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Perspectives on Public Participation in the National Park Service

Case Study:

Planning for the Boston Harbor Islands National Park Area

Final Report

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Overview of Research Project

This paper reports on the results from one case study that was performed as part of a larger research project whose goal was to advance knowledge of how best to involve members of the public in decision-making about contentious environmental and public health issues. The project began with the assumption that members of the public, stakeholder interest groups, and professional experts should be involved in decision-making about environmental and risk policies that are contentious. Hence, our focus is on *how* people should be involved, not *if* they should be involved.

The project was designed to shed light on four main questions.

1. Are there views of what is the most appropriate type of public participation process that are similar regardless of the topic being discussed?
2. How do preferences for different types of outcomes affect people's perceptions of what would be the most appropriate form of public participation?
3. How do elements of the context in which a decision-making process is situated affect people's perceptions of what would be the most appropriate form of public participation?
4. Are individuals' ideas of what is the most appropriate decision-making process shaped by their personal experience, their interest group affiliation, or their motivation to participate in the process?

There is an important need to know more about how best to involve interested and affected parties in environmental decision-making. It is true that the field of public participation is well known for its experienced practitioners and excellent handbooks. It is also true that recently the scholarship on theory of public participation has grown. Theories on public participation have emerged out of management sciences, decision theory, political science, philosophy, communication studies, and small group psychology. A recent National Research Council committee report on risk characterization advanced the idea of conceptualizing public participation processes as an iterative, non-linear combination of analysis and deliberation (National Research Council 1996).

Despite these theoretical developments and wise practitioner reflections there is little systematic research on public participation processes for environmental decision-making. There is no theory of public participation that adequately explains how context matters. Certain handbooks for public participation practitioners do give hints as to what context features planners should pay attention to, but the theory of why and how these features matter is undeveloped. While we know that the same participation model may not yield the exact same outcomes in two different social settings, we do not know why.

To address the questions guiding this research project we conducted a systematic case comparison of public participation processes in three different policy venues: forest management, watershed planning, and radiological contamination clean-up and health effects

protection. For each venue we conducted three case studies to inquire into participants' ideas of what matters in a public participation process. A tenth case study was conducted of a National Park Service planning process. In each case study, we asked about a dozen carefully-chosen individuals to express their viewpoints about what would be the best public participation process features for a particular context. To make sense of their different points of view, we used Q methodology. Q methodology is a way of finding commonalities among many independent and different perspectives on a topic. For each case study Q analysis identified three to five perspectives of what would be the most appropriate public participation process in that case.

In addition, we collected three other kinds of data from each person in the case studies. First, we had them order their preferences for twenty possible outcomes of the participation process. This allowed us to examine the possibility that people prefer different process features for strategic reasons: they think the process will produce the kinds of outcomes they like. Second, we used a survey to collect each individual's assessment of the contextual features of the decision-making process. We presume that these may influence an individual's idea of what is the best public participation process. For example, we asked people to assess the level of trust between the relevant regulatory agency and the stakeholder groups. The survey asked about contextual features that we had identified from other literature and studies as being important. Third, we used another survey instrument to inquire about the respondent's affiliation with interest groups, their motivation for participating, and their experience with public participation processes. Our overarching goal has been to investigate whether any of these factors determined how people think about public participation process.

Goals of this Research Project

This research was funded by the National Science Foundation for the purpose of improving theoretical knowledge about public participation in environmental and risk decision-making. Better understandings of what different people want and expect from public participation processes will be beneficial to community members, local officials, regulatory agencies, and other interested and affected parties. One of the key assumptions of this research has been that we must tap the knowledge of people who actually take part in public participation processes as well as tapping the theoretical knowledge. There was no intention that this research serve either "side" of a policy conflict more than the other. Instead, we believe that everyone wins when the participatory process is designed to meet the needs of all parties and is made flexible to deal with emergent changes in context and purpose. Revealing different visions for what is a good participation process enables those involved to talk about these differences and to attempt to find common ground and compromise on what kind of process to conduct. Our goal has not been to minimize or eliminate conflict *per se*. Instead, we seek, broadly, to improve democracy. We feel this will happen by constructing better processes where parties with different needs and concerns and objectives can come together and engage in reasoned discussion and careful analysis.

Purpose of this Report

This case report describes the case study, reviews the methodologies used to collect data, reports on the data gathered, and summarizes the findings from our analyses of these data. Companion reports are available about each of the other nine case studies. Other publications will be prepared that address the cross case comparisons and the summary findings from the project as a whole.

Disclaimer

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Acknowledgments

We thank the people who agreed to participate in our case study, generously contributing their time to interviews and the Q sort exercise. We would also like to thank Rob Moir for his help in understanding the topic and identifying people to participate in our study. He recently completed his PhD dissertation on the Boston Harbor planning process at the Department of Environmental Studies, Antioch New England Graduate School, Keene, NH. In addition, he was a member of the Boston Harbor Islands Park Advisory Council and the Boston Harbor Islands Partnership. We greatly appreciate advice on Q methodology provided by Will Focht of Oklahoma State University.

Planning for the Boston Harbor Islands National Park Area

Introduction

This paper reports on the results from one case study that was performed as part of a larger research project whose goal was to advance knowledge of how best to involve members of the public in decision-making about contentious environmental and public health issues. The project began with the assumption that members of the public, stakeholder interest groups, and professional experts should be involved in decision-making about environmental and risk policies that are contentious. Hence, our focus is on *how* people should be involved, not *if* they should be involved.

We addressed four questions in this case study research. First, we inquired into the variety of perspectives held among participants for a process by asking about their preferences for different process features. Second, we asked how important a variety of potential outcomes were to the participants. Third, we asked how perceptions of the context influenced participants' beliefs about what is a good public participation process. Fourth, we gathered information about each of the people participating in the case study to assess how factors, such as interest group affiliation and years of involvement with the issue, influenced perspectives about process. In this report we present findings from our study of the planning process for a new national park, the Boston Harbor Islands National Park Area. This case study is one of 10 that we completed as part of the full project (see Appendix A for a list of the case studies).

Background

The Boston Harbor Islands National Park Area was established through legislation passed in 1996 (Omnibus Parks and Public Lands Management Act of 1996). The establishment of the National Park culminated a long effort by the state and others to clean-up severe contamination in the Harbor, promote recreational opportunities, and protect important historical and cultural resources on islands in the Harbor. The Boston Islands National Park Area is comprised of 34 islands located within the greater, urbanized Boston Harbor area. In this way it is similar to other units within the National Parks System, such as the Golden Gate National Recreation Area in California, Gateway National Recreation Area in New York and New Jersey, and Lowell National Historic Park in Massachusetts.

However, unlike any other unit in the National Parks System, the Boston Harbor Islands National Park Area is made up of lands that are entirely owned by private parties, the State or Massachusetts, or the City of Boston; the Park Service did not acquire *any* of the area included within the park (Moir 2002). For example, seventeen islands contained within the Boston Harbor Islands State Park, managed by the MA Department of Environmental Management, are contained within the federally designated National Park Area. This Park is based on a collaboration of landowners who have agreed to manage the islands according to the mission and goals of the NPS. The enabling legislation only committed the National Park Service to work with local, state, and federal organizations. The NPS may return to Congress for 3 to 1 matching funds once the General Management Plan is complete. The enabling legislation committed very little in funding to this new Park.

The enabling legislation of 1996 established the Boston Harbor Islands Partnership (BHIP) to manage the Park. The Secretary of the Interior is authorized to appoint thirteen individuals to the Partnership. They represent different agencies and stakeholders, as shown in Table 1. This management structure is a second unique aspect of this park unit. Members of the Park's Advisory Council, a mechanism used in other park units as well to provide an opportunity for stakeholders to advise the NPS on management plans and other issues, are full members of the governing group, the Boston Harbor Islands Partnership. At no other park unit are Advisory Council members provided this opportunity.

Table 1.
Agencies and Groups Represented in the Boston Harbor Islands Partnership

- National Park Service
- US Coast Guard
- Massachusetts Department of Environmental Management
- Metropolitan District Commission
- Massachusetts Port Authority
- Massachusetts Water Resources Authority
- Mayor of Boston
- Boston Redevelopment Authority
- Thompson Island Outward Bound Education Center
- Trustees of Reservations
- Island Alliance
- Advisory Council members (two members)

The Advisory Council for BHIP was also established under the Park's enabling legislation. Its purpose is to formally bring stakeholder perspectives into the management process by advising the Partnership on the management plan for the islands and ongoing operations of the Park. The Advisory Council is subject to the provisions of the Federal Advisory Committee Act (FACA), except for one exemption: there is no sunset clause so that the Council can continue operating for the life of the Park (Section 14). This exemption was allowed because of the Advisory Council's role in park management over the long term (Moir 2002). One implication of this waiver is that members may serve without a time limit. This can reduce turnover and the inclusion of new people with new perspectives or skills. On the other hand, this waiver allows members to develop deeper relationships brought about by working together closely over long periods of time.

The Advisory Council's 28 members are formally appointed by the Secretary of the Interior. Members must fill particular "interest categories" of:

- Boston Harbor Advocacy (4 members)
- Business and commercial (4 members)
- Community groups (4 members)
- Educational and cultural (4 members)
- Environmental Organizations (4 members)
- Municipalities (4 members)
- Native American interests (4 members)

In addition, three ex-officio members represent Congressional Districts and the Metropolitan Area Planning Council. Members of the Advisory Council essentially self-selected themselves during a public meeting in the fall of 1997 (Moir 2002). Those present at the meeting split into the seven interest categories and then nominated individuals to fill the membership positions for each interest category. A concern that arose after this structure was established was that individuals not affiliated with these specific groups could not participate in the Advisory Council (Moir 2002). In addition, organizations, municipalities, and Tribes whose members were not initially selected to be part of the Advisory Council have found it difficult to gain representation; current members are reluctant to leave the Advisory Council and lose formal representation of their own group.

After Advisory Council members were formally appointed by the Secretary of the Interior, the Advisory Council held its first public meeting in April 1998. The purpose of this meeting was to select the two individuals who would serve on the BHIP, the Chair of the Advisory Council, and the Vice-Chair of the Advisory Council. Majority rule was used to select individuals for each of these positions, rather than basing selection on consensus among those present.

Since that time the Advisory Council has continued to meet regularly. The first management plan for the Boston Harbor Islands National Park Area took five years to complete, and was developed in a collaborative process among the Partnership, the Advisory Council, and the general, interested public. In addition, the Advisory Council and the BHIP engage in a variety of outreach and public education activities.

From the beginning of the process to establish this National Park Area considerable attention was given to ensuring that key stakeholders were involved and collaborative relationships were developed (Moir 2002). This included overcoming suspicions of local private and public stakeholders (e.g., state agencies) that the National Park Service was set on taking over ownership of the islands. And, it included a strong emphasis on civility among members. According to Moir (2002), leadership in the planning for the Park's enabling legislation and the use of unique structural features have helped Park establishment and management succeed.

Research Methods

We selected individuals to participate in our study who:

- have been actively involved in the participatory process and
- represented different points of view regarding the participation *process*.

We did not consider -- nor did we care about -- their views on the substantive nature of the policy issue. To help us identify people for our case study research we obtained input from Rob Moir, who recently completed a PhD thesis on the Boston Harbor Islands Partnership (Moir 2002) and was a member of the Boston Harbor Islands Park Advisory Council and the Boston Harbor Islands Partnership. We were primarily interested in obtaining the views of people involved with the Advisory Council in order to learn more about the perspectives and perceptions of local stakeholders.

The identified individuals were approached via telephone or email and introduced to the project and told how they were selected. We described our data collection procedures and what we wanted them to do. We told people we would visit them at a time and place convenient to them and that the entire process would take about one and one-half hours. In this case 11 people participated in our study. The list of participants is shown in Table 2.

Data were gathered from each person during January – February, 2001. We asked each participant to do four tasks:

- 1) complete a Q sort exercise to reveal their preferences about process features,
- 2) express their preferences for 20 different statements describing potential outcomes from a process,
- 3) complete a survey in which they assessed on 32 different variables the context in which the process was occurring, and
- 4) complete a short survey about their interest group affiliation, motivation for participating, and experience with similar processes.

Table 2.
Participants in the Boston Harbor Islands National Park Area Case Study

- Kathy Abbott (Executive Director, Island Alliance; Advisory Council member; Partnership member)
- Regina Burke (Hull Chamber of Commerce; Advisory Council member)
- Mary Corcoran (Massachusetts Bay Education Alliance; Advisory Council member)
- Phil Lemnios (Hull Town Manager; Advisory Council member; alternate member to Partnership)
- John Lewis (Sierra Club; Advisory Council member)
- Tom Lindberg (Jones Hill Neighborhood Association; Advisory Council member)
- George Marsh (Friends of the Harbor Islands)
- Ed McCabe (Hull Lifesaving Museum; Advisory Council member)
- Mark Racicot (Metropolitan Area Planning Council)
- Claudia Smith-Ried (Roxbury Multi-Service Center; Advisory Council member; alternate member to Partnership)
- Jack Wiggin (Urban Harbors Institute, University of Massachusetts, Boston; chair of Advisory Council)

We asked them to do these tasks as if they were responsible for designing a new process that would start immediately. We did not ask people to evaluate the process that had occurred, although we expected, of course, that their experiences would inform their ideas for a new process. In the following sections we discuss each of these tasks and our findings.

Preferences for Process Features

Our primary interest in this research was to identify the variety of perspectives about what constitutes good process among participants involved in environmental and risk decision-making. To identify and clarify these perspectives we used Q methodology. Q method has a growing history of application in the political and social sciences, and its use in environmental studies is expanding.¹ This method, analysis, and findings are discussed in this section.

Q Method

In Q methodology, the researchers gain access to various perspectives on a subject – what Q practitioners often call “social discourses” – by having a small number of people with different, but well-formed opinions sort a group of statements according to their personal opinions.

Participants in our case study were handed a set of small cards (about the size of a normal business card). Each card had a statement printed upon it that described a single feature that might be included in the design of a public participation process. The full list of “Q statements” is given in Table 3. We asked the participant to imagine the process was going to start over tomorrow and to sort the cards according to how much importance he or she would give to that statement relative to all the others in the design of the new process.

The statements sorted by the participants were chosen by the research team to represent the fullest possible extent of content relative to the topic.² It was essential that these statements apply to each of the ten case studies in the larger research project. For each case, several of the statements were adapted so that references to the relevant decision-making body were appropriate to each case. For example, a reference to the US Forest Service in one case was changed to the US Department of Energy in another case.

At the start of the Q sort exercise, the researcher read a “condition of instruction.” This specified the context under which the participant should interpret and react to the Q statements. In this case the condition of instruction was:

Imagine that a planning process for the Boston Harbor Islands National Park Area is going to be done again. Sort the statements according to what you believe should be the most important to least important factors guiding the design of the process.

¹ Key resources on Q methodology include Brown 1980, 1986, 1996; McKeown and Thomas 1988; Stephenson 1953. Excellent resources that document the application of the method include: Dryzek 1996; Focht 1995; Kalof 1998, 2000; McGinnis and Woolley 2000; Normand and Salazar 1998; Pelletier, et al. 1999; Woolley and McGinnis 2000; Woolley, McGinnis, and Herms 1998.

² It is important to note that in a Q study the sample is *not* the people who sort the statements; rather, the sample in a Q study is the set of Q statements, the population is the “concourse” of utterances that have been made on the topic, and the sorts completed by people are the variables. This is just the opposite of standard survey techniques.

Table 3. List of 56 statements used in the Q sort.

- 1) Set up a situation that encourages all participants to listen to what others say and to consider it carefully.
- 2) Use the best available science in the analysis.
- 3) Establish relationships that promote constructive collaboration among participants.
- 4) Acknowledge and explore uncertainties.
- 5) Develop a common language and understanding among participants.
- 6) Reach out in a number of different ways through different mechanisms to different communities on different issue points, throughout the process.
- 7) Work to build trust among the different participants during the process.
- 8) Hold meetings at different times and places so no one is excluded from participating.
- 9) Participants should be courteous and respectful to one another.
- 10) Provide financial resources that enable people to participate effectively (e.g., travel, hire experts).
- 11) Participants should see beyond their individual interests to what is good for the larger community.
- 12) The process cannot be open to just anyone who wants to participate, participation has to be restricted in some way.
- 13) Participants should be accountable for what they say, sincere in their promises, and reliable in carrying them out.
- 14) The process gives recommendations to the National Park Service, who then makes the final decisions.
- 15) Participants should have reasonable expectations about what the National Park Service is able to do.
- 16) All important decisions are made according to consensus (including the agenda).
- 17) Participants should attend meetings regularly and see tasks through to completion.
- 18) It is clear under what conditions the process will end.
- 19) Participants should be able to deal with complex technical issues.
- 20) Every recommendation is justified with evidence.
- 21) Participants should feel comfortable and safe at the meetings.
- 22) Consensus is used to decide what rule is used to make decisions (simple majority vote, 2/3 majority vote, etc.).
- 23) There are clear groundrules that govern how people should interact.
- 24) The National Park Service responds in a timely way to all questions, comments, and requests.
- 25) Pay attention to the physical arrangement of tables and chairs at the meetings.
- 26) Opportunity can't be an empty shell; there need not only be opportunities to be heard but there also has to be some way for the public to see that the decision makers are listening.
- 27) Discuss the values underlying people's opinions about the issues.
- 28) There are mechanisms for communicating to the broader public about what decisions are being considered and made.
- 29) Validate all information to make certain it is correct.
- 30) Participants who represent groups check in with their memberships regularly to ensure that they represent their views accurately.
- 31) Everyone has an equal chance to put their concerns on the agenda.

Table 3, continued.

- 32) The process improves the participants' skills to participate effectively in processes like this (e.g., problems solving, conflict resolution, communication).
- 33) The process has to be able to limit topics of discussion in order to avoid quagmires.
- 34) The process improves participants' understandings.
- 35) The process requires unbiased and independent facilitation.
- 36) The process enhances trust between the community and the National Park Service.
- 37) The purposes and goals of the process are clear to all involved.
- 38) The process does not make any pre-existing conflicts worse.
- 39) All participants have equal access to information.
- 40) All important stakeholders are taking part in the process.
- 41) There is full disclosure of information at all times.
- 42) At the end of the process there is a clear plan for how to implement the final decision.
- 43) The staff involved are receptive to questions or requests for information from the public.
- 44) The process makes progress on solving the right problem.
- 45) Get the right information.
- 46) The process produces outcomes that are acceptable to me or my organization.
- 47) The process taps the knowledge and experiences of local people.
- 48) The process produces outcomes that are acceptable to the National Park Service.
- 49) The process needs an effective leader.
- 50) One outcome of the process is a plan to ensure that the promises made are actually followed through, that organizations are accountable for their promises.
- 51) There is adequate administrative support (e.g., funding, staffing) for the life of the process.
- 52) The process is well-timed to the National Park Service's window of opportunity to act.
- 53) There is adequate notification of meetings, comment periods, etc.
- 54) Allow time to re-visit issues and decisions, even if it means extending the timetable.
- 55) Participants are involved in deciding *what* studies ought to be done.
- 56) Participants are involved in deciding *how* studies ought to be done.

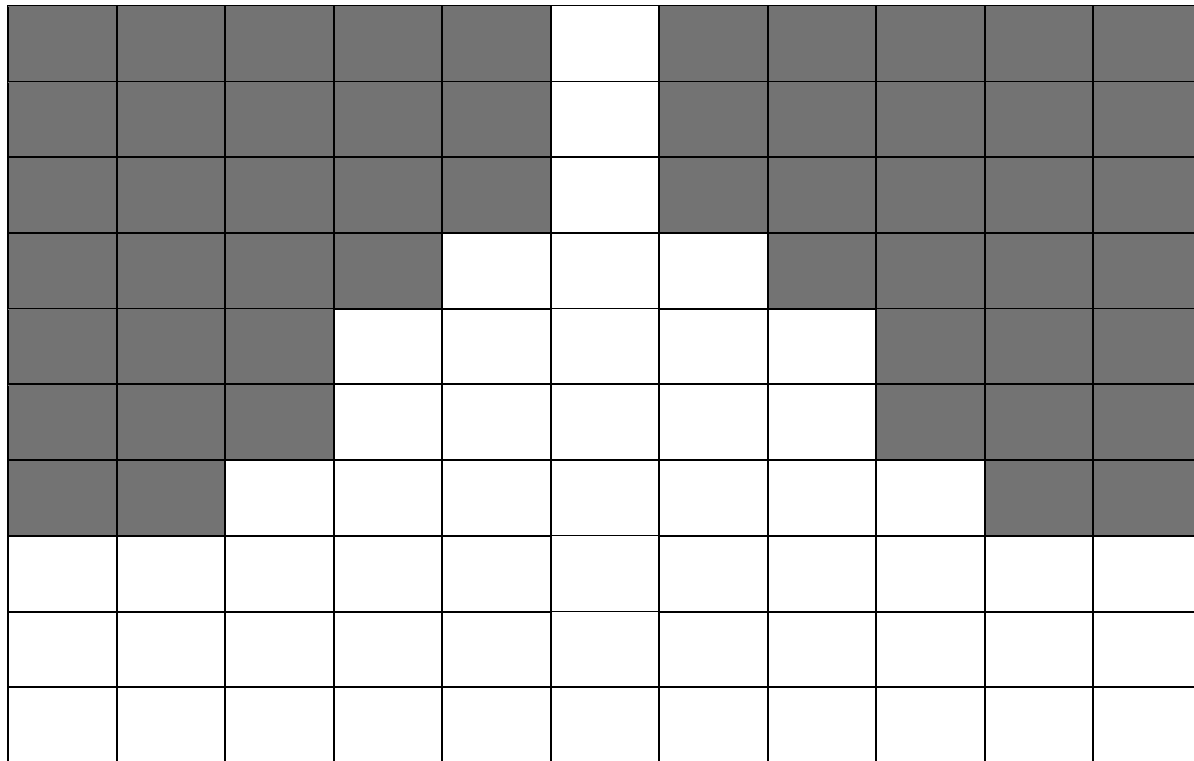
This condition of instruction was designed to focus the participant's thinking on the topic of the park management for the Boston Harbor Islands specifically. We wanted to draw on the participant's experience with the decision-making and public participation processes to-date and at the same time get his or her ideas of what would be the best way to design a process right now. We wanted to tap into people's present experience and understandings, as opposed to asking people to think about what would have been the best process some years ago.

This is how the Q sort happened. We asked each participant to read all the statements through once or twice. Then we asked them to sort the statements into three piles, the left-hand pile being the less important ideas, the right-most pile being the most important ideas, and the middle pile being in between. The Q sort was further constrained by forcing participants to sort

the cards into a specific pattern. This pattern is shown in Figure 1.³ Three cards could be placed in the two left-most columns, four in the third column, and so on. The scale was relative, not absolute. In other words, a certain participant may have felt that *all* the statements were important, but he or she still had to differentiate between the *most* and *least* important. Thus, it is important to note that, while the right-most edge contains statements the participant thought were most important, and the left-most edge contained statements considered least important, the middle *does not* contain statements that are viewed as irrelevant or unimportant.

Participants reported the Q sort was innovative, fun, and that it stimulated their thinking. During the Q sort the researcher asked the participant to talk about the sorting and how he or she interpreted the statements. These comments were recorded and used to help interpret the results.

Figure 1. Layout for Q sort cards.



Least
Important

Most
Important

³ A question has arisen among researchers using Q methodology about whether the pattern into which people are required to sort the Q statements, such as the normal distribution shown in Figure 1, matters to the results that are obtained. The conclusion among researchers of Q is that the use of a normal distribution makes little or no difference to the results of a study. We elected to use the normal distribution because we find it helps people sort the cards and because it enables us to use software that we prefer.

Q Method Data Analysis

Q sort data were entered into a computer program called MQMethod.⁴ This program computes the statistical analysis.⁵

The analysis that is part of Q method reveals both the content of the social discourses present in the group of participants and the extent to which particular individuals believe or subscribe to the different discourses. The assumption is that these social discourses exist partially in the subjectivity of individuals, but they are also a product of social interaction. Rarely will one find an individual whose subjective beliefs completely match the social discourse. In addition, while perspectives are held subjectively, similarities among individual views make it possible to articulate a small number of social discourses on a topic.

We arrive at the meaning of each of the social discourses that emerges from the analysis by using three approaches. First of all, we relied on the statistical analysis achieved by the MQMethod program. This is explained in detail below. Second, we ran an audiotape during the Q sort exercise and recorded the conversation we had with the participant during the sort. We asked the participant to interpret their sort and to explain how he or she interpreted specific Q statements. We had these tapes transcribed and used them to help interpret the statistical output when composing the perspective narratives. Third, we mailed a narrative description of each social discourse to a participant whose sort was most strongly correlated with it. That is, we endeavored to find the participant who was most representative of the perspective represented by the social discourse and then asked him or her to verify its clarity, content, and emphasis.

MQMethod is basically a factor analysis program. A factor analysis is a way of identifying a handful of underlying variables that account for changes among a much larger group of measured variables. In this instance, the 11 Q sorts are the measured variables and the factor analysis reduced them to three variables, which are called “factors.” The program produces factors that are represented as a specific Q sort. The factors identified in the analysis represent “ideal types.” Typically, the analysis reveals that each individual’s beliefs strongly shares features represented in one factor (which represents a social discourse), and has only moderate to little agreement with the others. In some cases, however, an individual’s beliefs may share features of multiple perspectives. The degree to which an individual’s beliefs share features with an “ideal” discourse is represented by a score derived as part of the factor analysis. These scores are called “factor loading scores” and a +1.00 would indicate that participant’s sort exactly

⁴ This freeware program is available through <http://www.qmethod.org>. Readers interested in learning more about Q method will find this website informative.

