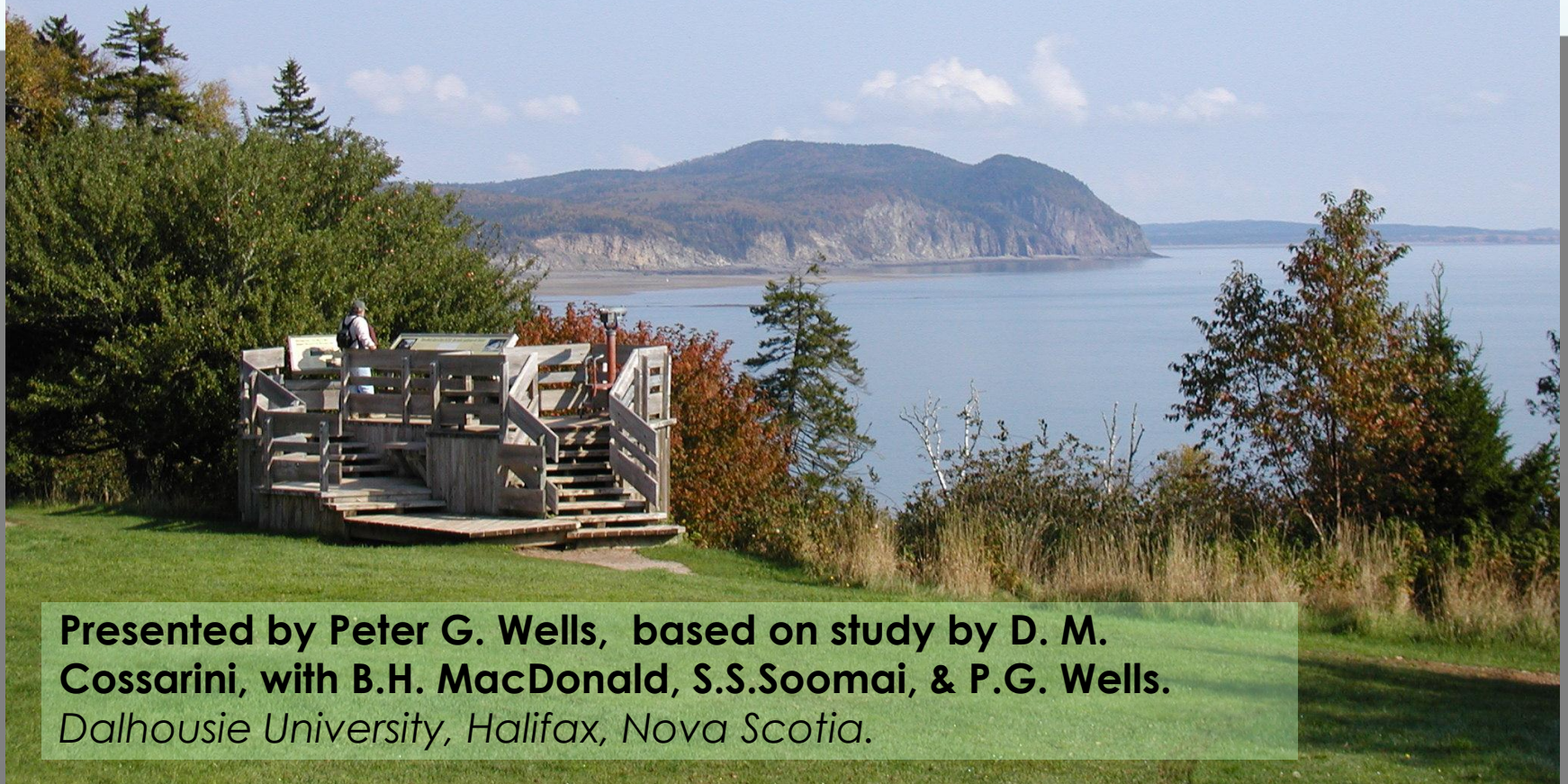


Understanding the Use and Influence of Publications of the Gulf of Maine Council June 2011



Presented by Peter G. Wells, based on study by D. M. Cossarini, with B.H. MacDonald, S.S.Soomai, & P.G. Wells.
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The Use and Influence of Scientific Information

Diffusion, use, and influence of scientific information in grey literature are complex and variable processes.

(Ascher, Steelman, & Healy, 2010; de Alwis, Majid, and Chaudhry, 2006; Evans and Reimer, 2009; Healy and Ascher, 1995; Holmes and Clark, 2008; McNie, 2007; Stojanovic, et al. 2009; Thatje, Laudien, Heilmayer, and Nauen, 2007; Tribbia and Moser, 2008; Wells, 2003)

In public policy settings, grey literature may be of greater importance than peer-reviewed journals.

(Shanley & López, 2009; Soomai, Wells, & MacDonald, 2011)

Communication of scientific information is a main issue in increasing public participation in decision making.

(Mitchell 2010; Mitchell et al. 2006)

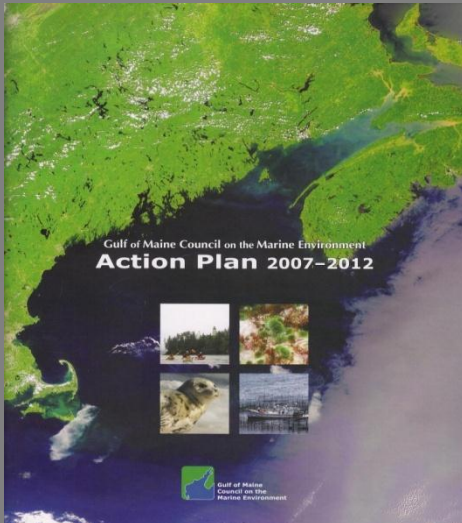
The Importance of this Research to the Council's Mandate

Communication about all of GOMC's activities and issues affecting the Gulf has been ongoing from its beginning in 1989.

