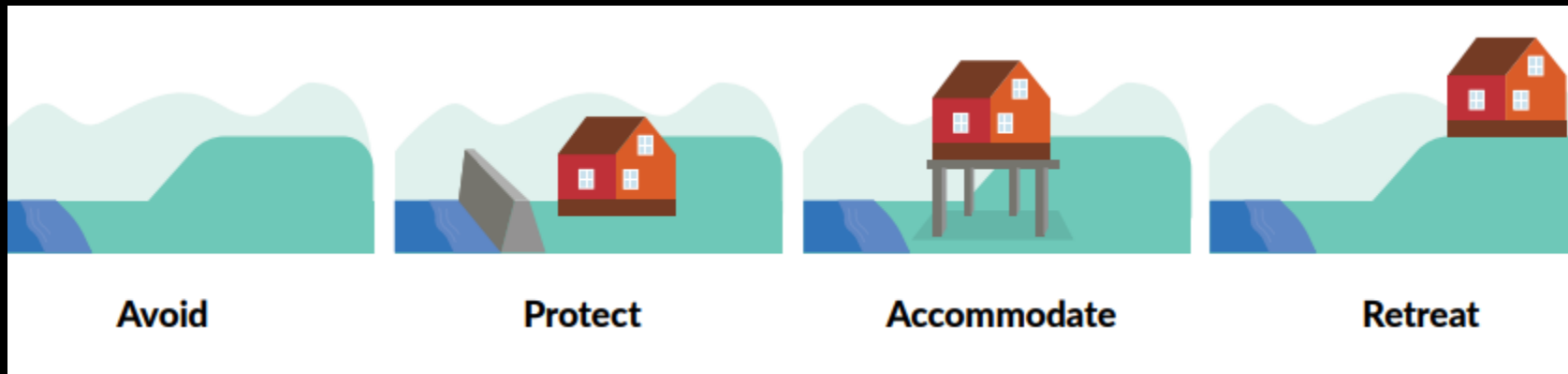
FINAL SELECTION WILL BE BASED ON:

- Desire for a balanced mix of adaptations (planning versus construction, short-versus long-term planning, low-cost versus complex/expensive)
- Quick wins and on-the-ground action, plus transformative adaptation to solve complex problems
- Affordability and fit with project schedule
- Write a contextual narrative for approach to assembling final mix of projects?

LUNCH



V – BRAINSTORMING SESSION ON ADAPTATION CONCEPTS





Application of PARRARH HIERARCHY

- Hierarchy of actions/adaptations, starting with Preserve Natural Coastal Areas, to increase resilience.
- Final action is hardening shorelines with engineering structures

PARRARH FRAMEWORK

1st Preserve Natural Coastal Areas

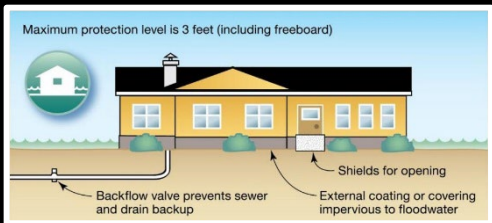
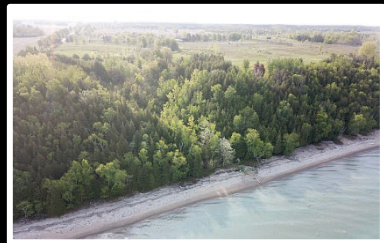
2nd Avoid Further Development on Hazardous Lands

3rd Retreat from Hazards and Re-align Land Use

4th Accommodate Coastal Hazards

5th Restore with Nature-based Coastal Solutions

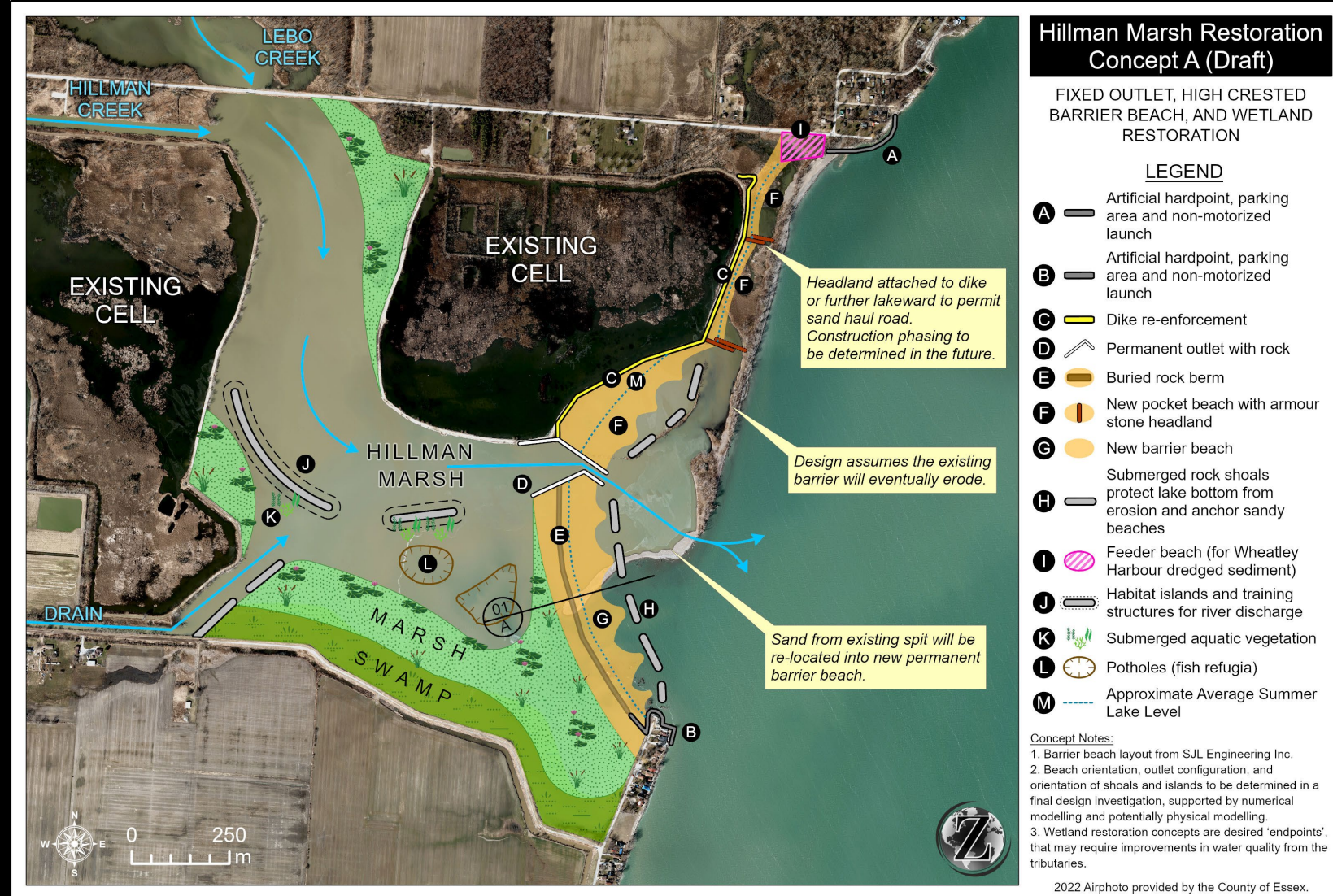
6th Harden with Engineering Structures





HILLMAN MARSH CONCEPT SKETCH

Restore with Nature-based Solutions/Hybrid



Hillman Marsh Restoration Concept A (Draft)

FIXED OUTLET, HIGH CRESTED BARRIER BEACH, AND WETLAND RESTORATION

LEGEND

- A** Artificial hardpoint, parking area and non-motorized launch
- B** Artificial hardpoint, parking area and non-motorized launch
- C** Dike re-enforcement
- D** Permanent outlet with rock
- E** Buried rock berm
- F** New pocket beach with armour stone headland
- G** New barrier beach
- H** Submerged rock shoals protect lake bottom from erosion and anchor sandy beaches
- I** Feeder beach (for Wheatley Harbour dredged sediment)
- J** Habitat islands and training structures for river discharge
- K** Submerged aquatic vegetation
- L** Potholes (fish refugia)
- M** Approximate Average Summer Lake Level

Headland attached to dike or further lakeward to permit sand haul road. Construction phasing to be determined in the future.

Design assumes the existing barrier will eventually erode.

Sand from existing spit will be re-located into new permanent barrier beach.

Concept Notes:

1. Barrier beach layout from SJL Engineering Inc.
2. Beach orientation, outlet configuration, and orientation of shoals and islands to be determined in a final design investigation, supported by numerical modelling and potentially physical modelling.
3. Wetland restoration concepts are desired 'endpoints', that may require improvements in water quality from the tributaries.

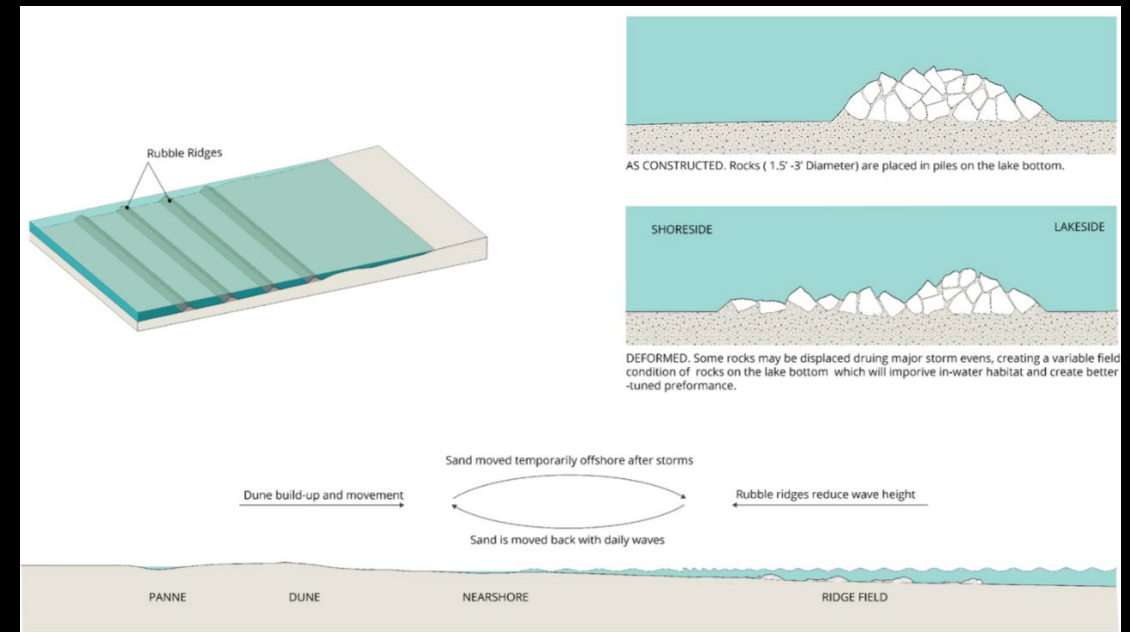
2022 Airphoto provided by the County of Essex.



BE INNOVATIVE

Restore with Nature-based Solutions

- Nearshore rock shoals that reduce incoming wave energy, protect barrier beaches from wave overtopping, and promote beach growth
- Example from Hosah Park, Zion, Illinois
- <https://proofprojects.com/rubble-ridges>





Brainstorm Potential Adaptation Projects

- Break-out groups to discuss potential adaptation projects:
 - Table 1 –
 - Table 2 –
 - Table 3 –
- Report out and full group discussion

VI – OTHER BUSINESS



**VII – NEXT MEETING: March 27, 2025,
10 am to 3 pm IN-PERSON
PROPOSING KINGSVILLE – LAKESIDE
PARK PAVILION**

MEETING ADJOURNED