

Community engagement

Information Manual 9

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Community engagement

Information Manual 9

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Preface

In 2014, the National Climate Change Adaptation Research Facility (NCCARF) was commissioned by the Australian Government to produce a coastal climate risk management tool in support of coastal managers adapting to climate change and sea-level rise. This online tool, known as CoastAdapt, provides information on all aspects of coastal adaptation as well as a decision support framework. It can be accessed at www.coastadapt.com.au.

Coastal adaptation encompasses many disciplines ranging from engineering through to economics and the law. Necessarily, therefore, CoastAdapt provides information and guidance at a level that is readily accessible to non-specialists. In order to provide further detail and greater insights, the decision was made to produce a set of Information Manuals, which would provide the scientific and technical underpinning and authoritativeness of CoastAdapt. The topics for these Manuals were identified in consultation with potential users of CoastAdapt.

There are ten Information Manuals, covering all aspects of coastal adaptation, as follows:

- 1. Building the knowledge base for adaptation action
- 2. Understanding sea-level rise and climate change, and associated impacts on the coastal zone
- **3.** Available data, datasets and derived information to support coastal hazard assessment and adaptation planning
- **4.** Assessing the costs and benefits of coastal climate adaptation
- 5. Adapting to long term coastal climate risks through planning approaches and instruments
- 6. Legal risk. A guide to legal decision making in the face of climate change for coastal decision makers
- **7.** Engineering solutions for coastal infrastructure
- **8.** Coastal sediments, beaches and other soft shores
- 9. Community engagement
- **10.** Climate change adaptation planning for protection of coastal ecosystems

The Information Manuals have been written and reviewed by experts in their field from around Australia and overseas. They are extensively referenced from within CoastAdapt to provide users with further information and evidence.

NCCARF would like to express its gratitude to all who contributed to the production of these Information Manuals for their support in ensuring that CoastAdapt has a foundation in robust, comprehensive and up-to-date information.

Executive summary

Climate change presents significant threats to many coastal communities. The magnitude and the severity of the impacts require collaborative responses from all tiers of government, businesses and individuals within communities. Effective engagement is thus an essential component of adaptation required for the long-term resilience of various communities, sectors and species. However, past approaches to engagement for climate change adaptation have largely been ineffective in mobilising mainstream or strategic action. This manual presents an overview of engagement approaches and recommends that local governments and coastal decision-makers focus initial engagement efforts on supporting opinion leaders who are active across diverse established social networks, rather than developing new and isolated engagement approaches.

This manual provides a rationale and guiding steps for this approach. The six-step cycle for engagement comprises: i) mapping existing networks; ii) identifying key champions within the networks; iii) supporting engagement by key champions, including co-designing engagement strategies that consider the motivations, preferences and capacities of the various network participants; iv) supporting the design, implementation and learning from adaptation initiatives, with, for example, money, information and personnel; v) monitoring and evaluating effectiveness; and vi) sharing innovations and lessons. However, there are a number of caveats to this approach and, ideally, it should be situated within a broader social learning frame.

1 Context and content

1.1 Why this information manual has been written

Information Manual 9: Community Engagement has been written to provide best practice information about community engagement, particularly for local governments that are considering and undertaking communication, consultation and engagement on climate change adaptation. It forms one component of NCCARF's CoastAdapt, the decision-making framework for coastal areas. It has been developed from:

- 1. a detailed analysis of select Australian and international case studies of climate change adaptation planning and action (Appendix 1)
- 2. a systematic literature review of publications documenting climate change adaptation engagement examples (Supplementary Material)
- **3.** the authors' experiences of climate change adaptation and of working on engagement processes in other contexts.

The need for an information manual was identified by NCCARF during the early phase of consultation for CoastAdapt. Coastal decision-makers, particularly local governments, reported that they wanted to know how to engage with communities in various phases of planning for climate impacts on the coast. They wanted to learn about what other councils are doing to engage their community; in particular, they wanted to know what works and what does not work. This information gap supports the authors' and others' research findings that many local governments want guidance about how to engage effectively with communities around a changing coast.

1.2 How to use this document

A range of manuals, tools and guidance materials aimed at local government already exist about community engagement. Many of these are accessible and useful, but most fail to provide the advice that local governments seek, specifically with regards to engaging on climate change adaptation. This information manual does not aim to replace these materials; rather, it offers an alternative perspective and some context that may support coastal decision-makers wanting to use these tools. This information manual also does not offer a detailed how-to of specific communication tools, as there are many useful resources already available (see resources in Appendix 2).

This manual brings together information from a variety of sources so councils can select the information that suits their timing, their level of exposure to impacts and the tools and processes they are already using to communicate and engage with their communities. Many sections have a list of documents for further reading that are of particular relevance to that topic. Thus this manual is designed to be sampled, rather than read sequentially.

1.3 Important considerations

The engagement approach outlined in this manual presents some challenges. There are six main caveats when using this approach:

- 1. While most people are connected to existing networks in some way or another (e.g. sporting and recreational clubs, school groups, faith-based organisations), some people may not be involved in any social networks. Hence, this engagement approach may miss particularly marginalised people, and supplementary engagement approaches may be needed.
- 2. Some networks are more active than others. Care should be taken to enable engagement results to be compared between various networks (e.g. how many people participated and in what ways).
- 3. Similarly, engagement within networks varies, and some people are more engaged across multiple networks than others. Hence, it is important to do some analysis of who engages and to what extent.
- **4.** Opinion leaders by definition are influential people. Hence, careful attention should be paid to the actual influence and messaging that may bias particular opinions.
- 5. While opinion leaders are influential, they may not have adequate capacity to effectively engage on challenges such as climate change adaptation. Hence, efforts on the part of local government and other decision-makers may need to focus on building their capacities.
- 6. Lastly, engagement is essentially about the empowerment of participants, and decision-makers must be comfortable with a lack of certainty or predictability of the outcome of an engagement process.

Even without these caveats, engagement can be difficult; past attempts have often been ineffective in terms of reach and impact. This manual recognises the time- and resource-constrained environment in which engagement generally occurs. Hence, the following approach should be seen as an initial strategy within a broader social learning frame (see section 3.1). Successful planning, implementation and refinement of a longer term social learning process requires extensive time and resource commitments.

2 What is the issue? Why is it important?

2.1 Coastal change, councils and conflict

Australia's coastal regions have been undergoing rapid transitions, including through urbanisation and an increasingly ageing population. Climate change presents further challenges for socialecological systems through the addition of new threats and the exacerbation of existing threats (e.g. sea-level rise, storm surge, extreme temperatures, bushfires and flooding). Climate change may affect coastal communities through other less obvious threats, such as changes in the range and distribution of invasive species and vector-borne diseases. These individual, and increasingly cumulative, pressures have the potential to cause tension and conflict through, for example, increased resource scarcity, movement of vulnerable populations and increased costs of protecting assets. Local governments have a range of formal and informal roles in the coastal zone. from planning decisions through to provision and maintenance of recreational opportunities and infrastructure. While the statutory mandate for local governments for climate-related impacts in the coastal zone remains unresolved, there are likely to be impacts that will necessitate action. Proactive approaches to adaptation are important to maintain a duty of care for long-term community resilience.

