

Quality of the Bainbridge Island Shoreline Master Program:
A Multi-Criteria Perspective

Trevor P. Williams

A thesis
submitted in partial fulfillment of the requirements for the degree of
Master of Marine Affairs

University of Washington
2017

Committee
Dr. Nives Dolšak
Dr. Patrick Christie

Program authorized to offer degree:
School of Marine and Environmental Affairs

© Copyright 2017
Trevor Williams

University of Washington

Abstract

Quality of the Bainbridge Island Shoreline Master Program: A Multi-Criteria Perspective

Trevor P. Williams

Chair of the Supervisory Committee:

Professor Nives Dolšak, Ph.D.
School of Marine and Environmental Affairs

ABSTRACT: The Washington Shoreline Management Act was passed by the State Legislature in 1971, and was adopted by voters in 1972. The Act’s purpose is to “prevent the inherent harm in an uncoordinated and piecemeal development of the state’s shorelines”. To achieve this, the Shoreline Master Program (SMP), developed by each local government to comply with the Act, is granted the freedom of flexibility in determining what key elements shall be incorporated into the local plan to accommodate varying conditions. This research paper is an examination of the content within the Bainbridge Island Shoreline Master Program. A set of criteria was created and applied to review Bainbridge Island’s SMP. In addition, a readability analysis was conducted on the individual sections of the document. The results of the study reflect a necessity to focus on the fact base, implementation, and monitoring, as these sections are the ones that consistently lack detail within the SMP. Incorporating this study into the current literature will improve communication between both the planners, and the public.

Table of Contents

Introduction	5
Significance	7
Critical Habitat	8
Coastal Value	9
Literature Review	10
Content Analysis	10
General Plan Evaluation	12
<i>Adequacy of Context</i>	14
<i>Rationality</i>	15
<i>Procedural Validity</i>	15
<i>Guidance for Implementation</i>	16
<i>Scope</i>	16
<i>Approach, Data, Methodology</i>	16
<i>Quality of Communication</i>	17
<i>Plan Format</i>	17
Methodology	18
Analytical Framework	18
<i>Goals, Objectives, and Purpose</i>	18
<i>Fact Base</i>	18
<i>Elements of Plan Consistency</i>	19
<i>Public Participation</i>	19
<i>Implementation</i>	20
Data Collection	20
Weighting System	21
Analysis Methods	21
Shoreline Master Program Quality Indicators	23
<i>Adequacy of Context</i>	23
<i>Fact Base</i>	24
<i>Elements of Plan Consistency</i>	25
<i>Public Participation</i>	26
<i>Implementation</i>	27
Readability	29
Limitations and Problems	29
Results	30
Adequacy of Context	33
Fact Base	33
Elements of Plan Consistency	34
Public Participation	35
Implementation and Monitoring	36
Readability	36
Conclusion	38
Discussion	38
Conclusion	40
Works Cited	42

Introduction

The coastal zone is a highly dynamic ecosystem, where anthropogenic influences can have a decisive impact on the balance of a habitat's health. Local governments, through the development of their land-use regulations, infrastructure policies, and shoreline master programs, play an integral role in shaping landscape through policies (Norton, 2008). Numerous laws and regulations have been enacted to balance environmental protection and the right to manage and protect private property. Bainbridge Island, Washington is one of the many communities that has complied with the 1972 Shoreline Management.

In recognizing the importance of meeting the challenges of growth within the coastal zone, the U.S. Congress passed the Coastal Zone Management Act (CZMA) in 1972. This act, overseen by NOAA, allows for the management of the nation's coastal resources. The stated goal of the act is to “preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone” (Office for Coastal Management). The CZMA itself provides the framework for three national programs: the National Estuarine Research Reserve System, the Coastal and Estuarine Land Conservation Program (CELCP), and the National Coastal Zone Management Program (CZMP). The NCZMP is designed to focus on the balance of competing land and water disputes through local state management programs. Through this program, the Shoreline Management Act (SMA) is promoted within the state of Washington, and supported through local government shoreline master programs.

The Act, which was passed in 1972, pertains to all 39 counties and over 200 different cities and towns that are designated as “shorelines of the state” (RCW 90.58.030). The shorelines are characterized as being all marine waters, rivers and streams, lakes that exceeded 20 acres, as

well as shore-lands and wetlands. The Act also requires that "the interests of all the people shall be paramount in the management of shorelines of statewide significance" (WSDOE, 2017). Significant shores that were under specific scrutiny were those that touched the Pacific Coast, Hood Canal, and all waters of Puget Sound and the Strait of Juan de Fuca. The document also considers lakes or reservoirs, along with larger rivers, to be of statewide significance. To comply with the 1972 Act, all towns and cities that contain "shorelines of the state" must develop a Shoreline Master Program (SMP).

The SMP is guided by a set of state laws and rules and entails three basic policy areas: shoreline use, environmental protection, and public access. These regulations are to be tailored to the "specific geographic, economic and environmental needs of the community" (WSDOE, 2017). The SMP is established through a balance of authority and partnership between state and local governments¹. The Department of Ecology provides technical assistance and grants, and is required to review conditional use and variance permits, as well as review the local shoreline master programs for compliance. Local government, such as the City of Bainbridge Island, acts as the primary enforcement and regulators (WSDOE, 2017). Local governments that have established SMPs may modify or amend them to meet the demands of changing local circumstances that would prevent the efficient execution of the program (WAC 173-26-171; WSDOE, 2017). The two types of amendments are limited and comprehensive, and all changes that are made to the master programs require a public notice. The SMPs and any amendments made to them are only effective once the DOE has approved them.

¹ The Constitution of the state, and the U.S. Constitution, provide both the **authority** for conducting the activities necessary to carry out the Shoreline Management Act and significant **limitations** on that authority (WSDOE).

This study addresses the major components of a land use plan necessary for an SMP, and provides transparency on what areas of the document (Bainbridge Island SMP) are missing or require clarity. Sections such as public participation, fact base, purpose, implementation and monitoring, and consistency are all major categories that contain indicators utilized to review the SMP. At the request of the City of Bainbridge Island, included within the analysis of the SMP, a readability study is applied to the individual sections within the SMP. Utilizing the Flesch Reading Ease formula, the document's readability is presented in terms that can easily be grasped and addressed. As an outcome of the plan review process, the document will be viewed by the effected public entities as more transparent and evolving through time.

Significance

Bainbridge Island, which consists of over 50 miles of linear coastline, is one of the many cities which has complied with the Shoreline Management Act and developed a Shoreline Master Program. The island saw rapid development of its waterfront early on, as it was once known as having the largest, highest-producing sawmills in the world. The island population has grown in the past 27 years from 16,000 in 1990, to current day levels of approximately 24,404 (U.S. Census Bureau, 2017). Characteristic of the Pacific Northwest forests, the dense undergrowth was so challenging to travel through or build towns within that the new settlers chose to inhabit the shores of rivers and bays of the island. Travel was then primarily by water, requiring the shore to be stabilized in order to construct housing and transportation (Bainbridge Island Chamber of Commerce, 2017). Following the entire island's annexation in March of 1991 by the City of Winslow, the first SMP plan was adopted in 1996.

Critical Habitat

The nearshore ecosystem is a critical habitat for a large diversity of organisms. A variety of these creatures live predominantly on land or water, while a few can be found only in the intertidal zone between the two (Center for Coastal Resources Management, 2011). Natural riparian buffers, meant to support estuarine food webs, provide vital filtration capability for pollutants and nutrients carried in groundwater and runoff. Features such as beaches, dunes, and wetlands maintain a natural erosion resilience and are highly adaptable to both flooding and coastal storms.

A key issue with the nearshore ecosystem, commonly brought about by nearshore development, is the “loss of natural backshore riparian vegetation landward of the armoring” (Dethier, 2011). Important nearshore ecosystems such as marshes, seagrass meadows, and mangrove forests are predominantly valued for their very high productivity, which in turn provide a great abundance and variety of fish as well as crabs, oysters, shrimp, and invertebrates. Due to the vast quantity of shellfish and juvenile fish the habitats contain, nearshore ecosystems are largely considered nurseries (Toft, 2010). Much of the nearshore vegetation provides nesting for birds, forage and refuge, as well as structures for small aquatic species to utilize when they have fallen. These features can also act as a nutrient sink and uptake from tidal water, runoff and groundwater, sediment trapping and soil stabilization, as well as a carbon sink (Center for Coastal Resources Management, 2011). The loss of riparian vegetation such as trees and shrubs, could lead to an increase in ambient light levels, resulting in a loss of shade that is naturally distributed in the near shore zone. The absence of proper shade also leads to a lack of temperature reduction and “desiccation stress to insects, marine invertebrates, and fish eggs laid by intertidal spawning fish species” (Quinn, 2012). The increase in unnatural lighting that is

associated with shoreline development, in general, can be defined as having negative impacts on “salmon behavior and predator avoidance” (Quinn, 2012).

Development or degradation of the nearshore can also effect sand delivered to shores and beaches on a “regional basis” (Griggs, 2009). Development increases the difficulty for sediment to travel from a bank “onto the beach and into the shoreline drift cell” (Shipman, 2009). The obstruction of transfer would greatly threaten the sediment renewal of the beach, which could cause encroachment or loss of property. A major issue that follows encroachment is the passive erosion that follows any structure constructed along a shore. In response to a lack of sediment immediately in front of the structure, “the shoreline will eventually migrate landward on either side of the armoring” (Griggs, 2009). This erosion then places another section, belonging to another property owner, at risk and prompts legal action to protect their estate.

Coastal Value

The U.S. coastal zone comprises nearly 10% of the nation’s land area, and holds approximately 39% of the population. Future population trends reveal an increase of an added 11 people per square mile by the year 2020 (NOAA, 2012). In 2012, coastal counties contributed nearly \$7.1 trillion to the GDP, and roughly 67 million jobs (Kildow et al., 2014). For the City of Bainbridge Island, the nearshore is comprised mainly of single-family residence homes. Residents that live on the waterfront, most likely have the greatest interest in the health and aesthetics of the nearshore..

As noted by Kildow, many studies link air quality with property values, but the research addressing the linkage of water quality is limited (Kildow et al., 2014). This is circumnavigated by using alternative studies that estimated premium values for properties and homes that were located on the waterfront and possessed ocean views. A study conducted by Seiler (2001) studied

the influence a waterfront view had on property values along Lake Erie. Half the sampled homes that had a water view, on average, had an increased home value of \$115,000, or 56%. The preservation of the coast has also been shown to influence property values, regardless of whether it constrains development to protect natural features. Several studies have shown that housing prices/value, on average, are anywhere from 7% to 21% higher within 4.5 miles from the coast, compared to those inland (Kniesel, 1979; French and Lafferty, 1984). Buffers played a large role within the value of homes as well. Studies produced in the early 2000s (Benson, Hansen and Schwartz, 2013; Major and Lusht, 2004) determined that buffers between a waterfront property created significant drops in value due to the “distance” or the sensation of such, from the ocean. This barrier was thought to also impact the view of the property itself as well. A comprehensive SMP will take into consideration nearshore ecological values, as well as economic considerations of waterfront property, when developing the plan.

Literature Review

Plan success relies not only on the execution of the document itself, but the understanding of the approach taken to construct it. With an understanding of the techniques on which this study is based, legitimacy towards the study is ensured while providing information for further analysis and research into the literature.

Content Analysis

Content analysis has had a long history of practice in journalism, business, psychology, sociology, and communication. Many of the methods applied throughout the study of content analyses were taken from cryptography, biblical concordances, the subject classification utilized for library books, and standard legal guides (Rogers, 1994; Neuendorf, 2016). A review of current trends shows an increase in the frequency that researchers have been engaging in the

practice of content analysis within a number of different fields. A study conducted in 1997 by Riffe and Freitag shows an increase in content analyses articles from 6.3% (of all articles) to 34.8%². This trend continued to increase, because by the mid 1980s, 84% of master's-level research methods courses in journalism covered the practice of content analysis (Fowler, 1986; Neuendorf, 2016).

Content analysis can be described as a “set of methods for analyzing the symbolic content of any communication.” (Norton, 2008; Singleton and Straits, 1999). Conventionally used to analyze newspaper, novels, and other various forms of media, content analysis aims to evaluate the message that is being conveyed within the communication. When properly executed, content analysis can be utilized to evaluate the content of a plan or code, both of which contain some sort of meaning or message to an audience.

Most approaches to content analysis come in a form similar to developing a series or list of close ended questions for a survey and then administering them. Following an evaluation protocol by defining categories for review, they then have one or more coders use this protocol to evaluate the text or communication to score it. The unit of analysis can be measured in multiple ways, such as format or spacing of a document or the frequency/intensity of a phrase, or appearance of an item (yes/no) within the text. Most commonly used by researchers is frequency and intensity, but this varies depending on its relevancy to the study being conducted (Norton, 2008).

Through different studies, researchers have come to develop different evaluation protocols to measure the multiple characteristics of plans and codes for the presence, frequency, or strength of specified topics or items (Norton, 2005, 2008; Burby and May, 1997). An example of such is an evaluation for a given policy or instruction manual, in which the document would

² Within the *Journalism and Mass Communication Quarterly*

be scored on a scale of 0 to 2; “0” lacking presence, “1” should the unit of analysis or indicator be mentioned only briefly or suggested, or “2” if it is discussed in detail or mandated by the plan itself. Multiple indicators are usually utilized in order to assess a given category in order to best measure the concept.

General Plan Evaluation

“How would you know a good plan if you saw one?” (Baer, 1997). The planner’s answer, according to Baer, is dangerously simplistic in that it is reminiscent of the “apocryphal” response towards the inquiry as to what constitutes good art: “I don’t know much about art [plans], but I know what I like” (Baer, 1997). Planners are easily able to differentiate between high and low quality plans, but struggle to outline key characteristics of plan quality. The profession has managed to avoid the subject and, alternatively, focus on the process and methods of plan crafting (Berke & French, 1994). Evaluation and analysis are critical to ensuring current plans are of value to the community (Tang, 2008). In engaging in critical evaluation of shoreline master programs, decision making is improved while legitimizing the document itself (Guyadeen and Seasons, 2015).

General plan evaluation, as incorporated into a land use guide, first appeared in the 1950s. The Shoreline Master Program, in its essence, is a shoreline-specific comprehensive plan, zoning ordinance, and development permit system (Department of Ecology, 2017). At a local scale, plans like the master program are critical in ensuring the significance of strategic environmental actions or development practices (Knox, 2017). Land-use planning, such as the SMP, can help facilitate consensus building, coordinate community agendas, articulate land-use policy through a published document, and achieve better development patterns (Berke & Godshalk, 2009; Kaiser & Godshalk, 1995; Knox, 2017)

Margoluis and Salafsky address the shortcomings in much of the planning literature, and provide a project cycle in which one can utilize the various steps to institute a successful development project, or for practical general plan evaluation. In the publication, a cycle is proposed that defines the process into 7 phases: Start: Clarify group missions, A: Design conceptual model based on local site conditions, B: Develop Management Plan: Goals, Objectives, Activities, C: Develop Monitoring Plan, D: Implement Management and Monitoring Plans, E: Analyze data and communicate results, and Iterate: Use results to adapt and learn. The listed key steps are critical components in adaptive management, and correspond with other studies produced by Baer (1997), Burby (2003), Knox (2017), Norton (2005, 2008), and Singleton & Straits (1999). From Start to Section C, the initial planning phase and the groundwork for such is presented. The Start of The Project Cycle clarifies the long-term outcome. Through the clear analysis of the groups involved, and the interests presented, the understanding of what missions or outcomes are desired by all parties is essential. The conceptual model phase is the point in which clarity on the relationships between certain factors that are thought to impact or lead to a targeted condition are laid out. The third phase, or B of the cycle, consists of developing a management plan. What are the goals, objectives, and activities designed to achieve such? This step is integral within any prominent plan, as it addresses how threats to success are dealt with. Goals that are set forth within a plan are broad statements of the desired outcome. Section C, development of a monitoring plan, is essentially the final phase of planning prior to implementation (according to Margoluis & Salafsky), and should be included within an effective plan. The assessment of the success or shortcomings of a project or plan is necessary to continue the cycle and build upon itself. A similar approach to this

cycle, that critically evaluates plans for their content and approach, is provided in Baer (1997), with a detailed outline of the required components of each analysis.

Plans serve many functions, and one of their greatest may be to act as a focal point to provide a vision for the community (Norton 2008). Baer (1997), in his original synthesis of the plan evaluation literature two decades ago, initially surveyed the different ways in which local master plans have been viewed over time. Through this synthesis, Baer generated a framework centered around categories such as scope, validity, format, communication, rationality, approach, implementation, and adequacy (Knox 2017). Baer (1997) developed a set of 60 criteria that fall into 8 categories: adequacy of context, rationality, procedural validity, guidance for implementation, scope, approach, quality of communication, and plan format. Below are the 8 categories and the descriptions of relevant information and indicators that must be addressed for each.

Adequacy of Context

In developing a plan, the context and setting must be addressed within the document in order to make it relevant and understood to the public. An overview of the purpose must be prevalent within the plan, as well as a background to frame the approach and necessity of this document. In this, it should be understood what the political and legal context of the plan is. If there isn't clarity on whether the plan is a priority issue or a consideration, there will be little interest in its support and execution. The public is an essential component of the process within Adequacy of Context. This connection to the public must materialize in the form of open communication, which is why the type of plan that is to be presented must be made clear early on. The reader should be alerted to whether the plan is highly quantitative and analytical, far ranging, narrow, or even technical.

Rationality

The application of rationality within the planning literature is meant to convey basic planning considerations grounded on core theory and its criteria. The authors of the plan must provide clear and well-defined information about what they are doing, in order for the reader to understand. Goals and objectives must be explicitly identified, along with the problems that they will potentially encounter. The tone of the plan itself must be made obvious. Is it commensurate with the approach that was recommended in achieving the goals? A comprehensive plan should relate substantively to a larger whole (horizontal consistency). When engaging in any form of planning, the current capacity or adequacy of existing infrastructure must be described. Should the plan fail or need alterations due to a foreseen or unforeseen issue in capacity, the potential for variations or the allowance of such must be addressed.

Procedural Validity

Validity is establishing the who and how of the plan-making, informing the reader of the process itself and what was done. Who, based on their expertise, was involved in the formulation and how were they chosen? Descriptions of how these individuals or advisory groups were involved in the process is central to building validity within a plan, and ensure its support or success. Preliminary drafts of the document should be circulated (and recorded) for those that are reviewing the plan on criteria such as interdisciplinary approach or support. Topics such as financial and legal issues must be addressed in order to insure effective execution of utilized resources. The scope of a document looks at the broader implications of the execution and final product that the plan produces.

Guidance for Implementation

Guidance for implementation can come in the form of ordinances, regulations, budgets, and schedules. Priorities are an aspect within plans that can cause restraint or extended timelines due to unresolvable immediate or long-term issues. Baer (1997) suggests a long-term schedule in order to address potential budget deficiencies or failure of the assigned agency or individual in completing the goal. In this, the identification of roles is pertinent in securing an order and approach to reach an end point. Should the plan in question be a vision plan, this section would not be relevant. A “next steps” or timeline to improve the current conditions would be expected however.

Scope

Similar to context, scope provides understanding towards the plan’s connection on a larger scale. It should be clear as to how the plan potentially influences pertinent issues such as social, economic, physical, or cultural aspects of the world around it. The potential for issues such as relocation or displacement due to land use decisions, or equity and predictability must be included within the plan to identify larger long term issues.

Approach, Data, Methodology

The technical basis of the plan must be clarified. Including the source of the data and how it has been utilized within the study can provide others with the ability to check the plan’s approach and thought process using the same resources. Utilizing an interdisciplinary approach that permits for the incorporation of a wider spectrum of data, as well as flexibility within the plan, allows both planners and the public to adapt to various scenarios.

Quality of Communication

Clarity of communication is an essential plan component. The content and the structure of the plan must be easily identifiable. Plans, ideas, and rationales must be presented in a way that best suits the specific audience. Communication and the clarity of it, is vital to a plan, as it allows for a fair hearing from others.

Plan Format

Similar to the accessibility of communication quality, other methods of communication can be found in the format of the plan itself. The format of the plan communicates the competence and professionalism of the groups or group that produces it. Plans should consider if the size and format of the document is appropriate for those that are receiving or using it. Oversize plans are a burden and can prevent easy or constant reference and day to day use. Details such as a table of contents, graphics, and authors all are necessary to establishing a competency in the product. The format, in reference to how it is laid out, also is necessary to the success of a document. Easily understood and utilized, a plan can be built upon or easily reviewed. Should the document be difficult to manage or referenced for concerns, it can be overlooked or determined ineffective.

As Baer (1997) once said “If planning is to have any credibility as a discipline or profession, evaluation criteria must enable a real judgement of planning effectiveness: good planning must be distinguishable from bad”. The Bainbridge Shoreline Master Program must undergo scrutiny and constant revisions in order to successfully achieve the broad goals and specific objectives set forth by both the City of Bainbridge Island and the State of Washington. Systematically studying the SMPs can legitimize the practice through the assessment of current content in comparison to best practices (Knox, 2017).

Methodology

Analytical Framework

To assess the Bainbridge Island Shoreline Master Program, a set of five indicators composed of criteria have been derived from various research. These five indicators were chosen because of both their predominance in previous studies of plan evaluation and content analysis, and their relevance in regards to the SMA's guidelines.

Goals, Objectives, and Purpose

The Goals, objectives, and purpose category was derived from multiple literature sources. Chapter 173-26 WAC (Master Program Guidelines and Amendment Procedures) explicitly requires that the category contain the listed indicators. Baer (1997) suggested a general criterion that required one to review the "Adequacy of Context". Within this, Baer identified indicators such as purpose of the plan, planning process identification, and an executive summary of the document. These suggestions, along with Norton's (2008) criteria (articulation of goals, purpose, and policies proposed) to analyze land use policy provided the indicators that comprise "Goals, Objectives, and Purpose". Berke et al. (2006) and Marsh (2005) both suggest that a focus on land suitability or land use is a central component to the review process. This classification of land use was also found within the Chapter 173-26 WAC, as well as Norton (2008).

Fact Base

The decision to incorporate fact base is grounded on its prevalence within the primary literature. The listed indicators below come from a combination of both the Revised Code of Washington (RCW) 90.58.100, Norton (2008), Knox (2017), and S.D. Brody (2003). Brody most notably mentions that within the plan evaluation literature (Godschalk, Kaiser, and Berke 1998; Berke et al. 1994; Godschalk et al. 1999), plan quality was conceptualized as having consisted of

three regularly weighted components: “a strong factual basis, clearly articulated goals, and appropriately directed policies” (Brody, 2003). The indicators below were compiled from the literature above and compared with both the suggestions and requirements of RCW 90.58.100.

Elements of Plan Consistency

A plan must maintain consistency throughout its development and implementation. The concept of consistency has been recognized for quite some time, and has been incorporated into the Standard Zoning Enabling Act (Norton, 2008). According to the WAC 173-26-176, SMP’s must “consider all plans, studies, surveys, inventories, and systems of classification made or being made by federal, state, regional, or local agencies, by private individuals, or by organizations dealing with pertinent shorelines of the state”. Burby & May (1997), as well as Weitz (1999), both emphasize the importance of consistency within the planning profession. This practice is furthered by Norton (2008) and Knox (2017), whom utilize the idea of vertical and horizontal consistency in their research. Vertical coordination assess the degree to how engaged and detailed the SMP is in coordinating with higher units of governance. The Horizontal coordination category draws upon Knox’s (2017) approach, and focuses on the extent to which the SMP cooperates with neighboring jurisdictions.

Public Participation

Meaningful opportunities for public participation has uniformly been called upon by advocates for issues such as smart and sustainable growth and development, as well as those who advocate for improved planning on a broader scale (American Planning Association, 2000; Burby, 2003; Corburn, 2003). Generally, enhanced public participation is encouraged as a way to improve the legitimacy of the plan-making process. This legitimacy is attained through making the process more representative and relevant to the local populations. Public participation is also supported as a path to improve the quality of the analyses conducted during the plan making

process. Public participation can also serve as a mean to equally enhance the “social-learning” characteristics of planning (Norton, 2008).

WAC 173-26-191 says: “...the preparation and amending of master programs shall involve active public participation”. This, along with the key components of Baer’s (1997) section on procedural validity and the importance of the integration of the public’s involvement, demonstrate the necessity of this category. The indicators provided below are the fundamental components of recommendations from Baer (1997), Knox (2017), and Norton (2008),

Implementation

Implementation of management and monitoring is one of the single most important components within a plan (Margoluis & Salafsky, 1998; Baer, 1997). The Washington Administrative Code (WAC) mandates that “...local government shall also identify a process periodically evaluating the cumulative effects of authorized development on shoreline conditions” (WAC 173-26-191). Monitoring is essential in assessing the impact of a plan’s interventions, and ascertain as to whether it has achieved the goals and objectives. Baer suggests approaching implementation through 9 steps aimed at evaluating the method. In order to expand the scope of this section, Norton’s (2008) classification of implementation and monitoring criteria have been compared to Knox (2017) and Brody’s (2003) criteria.

Data Collection

Data was generated through the assessment of the Bainbridge Shoreline Master Program. Using the quality indicators summarized below, two waves of coding are conducted on the SMP in order to produce a series of values representing the contents of the plan. This study utilizes a series of indicators that each contain several quality indicators (criteria). The indicators and subsequent criteria are derived from Norton (2008), Knox (2017), Baer (1997), Margoluis &

Salafsky (1998), as well as Chapter 173-26 Washington Administrative Code (Master Program Guidelines and Amendment Procedures). The categories and quality indicators below have been chosen to provide transparency on the quality of the Bainbridge Island SMP's current content, as well as report on the categories that lack the substance to appropriately address the provided criteria.

Weighting System

All review criteria are not weighted within this study. This was a conscious decision due to the complications that would arise through a weighting system. Shoreline Master Programs are flexible in nature, and have the freedom to be designed to the criteria of the city or town they represent. While the quality indicators are broad enough to function as intended, integrating a weighted system (without an in-depth analysis of which indicators are vastly more important to Bainbridge Island) would skew the data and misinform which aspects of the SMP were accounted for, and which were not.

Analysis Methods

A content analysis was conducted to assess the current quality of the Bainbridge Island SMP. A content analysis is a “set of methods for analyzing the symbolic content of any [written] communication. The basic idea is to reduce the total content of a communication to a set of categories that represent some characteristic of research interest” (Singleton and Straits, 1999; Putt and Springer, 1989). Researchers have established assessment practices to grade plans and policies for the strength and frequency of identified terms or items (Burby & May, 1997; Norton, 2005). With the adaption of similar approaches, the content analysis can provide an appropriate research methodology (Norton, 2008).

A readability analysis was conducted on all of the individual sections within the SMP. A readability analysis is the assessment of the ease at which the reader can understand a written body of text. Within natural language, the readability of a body of text is contingent upon its content and the way in which it is presented (Tinker, 1963). The speed and reading effort exerted are also considered in a readability analysis. Documents which exceed the reading comprehension level of its audience will fail to convey key concepts and messages.

The Bainbridge Island Shoreline Master Plan was evaluated based on the list provided below. The quality indicators were sourced from previous studies and content analysis of Cumulative Land Use Plans (CLUPs) that involved coastal management and land-use policy. The Shoreline Management Act was also a source of information in devising the indicators that were incorporated into this study, and aided in outlining the appropriate elements to the plan.

Unless noted otherwise, indicators were scored using a three-point coding mechanism that ranged from 0 to 2³. Indicators were given a score of “0” if it was not present or completely missing within the plan (not mentioned whatsoever). A score of “1” indicated that the plan suggested or presented with a lack of explanation of the indicator. A vague description using terminology that is nondescript such as “should” or “may” also qualified for a score of “1”. Earning a score of “2” suggested that there was full identification, clear and measurable objectives, and/or language in the imperative voice (“shall”, “must”, “are required”, and “mandate”). The vocabulary of an indicator earning a score of 1 reflects a vague and suggestive tone within the text. Indicators that often were scored at a 2 were found to have a vocabulary that was affirmative and commanding, not allowing for the potential reader to accept it as a suggestion. Many of these terms can be found within Chapter 173-26 WAC as key aspects in drafting a Shoreline Master Program.

³ Norton, 2008; Knox, 2017

Shoreline Master Program Quality Indicators

Adequacy of Context	Importance
Is the purpose of the plan explained?	The purpose of the document was specifically identified as one of the key indicators necessary. Identified within Baer's (1997) list of partial criteria for general plan evaluation, the identification of a clear purpose will describe the intent of the document (i.e., a framework for decisions, conveyance of information, actions to be taken).
Is there an explanation of the planning process provided?	Evidence of a planning process is required in order to assure that the public and higher units of governance that all the possible alternatives were evaluated in developing the document. This, sometimes reiterative process, allows for replication or refinement of the document to address the specified goals and objectives (Norton, 2008).
Are the goals and objectives present?	Margoluis & Salafsky (1998) describe the importance of a goal as something that provides a visionary picture of what the project or document is hoping to accomplish. A goal is general in nature, but measurable. "Defined so that changes in the target condition upon which the goal is based can be accurately assessed" (Margoluis & Salafsky, 1998). The objectives are specific statements detailing desired accomplishments of a project. Together, these two major aspects (goals and objectives) of a plan are necessary to move forward.
Is land classification designation present?	With the discussion of what types of classifications exist within a jurisdiction, and what applies to certain locations within Bainbridge Island, this information provides clarity for the public and future plan contributors as to where and why certain regulations apply within a designated area (Norton, 2008).
Are types of land-use classifications discussed?	

Fact Base	
Is there evidence of an interdisciplinary approach provided?	According to the Revised Code of Washington (RCW) 90.58.100, the plan (when feasible) should "utilize a systematic interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts". Baer (1997), further reiterates the importance of incorporating a wide spectrum of data in plan development.
Does the plan reference the consultation or comments of a federal, state, regional, or local agency having special expertise in environmental impact?	The Revised Code of Washington (RCW) 90.58.100 states that the planners should "consult with and obtain the comments of any federal, state, regional, or local agency having any special expertise with respect to any environmental impact". Baer (1997), further reiterates the importance of incorporating a wide spectrum of data in plan development.
Is there evidence of consideration or incorporation of alternative plans, studies, surveys, inventories, and systems of classification?	Based on the Revised Code of Washington (RCW) 90.58.100, the incorporation of this criteria within the quality indicators proposed is due to Margoluis & Salafsky's (1998) emphasis on flexibility when approaching general plan or development project evaluation/construction.
Was there employment of appropriate modern scientific data processing and computer techniques to store, index, analyze, and manage the information gathered?	Based on the Revised Code of Washington (RCW) 90.58.100, the incorporation of this criteria should be utilized to determine the extent and variety of research techniques used in drafting the plan. This criterion provides evidence of techniques used, and supports the conclusions and regulations or amendments placed within the document.
Is an assessment of past plan implementation effectiveness present?	As noted in Baer (1998), Brody (2003), Margoluis & Salafsky (1998), and Norton (2008), assessment of past plan implementation is used to modify approaches, and alter benchmarks based on a more realistic or informed planning method.

<p>Is there a summary of data collection and analysis present?</p>	<p>One of the key criteria that was included in a similar content analysis performed by Norton (2008) was an inquiry about data collection and analysis. With the flexibility to determine the most efficient and effective approach to meeting the CZMA and SMA's overarching goals, building and/or amending regulations on current data is critical.</p>
<p>Is there any reference of an existing land use plan?</p>	<p>The purpose of this criteria, is to identify if previous land use plans were considered when establishing the SMP, and whether a comprehensive plan or piecemeal approach was conducted (Revised Code of Washington (RCW 90.58.100). This will demonstrate whether the Shoreline Management Plan is making acceptable progress.</p>
<p>Elements of Plan Consistency</p>	
<p><i>Vertical Coordination:</i> To what extent does the plan discuss consultation and/or coordination between the locality and “higher” units of government</p>	<p>The Washington Administrative Code (WAC) 173-26-176, states that SMPs must “consider all plans, studies, surveys, inventories, and systems of classification made or being made by federal, state, regional, or local agencies, by private individuals, or by organizations dealing with pertinent shorelines of the state”. Burby and May (1997) also emphasize the importance of consistency within planning throughout jurisdictions. Both Vertical and Horizontal Coordination criteria are incorporated into the study because of the WAC, Burby and May (1997), as well as Knox (2017) who emphasizes "Interorganizational Consistency" within their content analysis. Consistency is important in ascertaining whether the program has support at higher levels of governance, as well as neighboring jurisdictions.</p>
<p><i>Horizontal Coordination:</i> To what extent is the locality consulting and/or coordinating with neighboring jurisdictions or other "horizontal" units of government?</p>	

Public Participation	
Is there a description of the participation process used?	The American Planning Association (2000) addresses the importance of incorporating meaningful opportunities for public participation within the planning process. Enhanced public participation within planning and review is considered a legitimizing practice of the plan-making process (Burby, 2003; Knox, 2017). The incorporation of the participation utilized provides evidence to future amendments, policy planners, and the public, that input was sought in crafting the current plan.
To what extent is stakeholder involvement (throughout the process) noted within the SMP?	One of the most important groups in a plan or project are the local stakeholders (Margoluis & Salafsky, 1998). Engagement of local stakeholders within the process gives them control over how project activities or decisions affect their lives. Their presence provides support for the project as it fosters a sense of ownership to the plan itself, and less pushback during implementation.
Is there evidence of public education and information?	Through involving the public within the planning process, and actively engaging in educational opportunities builds their capacity for conservations and execution of proper management (Margoluis & Salafsky, 1998). Criteria in the evaluation process that promotes this as a requirement, improves the plans potential success.
Does the document provide evidence of community sessions?	The American Planning Association (2000) addresses the importance of incorporating meaningful opportunities for public participation within the planning process. Feedback from the public, outside of the stakeholder involvement, allows for an understanding of the broader audience and their position as to whether the stakeholders are accurately representing their values.

Is there the presence of a planning committee?	Presence of a planning committee provides direction to the early stages of the project, and organizes the stakeholders and public. This organized body will help to manage a "public participation program identifying procedures whereby proposed amendments of the comprehensive plan and development regulations relating to shorelines of the state will be considered by the local governing body" (RCW Chapter 36.70A).
Is there a record of public opinion surveys conducted prior to plan finalization?	Evidence of public opinion surveys prior to finalization of the plan provides documentation that the general populous that is involved or impacted by the plan or program has understood what is being proposed. A project with support prior to being published is more successful and sustainable within the community (Norton, 2008).
Is there information provided on the circulation of drafts for public comment?	
Is there evidence of alternative mechanisms used to address the variability within the public?	Alternative mechanisms present within the planning process reflect an attempt to involve the public through methods that best address the various situations present (Washington Administrative Code 173-26-191). It improves the potential for success and addresses the different situations each community faces in trying to enact an effective SMP.
Implementation	
Is the agency or person responsible for implementation identified?	Identification of roles and the individuals or groups assigned to address them is crucial in determining the most efficient approach. Management within an effective plan should have delegated the proper roles of those who are going to execute and oversee them (Margoluis & Salafsky, 1998).

Is there a time span for plan implementation?	As plans are intended to "do" something and serve a purpose, a time span provides a clear pathway to achieving this. The value of a time span within a plan is the ability to ascertain the costs of implementation, and convey to stakeholders the length of impact they can expect from execution of it (Baer, 1997)
Are there plans for cooperation with neighboring jurisdictions?	Consistency is important in ascertaining whether the program has support at higher levels of governance, as well as neighboring jurisdictions (Burby & May, 1997). Incorporation of an outlined approach to address horizontal consistency is necessary to effectively assign roles and cooperate.
Are there quantifiable benchmarks assigned?	Benchmarks provide a document with valuable information on the success or failure of current approaches. Baer (1997) identifies the importance of benchmarks as markers for achievements of high importance to the success of a document, and lists it within suggested general criteria for the assessment of plan success.
Are the provisions for a monitoring and evaluation process in place?	Monitoring and Evaluation is a criterion within most plan evaluations, as it is established within the implementation efforts of a project or document. Monitoring begins either during or after a project is engaged, and generates data on the impact to the community (Baer, 1997; Margoluis & Salafsky, 1998).
Are there mechanisms for implementation?	Mechanisms for implementations directly address the efforts underwent in order to achieve objectives. Just as the individual or group that engages in executing the plan, the mechanisms to that will be used should be clearly outlined in order to efficiently (and successfully) achieve them (Baer, 1997).
Is there a process to amend or alter the document following evaluation?	Initiating reform, following the implementation and review of the plan, is critical for growth and successfully attaining the objectives set forth. Clarity on the process to achieve reform is necessary. Timing of alterations, as well as who is responsible to judge how the document should be amended are necessary components (Margoluis & Salafsky, 1998).

Readability

As requested by the City of Bainbridge Island, a readability analysis was included within the study. Utilizing the Flesch Reading Ease approach, the SMP was reviewed by individual sections, and as a whole, to test for potential deficiencies according to the readability test. The Flesch Reading Ease formula analyzes a document by sentence length (in comparison by the average number of words per sentence), as well as the word length (as judged by the average number of syllables in a word). The formula for this approach is as follows: $RE = 206.835 - (1.015 \times ASL^4) - (84.6 \times ASW^5)$. To examine the impact of WA code references on the readability assessment, the test was repeated with all code references deleted. Results of both assessment (with and without WA code reference) are reported in the results section.

Limitations and Problems

While researching this topic, there are certain restrictions and complications that can arise. The content analysis is based on a set of categories that the researcher has defined as integral to the SMP through research and review. If replicated, more subcategories and clear indicators may be created in order to broaden the impact of the research itself. As Putt and Springer (1989) assert, the “heart of any content analysis resides in the categories used to code data from available sources”. Current categories, based on the coding that was assigned may be interpreted differently and, with the addition of new quality indicators, could influence the overall presumed quality of the plan. To address this concern, the text was coded twice and compared to each other.

⁴ Average sentence length (total words/total sentences)

⁵ Average number of syllables (total syllables/total words)

A second limitation to the study, is that it bases a majority of its indicators from studies and regulations that apply outside of the state or city itself. With the SMP being flexible in nature, a set of indicators to predict its quality becomes difficult to assess, and must remain broad enough to act as a core framework for future studies. In doing this, some of what the plan excelled or lacked in may have been missed within the criteria. In order to address this potential weakness, an inquiry with the planning office was made. This exposed specific aspects of the plan they are currently interested in being evaluated. The City of Bainbridge requested for a readability and consistency analysis of the SMP itself. A readability analysis was conducted using the Flesch Reading Ease formula, as explained within the methods section of this document.

In regards to the readability analysis, there were several limitations of the analysis. When reviewing all available methods, the most versatile and easily applied was the Flesch Reading Ease system. Adapted for multiple uses, the formula is basic in nature. As there is a multitude of other factors that can determine readability, the study was limited to utilizing one in which a computer could review the 400-page document and provide a summarization of its difficulty. Should the document be analyzed for readability alone, another method would be recommended to accurately grasp issues outside of sentence length and word complexity.

Results

The Bainbridge Island Shoreline Master Program was coded twice, with both results of the coding waves provided below. Following the comprehensive review and dissection of the seven major sections that comprise Bainbridge Island's Shoreline Master Program, the values assigned varied slightly between the two readings. The first evaluation of the plan accurately captures an initial assessment of what the SMP contains, and more closely aligns with what a citizen or

planner might interpret when presented with the material. In the second evaluation and coding of the SMP, certain aspects of the plan were more readily identified and measured, leading to several alterations of the original assessment. While most sections remained unchanged, both Fact Base and Elements of Plan Consistency saw minor alterations. Evidence of consideration or incorporation of alternative plans was modified, as the first wave of coding saw limited evidence that alternative sources/plans were provided within the process of drafting the SMP. Existing land use plan, was however reduced due to the wording of the indicator being too broadly interpreted through the first wave, and ignoring the necessity of affirmative language in order to assign a value of 2. The final discrepancy within the second wave of coding was vertical coordination. In reviewing the indicators that comprise vertical coordination, and the detailed presence within the first introductory pages of the plan, the score was increased to 2. Containing a clear timeline and description that was pertinent to the horizontal coordination indicator, it was determined that a higher score was a more accurate representation of the plan. A second review of the SMP was conducted to assess the “readability” of the text itself, section by section, while also assuring that scores were accurate in representing what the plan did or did not contain.

Adequacy of Context	Evaluation	
	R1	R2
Plan's purpose defined	2	2
Explanation/Planning process provided	1	1
Policy goals and objectives clearly stated	2	2
Land classification designation	2	2
Types of land-use classifications	2	2
Fact Base		
Interdisciplinary Approach	1	1
Consultation of any federal, state, regional, or local agency	2	2
Evidence of consideration or incorporation of alternative plans	0	1
Employment of appropriate modern scientific data processing and computer techniques	1	1
Existing land use plan	2	1
Assessment of past plan implementation effectiveness	0	0
Data collection and analysis summary	0	0
Elements of Plan Consistency		
Vertical Coordination	1	2
Horizontal	0	0
Public Participation		
Description of participation process used	2	2
Stakeholder involvement throughout process	1	1
Public education and information	2	2
Community sessions	2	2
Planning committee present	2	2
Survey of public opinion	2	2
Drafts circulated for public comment	2	2
Other participation mechanisms	1	1
Implementation		
Delegation of responsibility	0	0
Defined timetable for implementation	0	0
Horizontal incorporation discussed	1	1
Benchmarks assigned	0	0
Monitoring and evaluation process	1	1
Mechanisms for implementation	1	1
Amendment procedures	2	2

Table 1: Quality Indicators for SMP

Adequacy of Context

The indicators for this section were identified through classical content analysis reviews. The Bainbridge SMP, within the first twenty pages, clearly outlines the purpose and intent of the plan. The goals that are outlined by the state have been incorporated into the document, with a description of the requirements and the island itself. The planning process is described in different chapters, clearly identifying a public and procedural aspect, but lacks defined deadlines or time periods. There is a prominent absence of a timeline or assigned tasks needed in order to undergo “Restoration Planning”. With this lack of detail, it becomes difficult to ascertain the process necessary to achieve these goals, or the actions needed to promote them. Clearly identified with a purpose and criteria, is the Shoreline Designation Policies. The criteria for Shoreline Designation is appropriately presented within the SMP so that homeowners may quickly understand the designation of their property . Overall, the indicators that comprise the Goals, Objectives, and Purpose were met, but lacked defined deadlines for the goals or the steps required to attain them.

Fact Base

Evidence in which fact base decision making was included, was somewhat lacking throughout the SMP. References towards incorporating the newest information and techniques, along with expertise from multiple different fields were made but not immediately found within the document. Handouts for homeowner mitigation and adjustments were included within the digital version of the document, and had material references as to the importance of mitigation techniques. There was also evidence of incorporating discussion materials from an outside consultant within the plan itself, citing multiple studies on the effectiveness or legitimacy of

certain restorative or protective practices. There was, however, no discussion on data collection or previous plan effectiveness. The initial review of the SMP, as discussed in the earlier Methodology section, differed from the second round of coding. The indicator for Fact Base, on average, received a quality indicator score of 1. This easily represents the vague, and somewhat ambiguous nature that the section suffers from. In review of this section, it is does not appear theoretically possible to achieve a value of 2 based on the criteria assigned. Imperative language does not fit the requirements of the section, and many of the indicators are practices that are enforced by the state of Washington. Values of 1 within this section should be further investigated outside of the Bainbridge Island SMP, to understand which efforts are still required by the City of Bainbridge Island (in order to achieve the goal of engaging in utilizing the newest research techniques).

Elements of Plan Consistency

Vertical Coordination as described as being the effectiveness and extent to which the plan was efficiently evaluated, managed, and redrafted at the local, federal, and state level, is prevalent within the document. The described drafting process discusses the required input from the state, and the necessity to make changes. Through an initial wave of coding, the vertical coordination was assigned a value of 1 as it had very little information of how the state proceeded to review and provide additional support. Prior research outside of the SMP had suggested greater involvement following the submission of the initial draft. With a lack of this information within the SMP, a preemptive assignment of a lower value (1) was given to the vertical coordination indicator. Following the second wave of coding, there was an alteration to this value. When reviewing the system of values and the descriptions assigned with them, it was

concluded that the SMP did, in fact, have enough specified evidence of vertical coordination to warrant a value of 2.

Horizontal Coordination, however, was not evident within the document. There was discussion of the SMP's overlay to other City policies, but no mention of how it would impact other neighboring jurisdictions. There was a lack of evidence of consultation with "horizontal" units of government within both reviews of the SMP. Discussions of the plan's compatibility with the policies and spatial characteristics of neighboring jurisdictions or the extent to which the locality is consulting and/or coordinating with them were not clearly addressed within any of the chapters, and therefore earned the section a 0 for the average score.

Public Participation

The steps taken to engage the public within the planning process can be immediately ascertained within the first few pages of the document. Dates of consultation and draft circulation were provided, along with a description of the comment time periods and revision dates. There were a few references to clearly identified stakeholders, and the implementation of a citizen planning committee that reviewed the draft and had input. The committee was comprised of multiple local organizations (whom self-selected representatives), in order to better represent of the community (Bainbridge Shoreline Property Owners, Bainbridge Concerned Citizens, Association for Bainbridge Communities, and Bainbridge Island People for Puget Sound). Five educational events were held in order to inform the public on the processes of the nearshore, rights and regulations, and the state's role in the development and management of the nearshore. This section received high marks due to the identifiable steps taken within defined time periods to inform the public, as well as incorporate and adjust the plan to a multitude of different inputs.

Implementation and Monitoring

Implementation was not defined, as stated earlier, by any clear timetable and therefore could not obtain the highest coding value because of this. Evidence of planning and discussion in regards towards the cohesion between the SMP and other local land policy was present within the document. Unfortunately, the degree of detail was lacking and did not merit the assigned maximum value. Amendment procedures were available within this document, and can be found throughout the different regulations. This section was the one found to be most lacking, as it had no mention of monitoring. There was also an absence of a defined timetable, along with assigned responsibility. With the lack of assigned benchmarks, no defined timeline, and a lack of delegated responsibility, monitoring rests solely on the homeowners. This is the impression gathered from both reviews of the document; monitoring and implementation are vaguely referenced with no clear evidence that it has been completed or initiated (on a scale) that would suggest the goals or objectives were met.

Readability

Following the analysis of the 7 different chapters, a score was generated using the Flesch Reading Ease formula. The different section's scores were then reviewed using the key provided within the appendix to assess the average grade level required to understand the literature. Nearly all chapters were considered college level, while some exceeded college level and qualified as college graduate. Chapters 2, 3, and 6 were especially difficult according to the system. It was upon further inspection that section 2 consisted primarily of excessive definitions and explanations, even when the section itself was shorter than all the others. Chapters 2, 3 and 6 were identified as outliers among the others, and it was evident that these chapters would need to

be reviewed and adjusted to assure that numbers or codes for regulations were not influencing the results. A removal of all code and Washington regulatory legal references produced only a slight variation of approximately .2 within the text. Following the analysis of individual chapters, the document was then tested as a whole. Results from the scan showed that the document, in its entirety, was more readable than the individual chapters that comprise it. The entire document averaged a readability level of late high school, which is approximately at what the general public should be able to read. The score itself may be skewed by bullet points and short lists that interfere with the structure of the readability formula. The chapters are long; the entire document is 414 pages and only consists of 8 separate sections. Should a citizen be interested in understanding the policies or regulations pertaining to their area of interest, they will be faced with a difficulty level of college or higher.

Chapter	Section Titles	Flesch Reading Ease	School Level
1	Introduction	46.2	College
2	Shoreline Inventory and Characterization	16.1	College Graduate
3	Shoreline Designation Policies and Regulations	34.1	College
4	General (Island-wide) Policies and Regulations	46.1	College
5	Specific Shoreline Use and Development Policies and Regulations	42.4	College
6	Shoreline Modifications Policies and Regulations	35.3	College
7	Violations, Enforcement, and Penalties	45.5	College
ALL	Cumulative SMP	51.8	10th to 12th Grade

Conclusion

Discussion

The Bainbridge Island Shoreline Master Program is an extensive document with over 400 pages of content in the form of implementing guidelines and regulations. While the document clearly outlines the objectives and goals of the program itself, there is a lack of a defined timetable within the plan. With this key component (timetable) missing, the realistic potential of fulfilling the defined purpose of the document is unlikely; as a lack of such prevents measurable success. As broad objectives, with no means of ensuring they are met or pursued, the Implementation section of the analysis suffers. While many of the regulations presented within the SMP contain some form of monitoring individually, nothing as of present has been established to ensure that the general goals of environmental health or smart growth have been met. This, along with the lack of assigned roles, leaves the SMP incomplete and incapable of actively being reviewed and refined through techniques such as Margoluis & Salafsky's (1998) project cycle.

Fact Base was another section that should be studied on for future analysis and implementation. While there is reference towards the previous plan, the focus on reviewing what had been changed is not prevalent within the document, reducing the ability to examine how earlier plans were implemented. Notice of amendments is made towards the end of the plan, but what is accurate or still relevant is not immediately understood. The Appendix which houses several helpful maps and homeowner mitigation manuals, contains multiple sections where strikethroughs and highlights are common. The lack of clarity, as to whether this was a previous document or plan, causes confusion. Evidence of consideration or incorporation of alternative plans, studies, surveys, inventories, and systems of classification, which may sit within the

appendix, is not readily understood or found. The purpose of building a stronger Fact Base is to incrementally reform previous regulations or land use in order to achieve objectives. With a lack of strong data gathered throughout the Implementation and Monitoring process, the City of Bainbridge is vulnerable to skepticism from the public and other third parties who may contest the decisions made.

Consistency of the plan varies regarding the extent to which it discusses the consultation or coordination between neighboring jurisdictions and higher units of governance. Vertical coordination was immediately addressed within the first 50 pages of the document, and was reported within the Public Participation section. Horizontal consistency was not as prevalent, and fell short of expectations. A multitude of groups and people participated in the review process, but units of government at the same level were not found within the document. Discussion of the plan's compatibility with the policies and spatial characteristics of neighboring jurisdictions, and the extent to which the locality is consulting and/or coordinating with neighboring jurisdictions or other "horizontal" units of government, was recognized as a key component to a successful plan (Norton, 2008). Horizontal consistency offers uniform planning and shared data of neighboring jurisdictions, providing a bolstered fact base while making measurably larger impacts within a similar stretch of nearshore through cooperation (and preventing the inadvertent clash of policies that may hinder one another).

Readability of the document varies based on the approach to the analysis that is taken. On a section by section analysis, the program maintains a reading level that borders graduate level. When reviewing as one singular document, the difficulty drops, potentially indicating that there is a conversion to the mean due to the increased content that is provided. As the program sums and averages all of the SMP, it comes closer to the actual valuation of the entire document, and

not a fraction of it. Individual sections can inaccurately skew the readability level, if they do not represent the common language or vocabulary used throughout the text.

The emphasis on the importance of readability is grounded in who the audience is, and what level of difficulty is appropriate. If the only ones to read the SMP were the city planners, then a difficulty of 30-50 would be acceptable (as most would presume college educated individuals were required to engage in land-use planning). Criticisms towards the SMP's readability is based entirely upon the argument that the document itself should be accessible to a broader range of the public⁶. The readability scores are, in part, a reflection of the failure to appropriately and succinctly convey policy and science to the broader public. With the requirement of public review and open access to the SMP, a simplified method to increase the comprehension of the plan's contents is essential. Until then, the SMP remains a large body of text that lacks the appropriate contents or prose to accomplish the goals it has set before it.

Conclusion

This study created a series of quality indicators, based on the research of Richard K. Norton, W.C. Baer, and Claire C. Knox, to analyze the content of Bainbridge Island's Shoreline Master Program. In addition, a readability analysis was conducted on the separate sections of the documents in response to interest expressed by the City of Bainbridge to better understand the SMP. This study was motivated by a lack of consistent plan evaluation for the Shoreline Management Act.

While many policies meet the minimum federal standards, content analysis of current programs and plans allows local governments or jurisdictions the ability to assess plan quality in regards to current plan evaluation literature. Evaluation allows for clarity on where and how plans could be more focused and specific to allow for increased transparency and accountability,

⁶ As was brought to light in an earlier discussion with professors at the University of Washington.

as well as for higher public involvement with increased readability. Content analysis of local master programs may offer potential for realizing targets set forth by the city or government, providing clear results, and a history of success should it be engaged. However, funding and time tend to be limiting factors and are commonly cited as roadblocks towards such actions. Analysis or review must be built into the program itself, in order to understand which goals and indicators are necessary within the plan.

Works Cited

- American Planning Association. (2000). Policy guide on planning for sustainability. *Chicago, IL: American Planning Association.*
- Baer, W. C. (1997). General plan evaluation criteria: An approach to making better plans. *Journal of the American Planning Association, 63*(3), 329-344.
- Bainbridge Island Chamber of Commerce. (2017). History of Bainbridge Island. Retrieved July 25, 2017, from <http://www.bainbridgechamber.com/default.aspx?ID=9>
- Berke, P. R., & French, S. P. (1994). The influence of state planning mandates on local plan quality. *Journal of planning education and research, 13*(4), 237-250.
- Berke, P., & Kaiser, E. J. (2006). *Urban land use planning*. University of Illinois Press.
- Brody, S. D. (2003). Measuring the effects of stakeholder participation on the quality of local plans based on the principles of collaborative ecosystem management. *Journal of planning education and research, 22*(4), 407-419.
- Burby, R. J. (2003). Making plans that matter: Citizen involvement and government action. *Journal of the American Planning Association, 69*(1), 33-49.
- Burby, R. J., & May, P. J. (1997). *Making governments plan: State experiments in managing land use*. JHU Press.
- Center for Coastal Resources Management, Virginia Institute of Marine Science. (2011). Rivers & Coast Newsletter, 6(1). <http://publish.wm.edu/reports/229/>
- Chapter 173-26 Washington Administrative Code
- City of Bainbridge Island. *Bainbridge Island Nearshore Assessment: Summary Of Best Available Science*. Bainbridge Island: The City of Bainbridge Island, 2003. 16 Mar. 2017
- Corburn, J. (2003). Bringing local knowledge into environmental decision making: Improving urban planning for communities at risk. *Journal of Planning Education and Research, 22*(4), 420-433.
- Dethier, M. N., G. G., & Simenstad, C. A. (2011, February 15). *Summary of Discussions from Breakout Groups* (Workshop Summary). Retrieved https://pubs.usgs.gov/sir/2010/5254/pdf/sir20105254_summary.pdf
- Fowler Jr, G. L. (1986). Content and teacher characteristics for master's level research course. *Journalism Quarterly, 63*(3), 594-599.

- French, H. E., & Lafferty, R. N. (1984). The effect of the California Coastal Commission on housing prices. *Journal of Urban Economics*, 16(1), 105-123.
- Godschalk, D., Beatley, T., Berke, P., Brower, D., & Kaiser, E. J. (1999). *Natural hazard mitigation: Recasting disaster policy and planning*. Island Press.
- Griggs, G. B. (2009, May). The effects of armoring shorelines—the California experience. In *Puget Sound Shorelines and the Impacts of Armoring—Proceedings of a State of the Science Workshop* (pp. 77-84).
- Guyadeen, D., & Seasons, M. (2016). Plan evaluation: Challenges and directions for future research. *Planning Practice & Research*, 31(2), 215-228.
- Hansen, J. L., & Benson, E. D. (2013). The value of a water view: Variability over 25 years in a coastal housing market. *Coast. Bus. J*, 12(1), 76-99.
- Kaiser, E. J., Godschalk, D. R., & Chapin, F. S. (1995). *Urban land use planning* (Vol. 4). Urbana, IL: University of Illinois Press.
- Kildow, Judith T., Charles S. Colgan, Jason D. Scorse, Pat Johnston, and Matt Nichols. 2014. "State of the U.S. Ocean and Coastal Economies 2014." National Ocean Economic Program. Center for the Blue Economy at the Monterey Institute of International Studies. http://cbe.miis.edu/noep_publications/1
- Kneisel, Robert Prentice (1979). *The impact of the California Coastal Zone Conservation Commission on the local housing market : a study of the South Coast Regional Commission*. University Microfilms International, Ann Arbor, Mich
- Knox, C. C. (2017). A Football Field Lost Every 45 Minutes: Evaluating Local Capacity to Implement Louisiana's Coastal Master Plan. *Coastal Management*, 45(3), 233-252.
- Major, C., & Lusht, K. (2004). Beach Proximity and the Distribution of Property Values in Shore Communities. *Appraisal Journal*, 72(4).
- Marsh, W. M. W. M. (2005). *Landscape planning: Environmental applications*(No. Sirsi) i9780471485834).
- Neuendorf, K. A. (2016). *The content analysis guidebook*. Sage.
- NOAA (National Oceanic and Atmospheric Association). 2012. *National Coastal Zone Management Program*. <http://coastalmanagement.noaa.gov/resources/docs/czmfactsheet.pdf>
- NOAA Office for Coastal Management ADS Group. (2017). Office for Coastal Management. Retrieved July 16, 2017, from <https://coast.noaa.gov/czm/act/>

- Norton, R. K. (2005). More and better local planning: State-mandated local planning in coastal North Carolina. *Journal of the American Planning Association*, 71(1), 55-71.
- Norton, R. K. (2008). Using content analysis to evaluate local master plans and zoning codes. *Land use policy*, 25(3), 432-454.
- O'Connor, M. C., Cooper, J. A. G., McKenna, J., & Jackson, D. W. T. (2010). Shoreline management in a policy vacuum: A local authority perspective. *Ocean & Coastal Management*, 53(12), 769-778.
- Putt, A. D., & Springer, J. F. (1989). *Policy Research: Concepts, Methods, Applications*. Prentice Hall.
- Quinn, T., Krueger, K., Pierce, K., Penttila, D., Perry, K., Hicks, T., & Lowry, D. (2012). Patterns of surf smelt, *Hypomesus pretiosus*, intertidal spawning habitat use in Puget Sound, Washington State. *Estuaries and Coasts*, 35(5), 1214-1228.
- Revised Code of Washington (RCW) 90.58.030
- Revised Code of Washington (RCW) 90.58.100
- Revised Code of Washington (RCW) Chapter 36.70A
- Riffe, D., & Freitag, A. (1997). A content analysis of content analyses: Twenty-five years of Journalism Quarterly. *Journalism & Mass Communication Quarterly*, 74(3), 515-524.
- Rogers, E. M. (1994). *A history of communication study. A biographical approach*. New York.
- Salafsky, N., & Margoluis, R. A. (1998). *Measures of success: designing, managing, and monitoring conservation and development projects*. Island Press.
- Seiler, M. J., Bond, M. T., & Seiler, V. L. (2001). The impact of world class great lakes water views on residential property values. *Appraisal Journal*, 69(3), 287-287.
- Shipman, H., Dethier, M. N., Gelfenbaum, G., Fresh, K. L., & Dinicola, R. S. (2010). Puget Sound shorelines and the impacts of armoring. *US Geological Survey Scientific Investigations Report*, 5254.
- Shoreline Master Programs (SMPs). March 13, 2017,
<http://www.ecy.wa.gov/programs/sea/shorelines/smp/>
- Singleton, R. A., Straits, B. C., & Straits, M. M. (1999). *Approaches To Social Research*: Oxford University Press. *New York and Oxford*.

Tang, Z., Lindell, M. K., Prater, C. S., & Brody, S. D. (2008). Measuring tsunami planning capacity on US Pacific coast. *Natural Hazards Review*, 9(2), 91-100.

Tinker, M. A. (1963). *Legibility of print* (No. Z250 A4 T5).

Toft, J.D., Cordell, J.R., Heerhartz, S.M., Armbrust, E.A., and Simenstad, C.A, 2010, Fish and invertebrate response to shoreline armoring and restoration in Puget Sound, in Shipman, H., Dethier, M.N., Gelfenbaum, G., Fresh, K.L., and Dinicola, R.S., eds., 2010, Puget Sound Shorelines and the Impacts of Armoring—Proceedings of a State of the Science Workshop, May 2009: U.S. Geological Survey Scientific Investigations Report 2010-5254, p. 161-170.

U.S. Census Bureau. (2016). Census.gov. Retrieved May 25, 2017, from <https://www.census.gov/>

Washington Administrative Code (WAC) Chapter 173-26

Washington State Department of Ecology. (2017). Shoreline Management. Retrieved July 20, 2017, from http://www.ecy.wa.gov/programs/sea/sma/st_guide/intro.html

Williams, G. D., Thom, R. M., Miller, M. C., Woodruff, D. L., & Evans, N. R. (2003). Bainbridge Island nearshore assessment: Summary of best available science. *PNWD-3233. Prepared for the City of Bainbridge Island: Bainbridge Island, WA.*

Weitz, J. (1999). *Sprawl busting: State programs to guide growth.*