⁵ MQMethod computes a correlation matrix among the Q sorts and performs a factor analysis on the correlation matrix. Any statistical factor analysis requires a certain amount of judgment in determining the factors. We started every analysis using Principle Components Analysis followed by the varimax solution. Theoretically this solution accounts for the most variance in the data. Frequently, we were satisfied with the varimax solution. However, theorists in Q methodology argue that the varimax solution is not necessarily theoretically relevant and that judgmental hand rotation is sometimes needed to find the most appropriate solution. Judgmental hand rotation is extremely time consuming. We employed it only when we felt that the varimax solution missed an important perspective. When we did use judgmental hand rotation, we selected our factors based on three criteria. First, the solution should account for over 50% of the total variance in the data. Second, each factor solution had to account for at least 10% of the total variance. Third, the factor had to be meaningful and theoretically important.

matched the factor, a 0 would mean there were no similarities at all, and a -1.00 would indicate that participant's sort was the exact opposite of the factor sort.

Q Method Results

Three distinct and coherent factors — or what we will continue to call perspectives on public participation process — emerged from the analysis.⁶ Each is characterized by a particular rank ordering of the Q statements into the eleven categories from “least important” (-5) to “most important” ($+5$), as shown in Figure 1, above. A statement ranking $+5$ strongly defines that perspective while a statement ranking -5 is much less associated with the meaning of that perspective. In other words, the perspectives are defined by the rankings of all the statements relative to each other. Table 4 presents the statement rankings for each of the three perspectives. The end product of the Q study is a set of narrative descriptions of each perspective, which are discussed below.

Table 5 presents the re-ordered factor matrix showing the loading scores on each perspective for each participant who completed the Q sort. The individuals participating in our research have been given aliases to maintain confidentiality. A loading score greater than 0.4165 is statistically significant at the 0.05 level. This means that there is at most a 5% chance of that loading score being the result of a random event.

Table 5 shows that there are three different perspectives on what would be the appropriate public participation process.⁷ Table 6, which presents the correlation coefficients among the factors, indicates that these three perspectives are largely independent. The closest correlation is between perspectives A and C, which are 33% alike.

⁶ It is important to note that we cannot claim that these are the only perspectives that exist – there may be perspectives that we did not capture because they were not represented by the people we studied. We sought to overcome this potential problem by selecting a diverse group of people to complete the Q sorts, as described above. In addition, we cannot make any claims about the frequency of the perspectives in the larger population of people involved with this case study; this is an inherent limitation of Q methodology.

⁷ Recall that the condition of instruction was: *Imagine that a planning process for the Boston Harbor Islands National Park Area is going to be done again. Sort the statements according to what you believe should be the most important to least important factors guiding the design of the process.* In other words, we are gathering peoples' ideas of what would be the most appropriate process when they did the sort.

Table 4.
Ranking of each statement for each perspective.

No.	Statement	Perspective		
		A	B	C
1	Set up a situation that encourages all participants to listen to what others say and to consider it carefully.	1	0	-1
2	Use the best available science in the analysis.	-2	0	3
3	Establish relationships that promote constructive collaboration among participants.	2	0	2
4	Acknowledge and explore uncertainties.	-3	-1	-2
5	Develop a common language and understanding among participants.	0	-2	0
6	Reach out in a number of different ways through different mechanisms to different communities on different issue points, throughout the process.	1	-1	2
7	Work to build trust among the different participants during the process.	5	0	1
8	Hold meetings at different times and places so no one is excluded from participating.	1	-3	-1
9	Participants should be courteous and respectful to one another.	2	1	0
10	Provide financial resources that enable people to participate effectively (e.g., travel, hire experts).	-2	0	2
11	Participants should see beyond their individual interests to what is good for the larger community.	4	1	0
12	The process cannot be open to just anyone who wants to participate, participation has to be restricted in some way.	-1	-5	-5
13	Participants should be accountable for what they say, sincere in their promises, and reliable in carrying them out.	0	-2	0
14	The process gives recommendations to the National Park Service who then make the final decisions.	0	5	-1
15	Participants should have reasonable expectations about what the National Park Service is able to do.	0	5	-1
16	All important decisions are made according to consensus (including the agenda).	2	-1	-2
17	Participants should attend meetings regularly and see tasks through to completion.	1	3	-1
18	It is clear under what conditions the process will end.	-4	1	-5
19	Participants should be able to deal with complex technical issues.	-5	-1	-3
20	Every recommendation is justified with evidence.	-4	0	-2
21	Participants should feel comfortable and safe at the meetings.	0	-3	1
22	Consensus is used to decide what rule is used to make decisions (simple majority vote, 2/3 majority vote, etc.)	4	-2	0
23	There are clear ground rules that govern how people should interact.	-1	-4	3
24	The National Park Service responds in a timely way to all questions, comments, and requests.	1	3	0
25	Pay attention to the physical arrangement of tables and chairs at the meetings.	-3	-4	-3
26	Opportunity can't be an empty shell; there need not only be opportunities to be heard but there also has to be some way for the public to see that the decision makers are listening.	1	-5	1
27	Discuss the values underlying people's opinions about the issues.	-2	-3	-1
28	There are mechanisms for communicating to the broader public about what decisions are being considered and made.	2	-1	2

29	Validate all information to make certain it is correct.	-2	4	3
30	Participants who represent groups check in with their memberships regularly to ensure that they represent their views accurately.	3	-1	1
31	Everyone has an equal chance to put their concerns on the agenda.	0	1	-3
32	The process improves the participants' skills to participate effectively in processes like this (e.g., problems solving, conflict resolution, communication)	-1	-5	-4
33	The process has to be able to limit topics of discussion in order to avoid quagmires.	-1	-3	1
34	The process improves participants' understandings.	0	-2	-2
35	The process requires unbiased and independent facilitation.	2	-4	4
36	The process ends up enhancing the trust between the community and the National Park Service.	0	-2	1
37	The purposes and goals of the process are clear to all involved.	3	5	5
38	The process does not make any pre-existing conflicts worse.	-2	0	-5
39	All participants have equal access to information.	2	2	0
40	All important stakeholders are taking part in the process.	5	2	4
41	There is full disclosure of information at all times.	0	3	0
42	At the end of the process there is a clear plan for how to implement the final decision.	0	3	3
43	The staff involved is receptive to questions or requests for information from the public.	1	2	0
44	The process makes progress on solving the right problem.	-1	1	5
45	Get the right information.	-5	0	4
46	The process produces outcomes that are acceptable to me or my organization.	-1	0	-4
47	The process taps the knowledge and experiences of local people.	-1	1	2
48	The process produces outcomes that are acceptable to the National Park Service.	-4	4	0
49	The process needs an effective leader.	5	1	5
50	One outcome of the process is a plan to ensure that the promises made are actually followed through, that organizations are accountable for their promises.	4	2	-1
51	There is adequate administrative support (e.g., funding, staffing) for the life of the process.	3	4	2
52	The process is well-timed to the NPS's window of opportunity to act.	-2	-2	-2
53	There is adequate notification of meetings, comment periods, etc.	3	2	-2
54	Allow time to re-visit issues and decisions, even if it means extending the timetable.	-3	0	-3
55	Participants are involved in deciding <i>what</i> studies ought to be done.	-3	2	1
56	Participants are involved in deciding <i>how</i> studies ought to be done.	-5	-1	-4

What is particularly important is that every person loaded significantly on at least one perspective. Only one person, Sarena⁸, loaded significantly on two perspectives. This result suggests that Sarena has a point of view that is unique and not captured by any of the three “ideal types” emerging from this solution. It suggests there is another factor solution that

⁸ To maintain confidentiality we have used aliases for each of the people who participated in our study.

might be appropriate.⁹ However, when we investigated this possibility, through additional judgmental hand rotation of factors and inclusion of additional factors, we discovered all new solutions that were produced had more participants confounded on more than one factor, higher inter-factor correlations, and/or less variance explained. Thus, these alternative solutions were not as informative about the differences in preferences among the participants in our study.

Table 5 reveals that the first perspective is strongly held by five of the people in our study. In addition, Sarena has a positive significant loading score on this perspective (0.45) suggesting agreement with some aspects of this perspective; because she loaded more strongly on Perspective B she is listed with it. Perspective A accounts for 21% of all the variance. In addition, James has a positive, but not significant loading score on this factor (0.24 n.s.)¹⁰, suggesting agreement with some portions of it. Josiah has a negative loading score (-0.28 n.s.) suggesting some disagreement with aspects of Perspective A.

Perspective B is shared by three individuals, including one (Sarena) that loads with a positive and significant score on Perspective A (0.45); she loaded more highly on Perspective B, which is why she is listed with it. Michaela has a positive loading score (0.29 n.s.) on this factor, suggesting agreement with some portions of it. Jacob and Elle have negative loading scores (-0.28 n.s. and -0.25 n.s., respectively) suggesting some disagreement with aspects of Perspective B.

Perspective C is defined by three individuals. Nina and Jacob have positive non-significant loading scores (0.34 n.s. and 0.25 n.s., respectively) on this factor, suggesting agreement with some portions of it.

In each of the following sections we present the perspective narratives. These describe views the participants in our study have about the most appropriate management planning process for the Boston Harbor Islands National Park Area. Since the narratives are constructed from the Q statements, references to important Q statements are included in the descriptions below.

⁹ There are, in principle, an infinite number of possible factor solutions. None is “more right” than another in any objective sense. Researchers justify their solution on various grounds. One solution, called the “varimax” solution, is popular. It is the solution that maximizes the variance explained. In other words, it explains more of the variation in the data than does any other solution.

¹⁰ n.s. means “not statistically significant at the 0.05 level or better.”

Table 5.
Re-ordered factor matrix of loading scores for participants

	Loading scores on perspectives		
	A	B	C
<i>Perspective A</i>			
Emma	0.70	0.09	0.19
Nina	0.64	-0.07	0.34
Heather	0.61	0.13	0.00
Lillian	0.60	0.13	-0.07
Jacob	0.57	-0.28	0.25
<i>Perspective B</i>			
Josiah	-0.28	0.73	-0.01
Sarena	0.45	0.65	0.19
James	0.24	0.65	0.13
<i>Perspective C</i>			
Elle	0.13	-0.25	0.79
Michaela	0.04	0.29	0.79
Sam	0.13	0.20	0.56
Variance explained	21%	15%	17%

Table 6.
Correlations Between Perspectives

Perspective	A	B	C
A	1.00	0.17	0.33
B		1.00	0.18
C			1.00

Perspective A

People who subscribe to this perspective emphasize the inclusion of all relevant stakeholders (40), in an atmosphere of trust (7), with the presence of a good leader to channel diverse voices into a single voice (49) in a consensus based process.

The best way for the process to move forward is if the participants see beyond narrow self-interests to work toward the common good (11), which is best achieved using a consensual process (22, 16). A couple of other things that help a process like this work are: making the goals clear to everyone (37) so that efforts are focused where they can produce clear and relevant outcomes, there is enough administrative support to run the process efficiently (51), ensuring that all stakeholder representatives check in frequently with the groups they represent so that the membership stands behind each representative (30), and having ways to communicate directly

with the general public (28) so that the broader community feels informed about what is happening.

In this perspective the purpose of the process is to produce policy actions (e.g., recommendations about management plans). But no specific endpoint is required, which is reflected in the exemption from FACA that removes the need for a sunset clause. Statements about producing an outcome satisfactory to “me and my organization” (46) or to the National Park Service (48) were ranked quite low. Instead, people holding this perspective are willing to accept the consensual outcome of an inclusive process. What is important is that promises made are promises kept and that organizations are accountable for their promises (50). If not, all the time and effort could be for naught.

A secondary emphasis of this perspective is the attention given to the social dimensions of the process over the attention given to information and science. For example, this perspective emphasizes building trust (7), using consensus (22), being respectful and courteous (9), attending meetings regularly (17), the staff being receptive (43), and encouraging listening (1). In addition, there is more support in this perspective than among the others for restrictions on who can participate (12); specific types of people are needed who can work together, represent important stakeholders, and can get to know each other and build collaborative relationships.

On the other hand, this perspective pays very little attention to issues of science and information. This perspective ranked “get the best information” (45) the second lowest. And statements about validating recommendations with evidence (20), acknowledging uncertainties (4), using the best available science (2), and participants needing to be able to deal with complex technical issues (19) were all ranked relatively low for this perspective. These statements were not ranked low because of a disbelief in science, but merely because the matters under consideration in this process are not of a complex technical nature (19).

Perspective B

In this perspective, the process is meant to provide recommendations (14) and outcomes (48) that are acceptable to the National Park Service and can be implemented (42). Toward this end participants should have reasonable expectations about what the NPS is capable of doing (15). Hand in hand with reasonable expectations is the need for the purposes and goals of the process to be clear to all (37). The reason why this perspective emphasizes satisfying the NPS is because the NPS is understood to be the agency most capable of overseeing the coordination of activities necessary for maintaining a high quality park comprised of the harbor islands and the agency that provides the necessary leadership for maintaining collaboration among the various landowners and stakeholders.

With the authority given to the NPS for managing the harbor islands as a park unit comes important obligations and responsibilities that help to ensure that the NPS is well-liked and respected by the other involved stakeholders. Because the NPS cannot *require* any actions by others who own property within the Park, collaboration and goodwill are critical. Thus, according to those holding this perspective, the NPS has the obligation of providing administrative support (51), responding to all questions in a timely manner (24), fully disclosing

all information at all times (41), and being receptive to questions (43). If the NPS behaves properly, the rest of the participants will be more likely to continue to work with the agency. The process moves ahead because the participants are united around stated goals (37) and they need little more than access to relevant and valid information (29, 39) to be able to formulate policy recommendations.

The responsibility of the participants is pretty much limited to having reasonable expectations (15) and attending meetings regularly (17). This perspective does not emphasize strong leadership or facilitation to keep discussions civil and on track (49, 35). A secondary emphasis of those holding this perspective is that participants should be, for example, courteous and respectful (9) and oriented toward the common good (11).

Perspective C

Those subscribing to this perspective believe that the purpose of the process is to provide informed recommendations that are implementable and solve important and relevant problems (42, 44), although it's not important that anyone in particular be satisfied by the outcomes (46, 48). To achieve these ends, emphasis is attached to strong leadership, good information, and inclusion of key stakeholders.

According to this perspective, the keystone to a good process is having an effective leader (49) who will keep people make progress on the right problem (44). Three structural features in particular can help the leader guide the process effectively: having clear purposes and goals (37), having good facilitation (35), and having clear ground rules to govern interaction (23).

In addition to effective leadership and these features, a successful process also needs three other ingredients. First, it requires the involvement of all important stakeholders (40). A disenfranchised organization could stifle implementation of policy actions. To achieve inclusion, it may be necessary to provide financial resources to some organizations (10). Second, the process needs good information (45) and the best available science (2) in order to make wise choices. Toward this same end, it is important that key information be validated to ensure correctness (29). Third, a good process requires a connection with the broader public. Although the process is organized around stakeholder involvement, the general public needs to be consulted at times for information (47) and they need to be informed of what is going on (28). To achieve public input, it is necessary to reach out in a myriad of ways to different populations (6, 26).

Orchestrating a good process means achieving a balance between widespread participation and leadership that moves the process forward. Scant support was found in this perspective for several attributes that can slow or stall a process including: allowing time to revisit past decisions (54), letting everyone put their concerns on the agenda (31), and using consensus routinely (16). (There was stronger support for using consensus to make the final decision (22) which is consistent with the superordinate principle of achieving buy-in by key stakeholders.)

Those holding this perspective place give little importance to the benefits of this process for the participants. For instance, ranked low were statements about the process improving participants' conflict resolution skills (32) or participants' understandings (34). This is because

the key stakeholders in this case are already experienced activists or decision makers who have extensive knowledge about Boston Harbor.

Finally, those holding this perspective placed low support for statements that specified responsibilities of the participants. Statements about seeing beyond self-interest to the common good (11), being courteous and respectful (9), having reasonable expectations (15), and attending meetings regularly (17) were all ranked near the middle of the sort and all were lower than the scores of Perspective A. This suggests that people who hold this perspective are focused much more on the role of the leadership than on the responsibilities of the separate participants.

Comparison of Perspectives

On several points all three perspectives gave similar rankings. One has to use caution, however, in interpreting this as consensus among all perspectives about the importance of that statement because a statement could have the same ranking for very different reasons. Q statements' scores on factors should not be interpreted in isolation from other statements because participants ranked each statement *relative to each other statement*, not in isolation. This needs to be remembered during the interpretation of results. For example, statement #1, which received similar scores in all three factors, has much more importance and meaning in Perspective A because it is linked—conceptually—to a number of other statements about the social interactive aspects of public participation. The same statement has less significance in Perspective B, despite having almost the same score. In other words the significance of each Q statement to each perspective needs to be interpreted qualitatively using the quantitative values as aids.

Keeping this caveat in mind, we can still make notice of some consensual items across all three perspectives. Foremost is the clear agreement about the importance of having all key stakeholders involved (40), ensuring that the purposes and goals are clear to all (37), and ensuring there is adequate administrative support for the process to move ahead (51). All three items have to do with efficacy. For instance, if key stakeholders are not involved, then progress can be blocked. This is particularly true for management of a park unit where the NPS does not own any of the land in question.

Also on the topic of consensus items, three aspects seemed to have generally little positive importance to the three perspectives in the BHIP case. These were: acknowledging and exploring uncertainty (4), ensuring participants can deal with complex technical issues (19), and discussing the values that underlie people's opinions about the issues (27). We do NOT conclude that organizers of public participation in other cases should ignore these dimensions. It is dangerous to generalize from one case to another. Instead, we conclude that these were not important dimensions in this instance *because of the nature of the BHIP subject matter*. The fact that these three items were not salient to any of the perspectives in this case say much more about the case than about the importance of these items. For instance, we learned that participants in the BHIP and the Advisory Committee felt they already knew each other well, which is why there was no need for the process to make time for discussion of values.