2.2 What is different about engaging communities on climate adaptation?

Local governments already engage with their communities around a range of issues. Increasingly, local governments are expected to engage around more complex issues or 'wicked problems', such as climate change adaptation.

A wicked problem, described by Rittel and Webber (1973), is a complex, interacting issue that is not easy to define, has no clear solution and involves many stakeholders with conflicting interests and opinions. How a wicked problem is understood will frame any potential solution, which means that tackling a wicked problem is essentially a social process. In any community there are diverse worldviews and vested interests, which make it difficult to engage. Resolving wicked problems is difficult; any potential solutions are likely to have unforeseen consequences and may generate further problems, tension and conflict. Typical wicked problems that increasingly need to be addressed by governments include climate change, obesity, violence and crime and immigration and refugees.

While wicked problems make it difficult to undertake community engagement, at the same time it is vital to have broad engagement for both scoping the problem – which means developing a shared understanding of the problem and the breadth and diversity of community views – as well as designing, implementing and evaluating any potential solutions.

2.3 Understanding communities

'Community' is a term that is often used in engagement. However, communities represent multiple and diverse networks tied to particular places and interests. Within communities there is also a range of contextual and cognitive factors that influence attitudes and behaviours, including values, worldviews, motivations and aspirations. Consequently, communities exhibit a range of views and attitudes, which need to be considered when attempting to engage on climate change adaptation. As adaptation actions are often initiated at the local scale, attachment to place and threats to place and identity are key considerations in community engagement.

Research indicates that attitudes towards climate change adaptation vary greatly within and between communities, with many interacting factors influencing community responses. For example, some studies have linked adaptive capacity with socio-demographic characteristics, while other studies have found stronger links between adaptive capacity and previous experience of climate hazards. Furthermore, difficulties in distinguishing the impacts from climate change from the intrinsic dynamism of coastal systems, in the short term at least, can mean that while some communities experience the impacts of climate change (e.g. flooding), the community may not specifically link this with climate change (Green Cross Australia 2014). Further confounding engagement on climate change adaptation is that adaptation initiatives themselves can be difficult to separate from other, often established, sustainability or community development activities. Hence, key considerations for engagement include identifying networks, recognising diversity and engaging in relatable ways that take account of multiple interpretations and aspirations.

2.4 Local government responses to date

A policy void exists in relation to statutory responsibility for climate change adaptation. However, many local governments recognise the need to plan and take action, and some initiatives have been supported by various state and Australian government programs. For example, the Australian Government ran two phases of the Local Adaptation Pathways Program to support local governments develop adaptation plans. Many local governments are also acting independently of state and federal sources of funding. The emerging focus on adaptation represents a local government shift from a focus on climate change mitigation plans and actions. While several attempts have been made to develop participatory adaptation plans, many of the actions are not based on a comprehensive vulnerability assessment (i.e. that assesses exposure, sensitivity and adaptive capacity), which may limit adaptation effectiveness or even lead to maladaptation. Engagement on adaptation is challenged when the nuances of vulnerabilities to various climate change hazards are unknown.

Local government engagement on climate change adaptation is a relatively recent phenomenon. The majority of attempts to engage so far have focused on the development of new and isolated engagement strategies that have not engendered mainstream participation or action. However, there are some cases where local governments have led effective climate change adaptation planning and action initiatives by developing trust within communities and allocating sufficient resources for adaptation (refer to Appendices 1 and 2).

State governments and many state local government associations have developed guidelines, frameworks or resource kits to support community engagement efforts. These guidance materials are very useful in terms of explaining community engagement and providing ideas about tools and processes that coastal decision-makers can use. (Refer to Appendix 2 for a list of these state and local government association resources.)

Further reading

Section 2.1

Australian Bureau of Statistics, 2004: How many people live in Australia's coastal areas? *Year Book Australia, 2004* (Cat. No. 1301.0), Commonwealth of Australia, Canberra. Accessed 14 April 2016. [Available online at http://www.abs.gov.au/ausstats/abs@.nsf/Previousproducts/1301.0Feature%20Article32004.]

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Section 2.2

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Section 2.3

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3 What is engagement?

3.1 What is engagement? Why engage?

A key challenge for local governments is how to identify and resource meaningful ways to effectively engage their community. Community engagement is defined by the Australian Centre for Excellence in Local Government (ACELG) as 'a twoway process of dialogue by which the aspirations, concerns, needs and values of the community are incorporated into policy development, planning, decision-making, service delivery and assessment' (Herriman 2011, p. 6, citing City of Canada Bay 2010, p. 2). However, meaningful approaches to engagement also consider the empowerment of participants, rather than only seeking their views. Genuine engagement builds relationships, trust and capacity to support equitable decision-making processes and collective responses. It seeks to involve and empower those impacted by particular decisions and utilise relevant knowledge and skills contributions. Studies have shown that those involved in decision-making processes are more likely to support and facilitate the implementation of those decisions (Reed 2008).

Furthermore, processes that distance government from communities and other stakeholders may limit the development of shared understanding and goals. Consequently, engagement for climate change adaptation presents opportunities for mutual capacity building, the generation of new knowledge / novel insights, and cross-sectoral innovation, which can be fuelled by social learning. Learning, especially social learning, is increasingly emphasised as an important mechanism for facilitating shifts in power. Social learning, a concept that has been in use since the 1960s, is a change in thinking that takes place in a social context as people learning from one another. More recently, it has been defined by Reed et al. (2010) as 'a change in understanding that goes beyond the individual to become situated within wider social units or communities of practice through social interactions between actors within social networks'. Ideally, long-term approaches to climate change engagement will be enacted through a social learning frame.

Other terms of interaction (e.g. communication, consultation, participation) are often used interchangeably with 'engagement', and it can be helpful to understand these approaches as a continuum that varies according to the locus of power (see section 3.2). It also important to note that some tools – which, taken in isolation, could be considered ineffective or one-way – can still form part of an effective engagement strategy. Hence, it is important to consider how tools are applied and the broader governance contexts when developing a particular strategy. For example, an engagement strategy that only includes one-way consultation tactics will not deliver on its promise. However, a communication process characterised by two-way flows of information (as a minimum) and the development of shared understandings and responses over the long term is likely to achieve the goals of community engagement.

"Every city has a different story, but among these differences a number of common themes emerged. These included the importance of public engagement, consistent strategic direction, cross-sectoral collaboration, and regional cooperation. The report's findings have a number of implications for Australian cities, but two stand out. First, residents must be involved in decisions. The cities that made, and implemented, tough choices, had early and deep public engagement – an order of magnitude different from what often happens in Australia..."

(Kelly 2010 discussing the report by the Grattan Institute – Kelly, J., 2010, Cities: Who Decides? Grattan Institute, Melbourne).

3.2 Thinking critically about engagement

A number of theoretical framings of engagement exist, many of which arise from Arnstein's ladder of participation. There is also an International Association for Public Participation (IAP2).

Arnstein's ladder

Arnstein's ladder of community participation is useful to help think through issues of power and participation that occur in community decision-making. The ladder is a foundation resource of community engagement; it describes how participation varies depending on the amount of power that is shared with those affected or involved. The ladder describes increasing access to decision-making power through eight levels of participation grouped in three clusters from non-participation, to tokenism, to citizen power (see Figure 1). The lower non-participation rungs of

the ladder are manipulation and therapy, in which citizens are used or influenced to bolster a case. The middle rungs are informing, consultation and placation, in which citizens have some level of input but little power to influence the decision. The top rungs are partnership, delegated power and citizen control, in which citizens have increased degrees of power to influence the parameters of the issue as well as decisions.

International Association for Public Participation (IAP2) framework

One approach to participation used by many local governments is the International Association for Public Participation (IAP2) framework, also known as the IAP2 spectrum, which builds on the ideas outlined in Arnstein's ladder (see Figure 2). Its development was based on practitioner experiences, so it provides some practical tools and guidance. Training in use of the framework is available through the IAP2 association.

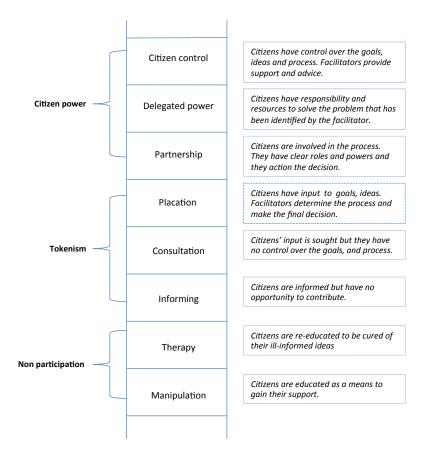


Figure 1: Arnstein's ladder of participation. Source: Arnstein (1969).

		Participation levels		
Inform	Consult	Involve	Collaborate	Empower
Public participation	n goal			
To provide balanced and objective information to assist understanding of topic, alternatives, opportunities and/or solutions	To obtain public feedback on analysis, alternatives and/or decisions	To work with the public throughout the process to ensure that concerns and aspirations are consistently understood and considered	To partner with the public in each aspect of the decision, including development of alternatives and identification of preferred solution	To place final decision-making in the hands of the public
Promise to the pub	lic			
We will keep you informed	We will keep you informed, listen to and acknowledge concerns and aspirations and provide feedback on how input influenced the decision	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how input influenced the decision	We will look to you for direct advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent	We will implement what you decide
Techniques that co	uld suit each level			
Fact sheet Website Advertisement Media release Newsletter Email list Social media	Public comment Focus groups Surveys Stakeholder meetings Shopfronts Phone hotlines Briefings Feedback forms Social media	Workshops Deliberate polling Social media Advisory groups Discussion forums	Advisory groups Discussion forums	(Depends less on technique and more on relationship) Summits Deliberative democracy Deliberative forums Citizen juries

Figure 2: IAP2 spectrum Source: IAP2 (2016).

The IAP2 spectrum considers that high levels of community participation can increase the capacity for conflict resolution, innovation and problem solving. The spectrum describes five participation levels, based on increasing levels of information and consultation, with tools and processes suggested for each level. For local governments, for instance, the most commonly used are the levels of inform, consult and involve. Also, although this framework is widely used by local government there are few examples of use of the collaboration level to date; and some councils (e.g. see Box 1) consider that the empower level is only realised through council elections.

The key in considering the spectrum is to ensure that the issue is matched with the right level of engagement: not every issue or problem requires more the significant levels of engagement, such as collaborate or empower. It is also important to communicate what level of engagement is being used, to ensure that citizens are given a realistic picture of their level of influence over the decision. For an example of how a council's engagement strategy would match up with the IAP2 spectrum, see Box 1.

Box 1: A case study of how one local government, Wellington Shire Council in Victoria, implemented the IAP2 spectrum. Source: Leitch and Inman (2012). Reproduced by permission of CSIRO Australia, © CSIRO.

Wellington Shire Council implementation of IAP2

Wellington Shire Council in Gippsland, Victoria developed a Community Engagement Framework using the IAP2 framework. Tools and methods of engagement identified in the framework include those outlined below.

Inform

- Letters personally addressed letters to affected households. It will outline the issues and invite comments and participation in engagement activities.
- Unaddressed mail this is a non-addressed leaflet, flyer or letter that summarises the issues. It may invite feedback or simply provide post-engagement feedback to participants.
- Advertisements in local newspapers Ads in Wellington News or other sections of the newspaper are important means of communicating with a large number of community members. Ads are often used to invite residents and ratepayers into the community-engagement process.
- Special publications Council may produce special publications to provide updates to community members on special projects, areas of interest or engagement. Special publications are distributed via mail, unaddressed mail, Council facilities and Council's website.
- Shopping centre displays displays in shopping centres are an opportunity for community members to drop in and talk to Council staff. They are a useful tool for both disseminating information and gathering feedback from the community on Council initiatives.
- Wellington Matters this newsletter is produced quarterly and distributed to homes in the Shire. It includes articles on community engagement activities, special projects, infrastructure works and capital projects.
 Wellington Matters can also be used as a way of distributing surveys and engagement updates.

Consult

- Surveys these can be conducted by councils using staff expertise or by independent survey specialists.
- Focus groups these are often used to distribute information and gather ideas and views from community members.
- Information sessions these are similar to public meetings, where the community is broadly invited to attend; however, there is no public meeting forum involved. Individuals who attend are given one-on-one time with Council staff to discuss specific issues, concerns or recommendations. One-on-one sessions were identified through the community engagement activities as important opportunities for community members who do not feel comfortable discussing their private concerns or business in a large public gathering.

Involve

Working groups/special interest/user groups

 individuals are invited to assist Council by
 representing various interests, points of view
 and fields of expertise. These groups are often
 formed when engaging with a broad group of
 community members for an extended period
 of time. Members are often self-nominated or
 nominated by groups already involved with
 Council, such as Community Representative
 Groups.

Collaborate

None identified

Empower

Through Council elections

3.3 Lessons: Effective engagement for adaptation

The findings from the case studies (Appendix 1) and literature review (Information manual: Community engagement supplementary material) highlight the following lessons for effective engagement for adaptation:

- It takes time: most successful engagement initiatives for adaptation span several years.
 There needs to be time allowed for stakeholders to build trusting relationships, to think things through and to consider alternatives. It is best done through existing networks: engaging key champions yields results.
- It needs to consider and include a target audience, as well as those who influence the target audience.
- It is inclusive and values the diversity and dynamism within communities.
- It is clearly scoped and resourced: it is clear how community input will be used and is accompanied by support for adaptation initiatives identified through the engagement.
- Local governments may need to run capacitybuilding programs to ensure all community members are informed and able to participate.
- It embraces monitoring and evaluation through adaptive management.

Further reading

Section 3.1

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4 Considerations for engagement

4.1 Engagement for different types of hazards

While climate change will intensify a range of existing or familiar hazards, it is also likely to present hazards that are novel; both situations present different challenges for engagement and require different approaches.

For coastal communities, the intensification of existing hazards results in extreme events (e.g. storms, flooding and erosion), which are characterised by rapid onset, limited duration, significant impacts and urgency of response. However, other hazards (e.g. sea-level rise, drought or changes in mosquito populations or vector-borne diseases) may also present significant impacts but, because they are characterised by gradual onset and/ or sustained duration, they may be considered less threatening or provoke a less urgent initial response among communities. Similarly, novel hazards (e.g. salinisation of freshwater supplies) are likely to be challenging for communities because of a lack of knowledge about or experience of the problem or effective and affordable responses.

Many communities will be familiar with existing hazards and have some experience and/or adaptive capacity in coping with impacts. In these instances, the engagement challenge centres on illustrating how climate change will increase the frequency and severity of impacts. Fewer communities will have experience with novel hazards, and adaptive capacity may be less developed. When hazards are novel, an initial focus on validating concerns and addressing the information and knowledge needs of communities may help to overcome barriers associated with uncertainty. Different types and sources of information may be necessary to address concerns and complex issues; what may be more important is dialogue to reveal diverse perspectives.

More information on designing engagement approaches is covered in the remainder of section 4.

Climate change challenges what we know about hazards; it intensifies existing hazards and creates novel ones.

4.2 Who to engage

People affected by the impacts of climate change, and the proposed adaptive actions, form the basis of engagement efforts. Additional stakeholders who can contribute to the development and implementation of adaptation are also essential to engage to foster collaboration. The range of stakeholders to engage can include communities of place (i.e. those located in the geographic region of concern), communities of interest (i.e. those with a particular concern, but who may reside elsewhere, such as tourists or shareholders) and communities for change (i.e. those with related roles and/or responsibilities, such as council staff, researchers, the media and non-government organisations). Within each of these communities there will be opinion leaders (i.e. influential individuals), groups and networks (e.g. community associations such as school Parents & Citizens associations, sporting clubs, church groups, progress associations, etc.) that already shape and galvanise ideas. Rather than creating new associations, effective engagement strategies utilise existing community leaders and networks to develop engagement strategies.

A multi-stakeholder, cross-sectoral engagement strategy can broaden understanding of impacts and how these may vary across communities. Comprehensive engagement can also enhance innovation by facilitating the sharing of different types of knowledge, complementary skills and resources. It is important to extend participation beyond those directly affected (and potentially vocal) to include those who are less directly affected or might not realise they are affected.

Often, strategies seek to engage those previously marginalised or disengaged or considered hard to reach because traditionally they do not participate in community engagement activities. Although these individuals may not have expressed an interest in adaptation, or have been excluded from previous efforts, many will still have connections to existing networks and groups where they are already involved. Others may simply choose not to engage, and it is worth noting that engagement focuses on providing opportunities to participate and avoids coercing participation.

Practical tip: Thinking through what might work for different groups

Sydney Coastal Councils & CSIRO report Mapping & responding to coastal inundation outlines a process to identify stakeholder groups in coastal areas and determine the types of messages and engagement approaches that may be useful for each group

(Leitch and Inman 2012, pp. 63–68).

4.3 How to engage

Engagement depends on context and needs to be based on an understanding of who needs to be engaged. Providing opportunities for engagement requires matching engagement processes and materials to people's motivations, preferences and capacities. Identifying the existing opinion leaders, networks and groups will give valuable insights into the engagement requirements of various communities (e.g. timing, special interests, cultural sensitivities, relevant modes of communication, childcare needs).

Not all communities will be automatically interested in the issue; time must be taken to make connections with existing interests and concerns. It is likely there will need to be a multi-platform strategy for broad engagement as well as very specific strategies for a particular group or groups. People will be more interested in discussion topics that are as real and tangible as possible; most people will find it easier to respond to specifics than to broad strategic questions.

It is necessary to consider the capacities of those undertaking the engagement. It is important to be honest. If resources are limited, then realistic goals need to be set to manage expectations from the outset. If participants cannot influence the broader outcome of the project, it is important to be honest about that and work with aspects of the project that they can influence.

As noted in previous sections, engagement for adaptation needs to build community capacity for action. Responding to a particular issue can prompt initial engagement (e.g. a flooding event). However, adaptation is dynamic and requires sustained effort. Engagement processes need to facilitate continued dialogue, collaboration and exchange of ideas.

Practical tip: Posing useful questions

"We spent time talking about the importance of identifying and specifying the question that you want the community to think about. This might seem obvious. Observation has taught me that it isn't. Unfortunately, most of the clients we work with still think that the question is something like, 'What do you think of our great draft strategy?' BORING! Please don't bother to wake me up before you stab me in the eye! For the record, this is NOT a good question. A good question might be something like, 'What would you do to reduce the conflict between cyclists and motorists?' or 'What do you feel most proud of about your city? What do you show people when they visit?' Good questions do not assume great chunks of knowledge and do not require hundreds of hours of reading to frame a response."

Butteriss 2013.

A regular form of engagement that persists beyond responses to specific events may be something like capacity-building days, a Facebook site, regular street parties, adopta-beach or adaptation competitions. Sharing successes and innovations within and beyond communities can inspire adaptation.

Several international sites support the exchange of ideas for adaptation, for example:

- Climate Adaptation Knowledge Exchange (CAKE): http://www.cakex.org
- WeAdapt: https://www.weadapt.org (both accessed 14 April 2016).

Case examples:

• The 'Run for a Safe Climate' relay team framed climate change as a public safety issue and involved emergency services crews as messengers. The highly relatable team used humour to connect with audiences. Recognising the need for scientific information tailored to local contexts, they also engaged experts along the way who joined their presentations at local clubs to answer questions on specific biophysical impacts: https://www.facebook.com/ RunForASafeClimate (accessed 14 April 2016).

- Project Twin Streams in Waitakere City, New Zealand offered residents the opportunity to meet with small teams of staff to ensure the unique needs and concerns of residents were discussed comprehensively (see Appendix 1, section 1.1).
- Sharing stories of adaptation among the community through social media can lead and inspire as well as providing valuable information for adaptation facilitators. In the lead-up to the successful COP21 UN climate negotiations in Paris, climate change advocates used social media to raise awareness of the impacts of climate change for Pacific nations by urging ordinary people to tell their stories online. People used the hashtag #4PacIslands on Twitter to post messages and photos showing how they have been affected by global warming and how they are trying to minimise the damage. It was thought that these stories of lived experience would deepen understanding of how lives were changing in the Pacific region as a result of climate-related impacts.

Practical tip: Tools for engagement

There is a lot of specific and detailed information about tools for engagement and how to use them. It is important to choose the right tool for the level of participation, also considering how use of this tool may encourage or exclude participation.

Two useful guides are:

- Connecting with communities: how local government is using social media to engage with citizens by the Australian Centre of Excellence for Local Government (ACELG). This document summarises how many councils are adopting social media and is available online at http://www.acelg.org.au/system/files/publication-documents/1353548699 Connecting Communities ANZSIG-ACELG August 2012. pdf (accessed 14 April 2016).
- Effective Engagement: building relationships with community and other stakeholders Book 3 the engagement toolkit. This document includes a lot of information on different tools and is available online at http://www.peecworks.org/PEEC/PEEC_Inst/01795CC6-001D0211.2/effective%20engagement%20 book%203.pdf (accessed 8 February 2018).

4.4 When to engage

4.4.1. Timing of engagement

One of the most challenging aspects of engagement is its timing. If consultation is too early, there may not yet be enough interest, or it may create an impression that the council staff don't know what they are doing; if consultation occurs too late, there may already be community anger or the impression that the decision has already been made. On balance, it is best to engage 'early and often'; however, engagement is highly resource intensive, presenting additional challenges in terms of cost, time and consultation fatigue.

When the public is involved at a late stage of the planning process the decisions may end up being challenged rather than supported by the community." (Serrao-Neumann et al. 2015).

4.4.2. Engaging early: planned program of engagement

Engaging early has the advantage of eliciting community concerns that can help to shape decision-making and identify how these concerns can be addressed or the proposal changed. However, any early engagement needs to consider existing relationships and processes to help identify opportunities (see section 5.1.1). In particular, it needs to consider existing events or factors that may provide windows of opportunity (and also factors that may close any windows of opportunity). It is important to be prepared so any advantages or opportunities can be utilised when they arise.

Case examples:

- Early engagement in isolation may face community apathy, but this does not imply acceptance of the proposal. For example, in 2009 one council tried to engage early in the planning process but found the community was apathetic. Hazard maps were put on public display, but there was very low attendance at public meetings and only 16 public submissions. However, once hazard notifications were included on planning certificates there was a lot of community concern; this was demonstrated by community protests and subsequently around 200 submissions received.
- Early engagement by the Lake Macquarie Council broadened understanding of a range of coastal issues and enhanced solutions among all stakeholders (not just the community). See ABC News story screenshot below (Figure 3) and Appendix 2.1.1.



Figure 3: A media report of the community response to Council's communication activities. Source: Lake Macquarie City Council.

4.4.3. Engaging late: responding to a community concern

Engaging late, or engaging in response to community concerns often means that the proposal is already quite advanced, or the community has lost trust in the decision-makers and the decision-making process. Re-establishing trust is never easy in any relationship and requires operating in a different mode from that of when the trust was undermined. Rebuilding trust requires openness – of process, transparency, data or accountability – that is likely to have been missing previously.

Case example:

 The district council in Vancouver, Canada experienced high community concern after landslip-related deaths in steeply sloping terrain in the District of North Vancouver in 2005.
 Subsequently, a different approach that involved open and transparent hazard information and engagement went a long way to re-establish trust. In 2011, the District of North Vancouver received the prestigious United Nations
 Sasakawa Award for Disaster Risk Reduction (UNISDR 2011).

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5 What you can do

There is a plethora of manuals, tools and other information on how to run community engagement processes. Many of these approaches outline how to initiate an engagement process for a community around a single issue or as though the community is a blank slate. However, in all communities there are currently multiple networks that are already in operation. As discussed in section 2.3, 'the community' comprises multiple communities of place, interest and change, each of which has its own networks. The key engagement question for local government decision-makers is 'What is the best way to interface with these existing networks?' In addition, local governments need to 'walk the talk', providing leadership through exemplar initiatives. Hence, local governments have so far focused on engaging communities, but there is a need to shift focus towards facilitating engagement through existing functional networks. Section 5.1 outlines a sixstep process of engaging through networks.

Before you begin:

Commit to engage

Having organisational understanding and support plays a major role in the ability of decision-makers to engage with the community. Another resource in CoastAdapt outlines how to get organisational buy-in (CoastAdapt: Getting organisational buy-in). ACELG also suggests that providing training opportunities, such as those provided by IAP2, for elected representatives can improve their understanding of the need and processes for effective engagement (Herriman 2011, p. 35).

Use a communication consultant

Communication consultants can provide invaluable advice on how to communicate and engage with the community. They can offer knowledge, skills, services and experience that may not exist in other organisations. They can also provide a fresh perspective on issues and obstacles within both organisations and communities. They can advocate within organisations and deliver difficult advice from an external perspective. But not all communication or public relations consultants have the capacity to do this for wicked problems such as climate change.

A resource called <u>CoastAdapt: Working with</u> <u>consultants</u>, outlines advice on how to engage consultants to help plan for adaptation. The following suggestions are also specific to using communication or community engagement consultants:

- Shared understanding of engagement: There is a need to ensure the organisation's perception of and commitment to engagement matches with that of any potential consultant. (This may involve some preliminary work within the organisation to be able to clearly articulate the understanding and commitment to engagement).
- Experience versus a cookie-cutter approach:
 A consultant will draw on their experience in various contexts, but people in the contracting organisation need to be confident that the consultant's suggestions are based on consideration of the specific context (and are not just the tools and methods the consultant is most comfortable using).
- Often a decision-maker knows their community the best: A consultant can advise on what strategies might work for different situations and contexts, but each decision-maker has much tacit knowledge about how their community operates. This knowledge must be communicated to the consultant and the consultant needs to listen so effective processes can be scoped.

5.1 Cycle for engaging through networks

Engaging through networks enables targeted engagement through known and effective means. It also avoids duplication of effort. However, communities of place and interest are dynamic, and networks (as well as the key champions) change over time. As demonstrated by successful case studies of engagement for adaptation, engagement is rarely a one-off activity; instead, it is a sustained dialogue over many years. Figure 4 shows a cycle of engagement consisting of six steps:

- 1. Map existing networks
- 2. Identify key champions within networks
- 3. Support engagement by key champions
- 4. Support adaptation initiatives
- 5. Monitor and evaluate effectiveness
- 6. Share innovations and lessons.

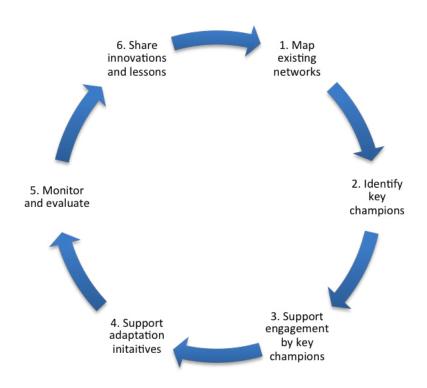


Figure 4: Engagement cycle for climate change adaptation. Developed by authors.

