

# Resilience of Oregon Coastal Communities in Response to External Stressors

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# Abstract

This study gathers insights from the leaders and residents in of six Oregon coastal communities to analyze what factors affected their resilience in response to external stressors. The impetus for the study was the creation of nearshore marine reserves off the coast of Oregon which included a mandate for the Oregon Department of Fish and Wildlife (ODFW) to investigate the social and economic impacts of the reserves on nearby communities. Interviews were conducted with community members in Garibaldi, Depoe Bay, Newport, Florence, Port Orford, and Gold Beach to understand how the different communities had demonstrated resilience and what factors determined their degree of resilience. Individual community case studies were developed from interviews in the communities and were then used to compare and contrast the different stressors, impacts, responses, enabling factors, and constraining factors experienced across the communities. The factors of resilience identified through this analysis were: the presence of foundational assets; community livability; the capacity for effective action; community cohesion, engagement, and support; and the salience of external stressors relative to internal stressors. This study includes implications related to these factors of resilience meant to inform policymakers on how best to support and enhance community resilience to external stressors. These implications include: keeping in mind the need for a healthy demographic within a community; identifying and working within the community aspirations; and the management of community-agency tensions through the recognition of common goals and objectives. These findings are meant to support policymakers in enhancing resilience of these and other communities.

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# Chapter 1: Introduction

Communities along the Oregon coastline have experienced notable economic, demographic and environmental change over the last 20-25 years. They reside in a perilous context given strong storm surges, sea level rise, and the threat of earthquakes and tsunamis. Historically dependent on natural resource industries such as timber and fishing, the decline of these industries has shattered the bedrock of some of these communities. Some fear that the more recent establishment of a series of marine reserves will only compound these communities' socioeconomic stress. In short, these communities are experiencing a veritable perfect storm that has left many of them reeling. How are they navigating this reality? What enables them to cope, survive, reorganize, learn and thrive under such conditions?

The issue of coastal community resilience has attracted considerable attention of scholars and policy-makers. Academic researchers have proposed various theories and frameworks about resiliency in the face of external stressors in an effort to help explain and predict behaviors and better inform policy responses. Policy initiatives, in turn, have encouraged more proactive efforts at the community level to plan for predicted effects of natural changes and disasters such as sea-level-rise, climate change, tsunamis, and earthquakes. Despite this increased level of concern and attention to the plight of coastal communities, less research has been conducted that explicitly and empirically examines the experiences of these rural coastal communities in responding to external stressors and the factors that both enable and evidence resiliency.

This report tells the story of six Oregon coastal communities and how they have perceived and tried to respond to the myriad stressors they are experiencing. It describes the specific ways in which the communities are being affected by external stressors and identifies the notable differences between the communities' ability to respond and move toward resiliency. The results of this study provide a glimpse into the day-to-day, season-to-season struggles in these communities, and the array of responses, some effective and others not. Their experiences reveal interesting nuances about the concept of community resilience, and how it might vary depending upon who defines it and from what vantage point. It also reveals the consequences of well-intended policy and management processes, which sometimes impose additional stress and swamp the capacities of communities to adopt longer-term perspectives on their community's resilience.



## *Impetus for this Study*

Events in communities such as those examined in this study concern state agency managers and policy-makers who seek to understand the ability of communities to rebound and, moreover, how they might help through management and policy actions. In this case, the Oregon Department of Fish and Wildlife (ODFW) was particularly interested in examining the effects of policy changes such as marine reserves on coastal communities. While ODFW is primarily focused on conservation and management within the state of Oregon, the Human Dimensions arm of the organization is tasked with accounting for the social and economic impacts of the policies enacted by the agency.

In 2012, in response to concerns about human and environmental stressors affecting ocean resources and habitats, the state of Oregon created a system of marine reserves to facilitate conservation of the nearshore marine ecosystem. This policy prohibited extractive uses and ocean development within reserves, which created the potential for economic displacement in already stressed coastal communities. The policy also created a mandate for ODFW's Marine Resources Program to monitor social and economic impacts of marine protected area implementation. In order to understand the impacts of the implementation of these reserves on coastal communities, it was necessary for ODFW to collect a wide variety of information. This suite of research titled the *Oregon Marine Reserves Human Dimensions Monitoring and Research Plan (2012)*, includes projects providing background studies on particular communities as well as examinations of social, economic, and demographic trends of the coast. These studies span both temporal and spatial scales through examinations of the entire coastal region today to histories of specific coastal communities. This baseline information will be replicated over time to create a time series analysis of community change beginning with the implementation of marine reserves and moving forward. This will allow for a continual examination of social and economic trends in affected communities through time. The Oregon State Legislature will use this information in 2023 for the legislative evaluation of the Marine Resources Program.

The research presented in this report represents one component of this social and economic monitoring. This examination of six coastal Oregon communities through the eyes of residents and key informants within those communities paints a back story of these communities at a moment in time soon after or right before the implementation of these marine reserves. While the original interest of ODFW in supporting this project was to better understand the potential impacts of marine reserves on Oregon coastal communities, we quickly learned that the communities had much more pressing stressors to deal with. We found that the establishment of marine reserves, and other threats that dominate the concerns of policy makers such as the threat of tsunamis, earthquakes and sea level rise, were clearly dwarfed by much more immediate concerns in these communities that consume their attention, resources, and energies. While scholars and policy-makers are focused on the long-term and the proactive behaviors that might advance resiliency within that longer-term perspective, the community members interviewed for this study were very much focused on the short-term, reacting to immediate imperatives with little capacity to view the world in a more proactive and long-term manner.

## *Literature Review*

Resilience refers to the capacity of a system to absorb disturbance and reorganize while undergoing change to retain essentially the same function, structure and identity (Berkes, 2013; Gooch, 2009; Wilson, 2013; Walker, 2006; Saavedra, 2009). Social resilience can refer to the capacity for positive adaptation despite adversity, and the ability of groups or communities to adapt in the face of external, political or environmental stresses and disturbances. For the purpose of this study, the focus was on community resilience. Community resilience encompasses a community's ability to sustain and retain its form and function or adapt in the face of change (Magis, 2010; Norris et al., 2008). Community resilience is primarily concerned with the state of functioning of a community after an event or disturbance, and what factors within the community lead to or shape that state (Magis, 2010; Norris et al., 2008; Berkes and Ross, 2012; Wilson, 2013).

Some community resilience definitions focus on the ability of a community to weather external stressors and return to its original function (Magis, 2010). In this context, external stressors refer to a disruption or set of adverse circumstances originating outside of the community that affect the functioning or well-being of the community and force adaptation (Norris et al., 2008; Adger 2000; Akamani, 2012). These external stressors can refer to geophysical phenomena, changing circumstances, or manmade disasters. Geophysical phenomena include natural disasters or climate change (Fussel, 2007; DasGupta & Shaw, 2015). Changing circumstances include the loss of a key resource base, a clash of cultures resulting from an influx of foreigners into a community, and increasing regulations (Smith et al., 2012; Matarrita-Cascante & Trejos, 2013; Brown & Kulig, 1997). Man made disasters include such events as terrorist attacks or chemical spills (Pfferbaum et al., 2008). Communities exhibiting resilience are able to return to pre-disturbance levels after facing a disturbance (Adger, 2000).

However, examinations of community resilience mention varying levels of function of a community after a disturbance that, though they may not all indicate the same level of function, are all indicative of resilience. Processes such as coping, reorganizing, thriving, responding in the face of disaster, and combining internal and external adaptive capacities exemplify this concept (Norris et al., 2008; Berkes et al. 2003; Smit and Wandel, 2006; Cutter et al. 2003; Akamani, 2012). The various processes described by this framing do not all suggest the same level of resilience. Rather, some of these functions such as weathering and coping external stressors enable a community to continue to function in the face of these stressors, but do not help the community to face future stressors (Norris et al., 2008; Berkes et al., 2003; Cutter et al., 2003). Other processes such as adapting and reorganizing in the face of external stressors suggest both the management of the impacts of external stressors and also the steps a community takes to ensure these stressors do not impact the community again in the future (Smit and Wandel, 2006; Cutter et al., 2003).

In addition to examining community resilience as a community's state of functioning after a disturbance, community resilience has also been examined through frameworks that suggest specific attributes, ideals, or factors of resilient communities (Magis, 2010; Wilson, 2013; Kulig et al., 2013; Berkes and Ross, 2012). These various frameworks are summarized in Figure 1.1

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and discussed below. Magis (2010) describes these attributes through an examination of eight characteristics of resilient communities. These include: “community resources, development of community resources, engagement of community resources, active agents, collective action, strategic action, equity, and impact.” A distillation of these attributes reveals the two major components of resource availability (encompassed in community resources and development of community resources) and action on the part of the community to use those resources (encompassed in the remaining characteristics). Similarly, Wilson (2013) describes three capitals (environmental, social, and economic) the level of interaction of which describes the strength of the community’s resilience. Again, these attributes speak to which resources are available in a community (the capitals themselves) and how the community uses those resources (the interactions). The eight factors contributing to resilience discussed by Kulig et al. (2013) include: the ability to cope with divisions, getting along, networks, ability to cope with change, leadership, community problem solving, community togetherness, and mentality/outlook. Finally, Berkes and Ross (2012) discuss nine community strengths that feed into the agency and organization of a community and ultimately enhance a community’s resilience. These nine strengths include: social networks, engaged governance; positive outlook; community infrastructure; diverse and innovative economy; people-place relationships; leadership; knowledge, skills and learning; and values and beliefs. The strengths themselves are the available community resources and the agency and self-organization describe how communities use those strengths.

<b>Magis, 2010</b>	<b>Berkes &amp; Ross, 2013</b>
<ul style="list-style-type: none"> <li>• <b>8 primary characteristics of community resilience:</b> <ul style="list-style-type: none"> <li>• Community resources</li> <li>• Active agents</li> <li>• Collective action</li> <li>• Strategic action</li> <li>• Equity</li> <li>• Impact</li> <li>• Resource engagement</li> <li>• Resource development</li> </ul> </li> <li>• <b>Emphasis on adaptation to change, intentional action, and ability to draw on resources</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>9 community strengths that assist in resilience development:</b> <ul style="list-style-type: none"> <li>• Positive outlook</li> <li>• Community infrastructure</li> <li>• Diverse and innovative economy</li> <li>• People-place relationships</li> <li>• Leadership</li> <li>• Knowledge, skills, and learning</li> <li>• Values and beliefs</li> <li>• Social networks</li> <li>• Engaged governance</li> </ul> </li> <li>• <b>Through agency and self-organization, these strengths are used and combined to further a community's resilience</b></li> </ul>
<b>Wilson, 2012</b>	<b>Kulig et al., 2013</b>
<ul style="list-style-type: none"> <li>• <b>The interaction of 3 capitals combine to achieve community resilience:</b> <ul style="list-style-type: none"> <li>• Social capital</li> <li>• Economic capital</li> <li>• Environmental capital</li> </ul> </li> <li>• <b>Communities with only one of the three capitals developed are only weakly resilient. Those with two of the three capitals developed are moderately resilient, and those communities with all three capitals achieve the strongest resilience.</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>8 factors contributing to resilience:</b> <ul style="list-style-type: none"> <li>• Ability to cope with divisions</li> <li>• Getting along</li> <li>• Networks</li> <li>• Ability to cope with change</li> <li>• Leadership</li> <li>• Community problem solving</li> <li>• Community togetherness</li> <li>• Mentality/outlook</li> </ul> </li> <li>• <b>The 8 listed factors are seen as contributing to and influencing resilience rather than being components of resilience themselves</b></li> </ul>

Figure 1.1: Existing resiliency frameworks

Cutter et al. (2003) provides a definition of community resilience that captures the hierarchy of functioning described above rather than simply focusing on a return to original function. This definition also speaks to the inherent conditions or factors that allow a community to achieve this level of functioning. For the purposes of this study we have adopted the Cutter et al (2003) definition of resilience with one slight modification. The Cutter et al. (2003) definition states

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community resilience as, “The ability of a social system to respond and recover from disasters.” However, we chose to modify the focus to broader external stressors rather than solely disasters. Therefore, the definition of resilience used for this study was:

*The ability of a social system to respond and recover from external stressors, including those inherent conditions that allow the system to absorb impacts and cope with an event, as well as post-event, adaptive processes that facilitate the ability of the social system to re-organize, change and learn in response to an external stressor.*

This definition incorporates the various typologies of resilience discussed above and again suggests varying stages of the concept. The initial stages of absorbing and coping are addressed as well as the more advanced stages on the hierarchy of resilience including adaptation and reorganization.

## *Goals and Research Questions*

In its examination of six coastal Oregon communities, this project seeks to understand the external stressors facing coastal communities, how they have responded and what has facilitated that response. This information will benefit not only these communities as they continue to face external stressors, but also foundations and government agencies like ODFW as they seek to support the well-being and longevity of these communities.

**Goal:** To improve understanding of coastal community resilience to external stressors to inform natural resource programs and policies.

### **Research questions:**

1. What are the main ways in which coastal communities in Oregon exhibit resilience to external stressors such as policy or environmental change?
2. What factors explain resilience in coastal communities in Oregon?
3. What critical characteristics of resilience identified in the literature are evident in the six Oregon communities?
4. How might coastal community resilience be enhanced through policy or programmatic actions by ODFW, other agencies and organizations, and community leaders?

## *Research and Analysis Approach: Methodology*

This study followed a comparative case study methodology to examine resilience in coastal communities in Oregon. The case study method refers to empirical inquiry that investigates a contemporary phenomenon in depth and in its real-world context when the boundaries between phenomenon and context are not clearly evident (Yin, 2009). We used qualitative interviews and secondary data to produce six case studies of coastal community resilience to external stressors, and then compared and contrasted our findings from the case studies to identify salient ways the communities exhibited resilience and factors that explained resilience. Our approach was inductive. Although we were familiar with preexisting frameworks for thinking about community resilience, the critical dimensions of resilience that we identify in our research emerged through an iterative process of data collection and analysis within and across cases (Thornberg and Charmaz, 2014, Yin, 2009). We relate these findings back to the scholarly literature on community resilience in the Chapter 10.

This approach involved collection of background information on the Oregon coast in general as well as the six communities of study in order to identify key informants in each community. Following this initial information gathering, interviews were conducted in each of the six communities of study with identified key informants. These interviews were then coded and analyzed in order to determine common stressors, impacts, and responses among the study community as well as factors that enabled or constrained. This comparison allowed for a characterization of the important factors of resilience apparent in each of these communities of study.

### Community Sampling

We selected six communities to serve as cases for this study on the basis of variation in their geographic proximity to marine reserves; their location both along the Oregon coast and in relation to urban centers and transportation routes; their population sizes; and the nature and degree of their dependence on natural resources. A map of the coast with these communities is shown below in Figure 1.2.

The six communities, from north to south, were:

1. **Garibaldi:** an economically stressed fishing community of 779 people along the northern coast with little economic diversification. Due to the decline in fishing, lumber and dairy industries since the 1970s, Garibaldi has shifted to a tourism-based economy, focusing on charter fishing and whale watching. Garibaldi has a tourism and urban revitalization project underway to facilitate this livelihood shift.
2. **Depoe Bay:** historically a commercial salmon fishing town. Still focused on fishing, the community of 1,398 people along the central coast has diversified into ocean tourism, specifically charter fishing and whale watching.

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3. **Newport:** a central coast community with 9,989 residents and a relatively diversified economy, which includes tourism, fishing, manufacturing, research, education, federal agencies, medical services, and wood (paper) products. The port of Newport has the largest and most diverse commercial fleet in Oregon. The community is home to major institutions like the Oregon State University Hatfield Marine Science Center, the National Oceanic and Atmospheric Administration Northwest Fisheries Science Center, Oregon Department of Fish and Wildlife, and the Oregon Coast Guard. Newport was traditionally focused on natural resources, specifically fishing and logging, but the community has shifted toward marine research, education, and tourism industries, while still maintaining some focus on fishing.
4. **Florence:** a rapidly growing community of 8,466 people, one-third of whom are retired, located at the mouth of the Siuslaw River. This community is not as economically stressed compared to other coastal communities due to its proximity to the city of Eugene, lower dependency on fishing, and diversity of economic sectors. These economic sectors include retirement, tourism, recreation, health care, and education.
5. **Port Orford:** a fishing community of 1,133 residents along the southern coast that is economically stressed, yet can be characterized by strong community engagement and involvement in planning and research. Recent timber declines have led to greater reliance on the fishing industry. The harbor's open ocean position leaves it more prone to storms than other ports along the Oregon coast and subject it directly to fluctuations and long-term changes in sea level.
6. **Gold Beach:** a community of approximately 2,253 people located on the southern coast of Oregon within 40 miles of the California border. After the collapse of local fishing and logging industries the community shifted to tourism and sport fishing.

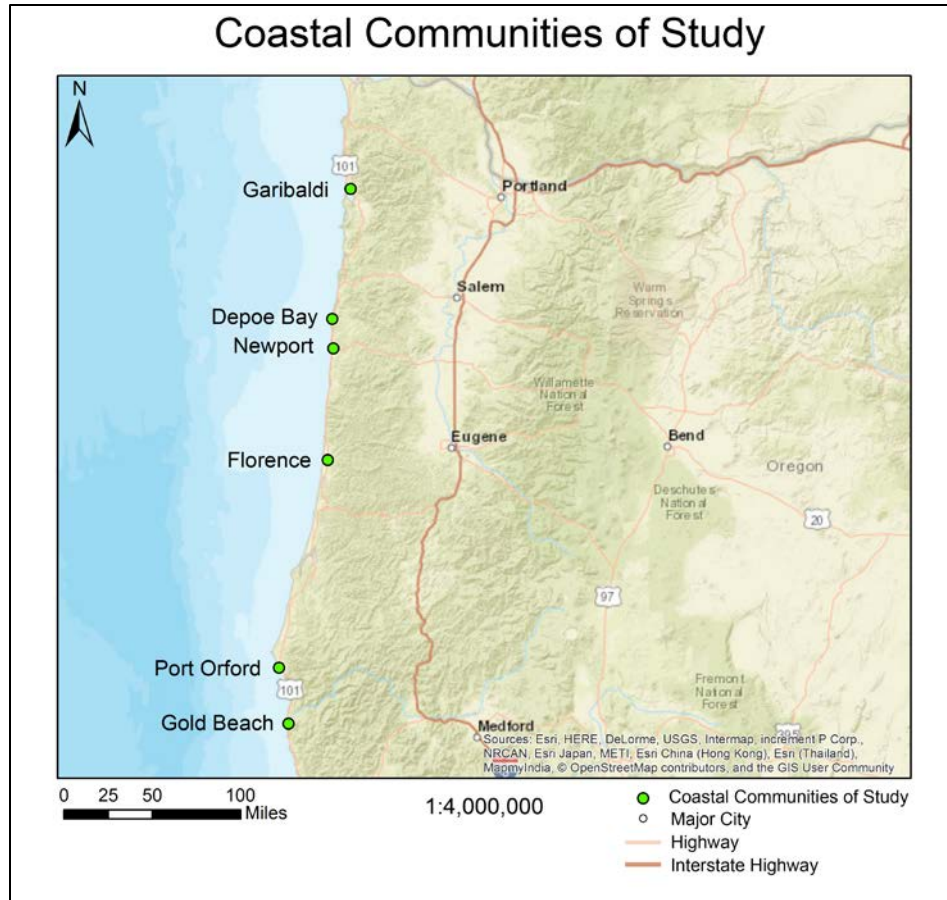


Figure 1.2: Map of the Oregon coast

## Data Collection

Prior to field work, the study began with background research of community history, culture, demographics, and potential external stressors for each of the six communities. Key informants were typically fishers; members of local, county, state or federal government; leaders of non-profits; educators; historians; members of the chamber of commerce; business owners; members of port authorities; long-term residents; or other identified community leaders. Often these community leaders filled more than one of these roles within the community. Key informants (hereafter referred to as interviewees, residents, or community members) were selected with help from ODFW based upon their involvement in the community through a leadership position, experiences and/or expertise with major social, economic, and environmental stressors identified through background research on each community. This research included conversations with ODFW staff and experts from other natural resource agencies and academic institutions. Researchers worked in conjunction with University of Michigan faculty advisers to develop several project key questions and an interview protocol (Figure 1.3).

Data were collected through semi-structured interviews in May and June 2015. The research team conducted interviews in pairs during multiple-day stays in each of the six communities. Typically, interviews lasted approximately one hour, and the audio was recorded with the



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interviewee's verbal consent. Interviews primarily took place in person in community members' workplaces, but occasionally took place over the phone. Interviewees were asked open-ended questions regarding important external stressors in recent history, how the community was impacted, and how and why the people in a community responded as they did. These questions took the form of the following interview guide presented in Figure 1.3 below.

<p style="text-align: center;"><b>Interview Protocol</b></p> <p><b>BACKGROUND:</b> Before we get started why don't you briefly tell us about yourself and your organization, and the role that you play in the community?</p> <p><b>CHALLENGES:</b> We want to start out by getting a better idea of the major social, environmental or economic challenges that have stressed this community.</p> <ul style="list-style-type: none"><li>• What would you say have been the major challenges this community has faced over the last 10-15 years? [natural resource declines, natural hazards, economic shifts, policies]. A quick brainstorm is what we are looking for, and then we can discuss a few of these challenges in more detail.</li></ul> <p>You mentioned a number of challenges (e.g.,...). Next, we want to hear your perspective on (1) how a few of these challenges have impacted the community, and (2) how the community responded. Which of these challenges do you think you can speak to best?</p> <p><b>IMPACTS:</b> Starting with X, why don't give us a little background.</p> <ul style="list-style-type: none"><li>• How do you think x became a problem?</li><li>• What have been some of the impacts on the community? Who was affected? How so?</li><li>• What made the community susceptible to being affected?</li></ul> <p><b>RESPONSES:</b> How did the community respond to X?</p> <ul style="list-style-type: none"><li>• What were some of the things different people or organizations in the community did to adapt to the changing situation [develop plans, form new organizations, leverage outside resources, change behavior, leave the community]?</li><li>• How did the community make decisions? Who are the key decision-makers? Who made a lot of input? Who wielded influence?</li><li>• What are some examples of how the community organized itself to address some of these challenges?</li><li>• What are some examples of how the community reached out to get information or resources from the outside, e.g., from agencies and organizations in other communities, or the state and federal levels.</li></ul> <p style="text-align: center;"><b>Repeat questions about impacts, vulnerability and responses for challenges Y and Z.</b></p> <p><b>CAPACITY:</b> We've talked about X, Y &amp; Z. Thinking back, what are some of the reasons you think the community responded in the ways that it did to X, Y and Z [social cohesion, strong leaders, effective organizations, plans, partnerships, support and assistance from outside organizations]?</p> <ul style="list-style-type: none"><li>• What were some of the barriers the community faced in responding? How did the community overcome them? [What were some reasons the community was not able to overcome them?]</li><li>• What opportunities emerged? How did the community take advantage of them?</li></ul> <p><b>FUTURE:</b> Thinking forward, what would help the community better respond to these and other challenges in the future? What do you think would keep the community together and functioning despite these challenges?</p> <p><b>WRAP-UP:</b> We've asked all our questions. To recap, the goal of this study is to understand what enables coastal communities to respond to challenges. Is there anything else you would like to add concerning this topic? Anything I should have asked but didn't? Who else should we talk to?</p>
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Figure 1.3: Interview protocol

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The interviews concluded by asking for recommendations for other people to interview for the study. Subsequent interviews were conducted based upon these recommendations. A total of 71 confidential interviews were conducted across the six communities (Table 1.1). These interview data were supplemented by three informal interviews with government officials, which focused on overall trends in Oregon, as well as six interviews previously conducted by ODFW with the fishing community in Garibaldi.

*Table 1.1: Number of interviews in each community*

Number of interviews in each community							
Community	Garibaldi	Depoe Bay	Newport	Florence	Port Orford	Gold Beach	Total
Number of Interviews	11	11	9	15	13	12	71

## Data Analysis

Interview data were analyzed through a general comparative analysis approach. In the first stage of analysis, the research team developed analytical memo, simultaneous with data collection (Miles et al., 2014). After each interview the researchers jointly drafted an analytical memo to summarize answers to the interview questions and document insights into the research questions and any additional emergent themes. Researchers also drafted analytical memos after data collection in each community to summarize insights gained in the community on the interview and research questions. Interview recordings were then transcribed verbatim by the researchers. In a second stage of analysis the research team conducted qualitative content analysis (Schreier, 2014; Kowall & O’Connell, 2014) aided by NVivo data analysis software (QSR, 2012) to segment the data. The researchers identified quotations that conveyed meaning about the interview questions and overarching research questions. The researchers compared and aligned their interpretations of codes and coding approaches after coding several initial interviews. This process of categorical coding and member-checking led to development of a categorical coding framework (Table 1.2), which was applied to all 71 interview transcripts. This second stage of analysis served as the basis for the development of the six community cases.

*Table 1.2: Categorical codes*

Categorical codes	
Type of Code	Example Codes
Interview guide questions	<ul style="list-style-type: none"><li>• Stressor</li><li>• Impact</li><li>• Response</li><li>• Enabling Factor</li><li>• Constraining Factor</li></ul>
Emergent Themes	<ul style="list-style-type: none"><li>• Education</li><li>• Fishing</li><li>• Timber</li><li>• Policy</li><li>• Changing demographics</li><li>• Tourism</li><li>• Natural hazard</li></ul>

## Chapter 1: Introduction

In a third stage of analysis the researchers participated in facilitated exercises to compare and contrast the communities on the external stressors they experienced, the impacts of the stressors, how the communities responded, how they exhibited resilience, and the factors that appeared to account for the similarities and differences in the communities' resilience. Findings from this stage of analysis served as the basis for the cross-case analysis of the critical characteristics of resilience, which was then compared with the literature.

## Chapter 2: Study Area

The communities that participated in this study were historically and remain dependent upon local natural resources through both extractive industries and tourism. The Oregon economy, as well as some laws and social services, were formerly ordered around the expectation of a continuous supply of natural resources to extract. Regulations limiting access to these resources had a profound impact on the study communities. As the number and quality of natural resource jobs in coastal communities decreased, towns became more reliant on tourism to sustain their local economies (Dean Runyan Associates, 2016). This shift is just one part of Oregon's dynamic socioeconomic makeup.

Residents who participated in this study found a number of events and decisions significant to the development of their communities. They often referenced events such as the collapse of timber without explaining their full scope, history, or significance. For brevity, the authors chose not to explain these histories in each community case study that referenced them, but rather provide this part for readers to find relevant facts and figures that would make the importance of these events clearer.

### *Natural Hazards*

#### The Cascadia Subduction Zone

The geologically active fault line, known as the Cascadia Subduction Zone lies only a few miles off the shores of Oregon. Forecasts predict that a major earthquake and tsunami is likely to happen within the 21<sup>st</sup> century (Floyd, 2010). The potential for this major disaster presents a threat to all of the communities on the coast of Oregon (Office of Emergency Management, 2012).

When the North American tectonic plate and the Juan de Fuca plate slide past each other, they could cause a massive earthquake (Schulz, 2015). This catastrophic event would shortly be followed by a tsunami event. A state government report from 2012 indicates that the Cascadia Subduction Zone event will negatively impact the coast of Oregon most directly, not only because the coast is closest to the epicenter, but because it will be affected in conjunction with the tsunami following the earthquake (OEM, 2012). Kenneth Murphy, Regional Administrator for Region 10 of FEMA is quoted as saying, "Our operating assumption is that everything west of Interstate 5 will be toast" (Schulz, 2015). If the earthquake is as large as predicted, many communities along the coast will be cut off due to destroyed road and bridge infrastructure, landslides, and relative isolation due to their distance from major metro centers and reduced points of access. Response plans predict public infrastructure will be severely impacted. Buildings that do not meet current earthquake code are not expected to withstand the initial earthquake and those remaining could be hit by the tsunami traveling up to a mile inland (OEM, 2012). Bridges and building foundations are expected to collapse due to the massive release of energy from the earthquake. Beneath the surface, water-saturated sandy areas will go through

what is called liquefaction, whereby the sandy soil shifts and can no longer support a foundation. Less than 16% of Oregon's highway bridges were built with the Cascadia Subduction Zone event in mind (Oregon Seismic Safety Policy Advisory Commission, 2013). Additionally, weak, sandy soils and steep slopes are expected to produce landslides. Weak soils are a prominent concern because of the frequency of this topography along the Oregon coast. After the event, road access is expected to remain restricted for at least a month assuming constant repairs, while energy, sewer, and transportation is expected to take over a year to replace (OEM, 2012, OSSAPC, 2013). The Cascadia Subduction Zone event response plan adds that "A relatively high fatality rate will be an additional impact" (OEM, 2012).

### *A History of Natural Resource Dependency*

This section illustrates some of the principal trends and laws that have impacted the natural resource industries in Oregon, primarily in the post-WWII era. Oregon's vast natural resources, primarily timber and fish, fueled the state's economic growth for decades. Some communities identified as "timber towns" or "fishing towns" where these industries were the principal source of income and employment. However, shifts in public attitudes toward extractive industry, exemplified by legislation such as the Magnuson-Stevens Fishery Conservation and Management Act, or the Endangered Species Act have had a prominent effect on the way natural resources are managed across the nation. A shift toward conservation values on public lands and waters, declines in the housing market which decreased demand for wood products, and fluctuations in fish populations have all contributed to a decline in natural resource harvests. The authors acknowledge that shifts in ecosystem quality and climatological phenomena have also played a significant role, but these are beyond the scope of this study.

#### Timber harvest and federal lands

Historically, the timber industry was a major part of Oregon's economy and provided a large amount of employment in coastal communities. County governments received a portion of the revenue from sales on federal lands, which paid for a large portion of county public services. Prior to World War II, the majority of Oregon timber came from private lands, with less than one billion board feet coming from federal lands annually. The post-war era generated a housing boom that prompted federal agencies to open up their timber offerings, generating over three billion board feet annually in the 1950s and 1960s. The change in timber availability on federal lands led to a timber boom that continued through the 1970s (Gale et al., 2012). Even during the boom era of timber, a notable decrease in employment and the number of mills was already taking place (See Figure 2.1). From 1948 to 1962, over 33% of Oregon's large sawmills closed while 85% of smaller sawmills shut down (Freudenburg et al., 1998). The trend suggests a move toward consolidation of the industry. Similar declines in employment occurred along with increases in mechanization and technology, requiring fewer workers to process the same amounts of lumber (Freudenburg et al., 1998).

The late 1970s recession had a major impact on the timber industry as the demand from construction and housing markets declined. After reaching a high of 9.7 billion board feet in 1972, harvests had fallen to 5.7 billion board feet by 1981 (Brandt et al., 2006). Harvest levels returned to previous levels reaching around 8.5 billion board feet a year in the mid-1980s. In terms of harvest, the timber industry remained strong until the late 1980s (Brandt et al., 2006), however employment continued to decline (See Figure 2.1) (Lehner, 2012).



Source: Lehner, 2012

Figure 2.1: The decline of timber employment 1947-2011

Although timberland is still abundant in western Oregon, these trends coupled with shifts in management priorities weaken the logging industry considerably, resulting in harvest quotas that continue to trend downward. Around 80% of Western Oregon is forested with roughly 71% of that classified as timberland (Azuma et al., 1997). Federal agencies own about 48% of that timberland while the private sector owns 31% of the timberland. Federal lands produced 2.66 billion board feet per year on average in the 1980s but that amount dropped to 0.79 billion board feet per year in the 1990s as the federal government restricted logging (Azuma et al., 1997). In contrast, harvests from private lands remained relatively constant throughout the 1980s and 1990s (See Figure 2.2). A change in management practices on public lands in the 1990s created the last substantial drop in timber harvests. The spotted owl was listed as an endangered species, which forced federal agencies like the Bureau of Land Management and the U.S. Forest Service to incorporate the owl's protection into their management decisions. This led to dramatically reduced timber harvests on federal lands (Gale et al., 2012).

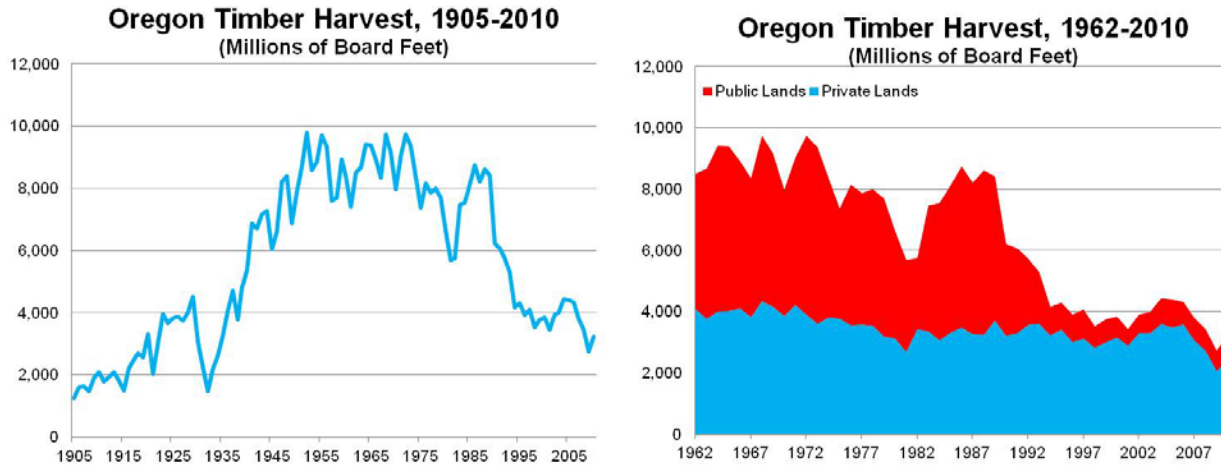


Figure 2.2: Oregon timber harvests from private lands 1905-2010

Source: Lehner 2012

## Oregon and California (O&C) Public Lands in Oregon

O&C lands are a large portion of federal timberlands in Oregon, whose unique history has impacted the development of rural communities substantially. The O&C Lands Act established the basis for timber receipt payments. Most Oregon counties were dependent on timber receipts and subsequently were impacted by the O&C policy and the changes in funding brought about by the decline of timber (Bureau of Land Management Oregon State Office, 2016).

In 1866, the United States Congress created a land grant to facilitate the rapid completion of a railroad between Portland and San Francisco. The company building the railroad violated the terms of their agreement so Congress reclaimed title on around 2.9 million acres of the land in 1916. The O&C Lands Act passed in 1937 gave jurisdiction of the lands to the Department of the Interior. The Act included provisions for paying counties with O&C lands to compensate them for the tax revenue lost from those lands. The Act stipulated that 50% of revenues from the sale of timber on the O&C lands went to the counties where those lands were located, and set a floor of 500 million board feet annually. Other portions of the fund went to the management of the lands themselves and road construction and maintenance (BLMOSO, 2016).

When timber harvests were reduced on the O&C lands in the late 1980s, Congress created a “floor” payment for the O&C counties equal to the annual average payments made between 1986 and 1990. Under this act, payments continued to be made to counties to compensate for the lack of tax revenue and the reduction in timber harvest but the amount of the payments has declined each year, and now remain below the amounts generated from timber production in the 1970s and 1980s (BLMOSO, 2016).



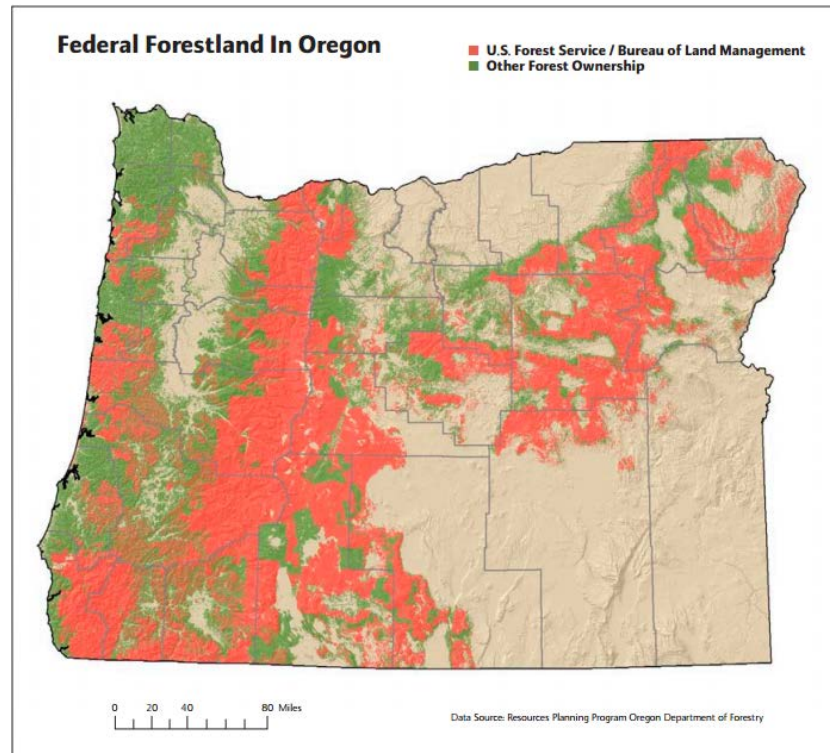
## Chapter 2: Study Area

Today, the federal government owns the title to 18.2 million of Oregon's 30.4 million forested acres (See Figure 2.3), most of which (14.3 million acres) are in the National Forest system, managed by the U.S. Forest Service, and closed off to harvest (OR Forest Resources Institute, 2016). The Northwest Forest Plan of 1994 governs the forest management practices of the Forest Service and the Bureau of Land Management. Because the Plan prioritizes protection of old-growth forest habitat, in addition to economic activities, it has contributed to a decline in logging on federal lands (Amendments, 1994; Forest Communities, 2007; Grinspoon et al., 2015).

### Decline in Fish Populations

Fishing is an important natural resource industry that has historically supported many Oregon coastal communities. Prior to 1976, this common resource was virtually unregulated. Except for a weak patchwork of state laws, and international fishing treaties, fisheries were harvested according to the laws of supply and demand (NOAA, 2016). In that year, Congress passed the Magnuson-Stevens Fishery Conservation & Management

Act (Magnuson Act) to put conservation, scientific management, and catch limits at the center of fisheries management (NOAA, 2016). While there is controversy over whether or not the Magnuson Act is actually preventing overfishing (Magnuson-Stevens Act, 2016, Ludicello & Stump, 2013), Oregon's fisheries also face challenges from climate change and habitat modification that may be contributing to fisheries' decline. A snapshot of economic contributions from commercial nearshore and other fisheries by port groups in 2014 can be found in Table 2.1.



Source: Oregon Forest Resources Institute, 2010

*Figure 2.3: Federal and private forest land in Oregon*

Table 2.1: Economic contributions (\$ millions) from fisheries by port groups in 2014

	Near-shore Groundfish	Total Groundfish	Salmon	D.Crab	A.Tuna	Total landed
<b>Tillamook</b>	0.25	0.3	1.4	2.8	0.4	5.4
<b>Newport</b>	0.12	6.7	7	22.6	6.1	82
<b>Coos Bay</b>	0.15	5.8	8.8	22.5	5.4	62.6
<b>Port Orford</b>	0.63	-	-	-	-	-
<b>Brookings</b>	0.35	6.2	2.7	5.7	0.4	17.5
<b>Coast Total</b>	1.94	35	29.6	68.8	18	266.1
<b>State Total</b>	2.5	36	30.6	69.6	18.8	282.2

Source: TRG (2015).

## Notes:

1. Economic contributions are expressed as personal income in millions of 2014 dollars.
2. Economic contributions are calculated with the Fisheries Economic Assessment Model (FEAM) originally developed by Hans Radtke and William Jensen for the West Coast Fisheries Development Foundation in 1988. The estimates include direct, indirect, and induced impacts, therefore include "multiplier effects."
3. The economic contributions at the port group area level do not sum to the statewide level because of trade leakages to the larger economy.
4. The nearshore groundfish economic contributions at the state level include black and blue rockfish, greenling, cabezon, lingcod, and other rockfish species.
5. The species group "other" in the most recent year includes economic contributions at the state level for sardines, halibut, sea urchins, and many other fisheries.
7. The economic contributions for areas listed include smaller ports: Tillamook area includes Pacific City; Newport area includes Depoe Bay; Coos Bay area includes Florence; Brookings area includes Gold Beach.

Oregon coast fisheries have experienced significant population declines, particularly in salmon (see Figure 2.4) and groundfish stocks over the last 25 years. The commercial and recreational salmon industry suffered a collapse in the early 1990s in part due to overharvesting and habitat alteration. Salmon are anadromous fish, meaning that they spawn in rivers and streams and spend their adult lives at sea (Palmisano, et al., 1993). Salmon are able to take advantage of a variety of habitat niches, but as a species they are sensitive to environmental change (National Research Council, 1996). In Oregon, Pacific salmon have lost 40% of their historical breeding range. Urbanization, contaminated sediments and water columns, riparian vegetation changes, erosion due to land-use changes and draining of wetlands has created adverse conditions for salmon both in stream and river habitats. Construction of dams block their passage and transforms fast-flowing, oxygenated streams into deoxygenated lakes. In addition, wild salmon have competed with hatchery fish for resources and habitat (Palmisano, et al., 1993). Climate change also plays

## Chapter 2: Study Area

a role in the reduction of the salmon population as prolonged exposure to stream temperature above 21°C is lethal to most adult salmon (McCullough, 1999).

Regulations and policies also affected fish populations and harvest (Hall, et al., 2012). In 1996, the revision of the Magnuson Act prioritized sustainable fisheries. This revision also expanded access to new fisheries on the Pacific Coast, which some saw as putting additional pressure on an already-strained resource (Radtke et al., 1996). Some key salmon species like coho salmon on the Oregon coast were listed under the U.S. Endangered Species Act between 1998 and 2006, protecting them from harvesting (NOAA, 2006). The state management actions to reform harvest and hatcheries between the late 1990s and early 2000s helped rebound the population from dangerously low levels, but strict quotas remain in place today.

In the early 2000s, in order to keep the fishing industry stable, despite salmon decline, fishermen began to rely more on groundfish. By 2003, the groundfish fisheries were overharvested as well. Bycatch, uncertainties in stock assessments, fishing capacity reductions, and commercial-recreational user group conflicts contributed to the groundfish crisis of the 2000s. Between 2002 and 2004, the implementation of Rockfish Conservation Areas further restricted the commercial fisheries by closing off thousands of square miles of productive reefs around the nation to extraction (Bellman, 2005). The commercial industry suffered all along the West Coast (Radtke et al., 1996).

Even with increased regulations, restrictions on harvest and multi-million-dollar conservation efforts to increase populations, fish stocks are still somewhat unpredictable and annual variation remains high. In 2009, salmon fisheries rebounded, and while there were high expectations that the trend would continue, stocks declined the next year. Fishing communities, which include fishermen, processors, families, managers, scientists, and the public are all impacted by fluctuations in population and regulations (Oregon Sea Grant, 1999).

Overall, regulations are becoming more focused on conserving and rebuilding commercially important species along the Pacific Coast (NOAA, 2006, 2016). As long as populations continue to fluctuate or decline, conservation will remain a high priority, necessitating the enforcement of quotas and gear restrictions to allow the populations to rebuild (Pacific Coast Groundfish, 2016). While this management policy may hamper the profitability of fishing communities in the short term, the long-term goal remains to maximize the economic value of marine resources.

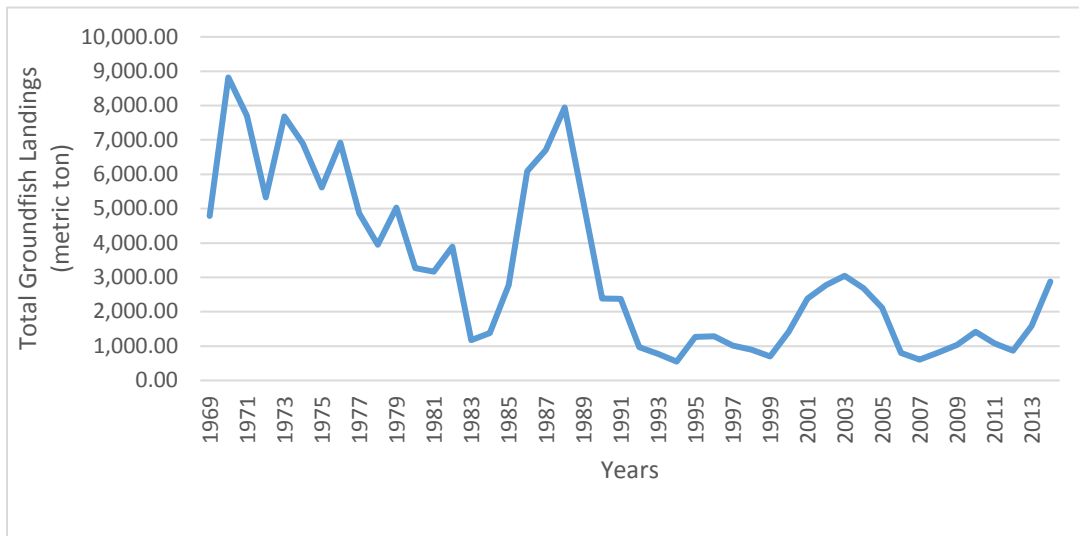


Figure 2.4: Total groundfish landings in Oregon 1969-2013

## *Post-Natural Resources Era Economic Restructuring*

For most of the 19<sup>th</sup> and 20<sup>th</sup> centuries, the coastal economy of Oregon depended on the harvest of timber and fish. However, lawmakers in the mid-1980s and early 1990s believed that limits had to be put in place to ensure a long-term sustainable harvest, as discussed above. Therefore, the economic makeup of the coastal communities changed.

By the late 2000s, tourism and transfer payments became the mainstays of the coastal economy. The fishing industry provided only 7,054 full-time jobs on the Coast (a 90% decrease from the 1970s), while timber products provided about 16,600 jobs and falling (Swedeen et al., 2008). A 2008 analysis by The Research Group found that tourist-related businesses on the Coast provide about 13,200 jobs annually, but that this figure may be up to 57% larger due to underreporting (Swedeen et al., 2008). The same study found that transfer payments may provide between 39-58% of total purchasing power on the Oregon Coast. While timber and fishing continue to be important contributors, it is tourists and retirees that will contribute the bulk of disposable income to the Oregon coastal economy for the foreseeable future.

Today, coastal governments rely more heavily on property taxes than timber receipts to fund services, the tourism business is highly seasonal and vulnerable to economic recessions around the country, and schools are suffering without timber receipts that were formerly reserved for them. This section will provide the background on how these issues pertain to coastal Oregon and the study communities.

## Oregon tax structure

The State of Oregon's crucial revenue streams include property taxes, timber receipts, and income taxes. The lack of a sales tax and low property taxes means that the state and local governments must generate funds from other sources to supplement budgets.

The state of Oregon does not levy sales tax, which causes the state and local governments to rely largely on revenue generated from income and property taxes. Oregon is one of only five states in the United States without a sales tax (Drenkard, 2014). Voters in the state have voted down the addition of a sales tax each of the nine times the issue has come to the ballot (Oregon Blue Book, 2016). Traditionally, Oregon has compensated for the lack of sales tax through high income taxes for many of the state's residents. Oregon employs a three-bracket income tax structure with the largest bracket including incomes between \$8,150 and \$125,000. Residents falling in this bracket all pay the same nine percent income tax. This system means that low-income residents in the state pay one of the highest income tax rates in the country (Oregonian Editorial Board, 2015).

The single largest source of tax revenue for cities is property tax revenues. Property taxes are an important component of revenue generation for local and county governments, and the low property taxes in many of our counties of study make it difficult for these governments to provide necessary services to citizens. For this report, study communities are within Tillamook, Lincoln, Lane, and Curry counties. The property tax rates in these counties range from \$2.82 in Lincoln County to \$0.60 in Curry County (See Table 2.2). Property tax revenues directly fund local and county operations such as public safety, schools, and local infrastructure (Keefer, 2016). Oregon's current property tax system has created inequities amongst taxing jurisdictions. It is not uncommon for similarly sized cities to have different permanent tax rates because the rates were frozen at 1997 levels by Measure 50, part of the Oregon Constitution. However, each city has grown at a different rate since that time. In 2015, 60% of Oregon cities are in a situation known as compression, where property tax revenues are below what a similar sized city in 1997 could expect. Compression reduced property tax revenues by nearly \$44 million this year (LOOC, 2015).

In historically timber dependent counties where taxes were traditionally kept low because of compensation from timber receipts, property taxes have failed to increase proportional to the loss of timber receipts, creating a problematic funding gap (Zheng, 2013). Nonetheless, as these timber receipts have declined, the counties have become more dependent on property taxes to fund local and county government services, and they are struggling to do so (Zheng, 2013).

Table 2.2: Tax rate by type of taxing district for the six study communities

City	County	Permanent Rate /\$1000	Local Option Rate	Bond Rate	Total City Rate <sup>1</sup>
<b>Garibaldi</b>	Tillamook	\$2.85	\$0.00	\$0.50	\$3.35
<b>Depoe Bay</b>	Lincoln	\$0.00	\$0.00	\$0.66	\$0.66
<b>Newport</b>	Lincoln	\$5.59	\$0.00	\$1.91	\$7.51
<b>Florence</b>	Lane	\$2.86	\$0.00	\$0.30	\$3.16
<b>Port Orford</b>	Curry	\$2.27	\$1.90	\$0.00	\$4.17
<b>Gold Beach</b>	Curry	\$2.34	\$0.00	\$0.00	\$2.34

Source: League of Oregon Cities FY 2014 – 15 City Property Tax Report

Note:

<sup>1</sup> Portland is the only city with a GAP Bond which is not shown in the table, but the bond rate of \$2.6671/thousand is included in the “Total City Rate” column

## The Economic Recession on the Oregon Coast

The economy in the United States contracted during the 2008 recession, and the coast of Oregon was not immune. Several components of the coastal economy were affected including tourism, timber, and housing. Housing construction slowed, reducing the demand for timber, and American families took fewer vacations in the early years of the Recession (Morin, 2010). As tourism is a component of each of the study communities’ economies, it is important to understand trends in the US economy during this time as the Recession diminished the revenues flowing into the study areas. Travel for pleasure declined over 14% from 2008-2009, and it did not return to pre-recession conditions until 2011. Prior to the recession, travel expenditures had been increasing (Dean Runyan Associates, 2016). The decline in travel not only decreased businesses owners’ revenues, but also decreased income derived from transient room taxes, another important source of income for local governments in tourist towns (Morin, 2010).

Another important component of the coastal economy is the housing market. The percentage of people reporting vacation homes as a portion of their expenditures doubled from 2005 to 2009, but it declined thereafter (Paulin, 2012). Nationwide, homeownership had also been rising, but then fell after the recession hit. Housing starts were the lowest in 50 years (Keegan et al, 2012). As housing starts decreased, so did wood production and prices. Oregon forest revenues decreased from nine billion dollars to five billion dollars in 2009, continuing a long trend of the

declining timber industry which began in the 1980s. Several Oregon mills closed due to the recession and those still operating decreased their production 43% on average (Gale et al, 2012). These national and regional trends during the economic recession are indications of stagnation or decline in timber, housing, and tourism, industries that are tightly linked to the state of the wood products industry in Oregon. Although small declines in regional or national trends may be relatively small when viewed as an average of all communities, the magnitude of those impacts varies at the local level depending upon the significance of the timber industry to each community.

### School funding policy

During the timber boom, Oregon school districts were heavily reliant upon timber receipts for funding, but Oregon has frequently altered the way in which it funds schools since those receipts became less plentiful and reliable. The recession of the early 1980s impacted timber sales, so school funding decreased in kind. In response to the recession, pressure to decrease property taxes also reduced school funding (Associated Press, 1985). Insufficient funding led to school closures. In response to widespread school closures, the 1987 legislature passed a safety net in an attempt to stop school closures due to lack of funds from property taxes. The safety net allows schools to levy a property tax equal to the previous year's revenues without voter approval (Oregon School Boards Association, 2009). In 1990 and 1997, the state legislature passed Ballot Measures 5 and 50, which limited the amount of funding schools could receive from property taxes, with the state government making up the rest primarily from income taxes (Legislative Committee Services, 2012.)

In 2000, in response to the effects of declining timber receipts, Congress passed the Secure Rural Schools (SRS) and Self Determination Act (H.R. 2389, 1999). The law attempted to “stabilize education and road maintenance funding through predictable payments to the affected counties” (106th Congress Public Law 393, 2000). National Forest money was to be used for education and roads, while Bureau of Land Management money (see O&C funding above) was to be used to for public safety, law enforcement, and education. Oregon was the largest recipient of these funds; almost every county received some disbursement (Webber, 2011; Associated Press, 2007). The program expired in 2014 after several extensions, once again returning counties' school funding to a percentage of historic timber receipts. Then in 2015, the SRS was extended for two years and applied retroactive payments for 2014 (Hoover, 2015).

These extensions cause great uncertainty in how schools will receive funding for the future. In 2009, the governor's task force investigating forest payments found that constitutional limits on property taxes, and voters' resistance to increasing taxes made it difficult to fund services like schools. They also found that county services had already been cut, making it difficult to reallocate funds (Webber, 2011).

## Population and Demographic Trends

### Demographic shift to retirees in Coastal Oregon

There is a noted trend in increased retirement to the Oregon Coast from the baby-boom generation. Table 2.3 shows the 2010 population of each of the six study communities by age cohort. An increase in retirees on the coast has led to rises in housing prices and expands a demographic with different needs, perspectives, and desires from long term residents (Smith & Krannich, 2000).

Members of the baby-boom generation are currently, or rapidly, approaching retirement age. As they enter this phase of their lives, this generation has shown more preference for rural, non-metropolitan retirement destinations than older or younger age groups (Cromartie, 2009). This results from two major trends: first the migration patterns of their parents and the unprecedented job competition boomers experienced as members of the largest age cohort in US history. The parents of boomers were able to utilize federally subsidized mortgages and the post-WWII GI Bill to leave rural areas for newly constructed suburbs, but they maintained and passed their rural connections on to their children. Second, immense job and housing competition in the industrialized Northern Rust Belt during the 1970s drove boomers to respond by moving to the non-metro areas of American South and West (Cromartie, 2009). As Figure 2.6 shows, the above 65 cohort has been more prevalent on the Coast than in the rest of Oregon since records were kept, and this trend has steadily increased since the 1960s.

Table 2.3: 2010 age demographics of study communities

Location	Population	Under 18	18-64	65 and over	Median Age
<b>Oregon</b>	3,831,074	22.6%	63.5%	13.9%	38.4
<b>Coast wide</b>	206,732	18.4%	59.6%	22.0%	48.3 <sup>1</sup>
<b>Garibaldi</b>	779	12.5%	59.4%	28.1%	55.1
<b>Depoe Bay</b>	869	9.7%	60.5%	29.8%	56.6
<b>Newport</b>	9989	20.0%	61.1%	18.9%	43.1
<b>Florence</b>	8466	13.9%	49.7%	36.4%	57
<b>Port Orford</b>	1133	11.8%	59.4%	28.8%	54.7
<b>Gold Beach</b>	2253	16.5%	60.8%	22.7%	50.6

Source: Decennial Census 2010

Note:

<sup>1</sup>The coastwise median age is estimated using average (weighted on total population) of the median age in the shown counties.

During the 1990s, net immigration to Oregon hit record highs (Judson & Popoff, 1999). Retirement age individuals most frequently cite a favorable, mild climate and low cost of living as the primary drivers for their retirement settlement decisions (Serow, 2003). Coastal Oregon's temperate climate, low property tax, and lack of a sales tax are advantageous conditions for retirees on fixed incomes. This trend slowed dramatically in the 2000s as median housing costs rose rapidly (Census of Housing, 2012; McGranahan, 2008), but not before some communities,



such as Florence, concluded that a retiree economy was a viable, sustainable approach based on their rich natural amenities and recreational attractions (Poudyal et al., 2008).

Coastal Oregon is entering a period of rural restructuring, where natural resource extractive land uses, and a working-class dominant social structure are transitioning to a service based economy, primarily centered around tourism and retirement (Gosnell & Adams, 2011; Shumway & Otterstrom, 2001). Research indicates that features of the landscape directly influence migration (McGranahan, 2008), a process known as “amenity migration” (Gosnell & Adams, 2011), defined as, “The movement of people based on the draw of natural and/or cultural amenities.” In fact, people tend to be most drawn to areas with a mix of forest and open land, water, topographical variety, and little agriculture, (McGranahan, 2008; Poudyal et al, 2008), characteristics which describes much of the geologic and natural features of the Oregon coast. Each of our study communities except Garibaldi experienced population growth from the 1990s through 2010, likely aided by amenity migration (See Table 2.4).

*Table 2.4: Study community population change from 1990 to 2014*

Community	Year			
	1990	2000	2010	2014 <sup>1</sup>
<b>Garibaldi</b>	924	900	779	736
<b>Depoe Bay</b>	869	1135	1398	1285
<b>Newport</b>	8692	9751	9989	9989
<b>Florence</b>	5482	7420	8466	8412
<b>Port Orford</b>	1056	1160	1133	1198
<b>Gold Beach</b>	2048	2050	2253	2563

*Source: U.S. Census Data for 1990, 2000, 2010*

Note:

<sup>1</sup> ACS estimates 2014.

It is so far unclear what long-term social effects will result from this cohort’s aging in their place of retirement. Some researchers are concerned that a retiree economy will find it difficult to generate high-skill or high-wage employment opportunities in their community (Serow, 2003). Nonetheless, most research on the economic impact of retirees at the local level shows that counties that identify as retirement destinations have experienced above-average population, employment, and income growth, although per capita incomes have decreased (Stallman et al., 1999). Transfer and investment income may contribute to this disparity. Table 2.5 gives the percent of population with retirement income from 2010 to 2014. In 2003, transfer and investment income each contributed 23% of the total earned income on the Oregon coast (Davis and Radtke, 2006). That means that 46% of personal income in the seven coastal counties was not coming from employment, and concentrated in the retired portion of the population.

Table 2.5: Percentage of population with retirement income

Location	2010	2011	2012	2013	2014
Oregon	17.9	18.0	18.2	18.5	18.9
Garibaldi	28.5	33.7	31.7	33.4	31.3
Depoe Bay	26.4	27.6	26.3	27.4	24.8
Newport	24.1	21.6	17.6	19.3	20.0
Florence	25.3	31.3	25.2	26.2	34.5

Source: American Community Survey (ACS) 2010 – 2014 5 Year Estimates, economic characteristic

Smith and Krannich (2000) hypothesize that recent in-migrants may exhibit the “last settler” syndrome, characterized by a concern that future development may destroy the recreational, scenic, ecological, or small-town values that attracted them to these communities in the first place. Their opposition to future growth and change may be related to negative impressions of growth in their previous urban home, fears that are not shared by those who have not yet experienced the effects of rapid urbanization.

## Land Conservation Legislation

Both Oregon’s natural resource extraction and tourism industries rely heavily on undeveloped natural land, such as forests, rivers, and beaches. In recognition of this fact, state and municipal governments have enacted legislation that tightly controls development of natural spaces. This has an impact on tourists wishing to visit the area, private developers, and municipal governments that wish to expand their boundaries. Urban Growth Boundaries are one such policy that has wide-reaching impacts.

## Urban Growth Boundaries

Urban Growth Boundary legislation constrains the land that communities in Oregon can build on. This limits urban sprawl, but also limits the supply of developable land, leading to increased housing prices. Each incorporated urban area in Oregon is required to define an Urban Growth Boundary (UGB), that limits the sprawl of housing, commercial, or industrial zoned structures. Beyond these limits, agricultural and open lands are preserved (Oates, 2016). Intended to limit urban sprawl that is costly and inefficient to serve with public utilities, UGBs are intended to protect natural resources, and preserve each community’s unique character through long-range land use planning (Inside the Boundaries, 2001). Each city is required to set aside enough land within their UGB for 20 years of forecasted growth, in order to moderate land and housing costs as population grows. By directing growth inward, land is more likely to be recycled, blight avoided, and more compact, livable cities developed (Inside the Boundaries, 2001).

Proponents say that UGBs encourage compact, human-scale neighborhoods, with advantages for transit, public infrastructure such as emergency services, and an intentional preservation of high quality green-space, both inside and outside of the boundary (Urban Growth Review, 2015).

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They argue that optimal density is maintained by development goals that require a variety of housing options (Urban Growth Boundaries, 2016).

Critics argue that the system for expansion is too difficult and unwieldy. They suggest that this strategy does not set an upper limit for population density; some forecasts predict the most growth will occur in already densely settled areas (Urban Growth Review, 2015). Others point out that Portland's housing opportunity index fell 56% from 1991 to 2000 (Cox, 2001). UGBs were referenced as problematic in interviews in some study communities such as Gold Beach.

## *Conclusion*

Coastal Oregon communities face many stressors, and continue to implement and search for new responses every day. The background provided in this chapter, coupled with the information provided in the case chapters, sheds some light on why historical events, trends, and laws may have contributed to stressors, or impacted communities' ability to respond over the last quarter century. Each of the topics covered here appeared in multiple interviews and warranted more detailed attention. This is not an exhaustive list of contributing factors, however, it does address many of the complex issues unique to Oregon's history that may not be common knowledge to all readers.

Some of these topics are related. Land conservation legislation that has preserved natural scenic value has contributed to amenity migration among retirees. It has also limited housing and commercial development that may have buffered the effects of economic recession. The decline of timber and fishing are inextricably linked to Oregon's tax structure, the rise of tourism, and the way governments provide social services. This chapter begins to show, in a general way, how these issues give rise to the specific complex stressors and responses found in the study communities.

# Garibaldi



*Prepared by Michael Burbidge*

## Chapter 3: Garibaldi Case Study

*“Garibaldi is a very special place in spite of all its craziness... it is one of the most caring communities that I have ever been a part of.”*

*– Garibaldi Community Member*

### *Introduction*

#### Garibaldi Today

Garibaldi is a small fishing village near the inlet of Tillamook Bay in Tillamook County, an area historically known for timber, fishing, and dairy. To an outsider traveling on Highway 101 through Oregon’s North Coast, Garibaldi may only appear to be a small fishing community between larger touristic destinations. When approaching, one’s attention is directed towards the town’s two distinct identifiers: the iconic large white “G” in the hills, and the towering red brick smokestack, a relic from the area’s industrial era. Once on the main strip, the view is clear to the port on Tillamook Bay with views of the Northwest Hardwood sawmill until the city ends and 101 continues north up the Oregon coast.

Geographically, Garibaldi’s land area encompasses approximately one square mile, making it the smallest by surface area of the study communities. Garibaldi is located in Tillamook County, which stretches to the rocky and irregular coastline and encompasses coastal lowlands, heavily timbered interior areas, and most of the Coast Range. Garibaldi is the northern most community in Tillamook Bay, set approximately 80 miles west of Portland. The town connects with the rest of the Oregon coast by State Highway 101 and eastward by State Highway 6, which begins in Tillamook City.

The community has an approximate population of 779 (Table 3.1), of which approximately 100 are veterans. Many who live in the community are retired. Table 1 displays Garibaldi’s demographic information from the 2014 U.S. Census American Community Survey.

Tillamook County is known as “the land of cheese, trees, and ocean breeze” (Tillamook County, 2016). The county’s major employers include Fred Meyer supermarket, Tillamook Regional Medical Center, and the Tillamook County Creamery Association. The local economy and social identity are instilled in the fishing opportunities from the Port of Garibaldi and the Northwestern sawmill. Through many changes over the last 50 years, Garibaldi has maintained an identity around fishing and marine resources.

*Table 3.1: Garibaldi demographic information*

<b>Population</b>	779
<b>Median Age (years)</b>	55.1
<b>Median Income (households)</b>	\$37,188
<b>% under 18</b>	22.6
<b>% over 65</b>	28.1
<b>% not in workforce</b>	51.6
<b>Living Below Poverty Level</b>	19.6
<b>% With Retirement Income</b>	31.3

Source: U.S. Census Bureau American Community Survey, 2014.

## Background

Before the establishment of the United States, the Tillamook Nation lived in this aesthetically pleasing and resource rich landscape. There is some uncertainty about the origins of the Tillamook Nation, but when Captain Robert Gray arrived at Tillamook Bay in 1788, the Tillamook Nation numbered roughly 2,200 (Jacobs, 2003). The Tillamook were a small sedentary tribe that lived along the coast between the Nehalem and Salmon River. At the time of the first white settlement in 1850, all of Tillamook County, with the exception of small areas of open meadows, sand dunes, and tidelands, was forested (Cowlin, 1943). This landscape and ocean access provided abundant renewable natural resources upon which communities could build their foundation. These resources continue to be a base of employment and identity for Garibaldi.

Well before Garibaldi was incorporated as a municipality in 1946 (OBB, 2015), this area was the home to a booming timber industry. One fifth of Oregon’s state timber resources were in Tillamook County (Port of Garibaldi centennial documentary, 2010). A series of forest fires, between 1933 and 1951, in Tillamook County changed the local timber industry along with the physical and ecological state of Tillamook Bay. Today, 94% of land area in Tillamook County is demarcated as forestland (OFRI, 2013). As timber harvest and associated positions in the mill declined, fishing boomed in 1970s and 1980s as a steady profitable industry.

In addition to the forest resources available to Garibaldi, the Tillamook Bay provided fish, crustaceans, and additional port access to the Pacific Ocean to those who lived in Tillamook County. Tillamook Bay is the largest bay on Oregon’s Northern Coast and second largest in the state after Coos Bay. However, the rough navigational conditions of the bay limit its attraction to fishermen and inhibit the expansion of the fishing industry due to safety concerns. These conditions include a shallow boat draft in the bay that only allows access for smaller boats and a rough bar where the Pacific Ocean meets the bay that is difficult to cross (The Oregonian, 2010). Large timber companies from the Midwest arrived and set up mills, requiring the South jetty to safely ship logs from the bay to market. The availability of different marine species has ebbed and flowed, impacting those who depend upon these resources (Imperial, 2000). In the 1970s, commercial shrimp, known as the “Red Harvest,” were so plentiful the Shrieber Smith shrimp plant was constructed in Garibaldi to process. Symbolic of the industry change, the Shrieber and

Smith shrimp plant was located on the site of the old Sauss family timber plant. In the 1980s, trawler and sport fishing popularized, expanding opportunities within Garibaldi's fishing industry. Significant declines in the salmon catch in Tillamook Bay were first observed in the 1940's (Tillamook System Coho Task Force, 1995). This overlapped with a general decline in the ocean fishery that started in the 1930's (Lawson, 1993).

In the 21<sup>st</sup> century, while Garibaldi is different in appearance from its days as a timber town, the characteristics of this independent and spirited coastal population remain similar. The physical and social landscape has evolved with changes in industry, external policy regulations, and the state of Tillamook Bay.

## Findings

### Stressors, Impacts, and Responses

The following section contains interviewees' responses, which were analyzed to determine the external stressors the community faced, or are currently facing. Examples of impacts and responses detailed by interviewees are quoted or paraphrased. While a variety of other factors may be impacting these communities, only those mentioned repeatedly across interviews or heavily emphasized are reported here. See Table 3.2 at the end of the chapter for a summary of the stressors, impacts, and responses experienced in Garibaldi.

#### *The Tillamook Burn triggers the decline of the timber industry*

One of the largest external stressors in Garibaldi was a series of forest fires, called The Tillamook Burn, which significantly reduced the timber stock available to mills in Garibaldi. The reduction of timber stock led to a decline in the available work in the timber industry, Garibaldi's population, and timber receipts for Tillamook County.

The Tillamook Burn was a series of four large forest fires that decimated the timber stands that were necessary for the long-term sustainability of the timber industry in Garibaldi. Between 1933 and 1951, repeating approximately every six years, the fires scorched 355,000 acres and transformed over 13.1 billion board feet of timber to ash and smoke (ODF, 2010). An excerpt from the 1943 Forest Survey Report for Tillamook County highlights the monumental impacts of the Tillamook Burn:

*Fires of the past decade have completely changed the forest situation in Tillamook County. Prior to 1933, the large area of old-growth forests constituted a huge storehouse of raw material sufficient to supply large lumber and allied industries for a long period of years. Now the county's forest industry is faced with a number of very critical problems—a fast diminishing supply of old-growth timber, both green and fire-killed, a critical fire hazard in the Tillamook burn, and a large acreage of deforested land that is at present non-productive.*

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The Department of Forestry carried out a massive reforestation and rehabilitation project in the Tillamook Burn area between the years of 1948 and 1973. In addition to reforestation, in June 1973, the former Tillamook Burn area was dedicated as the new Tillamook State Forest to further preserve and closely manage the landscape. The 364,000 acre state forest includes 255,000 acres from the burn (ODF, 1993). These were state level responses to rehabilitate the landscape to an ecologically and economically sustainable forest.

The reduction of timber harvests as a result of the burn led to mill closures and the loss of an established natural resource labor force in Garibaldi. Cummings-Moberly, The Whitney Company, and Hammond Lumber Company were the largest sawmill operations in Garibaldi impacted from these changes. An interviewee recalled the impacts of the Whitney Mill closure on Garibaldi:

*When Whitney shut down, what we refer to as the “old mill property,” that was probably one hundred plus jobs easily at that point and there was nothing to back fill that within the economy. People moved away. Things changed.*

When the timber mills were forced to close or downsize, the local population was left with limited options. Residents left to seek work elsewhere or remained in search of a new source of income. A small but significant portion of the population chose not to leave and was unable to find another form of income, which led to a rise in homelessness and substance abuse. A few interviewees noted the significant homeless population in the community living in the private industrial forests nearby. A longtime resident who grew up in Garibaldi, recalled this transition as a young girl; she currently lives next to a former mill employee:

*He was just basically chronically unemployed, [had] substance abuse issues, he was sitting outside drinking most of the time, just yapping at me every time I would come home. But you would see that, the ones that sort of slipped through the cracks that never did figure it out, they never did figure out how to transition. And I’m not saying that there’s a lot of those people, but there’s enough that you notice.*

A final move that signified the end of the big timber era in Garibaldi was the closing of one of the last large plants, the Locktite Plywood plant in 1975 due to environmental regulation violations. Millworkers tried to revive the failing plant by creating a co-op structure, but it never came to fruition due to insufficient funds and environmental regulations on the plywood fabrication process (Port of Garibaldi centennial documentary, 2010). There is currently one sawmill in Garibaldi, run by Northwest Hardwoods, which is operating around the clock and specializes in alder. It’s not the industry it was a century ago, but the community still relies heavily on the one mill in town for employment and the additional spending it brings into the local economy.

An additional impact of reduced timber harvests was the decline in county income from state timber receipts, detracting from available revenue for public services in Tillamook County and Garibaldi. County timber receipts from state timber were, and remain, a source of revenue, which fund schools and other social services. Total income from Northwest Oregon state forests averaged \$50 million per year in the 1994-1995 two-year period; in that same time period,



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Clatsop and Tillamook Counties received an average \$30 million per year income (total for the two counties) from state forests (DOF, 2010). Without a supplemental replacement to make up the loss of this revenue to Tillamook County, social services are struggling to function effectively on smaller budgets.

In response to the loss of revenue from state timber receipts, representatives of a local lumber mill working in state forests and the local school district campaigned to the Oregon Board of Forestry (OBF) for a state forest management program that would provide socio-economic support to Garibaldi and other communities that historically depended on timber product on the lands that became the Tillamook State Forest, also referred to as the 70/30 plan. In fall of 2013, the Oregon Department of Forestry began engaging a group of stakeholders in the exploration of alternative forest management plans. Dave Ivanoff, representing Hampton Lumber which has mills in Tillamook, presented the 70/30 plan: “In a simple description, 30% of the total acres are dedicated to values other than timber production, and the remaining 70% of the land base is dedicated to the sustainable production of timber under the provisions of the Oregon Forest Practices Act (FPA)” (Oregon Department of Forestry Alternative Forest Management Stakeholder Assessment Findings, 2014). Essentially, 30% of the land would be left for recreation and other non-extractive activities while the rest would be harvested for timber to support area communities. In 2015, the superintendent of the Neah-Kah-Nie School District and General Manager of the Tillamook County Transpiration District wrote the OBF encouraging a change in harvest management on Trust Lands to increase funding at a needed level utilizing the 70/30 plan. The Oregon Department of Forestry is continuing to work on the 70/30 land allocation approach to meet short and long term financials goals while increasing conservation outcomes. While some responses to the decline of the timber industry have been successful, Garibaldi has not yet fully recovered from the impacts of the Tillamook Burn.

### *The decline of fishing impacts a way of life*

Increased sedimentation leading to lower boat draft levels, a deteriorating jetty infrastructure, and salmon stock regulations have led to declines within the local fishing industry. The deteriorating condition of the bay and bar negatively impact the state of the estuary ecosystem and local residents dependent on income from fishing opportunities in the bay and Pacific Ocean. Regulations on salmon limit what fishermen can catch and reduce their ability to bring in revenue. All of these stressors decrease the availability of fishing jobs and associated income in the local economy.

The declining conditions impact the community, because fishing in the Port of Garibaldi is essential to the livelihoods and identity of the community. The Port of Garibaldi remains a working port supporting local fishing livelihoods and a popular fishing destination for tourists. Sought after species include tuna, crab, halibut, and salmon. The bay is an important habitat for a large variety of mammals, birds, fishes, invertebrates, and private oyster farming. The commercial clam harvest in Tillamook Bay has substantially increased and now comprises nearly 90% of Oregon’s total harvest (ODFW, 2015). Clams are also said to be more abundant in this bay than in any other Oregon estuary. The Tillamook Bay estuary provides resources for Gapers, Butters, Cockles, Littlenecks, Softshells, and Purple Varnish clams.

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The increased sedimentation in the bay resulting from the Tillamook Burn combined with natural ocean phenomena has gradually decreased the draft levels of the bay over time, according to interviewees. The Tillamook Burn accelerated the rate of upland erosion and correspondingly increased sediment load flowing into Tillamook Bay (TBTF, 1978). In the 1960s and 1970s, major floods occurred, thus initiating landslides, massive watershed erosion, and significant deposition of sediment at the river mouths (Levesque, 1980). The five rivers (Kilchis, Wilson, Trask, Tillamook, and Miami) filled and transported sediment into the bay. This period of erosion and increased bay sedimentation contributed to the insufficient boat hull draft available from the bar to the Port. Boat hull draft determines the minimum depth of water a ship or boat can safely navigate. A shallow boat draft prevents larger boats from being able to enter the bay, in turn, limiting the attraction and development of the Port of Garibaldi for commercial fishing operations.

Safety concerns of the Tillamook bar and draft levels of the bay create difficult challenges for the community to address alone, pulling human and monetary resources away from other concerns of the community. The state of the bar also creates dangerous crossing conditions between the port and ocean, reduces the number of working days for those at the Port, and takes the lives of even the most vigilant boat captains. Contributing to these dangers are the deteriorating condition of the North and South jetties. The rough conditions of the Tillamook bar brought the establishment of a U.S. Coast Guard (USCG) station in Tillamook Bay in 1908. The station was relocated to Garibaldi in 1982.

Even though the jetties were originally built to benefit the bay, the jetties themselves have become stressors on fishing and the community due to their declining condition and the need to allocate resources to maintain them. The first Port in Tillamook Bay was originally created at Ocean View in order to cover half of the cost of constructing the Bay's North jetty. At that time, the Army Corps of Engineers did not feel jetties were needed, but agreed to pay half of the cost to install the North Jetty, beginning in 1914. Beach erosion at both Barview and Bay Ocean, communities in Tillamook Bay, to the south destroyed structures and homes throughout the 1920's (Port of Garibaldi Centennial Documentary, 2010). "It has been concluded that construction of the North jetty actually impeded navigation and is one of the reasons for the depression of the fishing industry out of Tillamook Bay" (Terich, 1974).

The South jetty was not funded until 1931 and construction did not start until 1971, because the initial funds were diverted to shore up and extend the North Jetty. The jetties are necessary to improve the safety conditions for boaters traversing the bar between the bay and Pacific Ocean, but over time ocean conditions batter the infrastructure, reducing their effectiveness. Since 1971 there have been additions and maintenance performed to the jetties, most recently extension and bouldering of the North Jetty in 2008. While this maintenance has improved conditions, the rate of maintenance has not kept up with the ocean wear on the jetties.

The community has responded to the deteriorating conditions of the bay by allocating resources to maintain the bay and jetties in order to preserve the conditions that enable people to continue fishing in the community. An interviewee with city council stated the salience of this point, "In order to maintain our culture we have to have the fishing, we have to have the bar fixed so that we can have the fishing." If safety issues with the bar remain unaddressed then access to the port

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is not as attractive compared to other bays, thereby limiting recreational and commercial opportunities within the port. A member within city management commented on the state of the South Jetty and the difficulties associated with its repair:

*That South Jetty that we have in Tillamook Bay right now is in a colossal state of disrepair. It should be condemned for all intents and purposes. It's six to eight to ten million dollars to fix it. Probably more than that when you get right down to it. We don't have the money. The hell of it is it's not even our asset. It belongs to the federal government. It's up to them to maintain it and repair it. We spend the money, basically the port does, going back to DC and lobbying all the time. Eventually maybe something happens.*

The lack of federal approvals and monetary resources to ameliorate safety in crossing the Tillamook bar undermines the ability to work from the Port and, in turn, challenges the economic and social wellbeing of Garibaldi. A longtime resident elaborated on the economic impacts from the current state of the bar and Bay:

*If the fisherman can't come down here and get across the bar they're going to go to Newport, Astoria or wherever, Warrenton, Depoe Bay but they're not going to come here. That impacts the entire city. They need to dredge it badly. We don't have big boats coming in because they won't dredge the bay, so it's like a chicken and egg kind of thing. If you dredge the bay they will come, right? That's the hope, they have to, the revenue from the fishing industry feeds this community, and without that we lose x number of dollars.*

Even if the funds are provided from an outside source, there are issues with current jetty maintenance and bay dredging regulations. The U.S. Army Corps of Engineers is charged with the responsibility to maintain the jetties and must provide the approval before any maintenance may be performed. A former city manager describes the paralysis created by these federal restrictions on the needed maintenance of the jetties:

*That's not something that is likely to change because dredging the bay is under the control of the U.S. Army Corps of Engineers, which refuses to do so, and which refuses to allow anybody else to do so. It's something we simply have to deal with.*

Representatives of the Port of Garibaldi have persistently campaigned to address this issue. Most of the historic dredging at the entrance channel to the Bay has been to remove littoral sands that are continually deposited in the entrance channel by wave action. The main navigation channel through the Bay itself was dredged regularly since the late 1800's up to the mid-1970s (USACE, 1975). Recently, in early 2016, members of the Oregon Congressional Delegation sent a letter to Jo-Ellen Darcy, Assistant Secretary of the Army for Civil Works, encouraging the Obama Administration to provide funding, from the Consolidated Appropriations Act, for dredging at Oregon's small ports. The bill provides funds to the Army Corps of Engineers for operation and maintenance dredging of small commercial harbors nationwide. \$48 million in funding is reserved, but unallocated, for work at small, remote or subsistence navigation projects. The Oregon representatives requested that a portion of the \$48 million be used for nine Oregon ports,

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including the ports of Siuslaw, Umpqua, Bandon, Gold Beach, Brookings-Harbor, Garibaldi, Port Orford, Toledo and Depoe Bay. Representatives urged the administration to make these investments to keep small ports open and safe and to boost Oregon's coastal communities. In addition to the challenges with the condition of the Tillamook Bay and bar, the local fishing industry rose and responded to a number of challenges of its own.

At the turn of the century, increased fishing regulations due to the collapse of salmon fisheries stressed Garibaldi's fishing industry and caused it to constrict. The West Coast Region of NOAA Fisheries regulates salmon along the coasts of Washington, Oregon and California. An interviewee explained when NOAA declares a salmon fishery closure, based on the weakest stock along the coast, everyone dependent on that fishery loses a stream of revenue that cannot be supplemented by increased fishing with another species. Referring to recent salmon closures, an interviewee describes the immediate impacts and ripple effect from a salmon closure, particularly in small communities:

*In '06, '08, and '09 the entire Oregon coast was basically closed for salmon fishing. The impact for that was tremendous, in that you have communities, for example Garibaldi, where the fisherman, who depend on salmon fishing as part of their fisheries income could not go fishing. If you take away one of those income streams then it's not like you can create more by increasing your catch with albacore or crab. [The closure] has taken away a third of a lot of people's income, so we had fishing families who had to sell the boats, we had communities who were impacted. It doesn't just impact fisherman, it impacts the gear stores, if they're not selling their salmon gear, it impacts the grocery stores, because fishing families are not buying as much food supplies, Boat maintenance declined because families could not afford to get repairs done.*

Fishing regulations impact not only the fisherman and their immediate families but echo through the fishing industry itself and affect the communities that are dependent on those industries.

In response to this salmon closure, disaster relief funds and loans were made available to fishermen facing the economic hardship. In 2006 and 2008, Congress appropriated \$60 and \$170 million dollars, respectively, as aid for salmon fishermen (Oregon Live, 2009). Although significant, when divided between all affected communities, the amount does not compare to the normal amount of money earned in a year of salmon fishing. A declared fishery disaster also allows the state to work with the salmon commission to contract with port liaisons to promote use of state services and funding. A long-time Garibaldi resident elaborated on the state's response:

*They worked with the fishing community to help them access food stamps, to help them access training, to help them access any other state entities that were available, and so they were the liaison between the fishing families and those state services so that these families could survive, and you know, continue until the next fishery came in.*

These state and federal responses helped to temporarily reduce the impacts from this salmon closure.

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The fishermen themselves responded by pursuing other educational and work opportunities to diversify their incomes or by relying on other family members' incomes. Today fewer fishermen are looking to become captains and community members believe that crewmen are not as interested in pursuing long term positions in the industry. The wives of Garibaldi fishermen have outside jobs for the most part, to supply a steady paycheck and health insurance for their family. Many residents shared the sentiment that, "Most of the wives have to work full time to support the family because you can't [make a family wage] with just fishing." One resident interviewed estimated that 30% of the fishing businesses in this port are fishing family businesses; the rest are independent, owned by individuals and not families. More and more, families are encouraging their children to go to college and have an occupation outside of fishing because fishing has become more uncertain. This is not because they are not proud of their industry or the history of family involvement but the reality for young people coming into the field.

Fishermen are also responding by selling their catch through more varied local networks. Garibaldi has a successful community-supported fishery that supplies nearby coastal outlets and larger urban areas in Portland and Bend. This organization, CS Fishery, supports local small boat fishermen in the community and the processing plant they operate, maintaining fishing livelihoods in Garibaldi.

Tourism has acted as a replacement for some of the jobs lost from the long standing natural resource industries in the community. Garibaldi created their tourism commission in 2010 to act in place of a traditional chamber of commerce, enabling businesses to network, expand service industry training, and develop long term planning for the incorporation of tourist activities in Garibaldi. Seeking tourism opportunities is one of the primary ways Garibaldi has diversified its economic portfolio. The gradual incorporation of tourism has created some economic diversity within the community while sometimes causing a conflict between long-term visions for Garibaldi's future. At the suggestion of residents and new members on Garibaldi's city council, the Garibaldi Tourism Commission was formed in September of 2010 to expand the available industries in the area through the promotion of tourism. Residents made it clear that tourism would not overshadow or change the longstanding identity of Garibaldi as a fishing community. One interviewee mentioned:

*Having said all that, this is still a small fishing village. We do not want to be a ritzy Cannon Beach. We want the old fashioned fishing village and we want to retain that personality. It's a hard line between cleaning everything up and making it look nice to going modern. We want to retain the fishing village flavor.*

Along with the identity problems, interviewees mentioned issues with tourism not providing family wage jobs. Despite these criticisms, tourism has provided some jobs and drawn in visitors that provide additional revenue streams to local businesses.

Additionally, tourism has helped augment revenue streams to the local government primarily through the county's transient lodging tax (TLT). Garibaldi has a few notable community events, which draw visitors, and their financial support, from all over the state: the blessing of the fleet, Garibaldi Days, the Tuna Classic, Bounty on the Bay, and the Crab Races. Using the Crab Races as an example, in 2016 more than 700 people came to Garibaldi for the 31st annual two-day

racing of crustaceans, The Crab Races, which raised more than \$9,000 for the Garibaldi Lions Club charities (Tillamook Herald, 2016).

The Tillamook TLT became effective on January 1st, 2014 and generated \$2.7 million for the county in 2015. Revenues from the 10% lodging tax are divided with 30% going to maintain and repair county roads and 70% going toward tourism promotion, which includes local grants for construction of or improvements to local tourism facilities. Incorporated communities in the county, like Garibaldi, are permitted to keep their own lodging taxes while TLT generated from unincorporated areas is used to promote the county overall and support successful grant applications. TLT revenues support community infrastructure development that may expand visitation from tourists in addition to creating an attractive environment to draw in future residents.

The community does not want to repeat the consequences of dependence on a singular industry by solely focusing on tourism. The gradual incorporation of tourism is to create Garibaldi and the Port as a destination rather than a pit stop. This response is demonstrated in Garibaldi's urban renewal plan and the Port of Garibaldi's vision plan which have components that focus on attracting and retaining tourists. Garibaldi continues to seek other economic options to further diversify its local economy.

### *Cascadia Subduction Zone causes concerns*

Interviewees characterized the threat of the next Cascadia Subduction Zone event as a stressor but not something that is currently inhibiting the function of the community. They said the event would be a momentous tragedy for the Oregon coast and not something a small community like Garibaldi could bounce back from. Community members would be more concerned with surviving until they could be evacuated, not with continuing life in Garibaldi. A resident described the likely impacts from the next large earthquake event and the distinction between preparation and resilience:

*It'll be the kind of disaster that not just kills people but it's going to kill the association of the community for people. In other words, they're going to see their community wiped out and they're not going to want to live here anymore. They're going to want to pack up and go. That's going to happen. It's going to take out whole sections of residential communities along the Oregon Coast...It'll probably be the most horrible natural disaster. There's no resiliency. There's no way we're going to bounce back. For my part, the only thing I need to prepare for is four, maybe six months of keeping people alive so they can get the hell out of here because we're not rebuilding anything. We're gone.*

Despite the understanding of the limited potential responses to such a catastrophic event, preparations in Tillamook County and Garibaldi have been comprehensive. This narrative above is analogous to the predicted outcomes for Oregon's northern coast in the State's Cascadia Subduction Zone Catastrophic Earthquake and Tsunami Operations Plan (OMD, 2012). Tillamook is the first county on the coast of Oregon to have a multi-jurisdiction natural hazard mitigation plan. Created in 2005 and updated in 2011, the plan focuses on methods of mitigation for natural hazards that could affect the communities of Tillamook County, Oregon, including:

climate change, coastal erosion, drought, dust storms, El Nino / La Nina, earthquakes and tsunamis. In addition, Garibaldi also has a defined Tsunami evacuation plan with supplies and rations stored at evacuation meeting points.

### Factors enabling and constraining response

The following section identifies prevalent enabling and constraining factors that affected responses to external stressors in Garibaldi. This section also provides examples for how each factor enabled or constrained responses, or both enabled and constrained responses. A summary of the enabling and constraining factors can be found in Table 3.2 at the end of this community case study.

#### *Natural resources and amenities provide jobs and an outside draw*

Access to natural resources enables this community to respond to stressors by providing a resource base for the economy and an attraction for tourists and new residents. The availability and abundance of renewable natural resources led to early successes in the timber and fishing industries, influencing the rapid growth and development of Garibaldi. Even though these industries are not as economically robust as they once were, the ability to access and economically utilize these resources provides jobs, supports local livelihoods, and continues to maintain a strong pride in the community. The Northwest Hardwood Mill and fishing community at the Port continue to provide employment opportunities and funds for local commerce from the available natural resources in the area.

Furthermore, marine and terrestrial natural amenities create an aesthetically pleasing environment that draws tourists and potential residents to the coast. The combination of ocean access, public beaches, expansive forests, and adjacency to a bay, creates an atmosphere attractive to those looking to escape the urban environment. The community's natural amenities draw in visitors and future residents who contribute to the community's economy. In addition, future residents bring new life and ideas into the community. Multiple interviewees not born in the area recalled how previous visits as tourists led to the decision to move permanently for the scenic resources available. Retired interviewees commented that Garibaldi provides the calm and relaxing environment ideal for their post-career lifestyle.

#### *Pride of place motivates short-term action but hinders long-term visioning*

Residents' local community pride was described as both an enabling and constraining factor to response, depending on the topic of discussion. The community pride in Garibaldi enables responses by creating the instilled desire to maintain and improve the lifestyle residents live and address the challenges that threaten this lifestyle. This sense of pride in turn has been the largest capacity helping this community through its challenges due to its influence on other enabling factors. An interviewee described how personal differences are set aside when larger short-term challenges arise:

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*If something monumental happened here that required people to come together, they would, and they would throw aside every difference, and every old neighborhood spat and century old family spat, and once it was solved, and they would go back to it. But they will come back together and support neighbors, and it's an incredible place.*

Interviewees described the community as close knit in these instances out of necessity. They described how the community is unable to rely on state or federal sources of relief for immediate short-term challenges. However, being a small isolated community, many residents feel so much pride in Garibaldi's fishing heritage that they will not consider any long-term plans that would cause the economy or the community to change drastically. While the sense of pride motivates the community to solve short-term problems, it poses a challenge for long-term visioning.

### *Effective leaders working with strong internal networks enable responses*

When interviewees described effective responses to some of the larger challenges in Garibaldi, many attributed the success to effective community leaders and established internal networks. For example, interviewees recalled the extensive efforts of a former city manager who sought out and successfully acquired several grants for the city that were used for larger infrastructure projects, such as the wastewater treatment plant. In addition, others mentioned the effectiveness of the Port manager, who was the former Master Chief Petty Officer of the USCG station in Tillamook Bay. Described as an effective organizer and collaborator, he brings institutional knowledge from another managing branch of the bay. Interviewees described the skills and actions of these community leaders as reasons for successful responses to some of Garibaldi's previous challenges.

Descriptions of strong internal networks primarily focused on the relationship between city council and the Port. These independent entities have not always worked in sync, but recently have begun to share information and resources to address community challenges to higher-level, long-term stressors. For example, the city and the Port have an intergovernmental agreement to share the services of the city engineer to oversee projects. This type of action has reduced the cost of services for both the city and the port.

### *Limited funding and resources constrains ability to respond*

Garibaldi developed from the extractive timber and fishing industries on Oregon's coast; as these two industries contracted over the years, the streams of revenue they brought in through timber receipts and living wage jobs followed suit. Monetary resources were commonly described as a restricting factor for responding to the challenges, because they limited what challenges could be addressed by the community. This forced local officials to accomplish the same tasks as before with fewer resources. Many of the subsequent factors contribute to the lack of monetary and human resources available to address external stressors.

Limited governmental funding creates a struggle to fund and manage the day-to-day operations of the community, in addition to taking on unforeseen issues that are anticipated to arise. The former dependence on funding from timber receipts has not yet been replaced by other sources. While the income and community attraction from tourism has helped compensate for this economic void to an extent, it is met with mixed support and not a sufficient replacement.



### *Lack of available affordable housing prevents community growth*

A majority of interviewees described the lack of available affordable housing as a constraint to attracting future residents that could contribute to the local economy. The extent of Garibaldi's land area is approximately one square mile, with most land already developed. There is room for expansion, but most of the developable land is in the "old mill" site, which has an unknown future for development. A real estate company purchased the land with promising plans for residential and commercial development, potentially opening the door to new business opportunities in town and near the port, but building plans halted with the 2007-08 recession.

There has not been any major construction in Garibaldi since 2005 and approximately one third of homes are vacation or seasonal with the rest remaining single family homes or middle/lower income housing. A shortage of available affordable housing is compounded by the fact that property on the coast is comparatively more expensive. An interviewee described his views on property costs and taxes:

*That's always been a challenge because something else [that] affects us greatly is property value. Scenic property is more valuable. It's just how it is. Out here, property values are kind of a hindrance in a sense because it's not like you can get a manufacturing industry or somebody like that come out here and open up a shop because they can't afford the property, they can't afford the taxes and it doesn't make sense because they don't have access to things that you find in urbanized areas. The shipping costs go up.*

This shortage of housing is exacerbated due to homeowners renting out their property short-term to tourists, instead of long-term to residents. Garibaldi is located among other tourism-focused communities like Rockaway Beach and Manzanita. If vacation homes are too costly or unavailable, homes in Garibaldi are rented to short-term visitors who pay higher rates than longer-term renters. A community member in the area described why available homes are not typically being rented to individuals or families for long-term leases:

*People would put up a house into vacation rental and get you from 100 to, depending on the house, 300 dollars a day. So sometimes it's hard to look at "Can I lease this for 800 a month or 1200 a month or when you can get a couple hundred a day", especially as we become more viable with the tourism industry.*

The lack of available affordable housing constrains the ability of the community to attract businesses and residents, limiting population and economic growth. Even when there is desire to grow, expansion is limited by the available space for residential, commercial, and industrial developments.

### *Community resistance to growth prevents development*

Many of the aforementioned stressors required a response that would lead to economic diversification and development of this small fishing village. That development and diversification directly contradict the identity held by many of its current residents. When

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available economic growth opportunities are met with resistance from the community, it limits the options of response to current and future stressors. For example, housing development proposals are met with pushback from residents who are concerned about Garibaldi's growth detracting from its fishing village lifestyle. An example is an apartment building that needed approval from the city planning committee. Opponents spoke against a new building that would invite additional residents, additional traffic, and longer lines at the store. A longtime resident recalls this debate during a city council meeting:

*But then a real estate agent got up and said, you know, I've been wanting to move into town but we can't find housing. There was a good discussion in the room, and I think the people that were against the apartments in the beginning saw a different side of it by being there at the meeting. And it's moving forward now, so we're ok, but I was kind of surprised at that. People that don't want growth, even if it's positive, and if it's good to the whole town. They still just want things to stay the same.*

The individual pride of residents, which stems from being part of this fishing village, has not always aligned. While residents' long-term visions for the community varied, most included that understanding that Garibaldi would remain a fishing village. These conflicting long term visions of the community can constrain responses by causing a gridlock in the decision making process. Interviewees said much of the disagreement seems to stem from differences in vision across generations and the unproductive communication in council meetings when attempting to address these problems. A longtime resident from Garibaldi described success stories in Astoria, Oregon's Northern most port, given its collaborative culture across generations in comparison to what she sees in Garibaldi:

*Think we've got some denial, real, sort of breakdown in communications amongst, or across the generations, and that's I think, part of why we haven't seen a big improvement, particularly in a place like Garibaldi.*

Older residents are more resistant to discussions of change with newer residents who do not have a generational connection to the area. Residents' concern about growth in Garibaldi also restricts the desire to expand certain types of retail in town. The varied future visions of Garibaldi conflict with how residents want to view their home environment. There are residents who want the town to remain small and focused on the traditional resource extractive industries. Others suggest this singular response is not viable given the changing economic and social challenges within the community. Despite these differences in perspective, city council and the Port work together very well through a constantly evolving shared vision for the development and sustainable success of Garibaldi. Some interviewees do not feel this is an issue that can be corrected in the short term, or by governing bodies, but requires time to pass:

*The rural communities are trying to find answers themselves, but change comes slowly, and there's a saying here that change comes one funeral at a time. Frankly, we've got some folks that are really set in their ways and it explains why we do things like we do, because we've always done them this way.*

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Resistance to growth constrains potentially effective responses to a constantly changing environment on the coast.

### *Lack of family wage jobs prevent retention and attraction of residents*

Limited family wage jobs constrain the ability of Garibaldi to respond to challenges by limiting its ability to retain and attract young professionals and families to the community. For the first half of the 20<sup>th</sup> century, the community had many family wage jobs through the timber and fishing industries. When these two industries declined, family wage jobs were lost as there were no other industries or employment opportunities available. It remains challenging to bring in new industries and large employers due to the lack of an available workforce, which stems from the lack of available affordable housing. The inability to retain current and attract new residents constrains the economic base and population size of Garibaldi, which has been declining since 2000.

### *Limited educational opportunities reduce community attractiveness*

The quality and availability of education is an important factor that many young professionals and families look for when evaluating future communities to live in. Limited access to quality K-12 and other academic opportunities constrains Garibaldi's ability to retain community members with children and attract potential new residents interested in the area. Garibaldi currently has a grade school serving approximately 200 students in the Neah-Kah-Nie school district. They used to have a high school that closed in 1954 due to the opening of Neah-Kah-Nie High School in Rockaway Beach. Residents commented that the school district struggles to attract and retain teachers within the district because of their location and level of salary. A community college in Tillamook provides associates degrees and technical and professional training in business and other trades. The inability to attract new families due to the limited access of education prevents Garibaldi from replacing its current aging population, constraining the human capital available to respond to future stressors.

### *High cost of living and low wages along the coast complicate responses*

While Garibaldi is the closest coastal port community to Portland, which facilitates visitation to and from the urban center, its location both enables and constrains response to external stressors. The community's location along the Oregon coast creates a baseline economic situation dissimilar to urban communities in the valley; in Garibaldi, the cost of living is higher than in cities but the wages are lower. A community member involved with city planning emphasized a few of the differences between life on the coast and life in the valley which were shared by multiple interviewees:

*Everything's more expensive at the coast. Fuel is more expensive, food is more expensive, housing is more expensive, and at the same time, wages are lower at the coast, and employers know people want to live at the coast, so they can pay less and get qualified people to come, and the stores know they can charge more for food because there's no competition. Those are both contributors towards the problem.*

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In addition to an increased cost of living, wages are comparably lower on the coast reducing disposable income. An interviewee expanded on the tradeoffs between living on the coast and available wages:

*Family wage jobs in coastal communities are hard to come by, like the job that I'm doing, if I were in the valley or somewhere else, I would be paid a whole lot more than what I'm being paid now, and don't get me wrong, I'm happy with where I am and what I'm doing and what my pay is, it's just that comparable jobs in other areas would be compensated more than they are at the coast, so by coming to the coast you are automatically going for a pay reduction, but it's your lifestyle that you're looking at, that's the difference.*

This baseline economic situation constrains responses by limiting available time and physical contributions community members can contribute to address community challenges. This economic state also decreases the attraction to future and retention of current residents.

### *Geographic isolation limits outside attraction and emergency responses*

Garibaldi's location influences the community's ability to attract outside businesses and investments and its degree of access in emergency situations. Garibaldi can only be reached by State Highway 101, the Port, and the Oregon Coast Scenic Railroad. Its distance from major metropolitan areas means high shipping costs for businesses in the area, making it less attractive for investment. Future residents and business are comparably less attracted to communities with low accessibility because of the increased difficulty and time of travel. A longtime resident commented:

*Garibaldi doesn't have that kind of appeal that draw to the young, or the creative class, like Astoria, in Newport, the two larger northerly coastal communities in Oregon, they do attract those sort of entrepreneurs. Garibaldi, it's just small, it's off the beaten path, it's not a draw for folks that would maybe want to come in and shake things up a bit.*

The limited number of access points into the community reduces the ways in which emergency management organizations' can respond to natural disaster, increasing response times. Natural disasters include extreme winter storms, flooding, and the next large earthquake originating from the Cascadia Subduction Zone. A resident recalled how damages from a large winter storm cut off the community:

*We have one drawback or problem, more than one probably. When we have the big floods that we periodically get, our access out of Garibaldi is zero. This is Highway 6 or north to 26 where we would be blocked both ends, which includes being blocked to the hospitals, both the one in Seaside and Tillamook. That big storm we had in '07 was the last big one and we had no telephone service for a week. We were isolated. Nobody could get in. Nobody could get out. They finally had some boats down there that if they needed a medical emergency they could.*

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Garibaldi's location constrains the accessibility necessary for effective emergency response operations and subjects the town to intense competition for new industry, business, and residents.

### *Lack of economic diversity limits alternatives*

In spite of community efforts to replace declining natural resources industries, residents described their local economy's lack of diversity as a challenge. Lack of economic diversity was not described as exclusive to Garibaldi; it was mentioned as a problem facing the county as a whole. With a focus on touristic activities, one resident described what he viewed as the fulcrum to addressing many of Garibaldi's interrelated challenges:

*I think that diversification is really the key, this local economic diversification in Garibaldi, not just with a diverse visitor demographic, but also a diverse Port business portfolio, the port needs to integrate a variety of different kinds of businesses, which co-exist and feed of each other. If you have three large commercial fish processors that's kind of a static situation, but if you have a huge brew pub that serves fish from the docks, that buys right there, and you kind of blend those different types of businesses together, or doing business with each other, then I think you have a much stronger economy.*

This lack of economic diversity constrains Garibaldi's ability to handle dramatic industry shifts in the community. If the community remains primarily dependent on natural resource industries, then Garibaldi has nothing to fall back on economically if fishing or timber jobs decrease even more in the future.

### *Proximity to more economically attractive communities erodes local commerce*

Garibaldi's proximity to more economically attractive communities constrains its ability to respond to external stressors by limiting what industries and business it can draw to the community. Furthermore, local businesses are left to compete with larger non-local outlets that are able to offer lower prices and cut overhead costs. Larger adjacent communities have comparably greater infrastructure and economic capacities that attract business opportunities and residents from Garibaldi. For example, smaller local business outlets are forced to close in Garibaldi because they are unable to compete with big box stores in adjacent communities. This economic competition challenges current business operations and detracts from future business opportunities. Expanding on the loss of a business opportunity, a community member described a plan that was not implemented between Garibaldi and the Pelican Brew Company:

*Pelican ended up deciding to move, or expand, and open a new brewpub in Tillamook and not in Garibaldi. So that was a missed opportunity, and I don't know if there was anything wrong with Garibaldi, or maybe Tillamook offered some incentive that Garibaldi couldn't. I know the city manager was looking really hard to potentially try to offer them some sort of credit or waiver in exchange for the economic growth and jobs it would bring, but it didn't come to fruition.*

Garibaldi's residents and visitors often use the food, health, and entertainment amenities in other adjacent communities, reducing local commerce. For example, Garibaldi has a successful local grocery store, but families traveling from Portland to Garibaldi are able to purchase a wider variety of items, some at a reduced price, at the Fred Meyer grocery store in Tillamook. Interviewees stated the Meyer grocery store influenced the recent closure of the local pharmacy because it did not have the client base to make ordering medicine cost effective.

Economic competition with adjacent communities limits Garibaldi's ability to draw in new businesses and limits local commerce due to cheaper available goods and service outside of the community. This draw outside of Garibaldi makes it difficult to develop the necessary economic and human resources to address community challenges.

### *Summary and Conclusion*

Garibaldi has experienced varying degrees of community stressors stemming from natural resource decline, external policy interventions, and an impending earthquake. The gradual decline in the timber and fishing industries, which provided jobs and living wages, left an employment and economic void. The shift in work availability led to a decline in the working class and an influx of retirees, who had the means to afford a home in this community but were not concerned with employment. Since the turn of the century, Garibaldi's population has been on a gradual decline and the community is having difficulty attracting new industries, amenities, and residents to address chronic stressors. The areas natural and scenic resources continue to provide jobs in extractive industries and attract tourists that contribute to the local economy, but there remains a lack of family wage jobs available. Local leaders are successfully working within internal networks to respond to these community challenges.

The community of Garibaldi has demonstrated resilience through their ability to cope, adapt, and reorganize in response to stressors. After the initial coping stage following timber and fishing decline, the community moved to advanced stages of resilience by creating a tourism commission and urban renewal board to attract visitors, businesses, and future residents to expand local economic diversity. Further, the city council and Port have reorganized their relationship to more effectively share information and resources when developing infrastructure projects, like the wastewater treatment plant. Variations in forms of response to stressors are attributed to the inherent economic conditions of a small fishing village on the coast of Oregon, affecting its ability to reorganize and adapt to external stress. Community members said much of their strength and ability to respond to stressors was derived from: creative and strategic thinking from leading individuals and groups; identifying and capitalizing on strengths such as community pride and internal networks; and the immediate local response to short-term stressors due to strong community cohesion. Although, adaptation to long-term stressors remains an issue due to the generational differences in the vision for Garibaldi have some pushing for economic and population growth while others desire to remain a small fishing village. The efforts of reorganization are trying to merge these two goals. The gradual inclusion of tourism in the local economy partially compensates for the jobs and income lost from extractive industries and continues to bring visitors. Local leaders promote and build upon current notable events, such as the Blessing of the fleet, Garibaldi Days, the Crab Races, which draw thousands of visitors every

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year. Leaders and residents of Garibaldi continue to cope, adapt, and reorganize in response to changing conditions in demography, industry, and external regulations.

Interviewees shared a list of things that could help to build Garibaldi's capacity to address future response to community stressors. Most frequently mentioned were financial resources, additional external funding sources and additional revenue for the local government. Additional streams of funding will help reduce the strain on the local government's budgets when responding to challenges that require monetary heavy responses, such as large infrastructure or Port improvements. In connection to diverse sources of funding, there is a strong desire for someone to invest their resources in a business opportunity into Garibaldi, either in town or on the Port, to address issues of family wage jobs, available affordable housing, local economic diversity, and other factors that help attract and retain residents and tourists. The ability to draw in new residents would better allow the community to develop the local economy and spur population growth. Another capacity mentioned concerning attracting people to the community is the development of an attractive public space for potential residents and businesses. Cleaning up the downtown area and introducing more retail or amenities for residents and tourist in town would increase the community's attractiveness to business, tourists, and future residents, enabling the potential for economic and population growth. In addition to terrestrial improvements, almost every interviewee mentioned the need for federal interventions to improve the condition of the jetties and intensive dredging in the bay. According to them, both are necessary to improve the ecology of the estuary, attract more boats and business to the Port, and improve the safety of individuals crossing the Tillamook Bar. Overall, when interviewees described what the future of Garibaldi will look like, many explained that not much is likely to change in the near future.

## *Table of Stressors, Impacts, Responses, Constraining and Enabling Factors for Garibaldi*

*Table 3.2: Garibaldi summary table*

Stressor	Impacts	Response
1. The Tillamook Burn and decline of timber industry	a. Destroyed hundreds of thousands of forestland.	<ul style="list-style-type: none"> <li>• Massive reforestation project.</li> <li>• Former burn area dedicated as new Tillamook State Forest.</li> </ul>
	b. Closure of mills and loss of mill jobs.	<ul style="list-style-type: none"> <li>• Residents depart Garibaldi and population begins to decline.</li> <li>• Homelessness and substance abuse from those who did not find additional work opportunities.</li> </ul>
	c. Decline in county income from state timber receipts.	<ul style="list-style-type: none"> <li>• Community leader campaigns with the Council of Forest Trust Land Counties for a modification in state forest management plans.</li> </ul>
2. Decline of fishing	a. Lack of funds and support for Port and Jetty maintenance	<ul style="list-style-type: none"> <li>• Political campaigns for funding and approval for dredging and Jetty reconstruction</li> </ul>
	b. Limits profitability of once successful career.	<ul style="list-style-type: none"> <li>• Seek options to diversify with other industries, such as tourism.</li> <li>• Selling fish through new local networks by way of community supported fisheries</li> </ul>
3. Natural hazard	<ul style="list-style-type: none"> <li>• A clear understanding of the catastrophic consequences of the next big earthquake.</li> </ul>	<ul style="list-style-type: none"> <li>• Tillamook is the first county on the coast of Oregon to have a multi-jurisdiction</li> </ul>



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		natural hazard mitigation plan.
		<ul style="list-style-type: none"> <li>• A local Tsunami evacuation plan with supplies and rations stored at evacuation meeting points.</li> </ul>
<b>Enabling Factor</b>	<b>Enables</b>	
1. Natural and scenic resources	<ul style="list-style-type: none"> <li>• Brings in tourists and residents</li> <li>• Continues to provide work with renewable resources</li> </ul>	
2. Pride of place	<ul style="list-style-type: none"> <li>• Inherent community response to immediate community issues.</li> </ul>	
3. Effective leaders working with internal networks	<ul style="list-style-type: none"> <li>• Former city manager acquiring large grants for infrastructure projects.</li> <li>• Institutional knowledge from USCG at the Port.</li> </ul> <p>Effective working relationship between the city and the Port.</p>	
<b>Constraining Factor</b>	<b>Constrains</b>	
4. Limited funding and resources	<ul style="list-style-type: none"> <li>• Reduces resources available for the local government to address community issues.</li> </ul>	
5. Lack of available affordable housing	<ul style="list-style-type: none"> <li>• Decreases community attraction to businesses and residents, limiting population and economic growth.</li> </ul>	
6. Community resistance to growth	<ul style="list-style-type: none"> <li>• Prevents potentially effective responses to community challenges.</li> </ul>	
7. Lack of family wage jobs	<ul style="list-style-type: none"> <li>• Decreases community attraction to businesses and residents, limiting population and economic growth.</li> </ul>	
8. Limited educational opportunities	<ul style="list-style-type: none"> <li>• Limits ability to replace community's current population limiting human capital.</li> </ul>	
9. Economic conditions at the coast of Oregon	<ul style="list-style-type: none"> <li>• Higher cost of living and lower wages at the coast limit the monetary and physical contributions of community members.</li> </ul>	
10. Geographic isolation	<ul style="list-style-type: none"> <li>• Decreases attraction to businesses and future residents.</li> </ul>	

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	<ul style="list-style-type: none"><li>• Limits access to emergency responders during natural disaster situations.</li></ul>
11. Proximity to economically attractive communities	<ul style="list-style-type: none"><li>• Limits community's ability to attract new businesses.</li><li>• Detracts from local commerce due to services outside of community at a reduced cost.</li></ul>
12. Pride of place	<ul style="list-style-type: none"><li>• The desire to maintain Garibaldi as a fishing village prevents even small developments of the area.</li></ul>

# Depoe Bay



*Prepared by Nathan Wells*

## Chapter 4: Depoe Bay Case Study

*“Our greatest asset, I think everybody is here because they want to be. I think everybody has their personal reason for being interested in the community, and is kind of like a family.”*

*- Depoe Bay Community Member*

### *Introduction*

#### Depoe Bay Today

Driving north from the deep-water harbor of Newport on Highway 101, the Pacific Ocean is just a stone’s throw to the left. 12 miles north lies a community of 1,600 people, built atop a sea wall, hugging a little inlet colloquially known as the World’s Smallest Navigable Harbor. This is Depoe Bay, and their *raison d’être* is in the name.

Along the highway cluster a collection of coastal-themed gift-shops, restaurants, and candy stores. These are critical pieces of the Depoe Bay economy, to be sure, but they are not enough to explain the draw of this place. Every year, thousands of visitors from Idaho, Massachusetts, Germany, Finland, Japan, and beyond, flock to this tiny harbor to take chartered fishing trips, or catch a glimpse of the whales that routinely migrate through this corridor. Around 2010, a new whale-watching industry sprung up here. Visitors book trips through one of Depoe Bay’s two charter agencies, and invigorate the economy not only with charter boat and fishing license fees, but often by spending money at the local restaurants, hotels and gift shops. There are no chain stores, grocery stores, schools, or manufacturing in Depoe Bay. The town is highly sensitive to what goes on at the harbor since almost all business revolves around the harbor, the ocean, and tourism. One resident told us, “Everything, the hotel, the restaurants, the gift shops, everything, one way or another is tied to what happens in this harbor.”

Census Bureau statistics reveal an aging population and a small young adult age class. A large number of boat captains in Depoe Bay are middle-aged, or approaching retirement age. This implies that the community may soon see a large portion of the charter captains on which they rely retiring. One interviewee said, “If you’ve been fishing for years and you have all these permits, you have more advantage, but now, the startup capital to get into [the fishing] industry... is a struggle for fishermen.” On average, the age of the town is skewed heavily toward advanced middle-age.

*Table 4.1: Depoe Bay demographic information*

<b>Population</b>	1,398
<b>Median Age (years)</b>	53
<b>Median Income (households)</b>	\$45,047
<b>% under 18</b>	9.7
<b>% over 65</b>	29.8
<b>% not in workforce</b>	38.2
<b>Living Below Poverty Level</b>	16.9
<b>% With Retirement Income</b>	24.8

Source: American Community Survey, 2014.

The city is sharply divided by the main bridge over the harbor entrance along Highway 101. South of the bridge, blight manifests in shuttered businesses, a potholed highway, a total lack of pedestrian access, and decaying residences since the town fell on hard times after the fishing crash of the 1990s. In addition to a shrinking natural resource base, Depoe Bay faces challenges related to fisheries policy. Their responsiveness is inhibited by the lack of a tax base, antiquated infrastructure, income disparity, a lack of living-wage jobs, and contentious small-town politics. All these immediate concerns have taken precedence, and restricted their capacity to respond to stress.

## Background

Originally a part of the Siletz Indian reservation, Depoe Bay derives its name from Chief Charlie DePoe who lived there with his family around the turn of the 20<sup>th</sup> century. The Sunset Development Company began selling \$1,000 lots to white settlers in the 1920s, intending to turn the town into one of the leading year-round resorts on the Pacific Ocean. While Depoe Bay did eventually become a tourist, if not resort destination, for much of its history the town thrived on fishing for the Chinook and coho salmon making their annual pilgrimage (LuMaye, n.d.). Residents say that, “There were so many boats in this harbor at one point in time, you could walk clear across the harbor without getting your feet wet.” The Depoe Bay Crab Company, and others like it shipped their product around the world, and brought jobs and prosperity to the people there. Geography conferred a distinct advantage on this small but bustling operation: the harbor offers unprecedented access to the ocean, barely 100 feet of dog-legged stone channel separate the port from open water. The settlement grew to include a world-class aquarium, a Coast Guard station, a wildlife museum, and a school. Throughout the middle of the 20<sup>th</sup> century, events like the Salmon Bake, and the Indian Summer and Homecoming celebration, were held annually to honor the town’s historical connections to local Siletz Native American tribes (LuMaye, n.d.). Today, only the Coast Guard station and Salmon Bake remain of these traditions and institutions.

The shallow harbor and narrow channel cannot accommodate boats over 50 feet long, so in the 1970s and 1980s, when commercial fishing was a strong industry, the harbor was packed to capacity with smaller boats, each requiring their own crew, and generating more jobs than a deep-water harbor of the same footprint would support; and there was plenty of fish to go around. After decades of prosperity from the commercial fishing industry, salmon stocks crashed in the 1990s, and the town was left with an infrastructure centered on an industry that was

becoming heavily regulated and no longer as profitable. To adapt, fishermen left the community for the fertile Alaskan fishery, or repurposed their boats to offer chartered fishing trips to tourists. This latter strategy succeeded in becoming the basis of Depoe Bay's modern economy, but it is not without its complications.

## *Findings*

### Stressors, Impacts and Responses

The following section analyzes interviewees' responses to questions probing their perceptions of the major stressors facing the community, the impacts of these stressors, and the ways in which the community has responded to the stressors. Examples of impacts and responses detailed by interviewees are quoted or paraphrased. While a variety of other factors may be impacting these communities, only those mentioned repeatedly across interviews or heavily emphasized are reported here. A summary of the stressors, impacts, and response can be found in Table 4.2 at the end of this community case study.

#### *Decline of fishing requires economic restructuring*

Captains, deckhands, processors, shippers, and restaurant owners all benefitted from the largess of the ocean via an economic ripple effect, until the early 1990s, when fish stocks – primarily coho salmon, the mainstay of this economy - began to crash. “Salmon are synonymous with fishing on the coast,” one long-time resident said. Depoe Bay has historically depended primarily on coho salmon. Statewide, throughout the 1980s, Oregon fishermen caught, on average, 1607.9 tons of coho per year. In the 1990s, this figure fell to 309.8 tons of coho landings per year. From 2000-2014, that number rebounded slightly. Average landings for this period were 401.5 tons of coho salmon per year for the entire Oregon coast (Commercial Fisheries Statistics, NOAA). When asked about the biggest stressor on the community, one resident put it bluntly, “the biggest blow was the collapse of the salmon fishery.”

Fishery collapse has contributed to or exacerbated most of the challenges Depoe Bay faces. As the natural resource base shrank beneath their hulls, the main impact was that the fleet contracted. At one time, “Boats were rafted five deep out from the dock.” By May 2015, however, each slip had but a single boat, if any. As the 1990s dragged on without fish stocks rebounding and regulatory pressure to conserve scarce resources mounting, the impacts were felt all over town as businesses closed. The Depoe Bay Crab Company moved to Newport, then the owner sold the business. The fuel dock, the ice plant, and repair facilities all closed. Each boat owner is, in effect, a small business owner. As the business community shrunk, their support industries, such as accountants and lawyers, responded by pulling out of town as well. One community member told us about the demise of the support industries, “The last person to have a fish-gutting station in here was a good friend of mine, and the last year he was in operation he did not receive enough fish to pay for the [operation of the] new hoist.” There weren't enough

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fish, and therefore money, moving through the harbor to sustain support industries. In the space of a single decade, the impacts became devastating; this fishing town could no longer support itself from fishing alone. All the full-time commercial fishermen that were based here now run their operation out of Newport.

Although most fisheries are by nature seasonal, brought nearly to a halt by the fall and winter storms, the impacts of these business closures were felt year-round. The deckhand and processing jobs that were lost were the most reliable and profitable working-class jobs in town, and without them, residents became more susceptible to other stressors still to come.

With the fishing stocks depleted, the town has come up with a new business model. Throughout the 1990s and into the 2000s, the town and the fleet responded by reinventing themselves to cater to tourists. Depoe Bay has become a popular destination for charter fishing and whale watching in the spring and summer, and to a lesser degree, storm chasing in the late fall and winter. Charter companies and angler captains popularized new fish species to their guests, such as ling cod and canary rockfish that had previously been largely ignored when salmon was the mainstay of the economy. Traditional festivals such as the Native American-style Salmon Bake and the Fleet of Flowers have taken on added significance as the town's businesses have come to rely on them for the surge of tourist traffic they attract each year. Faced with a declining natural resource, and mounting regulatory pressure, Depoe Bay has learned to use the ocean, in new ways that are both economically viable, and minimally extractive. The community has adapted to the loss of their primary resource, salmon, through effort shift to tourism. However, the fishermen are still forced to cope with minimal support industries, and a town that is gradually shifting its focus toward tourism and away from fishing.

### *State and regional fisheries policies add to the burden*

#### *Fishery conservation failing to deliver benefits*

Fisheries management policy exacerbates an already difficult scenario for Depoe Bay. In the early 2000s, fisheries management in the Pacific became more precautionary. In 2002, the National Oceanic and Atmospheric Administration (NOAA) created Rockfish Conservation Areas, or RCAs, at specific coordinates around the nation to conserve reef fish, primarily rockfish, by closing those areas to specific kinds of gear used in fishing (NOAA Fisheries, n.d.). One of these fell within Depoe Bay's traditional fishing grounds below 30 fathoms depth. Rockfish are currently a main pillar of Depoe Bay's charter fishing sector, so restrictions on their take requires fishermen to focus on the remaining nearby fishing grounds, or seek much further afield, burning additional fuel. Said one community member, "We're in a box... We're fishing essentially no more than three miles offshore, and the box keeps getting smaller." Another interviewee added, "I think some of the families that have been here for a hundred years ... thought that something like this could have a huge impact and maybe kill their sustainability as far as their income." Since quotas for each individual species tend to be small, they rely on having a wide variety of catchable fish available, some of which are only found within the RCAs, said one resident who works on the docks.

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Also in 2002, former-Governor Kitzhaber called for recommendations for two pilot marine reserves off the Oregon Coast. Depoe Bay fishermen felt that the rich Siletz reef near their traditional fishing grounds might be targeted, which would have been a hard blow to the already-stressed fishery. Several community members initiated an internal organizing response by forming the Near Shore Action Team, or NSAT (Husing, 2009), a commission of local fishermen and non-fishermen with local knowledge of the ocean and the economy. NSAT is designed to give locals a voice in ocean management through organizing, public education, lobbying, and testifying before the State legislature.

Depoe Bay citizens were concerned that the marine reserve nomination process would not take the needs of coastal communities into account, and that fisheries managers did not have an accurate baseline estimate of how many fish were present off the coast. One resident who was involved in the marine reserve process explained:

*The nuts and bolts of it is that these economies along the Coast all depend upon those fishing resources going on there. They need some good sanctuaries, and they need some good science, and they need to study it, and that ought to come back. But if it went to a vote of the people of the state of Oregon, the majority of the voters are in the Willamette Valley, and they haven't a clue of how that would affect the coastal economies.*

NSAT's response was to proactively propose a site for a marine reserve not far from Depoe Bay at Otter Rock with two goals in mind: delimit the extent of fishing restrictions in their area and promote fisheries research to gain a clearer picture of ocean conditions. This reorganizing behavior allowed them to deflect what could have potentially been a major stressor for the town. One NSAT member said that their successful bid gave them a preserve that was easily enforceable and only minimally restricted their fishing patterns. Fishermen mentioned the "spillover effect" as one of the justifications they heard from the state government for creating the reserves. There is contested evidence in the scientific community that marine reserves create a spillover effect, where fish spawned in the protected area appear more abundantly outside the reserve, as crowding within forces fish to migrate outside the reserve, contributing to the fishery (Harmelin-Viven et al., 2008; McClanahan & Mangi, 2000; Halpern et al., 2010). NSAT also believed they had gained an opportunity to attract research money to their community because part of the marine reserve legislation mandates that the sites be studied to determine the biological and sociological effects (Husing, 2009). NSAT interpreted this to mean that researchers would need to consult fishermen on designing fish surveys. NSAT also believed that researchers would need to commission Depoe Bay captains and their boats to conduct operations out of their narrow harbor, which cannot accommodate even Oregon State University's (OSU) smallest boat. One resident familiar with the harbor and marine research said, "An OSU guy did bring their boat in here one time, and it was kind of rough when he did, and he did hit the rocks, so that was the last time." However, these expected beneficial impacts and cooperative efforts with state agencies did not emerge, so Depoe Bay continues to weather the stress of constrained fishing grounds that they cannot address on their own.

The chance to participate in the research process might have improved relations between the local fishermen, ODFW, and academic institutions. Multiple examples have shown that



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community participatory research enhances these ties and promotes cooperation and multilateral understanding (Israel, 2013). Attitudes toward ODFW are mixed in Depoe Bay. While fishermen, business owners and educators that were interviewed all expressed a wish to see commercial fishing return to Depoe Bay, none appeared to believe that it could be the same economic force that it was in the 1970s and 1980s. Most recognize that fisheries monitoring and regulation was necessary, but believed it to be overwrought at present. One interviewee who was otherwise critical of ODFW's regulations illustrated this well, "I think frankly as far as rockfish go, given the present capacity of ODFW to manage it, they're doing very well, given the tools that they have to work with." The cause of concern is the perceived mismatch between the benefits the community expected to see from these programs and the reality. To date, residents report few to no benefits, economically or ecologically, from Oregon's fishery management policies.

### Rising license fees stress Depoe Bay, restrain ODFW & hatcheries

Fisheries policy continues to be an active stressor for Depoe Bay. Interviewees see the possibility of increasing fishing license fees as a stressor that could cut into their ability to attract charter fishing customers. Citizens oppose State Senate Bill 247 to raise fishing license fees by 50%. One resident was certain that:

*That type of increase is going to have a profound effect on the coastal economies, because it's going to send our tourism... to Washington and California. Because Washington and California's fishing licenses are already way below what ours were this year. And their bag limits are higher than we are.*

It is important to recognize that tourism, not fishing, is now the mainstay of Depoe Bay, and so anything that raises the cost for tourists or recreational fishermen to visit will have an immediate and profoundly negative impact. One community member explained, "Their proposed raised fees will make Oregon totally non-competitive with the adjoining states. If you're looking for a tourist-based economy... and you're looking at an additional \$150-\$200 in licensing fees in Oregon, you're going to go to Washington or California." The fishermen do recognize however, that ODFW is funded in large part by these licenses, and performs necessary monitoring and enforcement duties. Interviewees believe that the license fee increases will result in fewer licenses bought, such that net revenue will decrease, resulting in lower monitoring and enforcement capacity for ODFW. One interviewee explained, "The intent of the ODFW is to sell licenses so they can have funding, but it could be counterproductive to them, and it will be counterproductive to the coastal economies." Residents attempt to cope with regulatory stressors by traveling to Salem to present their perspective on fishing legislation, and testify against S.B. 247. However, at the time of this writing, S.B. 247 had passed. Community members believe that changing that funding structure could benefit both the agency and the fishermen of the coast, particularly if ODFW made it a priority to promote hatcheries.

Recent cutbacks to hatchery production have stressed Depoe Bay, a community that relies on salmon returning to nearby rivers and creeks for a large part of their tourist income. Approximately 15 years ago, ODFW restricted the hatchery to 20,000 smolts per year, down from 100,000, citing changing ocean conditions as justification. The fishermen believe that

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decision resulted from budget shortfalls, because they did not note any such changes themselves. Hatcheries have come to dominate the salmon fishery in recent history, but concerns about the health of the population, and how that relates to wild runs, have brought their management under fire in the courts (AP, 2014). Depoe Bay's Salmon and Trout Enhancement Program, or STEP, is a citizen-run hatchery program that for the last 30 years bolstered the salmon population and provided more catch for fishermen during their spawning season. Hatcheries have been an enabling factor of coastal communities since at least the early 20<sup>th</sup> century, but they are perhaps now more important than ever to fishing communities like Depoe Bay. Some residents who were involved with the management of the local hatchery felt that they still had the capacity to release 100,000 smolts per year as before, especially since the STEP hatchery is citizen-run, not state-administered, and therefore not as reliant on state funding. For the vast majority of the salmon season, only fin-clipped hatchery salmon are legal for take, a point of contention for some. One community member offered this opinion:

*The Salmon River hatchery is already at laughably small production levels. And a lot of that has to do with the belief that there's a conflict between naturally reproducing fish [and hatchery fish]. And even a hatchery fish, if it doesn't happen to wind up back at the hatchery, will reproduce, and will do it naturally. Given the fact that there's at least a five percent wandering of salmon every year... Anyway, over the course of 100 years, do you really have any native or wild fish?*

This resident believes that there has been enough interbreeding between hatchery-reared and naturally-reproducing salmon over the years that they are virtually indistinguishable and does not see a need for quotas that discriminate between the two. Thus, cuts to hatchery production are seen as a major stressor to this community. For example, 2014 was a great fishing year for coho salmon - 696 tons landed in Oregon, compared to 123 tons in 2013 - and one interviewee estimated that charter fishing trips increased 30% that year. Two interviewees propose that Oregon respond to this opportunity by choosing to fund ODFW partially through the state's "general fund" and that a portion of that funding be earmarked to support hatcheries. One interviewee estimates that, "it would be reasonable that one [coho salmon] fish to Depoe Bay would be worth \$150-\$200." If this is correct, hatchery fish would represent a large revenue source for the community. As important as salmon are to attracting recreational anglers, funneling investment to hatcheries to support higher numbers of smolts would increase tourist demand for charter fishing on the coast. These are only proposed responses that Depoe Bay fishermen wish to see. Hatchery regulation is managed at the state level, so the community members cannot execute this response on their own, and they continue to weather the stress of being legally blocked from boosting their local salmon populations.

Depoe Bay is still attempting to find a reliable natural resource replacement for the decline of salmon. So long as regulations are designed based on regional or coast-wide data, the residents here believe that their livelihood will continue to suffer. Natural resource management that is responsive to local conditions and employs specialized local knowledge appears to be one of their top priorities.

### *Tsunamis a constant possibility, not perceived as a threat*

Depoe Bay is built right next to the ocean, and the entrance to their harbor has minimal protection from jetties, making the town and harbor susceptible to strong waves. Even a relatively minor tsunami severely damaged the harbor in the recent past. In 2011, a Japanese earthquake caused a tsunami that reached Depoe Bay. It severely damaged Dock 1 by inundating it, tearing out floats, and twisting the dock against its pilings, and caused minor damage all around the harbor. The wooden dock was replaced with galvanized aluminum, and new pilings that would allow it to theoretically withstand future tsunamis. The new dock was purchased with an emergency grant from the Federal Emergency Management Agency. Close as Depoe Bay is to the Cascadia Subduction Zone, the town will likely face other expensive setbacks like this as it attempts to pull itself out of recession.

Recognizing this possibility, other preparations were made. Shortly after the replacement of the dock, the town installed two sirens on either end of town to warn the populace of an incoming tsunami. They purchased a trauma unit designed to provide medical supplies, emergency water, and rations to 1,000 people – several hundred short of the town’s estimated population. The money was provided through a donation from the Siletz Native American Tribe. A volunteer also performs monthly maintenance on the town’s emergency radios so they are ready in the case of a communication blackout. The external support network with the Siletz and volunteerism from within made this coping response possible. However, there is nothing that can be done about the fact that the entrance to the harbor faces the incoming tide and is only a few hundred feet long, so if a tidal wave strikes from the Cascadia Subduction Zone event, the full force will be funneled straight into the harbor. In the event of a major tsunami disaster, Depoe Bay is in danger of becoming cut off from supplies if Highway 101 is blocked, or the main bridge goes down.

Community members said they are not worried about the danger of another tsunami. When asked if the possibility of future tsunamis is a big stressor for the community, one resident who deals extensively with visitors and community members daily said, “Not really. I think people that are visiting the community and not familiar with being here are probably more stressed about the idea of a tsunami than those of us that live here.” This was a common sentiment among interviewees. Despite their exposure to a potentially large earthquake and tsunami, the prevailing attitude appears to be that the town is as prepared as it can be, with the sirens, radios, and trauma units, and that these events are rare enough that they are not worth worrying about. This attitude may prove to be a constraint to further long-term planning for the possibility of earthquakes and tsunamis in Depoe Bay. Other short-term stressors related to livelihoods, such as fishing regulations, or the lack of available salmon, prove more salient than long-term hypotheticals, such as tsunami preparedness, and therefore prevent a reorganizing response.

### Factors Enabling and Constraining Response

The following section identifies prevalent enabling and constraining factors that affected responses to external stressors in Depoe Bay. This section also provides examples for how each factor enabled or constrained responses, or both enabled and constrained responses. A summary

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of the enabling and constraining factors can be found in Table 4.2 at the end of this community case study.

### *Tax structure undermines city improvements*

Depoe Bay has had a zero percent property tax rate since its incorporation in 1973. Without any property taxes, the town struggles to find resources for public infrastructure and aesthetic improvements. This constraint holds back significant upgrades to their water and sewage infrastructure, prohibits repairs to the harbor, and blocks the town from providing public services such as libraries and schools. Condominium development continues on the town's north side, but without a property tax, the public receives little benefit. This is especially true for low-income residents, who depend on public services paid for by taxes. There is very little safety-net in place to protect the basic needs of Depoe Bay's poorest residents. Although a local non-profit, Neighbors for Kids, provides some after-school activities and cares for some homeless children, there is no homeless shelter, no agencies to help the poor find employment, no affordable housing, and even the food bank has struggled according to one interviewee. It will be extremely difficult to address this constraint. According to one interviewee, due to the way the town's charter was written, starting a property tax in Depoe Bay may require a state-wide referendum, or at least approval from the state legislature.

Depoe Bay's tourism-based economy is a one-legged stool that is totally reliant on chartered fishing and whale-watching trips. When tourism is low, as it was after the 2008 recession, the entire town suffers. The urban blight that afflicts the south side of town undermines small-business development and in-migration that could help diversify their economy. Depoe Bay was hit hard during the Recession of 2008-2009, because fewer families opted to take vacations there. According to one community member, "It got pretty low financially. A lot of people lost their home." City government responds to the urban blight by accepting the proposal submitted by a retired resident to start an Urban Renewal Zone. This zone is intended to fund aesthetic improvements to buildings, public spaces and infrastructure around town in order to make the community more attractive to investment and potential residents. It will take some time for the funds to accumulate, but eventually the full accumulated value will be made available for aesthetic improvements or repairs. The money is not available for ongoing projects, replacing infrastructure, or employee payroll, so it ameliorates, but does not solve Depoe Bay's lack of tax revenue.

Lack of a property tax would not be such a problem except that much of the city's infrastructure is antiquated and needs replacement, including the water and sewer systems. One interviewee said that Depoe Bay uses asbestos-concrete pipe to carry its water and sewage, and that they are required by law to remove all asbestos-containing pipe by 2026. However, the city does not have the money to accomplish the project in that time frame. This same interviewee explained that this is becoming an increasingly urgent issue given the town's growing population, and their commitment to provide water to the nearby village of Morocco, plus treat the wastewater of other nearby neighborhoods. To make matters worse, the city faces steep fines, over \$40,000/day, if any raw sewage escapes to the surface or into the ocean, a possibility that must

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be considered when replacing pressure lines with a small crew. Those involved in the project predict that they will continue to replace pipes in a piecemeal fashion in conjunction with other necessary repairs as funds become available, but that a complete overhaul is beyond their financial capabilities. The legal necessity of these repairs drains precious funds from other projects, constituting another constraint for the town.

One interviewee explained that since the city does not receive any property taxes, they have responded with a coping policy of not accepting new streets in condo developments as city streets because they cannot afford to maintain them. The local government will, however, attach the developments to city water and sewer, because those tax revenues go into city coffers.

Almost every resident interviewed stressed that the city's only sources of tax revenue are water fees, sewage fees, and an 8% transient room tax, thus the city is constantly operating on a shoestring budget. One community member lamented, "Our permanent tax rate is zero. So we are having to provide more services, and service more of a population without that support." The city is expanding, an issue that will be discussed in more detail below, and along with that expansion comes the expectation to provide more services, without a substantial increase in the budget.

### *Decline of the harbor*

The whole harbor is in need of an overhaul, a significant challenge for the town's economic health and sense of place. One of the most significant constraining factors is that there is no money available to effect repairs. The World's Smallest Harbor is also one of the few municipally owned harbors, since it was transferred from the Port Authority of Newport to the City of Depoe Bay in 1975 (LuMaye, n.d.). The town budget is set up such that the harbor was originally supposed to be self-supporting on moorage fees and voluntary launch fees, but these fell woefully short. As fish stocks dried up, so did boat traffic. It is currently supported by the city's general fund because of its "intrinsic value" to the city. Several residents said something similar to, "The harbor is the lifeblood, it's the economic engine that drives this community." However, city government support is not guaranteed. The battle to achieve that level of support was contentious, and could potentially be removed if future city administrations choose to do so. A community member recalled, "I remember the discussions going back and forth... the issue of 'Should the city be supporting this fund that's supposed to be paying its own bills?' For some people it was a no-brainer and for some it was really difficult to come to."

There were a few creative potential responses brought up in interviews. To help the city stay in the financial black, some interviewees recommended responses such as raising moorage fees. However, the town could lose grant funding if it brings in more than \$6,000 annually in moorage fees. Moorage fees are currently set to rise 2% each year, but the major constraint for many captains are the costly insurance policies they must carry on their boats to sail out of this port. If the citizens could successfully lobby for a change in state law to reduce the required insurance coverage, they may be able to raise moorage fees without pricing out boat owners, offset the need for the grant, and thus make more revenue. Others proposed making launch fees higher and

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mandatory, but there is a fear that this could drive away some recreational anglers. Another proposed incorporating the harbor into a Port Authority that could tax the surrounding area for pennies per thousand dollars to support the harbor. However, such a radical change in management strategy would require approval from the local City Council and the Oregon legislature. One resident with knowledge of the issue reported that there was support for this in the state capital, but the most immediate hurdle was convincing City Council that an additional tax is a worthwhile step. Depoe Bay does have a strong history of political advocacy, especially when it comes to marine issues, so this may be a response they choose to pursue in the future.

Residents described the need to find the funds to repair their facilities if they want to attract more business to the harbor. Three of the four docks are wooden, and were installed in the early 1950s. One resident with intimate knowledge of the harbor said, “These docks have been here since 1952, they’ve just been cobbled together for 63 years.” The boards have been repeatedly flipped over to minimize sea water exposure, numerous floats have been installed under the docks, the pilings are rusted beyond repair, some pilings are no longer anchored to the sea floor, and the holes drilled for moorings are beyond count. There is no doubt that ingenuity and attentive maintenance has preserved these facilities long past their estimated expiration date in the 1970s, but it is equally clear that such methods will not continue to work for much longer. The fourth dock is galvanized steel and aluminum, installed using an emergency grant from the Federal Emergency Management Agency after a tsunami destroyed a wooden dock. However, exposure to sea water has corroded that dock too, and the constant swell has caused it to develop stress fractures in less than five years, which may mean it will need to be replaced in the near future as well. One community member who works on the docks estimated, “We’re talking \$500,000, at least, to get [repairs] started.” For comparison, that is over 80% of the money the city made on transient room tax in 2015.

Depoe Bay’s zero percent property tax rate poses a strong constraint. One interviewee said, “Given that there is no tax base, it’s a huge burden on the city to help support its harbor.” For example, the Harbor Master has no full-time staff, buys his tools from garage sales, and has been known to use rocks instead of hammers because he has a small budget that he must split between purchasing tools, hiring personnel, purchasing new materials, and making repairs.

The Mayor of Depoe Bay, a fisherman himself, responded by seeking the City Council’s approval to travel to Washington D.C. to lobby their congressional delegation for emergency funds to repair the harbor. While the proposal was initially approved, the City Council has indefinitely delayed the trip, citing Congress’ busy schedule, and budgetary constraints. Several residents had believed that the Mayor would successfully raise federal grant funds from Congress.

### *Lack of living wage jobs keeps incomes low*

Population expansion and a high proportion of second-home owners drive income disparity, while an economic focus on tourism means most jobs do not offer a living wage. There are a limited number of family wage jobs in Depoe Bay, which contributes to a small middle class, a

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preponderance of low-income families living together in multi-family homes, or homeless, and a large proportion of upper-income families and retirees. One interviewee was explicit, “Economically, you’re either lower class or upper class. There’s not a whole lot of middle.” Without reliable, profitable jobs, many residents employed in the service or hospitality industries will be at risk for losing their jobs in another economic downturn, whether that’s national, or a localized deficit in the annual influx of tourists. Most interviewees who spoke on this topic do not believe this economic structure is sustainable in the long-term. One community member’s opinion is, “if [the townspeople] want to grow, to reach out, provide something new or something to draw families here, I don’t think that the current economic model would be sustainable.” Another interviewee said, “Pretty soon it’ll be very difficult for a local person, or a lower-wage earner to live in Depoe Bay or in these areas, because there’s no affordable housing.”

Since the majority of jobs in the town are hospitality positions in restaurants, hotels, and gift shops that support the tourism industry, living wage jobs are a rarity. One resident said it is already “difficult for young low-income wage earners to find an affordable place to live in there, and where’re you going to get your workforce?” Another said that, “the preponderance of jobs are in the service or hospitality industry where you’re waiting tables or cleaning rooms,” making just above minimum wage. Housing prices in Depoe Bay remain high because of high demand from retirees moving in, while many working residents in hospitality positions are forced to rent or cohabitate with other families to secure housing.

### *Housing prices, second home ownership constrains working families*

Depoe Bay’s population has expanded steadily over the last two decades, from approximately 1,000 in 1995, to 1,400 in 2013 (US Census Bureau). The city government estimates the 2015 population at 1,600. More condominiums are on the horizon with a 180-unit development currently under construction.

Though their idyllic seaside location has proven a magnet for tourism, it is something of a mixed blessing. The scenery attracts tourists and retirees, but it also drives up property values. Combined with the loss of family-wage jobs that commercial fishing provided, high property value results in fewer residents that can afford their own home. Nearly a third of homes in Depoe Bay are renter-occupied (US Census Bureau). Over 26% of owned homes in Depoe Bay are occupied only part time, then rented out as vacation homes through the owners or various property management agencies the rest of the year (US Census Bureau) further driving up property values because demand exceeds supply. Despite the high-value nature of many of these properties, the municipal government does not earn any revenue from them. We learned from one interviewee that one successful local rental agency manages approximately 100 homes in Depoe Bay and Lincoln Beach, a neighborhood just outside city limits. That number does not include the three other rental offices with premises in town, or owners renting out their homes through home-share services like AirBnB. There were approximately 1,400 housing units in Depoe Bay as of the 2014 Census estimates, and just over 800 of those were permanently occupied (US Census Bureau).

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Although the city earned \$581,704 in revenue from transient room taxes on hotels in 2015 (Transient Room Taxes, n.d.), city law prevents the government from collecting tax revenue from homeowner rental transactions, a further constraint on the town's ability to generate revenue. One interviewee remarked, "Anybody can rent out their house. You don't have to have any conditions or anything like that." According to this interviewee, some homeowners from as far away as Southern California derive their primary income from renting out houses here on the central Oregon coast. Given that vacations are usually one of the first optional expenditures families cut when the economy contracts, this will be a recurring issue for the town. Any policy or trend (e.g. license fee hikes, recession) that impacts tourism will have a disproportionately large effect on Depoe Bay and coastal tourist towns like it.

Housing prices are even a constraining factor for members of the Coast Guard, who are paid living wages intended to support a family. Many either choose to buy a house in Newport, fifteen minutes away, or to cohabitate with other Coast Guard families in large rental homes. One interviewee said, "The Coast Guard guys still seem to have problems renting a house that's affordable." Even people on military salaries sometimes cannot afford homes in this small town.

Much of the population growth comes from retirees and second-home owners that do not work there. More than three quarters of the town has moved there since 2000 (US Census Bureau). When asked to identify affordable housing in town, one interviewee said there was "one little piece but I don't think there's going to be any thought of affordable housing in the new developments going up." The Census Bureau estimated in 2014 that median monthly housing costs here lie between \$1140 and \$1580. In a town where almost 40% of the population lives below the national poverty level for a family of four and 47.5% of the population spends more than 35% of their monthly income on housing (US Census Bureau), property values are a barrier to affordable living for many. Affordable housing might make Depoe Bay more accessible to the kind of middle class professionals that have not been seen there since the decline of commercial fishing. Depoe Bay does not have the resources to hire outside contractors to make the repairs that are so necessary to the town, but there is a pervasive spirit of volunteerism for the benefit of the community. With more working class professionals around, the community might be able to make necessary repairs cost-effectively, while simultaneously diversifying their economy.

### *Proximity to larger cities deters cultural amenities & middle class growth*

The lack of public amenities is a constraint to the growth of the working class in Depoe Bay. A robust working class supplies a work-force to drive the economy, a tax base, and potential leadership figures for the community. Without amenities or affordable housing discussed above, it is difficult for the town to attract working-class residents. The Depoe Bay School, which now houses City Hall, closed its doors in 1968. Children are bussed to Newport schools. The historic aquarium closed in 1998. There is no library, no grocery store, no police department, one small park in city limits, no public recreational facilities for children, only one church, and no public restroom (except one the city rents from a business owner). One community member said, "It's



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either Lincoln City or, not even really Lincoln City, its Newport now, if you're looking for resources for supporting basic human needs.”

Depoe Bay's position between two much larger cities is both a positive and a negative. While residents must drive out of town to access these amenities, the fact that they are still accessible via a few minutes' drive is a deterrent to attracting public amenities to the town itself. Most of the time, businesses, families, and amenities pass over Depoe Bay for Lincoln City or Newport. These cities are close enough that residents with a car can still access these amenities, so while the community lacks these resources themselves, their placement near two larger cities means they are not totally isolated. However, for those without vehicles, this is a nearly insurmountable constraint. Since residents rely on neighboring towns for basic supplies, wages leave the local economy, worsening Depoe Bay's budgetary constraints. If Highway 101, the only route in and out of town, were blocked by a natural disaster, the quality of life in an isolated Depoe Bay would plummet quickly. Newcomers are generally more concerned about this eventuality than long-term residents.

### *Gap in educational amenities partially addressed by non-profit*

There is no school in Depoe Bay, and very few places for children to play safely after school and before parents return home. One interviewee told us how Depoe Bay's only 501(c)3 began: “Neighbors for Kids was founded in 1999 by Loretta Hogan. She was inspired to action because she witnessed a drug deal by teenagers in the middle of the day. She said ‘This isn't right. The community needs to come together and start watching out for our kids.’” The organization grew through the grassroots efforts of residents who wanted to provide this service for the community, and now, according to an interviewee, Neighbors for Kids employs about a dozen people at a living wage to provide numerous after-school services for area children. These include access to a library, supplemental instruction in many school subjects, including music, as well as a small gymnasium, and healthy meals from a certified commercial kitchen. For some children dealing with hunger and/or homelessness, this is an essential, reliable source of food. Having recognized the benefits of providing a structured, safe space for children after school, Neighbors for Kids is now partially supported by the city budget. The program is well-regarded in town. One lifelong resident told us:

*When the Depoe Bay School shut down, it had a very big influence on the town and recruiting things. With the Neighbors for Kids thing, a school back in this community would be good. What we have is going well... it's pretty well received.*

The lack of a school can make the town unattractive to families with children and educators. Neighbors for Kids addresses this shortfall partially by providing a safe structured atmosphere for children.

*Lack of unified vision makes progress difficult*

There are differences of opinion on the best way forward for the town. Without a unified vision for the future, progress on major issues is difficult. Some interviewees openly expressed dissatisfaction with the current administration, “With the way that city council is composed, I really want nothing to do with them, because they are operating on a set agenda and aren’t willing to listen to outside input.” Another resident who is very familiar with city government, said, “I feel like there’s a living in the past attitude, and some of the people... it’s hard for them to make changes, delegate authority.” This was related to a complaint that the current city government lacked institutional memory, and was unwilling to ask for help from the longer-term residents they had replaced.

Some long-time residents appear frustrated with what they perceive as a resistance to change amongst city council and newcomers. One interviewee said, “I’ve heard from people who do go to the [City Council] meetings, they’d like to see some changes, they say it’s just closed minds and people that aren’t willing to make changes for all humanity’s sake.” Many “changes” were referenced, including seeking new, recurring sources of revenue for the town, partnering with state agencies like ODFW to collaboratively solve the dilemma between fishery regulation and extraction, or investing in new amenities to attract families and living wage jobs to grow Depoe Bay. There are conflicting views on whether a change to the town’s economic model is desirable. There are those who believe the current tourism/retirement-based economic model was a net positive for the town. When asked if they thought that a model that promotes tourism, young people leaving and returning for retirement was sustainable, one resident said “Yeah, I think it is, because when you come back, you usually have money... so you bring that... and that helps the community.” Summing up the choice whether to maintain the current economic model or diversify industries in Depoe Bay, another community member said, “It’s all about [the townspeople’s] dreams for the city in the future and whether or not they have dreams.” This interviewee believed that the current tourism-based economic model would not help grow the community or attract new families, but only result in maintenance of the status quo.

The disagreement over the desirability of recruiting new business outside of the hospitality industry to Depoe Bay may be a challenge for the foreseeable future; one that blocks significant action toward either course. One community member who owns their own business articulated it this way, “There’s always that fear, when this is your livelihood... of that big, brand new business that’s going to come into town, that’s going to make a bunch of changes. Is it going to help your community succeed, or is it going to crash it?” There is a distinct positive bias toward local business in Depoe Bay, because “[They] want to keep their charm. Big box stores are not going to be allowed here.” Those who grew up in the area seem to believe that the current economic model is unsustainable, and the town should focus on building amenities that would make the town more desirable for families. Said one resident, “I think there’s potential for people to work together and achieve some amazing things in the future for Depoe Bay. I’m not worried about Depoe Bay going anywhere but I’m worried about where it’s at.”

### *Natural amenities make Depoe Bay a whale-watching hotspot*

The coast and fishing are integral to the identity of Depoe Bay. No fewer than six out of eleven interviewees said the harbor was the heart, the economic engine of the fishing town of Depoe Bay, or had intrinsic value to the city. Residents realize that if they cannot make a living off the ocean by extracting natural resources, the natural amenities are still a huge asset. They now promote the World's Smallest Navigable Harbor as a home for charter fishing, and the "Whale Watching Capital of the World."

Residents have shown ingenuity in capitalizing on their natural amenities. Depoe Bay lies near a migratory route and rest stop for grey whales in the warmer months. The grey whales also occasionally attract rare pods of orcas that hunt them. One resident said, "You've got a really high percentage of seeing a whale here in Depoe Bay, even from the beach." The town also has a publicly run, volunteer-staffed observation platform and historical museum overlooking the entry to the harbor, and across the street from that, a privately-owned whale and marine museum. Depoe Bay has developed into "one of the most popular destinations now for whale watching in Oregon... since the whale museum opened up, it's been different. That's huge too, to the community." In the early 2000s, one resident began using a large rubber raft known as a Zodiac, to take whale watchers out on the ocean. They found that, "You're closer to the ocean of course, and the whales are more likely to come closer to [a Zodiac], they don't feel as intimidated... by the quieter engine." Since then, Depoe Bay's whale watching fleet has grown from one man to nearly a dozen captains. Some still use the 50-foot fishing boats, but more are turning to the Zodiac rafts. Community members also take advantage of rarer events when possible. During the research period in summer 2015, the Chamber of Commerce was already preparing to host thousands of visitors for a complete solar eclipse predicted to center itself over Depoe Bay in 2017.

Furthermore, the sea wall attracts many visitors who might otherwise drive through on Highway 101. One community member said, "It's unique amongst any coastal city, where else can you walk down Main Street, and have views like that of the ocean?" This proximity means that boat captains can get their passengers from the harbor to the open ocean in seconds. Boiler Bay Park north of town is another local natural wonder.

Advertising the natural beauty of the area has brought a whole new contingent of tourists to Depoe Bay, diversified their economic base, and put them on the map as an ecotourism hotspot. Taking advantage of their natural amenities for more than natural resource extraction has helped Depoe Bay restructure to recover from the collapse of fisheries and stringent fishing regulations.

### *Volunteerism bolsters tourism and other city functions*

Although Depoe Bay receives a steady stream of tourists during spring and summer, they rely regular festivals to bring a surge of visitors and earn enough money to keep businesses operating during the winter when tourist traffic is low. These festivals would be impossible without

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volunteers. The numerous coastal and fishing themed festivals that take place here each year are managed by the 100% volunteer-run Chamber of Commerce, that promotes the festivals and also recruits volunteers to staff the Salmon Bake, Fleet of Flowers, Wooden Boat Show, and Crab Feed, among others. One community member gushed, “A lot of people volunteer to work those functions. It gives a huge sense of community. Depoe Bay’s volunteer base is unlike any other town I’ve ever seen.” Through the Chamber’s efforts, they have managed to attract thousands of local, out of state, and even international visitors each year.

One interviewee who recently moved to the area to become involved in the tourism industry said, “For the people that live here, they love their little town, and it’s struggling, and you have certain individuals that feel like they want to... give back when they see a need.” A huge number of volunteers turn out year round to staff the local festivals, serve on committees, or support the local food bank. The Pirate Treasure Hunt Festival was started by two local business owners who said, “We did our best to separate ourselves from this, because this wasn’t for our profit, it was for the town’s profit.” Now the Chamber of Commerce advertises this 5,000-person event annually. This festival donates all proceeds to stock the food bank before fall sets in, and tourism dries up. Many Depoe Bay residents rely at least partially on the food bank during the mid-winter months when tourism and employment are at annual lows. This act of charity keeps many town residents fed during the lean months of winter. There is much talk of small-town politics being difficult, but it appears that when new programs begin here, they succeed, so long as they don’t ask for major investment from the city, and the benefits are evenly distributed across the town. The volunteer-run festivals and Urban Renewal Zone are two examples. As another example, the Harbor Commission is made up of fishermen, the harbor master, and various residents that volunteer their time to oversee planning for the harbor.

Volunteers also keep the city parks clean, serve as tourist guides, help with the local hatchery, serve in the fire department, and log maintenance issues around town to take to the City Superintendent. Each of these volunteer duties relieves the cash-poor city government of another paid obligation. These volunteers play a big part in helping businesses and the city operations sustain themselves throughout the winter, when visitation and fishing are nearly non-existent. In this way hundreds of people pull together for “the good of the town.”

### *Federal funding for the Coast Guard makes Depoe Bay safer for mariners*

The Coast Guard is a branch of the US military primarily responsible for port, waterway, and coastal security. It is entirely funded and administered by the federal government’s Department of Homeland Security. While many of their activities fall under the realm of law enforcement, their mission in Depoe Bay also includes marine safety, aiding navigation, and search and rescue.

Depoe Bay’s narrow entrance and shallow bar is a hazard for many boats. The presence of the Coast Guard station makes sailing out of this shallow, exposed port much safer, thanks to the regular safety inspections and the two rescue cutters in full-time service. Without their success at keeping mariners safe, fewer people would sail out of Depoe Bay, reducing the amount of

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business that flows through town. It provides a sort of “safety blanket” for the captains, knowing they have a search-and-rescue operation at their backs. An interviewee estimated, “I would guess that [the Coast Guard] has come to the aid, in some sort, for all these boats over the years.” In addition to their search and rescue, and law enforcement responsibilities, the Coast Guard monitors the narrow, twisting entry to the harbor electronically to prevent collisions, performs regular safety and compliance inspections, and educates recreational anglers on boat safety and operation. The Coast Guard is also responsible for monitoring the weather and the bar, and telling captains when it is safe to sail. In fact, one of the annual festivals, “the Fleet of Flowers [celebrates] the Coast Guard.” The festival helps illustrate how valuable the Coast Guard station is to the community. All of these duties transform a difficult and potentially treacherous port into one with a good safety record. Not one captain or sailor mentioned any preventable accidents taking place in Depoe Bay. Without federal funding to keep this station open, Depoe Bay would become more challenging and dangerous to sail out of, and harbor business may decline further.

### *Strong sense of community encourages residents to address challenges*

Interviews revealed Depoe Bay community members initiate and implement most of the town’s responses to stressors. One interviewee pointed out, “You can learn to count on each other, and not just on people that are coming in from out of town.” There are many instances of Depoe Bay citizens stepping up to help respond to stressors. Instead of hiring lobbyists to advocate for them in Salem, concerned citizens go to the capital to register their opinions on important legislation like the marine reserves. Instead of seeking help from grant-giving or charitable foundations for the repair of the harbor, they try to raise the money themselves. The one time Depoe Bay interviewees described accepting outside funds was after the 2011 Japanese tsunami that wiped out 25% of their harbor’s moorage capacity in one day. Rather than inviting in franchise businesses to boost employment, they continue to support local businesses almost exclusively. Community members run the STEP hatchery, described above, that helps support their fishermen. A community member started Neighbors for Kids. Volunteerism, interviewees said, imparts a huge sense of community. When community members called a meeting to figure out an approach to repairing the harbor, “30 or 40 people, that’s a lot of people for Depoe Bay, showed up to this, and we had the white board up, and we ran out of space.” The residents of this town rely on one another to contribute and address challenges.

As much as possible, Depoe Bay citizens take care of Depoe Bay’s problems. One interviewee explained that they need to have a fierce sense of independence and cohesion:

*People that have lived here for a long time have a different outlook on life. We’re independent, fiercely independent... You hear about disasters that happen... here, we know the emergency responses in the Valley are not coming to help us. So, we have to take care of ourselves, and we know this. That’s just the way we live our lives and everything else. What’s carried Depoe Bay through some of the tough times is just that.*

This interviewee feels that Depoe Bay residents take positive action to solve the stressors they face, and do not accept apathy. Residents of this community rely strongly on one another, are

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possessed of a strong sense of survival and optimism, and are willing to step up to act for the good of the community when stressors arise.

An atmosphere of loyalty to Depoe Bay has helped the city to partially cope with their short budget. Some city employees take on extra responsibilities and work there long-term despite lower pay than nearby towns like Newport or Lincoln City can offer. The city government can only pay a modest salary but excellent benefits package to employees who are committed to remaining in Depoe Bay long-term. One city employee explained,

*Newport, they're a lot higher [paying], they have a tax base, Lincoln City's a lot higher, they have a tax base and a casino, which pumps a lot of money into their system. Because it's a small town and we're local, they pay fair wages, but the benefits really are the kicker... that [the town] can get guys to stay here.*

The town pays for its maintenance crews to become extensively cross-trained in as many fields as they wish to pursue. The city superintendent holds certifications in water distribution, water treatment, and backflow inspection, among others. Investing in the expertise of their employees means the city rarely has had to hire expensive contractors for repairs and maintenance that are not personally invested in the town. Long-term employees have the chance to become certified in many disciplines, their classes paid for by the city. One interviewee said, "In the long run it becomes really frugal, because the city saves a lot of money by having cross-trained employees." This heavy investment in their employees is frugal, promotes loyalty to the community, and retains skilled personnel.

The lack of monetary resources, and the need for significant upgrades to town infrastructure and amenities are the largest constraints on this community. An economic structure that keeps wages low and housing prices high may be preventing working-class or young family in-migration that could otherwise supplement the tax base or provide services the community currently lacks. Currently, there is no consensus on whether changing this pattern is desirable. However, Depoe Bay is fortunate to have a wealth of natural amenities including beautiful scenery and migratory whales that have allowed them to restructure their economy somewhat to recover from the lack of commercial fishing. The community fosters an ethic of volunteerism that keeps several public functions running despite a small budget. Finally, outside networks such as FEMA, the Siletz Tribe, and the Department of Defense have funded services and repairs for Depoe Bay at crucial junctures, though these partnerships were not spoken of as ongoing sources of assistance.

## *Summary and Conclusion*

The major impacts in Depoe Bay of the fishery decline and regulations were business closures, poverty, and income disparity. The city government has restructured by withdrawing certain services, such as new road maintenance, and shifted the responsibility for others, such as police services, onto the county. Also, the city government copes with low revenues by incorporating frugality into their day-to-day operations. The townspeople volunteer their time to help with public services, events, and donate time and money to charitable operations such as the food bank and Neighbors for Kids. Volunteerism helps Depoe Bay adapt to lower tax revenues and a

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tourism economy that is less profitable than commercial fishing, because volunteers save the city money while maintaining certain services. Volunteerism also contributes heavily to community cohesion and a shared identity, which helps people and organizations cope with the economic downturn.

Through this difficult time, the citizens of Depoe Bay still take great pride in their independent mindset. Nearly all their responses to stressors came from the hard work of concerned citizens within the town pulling together to figure out solutions together. It is true that solutions do not always happen harmoniously or quickly, but apathy does not appear to be an option, and outside help appears to be the last resort for emergencies. The high rate of civic participation, volunteerism, frugality, and a willingness to play to their economic strengths has set Depoe Bay in a fairly strong position for the immediate future, in spite of their budget woes. A high rate of participation and volunteerism are part of the culture here, and will likely help Depoe Bay meet future challenges in the same fashion. Overall, the community has successfully adapted the design of their economy (though it is not as strong as it once was), is weathering a political environment they perceive as hostile, and continue to cope with the threat of tsunamis and the list of constraining factors above.

Community resilience to external stressors can occur along a spectrum that includes coping, adapting, and restructuring the social system to respond to a threat. Depoe Bay has responded to natural resource decline, external policy interventions, and the threat of natural phenomena. The town has retained their fishing identity, but restructured to shift from an extraction-based economy to one that uses the ocean and the fleet as a tourism destination. Although policy interventions are an ongoing stressor, citizens are politically active at state and national levels, and some are organized into committees at the local and state level to lobby for reforms favorable to coastal communities, or block those they perceive as harmful. This is a coping response to stress that is not always successful. Depoe Bay has not yet reorganized itself to deal with the limited success of their political efforts. External support networks enabled Depoe Bay to cope with the last tsunami quickly, and to prepare for a Cascadia Subduction Zone event, though it remains to be seen if their response will be sufficient to adapt to that potential stressor.

When asked what Depoe Bay's future should look like, and what it needed to make it able to better cope with stressors in the future, the most commonly mentioned strategies were: working closer with state agencies so that regulations would reflect coastal community interests better, and marketing coastal Oregon more widely using digital media. All of the fishermen that were interviewed emphasized that tighter cooperation between ODFW and local fishermen would result in more accurate fisheries surveys. One fisherman used the example of the blue rockfish, an important species in the charter fishing trade. "[ODFW is] using methods that just plain don't work for blue rockfish. Trawl surveys for instance. Blue rockfish are skittish, they're an extreme schooling fish, and they're fast, you don't catch them in trawl nets, you just don't." They would like to see ODFW consult closely with local fishermen to fine-tune their survey methods, contract with local fishermen's boats to execute the surveys, and conduct more surveys along the Oregon coast in general. Business owners recognize the power of digital marketing. Promoting both the city and the Oregon coast as a whole through search engines, websites like Yelp, even GPS databases are seen as means to draw in more tourist business, especially millennials. Business owners said it would be necessary to integrate the Internet into their future advertising

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strategy. In their words, “I think what’s good for the goose is good for the gander. So, if we can promote all coastal communities, that’s just more the better. And Depoe Bay has things to offer that Newport does not.” This interviewee is suggesting a coast-wide collaborative marketing effort.

Despite the ebb and flow of coastal life, citizens remain optimistic and determined to stay in Depoe Bay. No interviewees expressed any willingness to leave if or when conditions worsened. One long-time resident summed up their own and their neighbors’ attitudes when they said, “Let me explain coastal life to you. We are all, those of us that have been here for any length of time anyway, optimists, always. That’s just the way we are. Things are always going to get better, you know? We enjoy life. We look forward to change, to things improving.”



## *Table of Stressors, Impacts, Responses, Constraining and Enabling Factors for Depoe Bay*

*Table 4.2: Depoe Bay summary table*

Stressors	Impacts	Response
1. Fish Stocks Crash Businesses	a. Loss of commercial fishing sector, living-wage jobs were lost	<ul style="list-style-type: none"> <li>• Effort shift</li> <li>• Charter fishing</li> <li>• Whale-watching</li> </ul>
	b. Support industries close or leave town, more living-wage jobs were lost	<ul style="list-style-type: none"> <li>• Economic shift to tourism</li> <li>• Low-wage, hospitality industry jobs</li> </ul>
2. Fishery Conservation Failing to Deliver Benefits	a. Fishermen felt closed in by restrictions	<ul style="list-style-type: none"> <li>• Formation of NSAT</li> <li>• Fishermen travel further or focus on other species</li> </ul>
	b. Discontent over failure to consult locals for fish surveys, monitoring	
3. Rising License Fees Stress Depoe Bay, Restrain ODFW & Hatcheries	a. Fear that tourists, will leave for Washington and California	<ul style="list-style-type: none"> <li>• Lobbying unsuccessfully against State Bill 247</li> </ul>
	b. Fear that rising fees will result in net revenue loss to ODFW, decline in enforcement, monitoring	<ul style="list-style-type: none"> <li>• Lobbying unsuccessfully against State Bill 247</li> </ul>
	c. Less funding for hatcheries, fewer fish available for capture	
4. Tsunamis a Constant Possibility, Not Perceived as a Threat	a. Destruction of one dock, minor damage to boats and harbor	<ul style="list-style-type: none"> <li>• FEMA grant</li> <li>• Tsunami warning sirens, trauma unit</li> <li>• Minimal long-term readiness planning</li> </ul>
Enabling Factor	Enables	
1. Civically Active Residents	<ul style="list-style-type: none"> <li>• New initiatives, such as Urban Renewal Zone, Pirate Treasure Hunt, NSAT</li> <li>• Lobbying state legislature</li> <li>• Festivals, park maintenance, tourism guides, committees, Chamber of Commerce, festival planning</li> </ul>	
2. Geography	<ul style="list-style-type: none"> <li>• Economic diversification</li> </ul>	

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3. Volunteerism	<ul style="list-style-type: none"> <li>• Festivals that attract tourists</li> <li>• 100% volunteer-run Chamber of Commerce</li> <li>• Harbor Commission and other committees</li> <li>• Park maintenance and other functions</li> </ul>
4. Coast Guard	<ul style="list-style-type: none"> <li>• Safe navigation of dangerous harbor entrance</li> <li>• Rescue operations</li> <li>• Maritime safety education</li> </ul>
5. Community Cohesion	<ul style="list-style-type: none"> <li>• Most infrastructural work handled by city employees</li> <li>• Long-term retention of city employees</li> <li>• STEP hatchery, Neighbors for Kids, political activism</li> <li>• Sense of independence</li> </ul>
6. Neighbors for Kids	<ul style="list-style-type: none"> <li>• Supplemental instruction for kids, safe-after school activities</li> <li>• Limits hunger for disadvantaged children</li> <li>• Provides family-wage employment in education</li> </ul>
<b>Constraining Factor</b>	<b>Constrains</b>
1. Lack of Tax Base	<ul style="list-style-type: none"> <li>• Repairs to harbor and water/sewer infrastructure, social services for low-income residents, cleanup of urban blight,</li> </ul>
2. Decline of the Harbor	<ul style="list-style-type: none"> <li>• Revitalization of commercial fishing and support industries</li> <li>• Balanced town budget – maintenance costs draining</li> </ul>
3. Second Home Ownership	<ul style="list-style-type: none"> <li>• Affordable home ownership</li> <li>• Influx of working-class families</li> <li>• Economic diversification via skilled worker in-migration</li> <li>• Transient room tax revenues to the city</li> <li>• Resilience to another recession (overreliance on tourism)</li> </ul>
4. Lack of Educational, Cultural Amenities	<ul style="list-style-type: none"> <li>• Family in-migration</li> <li>• High quality of life</li> <li>• Disaster preparedness</li> </ul>
5. Lack of Unified Vision	<ul style="list-style-type: none"> <li>• Changes to town’s funding structure</li> <li>• Partnering with state agencies</li> <li>• Investing in amenities to attract working class families</li> <li>• Diversifying industry in addition to fishing and tourism</li> </ul>

# Newport



*Prepared by Joanna Lehrman*

# Chapter 5: Newport Case Study

*“Newport as a city has always been a very progressive, a very bright and forward looking town. That’s true both of the town itself and specifically true of the fishing industry. The quality of people you see here in the fishing industry...you look at the fisheries that have developed over the years, why is it always Newport? It comes back to one thing, and it’s that the people involved made it happen.”*

*– Newport Community Member*

## Introduction

### Newport Today

Newport is the largest city in and county seat of Lincoln County, with a population of over 10,000 residents. Newport has historically been a fishing community, with natural resource extraction providing the basis for the economy since the late 1800s. Newport’s identity is steeped in fishing, timber, and beachfront recreation. One resident remembered nostalgically, “that’s what happened in the early 30s – the people would come to the beach because if you could afford to get a tank of gas you put together a picnic lunch and you come over and played on the sand and you went home, that’s a cheap option for you.” Newport is known for its incredible rocky coastline, recreational fishing, world-famous Dungeness crab, and Albacore Tuna. Newport’s beaches and bayfront are a dramatic backdrop to the famous Yaquina Bridge coastline. Situated on the Yaquina Bay, Newport is approximately 150 miles southwest of Portland, connected along the coast North-South with 101 and to the east with I-20 to Corvallis. Centrally located along the coast, Newport has historically been culturally, economically, and politically, extremely valuable to the state of Oregon.

Because of its size and central location along the Oregon coast, it is home to a number of local and regional institutions. Newport has an active community of commercial and recreational fishermen and fishing families, family owned businesses, and a thriving arts community. Marine research is conducted through educational, state and regional institutions that also hold significant cultural value to the city. The deep-water port of Newport plays an important role in the commercial, tourist, and research industries as well. Thriving and active, the docks and Bayfront are home to the Oregon Coast Guard, an international shipping terminal, a commercial and recreational marina, and a number of marine support industries, as well as restaurants, museums and shops.

The city of Newport has experienced changes in both industry and demographics. The commercial fishing industry has gone through a series of transitions as fish populations decline and conservation regulations increase. In 2014, major employing industries included arts and entertainment, retail, education and healthcare, science and administration and natural resources including fishing and forestry (American Community Survey, 2014). An aging population, an

influx of retirees, and a significant income gap have impacted Newport following resource decline. Newport today faces the challenges of a growing city with aging infrastructure and limited social services, as well as challenges in the relationship between a traditionally natural resource dependent community and more contemporary environmental conservation.

*Table 5.1: Newport demographic information*

<b>Population</b>	9,989
<b>Median Age</b>	43.1
<b>Median Income (households)</b>	\$40,448
<b>% under 18</b>	20.0
<b>% over 65</b>	18.9
<b>% not in workforce</b>	40.3
<b>Living Below Poverty Level</b>	18.5
<b>% With Retirement Income</b>	21.5

Source: American Community Survey, 2014.

## Background

The Newport area and the Yaquina Bay have been valuable as sources for ocean resources like oysters and other seafood since the Yacona and Alsea Indians inhabited the area before federally mandated relocation to reservations. After the region was opened to non-Indian settlement, Newport quickly became known as a rustic seashore resort town. Development happened quickly along the bay front due to minimal regulations and increased demands for infrastructure to accommodate visitors, fishermen, and those employed in timber and marine support industries. The Ocean House, a hotel still open today, was the first major development, opening just a few years before the Yaquina Bay Lighthouse was constructed in 1871 to support boats with the high volume of oysters, timber, and other seafood being exported out of Newport.

After Newport incorporated as a city in 1882, the railroad to Yaquina City made travel to Nye Beach much more convenient and tourism increased dramatically. Infrastructure was developed in South Beach to export logs processed by The Toledo Spruce Company. A deeper harbor led to investment in the construction of the north and south jetties in 1896, furthering the fishing, timber and export industries. With innovations in refrigeration in 1908, the commercial fishing and export industry boomed with the ability to store and process the harvest. Federal money for roads and infrastructure flooded Newport during and after WWI, and the construction of the Roosevelt Military Highway 101 connected Newport to the rest of the region in an effort to combat isolation and prepare for disaster. The Yaquina Bay Bridge was built during the Depression with one million dollars from the federal Works Progress Administration, connecting South Beach and downtown Newport to the rest of the area. The federal government continued to invest in Newport with a federal airport for WWII defense. The port of Newport continued to develop through 1948 with increased export of seafood and lumber (Lincoln County History, 2014).

As Newport replaced Toledo as the county seat in 1954, the city's research sector grew, starting with the particular interest of Senator Hatfield in investing federal dollars for research at Hatfield Marine Science Center. Federal money allocated to research also supported, along with

community and city support; the Oregon Coast Aquarium, National Oceanic Atmospheric Association and Oregon State University. While commercial and recreational fishing flourished despite industry ups and downs with climate change, fishery closures and the salmon decline, the port of Newport saw its last log ship out in 1999 (Hatfield Marine Science Center).

## *Findings*

### Stressors, Impacts and Responses

The following section analyzes interviewees' responses to questions probing their perceptions of the major stressors facing the community, the impacts of these stressors, and the ways in which the community has responded to the stressors. Examples of impacts and responses detailed by interviewees are quoted or paraphrased. While a variety of other factors may be impacting these communities, only those mentioned repeatedly across interviews or heavily emphasized are reported here. A summary of the stressors, impacts, and response can be found in Table 5.2 at the end of this community case study.

#### *Decline in fishing leads to economic stress and increased marine regulations*

Historically, Newport has been reliant on natural resource extraction as its primary economic driver. While research, tourism, and marine support industries have buoyed the economy since the 1960s, the community experienced devastating effects of fish population decline. More recent fish fluctuations and subsequent increased regulations on harvests were considered by many interviewees in Newport to be significant stressors on the community. The port of Newport is still one of the largest on the West Coast, at over 200 boats in the commercial fleet, an international terminal, and RV park. Halibut, crab, salmon, tuna, shrimp, clams, cod, whiting, and other seafood are caught off shore; sold, processed and shipped out of Newport often through two of the larger seafood processors; Trident and Pacific Seafood. Many other port communities utilize the marine support businesses in Newport for gear, fuel and processing.

Dependence on the fishing industry was described in interviews as “feast or famine,” because of the high variability of populations and restrictions. Many interviewees considered the groundfish crisis in the 2000s to have been particularly stressful to the industry, as well as the conservation regulations that followed. State and federal governments responded to population decline with increased restrictions in the form of limited entry permits or quotas to drastically reduce catch numbers to grow fish populations. In 2002, congress enacted the federal buyback program in an effort to restrict harvests on groundfish, whose populations had been severely depleted (OCZMA, 2002). Some interviewees attributed declines in populations to be, in part, caused by poorly regulated harvests, inaccurate estimates of population, and limited knowledge about groundfish lifespans, which can be up to 75 years. There were many impacts of declining fish populations and increased regulations on the industry, many of which were experienced at the time of the interviews. Some of the impacts that were discussed in interviews included fishery

closures, the loss of family wage jobs, increased consolidation in processing, and increased stress on existing infrastructure and fish populations. It is also important to note that the impacts of population decline and increased regulations have cyclical effects on the community. Because Newport is still dependent on ocean resources, increased regulations exist as government responses to fish decline as well as stressors on the community, while trends in consolidation are impacts of increased regulations and stressors on the community. Many community responses also have impacts that constrained or enabled community resilience. An interesting note is the lack of reference to the decline of the timber industry as a stressor in Newport. While timber did play a big role in Newport's economy, providing jobs in logging, infrastructure, the railroad, and the sawmills, according to one interviewee, as those jobs disappeared, they were replaced with research and tourism.

Declines in fish populations impacted both the fishing industry and broader community because of a significant loss of jobs. Fishermen and those working in marine support industries were no longer able to make a living in the same way due to restrictions implemented because of fish population decline. One interviewee described the impact of salmon closures on the fishing fleet, "[Population decline has affected] their ability to make a living...[it had] a trickle-down effect [on] our local seafood markets and restaurants, it had an effect on the consumer because when they do have product it's less available and higher priced." Fishing boats, processors, and retailers dependent on groundfish like cod and rockfish for sustained income had to scale back or abandon the business. A loss of available jobs on boats and in other businesses forced fishermen to make decisions about their futures and the future of the industry.

Some fishermen responded to population declines and subsequent loss of jobs in the 1990s by participating in the federal buyback program in 2002. Many boats on the Oregon Coast, including many in Newport's fleet were pulled out of the water in an effort to address depletion of the resource (OCZMA, 2002). Many fishermen struggled to transition out of the industry. One interviewee described how hard it was to abandon fisheries by participating in the buyback, "If you have devoted 20 or 30 years to commercial fishing, it is tough to go find a job in finance, or become a lawyer. These guys, they love to fish, and some of them are third and fourth generation commercial fishermen. It's tough to give it up." Fishermen responded by participating in the buyback, according to one community member, to ensure a livelihood in a struggling industry.

Some fishermen responded to a loss of available jobs in the commercial industry by investing in niche markets. One interviewee described fishermen investing in rental properties in Newport and central Oregon and Bend. For unmarried fishermen, investing in real estate or other niche markets was beneficial for tax purposes, "If you don't have a family to write off certain things, you buy houses...fishermen put a lot of money into real estate." Some fishermen have purchased other businesses such as convenience stores, while others are supported by seasonal tourist businesses run by their spouses. Diversifying income streams has helped support the families of fishermen as the industry shifts and fishing jobs are harder to come by or less reliable.

One of the most important responses to declines in population was the strategic planning that drove economic diversification by expanding the research and tourism industries in Newport. In the 1960s, Senator Hatfield directed federal dollars through the Area Redevelopment Administration to grow the research sector through Oregon State University. Additionally, the

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development of the Yaquina Bay Economic Foundation and an active citizen base petitioned for a number of cultural institutions including the Oregon Coast Aquarium and the Oregon Coast Council for the Arts which helped drive tourism in a big way, according to an interviewee. Economic diversification was a response to industry decline because of the recognition of a need to boost the economy with the support of a city manager, federal funds and a unified vision.

Another impact of increasing state and federal regulations on fisheries is consolidation of the industry. The Oregon quota system is a program initiated by Pacific Fisheries Management Council and NOAA in 2011 that privatizes fisheries and regulates the amount that any individual boat can catch in a season. Recent trends show consolidation among processors, with about 95% of commercial landings concentrated in Astoria, Newport, and Charleston (Knoder, 2014). Interviewees expressed that some smaller processors were being pushed out of the market because of smaller profit margins and the inability to purchase larger quantities of products. Large processors were described to manage both the supply and demand, set their own prices, bring in their own catch, process and distribute to their own markets, thus eliminating the small businesses and fishermen in the process. Consolidation was perceived in interviews to threaten the livelihood of small family fishermen and “mom and pop trawlers.”

In response to increasing consolidation of the fishing industry, fishermen leased or sold their quotas to larger boats and processors because of competition. When larger processors in Newport buy boats and permits, they become less dependent on the market and are able to offer fishermen less money for their catch, according to an interviewee. One interviewee explained that the quota system allowed for quota holders to sell their quotas to larger boats with greater capacity at a profit and stay home or work another job. “By not fishing your permit, you don’t have to hire crew, deal with payroll, insurance and the risks of a small business.” Another interviewee described the saying, “Hake is Cake,” which refers to selling or leasing a permit, while waiting for a check to come in. One of the concerns with this response was that quota holders no longer provide family wage jobs because they do not hire local crew. Family fishermen perceived that the sale of quotas was “weakening fishing,” according to one resident, because it makes the industry more expensive to enter into and to move up. One fisherman expressed that skippers were increasingly realizing that they would never become an owner-operator. He explained, “So, economically, I think that people are more looking at fishing as a shorter-term fix. Like the younger generation...Because of the quota system, they don’t see where they have the ability to move up.” Leasing or selling quotas is seen as a viable option because of how much they are worth, and because of decreasing prices as an impact of consolidation.

Some fishermen described holding onto their permits as their retirement support system to cash in as a response to increasing consolidation. Because of the high value of permits, particularly for crab, mid-water and big-trawl which can run from \$400,000 into the millions, it pays to hold onto permits until their value is high enough to support retirement, according to an interviewee. While this is a response to increased consolidation, it also further contributes to consolidation and greater difficulty entering the market because of the high cost of permits. Individual response to consolidation is an important consideration. Some fishermen responded to increased consolidation of the market by seeking alternative markets. Because of a public fishing hoist at the port, fishermen are able to sell their catch to smaller processors and buyers. One interviewee explained:



*Now we have the local buyers...where they are not affiliated with the larger Pacific or Trident, but they are buying the higher commodity items. They are buying the black cod, Dungeness Crab, salmon. So fishermen are able to get a better price by going to the smaller groups that will buy.*

By selling locally, fishermen were able to get higher prices and avoid competition with larger boats that offer lower prices to larger processors because of the quantity of the catch. Individual fishermen found successful alternatives to abandoning fisheries to help them stay in the business.

In response to consolidation, fishermen diversified their operations so they would not have to abandon the business. As tourism and research continue to be prominent industries, some fishermen have transitioned to using their boats in the off-season as research boats, or as tour boats. According to an interviewee, fishing boats help conduct surveys of fish populations in both reserve and fishing areas from Canada to Mexico. This was considered a viable alternative and supplement to fishing in part because fishermen have extensive knowledge of the ocean and because they already have the equipment to be on the ocean.

Salmon, crab, and groundfish closures were another impact of marine regulations to address depleted fish populations. Fishery closures affect the fishing fleet and other industries as well, including tourism and the overall economy, according to an interviewee. Fishery closures had dramatic impacts on the community including the loss of jobs, which incited creative responses.

Marketing campaigns in response to fishery closures were an attempt to highlight underutilized species. A community led project in partnership with the school district called “fish is delish” brought new species to schools, prepared them and offered them once a week to expose children to these alternatives. The Fishermen’s Marketing Association and the Crab and Trawl Commissions also initiated alternative markets for fishermen to support them through fishery closures. The Chamber of Commerce responded after salmon decline and subsequent closures with a marketing campaign aimed at diversifying the fish market as well as offering other opportunities to engage with the ocean and waterfront, including water recreation. Some fishermen took advantage of the opportunity to seek new fisheries, expanding to shrimp and other less known or marketed seafood.

Individual, community and industry responses to the impacts of decreased fish populations and increased marine regulations were varied. Creative business strategies to continue boat operations were successful responses to closures. Marketing campaigns provided support for fishermen to transition to new fisheries because they helped create a demand for new products. Despite these responses, the process by which many marine policies were developed and enforced served as an additional stressor on the community.

### *External Policy Interventions and Process Contribute to Distrust*

Interviewees described policy interventions from external state and federal agencies as stressors on the community due to perceived lack of engagement and perception that agencies do not have the community's best interest in mind. This includes the actual policy, the planning, and the implementation of the policy. The external interventions include quota determination, overlapping safety regulations, marine reserves, conservation policy, relocation of the Coast Guard Air Base, and the Marine Mammal Protection Act. External policy interventions impacted the community negatively because they contributed to community distrust and feelings of underrepresentation.

The federal mandate to relocate the Coast Guard Air Base threatened to put the local fleet in danger, creating the perception that the needs of the community were not taken seriously. Over the summer of 2015, the threat of relocation of the Air Base, a facility that provides emergency response and rescue for the commercial fishing industry and others, was a significant stressor on Newport. With a facility in North Bend, 95 miles away, and one in Astoria, 133 miles away, the Coast Guard considered relocation because of concern of “duplicitous” use of resources, according to one interviewee, and a US Department of Homeland Security mandated budget cut (Dillman, 2016). Relocating the Air Base would increase response time so drastically that the safety impacts would be deadly, according to one interviewee. Search and Rescue (SAR) response time for the Coast Guard was described as not taking into account the short amount of time it takes for hypothermia in cold Pacific waters. While the standard response time is 2-hours, in cold Pacific Waters, it can take just 15 minutes for hypothermia to set in, and 45 minutes for loss of life. As one of the largest ports on the West Coast with Hake, crab, and shrimp, the community in Newport, experienced incredible stress with the potential relocation. Safety of the fleet was a major concern to the Newport community. Ocean safety and disaster prevention affected everyone, according to an interviewee, including recreational fisheries, tourists, and commercial fishermen who fish both near and offshore. Perception of the relocation was that the safety of the community and the fleet were not a priority.

The community responded to the threat of relocation through organizing and networking. A non-profit, volunteer run advocacy group called Fishermen's Wives responded by organizing and they received 20,000 signatures in three days in support of retaining the rescue helicopter. Fishermen's Wives coordinated the port, the city, and the County Oregon's congressional delegation in response. One community member said:

*We've taken two approaches, the legal approach by suing the federal government and the way they went about making their decision and then two, making a political approach to the solution by going back and advocating in DC working with Congressman Defazio.*

Congressional and legislative support, the use of social media, and garnering public support were strategies used in response to the external stress to leverage resources to evidence need. The outcry was successful in that it staved off relocation until at least 2016.

Another external policy that impacted the community was the Marine Mammal Protection Act of 1972, which disallowed the killing of sea lions without specific permits, despite their threat to docks and fish populations. Fishermen considered this policy to not take into consideration impacts on the fishing industry. One interviewee asserted, “the biggest impact on the salmon industry is those damn sea lions sitting out there...we used to go out and have fish all over this bay, the bay is almost barren of fish...” The unforeseen impacts of conservation policies protecting endangered species created conflict over ocean territory. One community member said, “You’re seeing two endangered species pushed into each other, when you see sea lions sitting up in front of Bonneville Dam where the salmon are ‘necked’ down into a very small area, just taking them apart.” Community members discussed sea lions eating salmon off of boats and destroying docks, causing costly repairs and maintenance. Sea lions were also known to act aggressively with tourists. While sea lions are a tourist attraction, fishermen are resentful because they view the conservation policy as a threat to their livelihood and it contributes to distrust in the creation of the policy.

The community responded to the negative impact of sea lions on the docks by developing a comprehensive education program. Air guns can be used as a scare tactic for sea lions, but tourists on the bay front thought they were actually being killed. Sea lions were a big draw to the port for tourists, and the city port does not want to be perceived as attempting to hurt them. The Harbormaster, in partnership with NOAA, hired a crewman to wear an orange vest and volunteer to be shot with an air gun to demonstrate its safety and educate the tourists. Continuing to do this kind of education would be “a matter of resources and time,” but outreach and education were seen as essential tactics.

Some fishermen have felt they have no other option but to carry rifles on fishing boats to shoot sea lions as a response to the threat on salmon populations. One interviewee said, “[M]ost salmon boats have rifles on them, and again, if sea lions are up stealing our fish, they’ll come up throw them up in the air and if they’ve been shot at, they understand what rifles are.” Fishermen who are dependent on their catch act in response to threat to protect their business.

Many interviewees in the fishing industry considered the process of determining Individual Transferable Quotas (ITQ) to negatively impact small boats and contribute to increased consolidation. The quota system was perceived as benefiting larger boats and processors and pushing the industry away from being a family business. ITQ are dependent on a boats performance during certain specified years. One sentiment expressed was that, “There was a lot of disgruntled people who, lets say you had three bad years for whatever reason, but you had been a really good producer before that, I mean this was all going on during the crisis so all the numbers were down anyways.” For a community dependent on harvest and sale of fish, any restrictions on the industry has cascading effects on families and wellbeing. There was expressed concern in interviews that the impact of the quota system has not been accounted for by government, “[W]hat has been the outcome of all the regulation, the human aspect. Of going to the grocery store and paying your bills.” While there had been attention to the economic impacts of increased restrictions, there was a perceived lack of attention to the impact on day-to-day life. There was no response actively discussed in interviews to this growing concern.

Some marine regulations were considered to negatively impact fishermen because of the difficulty navigating overlapping regulations from multiple agencies. Policies around safety, by catch, conservation areas, and fuel mean that fishermen often have to navigate federal, state, and local regulations. For the most part, fishermen understood and supported regulatory frameworks around safety and fuel. The concern, according to an interviewee, was overlapping regulations that did not take the fisherman into consideration, “they’ve got a federal regulation, a state regulation, a coast guard regulation and an ocean regulation. And all four of them will be slightly different. They are all trying to achieve the same result,” in reference to Personal Flotation Devices (PFD). Difficulty navigating overlapping regulations affects the safety of the fleet because of limited time to spend working with multiple agencies.

One of the more complicated impacts of marine conservation policies is the perpetuation of distrust within the community. Distrust of external agencies has its origins deep in a history of natural resource decline, ocean science, and political differences between the coast and the valley. Members of the commercial industry struggled with historical legacies of conservation and marine regulation based in “[B]ad science,” according to an interviewee. Some interviewees claimed that determination of Maximum Sustainable Yield in fisheries as well as conservation regulations from the groundfish crisis in part contributed to distrust between the fishing community and the research sector. One resident said:

*The science of maximum sustainability wasn’t really science. It was politically driven. Now I feel like they are doing science, so I think they should kind of say the past is the past and we have now found a way to collect real data. Because I think that was part of the problem is that fishermen realized that wasn’t science.*

Several interviewees considered the political implications of some marine regulations to be capricious. In interviews, these included marine reserves and other conservation efforts that were perceived as an effort to eliminate commercial fishing. Some interviewees expressed the sentiment and fear that environmental NGO’s with significant lobbying and political power were threatening to eliminate the commercial industry. One resident described a sense of confusion about the implementation of policies that would negatively impact the fishing industry because of the impact on tourism:

*[A] strange dichotomy from a lot of people that came from Portland, that the Portland Metro area – the policies that they want to take to protect the resource, would in essence damage things that they want to come down and see...they wanted to come down and watch a commercial fishermen offload crab.*

The suspicion that regulations were politically driven rather than ecologically driven, and not based in sound science also impacted perspectives on Marine Reserves. One interviewee said, “The implementation of a marine reserve is a fundamentally political move.” Several interviewees were concerned that the impact of marine reserves as a conservation policy would force fishing boats to go farther to fish, burn more fuel, catch less, and have increased risk in a poor quality product due to distance to shore. The fear that conservation efforts did not have the fishermen’s interest or livelihood at heart was a constraining factor in their participation in research and contributed to negative public perception about extractive industries. One

interviewee posited, “I think their [research and commercial industry] relationship is still mending...because they went through such a horrible time.” Stress put on the commercial fishermen from environmentalists pushed one interviewee to describe the perceived lack of concern about the fisherman’s wellbeing, “Every single one of these guys is a small, independent businessman,” and “commercial fishermen are – have to be, by definition, conservationists.” Distrust is perpetuated through the process of planning and implementing policies with significant impact on livelihoods.

### *Natural Hazards and Climate Change Stress Infrastructure and Industry*

Climate change, a potential tsunami and earthquake from the Cascadia Subduction Zone, and chronic natural hazards such as landslides and erosion were considered external stressors by a number of interviewees in Newport. Residents and planners were concerned that the stress of natural hazards was compounded by aging infrastructure and thousands of daily visitors. Living within the Cascadia Subduction Zone caused psychological stress on residents because of the potential threat. Impacts of chronic natural hazards included increased maintenance and repair costs to damaged roads and utilities, a noticeable decline in salmon populations, damage to homes and property, and the looming threat of an earthquake and tsunami.

Natural hazards significantly impact aging municipal infrastructure in Newport. Roadways stressed by large employers like Georgia Pacific bringing heavy trucks in and out were prone to erosion. One resident expressed concern about the compounded issues of natural hazards and aging infrastructure in reference to Highway 101 constantly shifting. They were concerned that vehicle capacity was in question on the Yaquina Bridge, and if there were to be a state regulated weight capacity issue that has to be adhered to without adequate funding, it would create more barriers to travel in and out of Newport. Additionally, Newport, like in many coastal communities, has water and sewer lines made of wood because wood had been readily available as a resource, and there are limited maps that show where they have been installed, claimed one resident. “Nature is the biggest stressor,” said the same resident, about aging infrastructure. In addition, part of the sewer line had also historically been run along the bottom of the bay, where currents cause problems with utilities. Another resident expressed concern about the connection between climate change and infrastructure damage, “One thing we are beginning to see is wave height of 50 feet every 50 years, and we’re getting those in storms, ferocious storms that knock out banks, that take out utilities...you’re getting sinkholes.” City and state government have taken various efforts to address concerns about natural hazards on infrastructure.

Some municipal responses to failing infrastructure caused by aging and natural hazards have included raising utility rates and taxes to cover costs of repairs and maintenance. Many residents expressed reluctance to pay increased rates. The city constantly tries to find the balance between raising rates and risking “[A] local ratepayer revolt of sorts that could threaten the entire program.” Because of aging infrastructure and limited utility line maps, if there is a problem with the storm sewer or if a line bursts, the city engineer is responsible for not only digging to the line, repairing wiring and plumbing, and repaving the street, but also making maps and archiving

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data. The use of city staff to respond to the impacts of natural hazards on infrastructure stresses resources, but is necessary to maintain livability.

The Oregon Department of Transportation (ODOT) has responded to the impact of natural hazards on interstates and highways by investing in repairs and rebuilding. At the time of the interviews, Highway 20, between Newport and Corvallis, had been in the process of ODOT redesign since 2000. This was a major commuter route on the way to the valley. ODOT contracted out work that wound up being grossly over budget because landslides caused shifting that damaged bridge pillars:

*[S]o they had to tear down those bridges and they've gone through some very expensive and unique ways to stabilize the area where this new highway will be located. It'll be open in the fall of 2016 which will be good for Newport because again because of our relative isolation apart from Corvallis, if the road that a lot of people just aren't comfortable taking especially if you're prone to car sickness it's windy and very narrow.*

State investment in highway repairs as a response to chronic natural hazards was important because of the dependence on these transportation routes for the commercial and export industry. Newport, in the past 30 years has experienced a loss of infrastructure due to erosion and landslides. Roadway erosion and landslides are serious problems for homes, businesses, and new development. One resident expressed, “We’ve had buildings go over the edge in the last 20 years I’d say, so it still an evolving landscape.” Chronic hazards affect growth and development. Tourism pushes development to the edge, while Oregon land use policies include regulations against certain kinds of development. One resident described the impact of chronic hazards on property and neighborhoods:

*Are you familiar with the Yaquina Head lighthouse? There's a residential area, there are some gravel streets up there...that whole area, that whole neighborhood is sliding. It doesn't slide fast, but if you go in that neighborhood its pretty interesting because you can see these little fault lines where things slide, where there are water and sewer lines that aren't made to flex it creates some real challenges for maintaining services up there. Some of the homes have had structural issues there, that whole area sliding a couple inches a year, tell me if we have a major earthquake that would accelerate that issue there?*

Damage to property and neighborhood infrastructure puts greater stress on the city and on residents because of increased cost of living. Municipal response to damage of homes and property have included raising property taxes and investing in urban renewal projects for whole neighborhoods. The city is also forced to respond when there are problems with utilities or roads, as discussed above. There was hesitancy expressed in investing in infrastructure in a constantly changing landscape. One resident questioned, “Do you want to make a major investment in an area that you know is sliding towards the ocean?” Newport struggles to respond to stress from natural hazards by raising utility rates, investing in repairs and rebuilding as well as planning for an earthquake and tsunami.

There was common awareness of the potential and impact of an earthquake and subsequent tsunami in interviews. One resident said, “When the big one comes, the bridges are gone, all the roads are gone and they are predicting that we will be without anything for up to three weeks.” A tsunami would impact the entirety of the community of Newport, including the port, businesses, homes, and utilities, all within the tsunami inundation zone. Another resident discussed the impact of a tsunami from the perspective of a new hospital being built:

*We are going to keep 25 new beds in the new [hospital] building, which will have an earthquake resistance of around six. Nine point four kills everybody. Why worry about it, if you're dead, you're dead! At 6.4 you have to pick up and make things good again. You've got to get the water going, and the gas up to date, you have to have transportation. You've got to be realistic.*

Newport has made efforts to prepare for the potential impact of a tsunami. The City, Port, and Chamber have developed plans for emergency response. A community member said, “Each place is working on talking about evacuation routes.” Tsunami evacuation plans are set up every few blocks in South Beach with instructions about how long you have after an earthquake and where to find high ground. The community college is the safe house out of the tsunami inundation zone. The Chamber of Commerce responded by making sure evacuation plans and warning systems were working so businesses had emergency strategies and residents and visitors would have a better chance of survival. There is also a significant hand radio community in Newport. Hand radio operators “[T]rain constantly because when the big one comes, the bridges are out.” Agencies stored food and water, according to an interviewee. Responding to a potential impact was a priority for many government entities.

Community members had different feelings about emergency preparedness as a response, in the case of a tsunami. One perspective about preparation was that, “I think people here definitely are talking about being prepared for a tsunami but I don't think any of us really understand what the impacts of that would be on the community, and whether you can be prepared.” Because the majority of Newport is within the inundation zone, there is a certain sense of the inevitability of disaster. One resident described this sense of inevitability of living in the inundation zone in South Beach, “we don't care, you know, we made a choice.” Despite mixed feelings about the reality of the impacts of a tsunami and the effectiveness of planning, there are significant institutional efforts to plan to mitigate a major disaster.

A decrease in salmon populations was noted to be a potential impact of climate change by interviewees. While dramatic storms and high winds were impressive to watch and experience for tourists, a noticeable difference in climate with 50-foot waves, and warmer waters could dramatically affect the future of commercial fishing, according to an interviewee. The interviewee continued, “if there are extended periods where the ocean currents bring up more warm water here, that has a pretty dramatic impact on commercial fishing.” An awareness and sensitivity to droughts in California was perceived to impact the industry by reducing fish populations. The significance was described as “In certain segments of the food industry, primarily salmon, 65% of the salmon off this coast comes out of the Central Valley of California, out of the Sacramento system...we are starting to see reductions in the numbers of fish.” The dependence on California, in the wake of climate change puts Newport at risk. Decreases in

salmon populations incite similar responses as fishery closures and population decline, including seeking alternate fisheries, depending on the reliance on salmon specifically.

### *The Influx of Retirees Increases the Cost of Living*

The influx of retirees and second and third-home buyers from California and Washington has been a stressor in Newport because the purchase of and construction of real estate has caused real estate values to increase, affordable housing to decrease and has contributed to greater income disparity. One community member expressed “This area is attractive for people buying seasonal homes. Certainly that drives the value of homes up substantially. For workforce housing there are some real limitations about housing options here.” It was estimated that around 25% of housing stock is in second homes and retirement homes, according to an interviewee. In addition, vacation rentals built specifically for that purpose was a trend made popular over the past 30 years. There is a greater demand for housing than there is available housing in Newport. The most noticeable impact of the influx of retirees and second home ownership is on the decreased availability of affordable housing for families and individuals in Newport. Limited availability of affordable housing contributes to income disparity and challenges to livability in Newport. The impacts of limited housing are serious constraining factors in Newport’s ability to grow, retain employees and residents.

Newport responded to the decrease in affordable housing by participating in the establishment of the Lincoln County Land Trust (LCLT), a relatively new program designed in partnership with the city and Lincoln County to address the need for affordable housing and the problem of rising real estate values. The LCLT either purchases or receives donated property to develop into affordable housing that is not susceptible to market changes in price. The city and county in partnership have leveraged resources for a housing study to assess available housing stock. Individual responses to increased cost of living are limited. Some residents leave the community for housing elsewhere, while others live in poverty.

### *Factors Enabling and Constraining Response*

The following section identifies prevalent enabling and constraining factors that affected responses to external stressors in Newport. This section also provides examples for how each factor enabled or constrained responses, or both enabled and constrained responses. A summary of the enabling and constraining factors can be found in Table 5.2 at the end of this community case study.

### *Economic diversity enables recovery and growth*

Economic diversity has enabled Newport to recover from and sustain the community from natural resource decline—namely timber, and to provide alternative revenues and stability in the modern day. Economic diversity refers to the variety of industries bringing in revenue to Newport including; natural resources and support industries, research, tourism, education,



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regional and federal assets, and technology. While diverse industries provide sustaining revenue streams for the community, tourism was noted by many members of the community to fail to provide family-wage jobs, despite the popularity of Newport as a destination.

Primarily, diversity enabled a response to natural resource decline by reducing dependency on two declining industries; fish and timber. Diversification also provided jobs that paid living wages to act as effective alternatives to natural resource extraction. One resident commented on the impact of diversification on Newport's economy; "Because most of the higher wage jobs are concentrated here I would say, government, education, science, scientific research, most of the lawyers are here because most of the courts are here." Diversification has allowed Newport to attract an educated demographic who make up a significant portion of the voting public and the intellectual capital of the city by providing opportunities for various employment. Another resident discussed the cascading effects of commercial fishing and importance of marine support industries; "[T]he shipyards, the marine supply stores, the fuel stores, the mechanics, the electronics people, these are a huge amount of high paying jobs that the fishing industry brings to the community." High-paying jobs impact quality of life, retention of residents and allow for transition from exclusively natural resource jobs.

Increasing economic diversity attracted new people to Newport, including families and tourists who contribute to an increased tax base and revenue for businesses. One interviewee discussed tourism as a critical component of Newport's economy; "Tourism you can't laugh at. The motel down there where George's is – the Hallmark, is the second largest property tax payer in Newport." According to interviewees, there has been a decrease in the impacts of seasonal fluctuations in fishing because of the diversity of things to do. One resident discussed; "Occupancy is going up during winter months. There's much less of a seasonal swing now, it's a much more level occupancy of steps that we have now." An increase in families and retirees has leveled occupancy throughout the year. A decrease in seasonal dependence allows the community to withstand the shocks of natural resource decline.

While diversity has allowed Newport to respond to a variety of stressors, one impact of tourism is the lack of provision of family wage jobs due to seasonal and variable employment. Tourists are able to enjoy the variety of things to do in Newport, but those employed by the tourist industry experience low incomes and minimal job security. One interviewee discussed the challenge, "It is a struggle because when you have a resource based economy and then also tourism being a significant part of the economy, and again, a lot of those low wage, part time and seasonal jobs, it becomes a challenge." Lack of family wage jobs widens the income gap, stresses the community and restricts new residents moving in. Ramifications of limited family-wage jobs include increased poverty, which ties up critical resources, constraining the community from addressing other concerns. While tourism sometimes does not currently provide sustainable jobs in Newport, according to some interviewees, it represents only one part of the economy; a facet unique amongst other coastal communities.

The concentration of federal and regional assets in Newport has contributed to its economic diversity and enabled response to external stressors by ensuring financial support and investment in infrastructure, commerce, and development. These assets provide jobs, generate revenue, attract investment and contribute to the economic health of the community. One interviewee

discussed the sense of security in receiving support; “I think part of the resiliency that we have may be the fact that we are too big of a fishing port that the federal and state governments, if we for some reason were struggling, would probably come in and provide us with grants to make sure.” Institutional assets like NOAA and the Coast Guard, environmental assets like the deep draft port and infrastructural assets like a regional airport enable Newport to be eligible for continual investment by external agencies to sustain operations and bring in more revenue. The federal Army Corps of Engineers pays for and initiates dredging, which allows for international barges to engage in commerce, the airport allows for emergency response planning, and the concentration of commercial amenities attract international fleets who dock in Newport and invest in the local economy.

Economic diversity has allowed for the recovery from natural resource dependency by providing viable alternatives to extraction. Many of the alternative industries are based around the availability of natural resources, but the diversity allows for distributing risk, which helps Newport cope with stressors.

### *Natural resources continue to provide economic opportunities and attract new residents and tourists*

Abundant natural resources like the ocean and forests enabled Newport to develop and grow as a city and have provided and continue to provide economic, recreational, and cultural opportunities and benefits for the community. These resources have enabled Newport to respond to stressors and thrive because of the value to residents, visitors and the region.

Ocean and river resources have enabled Newport to respond to stressors by contributing significantly to the economic health of the community. One interviewee said, “The whole community is dependent on our fishing industry...without them, the tourism sector probably wouldn't exist. And our economy is dependent on that.” Tourism as well as retirement is in big large part dependent on Newport’s natural resources, which includes the commercial fishing industry. When there is stress on the fishing industry, either through decreasing fish populations or increased regulations, there are significant effects on support industries. Stress on natural resources constrains response because of the “trickle-down effect on local seafood markets and restaurants” as well as the price for the customer, according to an interviewee. The trickle-down effect refers to the impact of increased prices and availability of fish due to population decline and increased regulations on fishermen, fish buyers and processors, and ultimately the consumer. Marine support industries have difficulty withstanding dramatic changes in natural resources. Another resident stressed the economic importance of the fishing industry:

*It has the advantage comparatively to the tourist industry in that it provides primarily all family wage jobs. There are some of your higher paying crewmen on boats that make something like \$100,000 - \$150,000 per year. Primarily the difference [between Newport and Lincoln City] if you add the fishing industry, you add the Marine Science Center to it, you add the support industries to the fishing community, your gear storage, your diesel mechanics; these are your higher paid support jobs.*

Newport's natural resources also attract tourists and retirees who put money into the local economy, which helps to sustain support industries and generate greater demand for commercial fishing. One resident commented;

*The fishing industry is the primary draw for 57% of the people. They'll come down to look at the beaches too. I've got a 37-foot salmon trawler of my own to fish with, about 20 to 25 days a year I'll be down [at the dock] when people come up and ask about our [fishing] year and you sit there and show it to them, and I'll end up with 10 or 15 people, and they really enjoy that kind of an interaction.*

The ocean and forests are a deep source of community identity and pride in Newport. The culture of fishing is multigenerational, and knowledge of the oceans is deep. Community identity around natural resources has enabled responses to stress on resources because it inspired fishermen to be creative about how to continue fishing. One interviewee discussed the choice to stay in the industry and love of the fishing culture; "These guys, they love to fish, and some of them are third or fourth generation commercial fisherman. It's something that has been in the family for decades. It's tough to give it up. And it is something they love to do. And their customers want it." Natural resources and amenities continue to provide significant economic and cultural benefits to Newport, despite decreasing fish populations and increased marine regulations.

### *A sense of community facilitates support for individuals*

A strong sense of community in Newport has enabled the community to care for itself, to respond to safety concerns and to build connections to increase institutional knowledge. One resident described the sense of community as "a culture of collaboration." Investment in individuals and community enables Newport to respond to external stressors through communication networks and rallying around an event of common concern.

The sense of community enables the support of individuals in peril. After the fishing community lost a local crewmember in Alaska to an accident, the non-profit organization Fishermen's Wives organized to promote safety and the wearing of PFD's. The organization started a campaign to ask for donations from a local company to help bring safety awareness to the community, challenge the stigma of wearing one, and provide fishermen with support negotiating onerous regulations. An interviewee described the campaign, "[W]hile survival suits were kind of the 80s thing where they became required, and the same thing with your raft, now it is the new technology that needs to be incorporated into not even thinking about it." Rallying around a safety campaign enabled support for the family and helped the entire fishing community heal and respond productively to the tragedy.

The willingness of individuals within institutions to collaborate and support each other was noted by many as a factor that enabled the community to respond to stress and plan for the future. Willingness to partner and collaborate shows an internal sense of community through shared vision. One resident described institutional culture at the city as, "there is enough continuity

within people with institutional knowledge here; it's not a place that was just built. There are many families that are third and fourth generation." The sense of community at the governmental level enables communication to learn from the past. The interviewee above went on to say, "The people who lived here for so long give you that foundation, so you are not reinventing the wheel. "Intergenerational knowledge sharing enables planning for the future. It enables the questions, 'What is it I really need to think about next? What is it that you found hard to do? Is it worth going back? And it is that kind of back and forth through the timeline, you can go back 30 or 40 years,'" according to an interviewee. The strong sense of community within Newport inspires communication and networking because of a shared vision and collective concern.

### *Networks help community leverage resources*

Internal and external networks have enabled Newport to respond to immediate and chronic stressors facing the community. Internal networks include support systems within the fishing community, volunteers, community-based-organizations, the community college, the arts community, and support systems for local government. External networks include city, state and county partnerships, connections to state representatives and the governor's office. Individual relationships within institutions often provide social services, education, and professional support. One resident emphasized the importance of networks by describing what happens when you don't have them, "Maybe part of it is just the lack of resources that everybody realizes you can't get much done if you don't have strong collaboration. "

Networks have enabled Newport to have access to money and investment through external connections with state and federal government. Regional investment in Newport at NOAA gives the community access to support in the case of an emergency as well as funding for research and education. An interviewee discussed the external networks that enabled the petition for NOAA:

*When NOAA came in, the port was well connected to the caucus, and the coastal caucus was very connected on the federal level, [and] the coastal caucus had someone who was a liaison to the Lottery Commission and thought [NOAA] would be a great lottery project. So having those outside think tanks saying 'hey let's do this,' and those connections were very helpful to a community that gets together. The NOAA facility was built entirely with lottery dollars and a little bit of community kick-in, but no tax payer dollars for that 37-million-dollar facility.*

A strong network enabled initiatives to be passed through community support and buy-in. The fight against the threat of the Coast Guard Air Base relocation was evidence that community was able to leverage internal networks to receive external support to respond to the relocation. One interviewee commented:

*The helicopter issue was definitely a statewide effort that the community-from the governor's office to legislators across the state to the entire congressional delegation, whether they represent the coast or not, was very successful. The community was very successful in reaching out and getting the people on board.*

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Collaboration between organizations increases Newport's ability to leverage financial and other resources from external sources. According to one interviewee, both attracting NOAA and receiving research funding had to do with the ability to leverage internal networks:

*We can pick up fairly quickly on a concept like getting a housing study to help OSU convince state legislature that Newport is a good location for this campus. There were funds gathered quickly from a number of sources to get the information that we knew as a community we needed, to make Newport attractive. The capacity is strong both internally and reaching out and partnering with other entities in order to make something happen.*

Communication trees and the continuous use of and fostering of networks allowed for continued support from external agencies. Networks enable Newport to respond to natural hazards, economic and social crisis by leveraging support and funding.

### *Leadership enables planning*

Leadership, including individual leaders, leaders within a group or organization or nonprofits as leaders in the community, has facilitated community relationships, internal and external network building, and leveraging of resources. One resident discussed leadership as the main reason Newport has been able to respond to stressors:

*I think some of it is leadership roles, depending on what the challenge is and who has stepped forward and said, hey I need some help. And then that person, organization or business knows exactly who to call to get that right away. It's just having that circle and knowing where to jump in and who to make the phone calls to. Tactical calculation. Being able to assess what the situation is, really wrap your mind around it, be able to say this is the most strategic way we can attack it, and that has proven to get community buy-in.*

Strong leadership has facilitated strategic planning to recover from natural resource decline. One resident discussed visionary leadership from Newport's history, "One of the first city managers, who incorporated the city and did very visionary things like art, and music, and looking at a tax base, and getting things set up - he was 30 years here and he worked very hard to get the city away from timber." Foresight allowed for Newport to diversify by helping to develop a unified vision for what the city would look like after industry decline.

Individuals working within institutions play important roles in strengthening community partnerships by initiating collaboration. Collaboration between the community college, labor unions and industry employees was discussed by a community leader. Leadership facilitated the leveraging of resources to host welding classes for commercial fishermen, math classes for a Toledo paper company and certification classes for local EMT's through the community college.

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Community education programs enabled response to industry stressors and lack of resources by supporting industry through partnerships.

New leadership and turnover in city government enabled agencies to collaboratively handle natural hazards and infrastructure stress through collaboration. New leadership initiated collaboration by helping to organize multiple city government representatives in Lincoln County and adjacent to meet regularly to discuss pressing issues for each city. Potable water for communities was discussed in this partnership as a collective concern. Collaborative approaches to problem-solving enables fast response, and evidences regional support in the case of disaster.

Strong leadership at the port enabled creative response to infrastructure stress, which was commonly expressed by interviewees as a constraining factor to economic development and industry growth. One interviewee discussed the need to keep up with infrastructural challenges to plan for the future. Because the port plays such a vital role in the economic health of Newport, leadership facilitated the discussion on creative financing to maintain function of the commercial docks and repay debt at the international terminal by “[P]ulling cash from the RV Park and recreational marina to cover the operations of the terminal, specifically the debt.” The idea was that if one industry was diving, the other could “[B]uoy up the port.” Leadership played a significant role in managing public perception, industry needs and finances. Rather than implementing a moorage fee or raising taxes, the port used revenue creatively. Leadership, strategic planning, creative financing, and leveraging finances enabled the port to manage multiple operations and satisfy multiple needs so Newport could respond to economic and environmental stressors

### *Geographic location causes chronic infrastructure damage but inspires a sense of pride*

The geographic location of Newport along the coast was often discussed in interviews as contributing to the natural hazards damaging public and private infrastructure. Geological activity and natural hazards due to location constrain Newport’s ability to respond to stressors because of the increased cost and labor in maintenance and repairs of infrastructure and restrictions in development for growth.

Oregon land use policies restrict certain kinds of development because of the active geology of the area. Restricting development in neighborhoods constrains Newport’s ability to respond to population growth and the need for municipal services, and to attract new industry. One interviewee discussed:

*Oregon has these laws that restrict things like schools, fire station, from going into those tsunami areas. When you don't have a whole lot of level land in these communities, or the entire community is in a tsunami area, it really creates stress to have a school that's not in a neighborhood setting anymore, because it can't be.*

Responding to community need for municipal services is critical in retaining residents and attracting both new residents and commercial activity. Investing in new industry or businesses, because of the unpredictable geologic activity makes Newport a risky place to do business:

*Do you want to make a major investment in an area that you know is sliding towards the ocean? Those are tax payers, people with houses...but to make that kind of investment in an area where people built on a slide... and a lot of people knew that they going to slide when they built their great view-it's a problem.*

Growth is constrained by the high cost of living, in part caused by high utility rates and the purchase of second family homes. The cost of living is prohibitive for some families and low-income individuals to move to Newport. High utility rates due to chronic infrastructural damage increase the cost of housing. One interviewee discussed the concern:

*Infrastructure compounds the housing issue quite a bit. As we have to push our water and sewer rates up, we are increasing the cost of living for folks in the community. Unfortunately, we have to do that in order to rebuild the system because that's the only way we can generate money for utilities, is through rates.*

Because of the chronic challenges associated with natural phenomena and aging infrastructure, Newport is forced to focus on short-term problem solving to maintain business as usual. This is seen in the realignment of Highway 20, a project that was intended to be completed in 2009 but set back because of numerous floods and landslides, according to an interviewee. Geographic location restricts the ability to plan long-term, ultimately putting the community at risk of not being able to respond to stress.

The geographic location of Newport has been leveraged by the community as a unique brand. Newport has been able to attract investment through regional partnerships and has inspired collaboration between partners for economic support in a geographically isolated area. "I think you see that a lot in small isolated communities where you just have to be self-sufficient because no one's going to do it for you." The arts community in Newport is an example of the leveraging of regional partnerships to drive cultural tourism. Despite Newport's isolated location, the arts community helps sustain a year-round economy because of its cultural connections to adjacent communities.

While Newport was described as "[N]ot the easiest place to get to," its location has allowed it to develop a unique sense of self. Another community member said:

*We really are as connected to Lincoln City believe it or not, as to Corvallis. And that's because of that little Highway 20 and the bay. And because of having that connection and the bay and because it's in the central part of the state-it literally is almost right in the center-there was a chance to become a city, and there's a difference...but this is jargon...it's not a coastal town; a coastal town is Yachats. A coastal town is Depoe Bay; and they are entirely on tourism.*

While geographic location is a condition that Newport cannot change, Newport has been able to leverage resources to build regional relationships around a unique sense of self. Location is both an enabling and constraining factor for Newport. The community is in an environmentally isolated and risky geographic location, which creates a sense of urgency that then inspires regional partnerships.

### *Civic engagement affects the direction of change*

Civic engagement in Newport supports initiatives, helps provide social services, and helps run organizations through voting, advocacy, and organizing to raise awareness. “A real long standing culture of activism” enables fast response and facilitates community relationships. Volunteerism as a form of civic engagement enabled the diversification of the economy as well as the development of new programs. Programs, initiatives and institutions in Newport, including the Aquarium, NOAA and the Oregon Coast Center for the Arts, were developed through the support of active citizenry and continued engagement on a volunteer basis, according to a number of interviewees. Charity was also recognized as an important form of engagement in the community. One resident discussed the role of charitable giving in Newport’s ability to respond to stress:

*When you have a community with so many needs, that creates a sensitivity, and empathy, and willingness to do some work because it takes hard work. Having so many people involved in that just really crosses over and helps us to be a stronger community. Newport by far is one of the most philanthropic communities that I've ever been a part of.*

Active engagement around issues enabled the community to protect what is important to them. A number of interviewees were concerned about potential wind and wave energy production off the coast of Newport and its impact on the fishing industry. One resident discussed community engagement around this issue; “[If the] consensus of the community or the voting public is no, they aren’t going to change their mind. If they are forced to, it’s going to be a knock down drag out and fight and smart fighting.” For example, the Oregon Coastal Zone Management Association wrote a letter against a pilot program because of the active engagement and concern from organized fishermen about the use of large blocks of ocean for wave technology research. Residents protecting what is important to them, which in this case was ocean resources, is an important factor in community strength and ability to respond to stress.

### *Limited affordable housing limits Newport’s attractiveness to new residents and employees*

According to many interviewees, there was a great demand for affordable housing in Newport. Limited affordable housing constrains economic development, making it more difficult for employers to attract and retain employees and for families to settle down in the community. Growth in population, especially those in the workforce contribute to economic vitality, a strong



tax base and intellectual capital, all of which help Newport respond to declines in natural resource extraction. The influx of retirees and second and third-home buyers puts pressure on the real estate market and increases property values so there is decreased availability of affordable housing. Residents respond by living outside of town and commuting to work, which affects quality of life, the tax base and the small business community. One business owner expressed the impact of the high cost of living on the business community:

*There was one restaurant owner who owned a restaurant here for probably 30 years, he closed it in 2007. He said at the time he closed all of his employees were living in Toledo and Siletz. It was the first time ever, in his final months that he had not one person living in Newport.*

From the city's perspective, attracting employers to the area is a concern because of the risk of them not finding employees. One interviewee discussed; "As an employer, when we are hiring people that's a major problem, is the availability of rental or reasonable cost housing for ownership. So I guess that makes it a little difficult for when we are trying to attract employers here."

In addition to constraining the business community from investing in Newport, limited affordable housing restricts families from moving in and students from finding housing. The inability to support new families and students constrains Newport in retaining an intellectual base and from receiving tax revenue. According to an interviewee, there is incredible demand for student housing; "You're going to have students that are here for a semester or an academic year and it is very difficult right now; you cannot get a short term lease." The inability to support families, students and the low-income population with affordable housing creates greater income disparity, which puts more residents at risk.

*There has been a really high need here because often times impoverished families or people, when they stumble across a community like Newport, there are so much more resources than there are in other places and it becomes very desirable for them to live here. So then they find low-income jobs, but they can't find low income housing, which drives up our homeless rate, which drives up our stretch on the infrastructure, our police services, mental health.*

The city of Newport struggles to build new properties, specifically affordable housing because much of the buildable land is privately owned. According to one interviewee, private landowners own large tracts of land, sometimes blocks at a time, manage rental properties poorly, let properties sit empty and don't allow for new development. Limited ownership of buildable land at the city level constrains the possibilities of building more affordable housing. Lack of affordable housing reduces the attractiveness of Newport to businesses and families in Newport.

### *Inadequate healthcare services limit the ability to attract and retain families and retirees*

Many community members talked about lack of adequate healthcare, particularly for an aging population. Limited social services like healthcare constrain the community's ability to provide for and retain an aging demographic with the influx of retirees, incoming families and an active workforce. In Newport, many interviewees discussed a shortage of primary care and specialty care providers, and many found themselves traveling outside of Newport to Corvallis for care. In the summer of 2015 a \$57 million bond was on the ballot for a new hospital to be built in Newport. The tax measure was contentious, despite major concerns with healthcare. The hospital would be used county wide, but the tax burden would fall on Newport residents. One resident discussed why retaining retirees is important to the economy:

*Compared to most places, where earned income is the number one source of income, here it is actually transfer payments. And a lot of that is wealthy retirees. A trend... is Newport becoming a first retirement destination; people are coming here between 55-65, but then leaving somewhere between 75-85. There are two things that usually drive that; one, wanting to be closer to children and grandchildren, and that we can't do anything about, and then the other most common story you hear again and again was access to healthcare.*

Retaining the retiree population was discussed as important because of their influence on civic functions. Retirees in Newport were considered active and engaged in politics. Another resident talked about the importance of retention; "If we can offer better access here that helps keep those folks in the community, and not only do they put dollars into the economy, but a lot of them are very involved in civic functions of various types. So I think it is just going to have huge long term benefits."

At the time of the interviews, there was concern about voting no on the ballot to build a new hospital. Without community buy-in for a new hospital, there was also expressed concern that without investment in a hospital, "It would be hard to get the providers who were trained with new technology and the latest advancements when you have a 50-year-old building and substandard space." Limited healthcare and lack of investment in new infrastructure constrained Newport's ability to respond to increased demand on services and grow this new medical sector.

### *Unreliable funding restricts the range of available responses*

Social services and public infrastructure are dependent on varying sources of revenue including grants, taxes and state funding. Unreliable city, county and state funding limits the range of available responses for vulnerable populations, infrastructure and services within Newport. Applying for or initiating a new tax places a burden on administration and is sometimes negatively received by the public.

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The port of Newport has struggled to raise revenue to repair and maintain commercial docks, even though the international terminals bring in revenue through tariffs. One interviewee discussed; “There’s been some reluctance to reach out to the processors to ask if they’d be willing to consider a tax...publically elected officials representing the community ‘don’t want to be perceived as taxing the fishermen or taxing the processor.’” There is pressure to not have a moorage fee at the commercial docks or to raise taxes from the commercial fishing community, which was considered “a missed opportunity,” and constrains the port from repairing the commercial docks, which would greatly benefit the industry.

Administrative resources to apply for grant funding for social services at the city and county level are limited. To provide services to a large vulnerable population, increased health and human services are necessary. Competition with other communities and limited staff constrain Newport’s ability to respond adequately to poverty. One resident put it this way, “Say you are a county health department of our size versus a county health department of Multnomah’s size, do we really want to commit significant staff resources to a grant application when we don’t really know if there even be any opportunity for success?” To deal with challenges associated with limited administrative resources, Newport city departments sometimes pick up the slack. One interviewee discussed service provision:

*[The police department] have a lot of outreach. We have a lot of homeless, and of course drugs. The stress for them [is] because of our social services not picking up the slack and mental health issues not being dealt with, [so] they are the ones that are handling it. That in fact is what the League of Oregon cities put as one of the major goals of the state; was for mental health funding, because it’s gone. And that’s again...state resources forcing cities to pick up what they can’t pick up. The money is not there.*

Unstable funding places a burden on municipal and social services to continue to provide for residents. One interview put it plainly; “The resources that the city has to shift in order to focus on fixing eminent problems impacts other city operations and community operations.” Focusing on providing social services for a population in need with limited resources constrains the ability to plan long term.

### *Differing perspectives and a lack of communication prevent Newport from responding*

Differing perspectives on the future of Newport and political priorities due to an influx of retirees, second homebuyers and over 10,000 tourists, mixed with middle class families, individuals working in research, students, and the presence of long-term residents caused tension in the community. Political tensions due to differences in vision constrain Newport from responding to greater need for social services as well as continuing to provide support for fishermen as demographics shift. Differing perspectives, according to a number of interviewees, sometimes perpetuated distrust about change from long-term residents, which both inhibited and promoted greater community engagement.

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Active disagreement and distrust about municipal priorities restricts ballot initiatives from being passed, which would have provided social benefits. Limited education and outreach around an issue, and the process constrained Newport's ability to respond to the need. Two examples of this included the hospital ballot of 2015 and the building of a municipal pool:

*We have a municipal pool that went on the ballots and it failed the first time out, there were a lot of people, 'that's too expensive' and we don't need it...and why are we spending money on a pool when our roads are crumbling...and any time you mention tax there are a lot of people who own many properties here and so they would be paying tax on a lot of properties.*

Fear of raising taxes because of distrust about the benefit caused residents to vote no on initiatives, and constrained the above tax measure from being passed. One resident described the fear mentality as, "not in my backyarders." Ultimately, an independent committee formed to raise awareness of the need for a pool to provide space for therapeutic swimmers, competitive swimmers, and recreational swimmers and the third ballot initiative passed. Education and outreach around this issue, with the support of media to raise awareness enabled this initiative to be passed, which benefited the city through revenue.

Political differences because of changing demographics was discussed as affecting support for, and perceived support for fishermen in Newport. Political differences, as expressed through media and government create misunderstandings and perpetuate a lack of communication, which then constrains the ability to respond to fishermen struggles, including greater difficulty making a living. One resident discussed the dichotomy:

*Compared to some more rural communities in the state that I think are fairly homogenous, this community does have an interesting diversity. I mean you do have a lot of 2<sup>nd</sup> and 3<sup>rd</sup> generation fishing families, logging families, but you also get a lot of retirees who have come here from other parts of the state or even other states, who are fairly well off, maybe more liberal in their leaning politically, maybe more willing to vote for taxes.*

One of the conflicts most often noted in interviews was that between environmental organizations and the commercial industry. Environmental organizations and conservation were considered to receive more media attention and support from the general public than commercial fishing. There was also perceived lack of support at the city level for fishermen:

*They keep trying to take parking away from fishermen at the waterfront and yet you sit back and explain to them at Waterfront brings in a five to ten times the amount of money out of the fishing industry is the tour industry does. The tourist industry down there isn't too much essentially from the middle of June to the middle of August, why pick on the fisherman? They're the ones that pay taxes. But the fishermen don't go to the Chamber of Commerce meetings [and] don't lobby government.*

Differing perspectives based on political power constrains the city's ability to respond to the decline of commercial fishing because of a lack of communication and a perceived separation

between the public, government, the business community, and the commercial fishing community.

## *Summary and Conclusion*

Despite a thriving diversified economy, Newport also experiences the growing pains of industries both independent and mutually dependent on each other. Natural resource decline and increased restrictions on harvest pose challenges to the family fishermen leading to a decrease in family wage jobs, greater difficulty entering the businesses and greater tension within the fishing community. External policy interventions and processes around marine regulations have contributed to a sense of distrust and feelings of underrepresentation of the fishing community both within the community at large and in government. Newport also struggles to respond to chronic coastal natural hazards like erosion and landslides, while putting significant efforts into planning for a potentially devastating earthquake and tsunami. As Newport experiences growth and decreased seasonal tourism, stresses on infrastructure and providing social services like healthcare, and affordable housing become more difficult and costly. Changing demographics and an influx of second home-buyers impact real estate values and voice in local politics, while income disparities are evident in an increased homeless population and underserved residents. If infrastructure cannot keep up with demand, Newport may struggle to remain attractive to new residents, tourists and industry.

Newport has demonstrated resilience in many of its coping mechanisms, adaptation and reorganization strategies to natural resource declines in fish and timber and other external stressors. Historical investment of federal money, residual infrastructure and strategic planning for economic diversification enabled Newport to absorb some impacts of and cope with fishing decline and prepare for natural hazards. Community organizing, lobbying, leadership and connections to external networks have facilitated Newport to re-organize in response to increasing harvest restrictions and marine policy and the impacts of changing demographics. Strategic planning for creative refinancing, emergency planning and social service programs facilitated by a strong culture of collaboration has enabled the community to take action preemptively to the threat of a tsunami and internal challenges associated with changing demographics and industry decline.

A culture of collaboration, the power of internal and external networks and strong leadership were salient themes throughout the interviews. Many of those interviewed were positive about the future, and talked about the possibility of greater partnerships between researchers and commercial fishing industry, about economic diversification at the port with escort vessels and strategic planning, emergency response and excitement about making use of the airport. Some interviewees talked about the need for greater education and outreach within the community in relation to understanding natural resource decline, climate change, conservation and support for tax measures for social services, even to go as far as to say “education and outreach are the only things are going to serve the community well as we move forward...we need to be thinking 10-20 years, 50 years down the road and not just the immediate impact.” There is fear and confusion about new industries and the potential impacts of wind and wave energy, and marine reserves.

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Interviewees in the fishing community talked often about the importance of support industries and small businesses and about prioritizing a plan for the aging of the fleet as a critical component of marine conservation. With Newport's history of organizing around issues important to the community, it is not hard to imagine that a culture of collaboration and strong leadership will help support the community as it transforms.

## *Table of Stressors, Impacts, Responses, Constraining and Enabling Factors for Newport*

*Table 5.2: Newport summary table*

Stressors	Impacts	Response
1. Decline in fishing leads to increased marine regulations	a. Loss of Jobs	<ul style="list-style-type: none"> <li>• Industry Diversification</li> <li>• Participation in the federal buy-back program</li> <li>• Individual Investment in niche markets</li> </ul>
	b. Consolidation of Processors	<ul style="list-style-type: none"> <li>• Individuals sell catch to smaller processors</li> <li>• Fishing boats also do research and surveys</li> <li>• Quotas used as retirement</li> <li>• Lease or sell quotas to larger companies</li> </ul>
	c. Fishery Closures	<ul style="list-style-type: none"> <li>• Marketing campaigns</li> <li>• Individual fishermen seeking out alternative fisheries</li> </ul>
2. External policy interventions and process contribute to distrust	a. Infrastructure damage and fish population loss from sea Lions creates sense of distrust in conservation	<ul style="list-style-type: none"> <li>• Education and Outreach</li> <li>• Fishermen shoot sea lions illegally</li> </ul>
	b. Perception that the "human element" is unaccounted for with the quota system	
	c. Difficulty navigating safety regulations	<ul style="list-style-type: none"> <li>• Community organizing around promotion and fundraising</li> </ul>
	d. Distrust about marine reserve implementation	
	e. Fear of an increase in emergency response time to fishing vessels	<ul style="list-style-type: none"> <li>• Organizing and state and federal lobbying</li> </ul>

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3. Natural hazards and climate change stress infrastructure, industry and community	a. Damage to roads and utilities increase maintenance costs	<ul style="list-style-type: none"> <li>Investing in highway reconstruction</li> <li>Regular repairs on roads</li> </ul>
	b. Property and home damage	<ul style="list-style-type: none"> <li>Increased property and utility taxes</li> </ul>
	c. Potential impact of a tsunami	<ul style="list-style-type: none"> <li>Emergency response plans</li> </ul>
	d. Decrease in salmon Populations	
4. An Influx of Retirees Increases the Cost of Living	a. Decreased affordable housing	<ul style="list-style-type: none"> <li>Land trust</li> <li>City/county research partnership</li> </ul>
<b>Enabling Factor</b>	<b>Enables</b>	
1. Economic diversity enables recovery and growth	<ul style="list-style-type: none"> <li>It allowed for recovery from natural resource decline</li> <li>It helped to attract tourists and an educated demographic, which contributes to increased tax base and city and business revenue</li> <li>It positions Newport to be eligible for state and federal investment</li> </ul>	
2. Natural amenities provide economic opportunities	<ul style="list-style-type: none"> <li>It attracts tourists, sport fishermen who spend money</li> <li>It is a sense of pride for the community</li> <li>Contributes to economic health</li> </ul>	
3. A sense of community	<ul style="list-style-type: none"> <li>Enables the support if individuals</li> <li>Enables learning from the past</li> </ul>	
4. Networks help community leverage resources	<ul style="list-style-type: none"> <li>Enables access to money and investment through connections with state and federal government</li> <li>It enables community support behind initiatives – buy-in</li> <li>Ability to leverage resources</li> </ul>	
5. Leadership	<ul style="list-style-type: none"> <li>Facilitates strategic planning to recover from decline</li> <li>Helps strengthen community education programming to support industry</li> <li>Enables organizations to handle natural hazards and infrastructure stress through collaboration</li> <li>Creative financing</li> </ul>	
6. Civic engagement affects the direction of change	<ul style="list-style-type: none"> <li>Enables diversification and new programs</li> <li>Enables community to protect what is important</li> </ul>	
7. Geographic location	<ul style="list-style-type: none"> <li>It inspires collaboration for economic support, regional partnerships attract investment</li> </ul>	



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	<ul style="list-style-type: none"> <li>• Enables branding</li> <li>• Attracts new people</li> </ul>
<b>Constraining Factor</b>	<b>Constrains</b>
1. Growth of tourist industry	<ul style="list-style-type: none"> <li>• It constrains response partly because tourist industry does not necessarily provide family wage jobs. Alternative industries may not be viable for families to transition out of fishing after decline</li> </ul>
2. Geographic location causes chronic infrastructure damage	<ul style="list-style-type: none"> <li>• It constrains people from moving in</li> <li>• Restricts the ability to plan long term</li> </ul>
3. Limited affordable housing	<ul style="list-style-type: none"> <li>• It restricts employers from attracting employees</li> <li>• Restricts families and students from moving in</li> <li>• It creates more income disparity</li> </ul>
4. Limited healthcare	<ul style="list-style-type: none"> <li>• Constrains ability to retain population, especially retired</li> </ul>
5. Unstable funding	<ul style="list-style-type: none"> <li>• Restricts range of available responses</li> </ul>
6. Differing perspectives and a lack of communication	<ul style="list-style-type: none"> <li>• Restricts initiatives from being passed and services provided</li> <li>• Affects support for fishermen</li> </ul>

# Florence



*Prepared by Theo Eggermont*

# Chapter 6: Florence Case Study

*“It's a really good time to be in Florence, Oregon. It really is.”*

*– Florence Community Member*

## *Introduction*

### Florence today

Florence is located on the Central Oregon Coast. The city forms a small peninsula on the Siuslaw River. While near the ocean, residents consider Florence a river city as there is not much beach access. On the southwest side lies the Oregon Dunes National Recreation Area. Aside from its beauty and recreation opportunities, the dunes provide some protection from the ocean winds. With just over 8,500 residents and 5.3 square miles, Florence lies at the intersection of Coastal Highway 101 (between Coos Bay and Newport) and Highway 126. It is 60 miles from Eugene, with a population of 160,000 people. The surrounding area contains small towns such as Dune City and Mapleton, bringing the area population up to 15,000 people.

Florence's commercial areas include the businesses along Highway 101, Old Town along the river, and the more inland business district. The largest employers are Peace Harbor Health, Fred Meyer, Suislaw School District, and the largest employer, the Three Rivers Casino, run by the Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians. Old Town is a walkable scenic area near the Port consisting of non-franchise small businesses and restaurants. Old Town used to be considered unsafe or rowdy. However, as it transitioned from a fishing and lumber city during the 1980s and into the 1990s to a retirement and tourism city, Old Town has developed into the main tourist destination within the city. Outside of the Old Town's shopping and dining, tourism revolves around the dunes to the south and sea lion caves to the north.

In the 1990s, Florence began to cater to retirees, which has become the primary influence on the city both economically and socially in recent years. In the early to mid-2000s, Florence earned the designation as the number one place to retire in the United States (Savageau, 2004). There are several gated communities for seniors and entertainment opportunities for retirees including, three golf courses, Senior Center, and the Three Rivers Casino. As more and more retirees have moved to Florence, the city has been shaped to fit their needs and perspectives. The community now identifies itself as a retirement town due to the high percentage of retirees. The retirees have instilled a strong sense of volunteerism which permeates the culture. There is a sense in Florence that things are beginning to happen. People feel motivated to address issues they see in the community. One resident even referred to it as a “new era.”

Table 6.1: Florence demographic information

<b>Population</b>	8,466
<b>Median Age</b>	57
<b>Median Income</b>	\$42321
<b>% under 18</b>	13.9
<b>% over 65</b>	36.4
<b>% not in workforce</b>	57.7
<b>Living Below Poverty Level</b>	17.1
<b>% With Retirement Income</b>	34.5

Source: American Community Survey, 2014.

## Background

Like most coastal river areas in Oregon, Florence was first settled for its access to natural resources. Florence was originally inhabited by the Confederated tribes of Coos, Siuslaw, and Umpqua. Later, white settlers were attracted to the area for its salmon and timber. With the Homestead Act, the land became open for settlement in 1876 and early settlers began arriving shortly thereafter. Some of the Native Americans stayed, but many left and went further upriver to Indiantown. George Duncan was the first to commercially take advantage of the plentiful natural resources in 1877 after bringing a machine to start a cannery and a sawmill. He hired Native Americans in the cannery and early settlers in the mill. This economic activity started a long trend that would sustain the community’s growth for over 100 years (Fleagle, 2014).

The area initially developed through waterways and there were no roads into the Florence, making access difficult. The north jetty was completed in 1893, but boat travel was still dangerous. The Port of Siuslaw was formed in 1909. It put forth a bond measure in 1912 to build the south jetty which was completed in 1917. The jetties made ocean travel safer, preventing multiple day-long delays when ocean conditions made boat travel across the bar unsafe. Access to Florence opened up slightly in the 1920s when a wagon road was built. Despite Florence’s relative isolation, two more canneries, mills and the arrival of the railroad to the Siuslaw Valley (but not to Florence), helped Florence grow. Later, in the 1920s and early 1930s, the opening of the Cape Creek bridge and the Siuslaw River Bridge continued to increase access to Florence. However, sand from the dunes continued to make road travel problematic until the 1950s when beachgrass plantings eased vehicle transportation (Fleagle, 2014). These dunes, which stretch from south of Florence to north of Coos Bay, were given status as the Oregon Dunes National Recreation Area in 1972 (Butler, 2008). They form the largest coastal dunes in North America and considered for a potential National Park (Fleagle, 2014).

Historically, the economy of Florence has been dependent on natural resources such as fish and timber. It was said that salmon were so abundant “You could walk across the river on the backs of fish” (Fleagle, 2014). As fishing technologies advanced, seining gave way to gillnetting which contributed to the decrease in the fish stocks. After WWII, some commercial ocean fishing began and continued until a fire in 1982 burned the docks (Fleagle, 2014), causing this industry to

dwindle significantly. Similarly, Lane County has abundant forests which provided employment and economic growth, but declined because of consolidation, the 1980s recession, and land management policies (as described in Chapter 2 of this report), leaving many people unemployed. However, logging and fishing have not disappeared completely. River fishing is popular, there are still a few commercial ocean fishers, and R&R King Logging provides a number of jobs in Florence.

## *Findings*

### Stressors, Impacts, and Responses

The following section analyzes interviewees' responses to questions probing their perceptions of the major stressors facing the community, the impacts of these stressors, and the ways in which the community has responded to the stressors. Examples of impacts and responses detailed by interviewees are quoted or paraphrased. While a variety of other factors may be impacting these communities, only those mentioned repeatedly across interviews or heavily emphasized are reported here. A summary of the stressors, impacts, and response can be found in Table 6.2 at the end of this community case study.

#### *Fishing faces challenges over the years*

Very few commercial fishers remain in Florence because of the challenges fishing faced over the years. Historically, the town was dependent upon the fishing industry and supported more than one cannery. However, community members indicate fishing declined for two reasons, the first was over extraction. The second reason was pollution from upriver timber harvesting and milling made for unsuitable fish habitat. More recently, insufficient funds to support the infrastructure has furthered the decline of the fishing industry. Although the community was dependent upon fishing, it was not as reliant upon the industry as many other communities along the Oregon Coast. The decline of fishing is a stressor as it resulted in a loss of jobs.

Fishing in Florence has been limited because the bar is often closed. The bar prevents larger boats from entering from the ocean. The jetty is partially to blame. The jetty has eroded and has not been maintained since 1987. As a result of a lack of funding for maintenance from the federal government, the erosion of the jetties has resulted in a loss of 473 feet. Consequently, silt builds up and requires more frequent dredging. Dredging treats the symptoms, but does not work to address the problem by extending the jetties, which would cost \$180 million. The port manager has responded by working with Congressman Peter DeFazio to address the issue. By collaborating with the Pacific Northwest Waterways Association, they are working with the state to buy a dredge for the South Coast. By owning the dredge, they could bring the cost down from thirty dollars to eight dollars a yard.

Some residents attribute the lack of an ice machine as the primary reason why there is not a fishing industry in Florence. In 2004, the ice machine which makes the ice that enables fishers to preserve their catch, broke. After raising funds and receiving grants, the ice machine was replaced in 2010 at a cost of \$300,000. After making two batches of ice, the replacement broke due to loose valves and leaks. Without an ice machine for seven years, most of the commercial fishing had left, contributing to insufficient funds to repair the ice machine (Bartlett, 2011). When it was not replaced, the result was considered the last nail in the coffin for commercial fishing. A community member explained that the ice machine no longer made business sense and was not worth replacing. This community member explained that the fish buyer in Florence wanted to get fish cheaper. This led to internal conflict and the business became “too much grief and [he] wanted to have a restaurant, so he decided to turn the building into a restaurant, so he stopped buying fish.” Without a fish buyer or fish processing plant, owning an ice machine no longer made economic sense. Despite these challenges, there are still a few remaining fishers in Florence. However, the loss of jobs contributed to an economic void. Fishing is not the industry it once was and is no longer part of the city’s identity.

One positive impact of the decrease in commercial fishing is an increase in salmon populations, which attracts anglers and has benefitted angling guiding services. As commercial fishing industry declined, the consequence is that recreational fishing has improved. Fishing has also improved due to the decline of timber, as the river has recovered from the pollution associated with the mills. The improved river conditions enable recreational fishing to have a positive economic impact on the community, adding diversity to the community’s income streams.

### *The decline of timber leaves a void*

The decline of timber was an external stressor because timber provided a number of jobs and funded county services. Counties received timber receipts from timber harvests on federal land and became reliant upon this funding to provide services. A community member explained how timber came to be a part of the tax base. They explained that timber was seen as a more reliable industry, in part because there was better understanding of logging than fishing and partially because of “...the relationship between the Bureau of Land Management, private industries on the river, and congressional forces that wanted the development of timber to be used in conjunction with the development of the state of Oregon, the infrastructure.” Timber receipts supported infrastructure, schools, and county services. The decline of timber decreased funding for these services.

Residents identified unsustainable logging practices and federal regulations as contributors to timber decline. Interviewees with natural resources based occupations indicated over-extraction was occurring on private land and federal regulation took away a critical resource for logging companies:

*And some folks say the owl is what killed the timber, but if you look at the timber harvest, they had already decreased before the spotted owl issue. That is why the spotted owl is a bigger deal, because it was on federal land, because they pretty much logged all the private land.*

This community member acknowledged that the community perceives the spotted owl as the scapegoat for timber decline. Two other community members mirrored this sentiment. Florence was affected socially and monetarily as timber declined. One resident indicated that the boom and bust cycle of timber negatively impacted the community's ability to form a long term vision. Pro-timber or anti-timber perspectives divided the community, reducing the community cohesion required to form long term plans. From a monetary standpoint, the county services funded by timber receipts, such as schools, roads and jails, have suffered. Florence residents pointed to impacts on the Sheriff's department, "Because what is happening is we are seeing a continual dwindling of services provided by the government agencies like safety with our Sherriff's department predominantly, because there is no funding left for it." The county has trouble funding roads; in 2015 a ballot initiative to pass a \$35 DMV registration fee to help maintain roads failed (Mapes, 2014). As a result of decreased timber receipts, the roads were perceived as deteriorating and the Sheriff's department was unable able to respond to minor crimes.

Florence has responded by using their own resources to cover county services like the Sheriff's Department and schools. Even though not in their coverage area, City police will cover for the Sheriff's department in surrounding areas like Deadwood and Swisshome. The issue of timber's monetary impacts on schools rarely came up, likely because the community has repeatedly and effectively responded to the issue by approving levies. This response shifts costs onto local property taxes. One community member commented, "Florence actually has a very strong economic investment in schools. They have had repeated bond measures. There only has been one or two that has failed. And they have several that have passed." Recently, Florence has approved levies to support the schools in 2009, 2013, and had another ready for a vote in May 2016 (BallotPedia, 2013; Siuslaw School District, 2016).

In many ways, Florence can trace its development as a retirement town to the need to fill the economic void left by fishing and timber and from the environmental concerns of the 1960s. A community member familiar with the transition explained, "Because once the resources went away the businesses went away and there was not the replacement plan for the future. And it took twenty years for people to figure out what to do." But residents of Florence actively shaped this path. He continued to explain Old Town's transition, "They translated the ideals of the 60s into their purchase of property in the 80s and were instrumental pass[ing] ordinances that prohibited certain types of development and exploitation of resources." Those residents made sure that franchises were restricted from Old Town and helped to preserve the river. Cleaning up the natural and social environment converted the not family-oriented Old Town to the tourism-oriented Old Town of today. Another community member made the connection more explicit, "When logging and salmon was threatened in the late 70s and early 80s, Florence came up with the idea [of] making this community a destination for retirement, they started catering to that group of people." The strategy to cater to retirees succeeded. Florence received the designation as the number one place to retire in the United States (Savageau, 2004). Mayor Phil Brubaker

acknowledged the importance of retirees in 2011 in a City Council meeting, “I believe we must focus on the one thing that has allowed Florence to prosper since the demise of the timber and fishing industries. And that one thing is new people, both through tourism and retirement” (Florence City Council, 2011). Retirees have brought resources to the community, but their large numbers have dramatically changed Florence.

### *The influx of retirees reshapes Florence*

Although retirement greatly contributed to the growth of Florence, it also presented tradeoffs that have negatively impacted the city. In a context where much of the middle class has left, the influx of retirees has greater impact than if there were a thriving middle class. The high percentage of retirees increases the average age to twenty years above the Oregon state average (City-data.com, 2016). Interviewees said the number of retirees make up over half the community in Florence. The large number of retirees have reshaped parts of the city, altered the housing market, and have become the primary market for entertainment.

Retirees have different needs, desires, and perspectives. The city has been shaped by those aspects. For example, the City had a plan to create two, ten-foot multi-use paths along a road, making a safe path for bicyclists. A gated retirement community largely opposed it, enough to alter the plan. The project became two, six-foot shoulders that were not multi-use and therefore less functional for recreation. Infrastructure is not the only thing affected by the interests of retirees. As retirement has become the dominant economic driver of the city, many of the businesses and activities have become geared towards retirees, causing younger families to report that there is a lack of suitable entertainment and recreation available for their demographic. One resident explained how retirees affect activities for, and retention of, younger adults:

*The lack of things for the younger generation to do, kids that grow up, go off to college and don't come back. That increases that age gap, because not only are we getting that influx of retirees coming in, which we love, because they are bringing money, talent, art, all those positives. But because of that lack of attraction for the younger generation, and then not returning, then that is causing that age gap to continue to be a considerable factor.*

With business' focus on retirees, there is a lack of activities for a younger demographic therefore fewer young people return to Florence. One resident explained that the same children frequent Miller Park every day because that is their only source of recreation. Another resident attributed the condition of parks to the high percentage of retirees, “That has so much to do with demographics. The seniors have an awesome Senior Center where they go play cards. But a playground! Have you driven around? They are the saddest playgrounds in the whole world.” The lack of leisure activities has created a feedback loop, whereby younger people do not stay in the community, so the demand for these services are lower. For example, community members frequently mentioned the hospital's inability to keep physicians who decide to leave because of a lack of things to do or their decision to start a family.



The high number of retirees in Florence has altered the housing market. As retirees have been the driver of the economy, gated retirement communities have been catered to fit retirees needs. The influx of retirees and growth of second home ownership has increased the price of homes. One resident commented the extent of the price increase, “We were up from about \$150 per square foot for an average house, we went up to about \$250 per square foot. So you can imagine what that does to a first time home buyer.” When considering that many jobs are in the service or tourist industry, working people are less able to afford homes. This mismatch between housing types and affordability creates a barrier for those looking to move to the city. A community member explained, “There isn’t a lot of housing that is affordable for what jobs people can get. There is a lot of housing if you are a senior. If you are not, you are out of luck.” They continued, “If you are by yourself that is fine, or if you are retired that is fine. But if you have more than one or two kids, it becomes a very small house very quickly. So that is an issue that we run into a lot.” The high number of incoming retirees have raised the cost and the availability of homes, resulting in inequality in the housing market.

Housing came up as a major challenge in several interviews, and there have been a couple of responses. City Hall is responding to the mismatch by changing their housing codes. New codes will allow attached structures with some shared spaces such as mother-in-law units. The goal is to permit structures allowing people still getting on their feet to move in with their parents. The casino, as a large employer, is keenly aware of the lack of affordable housing. As a result, the Siuslaw Tribe has made efforts to address the issue of affordable housing in the community. For the last four or five years, the Tribe has been working to build affordable housing at the north end of town for Tribal members and casino employees. This development is still underway. These responses are moves to address a large challenge, but residents overwhelmingly feel there is still a great need for affordable housing.

Not all retirees have the same means and they impact the community in different ways. Many retirees are living on a fixed income, limiting the positive economic impact they can have on the city. Some retirees have very expensive homes, while one of the gated communities consists of mobile homes. One resident described the limited influence of some retirees on the Florence economy and the decision to attract retirees:

*Not the rich, the middle class, the working class, but people with a pension and a fixed income and they just need a modest place to be comfortable and grow old...I think the vision was short sighted, but the bottom line is you have a huge retirement community now. And retirees, not all of them, but the majority of them are just that.*

In some ways retirees have a positive impact as retirees benefit the community through economic growth, taxes, and volunteering. However, these benefits do not drive the economy as one might expect and when retirees make up such a high percentage of the community, it can act to constrain growth. There is a high amount of variability in the impact that retirees in Florence have on the economy. One resident commented on retirees who do not contribute much to the local economy:

*They don't go out, they don't spend money, they don't give tips at restaurants. They don't use the services that are here because they are on a limited income and they would rather wait and go to Eugene and they'll go to Wal-Mart. And so all the small businesses that are trying to grow, and trying to do well are really supported by the few that spend money here, which are the working people.*

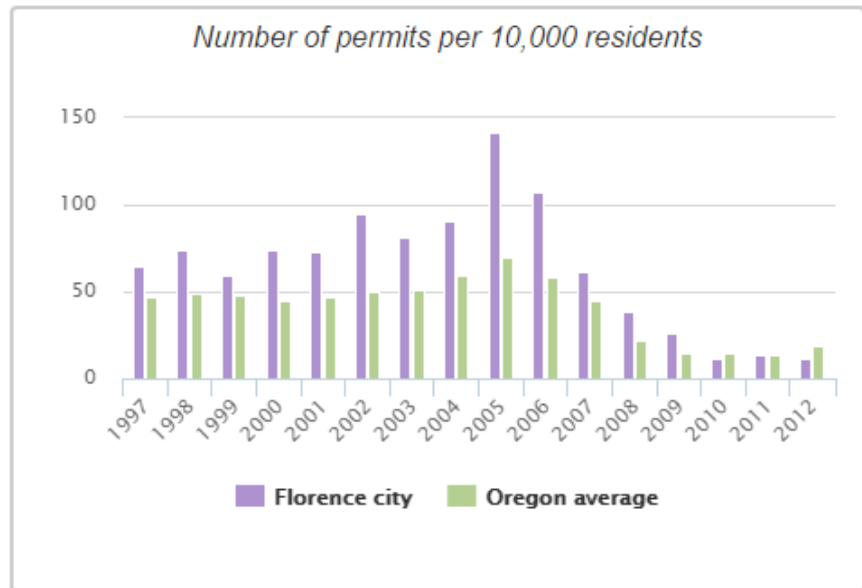
While some retirees spend their money in other communities, many retirees bring a substantial amount of money into the community, but the community questioned the retirement industry as a long-term sustainable industry. Members of the Florence community understand that although retirement has provided the city with resources, the industry is not a long term replacement for the timber and fishing industries.

### *The recession causes the loss of an industry and a decline in population*

When the recession of 2008 hit, the economy of Florence had already transitioned away from being heavily natural resource dependent, so the community did not face the impacts of natural resource decline and the recession simultaneously. One resident explained, “When our downturn happened, there were not any big companies pulling out. Those had already happened with the decline in fishing and lumber, earlier in the century.” However, the remaining primary economic drivers of retirement and tourism were both susceptible to the same systematic risks of the recession. Those living on a fixed income or off of transfer payments cut back on spending, as did those traveling. A diversified economy would suffer less, allowing the community to absorb the impacts of a recession better. The recession had dramatic impacts on tourism, on the housing industry, and on the size of the population.

Retirees cut back on spending and many people no longer could afford their second or third homes, causing the population to shrink. One community member commented on how many people left the community, “We’ve lost about 1000 people, we got up to 9800, and then we went back down to 8700. We lost people because they couldn’t afford their third home or second home anymore.” Additionally, tourism decreased. A community member explained the situation, “We have the restaurants, the gift shops and whatnot, and the bulk of those are all mom and pop shops. And most of those people let most of their staff go and they are running it themselves.” Tourists were spending and visiting less resulting in a decrease in employment. Tourists spent fewer nights in Florence in 2007-2009 than they did in 2010 onward, (City of Florence, 2016) resulting in less income for business owners and less income through the Transient Room Tax (City of Florence, 2016). The Transient Room Tax is a tax placed on lodging. In Florence this revenue is used to support the Florence Events Center and the Chamber of Commerce.

To make matters worse, during the recession the demand for homes decreased. Building permits drastically declined as Figure 6.1 exhibits. As a result, the construction industry receded and the construction workers left. As one community member said, “There was no building activity, and a lot of the builders that had been involved were just flat gone.” They continued, “We had twelve or fifteen builders, but we have four or five that are still in existence. Some of them quit, went into a different trade and some of them



Source: City-data.com

Figure 6.1: Number of Florence building permits per 1000 residents

moved where things were not quite as distressed. It had huge impacts on our building community.” Those builders who remained were able to work remodeling homes, but most of the industry left. The loss of second home owners and building industry resulted in a population decline which affected the community’s tax base and support for schools and businesses. The lack of construction impacted future development. Due to the limited construction occurring after people left Florence, the service for building and permitting that used to be available in Florence once a week is no longer available. This adds to construction costs as developers must travel to Eugene and back to get required permits.

According to Florence residents, the community weathered the recession considerably well financially, but this response had negative repercussions. The City of Florence’s ability to successfully respond to the recession was accredited to leadership’s ability to rapidly respond by decreasing spending. One community member familiar with this time commented, “So where we had a strength was we were actually quick to respond. I think a lot of cities just kind of kept doing what they were doing, not realizing that the recession was happening. Our problem is we hunkered down for probably eighteen months too long.” One visible example of this impact was park maintenance. The City Manager “just cut expenses, laid off all the parks people, and then the parks [went] to hell.” In 2012, the parks were vandalized, picnic tables and playground equipment were damaged and the restroom door and toilets were broken. In response, the city shut down these facilities (Sneddon, 2012). Due to decreased spending, police were less able to monitor public spaces. As one community member explained, “They were shorthanded over there, they didn't hire replacements and the [number of citations and arrests] for our police dropped way off.” Decreasing spending in response to the recession resulted in Florence being unable to maintain the same level of services as before the recession. Cutting back financially helped Florence weather the stress of the recession, but resulted in tension between City Hall and

community members. People looking to collaborate with the city reported an unfriendly reception, causing quick burnout on behalf of those looking to start a project. One resident said, “We just kept our head down.” The city was not considered business friendly. Some attributed this climate to leadership, citing the “good ole boys club” forming in city government as the culprit. For many years two mayors alternated this leadership role, while many of the city council members reportedly switched chairs and stayed on too long. The city deactivated a number of their committees including the parks committee and airport committee. A response to the recession was delayed further by a lack of leadership. A community member commented, “The reason why we were not quickly able to turn around is we ended up having a little bit of political unrest with our councilors, and then our city manager took a job in a bigger city. We were without that city leadership for about twelve months.” The political unrest within the City Leadership and externally with the community acted to slow the response to the recession.

In response to the loss of population, businesses, and jobs, City Hall prioritized economic development even more than they had in the past. Previously in 2006, the city adopted a plan that created the Florence Urban Renewal Association (FURA). FURA reallocated taxes to address urban blight. Primarily, the funds have been used to update sewer systems from the 1940s and 1950s to meet state requirements for commercial zoning. As Florence grew during the late 2000’s, the city did not focus on economic development to a large extent. However, after the recession subsided, Florence responded to population decline and declining construction industry by promoting economic growth and vitality by trying to attract new development and new jobs. The new leadership is actively spearheading economic development. The mayor has a financial background and is focused on achieving this goal. To promote the city, they have created a slogan, “A City in Motion.” From there, they created an Economic Development Team and an Arts Committee, both aimed at economic growth (Sinha, 2015). The City has increased their marketing budget to promote their existing properties, something they have not done for over five years. In order to increase tourism to the region, the City reallocated twenty percent of the Transient Room Tax money from the Florence Events Center to the Chamber’s budget. The City also looked externally to promote economic development by seeking grants and resources from the state and Lane County’s economic development team. Florence has actively been seeking economic development in order to recover from the effects of the recession.

Although mostly positive, there have been some mixed feelings from community members about how Florence has been focusing on economic growth. One resident commented on how amenable new city leadership was to local businesses, “That is just a completely different conversation than we’ve had for about fifteen years in Florence, a more willingness to allow people in [to Florence], to help them instead of hindering them to be here.” Another resident commented, “I can’t emphasize enough how excited we are that we have this new city council and this new city administration in place. Because it has just been a 180, they are so receptive. They are so concerned.” Another resident commented on the new era with some hesitancy citing a concern about being too focused on economic development. This community member stated that the development needs to come with social improvements such as increasing livability for families because without improvements, the economic development may fall flat as people would not be willing to stay in Florence long term. Without improvements such as education, relocation opportunities, and good real estate opportunities small businesses will have a difficult

time attracting employees. Although community members view economic development in a positive light, people have different perspectives about the way the community should pursue it.

### *Cascadia Subduction Zone event causes various levels of concern*

Florence will be greatly impacted by a Cascadia Subduction Zone event. If the earthquake is as large as predicted, Florence will be cut off from rescue resources coming over land due to its geographical features, relative isolation, and federal agencies prioritization of providing aid to larger communities. Fortunately for the city, the dunes will serve as a buffer from a tsunami for much of the city. The areas of town that will be most affected by a tsunami are those near the river, the ocean, and Old Town which lack this buffer. Florence has limited transit routes to and from the city because it originally developed with primary access through the river. These access points are not expected to survive a large earthquake. Beneath the surface, sandy areas will go through liquefaction, where the substrate shifts and can no longer support a foundation. Despite a thirty-million-dollar upgrade, the Siuslaw Bridge will not be seismologically prepared to withstand a large earthquake since one end of the bridge is built in sand. The city will be cut off because the bridges to the north and south are not expected to be standing. According to one resident, the highway from Florence to Eugene is expected to be damaged and impassable. Areas with larger population bases like Eugene, Portland, and Salem will receive aid first, so Florence could be without resources from FEMA for up to a month.

The city of Florence has been preparing for the possible event. Western Lane Emergency Operations Group is the overarching network tasked with natural disaster preparedness and hazard mitigation. When this group first formed, they stockpiled trailers full of food. However, nothing is fully non-perishable, so they stopped this program as it was not considered sustainable. Currently, the City of Florence is in charge of providing food, water, and sanitation and planning. They have been working diligently to update the emergency plan from 2001 as a lot has been learned in emergency management since then. The city was planning for a city wide drill in spring of 2015.

Yet, during interviews when asked about the challenges Florence is facing, only those who are connected to preparing for a tsunami and its aftermath mentioned it. One community member commented on the widely divergent levels of concern that people feel, "Some people have their huge stockpiles with 50 gallons of fuel and some people are like, 'Eh, the city will take care of us.'" They continued, stating that those who have always lived on the coast are less worried about a tsunami as they have not experienced one during their lifetime. But those that are concerned about a tsunami are less than optimistic about it. "I guess I won't have to worry about it cause I may not even be here. But it's going to happen, it's going to be like *The Walking Dead* but without the zombies, everybody fending for themselves. It'll be scary," said one resident. "I just wanted to go home and put my head under a blanket when I heard them talk about what is going to happen," said another who had recently attended an informational meeting. Those who are tasked with planning for a tsunami are concerned about the effects and some people are preparing for it. However, it is less salient than other stressors as indicated by one resident, "I care about the environmental stuff. Those are really big deals, but at the same time, when people

come in and need a meal, that is where your head goes first, like feeding and clothing and jobs.” This resident emphasized how immediate internal concerns are more pressing than uncertain external stressors like a Cascadia Subduction Zone event.

### Factors Enabling and Constraining Response

The following section identifies prevalent enabling and constraining factors that affected responses to external stressors in Florence. This section also provides examples for how each factor enabled or constrained responses, or both enabled and constrained responses. A summary of the enabling and constraining factors can be found in Table 6.2 at the end of this community case study.

#### *Natural resources and amenities attract people*

Retirees, working people, and tourists were attracted to Florence for its natural resources and amenities. Tourists, who come for the scenic beauty, support local businesses and provide the city with revenue through the transient room tax, while working people and retirees helped the community to respond to challenges through volunteering, bringing in new ideas, and bringing in their financial resources. Residents spoke of the clean air, the beautiful trees, and pure water as attractive and these resources provided outdoor recreation activities different from the locations from where they came. As one community member spoke of how the natural environment in and around Florence had improved, he pointed out where trees which had been clear cut had grown back. He said, “The other reason I really like it here is it is safe, clean, you can breathe, you can drink the water, you can actually throw the crab pot off the front of the boat, pull it up and the crab will be edible and they’ll be vibrant. You can walk in the woods and there will actually be old growth trees.” Other community members affirmed that the outdoors provided recreational opportunities such as hiking the dunes, hunting and fishing, and spending time in the National Forests. A community member added that they can attract people to provide free programming for the community in exchange for the ability to spend a night on the coast. The outdoor environment provides numerous benefits, but most notably has enabled Florence to grow due to its ability to attract people.

#### *New leadership creates opportunities and a new vision*

The large turnover in leadership between 2013 to early 2015 has energized the community of Florence. Some community members said the concurrent leadership change happened by coincidence; others indicated it happened due to the community seeking change. Regardless, new leadership emerged in Florence and these leaders have added capacity through their skills, experience, knowledge, ideas, and energy. A new Mayor and city council members were elected. Opportunities emerged for new leadership when previous director of FoodShare, the emergency food pantry, became sick, and when the director of the hospital moved to Alaska for a new position. Community members emerged as leaders when they formed “Helping Hands” which

provides hot meals and addresses other basic needs for the homeless. In the school district, there is a new superintendent, vice principal, and principal. The city hired a new police chief, a fire chief, library director, and finance director and, perhaps most notably, promoted the previous finance director, Erin Lane, to city manager. These often younger leaders were able to look at problems with a new lens. For example, Erin Lane created opportunities and freed up financial resources. FURA, which was created to upgrade the sewer system in order to make development easier, was able to spend \$2.1 million because she refinanced FURA's debt with the full faith and credit of the city behind it. With additional resources, the city can begin to address the issue of population decline and bring in family wage jobs by attracting businesses. In another example, the Port Manager, who started in 2012 and brought over 20 years of experience in negotiations and procurement, worked with House Democrat Representative McKeown to draft, testify for and eventually pass House Bill 3104. This Bill allows "rural ports to acquire and operate telecommunications facilities" (Oregon State Legislature, 2015). Now Oregon ports can use their influence to work with Oregon Department of Transportation and the Department (ODOT) of Environmental Quality to bring in money from high speed fiber companies. A community member familiar with the matter said that it allows the port "to look at these different business opportunities other than just resource extraction." This example demonstrates how a new leader leveraged their experience to influence legislation which enabled the ports to earn income from alternate venues other than through resource extraction. In another example, the director of the library held a grant-writing workshop, which is bringing in additional resources into the community, helping them to bring in resources to address organizational level needs. New leadership in city government has had positive impacts on the business community, causing a positive outlook. A resident commented, "[It] is refreshing to see and we are really excited that our city manager and our city council are cognizant of the impact that their decisions and actions have on small business." This resident indicated how new leadership has worked well with the business community, which makes it easier to attract new businesses and for current businesses to grow. Through these and other examples, members of Florence expressed that strong new leaders were one of the main reasons the community was able to address challenges the community was facing in trying to attract families and businesses.

### *Networking enables responses and leverages resources*

The new leadership in Florence has placed an emphasis on networking, which has increased efficiencies in organizations and agencies and saved costs. For example, the new leadership formed an executive group that gathers once a month for coffee in order to share their projects and offer resources which can lead to time saving solutions. A member of this group commented, "I think finally instead of fighting against each other, [we are] realizing that we need to be working together. Because everything that we deal with touches and overlaps with each other." One example of how this networking led to an efficient solution was between the library and City Hall. There was no sign on Highway 101 giving directions to the library, an issue the library had been trying to solve and had been running into roadblocks as they were not accustomed to working with ODOT. The City of Florence knew how ODOT worked, how signage worked and who to contact. By sharing and leveraging this information, they were able erect a sign within a week. Through that conversation, the city realized that the library could reciprocate by using the

knowledge of one of the librarians who had an in depth knowledge of internet initiatives. As internet is important resource for businesses, tourists, and residents, leveraging this connection could improve livability or provide a fundamental asset for businesses through the development of affordable internet access. The increased networking is not only internal, but external as well. The new City Manager encouraged employees to attend conferences and find solutions to the problems they are facing so the City can seek best practices efficiently. Networking is enabling a new atmosphere of optimism and collaboration.

### *External organizations develop leadership skills, buy-in, and a shared vision*

Several interviewees pointed to the Ford Family Foundation as a resource which has provided residents in Florence with the capacity to address the challenges the community was facing. The Ford Family Foundation has developed leadership skills, collaboration, and had begun the process of developing a shared vision. Multiple leaders in the community mentioned they developed skills and networked with other community leaders through classes hosted by the Ford Family Foundation. This non-profit organization's mission is to build capacity in rural Oregon communities by strengthening rural communities through granting scholarships and community development programs. Florence is part of two of these programs, the Vital Rural Communities program and the Pathways program. The former includes workshops and trainings of which Florence has hosted Leadership Development, Effective Organizations, and Community Collaborations trainings (Ford Family Foundation, 2014). After seven years in the community, Ford held a 75 person alumni gathering, of which twelve people formed a "Go Team" that committed to the Pathways Program. This program is a facilitated visioning process that started with a survey gathering data on community members' perceptions of education, health, and economics. Florence had the highest response rate for any community that undertook the Pathways Program. Unsurprisingly, they survey identified "the economy and business" as one of the top priorities. The results will be used to create common priorities, organize, and take action. This process has fostered buy-in from the community demonstrating the level of community involvement. Ford has encouraged leaders by teaching them skills, connected them with other leaders, and has worked towards developing a shared vision.

### *Access to financial resources and a culture of giving*

Florence has the ability to raise funds. Many community members saw the community's possession and willingness to contribute these funds as being influential in responding to stressors. When the hospital was going through an expansion, the community was able to raise \$500,000 over two years. When an athlete was paralyzed in a dune accident, the community raised \$100,000 for him in three weeks. The rotary auction in 2015 raised over \$100,000 for scholarships. One resident believed that the reason the community was able to raise so many funds was because of the number of retirees with disposable income. Another resident implied a similar sentiment, "So I think there is money available for us. Although demographically we are really skewed, we have a lot of people who have a lot of money. If you strike the right chord,



you can definitely get money to do things.” An example of “striking the right chord” has been with schools. As previously mentioned, schools have repeatedly been successful in passing local ballot measures that support schools. Resources have helped to support individual students. A resident explained the severity of hunger in schools and a creative response to the problem. A student came home from school and explained that their friend did not eat anything all weekend. The student’s foster parent called the principal to check and the principal explained how many kids go hungry each year. This conversation eventually turned into the local non-profit, Food Backpack for Kids. The program provides 90 of the roughly 1,300 students with a backpack filled with food to take home from school each weekend (Oregonian, 2016). The generosity of people willing to give financial resources has enabled the community to address some of their needs.

### *A culture of volunteerism*

Retirement-aged people who have moved to Florence are frequently willing to donate their time and talent. These individuals provide a tremendous asset to Florence. During times of stress or resource scarcity, volunteers enabled many organizations to continue to operate. Several interviewees identified the culture of volunteerism as a factor that enabled the community to respond to stress.

Florence has grown to depend on volunteers. A community member commented, “We do have a tremendous amount of volunteers, this city couldn't run without volunteers.” Countless examples exist; virtually every organization has volunteers that make their operations possible. The Visitor Center is staffed six to seven days a week by volunteers, the Florence Events Center has roughly 80 volunteers who set up and take down for events, the school has a college preparedness program, a woman volunteers so much she has been nicknamed Ms. Science, and the Stream Trout Enhancement Program through ODFW provides education opportunities and improves fish habitat. Volunteers drove patients on a “cancer bus” to Eugene for treatment. The airport office and Senior Center are run by volunteers. Even the City relies on volunteers. Much of the park maintenance is conducted by volunteers, including a Boy Scout landscaping project which saved the city about \$130,000. The Mayor, some fire fighters, and some police officers are volunteers. Perhaps the most demonstrative program representing Florence’s culture of volunteerism is The Power of Florence. This idea started as the brainchild of middle school student Kaylee Graham who wanted to start a weeklong volunteer party for her friends, but grew into a daylong citywide event with T-shirts, a pancake breakfast, a “Power Walk,” live music, service and beautification projects, food shelf drive, and fundraisers (Power of Florence, n.d.). Volunteers enabled organizations in Florence to function and support their community during times of stress and offer programs not possible without their support.

Yet, in the same way that retirement presented certain tradeoffs, so did volunteerism. Dependency on volunteerism also could eliminate jobs, creating a barrier to economic growth. One community member commented on the downside of volunteerism, “And in some ways it is so great that we have such a volunteer oriented community, but again, that takes down the number of paid positions for the rest of us.” Despite the benefits, volunteerism has a cost. For

example, due to funding cuts, the airport began to rely on volunteers to staff the office and meet pilots. As a result, the number of paid staff needed to operate the airport declined. Many positions in Florence would be paid, but as volunteers are available, organizations become dependent on this resource and fewer paid positions are available for the working class. Volunteerism has social repercussions as younger people may not be able to gain experience in an entry level position because it is filled by a volunteer. Although volunteerism provides many benefits, it precludes some paid jobs from existing that could help Florence grow or provide younger people with new job experiences.

### *Influx of retirees has decreased livability in Florence*

The high percentage of retirees has decreased the livability of Florence, which acts as a constraining factor. The influx of retirees has increased housing prices and decreased retention of working people which acts to constrain Florence's growth. Growth would provide a larger population that would provide a larger tax base and a potential labor pool for potential incoming businesses. Families seek jobs and housing suited to their needs and income, and businesses and entertainment which cater to their age demographic. A community member described how a lack of these features decreases retention of a younger demographic, "[A] big missing link, as you look to the future vitality of the community, [an] obstacle for keeping young families here is, what do you do?" Residents reported numerous times that doctors would leave the community, reportedly one doctor moved his family to Newport and commuted daily in order access the benefits of living there. When working people frequently leave and people are hesitant to move into the community, the goals of economic development and community vitality become more difficult to achieve.

### *A lack of family wage jobs restrains growth*

Most community members mentioned a lack of family wage jobs as a challenge that constrains their ability to attract new businesses and residents, especially families. A component of this constraining factor is the high price of housing and the limited availability of affordable or workforce housing. Members identified most wages as being too low to afford a home. Due to the high percentage of retirees, there is a small percentage of working people in Florence, 37% according to one resident. Potential businesses are perceived to be hesitant to create employment opportunities without a trained and available workforce. These businesses would require people to relocate to Florence, who would have a difficult time finding housing. A couple of community members compared the situation to the "chicken and the egg," asking if the city should develop housing or employment opportunities first?

These constraining factors not only inhibit growth, but also make it difficult for people to remain in the community. One resident connected family wage jobs and retention of current residents, "What does Florence do now to reinvent itself to create living wage jobs? Because living wage jobs, affordable housing, [and] the schools have gotten a bad wrap over the years and that adds to

the problems and challenges that we face in trying to get people who work at higher wages to try and stay in the community.” Florence has a lack of appealing employment and educational opportunities causing recent high school graduates to leave Florence, adding to the difficulty of retaining a population and having an active and vibrant community.

Tourism presents trade-offs in a similar manner to volunteerism. Although tourism does provide the benefits of bringing tourists and money into the community, it does not provide family wage jobs that sustain a community. Residents described some tourism as positive because it did provide jobs, but at the same time expressed a hesitancy about tourism due to the nature of those jobs. One resident explained, “... striking that balance between tourism, if we are going to survive and have a place that is going to draw and attract folks, we need those high quality very good paying jobs. Nothing bad with it, but then are you going to be able to draw the families.” In Florence, with the high percentage of people who are retired, the goal is to attract families in order to create a more balanced demographic.

### *Limited use of technology: A barrier to growth*

According to some interviewees, the unconventional and limited way people in Florence used technology restrained commerce and population growth. Some community members described Florence as being 10-20 years behind in how people used technology. As an example, Craigslist is the website widely used for people to rent an apartment or search for used goods. However, one community member explained that Craigslist has not been widely adopted in Florence, “Craigslist is that scary thing you hear about on the news.” The culture of Florence is such that the social networking site, Facebook, has taken on the role of Craigslist. There are Florence Facebook pages for apartments, job offerings, and trading. However, using Facebook for this purpose is uncommon and hence outsiders looking for housing or jobs are unlikely to look on Facebook for these services. For example, a resident described the difficulty she encountered when trying to move to Florence: “[When] looking for a rental, I expected to be able to do that all online. We had to drive over here five times because we had to do it all in person.” In a similar fashion, being behind the times in technology presents a barrier for local businesses. As many tourists look to their smartphones for information about food and points of interest, many businesses were likely overlooked. Old Town is off of Highway 101 and not highly visible to those passing through, making an online presence more important to draw in tourists passing through the community. Although interviewees mention the way that community members use technology is catching up, in the past it has caused businesses and housing to be overlooked and created difficulty for people coming to the area.

### *The surrounding communities burden city resources*

Interviewees identified use of Florence’s services and resources by the surrounding communities as a source of stress. Communities in surrounding areas relied on Florence for services, but did not contribute taxes to pay for those services. Florence is a city of 8,500 people, but the surrounding area increases the population to about 15,000. An interviewee described, “We are

the area they come to [for] school, they use our parks, they drive our streets, they benefit from our public safety.” The surrounding are benefits without paying for planning. City Hall staff in Florence have been preparing to serve the needs of the surrounding area in the aftermath of an earthquake. Florence City Hall does not see it as an option to turn people away in the event of a disaster when people need to be fed. Having to plan for a larger area increases costs and uses staff time. The surrounding area places a burden on Florence, requiring the use of financial resources and staff time that could be used to address other stressors.

Florence has attempted to limit or eliminate some of this burden by restructuring how they pay for roads. The city unsuccessfully tried to pass a three cent gas tax in 2005. The failure was attributed to lack of public outreach as well as misinformation that the funds would be directed to the general fund and used for other services (League of Oregon Cities, 2007). So far there has been a lack of support for increased taxes for infrastructure. Another response to decrease the burden imposed by the surrounding area has been annexation, allowing the city to incorporate some of these areas into their tax base. For example, the Community of Driftwood Shores was annexed by Florence. However, Florence is bound by state imposed Urban Growth Boundaries so it has limited ability to annex further surrounding communities.

### *Poverty causes low school attendance, keeps incoming families away*

Several community members identified the schools as a barrier to economic development and a major challenge for Florence. A low graduation rate of 67.2% and low test scores discourage families from moving to Florence or continuing to reside there because they are concerned about school quality (Siuslaw School District, 2016). In 2015 only 20-36% of students between 4-11<sup>th</sup> grade met or exceeded state standards in math in the Siuslaw School District (Oregonian, 2016). Community members cited poor attendance as the reason for these poor performance measures. In the 2014-15 Siuslaw Report Card, Principal Kerri Tatum acknowledged the issue, “We are making every effort to improve attendance.” In the 2012, 2014, and 2015 school years, 78, 76, and 81% of high school students attended 90% or more school days respectively (Department of Education, 2016). Interviewees provided two reasons for low school attendance. The first is rooted in the belief that natural resource based industries offer job prospects. One resident explained, “You have people that are still hanging on to ‘I left, college, I didn’t even finish high school, I went straight into the timber industry, I went straight into fishing out on the ocean, made good money.’” This interviewee acknowledged that members of their generation were able to secure work without educational degrees and so they do not enforce school attendance. They believed that in order to be successful in the current US economy, students need to graduate from high school on time and be prepping for college from early in high school.

Community members also described how students were absent from school for several reasons associated with poverty. The free and reduced lunch program statistics indicate the high level of poverty, ranging from 57% in high school to over 64% in the elementary school (ODOE, 2016 ). Students missed school to work or attend interviews, to care for siblings while their parents were working, or because their parents were abusing illegal substances. A community member also mentioned the number of parents who are working multiple jobs, “We have grandparents raising

kids, which is sometimes great and sometimes it is not. So just a lot of poverty that we have to combat.” An interviewee pointed out the difficulty of overcoming generational poverty when role models are on welfare. Even if the obstacle of school attendance can be overcome, poverty still creates a barrier to graduation rates.

Siuslaw High School is attempting to respond to the perception of poor schools by addressing attendance. One previous response has been to place a Student Retention Officer (SRO) in the school system. Florence used to have an officer in the schools, but then dropped it when their grant money ran out and there was not a budget for it. Having law enforcement in the schools is intended to give the system more authority, especially when parents are called in due to excessive student absences.

Poverty can create an unfortunate downward spiral in any community. For example, the Boy’s and Girl’s Club of Florence started to charge members to attend, making it more difficult for impoverished families who could not afford to pay. As the Boy’s and Girl’s Club ran into financial problems they had to start charging. One community member describes the impact raising rates had, “Kids attend it because it is basically free child care. And when they started charging them money, they lost three-fourths of the kids.” When combined with some of the symptoms of poverty that some Florence parents are facing such as homelessness, hunger, drug use, or the need to work multiple jobs, the impacts of losing this service are felt most strongly by those who can least afford it.

### *Summary and Conclusion*

Florence suffered the same fate as many communities in Coastal Oregon when timber and fishing declined and jobs were lost. However, they are somewhat unique in their ability to respond by catering to retirees to fill this economic void. The resultant influx of retirees has caused the town to be reshaped in both positive and negative ways. It has created a stratified set of demographics, both in age and income. This social dynamic is complicated by tourism, which provides mostly seasonal minimum wage jobs. Some people are hesitant to move to Florence for these reasons, and also because of the schools and poverty, left in the wake of timber and fishing decline. The 2007-8 recession had similar effects as the decline of natural resources, again resulting in a loss of jobs and people. Yet, in many ways, the recession exposed Florence’s reliance on retirees and the assumption that retirees would be a sustainable replacement for fish and timber. Finally, the community is faced with the potential of a tsunami which would have dramatic effects on the city’s infrastructure and people.

Despite these challenges, the community has been able to respond to many issues and was reorganizing and actively working towards the future they desired. Community members described much of their strength and ability to respond to stressors was derived from leaders and volunteers. Many of these people with professional experience and leadership abilities came to Florence because of the natural beauty and location. After timber and fish decline, leaders in the community were able to successfully cater to retirees, enabling the community to achieve the difficult task of reinventing itself as a retirement town. These retirees have been willing to donate

their time and financial resources. The community at large has supported schools which has buffered some of the effects of the declining timber industry. The culture of volunteerism has demonstrated resilience by absorbing some of the effects of the recession. Florence responded to the recession and the impacts of the influx of retirees, by actively reorganizing. Elected and informal leaders spearheaded this effort by leveraging financial resources and networking with outside organizations. External organizations brought additional financial resources and ideas, facilitating leadership development, and worked to create a shared vision. In looking to the future, Florence's size has enabled a sufficient tax base to designate staff to plan and prepare for a Cascadia Subduction Zone event.

Residents discussed what they perceived would make the community better able to respond to stressors. Many placed an emphasis on bringing younger people into the community through economic development and improving livability. Some suggested that: bolstering the arts, technical skills development, attracting online businesses, and aquaponics might help advance economic development. Others focused more on improving livability as a crucial path for attracting those businesses and suggested focusing more on schools, spending more on parks, creating entertainment opportunities for young people, and creating workforce housing. Residents spoke of the future with a spirit of optimism. The Ford Family Foundation Pathways survey confirmed many of the same desires that would make the community better able to respond to external stressors; survey responses included: increasing connections across ages and communities, affordable public transportation, economic development, workforce housing, afterschool programs, recreation centers, creation of a parks and recreation district, and work experience programs to prepare students to enter the workforce (Siuslaw Visioning, n.d.). As Florence goes through the Pathways process, they are obtaining community buy-in. This process adds to the other responses Florence is undertaking in this new era, living up to their new motto, "Florence, A City in Motion."

## *Table of Stressors, Impacts, Responses, Constraining and Enabling Factors for Florence*

*Table 6.2: Florence summary table*

Stressor	Impacts	Responses
1. Decline of fishing	a. Loss of family wage jobs	<ul style="list-style-type: none"> <li>• People left or live in poverty</li> <li>• Developed retirement &amp; tourism industries</li> <li>• Raised funds to replace ice machine first time it broke</li> </ul>
	b. Port loses funds from fishing vessels	<ul style="list-style-type: none"> <li>• Port Manager worked with Representative to influence legislation to find alternate streams of revenue</li> <li>• Port collaborated regionally in attempt to buy dredge</li> </ul>
	c. Increased salmon populations	
2. Decline of timber	a. Loss of family wage jobs	<ul style="list-style-type: none"> <li>• People left or live in poverty</li> </ul>
	b. Loss of industry	<ul style="list-style-type: none"> <li>• Developed retirement &amp; tourism industries</li> </ul>
	c. Loss of revenue to county services	<ul style="list-style-type: none"> <li>• City passed levies, attempted to raise funds for infrastructure, city police did more</li> </ul>
3. Influx of Retirees	a. Livability of city decreased	<ul style="list-style-type: none"> <li>• Workers hesitated to move to Florence</li> <li>• Workers left</li> </ul>
	b. Limited availability of homes and increased price of homes	<ul style="list-style-type: none"> <li>• City changed code</li> <li>• Tribe started affordable housing development</li> </ul>
4. Recession	a. Loss of construction trade/some realtors	<ul style="list-style-type: none"> <li>• Out-migration of second home owners and construction trade</li> <li>• County permit office no longer held office in Florence</li> </ul>

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	b. City collected less revenue through taxes	<ul style="list-style-type: none"> <li>• City cut back on spending for parks and other services</li> </ul>
	c. Tourism decreased	<ul style="list-style-type: none"> <li>• Small businesses laid off employees</li> </ul>
	d. Increased poverty	<ul style="list-style-type: none"> <li>• Helping Hands started</li> <li>• Financial cutbacks</li> </ul>
5. Tsunami	a. Had to prepare for event	<ul style="list-style-type: none"> <li>• Dedicated staff time to preparation, created plans</li> <li>• Stocked food and water for a time</li> </ul>
<b>Enabling Factor</b>	<b>Enables</b>	
1. Natural Resources and Amenities	<ul style="list-style-type: none"> <li>• Brings in people: tourists, residents</li> <li>• Programs</li> </ul>	
2. New Leadership	<ul style="list-style-type: none"> <li>• Economic Development</li> </ul>	
3. Networking	<ul style="list-style-type: none"> <li>• Frees up resources</li> <li>• Aids in finding best practices efficiently</li> </ul>	
4. External Organizations	<ul style="list-style-type: none"> <li>• Leadership development</li> <li>• Buy-in and a common vision</li> </ul>	
5. Financial Resources	<ul style="list-style-type: none"> <li>• Address community issues like hospital growth and student scholarships</li> </ul>	
6. Volunteerism	<ul style="list-style-type: none"> <li>• Allows community to address issues like poverty and respond to recession</li> </ul>	
7. Retirement	<ul style="list-style-type: none"> <li>• Volunteerism</li> </ul>	
<b>Constraining Factor</b>	<b>Constrains</b>	
1. Volunteerism	<ul style="list-style-type: none"> <li>• Limits employment opportunities</li> </ul>	
2. Retirement	<ul style="list-style-type: none"> <li>• Livability and therefore families</li> <li>• Retention of families</li> </ul>	
3. Lack of Family Wage Jobs	<ul style="list-style-type: none"> <li>• Population growth of families</li> </ul>	
4. Limited Technology Use	<ul style="list-style-type: none"> <li>• Businesses, tourism, growth</li> </ul>	
5. Surrounding Areas	<ul style="list-style-type: none"> <li>• Available financial resources</li> </ul>	
6. Poverty	<ul style="list-style-type: none"> <li>• Incoming Families</li> <li>• Students ability to succeed in school</li> </ul>	



# Port Orford



*Prepared by Rachel Neuenfeldt*

# Chapter 7: Port Orford Case Study

## *Introduction*

### Port Orford Today

Port Orford, Oregon, nestled at the western edge of the United States, is a town of only 1,100 people yet rich in viewpoints, politics and a fierce independent spirit. Since the town’s founding in 1856, the people of Port Orford have made their living off of the abundant natural resources surrounding the area. Port Orford cedar is world-renowned for its quality, and the live-fish fishery supported by Port Orford’s fleet of small boats is still a source of profit for the town today. Located along Highway 101, the community boasts no stoplights or stop signs through town, though the decorative murals and glimpses of the Pacific Ocean are enough to make anyone stop and take another look. The historic Castaway by the Sea Motel offers views of the harbor including the resident gray whales and the unique crane system used to lift boats in and out of the water.

*Table 7.1: Port Orford demographic information*

<b>Population</b>	1133
<b>Median Age</b>	50.6
<b>Median Income (households)</b>	\$30920
<b>% under 18</b>	11.8%
<b>% over 65</b>	28.8%
<b>% not in workforce</b>	63.0%
<b>Living Below Poverty Level</b>	31.7%
<b>% of people work in agriculture, forestry fishing and hunting</b>	36%
<b>% With Retirement Income</b>	26.0%

Source: American Community Survey, 2014.

In the past 10 years alone, Port Orford has faced challenges including conflict over marine reserve designation, increases in crime rates as money for law enforcement declines, and changing demographics as retirees replace families in the community make-up. Currently, Port Orford is struggling as some residents try to maintain the identity of the town as a fishing community while incoming retirees and others in the community try to push the town towards a destination community. However, despite the tensions this may create, no one in Port Orford wants to see the town fail. Residents hold a diverse array of visions for the community, but each one was focused on success and a thriving future. It is this passion that allowed the town to flourish in the past despite facing many challenges, and it will be that passion that again allows the town to overcome current tensions and obstacles to work towards a vibrant future.

In speaking with a cross section of community members throughout Port Orford, the decline in the fishing and timber industries came up in almost every conversation. People attribute the lack of jobs in the town to this decline, which in turn has led to an outmigration of families and lowered enrollment in area schools. The town faces difficulties in responding to these stressors in part due to isolation because of the town's location on the western coast (the only way into or out of Port Orford is via Coastal Highway 101); a lack of economic diversity stemming from the town's historic and current reliance on natural resource extraction industries; and limited monetary resources on a community and county level that make responses difficult.

### Background

Fishing and timber were the mainstays of Port Orford's economy from the beginning. Port Orford's harbor, built directly on the ocean, gave immediate access to an ocean full of local rockfish and multitudes of other fish and crustacean species, which allowed the hook and line, small boat fishery to prosper. Port Orford flourished because residents had access to abundant natural resources that they refined and packaged within the city limits. Similarly, the forest surrounding the community provided timber that was cut and shipped from the town's deep water harbor. Timber mills and a fish cannery provided jobs and economic benefits to the small town.

The western-most town in the United States, Port Orford has a history of tensions that began before the town's founding. Before settlers came to the area in the 1800s the area now encompassed by Port Orford was inhabited by Tutuni Nation people who held on to the land for as long as they could through constant struggles and battles with European settlers. These people were evicted from the land following a series of bloody battles at Battle Rock, and the town of Port Orford was founded in 1856 (Historical Port Orford, 2016).

In 1868, the town was destroyed by a fire and had to be rebuilt. After this rebuilding, the Port District was created in 1911. This active port was a place for both fishing and boat landings, but went through swings of prosperity and hardship. The Port District was purchased by Gilbert Gable, whose claim to fame stems from the attempted founding of the State of Jefferson. This state would have encompassed much of southern Oregon and northern California as an independent state (Nelson). The attempt failed and Port Orford along with the greater Curry County remained a part of Oregon, but the sentiment of independence still resonates throughout the community.

### *Findings*

The following section contains interviewees' responses, which were analyzed to determine the external stressors the community has faced, or is currently facing. Examples of impacts and responses detailed by interviewees are quoted or paraphrased. While a variety of other factors may be impacting these communities, only those mentioned repeatedly across interviews or heavily emphasized are reported here.

## Stressors, impacts, responses

The following section analyzes interviewees' responses to questions probing their perceptions of the major stressors facing the community, the impacts of these stressors, and the ways in which the community has responded to the stressors. Examples of impacts and responses detailed by interviewees are quoted or paraphrased. While a variety of other factors may be impacting these communities, only those mentioned repeatedly across interviews or heavily emphasized are reported here. A summary of the stressors, impacts, and response can be found in Table 7.2 at the end of this community case study.

### *The decline of timber causes challenges*

Historically, Port Orford, like many communities in Oregon, relied on timber as a mainstay of the community economy. The industry provided family-wage jobs for many residents, and taxes on the extracted timber supported county services such as law enforcement and the school system. This steady influx of money paid back to the county by timber companies allowed for low property taxes in the area that persist today. Work was abundant and easy to come by, and the availability of well-paying jobs encouraged current residents to remain in the area as well as attracted newcomers. As one long-time resident put it, "If you wanted a job [you] stood out on the corner and one of the companies would just pick people up and you would go work that day." As the timber companies in the area began to cut back on production, the once prevalent mills began to shut down. Presently, there is only one remaining mill in Curry County and its location near Brookings means that Port Orford does not see much in the way of revenue from this industry anymore.

In order to help communities like Port Orford cope with this change, the federal government supported counties affected by the decline in the timber industry for many years through payments known as timber receipts. This influx of payments was meant to support the economies of these communities during a transition period away from these resource extractive industries and allow them time to plan for the future. Unfortunately, as federal funding was extended again and again (albeit at steadily decreasing levels), a transition to new economic ventures did not occur. Communities like Port Orford and the broader Curry County relied on these stopgap measures and did not plan adequately for the future. According to one resident:

*Now [these payments] do more damage than they do good because when we, for example, come out with a proposal to increase our taxes to help support public safety and some of these needed county services, the government kind of threw us a little money and everybody thinks the problem is over so they defeat the issues at the ballot box, and it hurts us more than it helps us.*

Of course, residents in Port Orford and the greater Curry County area felt the effects of the declining timber industry as jobs and families left the area. Impacts of this stressor included an increase in poverty rates, shrinking school enrollment, and shifting and privatization of county

services like animal control and mental health care to nonprofit organizations. However, the reliance on the availability of federal funds created a false sense of complacency within the county that limited the responses taken by community members. As residents lamented, why should they vote to pay more money when the county always manages to secure funds from the federal government at the last minute?

Another impact of the decline of the timber industry is a crumbling water system that the city government has no money to fix. The water system, according to many community members, has been a problem for years, with leaky pipes that cause a loss of over half of the treated water produced by the city. Despite efforts on the part of city government to fund solutions for this problem, there is no agreement with how to move forward.

A few years ago, Port Orford had the opportunity to respond to this impact by replacing the water distribution system through a \$13.5 million program that mixed grants and low-interest loans. However, this funding was not well received by community members. “I don’t know details on it really, but it was way too high and people couldn’t fathom that it should cost that much,” said one resident of the loan repayments necessitated by the plan. “We had people actively campaigning against it, they were chanting ‘No Water!’ And the issue was defeated in the ballot-box,” said another resident. The issue is still not resolved, and the city continues to lose money because of this loss of treated water. Multiple ballot initiatives to acquire the necessary funds have failed, and lawmakers are becoming increasingly skeptical that an agreed upon loan amount can be found so long as water continues to flow for Port Orford residents.

### *A fishing community in transition*

Port Orford, historically, relied on both fishing and timber to sustain the economy and, currently, fishing is still an important economic staple of the community. Almost every community member, whether they are directly involved in fishing or not, mentioned the importance of the industry on the town economy and the town identity.

Fishing in Port Orford, unlike many other ports along the Oregon coast, occurs exclusively from a fleet of boats under 40-feet long. This size restriction is necessary because of the distinctive way in which boats from the Port of Port Orford are lifted in and out of the water using a crane. The port is also the only open ocean port along the Oregon coast, providing direct ocean access without having to cross a bar. “Our boats are launched [...] by a crane from dollies or trailers on the dock and drop-craned to the ocean and pulled out. It’s some advantage to us because the boats can get out to the high fishing grounds very easily, and they’re very close,” said one community member. Direct access to prosperous fishing grounds allowed the fishing industry in Port Orford to flourish.

According to residents, this direct access to the water and the size restraints the crane system imposes on boats created an atmosphere of cooperation within the local fleet. Other ports with a mix of large and small boats develop a hierarchy based on size and influence. The homogenous fleet in Port Orford prevents these distinctions. In speaking of this attribute, one resident said,

“Sure we bicker and have different opinions, but we all go through the same eye of the needle every day.” The lack of division among fishermen at least associated with the size of their fishing vessels enhances the cooperation among fishermen at the port.

The eye of the needle described above refers to the dangers associated with the crane system compounded by issues with the jetty and lack of dredging in the port by the Army Corps of Engineers (discussed in more detail below). It is no easy feat to be lifted out of the water day in and day out on top of breaking waves and nearly too shallow water, but the fact that this danger is faced by all local fishermen creates a sense of comradery among the group. Also important to this comradery is the very fact that this process must be completed on a daily basis because of the small size of the boats in Port Orford. Unlike larger boats out of other ports along the coast, these small boats fish for a day and return to port rather than embarking on long voyages.

Still, despite its historical prominence in the community, fishing, like timber extraction, has seen a steady decline in recent decades largely due to a reduction in groundfish quotas, and resource decline. Regulations on the industry steadily increased for years and many fishermen who saw the writing on the wall took advantage of buyback programs in the 1990s that offered grants and low interest loans in exchange for fishing permits and left the industry. These buyouts meant fewer newcomers entered the fishing industry, and those who did remain tended to be older because many young fishermen used the grants and loans offered through the buyback program to pay for college. This shift, referred to as a “graying of the fleet” by more than one community member, meant a decrease in family-wage jobs that had sustained the community for years.

The response on the part of the community to this industry decline has been two-fold. Some in the community are seeking alternative industries both to support themselves and to support the local economy, while other residents are simply resisting this change and remaining steadfast in their belief that the fishing industry will become vibrant and sustainable again.

### *The influx of retirees causes tensions*

Even as family wage jobs left Port Orford causing the families they once supported to seek employment elsewhere, the population of the town remained relatively steady. One explanation for this is the large influx of retirees into the area. Because of the historical dependence on the work ethic and effort of its fishermen and other laborers, Port Orford’s shift to a destination town for retirees was, and still remains, an unpleasant change for some. As one resident put it, “We’re really becoming more of a retirement community, but I think a lot of the old kind of people still long for the old days where we had a thriving natural resource economy, and that just doesn’t happen anymore.” Long time Port Orford residents whose families and livelihoods always centered around the natural resources of the area do not want to let this identity go.

The attraction of outsiders to the area is not a new phenomenon. Because of its location along the Oregon coast, Port Orford enjoys the benefits of the stunning natural beauty of the area. This natural beauty attracts visitors to the area, and in many cases is a boon for the economy. However, the growing concentration of retirees is a new reality to which the community must

adjust. Residents whose sense of identity and history is rooted in fishing and timber do not want to change who they are to accommodate newcomers in their community.

These feelings of animosity towards newcomers in the area have been manifested as active resistance against this change from existing residents. Any plans that seek to increase the attractiveness of the town to outsiders are shot down or resisted from those that do not want Port Orford to be labeled a destination town. One resident exemplified this point through the story of Battle Rock Park, now a way-finding point in the city of Port Orford along the Highway 101 corridor. The resident spoke of the fact that the park used to be just a place for a dumpster along the side of the ocean until ODFW, the US Forest Service and other state agencies came up with a grant to create the wayside. With the grant money, a stone wall was built, the dumpster was moved, and the park was created. However, not all residents were happy with this change. “There were people when it was all done that said that they would donate the equipment to bulldoze the wall,” said one resident. The active resistance to change is not an uncommon response in Port Orford.

The differences in opinion stem from the different ties people have to the community. Longtime residents are struggling to maintain their identity as a natural resource extraction community while trying to find ways forward for their town so that it can survive and thrive in the future. Meanwhile, the influx of retirees creates fundamental changes within the community structure by bringing in people who want to maintain this slice of paradise for themselves now that they have settled. This creates an atmosphere where all residents are uneasy about the future of the town. “The word beautification is now a troubled word. There’s some businesses that almost aggressively try to not beautify their presence along the 101 corridor,” said one resident of these tensions. Port Orford and its long-time residents are so rooted in their identity that change to other industries is not a desirable action, and newcomers are so enamored with the natural beauty of the place they do not want to see it disturbed.

As restrictions on fishing continue to increase and fishing stocks continue to decline, reliance on one industry is not a practical solution for future success. For now, the only response is simmering tensions, but the influx of newcomers and their ideas for the town’s future are not going away, and residents, both long-term and new, must find a way to compromise on a shared vision of the town in order to ensure the town’s longevity.

### *Conservation policies elicit strong responses*

Debates over the regulation of marine ecosystems are causing challenges in Port Orford as residents search for a management scheme that incorporates the many different viewpoints in town. Recent discussions of a proposed National Marine Sanctuary off the coast of the community incited anger and distrust on both sides of the debate, and the tensions created by this discussion have left the town simmering. This National Marine Sanctuary, unlike the Redfish Rocks Marine Reserve, would have been a federally managed, off-shore ecosystem for the preservation of ecologically important species and habitats.

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From a historical perspective, Port Orford's response to the proposed National Marine Sanctuary is unexpected. The community had a history of collaborative problem solving of similar issues such as the implementation of the Redfish Rocks Marine Reserve put in place almost ten years ago. When the marine reserve proposal came through Port Orford, the town actually requested the reserve through a coalition of fishermen, scientists and activists called the Port Orford Ocean Resource Team (POORT). "The Ocean Resource Team came about from the frustration of all of these fishery disasters and the tagline was, fisheries management isn't working for the fish, or the fishermen or the fishing communities, and it wasn't," said one resident of the organization. The group began with the mission to advocate for finer scale fisheries management such as with a community-based fishery. They based their ideas off of successful models of this process from around the world. The team won support of the reserve throughout the town as a hub for research and a breeding and restocking ground for fish through collaboration with all involved in the issue. Their idea to gain more local control over fish stocks and acquire evidence as to the migration habits of abundant local groundfish species struck a chord with local residents and fishermen. The town was able to work together towards a common goal, however, everyone involved in this collaborative effort had to make sacrifices in order to make the reserve a reality, and those sacrifices lead to lingering animosity for some despite the success of the collaboration.

Since the reserve was put in place, fishermen have been unhappy with the pace of research at the reserve, and residents and fishermen alike remain frustrated by the lack of communication from state agencies that remains despite the collaborative effort. These perceived shortcomings attributed to POORT lessened the desire of many in the town to move forward with similar proposals.

Therefore, in 2014 when the idea of looking into a National Marine Sanctuary off the Port Orford coast was briefly considered, the town became divided rather than form a coalition similar to that of the past. Part of this division seems to come from the fact that both sides of the issue were now experienced in this policy realm. POORT and their supporters knew the long and arduous process that had been necessary to win support for the reserve in the past and were looking for a quicker way to get something through this time around. Conversely, those that had opposed but begrudgingly agreed to the marine reserve in the past knew what strategies worked and did not work to stymie the process. According to one resident:

*The folks who were reluctant to engage in community process because of the painful process of the reserve, underestimated the pain that the people on the other side of the issue were also feeling for a different reason. And the reaction that they were going to get from people who had already been through something like this and compromised and given up and made sacrifices with no real guarantee. And so I don't think they anticipated how violent that reaction was going to be.*

Meetings on the topic crowded meeting halls, and the response was often negative. "It was almost like the wild west out here. People would get in fist fights during the discussions," said one resident. As a result of the conflict, the mayor of Port Orford was nearly recalled, members of the community who had been influential in bringing a reserve to the community were vilified, and trust was broken between those on differing sides of the issue. "Both sides have a lot of fears and mistrust that get in the way of finding the common ground," said one resident. Even though



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it has been over a year, the resonance from this issue is still apparent throughout the community. Many residents found this issue uncomfortable to talk about, some refused to speak on the topic, and others became heated during its discussion. The town is at a stalemate in terms of a response to this issue. There is no National Marine Sanctuary in Port Orford. In fact, the National Marine Sanctuary program in Oregon has been set aside, but the issue is not laid to rest. Port Orford is still dealing with the aftermath of this conservation policy matter, and the divisions it caused are disrupting the town's responses to other issues because of the mistrust, anger and betrayal that were instilled.

Port Orford faces stress from other regulatory challenges as well, including regulations intended to limit when and how the city can remove sediment build up from their drinking water supply in order to protect endangered species. The community, already struggling with the water infrastructure issues described above must comply with regulations on when they can dredge their reservoir and must install special equipment such as screens on their water pipes due to an endangered fish species in the area. These adjustments cost the city more money, and people disagree with the regulations. “[ODFW’s] job is to take care of fish, birds and animals, but there should be a point in life where, I'm sorry, mankind comes before fish, you know?” said one resident of the situation. Aside from the fact that the community must comply with these regulations, many residents suggested a lack of communication between community members and state regulators exacerbated by the small size of the community. This feeling of not being heard causes frustration and anger towards both elected officials and state and federal agencies. Community officials have tried to speak with agencies such as ODFW about the issue, but to no avail. For now, the community continues to spend the money to comply with these regulations.

The regulatory challenges facing Port Orford have elicited a range of responses from community members from anger to feeling hopeless their voice will be heard, and as the community navigates toward the future, they must continue to find new ways to deal with these challenges.

### *Historic responses to natural hazards create current challenges*

Port Orford's location on the western edge of the United States leaves the town open to impacts from natural hazards such as strong winds and storms. The town has dealt with these challenges for many years, but recent regulatory changes at the federal level and poor engineering of the past combine to form even more challenges for the already struggling community. In particular, an ill-constructed jetty from the 1960s means that Port Orford's once deep ocean port must be dredged annually to ensure the safety and usability of the port despite the lack of funds or equipment to support this operation.

Because of worry about impacts of storms on the ocean harbor of Port Orford, the Army Corps of Engineers built a jetty to protect the boats in the harbor about 40 years ago. However, the placement of the jetty almost immediately caused excessive siltation in the formerly deep ocean harbor. “They built the jetty in 1969. In 1970, the Congress had to pass an emergency authorization to dredge this harbor,” said one resident of the situation. Another resident

questioned whether the jetty did any good, noting that the damage because of shoaling is worse than the damage to the port caused by storms.

However, the dredging provided by the Army Corps of Engineers did serve to limit the impacts of the ill-placed jetty. So long as the excess siltation was taken care of on a regular basis, boats could continue to use the harbor without fear of breaking waves and shallow depths. This solution worked until 2012 when the Army Corps cut funding for the dredging of small ports like that of Port Orford. Until this point, the Harbor Maintenance Trust fund, created by the Water Resources Act of 1986, provided funds for the dredging through a fee on all imports, cargo and passenger movement on domestic ports. “That trust fund has been essentially raided for years and only about half of those billions that come in goes to harbor maintenance,” said one community member. This lack of funds meant the small Port of Port Orford was competing with larger ports such as San Francisco, Seattle and the Mississippi River for dredging. Up against these larger ports, Port Orford was just not a priority.

For years, this lack of available funds in the trust was supplemented by the work of state representatives to allocate money for continued dredging of these economically small ports. Like the federal money for county services that the county always managed to procure at the last minute, the earmarks for dredging funds removed the urgency to find long-term solutions despite the lack of planning. People came to expect that the situation would be resolved and did not plan to find a long-term solution.

Unfortunately, a move in Congress to remove these earmarks left the Port of Port Orford without the dredging the residents and fishermen had become accustomed to, and the risks associated with fishing from Port Orford’s harbor increased substantially. According to one community member:

*What’s already sort of a dangerous endeavor to begin with because you know being picked up and put in the ocean and taken out- suddenly, when you have a shoaling harbor, you basically end up with a breaking bar. So, a place with no bar suddenly you’re trying to get hoisted out while basically sitting on a breaking bar, and so the breakers from the south that you’re getting are just basically hammering you against the dock while you’re trying to hook your lifting grips onto that hook, and going up and down with the breakers. So, you can imagine that scenario is pretty dicey.*

The dangers created by the lack of dredging necessitated community action to ensure the port was dredged and safe for use by commercial and recreational fishermen as well as researchers. Importantly, the issue of dredging affected almost everyone in Port Orford. Somewhere between 20 and 25% of all of Port Orford’s residents are directly involved in the fishing industry while many others provide support services (Swearingen et al., 2014). The harbor had to be dredged, and the last minute funding residents had come to rely on was not an option anymore. The only option was to come together and work out a solution, and that is what they did. A group of local citizens created the group Citizens to Keep the Port in Port Orford and organized a community event on July 4, 2012 to highlight the importance of dredging on the future of the community. The event, called “Let’s Get Dredged,” invited community members to come down to the harbor with shovels, wheelbarrows and buckets in a mock effort to free a boat lowered into the sand at

low-tide. The event brought out hundreds of residents and was able to make a point to state and federal lawmakers that dredging matters even in these small harbors. “The message was, ‘Hey, don’t forget about us. Our town is dependent on this. This is a third of our local economy, and we care, and we want you to do something about it,’” said one resident. Ultimately, the attention on the issue resulted in the Army Corps of Engineers dredging the Port Orford harbor in 2014, and there are talks about dredging in subsequent years. The event did not provide a permanent solution to the siltation issue in the harbor, but it did manage to bring together diverse members of the community to work towards a common goal.

According to some residents, a broad spectrum of community members came together to support this issue because the issue was one no one in town could argue with. Everyone in town wanted to see the harbor working, and support from everyone was needed to create a rallying cry the federal government would pay attention to. So fishermen, businesses owners, children and grandparents all came out to support, “Let’s Get Dredged.” The community cohesion displayed through this event provided strength and credence to the argument for the need for dredging in small ports like Port Orford. The fact that the community was able to come together and rally for a common cause allowed them to succeed in convincing the Army Corps to reexamine their dredging practices. The harbor is still not dredged every year like it used to be. That battle is still not won, but “Let’s Get Dredged,” provided a victory for the residents of the community to a problem that could have decimated their remaining fishing industry.

### Factors that enable or constrain response

The following section identifies prevalent enabling and constraining factors that affected responses to external stressors in Port Orford. This section also provides examples for how each factor enabled or constrained responses, or both enabled and constrained responses. A summary of the enabling and constraining factors can be found in Table 7.2 at the end of this community case study.

#### *Unwillingness to shift focus from fishing leads to conflicts and stalemates*

The identity of Port Orford and its residents as a fishing community did not diminish at the same pace as the fishing industry itself. Even today, many residents both fishermen and non-fishermen alike view fishing as the most important aspect of Port Orford. Fishing is still vital to the economy of the town, but with decreased stocks, increased regulations, competition from larger boats and barriers such as the high cost of boats preventing young people from entering the field, fishing as the sole support of the Port Orford economy is no longer the case. The town is responding by trying to seek economic alternatives like tourism. This process has been stymied, however, by resident resistance to this shift. As one community member said:

*I don’t think that a lot of the old timers really realize that times are changing, and we’re becoming more of a retirement community and I think tourism and retirement are really eclipsing commercial fishing as an important part of the town. People just don’t realize that.*

This inability or unwillingness to recognize this shift creates tensions within the town as some try to move the community towards other endeavors like tourism, while others remain rooted in the town's historical reliance on natural resources. "There has been a concerted belief that tourism is the same as gentrification. That it's the same as development that will squeeze the long-term residents out," said one resident. Said another:

*Not everybody is cut out for tourism. People want to fish, be left alone, do their job and go home at the end of the day and not deal with people. One of the things with this community is a lot of the people don't have the courteousness towards tourists. Usually someone walks in they smile and say, 'How can I help you?' Here you walk in and they're like, 'What do you want?' So, I think that would just be really hard for some people here.*

These tensions make a response to the dwindling timber and fishing industries more difficult. Some residents have tried to make the town a more desirable destination for tourists in order to attract the revenue their visits can provide. This has included actions such as fostering a growing art community in the town or painting murals on run-down buildings. As of 2013, Port Orford was home to eight art galleries meant to display the talents of town residents as well as attract those passing through the community (Audley, 2013). However, not everyone in town was on board with this transition. Those who still saw Port Orford as a fishing community were adamant that the art scene was not representative of the community and did not want to see Port Orford rebranded. These tensions made responses to the transition away from fishing difficult to achieve.

### *Insufficient government funds*

One consequence of the declining industries such as fishing and timber in Port Orford is a lack of available funds at the community level to support necessities such as infrastructure repair. This lack of funds stems primarily from two sources: the decline in federal aid meant to supplement the loss of access to public timber, and the low property tax in Curry County. Without funds available at the local level, the community is unable to respond quickly to problems such as the crumbling water distribution system. As one resident put it, "Basically, our county is going broke." This lack of funds and the constraints it puts on the community's response to issues is limiting their ability to maintain the community's functioning.

### *Lack of volunteers makes progress difficult*

Many residents spoke of a lack of volunteerism in Port Orford and linked the fact that there were not enough people willing to help out and donate their time to the fact that community events are difficult to plan and seats on town committees are often not filled.

According to some long-term residents, it is the shift to a retirement-based community that brings the drawbacks such as increased housing prices and less engaged residents. "The aging

population they don't want to work. They're retired. They've reached that age and you don't have the volunteers that a lot of communities get with younger people,” said one resident of the current shift. This lack of support on the part of the new community members causes a sense of hopelessness among those that do want to work to better the community.

Further, despite being a town that relies on volunteers for all city government and committee positions, a lack of volunteerism came up frequently as a challenge facing Port Orford. Some speculated that the large number of retirees in the area no longer want to be so involved in projects, and others suggested that the current socioeconomic status of many in the town was to blame. One resident told of an airshow event planned for the city that needed volunteers in order to be successfully orchestrated. The event organizers planned an informational meeting to inform people about the event and enlist volunteers. The meeting was even publicized on the bank marquee in the middle of town. However, despite excitement about and interest in the potential event, only four people showed up to the meeting. This lack of support left event organizers struggling with whether or not the event could still happen.

Unfortunately, this response is not uncommon. All of the members on both the parks commission and the chamber of commerce are volunteers, and there has been a shortage of members for years now. This means that not only are both commissions operating with a shortage of participants, but that anyone who wants to join the committee is automatically accepted with no application process. This can lead to inadequate or ineffective committee members who do more harm than good by not completing tasks or by pushing their own agendas while on the board, according to interviewees.

The lack of members on the Port Orford chamber of commerce compared to neighboring towns like Gold Beach is part of the reason for Port Orford's slow shift to a tourist community according to some community members. They have simply lacked the resources and connections through their chamber to make real progress towards implementing strategies that attract tourists such as amenities or updated lodging. The parks commission has found ways to work around its lack of members through outsourcing some of their duties to local school groups. The skate park in town, for example, falls under the jurisdiction of the parks commission but they were unable to keep up with its maintenance because of the lack of people. However, the director of the parks commission floated the idea that a local group could “adopt” this park and work and raise money to fix it up. This plan has worked well and the skate park is in the process of being fixed up. There has also been outreach to private institutions like the Ford Family Foundation for grant money to fix up parks and other areas around the town. At the time of this research there was a project underway to restore the main park in town and make it usable, enjoyable and a selling point for families that may want to move into the area. However, the work has still been slow due to the lack of a sufficient number of volunteers.

### *Town tensions contribute to leadership burnout*

The anger, fear and mistrust developed around the National Marine Sanctuary issue are not the only negative attitudes plaguing Port Orford. Many residents expressed feelings of defeat about

the town's future that led to feelings of apathy and complacency. Residents described a once vibrant community now characterized by shuttered businesses and foot dragging on the part of local officials in their efforts to revitalize the town. Many community members felt frustration that fellow residents are unwilling to put in the time, effort or compromise necessary to move the town forward. "They are complaining. That's all they're doing they complain," said one resident. "They don't come in with a solution."

As the town struggles with a lack of volunteerism, the tensions in Port Orford surrounding whether or not to shift towards tourism and beautification can make even those who do volunteer their time more likely to face burnout. These tensions, according to some residents, are also a deterrence from stepping into volunteer or leadership roles in the first place. As one resident put it:

*In a small town like Port Orford of 1,100 people, you might have a handful of people that are activists, that are interested in devoting the time necessary to create stuff like this, and they are immediately swarmed like ants on sweet breads where everyone wants a piece of them so they burn out quickly because so much is expected of them.*

This burnout means that the pool of potential community leaders only continues to grow smaller.

The lack of volunteerism described above in connection to the proposed airshow and community boards and commissions speaks to the sentiment that tensions can make a transition towards new economic endeavors for the community difficult. Community members theorized that some residents are unwilling to engage in public service and revitalization of the town because they feel the only path forward is a dead end and there is no point in putting in the effort.

Many residents spoke of a need for change, but an unwillingness to step up and be the one in the spotlight. This reluctance stemmed from the fact that they did not feel as if they could make a difference in an environment so hostile and they were not willing to risk their reputations and their livelihoods on such a seemingly fruitless endeavor. "[There] is a dearth of will because right now it is so toxic that anyone that would try that could have their knees cut off," said one resident. In fact, many residents who owned businesses around town spoke of an unwillingness to even speak out publicly against town policies because of the divisiveness of the issue.

Between volunteer burnout, a lack of willing new volunteers, and the active resistance to change described above, residents engaged in the process of change in the community are tired. Those who promote new ideas in Port Orford must do so a hostile environment. The result, therefore, is a limited response on the part of the community to many of the challenges it faces.

### *Geographic location isolates community from amenities and services*

The geography surrounding Port Orford is both a blessing and a curse for the town. The same geography that provides the town with numerous natural commodities that supported the natural resource economy for years can in turn be an isolating factor because it acts as a barrier to new

businesses starting up in town. It also limits access to resources and services for the town's residents.

The vitality of industries such as fishing and timber depended on the geographic isolation of Port Orford in order to maintain access to vast forests and open ocean and rivers. However, as those industries have diminished, the isolation afforded by this geography has become a challenge and, in some cases, a limiting factor for the community in terms of growth. At the same time, the rate of retirees in the community is increasing, and the nearest hospital to Port Orford is over 30 miles away in Gold Beach. There is no pharmacy in the town, and the lone family care doctor is difficult to get an appointment with because of such high demand. These limited services are a direct result of the geographic isolation of the community.

Residents also spoke of the high cost of necessities like groceries and gasoline because of this isolation. Necessities such as gasoline and groceries often cost more in Port Orford than in the larger neighboring communities. "Apparently out of all the Rays chains, Rays grocery store chains, we are in the top 5 for the highest percentage markup," said one community member. "So, along with having poverty, you have the higher prices." In such a small community, options for shopping for necessities like groceries are already limited, and the increased prices due to the isolation of the town only adds to the stress felt by residents who must budget for these higher prices or look elsewhere for their grocery shopping.

Many residents in the community mentioned planning larger grocery shopping trips at big box stores to avoid the steep markups at the local store. According to one resident:

*We absolutely do believe in supporting the local economy, but we expect them to support the community as well. With the groceries, it's amazing. There are a large number of people, they will drive once a week to Coos Bay and do their grocery shopping at Walmart. And they will do it for friends, family, and just bring everything back.*

This sentiment of weekly shopping trips for both themselves and their neighbors was echoed throughout the community, and it represents one aspect of community cohesion present in the town. People understand that everyone is struggling and they are willing to take care of their neighbors to ensure no one is left wanting despite the isolation of the area and the challenges this presents. However, this response of outsourcing for groceries and gasoline causes hardships for local business owners. The more customers they lose to other stores, the more they must raise their prices for those still shopping for their goods until eventually operating costs are so high the business is forced to close.

This closure has already begun for some local businesses once supported by the Port Orford economy. According to one community member, "The winter months are just a struggle for a lot of businesses here. This year we had a large number of businesses shut down including the gas station." These business shut-downs mean fewer jobs in an already job poor area and fewer options for purchasing goods and services in an already economically depressed area.

At the same time, there is little incentive for new businesses to open in Port Orford. The only main thoroughfare through the community is Highway 101, and while the speed limit does slow

to 30 mph through the town, there are no stoplights or signs to encourage those passing through to stop and take a look around. The effects of this isolation exacerbate the tensions regarding the best course of action for the future of Port Orford. Those who wish to see the town grow through tourism and new businesses are thwarted not only by the active resistance of residents who feel differently, but by the challenge of attracting visitors and businesses into such an isolated community. Alternatively, those who do not want to see those changes, add credence to their arguments by focusing on these logistical challenges. These differing views have limited responses to this challenge. Some residents still try to plan events like the airshow described above, and the response of bringing groceries for neighbors from weekly shopping trips is a common one, but until a common future for the community can be mapped out, the path forward is uncertain.

### *Lack of family-wage jobs makes growth difficult*

As was mentioned above, the decline of both the timber and the fishing industries have led to a decline in family-wage jobs in Port Orford along with the families supported by those jobs. Aside from creating hardships for those who are already in Port Orford, this decline in family wage jobs makes it difficult for the community to attract more families because of the lack of jobs to support those families.

“We’ve got a town that has zero going for it except a small fishing fleet, and those jobs in themselves sometimes aren’t that good paying because we’re all small boats so we’re fishing at a lower income level than those fancy boats you see,” said one resident.

Another resident spoke of the fact that many of the businesses that do operate in Port Orford are small businesses that do not have employees because they are relying on the summer tourist months to create enough revenue for them to remain open and cannot afford the extra expense. “If we don’t produce jobs,” continued the resident, “I don’t know what’s going to happen.” This lack of jobs means a lack of new families in the community that would allow the community to grow in the long-term.

### *Presence of poverty limits range of available responses*

Even as the struggle over the town’s identity continues, the lack of family wage jobs has led to a new normal of poverty in the area both on a community and household level. The town has numerous small businesses, but these are often not able to hire full-time employees at living wages. Thus, many of the families that do remain in Port Orford are living at or below the poverty level. In fact, the United States Census Bureau in December 2013 estimated that around 55% of the children in the Port Orford-Langlois schools are living in poverty, which makes the district one of the 40 poorest in the country (Hammond, 2013).

One resident spoke of the lone building in town that provides services such as access to welfare and other social services. Aside from being the only building in town where these services are available, cut backs in hours of operation mean that these services are only available on certain



days of the week. Because of the increased poverty rate and need for such services, these limitations are a challenge. People who need these services must comply with the strict operating schedule of the building, and that is not always possible because of work and other commitments.

For many, this reality of poverty contributes to the unwillingness to support raising tax levels for the services discussed above. Not only are the residents used to the money being made available at the last minute from the federal government, they do not have the current means to support themselves and their families, let alone to do so with increased taxes. The unwillingness to raise taxes to support country services coupled with the decline in federal payments leaves the county with no choice but to shed services and make cutbacks. As county resources for services such as the sheriff's department have dwindled in recent years, crime in the area has risen. Residents spoke of high rates of drug and alcohol use and a general disregard for the law because of the lack of consequences. As one resident put it, "Where there is less law, less law happens." Because of the high levels of crime and lack of sufficient funding the Curry County jail runs on a matrix system where those who commit lesser crimes are released almost immediately to keep beds free for more dangerous criminals. This means that these criminals are back on the streets almost instantly after committing a crime, much to the frustration of community members.

However, unlike the tensions and lack of response created by the shifting demographics of the area, residents of Port Orford responded proactively to this increase in crime by creating a night watch program. Fed up with seeing the same small group of people arrested and released, community members joined together to create a group of people that patrols the streets at night to supplement the understaffed county law enforcement. "It was very effective," one resident said of the program. "To the point where, from my understanding, there has only been one robbery since January (2015) now, and they were getting them almost daily before." Crime is still an issue in Port Orford and Curry County more broadly, but residents were able to come together to work toward a solution to this problem for the betterment of their community.

Despite the fact that the poverty of Port Orford and the broader Curry County constrain the provision of services such as policing, the community cohesion displayed does enable some response. Despite the hardships, residents are not willing to see their community overrun by crime and so are able to come together to combat this challenge.

### *Natural resources and natural amenities provide a draw for tourists and new residents*

When asked about the geography of Port Orford, almost all community members spoke of the natural amenities and natural resources of the area. These included the unpopulated hiking trails; incredible views of the Pacific Ocean; peace and quiet of the Elk and Sixes rivers; the vastness of the surrounding forests; and the location directly on the ocean. These natural amenities draw potential new residents and tourists alike to Port Orford, while access to and use of the natural resources allowed the community to grow and prosper for many years.

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As a fishing and timber town, the community of Port Orford was able to use the natural resources provided by the area to their advantage through harvest of the timber and direct access to the ocean for fishing and shipping. The community thrived from the harvest of vast forests in the surrounding area that hold many species including Port Orford cedar. These resources brought money, people, and jobs into the community

Though many of the residents of Port Orford still rely on the natural resources for their livelihood, the decline of both the timber and fishing industry in the area has led to less reliance on these industries and more reliance on the natural amenities of the area to draw in new residents and tourists. Despite the reluctance of some in the community to shift to a tourism-based economy, the natural amenities of the area still provide this draw. These natural amenities allow Port Orford the opportunity to shift to a tourism or amenities-based economy.

### *A strong sense of community pride unites residents*

The impacts of declining family wage jobs and poverty are visible in the education system in Port Orford. People within the community with or without school age children all spoke of smaller and smaller class sizes, consolidation of schools from elementary to high schools, and an increase in the amount of school aged children on free or reduced lunch programs. One interviewee even lamented the lack of a high school football team that used to be a rallying point for the community. “There was such a shock from the collapse of the resource-based timber economy that [...] the school population has just dramatically dropped,” said one resident.

However, the community response to these changes, like that of the increased crime rate, has not been one of despair or resignation. All cross-sections of the community spoke of the bright students, high graduation rates and top notch teachers. “We are getting renowned for our high test scores and our one on one with the teachers and our really nice school community,” said one resident who also spoke highly of the current district superintendent’s management.

Local real estate agents use the low student to teacher ratio as a selling point when showing homes to families, and local research efforts seek to engage students and connect them to the “natural laboratories” surrounding the city. The schools, the children and the future they represent provide a rallying point and a common denominator for a town divided on so many issues.

This is not to say that the school system in Port Orford is perfect. Far from it, the district is struggling because of the lack of tax base in the community both from timber revenues declining and families leaving the area. The district ranks highest in the state of Oregon for percentage of students living in poverty, and some community members feel compelled to employ after school tutors to supplement the school-based learning of their children. Both schools and classrooms have combined as budgets continue to shrink. However, despite these shortcomings, the schools remain a point of pride in the community.

This source of community cohesion reiterates the pride that all residents feel about Port Orford as a whole despite their differing visions for the future of town. Residents understand the obstacles facing their children in the schools and they know that the situation is far from ideal, but their passion for their children's futures exceeds these differences and allows for a common rallying point. Despite the tensions permeating the town dynamics, and feelings of hopelessness at the current situations facing the town, a belief in the future of the community and its residents was evident in every interview.

Residents spoke of leaving Port Orford when they were young only to return to raise their kids because of the freedoms of living in a small town surrounded by immense natural beauty. "What do we have?" one resident asked. "Spectacular natural resources, hiking trails without a crush of people, incredible views, the peace and quiet, the quality of the air here, the forest, the ocean, all of this."

All community members felt this passion about the community that makes them stay in the town despite the current tensions and financial troubles. According to one community member, "The only solution is the community solution," meaning that people must set aside their ideological and practical differences and work together for the good of the community, and most residents of Port Orford are willing to stay and try in order to see the town bounce back and thrive.

There is no doubt that Port Orford is struggling, yet the pride all the residents interviewed feel towards their home came through in every conversation. Nearly every statement about a challenge the community is facing was followed by a statement about some positive attribute of the town.

## *Summary and Conclusion*

The once vibrant community of Port Orford began to struggle with the collapse of the timber industry, and increasing regulations on fishing are making it harder for this industry to remain the mainstay of the community. As these natural resource industries continue to decline and family-wage jobs are less available, the families these jobs once supported are leaving as well. On top of this outmigration of families from the community, an influx of retirees is both straining resources as well as creating tensions about the community's vision of the future. Port Orford also struggles with setting and defining conservation policies that incorporate the voice of their citizens while protecting the natural resources of the area. This led to heated confrontations and debates about the best path forward for Port Orford in terms of marine conservation and questions about how to deal with state and federal policies that limit the range of responses available to the community. These difficulties in dealing with federal and state policies also arise when considering the community's protection from natural resources through the use of jetties. While the community members recognize the importance of such infrastructure for the protection of the harbor from strong storm surges, the lack of upkeep and lack of available funds to support the dredging this jetty necessitates add additional stressors to the community. Poverty and isolation compounded by feelings of hopelessness about the future make responses difficult. As the community continues to change, there are tensions between those who wish to see the community grow and attract more outside residents, and those that do not want to see a

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shift from the community's natural resource dependent roots. These tensions have led to an active effort on the part of some longtime residents to resist any efforts to beautify the town or move towards a tourism-based economy.

Coping, adaptation, and reorganization are distinct processes and components of resilience. Port Orford has oscillated between coping and some of the more advanced stages of resilience in recent years. The history of collaboration exemplified by the creation of the Port Orford Ocean Resources Team and the Redfish Rocks Marine Reserve shows an attempt at reorganization in the face of external stress. Port Orford has further displayed attempted reorganization through actions taken to promote community cohesion, but the lack of shared vision about the future of the community make progress towards this cohesion, and therefore the resilience this reorganization would suggest, difficult. At the moment, Port Orford is coping at best. Community members spoke of the inability to pass levies that would raise town revenue. The schools provide a source of community pride but are still struggling with poverty and decreased enrollment, and fishing, the main economic driver in the community, continues to decline as stocks decrease and regulations increase. However, despite all of these external stressors, the town is surviving. The community is finding ways to make ends meet whether through cutting services or reaching out for outside assistance, and even this making do demonstrates resilience.

When asked what Port Orford needed to succeed in the future, many residents spoke of the need for some industry or endeavor that would bring jobs back to the area. Many were hopeful a newly proposed golf course would provide this opportunity, while others thought businesses that were based primarily online would be able to do well in the community. This diversification of Port Orford's economy would better allow the community to absorb impacts and cope with the external stressors of declining natural resource industries, but this diversification has not yet occurred. In the words of one resident, "I think that it's a pretty bright future for Port Orford, if we don't screw it up." This suggest that, despite an optimism and willingness to consider the best future for the community, residents were cautious about the ability of the community to thrive in its current atmosphere. Many community members spoke of waiting for new elected officials or leaders to take office before real change could occur that would allow the community to reorganize and learn in response to past stressors. Importantly, however, everyone interviewed had a vision for the future. When asked what Port Orford needed to succeed no one hesitated to provide some response. There may not be consensus on the best path forward for the community, but the passion Port Orford residents feel towards their community is evident. No one wants to see the community fail, and that devotion to the community speaks to its resilience.

## *Table of Stressors, Impacts, Responses, Constraining and Enabling Factors for Port Orford*

*Table 7.2: Port Orford summary table*

Stressor	Impacts	Response
1. Decline in timber industry	c. Loss of jobs/lack of family wage jobs supported by the community	<ul style="list-style-type: none"> <li>• Flight from community – those who are no longer supported this industry have left to find jobs elsewhere</li> </ul>
	d. Increased area poverty/increase of community members using social services (welfare, food stamps)	
	e. Loss of revenue to county	<ul style="list-style-type: none"> <li>• Shedding and privatization of services → crime (“where there is less law, less law happens”)</li> <li>• Grant seeking by city government to make up for these funds</li> </ul>
2. Decline in fishing industry	a. Loss of jobs/lack of family wage jobs supported by the community	<ul style="list-style-type: none"> <li>• Flight from community</li> <li>• Some fishermen accepted grants that paid for college in exchange for fishing permits (which were then retired in perpetuity)</li> </ul>
	b. Less profit in fishing – Fishermen must travel further to catch fish/abide by catch quotas, “graying of the fleet”	<ul style="list-style-type: none"> <li>• POORT – desire for community control of fishing regulations (resident fish species vs. migrating fish species)</li> <li>• Search for alternative</li> </ul>

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		industries (art, tourism)
3. External policy interventions	a. Fraction of community cohesion between those who want marine conservation measures and those who oppose them	<ul style="list-style-type: none"> <li>• Refusal to consider NMS</li> <li>• Call to recall mayor</li> </ul>
	b. Restrictions on water system maintenance and usage cost the city money	<ul style="list-style-type: none"> <li>• No real response to this issue – city continues to spend \$</li> </ul>
4. Natural hazards	a. Historical response to this stressor including building protective infrastructure like a jetty now cause problems because of the need for dredging	<ul style="list-style-type: none"> <li>• “Let’s Get Dredged” community event to raise awareness of the issue in the community and for decision-makers</li> </ul>
5. Influx of retirees	1. Newer residents want to keep the town at the “pristine” level it was when they arrived (close the door to paradise) vs. older residents that want to keep town embedded in natural resources vs. those that want to reinvent the town (tourism/art)→ Tensions	
<b>Enabling Factor</b>	<b>Enables</b>	
1. Natural resources and amenities	<ul style="list-style-type: none"> <li>• Provides a draw for people to come to the community</li> <li>• Provides economic opportunities through the harvesting and use of these resources</li> </ul>	
2. Strong sense of community	<ul style="list-style-type: none"> <li>• Creates an unwillingness to give up on the community despite facing hard times</li> </ul>	
<b>Constraining Factor</b>	<b>Constrains</b>	
1. Differing visions of town future	<ul style="list-style-type: none"> <li>• Inability to capitalize on potential tourist and research markets decreases potential funding for the community</li> </ul>	

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2. Insufficient government funds	<ul style="list-style-type: none"> <li>• Less ability to provide needed infrastructure repair for water mains and jetties</li> <li>• Decreased ability to attract families to the community</li> </ul>
3. Lack of community engagement and volunteering	<ul style="list-style-type: none"> <li>• Inability to plan events that may attract visitors or new residents to the community</li> <li>• Anyone who volunteers time for town committees is automatically accepted, which can lead to those without experience or knowledge making community decisions</li> </ul>
4. Tensions among those with differing viewpoints	<ul style="list-style-type: none"> <li>• Those who do take on leadership positions often experience burnout</li> <li>• No cohesive vision means that the community has made limited progress towards diversifying the economy</li> </ul>
5. Geographic isolation	<ul style="list-style-type: none"> <li>• Community is difficult to get to for visitors and businesses, which lessens the tourism and attractiveness for potential businesses</li> <li>• Difficult for residents to leave for travel, medical care, or shopping</li> </ul>
6. Limited family-wage jobs	<ul style="list-style-type: none"> <li>• Less ability to attract new residents or retain young residents in the community</li> </ul>
7. Presence of poverty	<ul style="list-style-type: none"> <li>• Makes the community less attractive to potential new residents and tourists</li> <li>• Puts additional reliance on difficult to access community welfare</li> </ul>

# Gold Beach



*Prepared by Ricky Ackerman*



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*“I think there’s a strong desire from everybody to survive. And that’s important, because if that’s not there then it’s easy to let it go. So I think one of the strengths is they want Gold Beach to be here fifty years from now, not a ghost town. I think that despite the fact that we have a tendency to look at everyone’s negatives too much, when there is a crisis, we rally pretty darn well.”*

*- Gold Beach Community Member*

### *Introduction*

#### Gold Beach Today

Gold Beach is located on the southern coast of Oregon between Port Orford and Brookings in Curry County. The town is within 40 miles of the California border but several hours from any major metropolitan area. With a population of 2253, Gold Beach sits just south of the Rogue River where it meets the Pacific Ocean. The community is located amidst a beautiful landscape of ocean, beaches, the Rogue River, and nearby forests. A few miles from Gold Beach to the east lies a stretch of the Rogue River that was designated a Wild and Scenic River in 1968 (Bureau of Land Management, n.d.). The natural resources in the area have played a large role in the economy and identity of the town over the years.

Timber remains a major part of the town’s identity for some community members. This is mainly seen through the desires of community members that timber return to what it was. They cannot imagine returning Gold Beach to even a portion of what it was without timber. Many newer residents who were not around for the timber era nonetheless know the town’s history with the timber industry. The Rogue River is the driver for tourism to Gold Beach, offering good fishing and popular jet boat tours. The relationship between Gold Beach and the Rogue River appears essential to its identity in the present day both because of the tourism activities it offers and its contribution to the area’s general beauty. That beauty is a major part of the area. It is the natural resource that continues to draw newcomers to the area, now mainly in the form of retirees. The natural beauty of Gold Beach is likely to be critical to its continued existence as a community.

In recent years, jobs have shifted away from fishing and timber toward tourism and service industries. Tourism in Gold Beach is strongly tied to two main activities: sports fishing and the jet boats that take tours up the Rogue River. The jet boats are the modern day version of the mail boats that delivered mail up the Rogue for over 100 years. The three largest employers in Gold Beach are Freeman Marine, the hospital, and the county government. Freeman Marine is a company that produces specialized marine hatches whose owner happened to be from Gold Beach. Curry County provides a number of jobs

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for the town because Gold Beach is the county seat. These three sources of employment, the government, Freeman Marine, and the hospital, account for nearly a third of the employment in Gold Beach.

An increasing number of retirees have been moving to Gold Beach in recent years. These individuals are often looking for peaceful, slow-paced, and scenic places to spend their retirement. With its low taxes, small size, and incredible natural resources, Gold Beach represents an attractive option for retirees, especially those who seek an area farther away from big cities. Gold Beach continues to feel the repercussions of the decline in the timber industry. Many of its modern challenges originated with that decline and the community continues to struggle to reinvent itself around new industry, though tourism has helped it cope to an extent.

*Table 8.1: Gold Beach demographic information*

<b>Population</b>	2253
<b>Median Age</b>	54.7
<b>Median Income (households)</b>	\$47,903
<b>% under 18</b>	16.5
<b>% over 65</b>	22.7
<b>% not in workforce</b>	42.2
<b>Living Below Poverty Level</b>	19.5
<b>% With Retirement Income</b>	27.1

Source: American Community Survey, 2014.

## Background

Founded in the mid-1800s, Gold Beach was originally called Ellensburg. Since its origin, it has had to recreate itself several times over. In 1853 gold was discovered in the sand at the mouth of the Rogue River. This brought hundreds of prospectors to the area and eventually led to its present name. Gold did not work out as a long term economic industry, but other riches in the area proved able to support the town (Visitor's Center Gold Beach, n.d.).

After gold, the community moved on to fishing and later timber. Gold Beach's economy has been centered around some natural resources for most of the town's existence. Even the present day focus on tourism can be seen in the same light, as the draw for tourists to the area is the fishing, beautiful beaches, nearby forests, and the Rogue River.

When gold no longer proved dependable, salmon and other fishing became the leading industry in the small town. R.D. Hume opened Oregon's first salmon cannery at the mouth of the Rogue River in 1877. Commercial fishing on the Rogue River picked up in the early 1900s, rapidly depleting the fishery. In 1935, state legislation ended commercial fishing on the river due to the depletion of the fishery (Visitor's Center Gold Beach, n.d.). Since then, the sport fishing industry has been popular in the area with salmon and

steelhead representing the major attractions. Remaining commercial fishers continued ocean fishing for groundfish, sea urchin, crabs, and other species. The diminished fishing led to timber's emergence as a major part of the town's economy. Much of the timber harvested in Curry County came from federal land, which accounts for approximately 67% of land in the county. Prior to the 1990s, most of the workforce in Gold Beach was in the timber industry or another related industry. The town's boom period coincided with the boom experienced in timber throughout the northwestern United States. The timber boom persisted until the 1980s when tighter management policies resulted in lower timber harvests. The Champion Plywood plant located in the community shut down in 1986. This led to the exit of a large portion of the population to seek work elsewhere. Since the closing of the plant, the community has largely formed itself around the tourism industry. Fishing remains an important part of Gold Beach's economy in its relation to tourism.

## *Findings*

### Stressors, Impacts, and Responses

The following section analyzes interviewees' responses to questions probing their perceptions of the major stressors facing the community, the impacts of these stressors, and the ways in which the community has responded to the stressors. Examples of impacts and responses detailed by interviewees are quoted or paraphrased. While a variety of other factors may be impacting these communities, only those mentioned repeatedly across interviews or heavily emphasized are reported here. A summary of the stressors, impacts, and response can be found in Table 8.2 at the end of this community case study.

#### *Decline of timber laid foundation for Gold Beach's present day challenges*

The story of Gold Beach in recent years cannot be understood without beginning with the decline of the timber industry which greatly stressed Gold Beach and was consistently brought up in interviews. Referencing those glory days, a community member explained, "There was logging, there was five mills. The story was you could quit a job in the morning and be hired in the afternoon. Wages in the mills were 12 to 14 dollars an hour... That's huge, the number of the people that had solid jobs." While timber brought great prosperity, the decline of the industry resulted in major consequences for the community. As an interviewee described, the loss of timber "absolutely pulled these little towns apart." The loss of the timber industry laid the foundation for the struggles the community faces today. Opinions differed on who was to blame for the loss of the timber industry. Some pointed to environmentalists and the spotted owl, while others viewed the spotted owl simply as a means of stopping unsustainable practices that could not have continued regardless of their impact on avian life. A segment of locals still expressed

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anger toward the United States Forest Service and do not understand why cutting cannot continue. One resident exclaimed, “[W]e didn’t ask to have our primary source of employment to be taken away from us. It was just plain taken away from us, alright? The federal government did that to save some stupid owl.” The ripple effects of the severe reduction in timber harvests have been a chronic issue for Gold Beach. The main impacts of the decline of timber were a loss of family wage jobs and a reduction in timber receipts for the county government.

The timber industry provided a large number of the family wage jobs in Gold Beach. Losing the industry eliminated those jobs and resulted in an exodus of much of the middle class from the community to seek jobs elsewhere. A resident remarked, “When they took the only real, viable product that we have, they created that void and we have yet to, we’ve been struggling, and still have not, been able to fill it.” Logging, the mills, lumber yards, transportation, and many other jobs that had been created by the timber industry vanished with the change in timber policy for federal lands. The loss of jobs had cascading impacts throughout the community. The lack of jobs caused many families to leave and resulted in fewer students in the schools. It also limited the draw of new families since there was no good employment source.

Tourism has been the main response to compensate for the loss of timber related jobs but the industry only scratches the surface of the economic power timber had in Gold Beach. The tourist season runs from roughly May to October which means those businesses that are reliant on it have a short window to generate income since the rest of the year they will likely run at a loss. A resident explained, “[T]ourism is really good but it’s a short season... You kind of lose money in May and October then you make money in June, July, and August, and September. But all of these businesses have overhead that goes twelve months a year so they have to make enough.” Tourism creates more service jobs whether they are in restaurants, hotels, or other areas. These types of opportunities, however, do not create middle class jobs or draw new young families to the area. Describing the jobs tourism creates, one interviewee said, “And, as I like to say, tourism jobs, they aren’t the best paying unless you own the business, but once you own the business, you’d have to be able to earn enough in those five months to tide you over in the lean seven that follows.” Nor does tourism provide a stable, year to year income since it tends to decrease during economically difficult times. Tourism is, in the words of a community member, “[a] very unstable, unpredictable, marketable business. While it’s steady, there’s still fluctuations. It’s not something you can plan on necessarily.” This also creates a greater downturn for the community during recessions during which people tend to decrease vacations. The tourism industry has not proven to be sufficient to fill the void left by the loss of timber but still plays an important role in Gold Beach’s economy.

Residents expressed the desire to find an industry to bring family wage jobs to Gold Beach, though specifics on what in particular that should be is not yet known. This could potentially consist of a series of several smaller businesses or single larger employer. Suggestions include call centers and online businesses in which location does not matter. The issues of isolation, declining quality of schools, and outdated infrastructure, among others, make it difficult to attract new businesses. A cable redundancy was recently

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installed to improve the reliability of internet access and make the community more attractive to businesses, but more improvements are likely required to reach a level of infrastructure that would satisfy businesses. An urban renewal zone was established to try to attract new businesses using tax incentives but that has yet to be implemented. Small steps have been taken by the community and more are likely to follow, but it remains uncertain whether these efforts will eventually be sufficient to bring new industry to the area.

Because of its remoteness, its natural beauty, and its opportunities for various outdoor activity, tourists will continue to be attracted to Gold Beach. As a community member summarized, “[I]t’s tourism [that] drives the economy here and fishing...people coming to do it on their own, hiring guides or whatever and/or taking the tour boats up the river, that’s what makes Gold Beach work. Period.” Various efforts have been made to strengthen tourism in Gold Beach. The Curry Anadromous Fishermen sponsor a fishing derby in September that is an attempt to bring in fishermen when they usually might not come. The non-profit also runs a salmon hatchery up the Rogue River that releases around 90,000 fish annually. While the number may not have a large effect, it is an effort to add a little more to the fishing season. The local high school hosts a football camp in the summer that lasts around two weeks. This brings in kids and parents from California and Oregon, producing income for hotels, restaurants, and other businesses in Gold Beach. Though these efforts are positive, their benefits are limited. Tourism still is unlikely to help develop jobs outside of the service industry.

The county government was reliant on timber receipts from federal lands for its funding and has struggled to make ends meet since the timber era ended. Timber receipts compensated for the fact that the federal timber lands were not generating tax revenue for the county. As long as timber was being harvested, these receipts provided a significant amount of money to fund the county government. The federal government continues to provide funds through the Secure Rural Schools and Community Self-Determination Act but these continue to decrease and the threat of their discontinuation lingers.

The county government has attempted to increase its revenue streams to compensate for the loss of timber receipts. Several levies have been attempted over the years but all of these except the hospital levy have consistently been voted down by the local population. Local politicians work to obtain grants or other sources of money to make ends meet. A local county commissioner lobbied hard to support a bill currently in the state legislature that would raise the minimum property tax for counties to two dollars per thousand. The bill is sitting in the rules committee and it is unclear if it will be passed by the legislature. If it were to pass, a statewide vote would be required. Even with passage of the bill, the funding likely would not be sufficient and the county officials would need to search for further funding supplements. The county has shed several services to make do with the limited funds it does have. The county “spun off home health and hospice...off to a private non-profit, and then two years ago [they] spun off mental health and public health to a private non-profit,” said one resident. This allows the services to be maintained without requiring the county to cover those services with its tight budget. The budget struggles continue, however, and a longer term solution will be necessary for the county

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officials to escape the constant struggle to locate funding for the local government to function.

Many of these concerns that began with the departure of the timber industry in the 1980s continued to plague Gold Beach. In regards to the impact the decline of timber had on the community, an interviewee described Gold Beach as “a ghost of what we used to be.”

### *Decline of the fishing industry and fishing policy complicate economic situation of town*

The decline of the fishing industry was another major stressor for Gold Beach. Fishing was a major driver for Gold Beach’s economy in the past and continues to be today, though in a different manner. In the past, commercial ocean fishing played a much bigger role in the local economy for Gold Beach. While there are still a few commercial fishers, it is not as much a part of the community’s economy. However, recreational fishing on the Rogue River is a major attraction for tourism to the area and is important to the town’s economy. Speaking to the importance of fishing in bringing people to the area, an interviewee said, “A big driver, of course, is the Rogue River and the sports fishing industry on the Rogue. Lots of guides that guide lots of folks, lots of individuals with their own boats.” Many locals make a living as guides on the Rogue throughout the tourist season. There was still one company that conducts ocean charters, but the river is the main attraction and what much of the activity in the town depends on. Fishing draws tourists to the area who then spend money in hotels, restaurants, and local shops. Fishing attracts much of the tourism to the area and is crucial to the well-being of Gold Beach. The decline of fisheries and implementation of fishing policies, however, have led to a reduction in fishing jobs and income which in turn negatively impact the draw of tourism to the area.

Fishing in Gold Beach has faced several challenges, many related to policy. Changes in fishing quotas and seasons has impacted tourist draw and the ability of individuals to generate enough income in their fishing businesses. The fishermen did not necessarily disagree with the idea of regulating fish catches, but they were concerned with the manner in which it was implemented. The various regulatory agencies and the fishermen all have the shared goal of ensuring the continued existence of the fisheries, but sometimes the way things were regulated did not make sense to the community. For example, a community member described how fishermen were frustrated with having certain dates which they had to wait for in order to be able to keep certain fish:

*But by the time we let that one go two weeks ago because we couldn’t keep it, they’re catching it today in Grant’s Pass. Tell me how that policy works? Instead of saying you can’t keep them, hey, what you catch, you’re limited to this many periods. And that way we’re not throwing dead fish back in. Because you got to let it go, but if it’s bleeding out of the gills and it’s exhausted, it’s going to die or a sea lion’s going to get it.*

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The disconnect between community members involved in the fishing industry and regulatory agencies was a common sentiment. The recent halibut season represented another example of this issue where the way in which the halibut days were allocated could have been more advantageous for the fishermen to maximize their options and spread out their fishing season. The community relied heavily on fishing to draw tourists to the area. Any disruption, even a minor one, can have ripple effects throughout the community. If someone does not come to fish, they do not spend money in hotels, local restaurants, and shops. Because of this, the manner in which regulations are implemented is important and multiple interviewees expressed concern with the effect fishing regulations had. Community members did not necessarily disagree with having regulations, but want them to at least be practical so as not to constrict the wellbeing of fishermen. As one interviewee put it, “There’s got to be a balance.”

Aside from policies that directly limited fishermen, policies regarding other species indirectly impacted the fishermen. Sea lions are a protected species that created an issue in the Rogue because they will chase down hooked salmon and eat them before fishermen are able to reel them in. This posed a threat to the tourism draw as people grew tired of losing fish. “[P]eople just started to quit coming here. What’s the point of going there because the sea lions get your fish before you do? Then it started getting dangerous because they started to go right up trying to get into the boat,” explained one resident.

The fishermen were able to successfully respond to the issue by creating a sea lion patrol through the use of a loophole in federal law related to protected species and economic hardship. An interviewee explained the process:

*[L]uckily, we had a friend and a fellow who had started his career as a fisheries biologist in Gold Beach and had gone on to become a director with NOAA and was in a position with the sea lions and their pinniped program and went through the freaking 10 dump truck loads worth of paper work ...and found a loophole in the federal code of regulations that allowed the Port of Gold Beach to take on the position that it was an economic hardship...he pointed us in the right direction, we got the permits, and we got the program in place, and we’ve been running it now for seven or eight years.*

The sea lion patrol was a successful response, but it continues to be a burden because of the work required to maintain it. A resident described, “[I]t’s just paperwork. Just an unbelievable amount of time, you know...And then it’s the constant renewal of those permits and then all the other stuff that continually seems to come up.” Along with the time needed for paperwork and navigating bureaucracies, the funding for the patrol also requires time investment. Donations come from local fishermen, sport fishermen that come to Gold Beach to fish occasionally, fundraisers, and sometimes grants or other sources. Even in this example of a successful response, the work it entails adds burden to the fishermen in the community. They make it work but need to invest more of their limited resources to do so. Crested terns present a similar threat to fish in the area with their growing population but the response to that issue has not had the same success.

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These protected species compete with fishermen and can affect the attraction of fishermen to the area because of their impact on the fish population.

A more minor issue for fishing in Gold Beach that gains a lot of political attention is dredging. Gold Beach had barge traffic from private companies during the timber boom that would do their own dredging. That was combined with dredging from the federal government. As the businesses pulled back to Coos Bay it affected ocean access from the harbor for commercial fishing. Over the years the Corps of Engineers reduced their dredging, further impacting the harbor and ocean access. One interviewee described the history of dredging in Gold Beach:

*We had harbor dredging going on year round, almost. That ended, I'm guessing, about 20 years ago, they stopped dredging our harbor. It's steadily, steady migration of sand and rock to fill in that harbor making it so shallow draft vessels are the only ones that can use it. Start to see a restriction on our ocean going traffic and the safety for the mariners so just the physical properties and the maintenance have affected the fishing portion and the safety mainly of the boaters, not just sport, mainly big commercial.*

The change in dredging that occurred in the past was linked to the decrease in commercial ocean fishing in Gold Beach. While the issue continued to receive much attention, its impact no longer appeared to be as important as other issues for local fishermen. Much of that attention came from Congressman DeFazio who uses it as a topic of discussion. But one resident said that dredging is “way, way higher profile than the reality of it is.” An interviewee explained that a few days of dredging did not always make things better and could even worsen the conditions if it was done poorly. Explaining the actual impact, the interviewee continued:

*Okay say they don't dredge the bar...So now we lose four days every month instead of two. I mean, it's a payday but it's not the end of the world. But ODFW in their infinite wisdom puts some sort of a closure on the fishing or they wanted to put a marine reserve out here on the reef. Now, that's significant.*

Dredging did have an impact on fishing in the area but other regulations seemed to be a much larger issue. Even as a smaller threat, the issue of dredging helps exemplify the sheer number of issues fishermen have to deal with in maintaining their way of life and the multitude of threats they face to their profession.

A variety of other fishing related issues were mentioned in interviews, including foreign fishermen, marine reserves, and wave energy. The threat of foreign fishermen catching the fish locals were not allowed to catch due to regulations came up several times. The marine reserves in the area were mentioned as minor concerns in a two interviews, with interviewees noting how the creation of the Redfish Rocks Marine Reserve off the coast from Port Orford puts more pressure on fisheries around Gold Beach but concern was not high. Wave energy came up as a potential threat to the fisheries in the future if it were to be installed nearby because it would impact the fisheries and access for fishermen. All of



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these issues related to fishing combined created tremendous stress and problems for local fishermen. Fishing plays such a critical role for Gold Beach that these issues, no matter how minor each individual one may seem to some, cause ripple effects throughout the community. Gold Beach needs fishing to attract tourism and hold onto what economic wellbeing it currently possesses. An interviewee summed it up in this way:

*I don't know what it is but our fishing is declining. ODFW probably will tell you that too. For a variety of reasons. Some human, some not human. Some natural cycles that go on in nature. If the sports fishing goes away and environmentalists shut down the Rogue and the jet boats don't run, how's Gold Beach going to survive?*

Given the short tourist season and the importance of generating as much income during it as possible for local businesses, anything that threatened the draw to the community was seen as a major issue and a danger to the wellbeing of the community.

### *Influx of retirees increases burden on already limited resources*

The movement of retirees into the community came up consistently in interviews but their impact was spoken of more minimally than the other stressors. With the loss of timber, much of the population moved elsewhere to look for work. Curry County has a fairly elderly population which limits its workforce and also means that many are on fixed income. While retirees spend retirement money in the local economy when they move to Gold Beach, they do not enter the workforce or open businesses in the area very often. Referring to this, a community member stated, “[T]hey’re not what I call producers. They come here to retire and they bring their retirement money here which is great, but they’re not contributing to the local economy in the sense that they’re working in a business or they own a business or something like that.” Their presence and expenditures are welcome, but they do not replace the middle class and the families that the community lost. Retirees put more stress on county services and bring different needs and perspectives that sometimes counter the efforts of local leaders.

Retirees require services without contributing as much through taxes to support those services. In reply to a question about the impact of retirees moving in, a community member said, “Well, obviously more services. That’s another reason why it’s so critical that we have the hospital because as folks get older they need more healthcare.” The increased demand on services further strains the already limited resources of the county.

According to interviewees, the retirees in the community have been resistant to supporting levies the county attempts to pass, including levies on education. Interviewees credited either the inability to afford higher taxes from retirees living on a fixed income or the perspective that they had already paid their share for things like education. A resident remarked, “Again the retired people don’t care about the schools.” While education levies are repeatedly voted down, the hospital levy was the rare occasion when

the county managed to pass something. Several interviewees credited the needs of retirees as the reason that it passed. The passage of the hospital levy was considered good for the county overall, but the support it garnered compared to the lack of support for every other levy is seen as a sign of the retirees support for their needs but not the needs of the greater community. With the struggles the county government faces in financing services, the retirees are seen as an obstacle to establishing a long term solution for funding issues.

### *External policy interventions create sentiments of distrust and underrepresentation*

Aside from the direct impacts of policy, interventions from external agencies at the state and federal levels create difficulties for the community both in how it impacts the relationships between the community and the agencies and in the complexity of navigating the multitude of governing bodies. Fishing policy provides the most noticeable examples of the complications. One community member, reflecting on the local fishermen's relationship with the Oregon Department of Fish and Wildlife (ODFW), responded, "[W]e used to see them shuffle stuff around based on our input. But in my opinion...that has declined dramatically of late." The community members do not feel their opinions are having much influence on policies that greatly affect them. They expressed that they saw state-wide public opinions possessing more power in decision-making than their own. The same community member explained, "Because now, what they're doing, instead of getting what I'm going to classify as expert testimony, they are shifting their input to general public input...so they get input from a lot of people and, with all due respect, a lot of them don't know what they're talking about." The perception of the decision making process creates a degree of tension between the fishermen and the regulatory agencies because the local fishermen who are most affected by the policies do not feel their voices are being listened to or given enough weight even if they are being heard.

Another fishing example further displays why the community members feel that the agencies do not care about their concerns and needs. In speaking with an ODFW representative about the tern's impact on fishing in Gold Beach, one resident explained an interaction with ODFW:

*So I made the comment to the guy that runs the office over here. I said, 'Why don't you get us a permit, because we're out there chasing the sea lions, I bet we can run them terns out of here in a matter of weeks. You know go shoot a couple of cracker shells, no killing,' I mean, good God, they wouldn't ever let you do that, but scare them and make them go someplace else... Well he said you know that's probably a good idea. I thought okay great. So I had to go over there to drop off some paperwork yesterday on regular business, so I asked, 'You know we're going to start the sea lion patrol, what's the latest with that permit?' 'Oh God, no,' he said, "I checked in on those and those are a Crested Tern, not a Caspian Tern, and they are a species of concern. They're not listed, but they're*

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*concerned about them. And nobody in the department wants to talk to the Fish and Wildlife about possibly getting a permit, so we didn't do anything about it.' I said, 'Really? That's it?' 'Yep, somebody told me from Salem at the home office that that was an area of concern and I didn't want to bring it up and I don't think anyone up in Salem does either because the people at the Fish and Wildlife Department are really hard to work with and so...we've got it under advisement and if it becomes a bigger problem, then, we're documenting it so that maybe we could do something but we're not going to now.'*

Instead of seeking a solution, the tern issue was met with inaction. The local fishermen would need to invest time and resources in order to even attempt to resolve the issue. They do not feel supported by the regulating agencies or feel those agencies show much concern for the community's interest. The manner in which the agency functions was what some community members took issue with and what caused them to feel that the agency was not concerned about them or supporting their needs.

Dealing with one agency is complicated enough, but several other agencies have a hand in regulations on fishing which compounds the problems fishermen face when they have to navigate the different agencies to determine how to handle each individual issue. A local stated:

*Oregon Department of Fish and Wildlife protects certain species and then you have U.S. Fish and Wildlife that deals with other species. Sea lions are a problem but they're protected under U.S. Fish and Wildlife jurisdiction, not ODFW jurisdiction. And so it's sometimes you have these conflicting state and government federal agencies that you can't get through the red tape to deal with the problems that occur for the benefit of the community.*

The complexity of organizations involved in fishing also created issues for those agencies themselves. One resident explained:

*[C]ormorants are protected through the U.S. Fish and Wildlife but the salmon is dealt with the ODFW...ODFW is spending millions of dollars on hatcheries...they want to protect their investment. But that's the U.S. Fish and Wildlife that regulates the cormorants and the sea lions and so they can't - it's more difficult for [ODFW] to regulate the predators.*

While these agencies appear to have similar intentions and goals, the manners in which their policies overlap and conflict make the situation more convoluted for fishermen, agencies, and for the survival of the different species they are attempting to protect.

Fishing and forest policies illustrate some of the problems imposed on the community by external policy decisions but other state and federal policies also impact Gold Beach. State education policy and land use laws were two other areas of concern frequently brought up by Gold Beach residents. School funding is disbursed on a per student basis. This means that as enrollment declines for the schools in Curry County, so does the

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funding. The fixed costs of maintaining the building does not change so cuts must be made in important educational elements, such as a music program or teachers. A resident elaborated, "Education is totally based on how many kids enroll in school. So as we get declining enrollment, so goes our state disbursement. There is no appeal process to get more funds from the state." The viewpoint is that the law is appropriate for urban areas, but constricts the ability of rural communities to effectively support their schools. As an interviewee summed up, "What works for Portland does not work for Gold Beach. Yet it's a uniform code." These perspectives are accompanied with a feeling of underrepresentation. The major metropolitan areas such as Portland and others in the Willamette Valley carry the bulk of the population in Oregon and have the main voice in influencing policy. "We feel we have no representation in the state. Our voting power is limited because there's only 22,000 people [in Curry County]," expressed one resident. The disconnect between state policies and rural needs is heavily felt in Gold Beach along with frustrations that the community does not have the ability to have their concerns listened to by state lawmakers and agencies.

The struggle to replace the Curry General Hospital exemplifies the community's issues with state policy. The hospital had been constructed in the 1950s. The state fire marshal had issued waivers in recent years for the failure of the hospital to comply with state fire codes. That reached a point where Curry County was told those waivers would no longer be granted and the hospital needed to comply with fire codes or it would be shut down. The hospital is the only one in the county and represents a major source of employment for Gold Beach. With an older population, many in Curry County rely on the services provided by the hospital. Losing the hospital could have devastated the community through the loss of jobs and the likely outflow of older residents who require nearby medical services. The health district responded by putting a bond issue before the voters to build a new hospital. The bond issue passed, a rare occurrence in Curry County. Plans were laid out to site the new hospital right next to the old one. Everything was more or less set for the hospital to be constructed. Subsequently, the Department of Geology and Mineral Industries (DOGAMI) said the hospital could not be built there because it was in a tsunami zone. But no other real choice for a site existed and not building a new hospital was not a real option. A community member expressed the frustration felt, "You have one agency telling you one thing, then you have another agency tell you something else...So that's a frustration for me in rural communities is that there doesn't seem to be any coordination between state regulatory or advisory agencies." The DOGAMI recommendations were ignored and the hospital is under construction. Elaborating on the situation, the same community member continued:

*I actually had this gentleman tell me, "Aren't your citizens scared?" I said wait a minute, you live next to Mount Bachelor or whatever the hell is up by Portland. That's a volcano. Aren't you afraid? I mean it's the same thing. You can't fight mother nature so are you going to tell everybody in Portland they can't live next to the volcano because there's the possibility in the next 2000 yaers that it might go off? You can't live that way. Where are you going to go on the Earth that you don't have some kind of natural hazard? You can't live that way.*

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The situation demonstrates the difference between how community members and state agencies see an issue. The state agencies see things through the lens of their specialty, whether that is fire codes or tsunami zoning. The community views its immediate needs to get by. The hospital was crucial to the community's vitality but it did not appear that the state agencies were entirely conscious of that in this situation. The same sentiment is felt with state land use laws. The inflexibility of land use laws does not allow the community to adapt zoning designations to local needs. All of these issues with regulatory agencies create feelings of frustration, distrust, and underrepresentation. Community members feel policies are asserted on them from these outside agencies without taking their interests and needs into consideration.

### Factors Enabling and Constraining Response

The following section identifies prevalent enabling and constraining factors that affected responses to external stressors in Gold Beach. This section also provides examples for how each factor enabled or constrained responses, or both enabled and constrained responses. A summary of the enabling and constraining factors can be found in Table 8.2 at the end of this community case study.

#### *Natural resources and amenities continue to attract new people to Gold Beach*

Gold Beach owes its existence in large part to the resource extraction industries that brought people to the community in the past. While those no longer function as a draw as much, its natural amenities continue to draw people to the town. Explaining what appeals to people about the community, a community member remarked, “[I]t’s the outdoor activities, it’s the fishing, it’s the hiking, it’s the beach. Here it’s gorgeous.” The outdoor activities and the scenic beauty of the landscape motivate people to visit and even move to Gold Beach.

Many of the residents who were not born in Gold Beach, including retirees, took vacations to Gold Beach when they were growing up or with their own families later on. Those experiences with Gold Beach earlier in their lives are what eventually led them to become residents. Whereas the tourist industry perhaps does not create sufficient jobs both in terms of quantity and quality, it brings people to Gold Beach regularly and provides something of a substitute for individuals growing up in the community by planting a seed of the sense of place that the long term residents tend to possess. The natural amenity resources in Gold Beach are an asset to its perseverance as a community because of their impact on tourism and attracting new residents.

*Attachment to place and supportive sense of community provide strength*

The tremendous attachment to Gold Beach commits people to the community and motivates community efforts. Community members fight to find a way to maintain their way of life and manage to survive. Much of this is because Gold Beach itself means so much to them and they do not see moving elsewhere as a real option. As a resident put it, “The thing is about living here, like in Gold Beach, and maybe some of the other smaller communities too, is you got to want to live here.” Living in Gold Beach is a kind of lifestyle that is not attractive to everyone but, for those that desire it, it is a strong motivator for preserving the community. “Those of us who live here figure out a way to do it,” stated one community member. Another individual explained, “Since we are sometimes on the dark side of the moon, if we were to stay quiet, we would simply cease to exist after a time and it would become a ghost town. But the people who care, who have grown up here, are willing to do whatever it takes to try to get assistance if it’s not available here.” Many community members that remained in Gold Beach through its challenges continue to find ways to persevere because of their attachment to the place itself and their strong desire to continue living there.

The attachment to Gold Beach motivates a sense of community that leads community members to protect and take care of their own. An interviewee said, “People are watching out for each other. So if they see something at your house that doesn’t look right, you’re going to know. There is that sense of smallness and community.” This mentality is what keeps people in Gold Beach despite the myriad problems they face by doing so. Although the community may struggle to develop long term solutions for some issues, everyone is able to come together to respond to a crisis when it occurs. In the words of a resident:

*I think there’s a strong desire from everybody to survive. And that’s important, because if that’s not there then it’s easy to let it go. So I think one of the strengths is they want Gold Beach to be here fifty years from now, not a ghost town. I think that, despite the fact that we have a tendency to look at everyone’s negatives too much, when there is a crisis, we rally pretty darn well.*

An example of this was when a local restaurant owner had health issues she could not afford to treat since she did not have health insurance. In response to this, “The community rallied and raised all kinds of money to get her the care she needed.” Gold Beach takes care of its own and the motivation for this is tied to the place itself. Being a member of the Gold Beach community is an important identity for those that live there.

*Geographic isolation exists as both a constraining and enabling factor for Gold Beach*

The isolated geography of Gold Beach is a double-edged sword. It operates as a both a draw and deterrence for people. It presents a major obstacle for attracting businesses that

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could provide jobs because the shipping and travel out of Gold Beach costs more simply because of its distance from other cities. The main route into town is Highway 101, Interstate 5 is approximately a three-hour drive to the east, and there is no nearby major metropolitan area. A resident described the situation:

*It's hard to get here. So it's hard to get out of here. There's really nothing, the reason why we had mills and wood manufacturing here is because it was close to the resource. It would not be cost effective to truck trees up to Portland to have them processed so they were processed here. Well once all that went away, we don't really have any other industry. Because we're so remote, it's hard to get raw materials in here and then product out when it's finished.*

Given the development of beach towns somewhat similar to Gold Beach in areas that are less isolated, the geographic location of Gold Beach presents a difficult hurdle to overcome.

Apart from preventing businesses or individuals from moving there, the isolation creates a barrier to the exposure of locals to different experiences. Children growing up in Gold Beach, especially those in poverty, are not able to see the opportunities they might in a big city. Speaking about the different impacts of isolation on different segments of the population, a Gold Beach resident explained, “[W]hile isolation for those that have jobs and things is nice...it isolates you from the reality of what you can accomplish and get done if you're willing to work. Most of our poor don't see opportunities, don't see a chance, don't see a way to change their stars.” The lack of exposure and connection to outside opportunities coupled with the lack of opportunities within the community of Gold Beach can create a sort of trap for those that grow up in Gold Beach.

Despite the difficulties isolation creates, it also attracts people to Gold Beach. Some residents grew tired of the big city life and wanted a more leisurely lifestyle. A community member described the sentiment as wanting “to get away from the people and the madness and the concrete and all of that stuff. To have what you would consider a slower pace life and just get back to the more basic.” For those with jobs, the isolation appears as a luxury to get away from the hassles of life in metropolitan areas. The isolation accompanied with the natural beauty of the area continue to be a major reason why people continue to move to the area. Many current residents took vacations to Gold Beach or started to spend several months a year there before moving permanently. These individuals “finally said I'm tired of the city and they move here,” in the words of one interviewee. The isolation continues to be an important factor in attracting people to Gold Beach but also deters businesses from moving and supplying jobs to the area.

### *Low economic diversity and the lack of family wage jobs*

The limited economic diversity and the lack of higher paying jobs in Gold Beach make it susceptible to severe shocks from reduction of jobs or income from any given industry or

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business. Since the decline of the timber industry, Gold Beach has relied heavily on tourism and its three main employers, Freeman Marine, Curry General Hospital, and the county government. Tourism is one alternative that characterizes much of the current economic activity in Gold Beach.

*[B]ecause we are so beautiful and we are so isolated, there are a lot of people that like that. They come here for the adventure, the ocean, surfing, and things like that. But there's not a lot of jobs here for them to do. Right now our industry, especially in Gold Beach but probably our whole county, is tourism. And the city is heavily involved in that because that's, in my opinion, our only economic development engine.*

Tourism is important, but members of the community recognize that tourism will not function alone as a replacement for timber because it does not supply many family wage jobs. The continued absence of family wage jobs challenges the community's ability to attract new families to the area and retain the families that are already there.

With such a low diversity in its economy, Gold Beach could suffer from the loss of any business. Two of the three largest employers in Gold Beach have been in danger of closing. Freeman Marine is a company that produces specialized marine hatches. The company is located in Gold Beach because the owner happened to be from there. They were recently sold to a Canadian firm that has stated they will keep the company in Gold Beach. Several community members expressed concern that the company would eventually move despite their statements to the contrary. Eventually, residents said, the new owners would realize how much money they could save by moving to a less isolated location. One community member worried, “[S]omebody somewhere is going to say, you know spending this much on freight, if we relocated to Newport, we’d reduce our freight cost by this much money. Somebody will figure that out. I hope that I’m wrong, I hope that I’m being pessimistic, but I don’t see them staying here forever.” Freeman Marine represents nearly a tenth of the employment in the community, employing between 75 and 100 individuals. Losing them could devastate the community even further. Gold Beach faced a similar potential loss of a key industry when the fire marshal told Curry County that Curry General Hospital would be condemned in 2016 for not meeting fire code. The loss of employment would have been devastating to the community because of the number of jobs it provides, in addition to the issues the older population would have faced for meeting their medical needs. Fortunately, a levy was passed and a new hospital is under construction. Many in Gold Beach are hopeful the new hospital will help the community a great deal in attracting younger families and providing more family wage jobs than the previous hospital. “The new hospital’s going to help...a lot. It’s going to bring more people in and more physicians that will buy homes and create jobs building homes and maintaining them,” one interviewee stated. The three major employers together represent nearly a quarter of the employment in Gold Beach and losing any one of these could be devastating. The lack of economic diversity creates a danger for potential issues in the future that would be akin, though much smaller, to the impact that timber had when it was lost.



*Diminishing quality of local schools limits attractiveness of community to families*

The decreased quality of schools in Gold Beach from the loss of students and reduced funding have made it difficult to attract and retain families in the community. Oregon funds schools by taking taxes for education, pooling the funds at the state level, and distributing them on a per student basis. Many families with children left Gold Beach when timber declined to look for jobs elsewhere. This substantially reduced the number of children in the schools. A community member explained, “Our school, the high school, used to have close to 400 kids in it. This [year], the graduating class has 30 some. It’s dropped down to roughly about 150.” The quality of the education supplied by schools was high throughout the timber era, but has plummeted since. The low number of students in Gold Beach led to a loss in education funding because of how funds were allocated and thereby a drop in quality. As the number of students continues to decrease, the schools lose their ability to support enough teachers and extracurricular activities and the quality decreases.

The diminishing quality of schools makes it hard to attract new families to the community because they do not want their children to enter the Gold Beach school system. As one resident described:

*[O]ur school has evolved over the last 30 years from one of the best schools in the state to one of the worst. Because nobody really supports it. That’s the problem. When we get people in your age group that move to this community, you’ve got kids, the school system, they go ‘Wow, no music, no band, very poor quality.’*

Low quality of education deters new families from moving to Gold Beach and makes it more difficult to retain community members with children.

Fewer students in the schools reflects that the number of people growing up in Gold Beach has decreased. Growing up in a town can create the sense of place that appears vital to communities like Gold Beach. Part of what keeps people there is the tremendous sense of place they feel. Fewer students in the school causes fewer individuals to gain that attachment to the place and raises concerns about the longevity of the community. Speaking of that concern, a community member reflected:

*It’s a large cause for concern when children don’t grow up in a community. They don’t maintain the values, they don’t maintain the history and the wisdom of how to live in the local environment as well as feeling confident to bring up their children there and sow back into where they’ve grown up in. When you break that cycle, and I see that happening when schools close, I get very concerned about the health and welfare and the longevity [of the community]. Part of the resiliency that we’re heading towards.*

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Many students who do grow up in Gold Beach and manage to find employment or pursue higher education elsewhere tend not to return. The conditions of the community are also contributing to the loss of that sense of place among youth in general, even for those who are growing up there, or at least providing poor enough conditions for the sense of place not to be a sufficient reason for them to remain in Gold Beach.

### *Limited government finances constrain the ability to respond*

Gold Beach is a small town with a struggling economy which limits many resources available to address the multitude of issues the community faces. These resources include limited funds and limited numbers of people to perform various tasks.

Limited financial resources restrict the ability of leaders in Gold Beach to respond to challenges because they cannot afford to resolve all of the issues that confront them. When the timber industry declined, the county lost its main source of funding through timber receipts. The property tax in Curry County is remarkably low relative to other counties in Oregon at 59 cents per thousand. Federal funds have continued to be provided through the Secure Rural Schools and Community Self-Determination Act to make up for the lack of timber receipts, but these payments have diminished over the years and the withdrawal of these payments is a threat each year. The county government has been forced to continuously struggle to make ends meet. This affects its ability to provide services and results in a diminishing employment base for the county government. It also makes it a less attractive place to work for police, as an example, who could earn more elsewhere doing the same job. Deputies for the Curry County sheriff are paid 10 to 15 dollars an hour less than in bigger communities like Portland. This makes it difficult to retain those who are initially attracted to Gold Beach. A resident explained, “Young families will come in and think ‘oh we can be a sheriff’s deputy and make a living’ and they find out they really can’t. So they end up moving on. We lose those families, not only in employment but if they’ve got kids in the schools then we lose those kids in the school.” The county has yet to find a long term replacement for the timber receipts and continues to struggle to fund services and employees.

Having a tight limitation on financial resources complicates the jobs of local officials. Not only do they have to manage the normal responsibilities of their offices, but they also have to ensure the county will obtain enough funding to maintain its services or develop creative ways to stretch the limited resources they do have. Financial concerns absorb some of the officials time that could be dedicated to other concerns if the county had a more stable funding stream. The worry over the government’s continued function causes much of the focus of officials to be on short term issues since that is all they can afford to address with their limited time and finances. As one community member explained:

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*[W]hen I go outside the area to go to meetings in Salem or whatever, they're talking about all these projects that are going on and things that are going on, and it almost makes you want to cry because it's like, we are like just trying to survive. Forget about visioning. I go to places and they're like "Oh we have visioning and we have this long term plan." We're just trying to survive, forget about vision. You can't talk about what if's when you're trying to feed yourself.*

This resident points toward the need to deal with immediate problems as the reason for limited visioning and long term planning in the community. The limited time and finances of leaders in the community detracts from their ability to respond to the various challenges confronting Gold Beach.

### *Small community size limits number of leaders and leads to burnout*

The small population size of Gold Beach restricts the number of people available to fulfill leadership roles, both elected and informal positions. Only a few individuals visibly make efforts to address problems in the community. With such a limited number of active citizens, the efforts lead to burnout among these individuals because they are attempting to do so much without enough support and even with some opposition. "I think in general, you get a group of people that want to make the town better and make things happen, but because it's the same people all the time, they get tired," explained one resident. The leadership burnout can lead to the loss of motivation from the small stock of people willing to take on the community's challenges, diminishing this number even further.

The small size of the community in Gold Beach led to criticism of leaders rather than support in some instances. Referencing that some community leaders face opposition, a community member said, "[Y]ou know small town, you get those people that are out doing things and then they're up for criticism about what they're doing, why they're doing, or how they're doing. Instead of saying 'Hey let me help you,' they tear those people down." The criticism puts further strain on the leaders who may already be attempting to do too much. The unsupportive attitudes in the community can contribute further to leadership burnout and reduce the already limited number of people willing to take on leadership roles in Gold Beach.

### *Differing visions, apathy, and distrust limit effectiveness of efforts in community and level of engagement*

Differing visions about the community's needs and future have prevented efforts from being supported in Gold Beach. While many do not see the return of timber as a possibility, there are those who appear to expect it to come back and the town to return to its glory days. A portion of the town sees no alternative for economic recovery in Gold

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Beach without a return to timber practices of old. The mindset restricts people from seeking or supporting alternatives to timber or make those individuals a barrier to those in the town seeking economic alternatives. Accompanied with this is often an “us versus them” mentality with the federal government as the ‘them’ that maintains control of the town’s natural resources and created the present conditions by removing the logging industry without the town’s consent. One interviewee explained:

*To turn against the way of life they’ve known there has to be a guilty party. There has to be somebody to blame. And it’s really easy to blame the government here. They took away this O&C money. It’s not their fault that they’re unemployed. It’s the government’s fault. It’s these bad people. So one of the problems you have here is it’s hard to get the problem fixed with the people that live here because they don’t want to change.*

The blame for the state of Gold Beach, then, is placed on the government. This attitude seems to hoist the burden of fixing the problem on the federal government as well, rather than being the community’s responsibility to better their conditions.

The avoidance of responsibility may stem from what has become a dependency on the federal government. Referencing this relationship, a resident commented, “Part of the problem has been the federal government. They say no we’re not going to give it to you and at the last minute they throw you a little bit of it.” The timber era created the dependency and it continues as federal funds are often given in the end to prevent the county government from crashing. Because the consequences of inadequate funding for local government have never appeared to come to fruition, there may be an assumption that the federal government will always bail out the community in the end. One resident noted:

*I think a lot of people see it’s the boy who cried wolf. Ever since I’ve been here it’s been “Oh we’re going to lose the federal money and we’re not going to get it.” Then something happens and we get something to sustain us just a little bit longer, even if it’s just for a year. So I think they see, they see the sky is falling and then it doesn’t fall. But what’s happening now, at the county level we’re eating up all reserves to keep going. And that’s not going to be a good thing.*

The ability of local leaders to continue to get by on limited funds prevents the community from experiencing what would happen if that funding were not obtained. While avoiding the fallout of inadequate resources is good given the negative consequences, it keeps some members of the community from realizing how dire the situation is for the local government and stops them from supporting levies the county government deems necessary for maintaining the community’s health. A frustrated longtime resident remarked:

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*Let them see what it's going to look like. But we don't, we want to soften the blow, we find ways to make it work. We do that. Well that creates even more apathy. "Oh they're just crying wolf again. And there's no wolf." And in actuality there is. But when good people with fix-it solutions all the time at the last minute, what do people begin to expect all the time at the last minute?*

This quote illustrates the exasperation some residents feel in regards to what they see as the community's failure to support important initiatives, such as the levies. The differing understandings and opinions of the community's situation and needs makes the development of an agreed upon solution difficult.

The expectation of a solution always being found has led to a sense of apathy in the community according to some interviewees. The ostrich with its head in the sand was referenced several times, implying the community attempts to pretend like nothing is wrong. A resident expounded, "Apathy. You know, the ostrich way of handling things. Stick your head in the sand...And I don't, don't get me wrong, I don't really blame them. I don't want to see taxes raised either." The apathy can be accompanied with the dependence on the federal funds, with one interviewee explaining, "The apathy is a desire, a dream that 'Oh we'll get the O&C funds.'" Sometimes the sentiment is expressed more as a feeling of hopelessness, that there is no solution. These attitudes make it difficult for local leaders to gain support for initiatives such as levies or other attempts to make changes in the community.

Apathy coincides with both a lack of trust of the government at various levels and a low level of participation in government by community members. "But first of all, you got to form a community. And when you look at the problem we have, nobody will even support the county because nobody trusts the people in the county. Someway you got to get people engaged," said one interviewee. The lack of trust and participation creates difficulties for taking steps to resolve issues in Gold Beach. To emphasize the disconnect between the community and the local government, a community member recounted:

*[T]his guy was [complaining] to my husband about this one city councilor. The guy had been dead for two years. Okay, not only that he wasn't on the city council anymore, he'd been dead. It's like, when was the last time you went to a city council meeting, because that guy isn't even here. This is a really small town, how could you not have known that? Not only was he not a city councilor, but he died. It was in the paper.*

Members of the community are unwilling to support the government's efforts to develop longer term solutions that would avoid the nearly constant state of crisis local officials confront. The nature of these relationships has led the distrust to go both ways, with local government members expressing frustration with voters' lack of support for their efforts. Moving forward, this disconnect and distrustful relationship requires mending for the community to improve its conditions. As a community member explained, "We have to stop the them and us. We have to break up this idea that the county kind of hordes

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everything themselves and protects it because they don't trust the voters [because] that doesn't make the voters trust the county."

All of these attitudes restrict the community's ability to collaborate and advance for the good of Gold Beach. In the words of a Gold Beach resident, "We have to be more willing to look at our community as being a member of the team rather than individuals. You're only as strong as your weakest link." The community currently lacks the unity required to confront the difficult challenges ahead of it. Several interviewees referenced this need to come together to form a stronger sense of community in longer term planning. One detailed, "[U]ntil the community says 'How can we become a strong vibrant community?', which means...we can't be apathetic and we're going to have to bring about change and change may be uncomfortable for some people but at the end of the day, it's going to be better." While community members have shown the ability to work together and respond in more reactive ways for smaller challenges, they have not shown the same sense of community for creating and supporting visions for the community.

The lack of unity in terms of understanding and opinion on the challenges facing the community presently stands as a challenge that needs to be overcome in order to improve Gold Beach. The relationships between community members, local leaders, and government officials need to be mended to develop a stronger sense of community. Presently, the sense of community that manifests itself to take care of smaller crisis situations does not seem to show up to create plans and strategies to better the community in the long term.

### *Limited housing options deters newcomers*

Another barrier to attracting businesses and families to the community is the limited housing market. The housing market that exists does not currently fit the income offered by available jobs in the community. There was a "huge gap between wages and housing," as one resident stated it. The expansion of the housing market is limited by an urban growth boundary and land use laws. Houses can only be built in the urban growth boundary until it is filled. Outside of this, land is not available to build residences on unless it is purchased in large tracts of many acres. The lack of appropriate housing is a deterrent for attracting businesses and families to the area because they cannot find affordable housing options. As one resident said, "You're not going to bring a company in here because they're going to look at it and go, well, you don't have this, how much room is there to build houses? We're right up against forest and grazing boundaries all over the place. You can't build homes." Even if the community experienced growth and wanted to expand, the geography and land use restrictions would prevent it from doing so.

*Presence of poverty and income disparity presents a limitation for the community*

The presence of poverty and an income disparity in the community became pronounced with the decline in the timber industry. With the loss of those family wage jobs, much of the middle class left the area to seek employment elsewhere. Those that were left consisted of the high and low ends of the economic spectrum, including poorer individuals and families who did not have much of an option but to stay because of their economic condition. A community member summarized, “But you have people with money and you have people that don’t have money. And there’s not much in between. There is no middle class here.” Poverty restricts the economy in one sense, since those families are dependent on government services and do not put as much back into the local economy. “[Y]ou got a lot of families that are on government assistance whether it’s food stamps or welfare or whatever they want to call it here. Again, they don’t have the money to spend in the stores, to spend on goods here. I think that it affects the economy overall,” explained one resident. Around 60 to 70 percent of students in the schools are on the free and reduced lunch program. A few interviewees referenced poverty’s relationship to a drug culture that persisted in the community among unemployed adults and poor students. The prevalence of drugs in the community was not explicitly stated in interviews but was spoken about as a vague problem several times. Given the limited population and resources of the community, the persistence of poverty and drugs has a greater impact on the overall economic wellbeing of the community.

The people of Gold Beach exhibit support for the community in their responses to poverty. Programs have been started by Rotary to ensure that children do not go without food on the weekends when they will not receive the free and reduced lunches at school. Community members also come together for the holiday to provide meals and gifts at Thanksgiving and Christmas for those not able to afford them on their own. Poverty in the community presents a challenge but also illustrates an issue around which the community can come together to take care of itself to an extent.

## *Summary and Conclusion*

Gold Beach has faced many difficult challenges in its recent history and continues to struggle with several of them. The decline of the timber industry provided the basis for most of the challenges the community struggles with today, including the lack of family wage jobs, a strained school system, and inadequate funding for county services. The history of timber can be partially credited for the contentious relationship the community has with external agencies as well. The influx of retirees combined with these issues has created a new set of complications. Despite the adversity of conditions, the community continues to persevere and push toward the future. Gold Beach has a history of overcoming challenges and maintaining itself. Its scenic landscape has attracted and committed people to the area for over a hundred years and continues to today. Local

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organizations and leaders are making strides to counteract the community's challenges. Efforts have been made to make the area more attractive to businesses and families though they have been met with little success so far

Gold Beach is a community exhibiting resilience in its ability to cope with the impacts of external stressors. The community's responses are generally reactive and short term while long term solutions elude it. Several of the challenges that it continues to deal with and respond to are chronic issues that have been present since timber declined in the area, showing the community's ability to persevere through challenges but also its hindered capability to fully recover from those major stressors. Leaders work tirelessly to pull funds together, reorganize departments, and develop other strategies to ensure the government continues to function and provide necessary services in order to cope with loss in revenue. Tourism has helped compensate for some of the jobs lost from the timber industry and provides a means to draw in outsiders to Gold Beach. Community members and organizations have planned events to further tourism's impact on the community. Fishermen organized the sea lion patrol which illustrates a circumstance where community members were able to come to an understanding on an issue, seek out a manner to resolve it, and implement that solution to preserve fishing conditions on the Rogue. Community leaders, organizations like the fishermen's group and Rotary, and other community members have all made strides to help the community cope with the impacts external stressors have had on the community. The attachment to place and supportive sense of community exhibited in Gold Beach have played a large role in motivating that response to persevere. When asked how the community was responding to the challenges it faces, one resident responded, "[H]ow we've been facing it? It's a good question. We're surviving and we're surviving." Gold Beach struggles to find long term solutions for some of its challenges, but community members and local leaders strive to keep the community going. Their efforts so far have proven successful and Gold Beach continues to survive.

While many of the successful responses described by interviewees in Gold Beach may not resolve their most severe challenges, some community members recognize that moving forward they will need to increase community engagement and participation to begin to achieve a brighter future. Many people genuinely care about the Gold Beach community and channeling that attachment to place and supportive sense of community into long term solutions could enable the community to reduce the degree of challenges confronting it. Along with improving internal dynamics, a few community members pointed to the need to address relationships with external organizations. Improving the processes undertaken by these organizations could reduce negative impacts from policy changes in Gold Beach. For example, fishermen's input on how seasons for different fish could best be timed would help reduce their negative impact on earnings from fishing. Speaking about the resilience of the community and that attachment to Gold Beach, a community member said, "We're smart enough to survive here and make a life for ourselves. It is a resilient community, those of us who stick it out. But it's worth it to us. It's really worth it. The lifestyle here is excellent. I don't want to live in that urban, suburban sprawl." The attachment to place exhibited by many residents in Gold Beach



provides a near guarantee that they will find a way to deal with the difficult issues that confront them, just like they always have in the past.

## *Table of Stressors, Impacts, Responses, Constraining and Enabling Factors for Gold Beach*

*Table 8.2: Gold Beach summary table*

<b>Stressor</b>	<b>Impacts</b>	<b>Responses</b>
1. Decline in timber/change in policy	a. Loss of family wage jobs	<ul style="list-style-type: none"> <li>• People leave</li> <li>• Promote Tourism</li> <li>• Infrastructure upgrades to attract businesses</li> <li>• Urban Renewal Zone</li> </ul>
	b. Loss of revenue to county from timber receipts	<ul style="list-style-type: none"> <li>• Shedding Services</li> <li>• Seek alternative funding sources</li> <li>• Lobbying efforts</li> </ul>
	c. Diminished school quality from decreased funding, fewer students	
2. Decline of fishing and regulations	a. Loss of jobs / diminished income for fishermen	<ul style="list-style-type: none"> <li>• Promote Tourism</li> </ul>
	b. Lowered attraction for tourism	<ul style="list-style-type: none"> <li>• Fishermen resist unfavorable regulations</li> </ul>
3. Influx of retirees	a. Resistance to new taxes	
	b. Housing prices increase	
	c. Strained services	
4. External policy Intervention	a. Create feelings of distrust and underrepresentation	

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Enabling Factor	Enables
1. Natural resources and amenities	<ul style="list-style-type: none"> <li>• Attracts people to area</li> <li>• Provides economic opportunities</li> </ul>
2. Attachment to place	<ul style="list-style-type: none"> <li>• Keeps people in Gold Beach</li> <li>• Encourages people to move to area</li> <li>• Motivates some action for community to persevere</li> </ul>
3. Supportive sense of community	<ul style="list-style-type: none"> <li>• “Take care of our own” attitude</li> <li>• Able to resolve certain lower investment issues</li> </ul>
4. Geographic isolation	<ul style="list-style-type: none"> <li>• Attracts people to the area because of slow pace, remoteness</li> </ul>
5. Pre-existing organizations	<ul style="list-style-type: none"> <li>• Groups like Rotary and the Fishermen’s organization provide the foundation to motivate group action on community issues</li> </ul>
Constraining Factor	Constrains
1. Geographic isolation	<ul style="list-style-type: none"> <li>• Difficult to get to, cut off from other cities</li> <li>• Less attractive to businesses due to higher transportation/travel costs</li> </ul>
2. Low economic diversity, limited family wage jobs	<ul style="list-style-type: none"> <li>• Reliant on small number of industries, large consequences if single one leaves.</li> <li>• Decreased ability to attract and retain families to the community</li> </ul>
3. Diminished quality of schools	<ul style="list-style-type: none"> <li>• Not attractive to families</li> <li>• Fewer people growing up in Gold Beach</li> </ul>
4. Limited government finances	<ul style="list-style-type: none"> <li>• Less ability to provide services</li> <li>• Requires attention to locate funds to support government functions</li> </ul>
5. Small community size	<ul style="list-style-type: none"> <li>• Limited number of leaders making efforts leads to burnout</li> <li>• Small community size creates more negative feedback for those attempting to make changes in the community, further pressuring the limited pool of leaders</li> </ul>
6. Differing visions, apathy and distrust	<ul style="list-style-type: none"> <li>• Low support for efforts from apathy, distrust</li> <li>• Inability to form cohesive vision and act on it for community</li> </ul>
7. Limited housing options	<ul style="list-style-type: none"> <li>• Deters newcomers</li> </ul>
8. Poverty	<ul style="list-style-type: none"> <li>• Less ability to contribute to economy</li> </ul>

# Chapter 9: Cross-Case Comparison of Stressors, Impacts, Responses, Enabling Factors, and Constraining Factors

This chapter compares and contrasts the external stressors, impacts of those stressors, and responses to those stressors across our six communities of study. It also compares and contrasts the factors that both enabled and constrained communities' ability to respond to external stressors. The following chapter explicitly probes the following questions:

- What main external stressors have the six Oregon coastal communities faced in the recent past?
- How have the communities been impacted by these stressors?
- How have the six communities responded to these stressors?
- What factors have enabled communities' ability to respond to these stressors?
- What factors have constrained communities' ability to respond to these stressors?

The external stressors, impacts, responses, and factors discussed here are representative of themes consistently brought up in interviews across communities and/or themes that stood out as notable from individual communities. Information in this section is based on the interpretation of interviews as compiled in individual community case studies. We then drew on these findings to compare and contrast how the six communities exhibited resilience to external stressors.

## *External Stressors*

External stressors are defined in this report as a disruption of a groups' livelihoods that originates outside of the community and forces adaptation to the changing social and physical environment (See Part 1 for Literature Review). Six distinct stressors were identified through the interviews conducted in the six study communities. These stressors include: the decline of the timber industry; the decline of the fishing industry; the influx of retirees; external policy interventions; natural hazards; and the economic recession of 2007-2008. To some degree, reports of these stressors were noted in all or several of the communities of study. The only exception was the stressor of natural hazards, which came up repeatedly in only three communities and is notable for its absence in the others. The following section describes the stressors and which communities they affected.

Table 9.1: Summary of stressors for each study community

External Stressor	Impact	Garibaldi	Depoe Bay	Newport	Florence	Port Orford	Gold Beach
<b>Decline of the timber industry</b>	Loss of family wage jobs leads to exodus of workers and identity crisis; loss of funding from timber receipts	X			X	X	X
<b>Decline of the fishing industry</b>	Diminished income and fewer jobs; increased travel time and costs; loss of resources to support fishing infrastructure	X	X	X		X	X
<b>Influx of retirees</b>	Increased demand on services; different needs, desires, and perspectives; increased housing prices	X	X	X	X	X	X
<b>External policy intervention</b>	Strained relationships and alienation	X	X	X		X	X
<b>Natural hazards</b>	Increased costs	X		X	X		
<b>Economic recession</b>	Decreased revenue; housing market decline		X		X		

## Decline of the timber industry

Many Oregon coastal communities, as described earlier in Chapter Two, had economic foundations rooted in resource extractive industries such as timber harvesting. However, overharvesting, changes in management policies, and increased mechanization prompted a dramatic decrease in available timber for harvest in the 1980s. These changes led to a decline in the timber industry that stressed the six study communities in this report.

Garibaldi, Florence, Port Orford, and Gold Beach were heavily reliant on the timber industry, and timber comprised a large portion of their economies. Nearly all interviewees in these communities spoke of timber decline. In contrast, Newport had timber related industries, namely timber exporting, but was not as reliant on that single industry as the other communities. Because Newport had other industries to compensate for the reduction in timber exports, the decline of timber did not have the same effect on Newport's economy as it did on the timber communities listed above. Timber decline was not raised in interviews as a major stressor to the same extent in Newport as in other communities.

## Decline of the fishing industry

The fishing industry was another resource extractive industry that formed a major portion of many coastal community economies. This industry is still vitally important for many of the study communities in this report. For this reason, the external stressor is compounded by ongoing actions such as state and federal regulations. Overfishing occurred and severely depleted the fisheries, resulting in less fish to catch and increased difficulty in catching what was left. Agencies responded to the depletion of fisheries by implementing regulations at both state and federal levels that restricted the fishing. Past overfishing and regulations led to a decline in the fishing industry which severely stressed the communities reliant on the industry.

The decline of the fishing industry was a major stressor for five of the six study communities. In Florence, this decline was considered an issue, but to a lesser degree because the community was not as heavily reliant on fishing to begin with. When discussing this stressor, community members mentioned regulations including quotas and limited seasons and how they directly limit the amount of fish that can be caught. The deterioration of fishing-related infrastructure and reduction in services that aid fishermen such as dredging or jetty maintenance was mentioned in several communities. The deterioration of the infrastructure related to fishing was a result of the loss of resources to maintain this infrastructure which stemmed from the decline of the industry overall.

## Influx of retirees

Community members reported a large number of retirees moving into the study communities study in recent years. This influx of retirees corresponds with the outmigration of families from these communities as family-wage jobs are no longer available. Because of this imbalance, this influx is a stressor for many of these communities.

This phenomenon was discussed in all six study communities. Florence is the only community that actively attempted to attract retirees. Retirees did offer benefits to communities such as expertise and expenditures, and they were not necessarily viewed as a negative in all of the communities. However, the need to accommodate this large group of new people was brought up by interviewees as a stressor.

## External policy intervention

A number of policies made by federal and state agencies govern the manner in which the study communities operate. These include fishing regulations, timber restrictions, and education policy among others. The processes undertaken to form these policies vary depending on the agency and the laws that govern particular policy formation.

Interviewees in all communities except Florence consistently reported frustration with federal and state policies they view as not accounting for their concerns and their needs.

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They saw these policies as being created by and geared toward metropolitan areas without taking rural communities into consideration, leaving them feeling underrepresented and unheard. The frustration was not simply with the impact of policies, but rather with the process by which policies were developed. In regards to fishing and timber policy, the interviewees felt decisions were made by individuals who did not understand the issues at hand and were influenced by environmentalists and a public who also did not understand the issues. In their view, the issue was not necessarily with whether or not quotas should exist, for example, but rather with how the level of the quota was determined and where that level should be set. This issue was not emphasized in Florence but was true for the other five communities.

### Natural hazards

Natural hazards were only brought up as a significant stressor in Newport, Florence, and Garibaldi. The Oregon coast is at risk for long term environmental hazards. In particular, the coast is at risk of experiencing a major earthquake and tsunami in the future. Scientists have predicted the potential for a severe earthquake in the Cascadia Subduction Zone that triggered state agencies and the larger coastal research community to place tremendous importance on preparing for a Cascadia Subduction Zone event. Climate change, which is likely to cause rising sea levels and potentially create negative impacts on fisheries, poses another threat to coastal Oregon communities. More chronic natural phenomena such as erosion, tides, and severe winds are also present along the Oregon coast.

Despite external concern about the looming threat of an earthquake, tsunami and climate change, interviewees did not highlight these issues when asked what challenges of note concerned them. Some even mentioned the policies related to these issues as annoyances. Community concerns were generally focused on more immediate issues. The exceptions were Newport, Florence, and Garibaldi where these issues were raised a few times. Interviewees who referenced the Cascadia Subduction Zone event and climate change in these two communities were generally planners whose job required them to think about these potential threats. Newport interviewees reported erosion and landslides as being issues that cause stress within the community but those issues came up rarely or not at all in the other study communities.

### Economic recession

The 2007-2008 recession had major repercussions for the Oregon coast with the crash of the housing market and the ripple effects this crash had across the entire economy. Some of the study communities mentioned the impacts of the recession as a stressor. Florence was impacted by the recession because of the number of second homes in the community and the importance of housing construction to the community's economy. The housing market in Florence had supplied construction jobs that were impacted by the crash in the housing market. The recession also came up in Depoe Bay interviews, also in relation to

housing market impacts. Interviewees in Garibaldi, Gold Beach, Newport and Port Orford did not mention the recession as a major stressor.

## *Impacts of external stressors*

This section describes the impacts of each external stressor discussed above as explained by interviewees. Like the external stressors, these impacts were experienced to some degree in all or several of the study communities. This section notes the impacts most commonly referenced in interviews from community members and notable subtle differences in some communities.

### Impacts of the decline of the timber industry

#### *Loss of family wage jobs leads to exodus of workers and community identity crisis*

Interviewees emphasized the significant loss of family wage jobs as the major impact of the decline of the timber industry. The lack of available jobs led to an exodus of workers from these communities to seek employment elsewhere. This flight left the communities with a diminished middle class, fewer families, and a community identity crisis where some community members were left waiting for the return of timber while others sought something to replace the industry. The lack of jobs continued to be a problem for the timber communities' ability to attract new families.

#### *Loss of funding from timber receipts causes diminished services and livability*

The timber communities were heavily reliant on timber receipts to fund county government. In interviews, community members described how the decline of the industry meant the county governments had severely diminished incoming funds and needed to find other ways to compensate to continue functioning. The lack of funding impacted governments' ability to provide services, maintain infrastructure, and retain employees as well as increasing the amount of time required to secure funding for government functions.

### Impacts of the decline of the fishing industry

#### *Diminished income and fewer jobs*

The decline in fishing opportunities caused a loss of jobs and income in the industry that was noted in interviews in all six study communities. Less fish available to catch and tighter regulations meant fewer people could depend on the industry as their sole form of employment. In Newport, the regulations were a factor leading to consolidation of the fishing fleet, as fishermen began selling their quotas to support their retirement. This meant bigger vessels were going out and there were fewer small scale fishermen.

### *Increased time and cost*

In Newport and Depoe Bay, the establishment of marine reserves increased time and financial investments for fishermen because the reserves were located nearby the communities. Fishermen had to travel farther to reach fishing grounds, resulting in higher fuel costs and longer delays between catching fish and getting them to a processor. Interviewees in Port Orford, which has a marine reserve nearby, reported similar issues but did not view the reserve as much of a problem as interviewees in Depoe Bay and Newport. Interviewees in Gold Beach, Florence, and Garibaldi, which are farther from marine reserves, were not as concerned about or did not mention the impacts from marine reserves.

### *Loss of resources to support fishing infrastructure*

Community members from all six study communities mentioned infrastructural deterioration and decreased fishing related services causing problems for fishermen. In Garibaldi and Port Orford, the worsened conditions of the jetties caused increased risk of capsizing for fishermen using those ports. The docks in Depoe Bay were falling apart. The reduction or lack of dredging in Gold Beach, Garibaldi, and Port Orford made it more difficult for boats to get out of the ports. Neither the ports nor the communities had the resources to repair or maintain these facilities. While federal and state agencies may have supported or provided these services in the past, these agencies stopped or reduced their support in recent years. These problems reduced the ability of fishermen in the communities to fish and created dangerous conditions for those who were fishing. These issues led fishermen to find other ports to fish from or to seek different employment. The loss of sufficient resources, whether locally or from federal agencies, was tied to the decline of the fishing industry overall. As the number of fishermen and the size of catches decreased, fewer resources were invested in the infrastructure and other fishing support services. As less was invested, infrastructure deteriorated and decreased the number of fishermen able or willing to fish, thereby contributing further to the decline in the fishing industry. This in turn contributed further to a decrease in resources for fishing and continued the downward spiral of the industry.

## Impacts of the influx of retirees

### *Increased demand on services*

The increased number of retirees mentioned in the six study communities presented a challenge because of the context in which they arrived. The communities had already experienced a reduction in the middle class from the decline of natural resource industries and were struggling with financing government services. The entrance of retirees into the communities increased the burden on government services and exacerbated the financial situation of local governments because they were already stretching limited resources.



### *Different needs, desires, and perspectives*

While the retirees' expenditures and support for these communities were welcome, they did not offer a replacement for the families and middle class that had been lost. Retirees tended not to support community needs that would attract new, younger families such as improvements to schools and other things that increase the livability of these towns for younger people. For example, in Gold Beach retirees were credited with resisting many levies for services the county deemed necessary because retirees felt they could not afford more taxes on their limited incomes, the low tax rates being one of the things that attracted them to the community. Notably in Florence, high volunteerism from retirees reduced the need to hire people into paid positions, which decreased available jobs in the community. As newer residents, retirees brought different perspectives to the communities. The newer arrivals sometimes clashed with longer term residents because the two groups had different visions about the community's future. Retirees coming into the community were occasionally referenced as wanting the community to stay the same as when they arrived. Some community members referred to this as the last settler's syndrome.

### *Increased housing prices*

The housing market in the six study communities was fairly limited in terms of the amount of housing available and what room there was for expansion. The arrival of retirees put more strain on these limited housing markets and led to large increases in housing prices. The gentrified housing market made it more difficult for the few families and others potentially interested in the communities to find adequate, affordable housing, which decreased the likelihood of attracting new families to the community.

## Impacts of external policy intervention

### *Strained relationships and alienation*

Several interviewees from study communities did not feel that state and federal agencies considered their perspective or effectively represented their rural communities in the policy formation process. The community members felt alienated by the policy process and policy implementation. These sentiments impeded the ability of state agencies to collaborate with these smaller communities. These feelings were especially apparent in relation to timber and fishing regulations but were spoken about in reference to other policies and agencies as well. Given the large negative impact of the decline of the timber industry on these communities, a sense of distrust was created by the changes that occurred in federal forest management between communities and the federal agencies that regulate timber. This developed an "us versus them" mentality within the communities in relation to these agencies that persists to this day for some community members. This mentality made it difficult for the communities to progress in their relationships with the United States Forest Service and other regulatory agencies. Similarly, the manner in which decisions were made on fishing regulations and the impacts policies had on fishermen's livelihoods led to contentious relationships between

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these agencies and those they regulated. There was skepticism about the methods and information agencies used to make their decisions and views that people making important decisions were relying on uninformed public opinions rather than local knowledge. For example, in Newport the Coast Guard made a decision to remove its station from the community. This would have increased response time for fishermen's emergencies in Newport and increased their safety risks, but the federal entity viewed the coverage of the station as a redundancy with that of other Coast Guard stations. The issue was seen differently from the Coast Guard and community perspectives. Differences in perspectives have led to feelings of bitterness and contention between communities and both federal and state agencies over the years. These feelings have diminished both cooperation and trust between the groups.

### Impacts of natural hazards

#### *Increased costs*

Interviewees in Newport reported impacts of climate change and natural hazards in the experience of landslides, erosion, stronger storms and waves, and warmer waters. Chronic natural hazards caused damage to municipal infrastructure like roads and utility lines, increasing costs of maintenance and repair. Landslides were reported to cause damage to homes and property, increasing property taxes as well as the cost of doing business. Interviewees noticed the impact of warmer waters and drought in California as impacting salmon populations. While natural hazards were mentioned in Florence and Garibaldi as well, increased costs were not specifically mentioned as a negative impact. Interviewees mainly referenced the potential impacts of a Cascadia Subduction Zone event in those two communities. The potential impacts of a tsunami in the Cascadia Subduction Zone would devastate the community's businesses, port, neighborhoods and industries, many of which are within the tsunami inundation zone.

### Impacts of the economic recession

#### *Decreased revenue*

The effects of the recession in Florence and Depoe Bay, which had become reliant on tourism as an economic staple, were especially pronounced according to interviewees. Income from tourism decreased as fewer people were able to afford to travel. According to interviewees, transient room revenues declined for local governments since fewer travelers were paying for rooms. Decreased income led to businesses shutting down and employees being laid off.

#### *Housing market decline*

Interviewees mentioned how the housing market in Florence composed a major part of its economy prior to the recession. The crash led to a decrease in demand for housing because retirees could no longer afford homes and because demand for second homes

decreased. The decrease in demand for housing reduced the number of construction jobs and caused those who held construction related positions to leave the community. The losses in the housing market forced local governments to make cuts because they had fewer resources to pay employees or fund departments. This in turn led to a strain on the relationship between some leaders and community members who were unhappy with the cuts that were made. In Depoe Bay, interviewees said that the recession affected the second home market by decreasing the number of rental houses available for tourists because more homes were sold rather than rented to people.

### *Responses to external stressors*

Several different categories of responses to external stressors were identified through the interviews conducted in the six communities. These strategies manifested themselves in different ways in different communities. Strategies are discussed generally with particular examples drawn out where appropriate to compare and contrast specific responses across communities.

*Table 9.2: Summary of responses for each study community*

Response to External Stressor	Garibaldi	Depoe Bay	Newport	Florence	Port Orford	Gold Beach
<b>Pursuit of economic alternatives</b>	X	X	X	X	X	X
<b>Attempts to establish alternative funding strategies</b>	X	X	X	X	X	X
<b>Efforts to improve community livability to attract families</b>	X	X	X	X		X
<b>Political response and legal action</b>	X	X	X	X	X	X
<b>Attempts to foster community cohesion</b>		X	X	X		
<b>Emergency response preparedness</b>	X	X	X	X		

### Pursuit of economic alternatives

The economic need created by the decline of natural resource industries led the affected communities to seek other industries. Several communities responded to the decline in these natural resource industries by pursuing tourism as an economic alternative. While tourism created some jobs, many of these were not family wage jobs which limited their impact and the sustainability of communities invested in this endeavor. Communities continued to try to attract new businesses to the area employing different methods. These included urban renewal projects, infrastructure improvements, and other community enhancements to attract new businesses and families. Florence, notably, actively sought to attract retirees as a response to fill the gap left by the timber and fishing industries. Within the fishing industry, fishing decline led to adaptation by fishers. Some fishers began to utilize different fisheries or traveled to other ports. In Depoe Bay, whale watching partially took the place of reduced fishing opportunities. Some communities like Port Orford and Garibaldi sought markets for fishermen to sell fish directly to customers through community supported fisheries.

### Attempts to establish alternative funding strategies

County governments pursued new avenues to supplement the limited and declining funds received from local taxes and declining timber receipts. These new avenues included seeking federal funds and grants to compensate for the lost funding. