



THE ZONE

Welcome to the Winter 2022 issue of **THE ZONE**, the CZCA newsletter.

Welcome 2022

I hope everyone is having a great start to 2022!

As we start the new year, there is a lot of reflect on and look forward to.

Firstly, CZC2021 was a success and we were able to adapt to the ever-changing situation with respect to the COVID-19 pandemic and hold our first virtual conference. While it was extremely disappointing not to travel to Iqaluit for an in-person event, we had great participation from our colleagues and partners in the north and 500 attendees overall.

Planning for our next conference, CZC2023, is proceeding with the support of a strong local organizing committee in the west. We are happy to announce the conference will be held in person (in accordance with local health

regulations) at the beautiful Victoria Conference Centre in downtown Victoria, British Columbia from Sunday June 11, 2023 to Wednesday June 14, 2023. The over-arching theme of the conference is Connecting Canadians from Coast to Coast. We anticipate a call for abstracts in late 2022. If you are interested in partnership opportunities or supporting the conference, please reach out to jgibson@coastalzonecanada.org for more information.

We are excited for the year ahead and protecting our amazing coastal zones across the country! 

Pete Zuzek, President, Coastal Zone Canada Association
Jen Gibson, Secretariat Manager, Coastal Zone Canada Association

In this issue

THE ZONE

- 3 Options for Building Resilience Through Values-Based On-Line Engagement
- 6 On the MaPP
- 9 Turning of the Tide: Economic Guidance to Improve Decision-Making and the Valuation of Programs, Products, and Projects



GET IN **THE ZONE**

Submit your news items for the next issue of The Zone. We wish to continue the dialogue of coastal zone work across Canada between our biennial conferences, so please consider sharing an update with us to be included in the next issue. **Z**

News Items

To submit a news item (maximum 500 words) please send to

thezone@coastalzonecanada.org

Subscribe to



Follow this link:



www.coastalzonecanada.org/newsletter

We would like to sincerely thank all of the contributors to this edition of the Zone, the authors of the papers and articles herein, as well as the reviewers.

**THE
ZONE**

EDITOR
Victoria J. Fernandez
ASSISTANT EDITOR
Sebastian Weissenberger
GRAPHIC DESIGN
Karen G. Bagnell

CALL FOR PAPERS

Please consider submitting a paper to the next issue of the CZCA Newsletter. We are looking for paper submissions of 1000-2000 words on a wide range of topics covering Canada's coastal zone: governance and policy, engineering, ocean science, and social science.

If you wish to submit a paper please submit your abstracts (maximum of 250 words) to thezone@coastalzonecanada.org by May 15, 2022. Papers are due June 15, 2022. **Z**



Call for pictures! Please send your best coastal related shots to:

thezone@coastalzonecanada.org

Looking for Submissions in French

The Zone is looking for submissions in French. For further information please contact us at

thezone@coastalzonecanada.org

CZCA Membership

Registration at the biennial conferences automatically includes CZCA membership dues for two years. If you missed the 2018 conference and would like to update your membership or become a new member, please visit our website for more details. The fee is \$20/year or \$40 for two years.

www.coastalzonecanada.org

Options for Building Resilience Through Values-Based On-Line Engagement

Vasseur, L., May, B., Gauthier, S., Caspell, M., and Baker, J.

Abstract

Improving resilience of coastal communities in the face of climate change is essential. Selecting the most appropriate sustainable solutions, however, can be complicated. Multiple options are available and achieving consensus among residents and decision-makers on which solutions are the most feasible and acceptable can be challenging. With the COVID-19 pandemic and in-person engagement restrictions, online tools are increasingly used by researchers, practitioners, and decision-makers. Public-to-public (P2P) surveys have become popular to increase public engagement in decision support and research. Participatory modelling allows people to give their opinions or ideas, ask questions, or engage in dialogue. This article explains the use of one such tool within a community-based project on the selection of climate change adaptation strategies along the coastline of the Town of Lincoln, Ontario. This P2P survey examines the responses of people to nine possible adaptation options suggested by residents through focus groups, interviews, and from academic and grey literature. The survey was conducted over a three-week period in April 2021. Adaptation options were presented on a deck of cards and respondents were instructed to select and rank their preferred options. This exercise was followed by an opportunity for respondents to consider how their choices reflected their underlying values. These values included fairness, control, aesthetics, erosion protection, and biodiversity enhancement. The respondents also had an opportunity to change or modify their decisions, once they viewed their reflected values results. Results can provide residents with a way to engage in local decision-making through dialogue that explores a range of coastal adaptation options available based their views.

1. Options for Building Resilience Through Values-Based On-Line Engagement

Introduction

Coastal communities are increasingly vulnerable to hazards, such as storms, and the impacts

associated with climate change, including flooding and erosion. Residents exposed to these hazards can experience severe damage to their property. Municipal infrastructure can also be impacted, leading to increased costs to the community. In the Great Lakes, water levels have been historically variable, and climate change is likely to increase this variability (Gronewold and Rood, 2019), leading to greater weakening of infrastructure. With continuous pressure for urban development along the Great Lakes, especially in the Greater Toronto and Hamilton Area, multiple stressors may push coastal ecosystems to undergo sudden, rapid, and irreversible change.

Finding adaptation solutions or strategies to improve the resilience of coastal communities can be a challenge. The capacity of implementing strategies is influenced by factors such as availability of resources, social trust and acceptability, risk perceptions, and governance structure (Whitney et al. 2017). Adaptation planning requires public engagement, social learning, adaptive governance, and a strong understanding of the vulnerabilities and possible solutions available for a community, which is primarily based on its adaptive capacity.

This research project is located in the Town of Lincoln in the Niagara Region, along the southern shore of Lake Ontario. This case study is part of a larger project involving four universities (PI, Université du Québec a Rimouski; Brock University) and coastal partners along Lake Ontario and the St. Lawrence River (funded by the Marine Environmental Observation Prediction & Response network (MEOPAR)). The case study aims to: 1) understand the current issues related to climate change adaptation in various sectors (e.g., agriculture, tourism, youth), 2) engage in a dialogue of possible adaptation options, and 3) examine possible barriers for implementation.

One of the major activities of the study is the use of focus groups to discuss and co-construct potential adaptation options for the various sectors. In 2020, the work was temporarily

paused due to the COVID-19 pandemic with restrictions for in-person meetings. To continue the research, online alternatives had to be planned. To understand the perceptions of coastal residents regarding coastline changes, a StoryMap (<https://brocku.ca/unesco-chair/lincoln-story-map/>) was launched, followed by a series of virtual Q&A sessions in the fall of 2020. This helped identify possible adaptation options for the coastline. These options became the basis for the use of the public-to-public decision support system (P2P-DSS) tool (Philpot et al. 2020) in the spring of 2021.

The public-to-public decision support system (P2P-DSS) is designed to enhance the collection of public input online. It uses interactive components and visual feedback to gain insight into participant choices and to guide them in communicating preferences that align with their own personal values. Participants can give opinions or ideas, and ask questions.

Development of the P2P survey tool

When it comes to making informed decisions, we do not often think about the underlying values that influence our decisions. For municipalities and other government agencies, these values are often embedded in organizational culture: public safety and promotion of community wellbeing are two examples (Inderberg, 2015). Individuals also have values and a set of perceptions that influence their views, actions, and social acceptance of decisions that municipalities make (Schwartz, 2012). These values can be influenced by culture, religion, tradition, and education (Cheng and Fleischmann, 2010). Preferences, on the other hand, can change depending on the topic or even some aspect of a same issue.

The P2P-DSS tool in this study aimed to better understand the views of coastal residents regarding various options for adaptation and protection of coastlines. Table 1 presents the core values used for this specific assessment. These were selected to gauge participant's selection of options according to personal values. Coastline protection is a complicated, complex and controversial topic that can

Value labels and statements used in the P2P model	
Value label	Description statement
Justice	Decisions made are socially and legally fair for all people
Fairness	All people receive fair benefits and burdens without bias or discrimination
Flooding and erosion protection	Protect from flooding and erosion caused by coastline and lake changes
Biodiversity enhancement	Protect and/or enhance the biodiversity in these areas that may be at risk due to coastline and lake changes
Security	Protect the safety of people while ensuring stability in coastline communities
Aesthetics	Maintain and create beautiful landscapes for citizen and visitor enjoyment
Enjoyment	Provide people with opportunities for entertainment through parks, natural areas such as beaches
Social risk reduction	Minimize risk of negative social outcomes by providing strategies to protect people's livelihood
Economic sustainability	Make decisions that are economically viable for both now and future generations
Development	Promote local and national communities by creating new opportunities and development
Control	Maintain personal control over services and social activities resulting from individual autonomy

Table 1 – Summary of core values for environmental protection used in this survey. Values were chosen based on the framework of Philpot (2019) and Schwartz (2012) to accommodate this specific study.

lead to conflict. Personal beliefs affect the adoptions of decisions. In this case study, two aspects of environmental protection had been previously identified as important: flooding/erosion protection and biodiversity protection/enhancement.

Option	Brief description
Maintain existing land use mix along the coastline (private residential / business, recreational, municipal)	Allow for a combination of land uses to co-exist along the coastline, each with its own appropriate protection measures determined by the respective landowners
Continuous urban parkland and coastline buffer	Involve an agency, organization or consortium in acquiring land, enhancing and maintaining a natural area for the entire length of the coastline
Tax relief/subsidies for landowner coastline protection	Provide financial incentives for private landowners to undertake actions that enhance the protection of the coastline using the appropriate science-based information
Technical guidance for landowners on protection options and approval processes	Develop and provide a portal/information center of good practices for coastline protection
Grey infrastructure to harden coastline	Use hard infrastructure to protect at-risk vulnerable areas
Green infrastructure and living coastlines	Use nature-based solutions to protect at-risk coastline
Landowner collaboration on protection	Bring together neighboring property owners to develop mutually beneficial coastline protection
Managed retreat	Assist landowners in pursuing managed retreat of at-risk infrastructure
Insurance	Make insurance products available for landowners to indemnify against future coastline erosion and related damage
Other	Allow survey users to identify other options they feel would be equally effective in creating coastline protection and resilience

Table 2 – Summary of options developed by community members.

The P2P-DSS survey integrated the options previously identified by the participants in various activities, including project launch, interviews, and focus groups. The list of options is included in Table 2. The interface was designed like a virtual card game, to click and drag options onto a virtual table.

In the P2P-DSS survey, participants were asked to select the best options according to their personal preferences. To do so, when a

participant entered the site, a virtual set of cards was available, and the participant was able to click on a preferred option and drag it onto a table. Figure 1 displays a screenshot where a hypothetical participant had selected “continuous urban parkland” as the first choice and then “grey infrastructure” and “green infrastructure and living coastlines” as a combined second choice. Before finalizing their decision, they were given an opportunity to see which underlying values aligned with their choices.



Figure 1– Example of selected options for continuous urban parkland first and then grey infrastructure and green infrastructure and living coastlines as second choices.

Figure 2 shows an example of the “managed retreat” option with a values chart that reflects core values of security and control, along with secondary values of enjoyment, reduced social risk and economic sustainability. Respondents then had a chance to either change the selected options-mix before completion or protest underlying values reflected. Any protest was then registered in the survey software, along with the options selected, to indicate a dissenting view.

Figure 2 – Screenshot revealing the underlying values when “managed retreat” is selected as an option.

The P2P-DSS survey was intended to gather

the personal perceptions of residents and community stakeholders, not to consider jurisdictional, technical, or financial implications. It remains a subjective tool. Although some options could be considered at the individual level and could be done as such, most would also have to involve the municipality or multi-jurisdictional partnerships. In public spaces, for example, a municipality has jurisdiction, which may also be influenced by provincial or federal regulations. However, brainstorming potential options can help as a social learning tool and collect social

perception data that is useful for regulatory decision making.

Conclusion

The responsibility for implementation of choices for building coastal resilience does not rest with one agency, government, or individual. Options are diverse and context specific, including doing nothing, full grey



infrastructure, green, soft, or mixed adaptation solutions. Vulnerability assessment, adaptive capacity, social, and risk perceptions can all affect decisions. Understanding the values underpinning possible solutions can assist decision makers in clarifying how various perspectives are reflected in an evolving coastal landscape. Data collected during this project are given back to the community to help in deliberation and decision-making processes. In the past year, the project identified the need to increase participatory and dialogue approaches with residents as one of the many steps that can help the town move forward in climate adaptation. This approach can help improve social learning, social acceptance of needs for solutions, and greater action by all residents. The importance of cooperation is not only limited to residents within a community but among municipalities as well. For example, the Great Lakes and St. Lawrence Cities Initiative (<https://glslcities.org/wp-content/uploads/2021/02/2020GLSL-Report-Card-f.pdf>) has established an Advisory Council on Coastal Resilience to effectively examine these issues and develop recommendations that can support the work of the different cities around the Great Lakes and the St. Lawrence River. Such an initiative is crucial since what one municipality does can affect another in the same way that what one resident does can affect their neighbours. Understanding the reasons and values used in decision making is therefore essential. 

Contact Liette Vasseur lvasseur@brocku.ca

References and resources

Cheng, A. and Fleischmann, K.R. 2010. Developing a Meta-Inventory of Human Values, ASIST Meeting, 2010, October 22-27.

Gronewold, A.D. and R.B. Rood. 2019. Recent water level changes across Earth's largest lake system and implications for future variability. *Journal of Great Lakes Research* 45: 1-3.

Inderberg, T.H. 2015. Changes in Organizational Culture, Changes in Adaptive Capacity? Examples from the Norwegian and Swedish Electricity Sectors, Chapter 12 in *The Adaptive Challenge of Climate Change*, K. O'Brien and E. Selboe, eds., Cambridge University Press, NY.

Philpot, S.L. 2019. Activating Values to Enhance e-Participation in Environmental Decision-making. thesis presented to the University of Waterloo in fulfillment of the thesis requirement for the degree of Doctor of Philosophy in Geography (Water) Waterloo, Ontario, Canada

Philpot, S.L., Johnson, Peter, A. and Hipel, K.W. 2020. Analysis of a below-water aggregate mining case study in Ontario, Canada using values-centric online citizen participation, *Journal of Environmental Planning and Management*, 63:2, 352-368, DOI: 10.1080/09640568.2019.1588713

Schwartz, S.H. 2012. An Overview of the Schwartz Theory of Basic Values. *Online Readings in Psychology and Culture*, 2(1). <http://dx.doi.org/10.9707/2307-0919.1116>

Whitney, C. K., N. J. Bennett, N. C. Ban, E. H. Allison, D. Armitage, J. L. Blythe, J. M. Burt, W. Cheung, E. M. Finkbeiner, M. Kaplan-Hallam, I. Perry, N. J. Turner, and L. Yumagulova. 2017. Adaptive capacity: from assessment to action in coastal social-ecological systems. *Ecology and Society* 22(2):22. <https://doi.org/10.5751/ES-09325-220222>

Acknowledgments

The authors would like to thank survey participants, and community members that attended our various research activities. We would also like to thank the input of Dr. Simone Philpot. This work is supported by the Marine Environmental Observation, Prediction and Response (MEOPAR) Network [1-02-02-035.4].

On the MaPP

Berry Wijdeven, Province of B.C. Co-lead for the North Coast and Haida Gwaii Sub-regions, Marine Plan Partnership, Berry.Wijdeven@gov.bc.ca

The Pacific North Coast of British Columbia – or the Northern Shelf Bioregion – is a large and ecologically complex area, including such features as estuaries and steep-sided fjords, giant kelp forests and ancient sponge reefs, extending to the edge of the continental shelf where the ocean floor drops down to 4000 meters. Mirroring the complexity of this vast area (102,000 km²) are the jurisdictions overseeing its management, which includes federal, provincial, Indigenous, and local government interests, roles, and responsibilities.

An area this large and diverse comes with a range of management challenges. To address these issues and build a more proactive approach to future management, the Province of BC and 17 coastal First Nations came together to develop and implement a joint vision and plan for the Pacific North Coast that would extend over a 20-year time horizon.

The Marine Plan Partnership (MaPP), as our group is known, came into being in 2011, through the signing of a formal Letter of Intent. Through this agreement the partners initiated work on the development of four sub-regional

Action Framework. These plans would contain zoning recommendations and objectives for environmental stewardship, ecosystem-based management, and economic development. The governance framework guiding the development of these plans included shared decision-making, conflict resolution, and technical support mechanisms. Stakeholder participation through the engagement of multiple advisory committees as well as public engagement was also part of the package.

Over the next four years, a regional team and four sub-regional teams, made up of First Nation and Provincial government representatives, along with technical support planners, developed the content of the plans.

The teams had their work cut out for them for the plans were broad and ambitious, attempting to address governance concerns, cultural impacts, ecological protection, social concerns, and economic considerations, marrying traditional knowledge with western science. There were plenty of opportunities for disagreement as the teams dealt with tricky issues, which

had sometimes been simmering for decades. At times, not having the federal government

at the table limited the scope of management tools available, but in many cases the partners identified pathways forward.

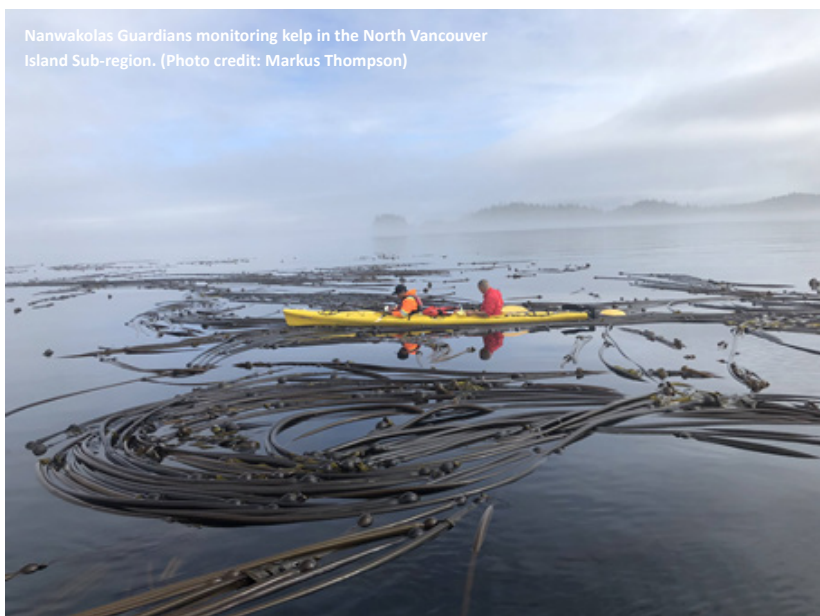
After the completion and signing of the plans was suitably celebrated, it was time to start implementation, for without implementation a marine plan doesn't hold much water. By 2016 the initial five-year implementation agreements had been signed covering the various sub-regions, and funding had been secured under a private-public partnership model. The implementation teams, comprised of many of the members involved in the development of the plans, had gained a level of mutual understanding and trust while collaborating on those plans, which made it relatively easy to get back to work.

That is when the heavy lifting began. Developing plan strategies and objectives involved months of data gathering, discussions, negotiations, compromises, and finding solutions. Translating these statements into concrete actions exposed them to the cold, hard, morning light of everyday life, where desired outcomes meet the complexities of natural systems, human relationships, current legislation and policy, and societal needs.

Each sub-region established its own list of priorities for the first five years of implementation and initiated a wide range of projects across the region, including outreach



Nanwakolas Guardians monitoring kelp in the North Vancouver Island Sub-region. (Photo credit: Markus Thompson)



Nanwakolas Guardians monitoring kelp in the North Vancouver Island Sub-region. (Photo credit: Markus Thompson)

plans (North Vancouver Island, Central Coast, North Coast and Haida Gwaii), and a Regional

Haida canoe. (Photo credit: Jags)



indicators to monitor environmental conditions and effects of their change on plan aspirations.

Kelp was specifically identified by the sub-regions as a key indicator of ecosystem health as well as the effects of climate change. Kelp is a crucial ecological feature providing numerous benefits, including



Central Coast totem pole. (Photo credit: Doug Neasloss)

on the zoning recommendations, development of a joint cumulative effects assessment and management framework, the creation and enhancement of First Nations' monitoring programs, old industrial site clean-ups, tourism development, shellfish aquaculture capability assessments and pilot projects, geoduck aquaculture suitability mapping, archaeological inventories, and much more.

Given the range of implementation activities over these first five years, it would be hard to focus on one specific project as a measure of success but if forced to pick one, issues related to kelp come to mind as they have environmental implications, cultural significance, and economic interests. Although not a specified project in any of the plans, addressing kelp issues is a reflection of plan commitments to develop ecosystem health

the creation of habitat for many fish and invertebrate species, protection of sensitive shorelines, draw-down of atmospheric carbon, and buffering species from ocean acidification. First Nations regard kelp beds as a valuable cultural resource and had expressed concern about community access and other commercial kelp harvesting in the region, while also seeing declines in kelp abundance in some areas.

To start, the partners initiated a kelp bed inventory for the North Pacific Coast. While anecdotal evidence indicated a decline in

kelp quantities and presence, no reliable baseline data existed as comprehensive kelp surveys had not taken place in decades. Employing MaPP contractors, First Nation Guardians, using drones and satellite imagery, initiated an improved kelp inventory. To address First Nations' concerns about access to traditional harvest areas and the

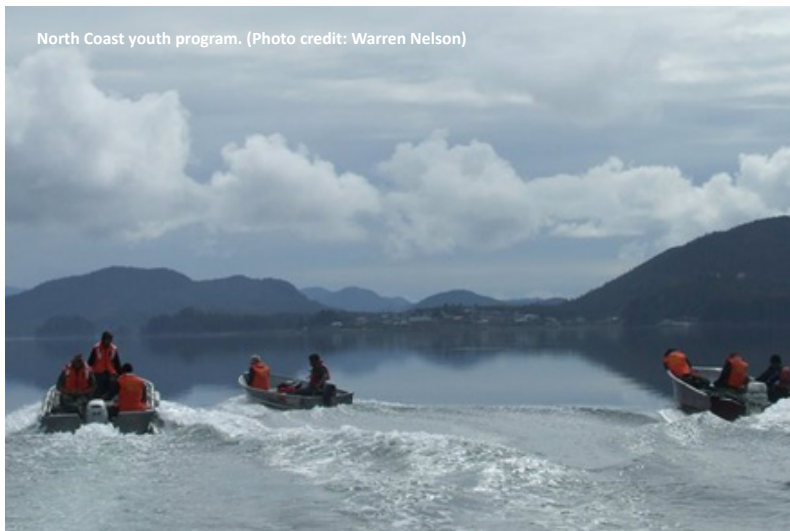


Klemtu in the Central Coast sub-region. (Photo credit: Doug Neasloss)

potential impacts of commercial kelp licensing, the partners have initiated a review of the kelp harvest licensing process, looking for ways to make it more responsive to concerns and better manage the resource. All this work is still currently underway, but the goal is to have a better understanding of where the kelp is, how much kelp is present, which areas are most suitable for different types of harvest, and how harvest levels might be managed, in consideration of climate change and other variables.

The ecosystem monitoring program for kelp is one of the many MaPP implementation efforts made during the first five years of the partnership. It has been a busy time, with plenty of successes and, of course, the occasional hiccup. Despite some lessons learned, the partnership continues to grow stronger. Just recently, the MaPP Partners were awarded the 2021 British Columbia

North Coast youth program. (Photo credit: Warren Nelson)





Sandie Hankewich and Ernest Mason (Kitasoo/Xai'xais Fisheries Program) conducting Dungeness crab surveys. (Photo credit: Tristan Blaine, CCIRA)

Reconciliation Award, in recognition of the team's approach to building a platform for reconciliation founded on a commitment for respectful, collaborative governance.

Buoyed by this recognition, the partners are turning their minds to the next five years of implementation. With a new implementation agreement in the works, the MaPP partners are taking stock of what's changed, where the opportunities lie, and how this might inform our next steps together. Renewed federal attention on marine protected area (MPA) network planning, marine safety and preparedness, ongoing treaty negotiations, and other high-level priorities all influence and shape the work the MaPP partners are undertaking. Given the ongoing relationships between the partners, however, there is confidence the future can be mapped. **Z**

Contact

Berry Wijdeven, Province of B.C. Co-lead for the North Coast and Haida Gwaii Sub-regions
Marine Plan Partnership, mappocean.org
Berry.Wijdeven@gov.bc.ca



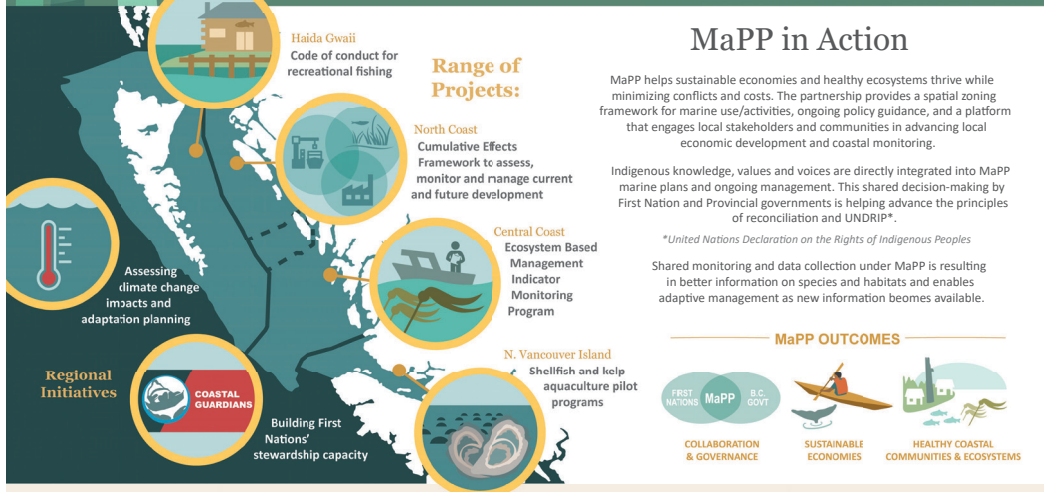
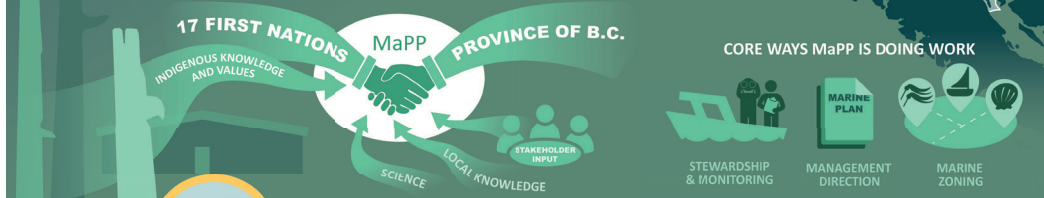
Skeena River, North Coast sub-region. (Photo credit: Jessica Hawryshyn)

Celebrate Coastal Collaboration

Innovative Marine Planning through MaPP

The Marine Plan Partnership (MaPP) is a globally recognized, "made-in-BC" solution that supports diverse communities, economies, and ecosystems to thrive together. This gold standard model for collaborative marine planning is worth celebrating and supporting into the future.

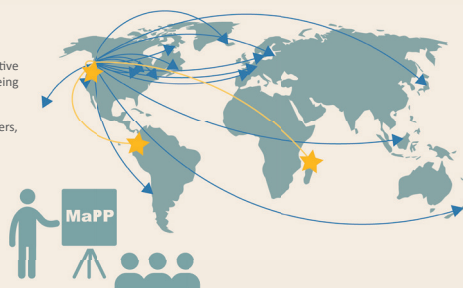
- MaPP is a collaborative partnership between 17 First Nations and the Province of B.C.
- MaPP partners have co-developed marine use plans which are being implemented on B.C.'s North Pacific Coast.
- MaPP provides clear guidance for the management of marine areas, uses, and activities within the mandates and jurisdictions of the partners, at local and regional scales.



Why MaPP Matters

MaPP is a leading partnership model for governments working together on complex collaborative marine spatial planning. MaPP integrates healthy ecosystems, economies, and people and is being used as a model locally, nationally, and internationally.

- **On the B.C. coast,** MaPP is providing ongoing shared benefits for First Nations, stakeholders, coastal communities, and all British Columbians.
- **On a National scale,** MaPP's data, analyses, and governance model are being applied to other marine planning initiatives, including Marine Protected Area network design and marine incident and response planning.
- **Around the world,** MaPP outputs and insights are being used to inform and guide other large-scale marine planning processes (★). MaPP members also receive regular requests to share their knowledge and have participated in over 30 workshops, exchanges and conferences internationally (▲).



Help Carry MaPP into the Future!

The MaPP collaboration and marine plans are designed with a 20+ year vision. Plans are reviewed and adapted to serve as guidance for marine zoning, monitoring, and economic development now and into a changing future.

We invite you to join us in celebrating MaPP's achievements and supporting the next phase of this effective and innovative collaboration!

To learn more, visit www.mappocean.org



Infographic created with support from Nature United

Turning of the Tide: Economic Guidance to Improve Decision-Making and the Valuation of Programs, Products, and Projects

Dr. Lauren Knapp* and Kate Quigley**

The U.S. National Oceanic and Atmospheric Administration (NOAA) develops suite of economic guidance materials and trainings for the non-economist, and to help coastal managers inform their decision-making and project and program valuation

Coastal management has always been a field rife with difficult, multifaceted questions, and climate change is intensifying those challenges. There are numerous instances where socioeconomic data and methods can add considerably to the decision-making process, but many coastal management programs are hampered by a lack of resources, time, and technical expertise.

The U.S. National Oceanic and Atmospheric Administration's (NOAA) Office for Coastal Management is tackling that issue head-on by providing economic-focused tools, training courses, and information resources. These products won't turn coastal managers into economists, but they will help this community understand how economics can be used in decision-making and gain more knowledge about economic methodologies and appropriate use. While not a perfect discipline, economics and socioeconomics methodologies provide a framework for balancing trade-offs using a unified approach.

What follows are several examples of questions economic data can help address:

- How much of my state (or province) is dependent on marine resources?
- How will new spending affect local businesses and will it generate tax revenue?
- Rising seas means coastal infrastructure and assets are becoming more vulnerable. Should we move them, protect them, or do nothing? How do we prioritize where, and when, this should happen, but at the lowest cost?
- I want to value my program, not a physical project. How do I do this?
- How do I capture diffuse benefits that environmental services provide to my

community, or would provide if a green infrastructure project were built?

- Are future benefits or costs worth the same as ones today? If not, how do I account for that?
- How can I become a more informed consumer of economic information?
- If I hire an economist, what kinds of questions should I ask to make sure the study is useful and will get me the specific results I need?

A Suite of Economic Resources for Coastal Managers

NOAA developed a suite of economics resources to help move the needle when it comes to answering value-based questions. These resources include an interactive webinar, quick reference documents, an online self-paced tool, and guidance documents.

Webinar: The first component in this suite of learning resources is an interactive webinar entitled "Economic Guidance for Coastal Management Professionals" (Figure 1). This resource provides a foundation and starting point for using economics to inform decisions about a coastal program, project, or product. It specifically aims to help non-

economists recognize and understand basic economic terminology; recognize relevant economic approaches and analyses; identify the methodology to use to attain project objectives, appropriate level of expertise, and funding; locate support tools and data; and conceptualize appropriate questions to ask an economist or related expert. Interested participants can sign up for future offerings.

Quick references: As a complement to the webinar, two graphics were developed to quickly relay information about important concepts. The first offers insight into methodologies and options for economic analysis and decision-making (Figure 2) to meet the economic objectives someone is pursuing, and on a time frame that is scalable to the level of effort and economic expertise available. Because some of those methodologies require benefits as a component in the analysis, a complementary graphic offers a starting point for thinking about the universe of methodological options available to quantify and monetize ecosystem goods and services. (Figure 3). Both of these quick references, options for economic analysis and benefits valuation, are available online. Self-paced online tool: In addition, a soon-to-be-released self-paced online tool will

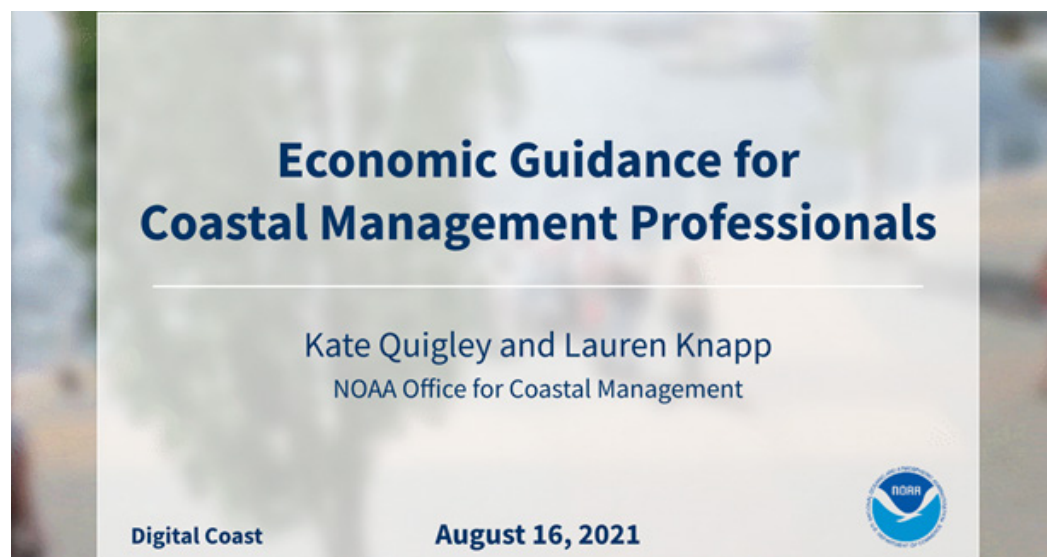


Figure 1. "Economic Guidance for Coastal Management Professionals" webinar hosted by the U.S. National Oceanic and Atmospheric Administration's Office for Coastal Management

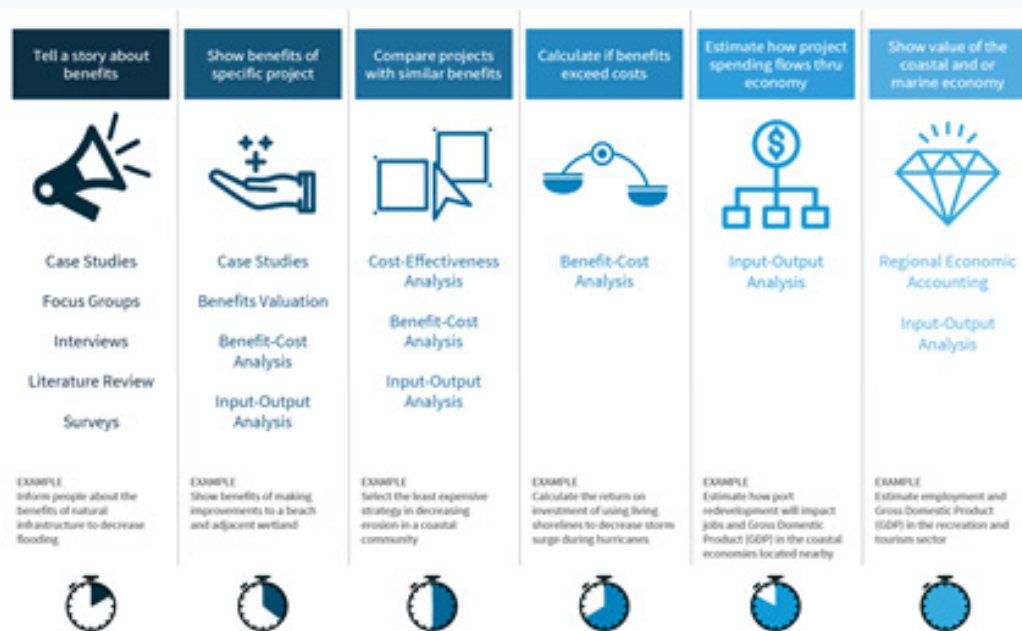


Figure 2. Options for Economic Analysis and Decision-Making

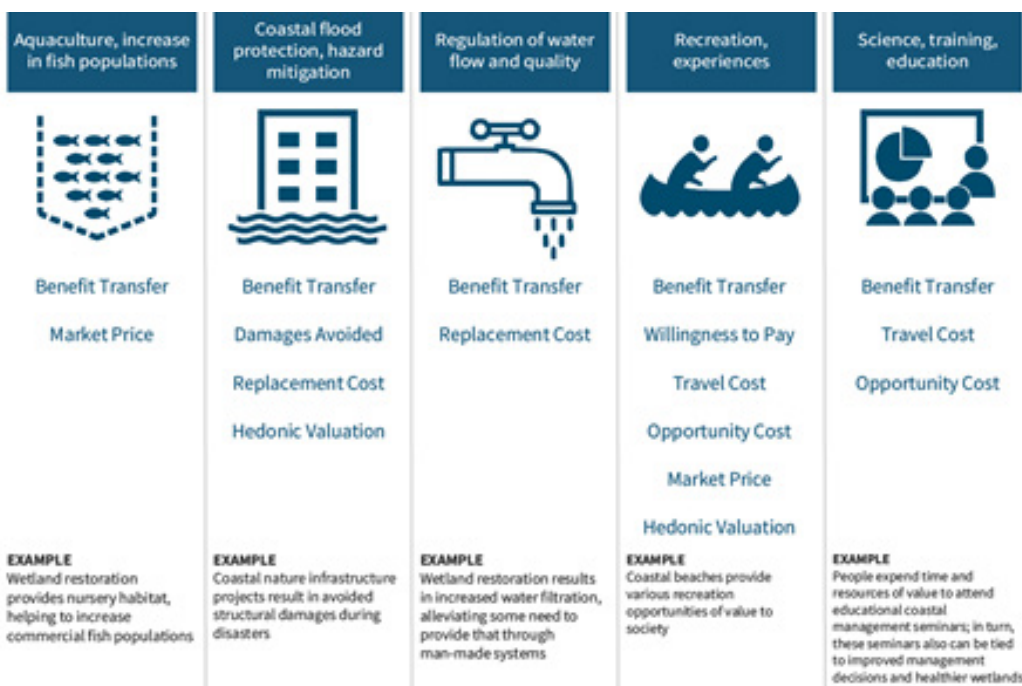


Figure 3. Benefits Valuation Guidance for Decision-Making

offer participants a chance to gain a deeper understanding of the various economic methodologies in use, such as a benefit-cost analysis. Users are first provided with a questionnaire assessment as a means of discerning the economic objective for their project and the related methodology to be used. Participants then use the self-guided tool to learn more about that approach. The online

tool is slated to be released in the fall of 2021.

Guidance documents: As a participant walks through the self-paced online tool, those who want more detail can download relevant guidance documents that offer generalized steps, places to find data, and links to other federal and practitioner websites. These guidance documents should also prove to

be a helpful resource whenever there is an economic component to a project.

Webinar modules: Two additions are being developed to complement the interactive webinar. The focus is on two commonly used methodologies that U.S. federal grant applications in particular require: benefit-cost analysis and benefit transfer methods. The former allows users to weigh expected future costs and benefits, while the latter provides a means of applying results from a similar study when an original economic data collection effort is not an option.

Looking Ahead

As previously stated, the goal is not to teach people to become economists, or to suggest that economics is the only way to communicate economic impact, value a product, inform decisions, or weigh trade-offs. But helping coastal managers become informed consumers and developers of economic information is one key way to help them make better informed decisions for their communities and ecosystems.

We invite you to email econguidance@noaa.gov with any questions about your specific project or research needs, data requests, or updates on future offerings of the webinar, or expected release dates for future webinar modules. [Z](#)

Contact

Dr. Lauren Knapp, CSS Inc., On Contract to the National Oceanic and Atmospheric Administration, Office for Coastal Management; Lauren.Knapp@noaa.gov

Kate Quigley, National Oceanic and Atmospheric Administration, Office for Coastal Management; Kate.Quigley@noaa.gov

Resources

- Webinar – *Economic Guidance for Coastal Management Professionals*
- Quick references
- Options for Economic Analysis and Decision-Making
- Benefits Valuation Guidance for Decision-Making
- Self-paced online tool – coming soon!
- Guidance documents – Economics Guidance
- Webinar modules: Benefit-Cost Analysis and Benefit Transfer – coming soon!