5.1.1. Step 1: Map existing networks

Communities of place and interest engage through many formal and informal networks. An initial step to engagement is mapping and understanding the functionality of these networks. Networks may occur within and across various sectors and interests. For example, some industry networks may be confined to a particular sector, whereas other networks may cut across sectors and socioeconomic backgrounds. While climate change adaptation is often located within the environment division of many local governments, it is as much a socio-economic issue as an environmental one. It is therefore important to expand the network mapping to include all community interests. Examples of networks include sporting clubs, chambers of commerce, service clubs, school groups, faith-based groups, Indigenous groups, ethnic groups and environmental groups. Understanding the networks that exist within a particular local government area means more than only identifying that it exists; it should also take into account its relationships with, and influence on, other networks. Construction of network maps is also iterative, where key questions need to be asked such as:

- Who is involved in the network?
- Is anyone missing from the network?
- What is the reach of the network?
- What is the influence of the network among its members and with other networks?
- How functional is the network? For example, does it operate differently at different times of the year or to different pressures?

Practical tip: Networks may include Parents & Citizens Associations, surf clubs, Returned and Services Leagues, Rotary or Lions clubs, football clubs, scouts and guides, faith-based groups, cooperatives, Landcare groups, volunteer bushfire groups, and many others.

5.1.2. Step 2: Identify key champions

Once the networks are mapped and understood, then key champions can be identified. These are the opinion leaders within each of the networks. The number and depth of engagement with these network champions may depend on the resources available for the engagement activities, as well as the topic of engagement. Many staff and elected officials within local government will also be connected either directly or indirectly to various networks. Because effective engagement is built on trust, which is largely developed through extended personal interactions, it is important to identify people within local government who have existing relationships and established trust with the key champions of the networks.

"Council has a good relationship with our relatively small community. We tend to not give out much detail to the community until we our ideas are well thought out. Meanwhile we have a lot of one-on-one meetings with people in the community we consider are key opinion leaders to discuss potential options that council is considering and we get their feedback."

Case examples:

• Community FloodSafe program – 'Better FloodSafe than Sorry': The South Australia Community FloodSafe Program aimed to raise awareness of flood risk and prevention to householders living in the Brown Hill and Keswick Creek catchment areas. The innovative use of volunteers, local council representatives and the Bureau of Meteorology beyond their usual capacity to deliver flood information resulted in strong community engagement, particularly notable given the potential community apathy after years of drought (South Australian State Emergency Service 2009).

5.1.3. Step 3: Support key champions

The key champions are likely to know best how to engage with their networks. However, local governments may be able to help the key champions extend their reach through social media or other channels. Thus engagement approaches should be co-designed between local government and key champions so they can better address the motivations, values, preferences and capacities of the target audiences. Local government may also help build the capacities of the target audiences to more effectively engage in adaptation initiatives. For example, local government could run or support education events to build community knowledge of specific climate change trends and likely impacts.

Practical tip: Work with key champions to co-develop engagement strategies that best address the motivations, values, preferences and capacities of the target audiences.

5.1.4. Step 4: Support adaptation initiatives

Many community engagement processes fail because of two key factors. Firstly, engagement is tokenistic and does not commit to some degree of participant control. Secondly, the outcomes of the engagement process are not supported enough to be enacted. The latter may include insufficient human or financial resources for the design, implementation and evaluation of adaptation actions, innovations and learning. While communities of place and interest may need to accept some form of responsibility for adaptation actions, local government can still support these initiatives through various means (e.g. land-use zoning changes or staff support). One of the most recognised examples of local government support of adaptation initiatives was by Waitakere City Council in New Zealand that enabled planned retreat through land swaps for residents who owned properties vulnerable to flooding (see Appendix 1, A1.1.1).

Practical tip: Undertaking an engagement process is not enough. Local governments must seek to identify the best ways to resource and support the adaptation initiatives that arise from those engagement activities.

5.1.5. Step 5: Monitor and evaluate

Climate change impacts are likely to be ongoing and manifest in ways that are currently unknown. Thus engagement for climate change adaptation is not a one-off event; instead, it should be seen as a long-term dialogue. The six-step engagement process here is a cycle, where monitoring and evaluation are key components in re-assessing and re-scoping adaptation pathways as needed. Monitoring and evaluation should include assessment of on-ground outcomes, management effectiveness and engagement effectiveness. Some tools for assisting local governments to monitor and evaluate climate change adaptation have been developed, such as through the Coastal Adaptation Pathways program (Thomsen et al. 2014).

Practical tip: Engagement for climate change adaptation is not a one-off event. It is a sustained dialogue that requires information to re-assess and potentially re-scope various adaptation pathways over time.

5.1.6. Step 6: Share innovations and lessons

Engagement outcomes (including the results of monitoring and evaluation) should be shared among those involved in the engagement process. This enables validation of the approach and increases motivation for further engagement and action. Often only successes are communicated; however, failures should also be highlighted – within a culture of transparency and trust – so as to avoid future ineffective or maladaptive investments of time and resources. In addition, while the context of adaptation may be unique to particular communities of place and interest, there may be innovations and other lessons that may apply beyond one particular network, benefitting others across many networks.

Practical tip: Sharing engagement outcomes engenders increased motivation, transparency and trust for future engagement and action. Innovations from one network may also be applicable to other networks.

Further reading

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Appendix 1: Case studies of engagement approaches for climate change adaptation action and planning

A1.1 Example of engagement leading to adaptation

A1.1.1 Retreat: Project Twin Streams (Waitakere City, New Zealand)

Background	Population growth and continued urbanisation of the Lower Oratia catchment, including a greater proportion of impermeable surfaces, led to increased runoff and significant stormwater issues for the Waitakere City Council (WCC). The stormwater issues came to a head in the 1990s, with the Auckland Regional Council proposing a moratorium on development if they were not addressed. This resulted in comprehensive flood modelling and, in 2002, Project Twin Streams – a large-scale stormwater management project – was instigated. A number of mechanisms could have been adopted to address the stormwater issue. Consistent with WCC's Eco City mandate and associated Agenda 21 principles, participatory processes were favoured to restore natural ecosystem processes and avoid hard engineering works.
Issue (why engage?)	Increased frequency and intensity of flooding, due to intensified urbanisation of the catchment and predicted impacts of climate change, threatened the health and wellbeing of residents and the waterways.
Framing	Risk frame: Health and safety risks to residents and property from the combined impacts of urbanisation and climate change.
Engagement timeframe (when?)	10 years (2002–2012)
Target participants (who?)	Individual property owners and community representatives (e.g. politicians, the media, local Indigenous groups)
Approach	Through the Public Works Act (1981), WCC could have invoked compulsory acquisition of the affected properties. However, WCC was committed to voluntary acquisition and facilitated an engagement strategy to raise awareness of issues and solutions. Recognising the sensitivities associated with property acquisition and the significant impacts upon property owners, a complete engagement process was developed over a nine-month period before any communication with the target audience (affected property owners) occurred. An experienced external consultant, council staff and project staff wrote the engagement plan, and staff met weekly during implementation to ensure a coordinated and consistent approach.

A1.1.1 Retreat: Project Twin Streams (Waitakere City, New Zealand) - continued.

Engagement tools (how?)

The engagement process was underpinned by a commitment to building the knowledge of affected property owners, regarding personal and property risks, to enable them to understand and accept WCC's decision to purchase and remove affected dwellings from the revised floodplain.

- Preparation of all engagement materials prior to any contact with property owners (e.g. letters to individuals, detailed information and mapping of flooding history and impacts, property purchase processes, call centre scripts and factsheets). Pre-prepared key messages communicated WCC's desire to help property owners, to share ideas (including those proposed by property owners), to avoid rushed decisions and to ensure equitable decision-making processes. Importantly, information on impacts was detailed and contextualised to include the causes of flooding, the range of possible responses and the nature of future impacts likely in climate-affected scenarios.
- 2. Briefing of stakeholders, including relevant Council departments, politicians, cultural representatives, legal representatives and other elected representatives.
- 3. Initial letters delivered to affected property owners.
- 4. Media briefing and subsequent regular press updates to limit media coverage of issues before discussions with property owners.
- 5. Appointments organised with property owners (owners who did not make an appointment received follow-up telephone calls).
- 6. Face-to-face visits with all affected property owners in a given locale, in the same week. Initial visits with individual property owners were conducted by two staff to ensure a mix of technical and social skills and to enable the illustration of flooding impacts in situ.
- 7. Local 'drop in' days were organised within two weeks of the initial letters.
- 8. The project team ensured regular updates to stakeholders (e.g. politicians, community groups, the media) to manage the potential risks associated with incomplete or inaccurate information.

Adaptation outcomes

Seventy-eight full purchases and 78 part-purchases (with parts of properties purchased) were negotiated to allow for floodplain redesign.

Level of engagement (based on Arnstein's ladder of participation)

Varied on a case-by-case basis. The strategy intended to achieve a high level of engagement and to facilitate ownership of solutions. However, the solution and associated strategy were largely pre-formulated. Hence, although knowledge exchange and innovation were realised, outcomes were bounded by the scope of WCC's original intentions.

Key lessons for engagement

Addressing significant risks to people and property, adaptation often requires substantial change. Awareness of the diverse impacts upon those affected and the range of potential responses (e.g. fear, anger, stress, excitement, confusion) is essential to meeting the needs of people who are affected. This case study demonstrates the efficacy of an approach grounded in building the knowledge of those people, having extended time periods for engagement and using flexible decision-making where those affected are able to negotiate equitable and individualised solutions. In addition, this case also illustrates the importance of engaging with people who may influence and/or advise the target audience (e.g. politicians, the media, legal advisors and community associations).

Further information

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A1.2 Example of engagement to plan adaptation

A1.2.1 Planning for inundation: Marks Point and Belmont South Future Flood Risk (Lake Macquarie, NSW)

Background	In 2013, Lake Macquarie City Council began a two-year engagement process to plan for future flood risks at Marks Point and Belmont South. This built on a previous whole-of-LGA flood study and management plan completed in 2011. The term 'climate change' was not highlighted during the engagement process; rather, the process was referred to as enabling a Local Adaptation Plan to 'adapt to changing lake and flood levels' (a projected 0.9 m increase in the lake level was made explicit). The engagement process was framed around how the local community, council and other stakeholders together could plan for an uncertain future. The engagement message was focused on risk (in particular, assets at risk) and the identification of local solutions through working with communities.
Issue (why engage?)	Public and private assets at risk from a 1% annual exceedance probability (AEP) flood event exacerbated by a projected 0.9 m rise in lake level.
Framing	Three frames were used for the engagement process: 1. Emotional frame: 'Trouble in paradise' 2. Risk frame: Damage to property 3. Economic frame: Cost-benefit analysis
Engagement timeframe (when?)	2 years (2013–2015); early and sustained engagement at all stages of planning process.
Target participants (who?)	Council believed that those who were affected by their decisions had a right to be involved in the decision-making process. These included residents, agencies and service providers, real estate agents, property valuers and insurance providers.
Approach	 Awareness raising: Probable and quantifiable climate change impacts: Based on the Council's 2012 Lake Macquarie Waterway Flood Risk Management Study and Plan Increased impacts from a 1% AEP flood when combined with a 0.9 m rise in lake levels: 296% increase in homes experiencing over-floor flooding (79% of the total 1190 homes) 12% increase in inundation of public land (74% of the total 19.83 ha of public land) 70% increase in inundation of private land (75% of the total 73 ha of public land) 74% increase in roads inundated (74% of the total 23.91 km of roads) Participatory engagement: Co-developing economically feasible solutions to future-proof the local areas

Level of engagement

of participation)

(based on Arnstein's ladder

A1.2.1 Planning for inundation: Marks Point and Belmont South Future Flood Risk (Lake Macquarie, NSW) - Continued.

Flood Risk (Lake Macquarie, NSW) - Continued.			
Engagement tools (how?)	 Adaptation planning (2013–2015) Internal Council capability building Project website (23,115 visits) Project newsletters to 1,300 households in Marks Point and Belmont South (4 project newsletters from 2013 to 2015) 2 workshops (60 residents participated) Community Working Group formed (public call for nominations: all 31 people who expressed interest were included) (4 meetings held) Sub-committee of the Community Working Group formed to assess adaptation options (11 members) (16 meetings) 6 drop-in sessions and information stalls 3 site tours 1 insurance information evening 3 postal surveys Online surveys (136 respondents) 20 agencies and service providers invited to public workshops and informed of progress Sector-specific workshops (real estate agents and valuers) Note: These engagement tools were preceded by the Lake Macquarie Waterway Flood Risk Management Study and Plan (2012) that was conducted for the whole of the LGA and included: an opportunity for 7,500 owners of flood-affected properties across the LGA to comment on issues and proposals 6 community workshops (over 300 participants) an online survey (50 respondents). 		
Adaptation outcomes	 Utilisation of cost-benefit analysis to develop key decision-making criteria Timing of implementation of actions based on trigger points and monitoring of lake levels Examples of adaptation actions include: Constructed revetments to protect the lake foreshore from erosion Progressive filling of land to maintain ground levels at 0.5 m above the lake Elevation and improvement of infrastructure to match the raising of the land Construction of new floors of buildings above projected flood levels Raising of existing homes above projected flood levels. Short-term (core) adaptation costs estimated at \$1,070,000 and to be paid primarily by local and state government Future adaptation costs proposed to be shared by owners, managers and beneficiaries of assets 		

Partnership with some elements of delegation of decision-making to residents.

A1.2.1 Planning for inundation: Marks Point and Belmont South Future Flood Risk (Lake Macquarie, NSW) - continued.

Key lessons for engagement	Lake Macquarie City Council undertook an extensive engagement process targeting residents and other stakeholders. The early and sustained engagement strategy enabled co-developed solutions and mobilised a core group of residents. The engagement strategy enabled multiple information points that identified: i) those residents who wanted to be involved in decision-making, ii) stakeholder concerns (drainage, property values, access to water and lifestyle considerations), and iii) the feasibility of proposed adaptation solutions. Despite extensive and sustained engagement, the majority of engagement was passive (e.g. website visits), with limited active engagement (i.e. workshops, working groups, or online surveys). This demonstrates that stakeholders were interested in obtaining information about the adaptation process, but only a limited number contributed to decision-making.
Further information	ABC News, 2015: Flood mitigation consultation quells community concerns. Accessed 17 April 2016. [Available online at http://www.abc.net.au/news/2015-09-30/flood-mitigation-consultation-quells-community-concerns/6815740 .] Lake Macquarie City Council, 2012: Lake Macquarie Waterway Flood Risk Management Study and Plan. Accessed 14 April 2016. [Available online at http://www.lakemac.com.au/downloads/D4253E495A0D95A15FAE74F4251CBA2A44F4E0EF.pdf .]

A1.2.2 Increasing planners' capacity for adaptation: Great Lakes engagement for coastal adaptation (USA)

Background	A collaboration was established between the National Oceanic and Atmospheric Administration (NOAA) Great Lakes Regional Collaboration Team, Old Woman Creek National Estuarine Research Reserve (NERR), Lake Superior NERR, the Great Lakes Sea Grant Network and the Great Lakes and Saint Lawrence Cities Initiative to increase the capacity of decision-makers in the Great Lakes region to adapt to climate change.
	The engagement process was documented by the Nature Conservancy and the US NOAA and detailed in the report by Kahl and Stirratt (n.d.).
Issue (why engage?)	A deficit of knowledge among decision-makers regarding climate change information and adaptation tools and resources.
Framing	Three frames were used for the engagement process:
	 Emotional frame: Climate change impacting on attributes valued within the Great Lakes region
	2. Risk frame: Risks from climate change impacts
	3. Educational frame: Knowledge deficit
Engagement timeframe (when?)	3 years (2010–2012)
Target participants (who?)	Regional decision-makers, including community planners, natural resource managers, public health professionals, emergency services personnel and private industry representatives.
Approach	A strategic engagement process that used cross-sectoral workshops to build the adaptive capacity of decision-makers across the Great Lakes region. The workshops were based on a knowledge-needs analysis, informed by a literature review and synthesis of target audience needs (obtained through interviews, focus groups and an online survey of community planners, natural resource managers and related decision-makers). The approach also included: i) pre-workshop surveys in two of the three the sub-regions, ii) post-workshop surveys in all regions, iii) a follow-up web-based survey 10 months after the workshops, and iv) key informant interviews (selected from respondents to the web-survey).

A1.2.2 Increasing planners' capacity for adaptation: Great Lakes engagement for coastal adaptation (USA) - *continued*.

Engagement tools (how?)	1. Literature review to develop training modules
	2. Pilot train-the-trainer workshop
	3. Audience-needs assessment (interviews, focus groups and survey of almost 700 community planners, natural resource managers and related decision-makers to determine their knowledge, skills, interest, attitudes and abilities in relation to the implications of climate change impacts for their communities). The literature review and audience-needs assessment established the top 10 adaptation needs for the Great Lakes region and formed the basis of subsequent capacity-building workshops
	4. Capacity-building workshops, Planning for Climate Impacts (2011). Workshops were held in Cleveland, OH; Green Bay, WI; and Duluth, MN and engaged a total of 246 participants from government (e.g. local, state, federal, county and tribal), non-government organisations, universities and private industries. Pre- and post-workshop surveys were conducted to determine participant demographic characteristics and knowledge of climate change science, impacts and adaptation (including available tools and resources). The post-workshop survey was completed by 160 participants
	5. Follow-up web-based survey (10 months after the workshops)
	6. Key informant interviews (9) 3 months after the web-based survey
Adaptation outcomes	 91% of post-workshop survey respondents identified a knowledge gain through workshop participation
	 86% of web-based survey respondents (10 months after the workshops) said they were using information gained from the workshops, and 93% had shared information they gained at the workshop
	 Increased inclusion of climate change adaptation information in planning and engagement activities. However, most of the examples provided by respondents were formative, with limited evidence of extensive on-ground action (e.g. encouraging voluntary consideration of climate change impacts)
Level of engagement (based on Arnstein's ladder of participation)	According to Arnstein's ladder, the process would be classified as a combination of 'informing' and 'consultation'. However, the intent of the engagement process was to better empower decision-makers through education about climate change impacts and to bring various decision-makers together through cross-sectoral workshops to develop partnerships and share information. Thus the process helped to facilitate a level of social learning and partnerships, which is reflective of a higher level of engagement.
Key lessons for engagement	Knowledge-needs analysis can ensure a targeted approach (e.g. ensuring relevance of content)
	Direct adaptation actions are limited without financial and other forms of support (e.g. political capital)
Further information	Kahl, K. and H. Stirratt, n.d. Survey Says Great Lakes Coastal Communities Choose Climate Adaptation! Accessed 14 April 2016. [Available online at http://www.nature.org/ourinitiatives/regions/northamerica/areas/greatlakes/explore/great-lakes-survey-says-case-study.pdf .]
	NOAA, 2016: Climate Ready Great Lakes (Training modules). Accessed 14 April 2016. [Available online at http://www.regions.noaa.gov/great-lakes/ index.php/project/climate-ready-great-lakes/.]

Appendix 2: Resources

A2.1 State government engagement guides

(accessed 14 April 2016)

NSW

- Office of Local Government
- Community Builders

Queensland

Engaging Queenslanders

South Australia

• South Australia: Better together: principles of engagement

Tasmania

• Framework for Community Engagement

Victoria

• Effective Engagement Toolkit

A2.2 Other useful resources

While there is a multitude of resources on community engagement, a few links to other resources are given below (accessed 14 April 2016):

- A framework for stakeholder engagement on climate adaptation. Gardner, J., A-M. Dowd, C. Mason, and P. Ashworth, 2009: CSIRO Climate Adaptation Flagship Working Paper No.3.
- <u>A Public Engagement Toolkit for Sea Level Rise</u>. Barisky, T., 2015: Prepared for the Sustainability Group, City of Vancouver.
- Adaptive Learning Toolkit developed for the CSIRO Coastal Collaboration Cluster.
- <u>Climate Adaptation Knowledge Exchange</u> (CAKE) founded by EcoAdapt and Island Press in 2010.
- <u>Coastal Connections: Community Engagement</u>
 <u>Strategy</u> (Social Media), 2014: Sydney Coastal
 Councils Group Inc.
- <u>Coastal Community Engagement Program</u> (CCEP).
- Communication Guidelines: Coastal Hazard <u>Adaptation</u>, 2014: Report prepared for the Local Government Association of Queensland (LGAQ) by SGS Economics and Planning.
- Effective Engagement: building relationships with community and other stakeholders (Book 1: An introduction to engagement). Victorian Department of Sustainability and Environment (2005), State of Victoria, Department of Sustainability and Environment 2005.
- International Association for Public Participation (IAP2).
- Leitch, A. M., and M. Inman, 2012: Supporting local government to communicate coastal inundation. Resource kit prepared for the Sydney Coastal Councils Group Inc. CSIRO Climate Adaptation Flagship, 73pp. Accessed 30 April 2016. [Available from http://www.sydneycoastalcouncils.com.au/sites/default/files/stage-three-outcome-report.pdf.]
- <u>WeAdapt</u> developed by the Stockholm Environment Institute.