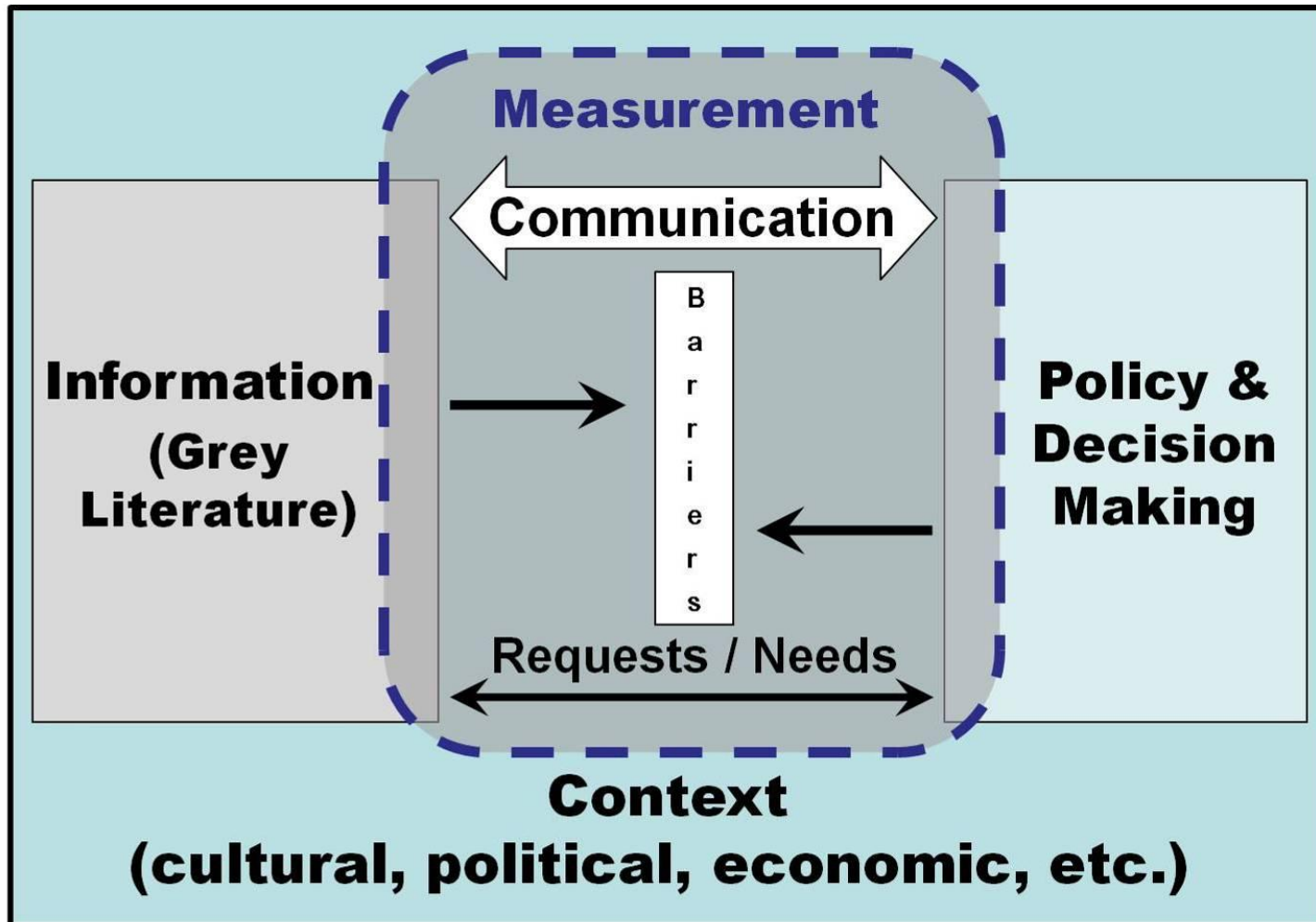
Publications have been a key element of the communication strategy. Their use and influence need to be determined in support of the Council's mandate and activities.

2012-2017 Action Plan

Communication is an integral part of components of the Action Plan, and the value of investing in State of Environment reporting for the Gulf is currently being assessed.



EIUI Research Guiding Framework



ElUI Program Research Questions (07-10)

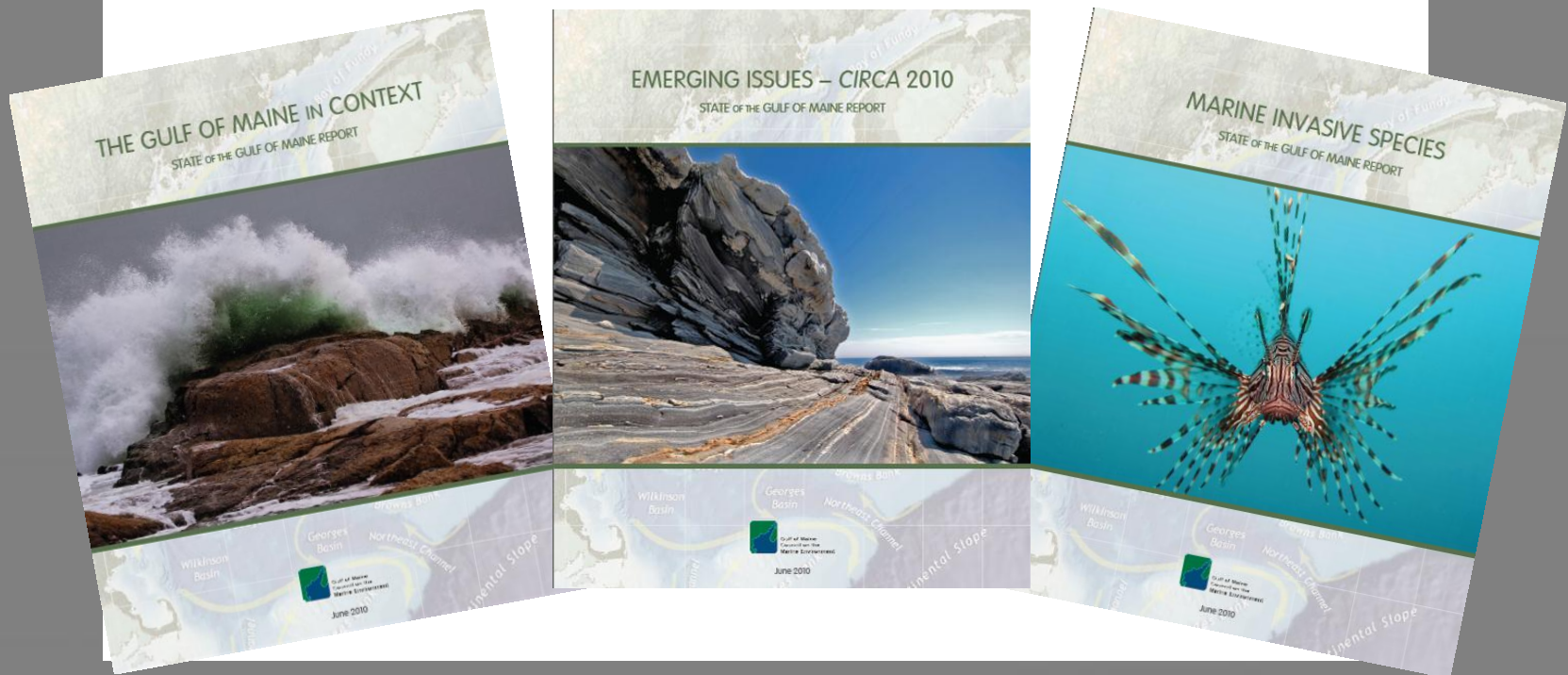
- 1) What is the impact of literature produced by governmental environmental organizations?
- 2) How should impact of this (grey) literature be measured and assessed?
- 3) In public policy, decision-making contexts, are research reports published as grey literature perceived differently than primary research papers ?
- 4) Given developments in digital publications and search technologies, how should publications be designed for effective discovery and impact?

EIUI Research Questions - Program 2011

- 1) What roles do scientific information play in informing policy decisions on marine environmental issues?
- 2) Does such information produced by governmental and non-governmental organizations reach decision makers in an efficient and timely manner? If not, why not?
- 3) Given the vast and growing volume of such scientific information, what qualities / standards / filters do policy-makers use in determining which forms and/or authoring bodies are most reliable as information sources?
- 4) What role do the media and/or social networks and other web-based information dissemination pathways play in the generation of marine environmental policy?
- 5) What are the institutional enablers and barriers to the use of marine environmental information at the science-policy interface. What role(s) do grey literature play as drivers, enablers, and barriers?

GOMC Case Study – 3 Projects

- Created Bibliographic Database of GOMC Publications and Conducted Citation study (2005-07).
- Interviews of Working Group members (2009-10).
- Evaluation of Awareness and Use of the State of the Gulf Theme Papers (2010-11).



GOMC Publications — (Total 312)*

Council Publications	
Reports and fact sheets	122
Background documents	38
Action plans and annual reports	29
Brochures and posters	10
Serials	4
Miscellaneous	9
Council-supported publications	
Reports and background documents	24
Miscellaneous documents	25
Reprints of Council authored documents	14
Conference papers, journal articles and abstracts	37

* As of November 2006

Citations & locations of users (2006)

	Online	Print
Gulf of Maine Region	151	164
United States (outside Gulf region)	61	30
Canada (outside of Gulf region)	24	35
Europe	23	1
Rest of world	13	7
Total	272	237

GOMC Interview Study 2009-10 - Research Questions (thesis study of Danielle Cossarini)

1. How are publications produced by GOMC?
2. What is the understanding of GOMC Working Group members about publication practices of the organization?
3. How are GOMC publications disseminated?
 - a. Do interviewees consider distribution / dissemination to be important?
4. What evidence of use of the publications do the interviewees provide?
5. What factors promote or inhibit production, use, and influence of the GOMC publications?

Interview Study – Methodology

Instrument – Two interview protocols were used.

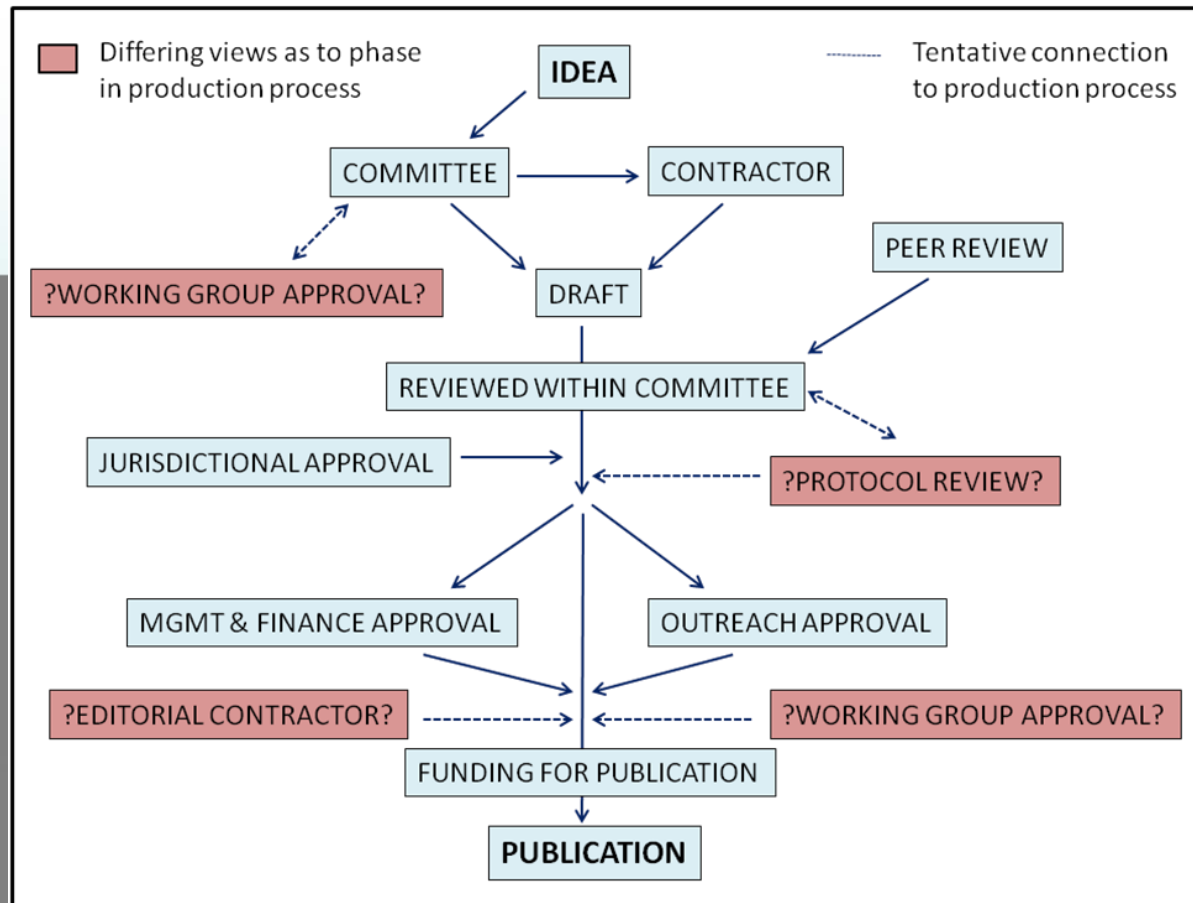
Selection – Interviewees were selected from the list of Working Group members on GOMC's website.

Interviews – Participants were interviewed in person or by telephone.

Data Analysis – Interview transcripts were coded for data analysis using Nvivo (qualitative data analysis software).

	United States			Canada		Total
Federal	4			6		10
State/ province	Maine 1	Massachusetts	New Hampshire 2	New Brunswick 2	Nova Scotia 2	7
Other	2					2
Total	9			10		19

Interview Analysis — Production



“... There’s a review process that’s currently hard to figure out.” (Working Group Member Q).

The Production Process for GOMC is ...

Iterative

“... You know there was a lot of back and forth in getting that approved.” (*Working Group Member N*).

Highly collaborative

“.....there waslots of input from lots of people...who helped to provide content...that’s true of almost all of the publications that I’ve been familiar with ...” (*Working Group Member D*).

Subject to multilevel approval

“A publication will be referred to ... the Management and Finance Committee ... and to the Outreach Committee ...” (*Working Group Member R*).

The Production Process is ... (cont.)

Less efficient than optimal

“..... I’m not completely convinced that all the mechanisms that we’re trying to use ...are working the way they should” (*Working Group Member M*).

Variable

“ like most organizations it’s serendipity. It is the individual who helps put a report together, thinks of ways to disseminate it, in creative ways in ways that might be responsive to the target audience.” (*Working Group Member L*).

Types of Report Distribution Conducted by GOMC WG Members

Types of Distribution	% of WG
By agencies within each Jurisdiction (print copies only)	52.6%
Emailing or forwarding a publication	52.6%
At meetings or conferences	42.1%
Based on an interest in the subject of a publication	42.1%
By members of the producing Committee	36.8%
Word of mouth (talking about information in documents)	31.6%
Person-to-person (handing a document to another person)	26.3%
Putting a publication on the Web site	26.3%
Using internal and external marketing or advertising	21.1%
By members of the Working Group	10.5%
Via a library (using a library as a point of access)	10.5%
By GOMC Councilors	5.3%
By members of the Secretariat	5.3%
By serendipity	5.3%
Using the postal system (mail)	5.3%

Informal Distribution Process Encourages Creativity

“I put together email lists of colleagues by interest or geographic area. If I were told that a new publication came out on shellfish contamination, I would have a group of people that I would send that out to...” (*Working Group Member Q*).

“I’m an aggressive forwarder ” (*Working Group Member I*).

Use of the GOMC Publications

Difficult to provide concrete evidence of use (from interviews)

“.....It's really hard for me to answer the question just because I don't remember how many times somebody has said to me [that they used a publication]...” *(Working Group member D)*

“...normally it's just off [the publication] goes, it could have been deleted, it could have been read, it could have been valued, I don't know ... we all push a lot of information out there and hope it ... sticks or it is relevant or used” *(Working Group Member I).*

Types of Use, based on interviews

Evidence of use was largely anecdotal

Types of Use	% of WG Members
Cited by Other Publications	26.3%
By Professors at Nearby Universities	15.8%
Industry/Government (i.e., Meramec Dam Removal on the Skowhegan River)	15.8%
Regulations or guidelines (e.g. Salt Marsh Restoration Protocols in New Hampshire)	15.8%
Word of Mouth from Colleagues Outside of GOMC	15.8%
GOMC Affiliated Agency of Publishing Author or Committee	5.3%
Not-for-Profit Organizations	5.3%

Examples of Evidence of Use

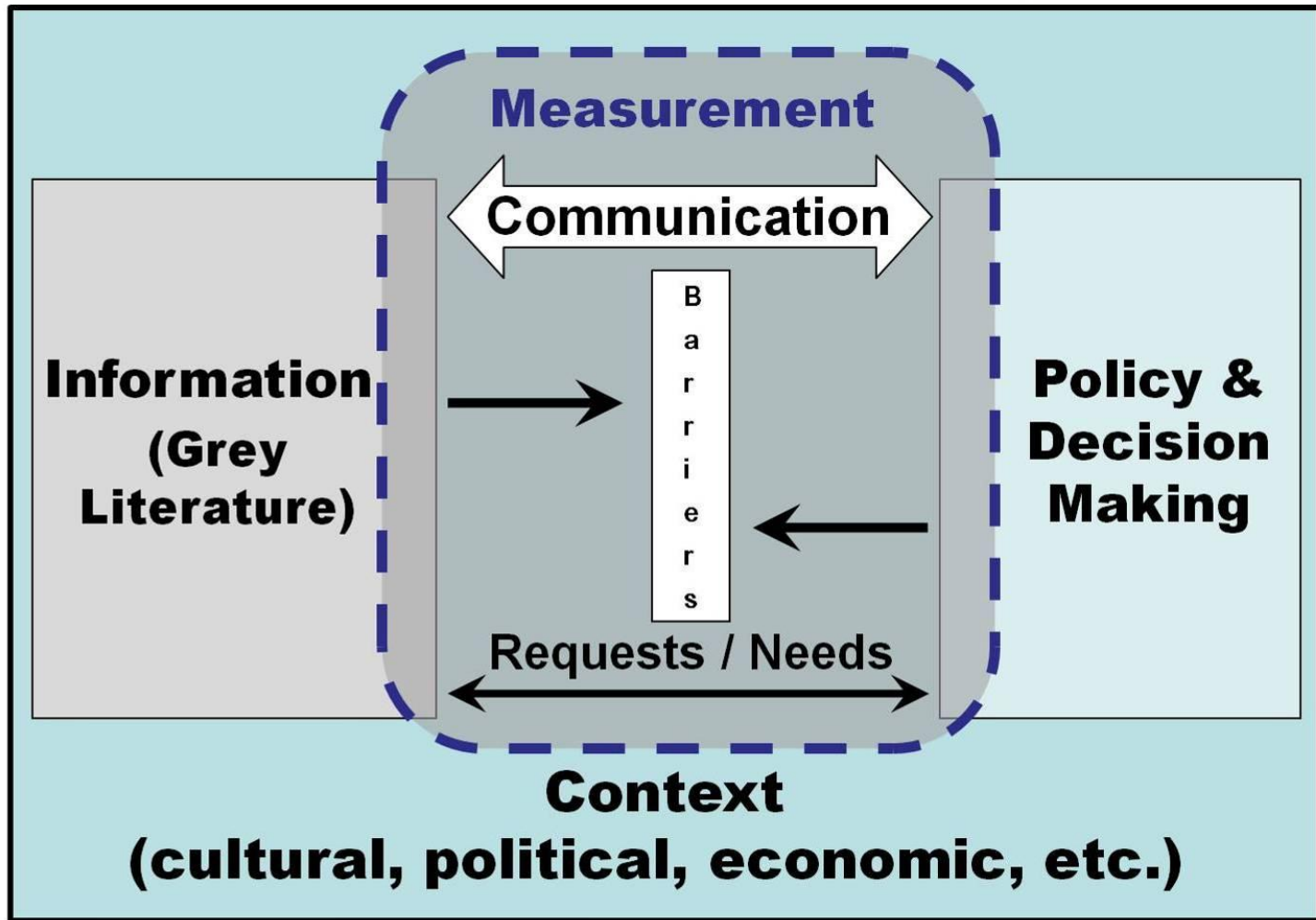
Cited by Other Publications

I have seen a number of reports that have been done by the US Geological Survey on aquatic habitats... which quote the Gulf of Maine Council reports, like *Eel Grass...and the Salt Marsh one and...Tides of Change*...they are part of a scientific discourse about restoration and conservation efforts” (Working Group Member Q).

Evidence of use, but not of influence

“We have a five or six page handout on [the] American Eel ... and its status in the Gulf of Maine. So, I gave that to our pelagics advisor and he found it very informative ... now he never told me ... that changed how [he] recommended to the minister what our position is on it ...” (Working Group Member K).

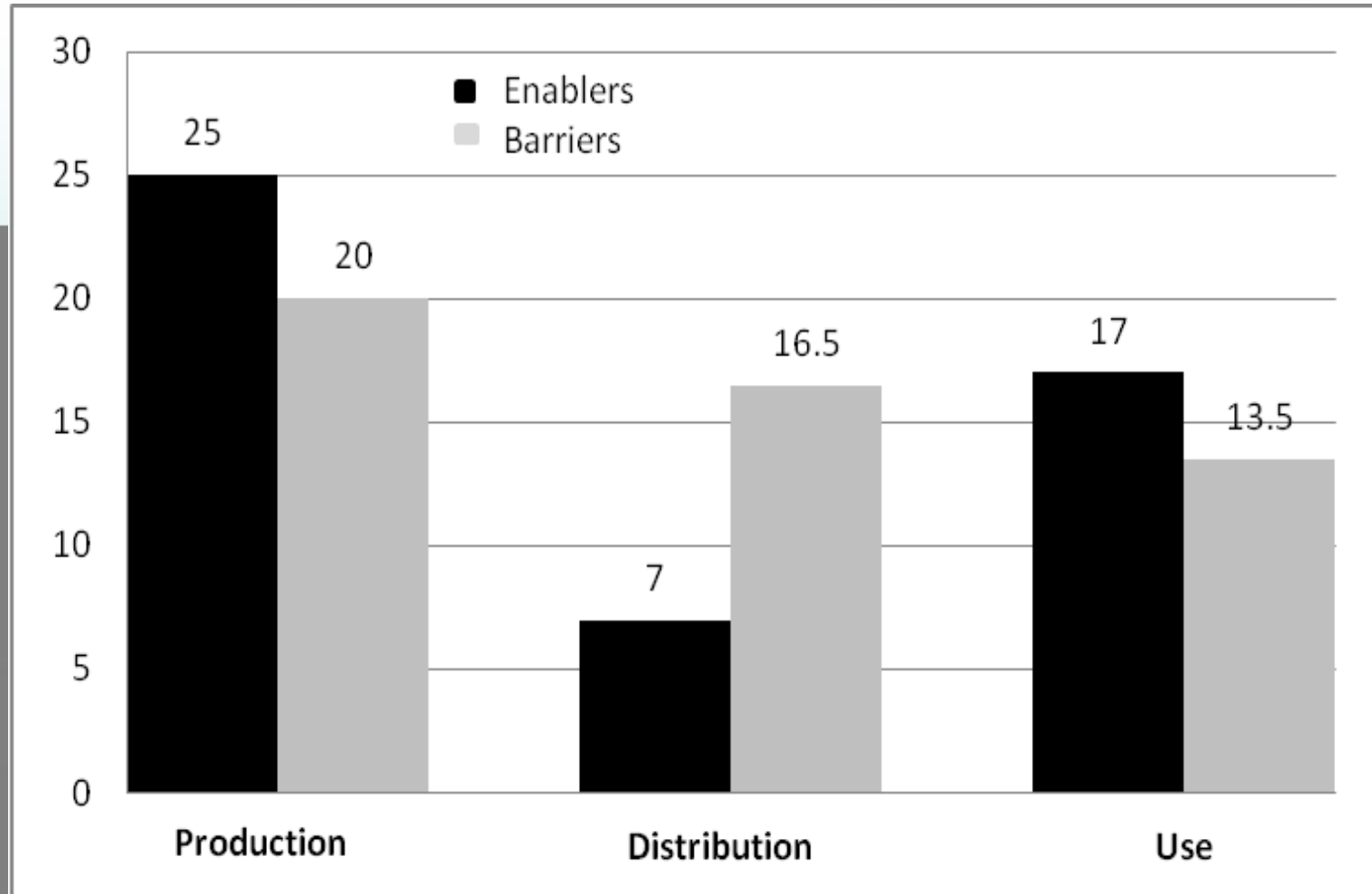
Understanding Enablers & Barriers



	Enablers-highlights	Barriers-highlights
Production	<ul style="list-style-type: none"> • <i>Publications Protocol is in place</i> • Identification of an audience and need for information • Commitment and involvement by GOMC Members 	<ul style="list-style-type: none"> • Debate over an identified audience for each publication • Unclear production criteria/unaware of standards/practices set out in the <i>Publications Protocol</i> • Unclear review process
Distribution	<ul style="list-style-type: none"> • Diverse means of dissemination, i.e., postcards, CDs, email, Web site • Adoption of information technology, e.g., RSS feeds • Good contacts with stakeholders • Identification of a target audience 	<ul style="list-style-type: none"> • Lack of promotion of publications • Reluctance to adopt new technologies, e.g., wikis • Publications not placed in central repositories, i.e., libraries • No distribution strategy (lack of accountability for where and how publications are distributed) or records of distribution
Use	<ul style="list-style-type: none"> • GOMC Members encourage internal use • Readability of publications • Briefing note attached to document • Web site use tracked • GOMC reports considered in work towards state/province legislation 	<ul style="list-style-type: none"> • Publications page on website is ineffectively organized for retrieval • Grey literature has “tainted” credibility • Information is not well translated for general users

Enablers & Barriers

(as a Percent of Respondents for each Attribute)



Some Key Findings related to GOMC Publications (Cossarini 2010)

Production

Publishing GOMC reports as grey literature is not a matter of concern and does not influence their promotion and use.

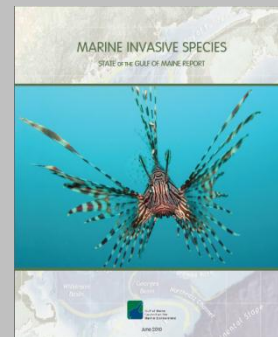
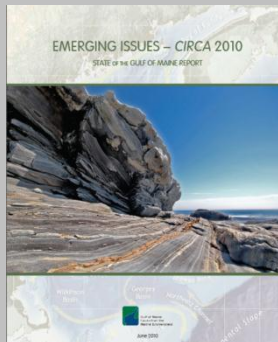
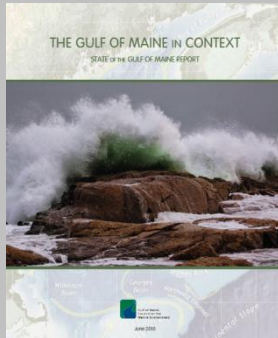
Distribution

It is a dynamic process, showing that no single approach to distribution is as effective as multiple and varied means.

Use and Influence

Use and influence of GOMC information is under-evaluated as it has been outside the capacity of the Council.

State of the Gulf Report (Theme Papers) Study, 2011



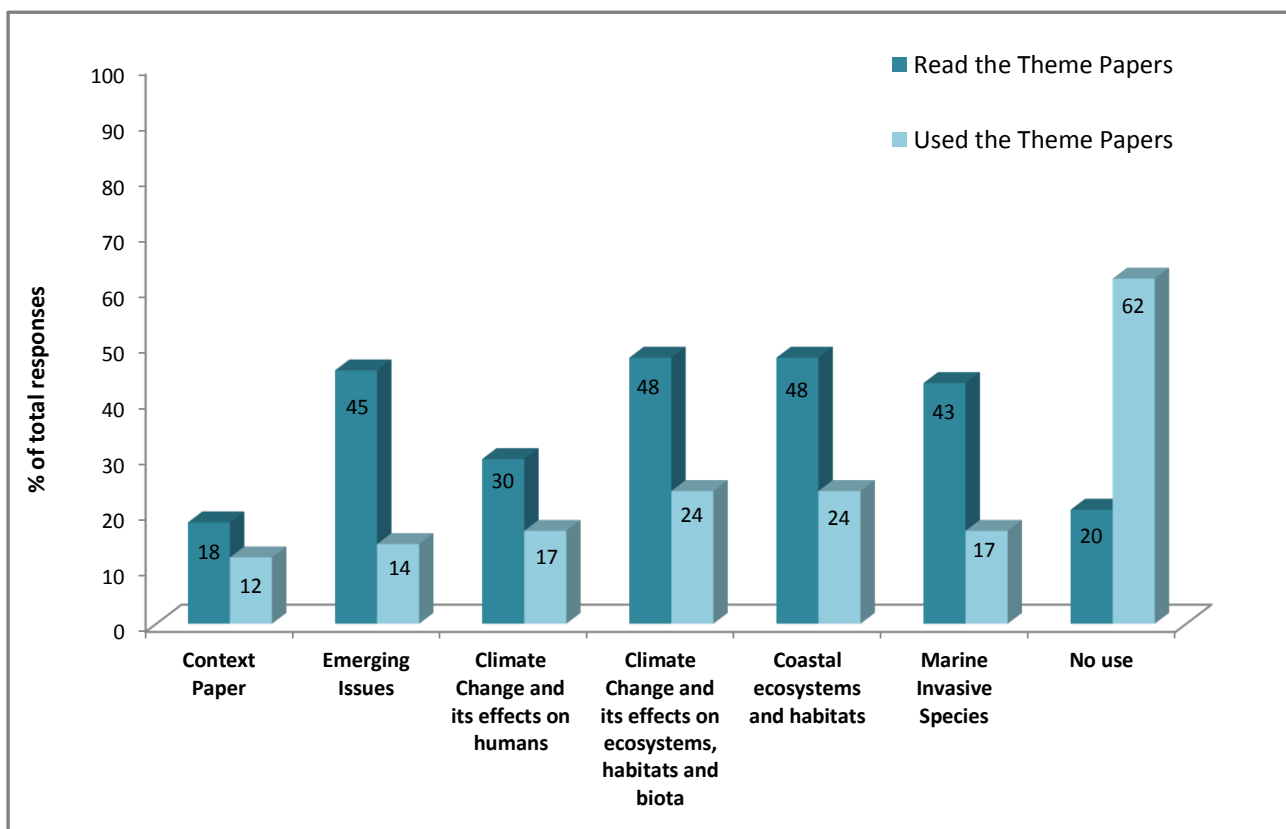
To determine awareness & use of the six theme papers to date(2010)

- ★ Survey of Council Members.
- ★ Survey of Working Group Members.
- ★ Online survey of readers of the *Gulf of Maine Times*.

(study supported by DFO-BIO)

State of the Gulf Report (Theme Papers) Study, 2011

% of *Times* readers who read and used the theme papers (N=44 read, N=42 used)



The 2009 State of Nova Scotia's Coast Report



“The State of Nova Scotia's Coast Report provides an *overview of the condition of our coast and information on priority coastal issues*. We must look at ways to protect the coast where we live, work, and play. It is vital to who we are and a way of life that is valued by Nova Scotians.”

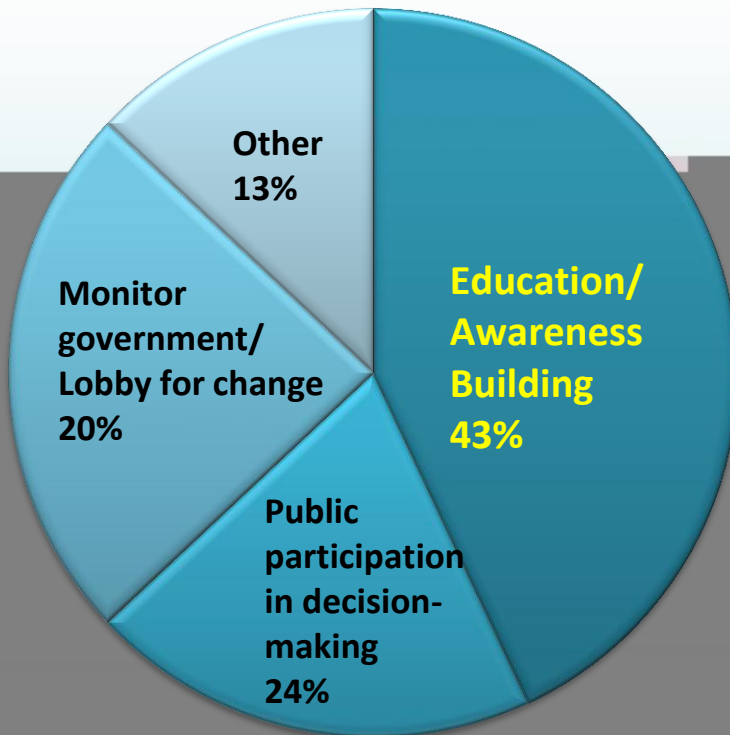
Stirling Belliveau, NS Minister of Fisheries
and Aquaculture

<http://www.gov.ns.ca/coast/>

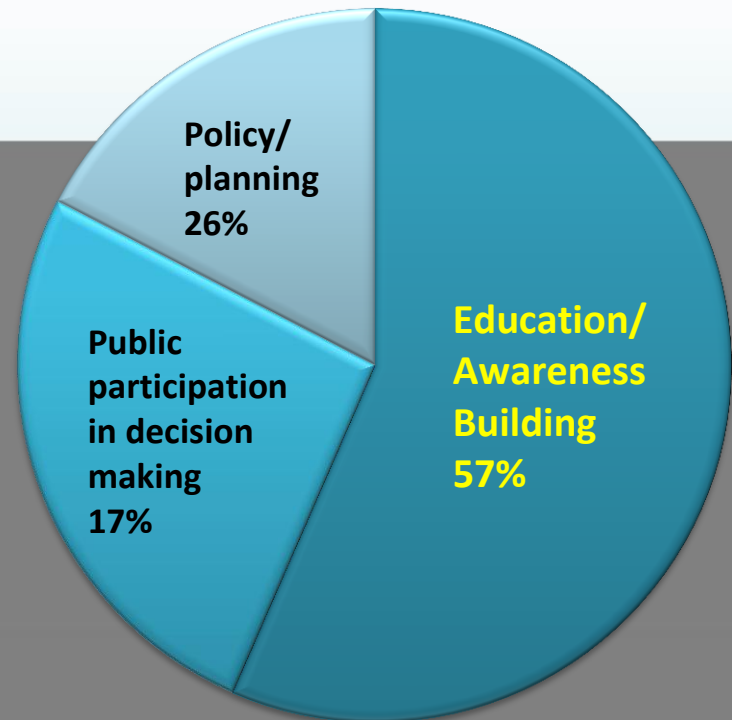


Use of the *State of Nova Scotia's Coast Report*

Open Houses (N=256)



Multi-stakeholder Meeting (N=24)



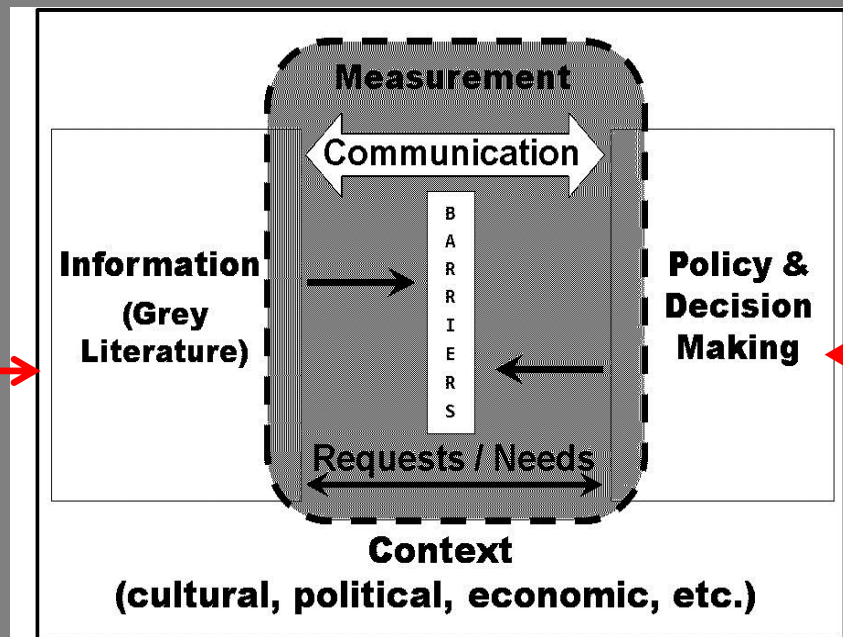
Information in Policy and Decision Making

Government-initiated reports play an important role in policy and decision-making contexts.

Surveys and Web statistics



*The 2009
State of
Nova Scotia's
Coast Report*



*Sustainable
Coastal
Development
Strategy
(forthcoming in
2011)*

We really appreciate the Council's support of this research. Your comments and questions are welcomed.