Organizers of public participation might legitimately conclude from this that the process needs to be designed to match the situation. Moreover, they may take heart in knowing that public participation can still be broadly seen as meaningful and successful even if it does not

manifest every attribute of good practice, *provided as it meets the most salient demands of the context.*

There are many differences among these perspectives. Some of the most profound we mention here and summarize in Table 7. First is the wide difference about the importance consensus (16, 22). Consensus was clearly more important to Perspective A. There is limited support in Perspective C for using consensus to determine decision rules (22) but this support did not hold for using consensus to make all the important decisions (16). Perspectives B and C expressed the view that consensus can delay progress by preventing decisions from being made or by “watering down” decisions. Recall that Perspective C was strongly oriented toward making decisions that can be implemented (42) and solve problems (44).

Table 7. Key points of distinction among the three perspectives.

Concept	Perspective		
	A	B	C
Use consensus	High	Low	Medium
Firm rules, strong leadership, unbiased facilitation	Medium	Low	High
Science and information	Low	Medium	High
Satisfy the NPS	Low	High	Low

A second theme to highlight is how important it is to have facilitation (35), clear ground rules (23), and strong leadership (49) in the process. Perspective A located these items in the middle range. Perspective A placed emphasis on individuals taking responsibility for their own behaviors, for example, being orientated toward the common good (11), being courteous and respectful (9), and establishing constructive relationships (3). Perspective B felt these were less important, instead believing in the inherent ability of the stakeholders in the BHIP process to work collaboratively on their own. However, Perspective C found these features very important.

A third notable difference centers on the importance of science (2) and information (45) in the process. Perspective A give them little import, Perspective B ranked them solidly in the middle, and Perspective C found them to be very important. It is interesting that for the same application, people had very different ideas about the importance of science and information in the process.

A fourth point of substantial disagreement among these perspectives centers on satisfying the NPS (48). Perspective B was oriented toward the needs of the National Park Service in a way that Perspectives A and C were not. In Perspective B there was much more emphasis given to the process providing recommendations to the NPS (14), producing outcomes acceptable to the NPS (48), and including participants with reasonable expectations about what the NPS can do (15). All of these were de-emphasized in Perspectives A and C, which placed more emphasis on the needs of other stakeholders involved in the BHIP.

Preferences for Outcomes

Because previous research has suggested that some people are strategic about which process features they prefer – they prefer processes that they think will produce specific end goals – we asked people to express their preferences for twenty different outcomes. In this section we describe the method by which this was accomplished and our findings.

Method

Twenty outcomes were written as statements on individual cards similar to those used for the Q sort (Table 8). They were selected by the research team based on data and experience in other studies.

The potential outcomes that can result from an environmental decision-making process can be of two general types. First, outcomes can be related to the building of capacity. Such outcomes include developing skills and knowledge, building relationships, and bringing new resources to the community. These types of outcomes are exemplified by outcomes 1 – 12 in Table 8. Second, outcomes can be related to substantive policy outcomes. Such outcomes include clear outcomes, a clear plan for implementation, equity in outcome distribution, and building support for outcomes. These types of outcomes are exemplified by outcomes 13-20 in Table 8.

After the Q sort was completed, we asked the participant to sort these outcome cards into three piles, where the right-most pile would be the outcomes they strongly preferred, and the middle and left-most piles were less preferred. Then we asked the person to choose from the right-most pile the three outcomes that they most preferred. This process resulted in four piles of cards, ranked from most preferred to least (or not) preferred.

Table 8. List of Outcome Statements

- 1) The process improves the participants' skills to take part effectively in processes like this (e.g., problems solving, conflict resolution, communication).
- 2) The process improves participants' understandings of the issues.
- 3) The process improves participants' understandings of others' beliefs, values, and perspectives.
- 4) The process enhances trust between the community and the National Park Service.
- 5) The process enhances trust among different parties/stakeholders in the community.
- 6) The process develops access to networks that allow new resources to be brought to the community (e.g., financial, technical).
- 7) The process promotes a regional sense of place.
- 8) The process improves people's ability to work together better.
- 9) The process strengthens democracy and rebuilds people's faith in government.
- 10) The process does not make any pre-existing conflicts worse.
- 11) The process builds the confidence and self-esteem of the participants.
- 12) The process helps create new and lasting interest groups that can continue to work on the issues.

- 13) The process results in clear outcomes.
- 14) There is a clear plan for how to implement the outcomes.
- 15) Costs and benefits of the outcomes are distributed in an equitable way.
- 16) The outcomes are personally desirable to me or my organization.
- 17) The outcomes satisfy the National Park Service.
- 18) The outcomes have broad-based support within the community.
- 19) Participants feel a sense of ownership in the outcomes of the process.
- 20) One outcome of the process is a plan to ensure that the promises made are actually followed through, that organizations are accountable for their promises.

Outcome Ranking Results

The outcome data were entered into an excel spreadsheet. As part of this case study report we did not conduct any statistical analyses of these data because the number of study participants is small.¹¹

Table 9 shows the importance given to each of the potential outcomes by the eleven respondents. Each outcome card was placed by a respondent in one of four groups. The Table shows how often a card was placed in each group.

The results show that participants in our study have little consensus about which outcomes are preferred. There was support for both substantive policy outcomes and capacity building outcomes. The statements that were most often placed in the highest ranked group were that “the process develops access to networks that allow new resources to be brought to the community (e.g., financial, technical)” (#6), “there is a clear plan for how to implement the outcomes” (#14), and “the outcomes have broad-based support within the community” (#18).

Other substantive policy outcomes that also received support included:

- “participants feel a sense of ownership in the outcomes of the process” (#19) and
- “one outcome of the process is a plan to ensure that the promises made are actually followed through, that organizations are accountable for their promises” (#20).

Nine of the outcomes related to capacity building had no one or only one person rank them in the most important category, as might be anticipated by the process-related perspectives’ lack of emphasis on similar features (e.g., developing skills and understandings). These outcomes appear to not be critically important to those participating in our study:

- “the process improves the participants’ skills to take part effectively in processes like this (e.g., problems solving, conflict resolution, communication)” (#1),
- “the process improves participants’ understandings of the issue” (#2),
- “the process improves participants’ understandings of others’ beliefs, values, and perspectives” (#3),
- “the process enhances trust between the community and the National Park Service” (#4),

¹¹ These data are being used for further statistical analyses as part of our cross-case comparisons that will be described in a future report.

- “the process enhances trust among different parties/stakeholders in the community” (5),
- “the process improves people’s ability to work together better” (#8),
- “the process strengthens democracy and rebuilds people’s faith in government” (#9),
- “the process does not make any pre-existing conflicts worse” (#10), and
- “the process builds the confidence and self-esteem of the participants” (#11).

Again, the lack of attention to capacity-building outcomes is suggested by additional outcomes that received low rankings from many of the participants in our study suggesting possible disagreement by them, including:

- “the process improves the participants’ skills to take part effectively in processes like this (e.g., problems solving, conflict resolution, communication)” (#1),
- “the process improves people’s ability to work together better” (#8),
- “the process builds the confidence and self-esteem of the participants” (#11), and
- “the outcomes satisfy the National Park Service” (#17).

Two of the outcomes related to substantive policy outcomes had no one or only one person rank them in the most important category, suggesting these were not critically important:

- “costs and benefits of the outcomes are distributed in an equitable way (#15) and
- “the outcomes satisfy the National Park Service” (#17).

Table 9.
Ratings of outcome statements

Outcome	Group 1 (lowest)	Group 2	Group 3	Group 4 (highest)
<i>Capacity Building Outcomes</i>				
1. The process improves the participants' skills to take part effectively in processes like this (e.g., problems solving, conflict resolution, communication).	7	3	1	0
2. The process improves participants' understandings of the issues.	2	6	2	1
3. The process improves participants' understandings of others' beliefs, values, and perspectives.	4	5	1	1
4. The process enhances trust between the community and the National Park Service.	0	9	2	0
5. The process enhances trust among different parties/stakeholders in the community.	1	3	6	1
6. The process develops access to networks that allow new resources to be brought to the community (e.g., financial, technical).	1	3	2	5
7. The process promotes a regional sense of place.	3	3	3	2
8. The process improves people's ability to work together better.	5	4	1	1
9. The process strengthens democracy and rebuilds people's faith in government.	2	7	2	0
10. The process does not make any pre-existing conflicts worse.	4	7	0	0
11. The process builds the confidence and self-esteem of the participants.	8	3	0	0
12. The process helps create new and lasting interest groups that can continue to work on the issues.	0	3	6	2
<i>Substantive Policy Outcomes</i>				
13. The process results in clear outcomes.	0	4	5	2
14. There is a clear plan for how to implement the outcomes.	0	4	2	5
15. Costs and benefits of the outcomes are distributed in an equitable way.	2	6	3	0
16. The outcomes are personally desirable to me or my organization.	4	5	0	2
17. The outcomes satisfy the National Park Service.	5	3	2	1
18. The outcomes have broad-based support within the community.	0	3	4	4
19. Participants feel a sense of ownership in the outcomes of the process.	1	3	4	3
20. One outcome of the process is a plan to ensure that the promises made are actually followed through, that organizations are accountable for their promises.	1	3	4	3

Surveys

Participants were asked to complete two surveys. Copies of the surveys are in Appendix B.

The first survey included questions that asked the person to document their perception of the present conditions in which the public participation process existed. For example, people were asked to assess on a scale from low (0) to high (+4) the communication and conflict resolution skills that stakeholders in the community have at the present moment.

The second survey included five questions which inquired into the affiliation the individual had with interest groups associated with the controversy, his or her motivations for participating, and his or her experience with similar public participation processes.

Contextual Variables

The first survey included 32 questions that asked the person to document their perception of the present conditions in which the public participation process existed. The instrument included in Appendix B provides information about the responses we received as well. The number of times a statement was rated along the scale of low (0) to high (+4) is shown in the appropriate cells. Because of the small number of respondents,¹² and our commitment to protect confidentiality, we will discuss the responses in general terms.

One way to examine the degree of agreement or disagreement among those participating in our study is to compute the maximum difference in rankings that were given for each of the questions. Answers were spread across five columns (thus, the maximum difference can be 4). We looked to see which columns were occupied with a response.

For 4 of the 32 questions there is a maximum difference of four between the lowest and highest rankings. This means that there was significant disagreement among some of the participants. At least one person rated the item “very high” and at least one other person rated it “very low.” In other words, there are some features of the context for which there are divergent perceptions. For seventeen of the questions there is a maximum difference of three between the lowest and highest rankings. These also indicate substantial differences in perceptions.

Thus, for a large number of these questions there is a lack of agreement on rankings for how people assess a contextual feature. The questions for which there was the broadest range of perceptions were:

- “previous experience that the NPS has had with public participation” (#3),
- “support from political leadership for this process” (#14),
- “level of importance of this issue to the regional population” (#16), and
- “number of other ongoing processes involving the community and state or federal governmental agencies” (#28).

¹² In addition, only 8 of the 11 respondents completed this survey.

For eight questions there is a difference of 2. For two questions there is a difference of one and for one question all respondents gave the same response, indicating basic agreement in their perceptions that:

- there is “political pressure on the NPS to really involve and listen to the local stakeholder groups” (#1),
- there is “commitment by the NPS to seeing the process through to its end” (#8),
- there are a “number of well-established interest groups in the area” (#30).

We conclude from these results that we cannot take for granted that people will have similar perceptions about contextual conditions (such as trust, commitment interest groups, etc.). Just looking at these data, we see that people who have been part of park planning and management for Boston Harbor for some time still disagree about some important issues.

Individual Variables

The second survey was used to gather information about each person’s interest group affiliation, his or her motivations for participating, and his or her experience with similar public participation processes.

The responses reveal that most of the respondents¹³ were interested in both local and national issues (6 of 9). Three people wrote that they were interested only in local issues. Most of the participants had devoted more than eight years to issues related to this process (6 of 9). The remaining three that responded to this question were involved for four or five years in issues related to this process at the time these data were gathered.

Those that participated in our study were affiliated with a variety of interest groups, as shown in Table 2. In response to the question about which interest groups a person most identified they indicated business and private industry (2 times), education and research institutions (2 times), environmental groups (3 times), community groups (5 times), local government (3 times), and state and federal agencies (3 times). Religious groups, property rights, peace and social justice groups, and Native American and Tribal Government were never selected.

Table 10 shows how the individuals described their motivations for participating in Boston Harbor Islands National Park Area management planning. In the survey, respondents were asked to assign a “1” for their most important motivating factor and a “2” for their second most important motivating factor. In this Table we have counted the number of times a factor was selected by a respondent, whether or not it was identified as a “1” or “2.”

The results illustrate that improving the quality of life was the most salient factor motivating people (6 times), followed closely by protection of ecological systems (4 times), as might be expected in a case regarding a National Park unit. The mission of the National Park Service is to protect ecological and cultural resources. Three people ranked “civic duty” as an important motivating factor. Two ranked “it’s my job” as an important motivating factor. Concerns for public health economic effects were not very important motivating factors in this group.

¹³ Only 9 of the 11 respondents completed this survey.

Table 10.
Number of people selecting factors that explain their motives
for being involved in this process.

Reason for participation	Number of times selected
Protect the health of myself and/or my family	0
Protect the health of others (e.g., community, vulnerable populations)	1
Economic effects to myself and/or family	0
Economic effects to others (e.g., community, region)	1
Improve the quality of life (e.g., recreational opportunities, farm life)	6
Protect ecological systems (conservation, preservation, or stewardship)	4
Sense of civic duty	3
It's my job	2
Improve social or environmental justice	1

Summary

This paper reports on the results from a case study that was performed as part of a larger research project whose goal was to advance knowledge of how best to involve members of the public in decision-making about contentious environmental and public health issues. We addressed four questions in this case study research having to do with people's preferences for process features and outcomes, and how these are linked to their perceptions of the context, and individual factors, such as interest group affiliation and years of involvement with the issue. In this report we present our findings from our study of the process to craft a management plan for the Boston Harbor Islands National Park Area. Our primary interest was to obtain the views of local stakeholders, such as those who participated in the Advisory Council.

Our analysis revealed three distinct preferences for process design among the eleven people who participated in our case study research. Perspective A emphasizes the inclusion of all relevant stakeholders, in an atmosphere of trust, with the presence of a good leader to channel diverse voices in a consensus based process into a single voice that can be supported by the general public. Those who subscribe to Perspective B seek a process that will provide recommendations and outcomes that are acceptable to the National Park Service and can be implemented. The NPS is understood to be the agency most capable of overseeing the coordination of activities necessary for maintaining a high quality park comprised of the harbor islands and the agency that provides the necessary leadership for maintaining collaboration among the various landowners and stakeholders. People who hold Perspective C believe that the purpose of the process is to provide, with the guidance of a strong leader, informed recommendations that are implementable and solve important and relevant problems, although its not important that anyone in particular be satisfied by the outcomes.

In addition, there is a lack of consensus about the types of outcomes that a process should endeavor to produce. Among those who participated in our study there was emphasis on both substantive policy outcomes and capacity building outcomes. Preferences for process and for outcomes arise in part from people's perceptions of the context in which the effort is situated and who is participating. Although the sample in this case study is small, some suggestive trends were apparent in our results.

This report discusses one case study out of ten in our full project. The limited number of people in this case study make it impossible for us to draw any significant conclusions about the relationship between people's preferences for public participation process, and their preferred outcomes, personal beliefs and motivations, and personal assessment of the contextual conditions. What this case study does reveal is that even among a small group of regular and experienced planners and participants there can be vast differences in all of these areas. One implication of this finding is that planners and participants in processes like this should engage in on-going discussions about process preferences and assessments of context and outcome preferences. Our final report from this research project will include a statistical analysis among these types of variables for 117 participants in our ten case studies. From these results we expect to be able to make specific recommendations for improving public participation.

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Appendix A: Case Studies in Research Project

1. Forest management in the Finger Lakes National Forest (NY). A process begun in 1998 to bring together citizens and stakeholders to identify issues for consideration in a revision of the forest management plan and also to resolve conflicts about trail use, land use management, and habitat management.
2. Forest management in the Applegate region (OR). An on-going project, begun in the early 1990's, to address forest planning issues in the Applegate region of southern Oregon is based within the Applegate Partnership. It has included a rich diversity of public participation opportunities.
3. Forest management in the greater Flagstaff region (AZ). An on-going effort of diverse stakeholders to address forest management issues in the Flagstaff region, including wildfire planning, is centered within the Greater Flagstaff Forests Partnership. It was established under a cooperative agreement with the US Forest Service. An Advisory Council provides recommendations to the Forest Service and it plans and assesses field experiments and technical studies to inform decision-making.
4. Morro Bay National Estuary Program (CA). Located near San Louis Obispo, this project is funded by the EPA National Estuary Program. It is a consensus-based approach that draws on citizens as well as stakeholder groups to participate in drawing up a management plan for the estuary.
5. Dungeness River Management (WA). A Dungeness River Management Team, established by the Clallam County Board of Commissioners and the Jamestown S'Klallam Tribal Council, has addressed a variety of water quality and water quantity issues arising from this river located in the Olympic Peninsula. The team includes participation from diverse stakeholders and state, county, local, and Tribal governments.
6. Raritan Basin Watershed Management Project (NJ). A long-term effort sponsored by the EPA to address non-point source pollution. Diverse participation has included local and state officials, community members, river protection committees.
7. Setting standards for clean-up of radionuclides in soils at Rocky Flats (CO). Various mechanisms have been used to provide input to the Department of Energy about the setting of "soil action levels" for clean-up of soils contaminated with plutonium. One process involves a Site Specific Advisory Board. A second is focused on providing input from local governments.

8. Assessing public health risks from radiological contamination at Fernald (OH). Fernald had one of four subcommittees established by the Centers for Disease Control and Prevention and the Agency for Toxic Substances and Disease Registry to provide advice about public and worker health related studies and activities around nuclear weapons facilities. This process has engaged local citizens in complex deliberations over the design and conduct of environmental health studies, including analysis of uncertainties.
9. Plutonium contamination from sewage sludge in Livermore, California. The Lawrence Livermore National Laboratory (CA) has been placed on the National Priorities List of Superfund sites for a variety of contamination problems. As one example, federal agencies determined that operations at LLNL contaminated processed sewage sludge from the Livermore Water Reclamation Plant with plutonium. As part of the assessment process for characterizing the public health risks from the plutonium contaminated sludge two opportunities were created for public involvement.
10. Boston Harbor Islands National Park Area (MA). A unique participation process that was started by the National Park Service in 1996 as an alternative to the “command and control” approach to running national parks. It consists of a two-tiered participation process consisting of an advisory council of 28 stakeholder group representatives who advise a partnership of 13 members that is responsible for managing the park.

Appendix B: Surveys

Name: _____

Case: _____

Below are a number of factors that can affect public participation. We would like you to measure the level of each factor at the PRESENT MOMENT.

		Very Low				Very High	Don't Know
1	Political pressure on the NPS to really involve and listen to the local stakeholder groups.	0	0	6	0	0	2
2	Support for the process from within the NPS.	0	1	2	0	4	1
3	Previous experience that the NPS has had with public participation.	1	0	2	1	3	1
4	Level of trust between interest groups and the NPS.	0	1	1	5	1	0
5	Level of trust among interest groups involved in the process.	0	2	0	5	0	1
6	Resources available to the NPS that would help them run a good public participation process.	0	3	1	3	0	1
7	Commitment of the NPS to hearing all points of view.	0	1	2	1	4	0
8	Commitment by the NPS to seeing the process through to its end.	0	0	0	1	7	0
9	The community's economic dependence on the Boston Harbor Islands.	2	3	2	1	0	0
10	Stakeholders' prior experience working with each other on similar processes.	1	0	3	2	0	2
11	Stakeholders' skills at problem solving, conflict resolution, communication.	1	0	2	5	0	0
12	Stakeholders' familiarity with the issue.	0	0	3	2	3	0
13	How knowledgeable stakeholders are about each other's beliefs and values.	0	1	3	3	1	0
14	Support from political leadership for this process.	1	2	4	0	1	0
15	Support from local population for this process.	0	2	2	3	1	0
16	Level of importance of this issue to the regional population.	1	2	1	3	1	0
17	Cultural diversity among the regional communities.	0	2	2	2	2	0
18	Prior experience of participants working with the NPS.	1	2	3	0	0	2
19	Availability of expert resources to the stakeholder participants.	1	0	1	6	0	0
20	Density of networks connecting the key interest groups.	0	1	1	3	2	1
21	How strong is the sense of place in the regional communities?	0	0	4	0	3	1
22	Commitment among key stakeholder groups to cooperate.	0	2	0	4	2	0
23	Existing strength of local democracy in the region.	0	1	2	4	1	0
24	Clarity of the policy issue being addressed.	0	1	1	3	2	1
25	Extent of scientific consensus about the policy issue.	0	1	0	4	0	3
26	Clarity of the mandate for what the process is intended to accomplish.	0	1	1	4	2	0
27	Number of other ongoing processes involving the community and the NPS.	0	3	1	1	0	3
28	Number of other ongoing processes involving the community and state or federal governmental agencies.	2	0	1	1	4	0

29	The extent to which key interest groups have established leadership, we already know who speaks for which groups in the community.	0	1	1	5	1	0
30	Number of well-established interest groups in the area.	0	0	0	3	5	0
31	Number of places where meetings could be held that participants will feel are safe (neutral) and accessible.	0	0	2	3	2	1
32	Amount of time available to solve the problem and reach closure.	0	1	2	4	1	0

Name: _____

Case: _____

1. In how many other participatory processes like this have you participated during the last 10 years?

0	1	2	3	4	5 or more

2. With which interest groups do you most closely identify? Please rank the top two, placing a "1" next to the most important group and a "2" next to the second most important group.

- _____ Business / Private Industry
- _____ Education / Research
- _____ Environmental
- _____ Native American
- _____ Property Rights
- _____ Community Groups
- _____ Religion
- _____ Peace or Social Justice
- _____ Local Government
- _____ State or Federal Government
- _____ Tribal Government
- _____ Other, please specify: _____

3. Are you mainly interested in: (Check ONE)

- _____ Local Issues
- _____ National Issues
- _____ Both Equally Important

4. For how many years have you been involved in issues related to this process?

0	1	2	3	4	5	6	7	8	9	10 or more

5. What best explains your motives for being involved in this process? Please rank the top three. Place a “1” next to the most important reason you got involved, a “2” next to the second most important reason, and a “3” next to the third most important reason.

- _____ Protect the health of myself and/or my family
- _____ Protect the health of others (e.g., community, vulnerable populations)
- _____ Economic effects to myself and/or family
- _____ Economic effects to others (e.g., community, region)
- _____ Improve the quality of life (e.g., recreational opportunities)
- _____ Protect ecological systems (conservation or preservation)
- _____ Sense of civic duty
- _____ It’s my job
- _____ Improve social or environmental justice
- _____ Other, please specify: _____

Appendix C: SERI background

The Social and Environmental Research Institute is a tax-exempt public foundation that conducts research on a broad range of social and environmental issues (founded 1995). The Institute is committed to the integrity of theory and practice. It conducts applied research projects that realize the practical gains provided by theory and as a means to realize concrete benefits to individuals, society, and the environment. The Institute conducts theoretical and applied research in two principal areas: discursive approaches to policy; and social relations to the environment.

The Institute's research on discursive policy approaches addresses the roles of participatory, discursive, and democratic methods at all stages of the policy processes, including design, research, decision-making, implementation, and evaluation. Research in these areas seeks to improve our understandings and to enhance and develop processes that involve a search for just, equitable, and integrative solutions based on deliberating issues, clarifying interests, perspectives, and values; identifying and addressing issues of power and lines of influence; discovering common understandings; identifying mutual responsibilities; and negotiating shared principles. The Institute's main goals within these areas are to further theoretical and practical understanding of the conditions that lead to collective efforts to define and address shared problems, how individuals come to see their private interests linked with the shared interests of their fellow citizens and the non-human world, and the factors that facilitate collaborative learning about issues, self, and others. Specific areas of research include how: to integrate multiple values, technical and social expertise, and diverse interests; to provide a fair opportunity for the airing and consideration of concerns, opinions, and viewpoints; to provide opportunities for disenfranchised groups to develop knowledge and to influence all stages of policy processes; to design processes that are adaptive to changing knowledge and social, political, and environmental conditions; and to promote the development of skills of constructive dialogue and collective problem-solving. Our mission is grounded in a fundamental commitment to creating a society that maintains respect for diverse values and interdependencies between human spheres and the biophysical environment, and that furthers its development by providing opportunities for learning, in part through participatory policy processes, including design, research, decision-making, implementation, and evaluation.

The Institute's research on social relations to the environment includes a wide variety of themes and efforts whose common thread is a focus on how the natural environment shapes and influences people and society and how human actions affect the natural environment. Research in these areas aims to better our understanding of how people form beliefs and values about nature; how they rationalize their environmental actions; how they orchestrate and conceptualize environmental experiences; how social, economic, institutional, and cultural forces shape individual attitudes, beliefs, and actions; and how people draw on their experiences to nurture themselves, to mediate their environmental actions, and to socialize others. The Institute's main goals within these research areas are to enhance and develop psychological and social theory by drawing in new understandings of how the natural environment both mediates human action and thinking as well as offers new possibilities for learning; and to aid in the search for ways to balance human needs with environmental integrity. Areas of research include: environmental attitudes and behavior, valuation of non-market goods, environmental perceptions, human

dimensions of global environmental change, environmental education, environmental health, and sustainable development. Our work in these areas is driven by a recognition that humans and the natural environment are tightly coupled, especially as technology and world population growth increase the ability of human actions to affect natural systems.

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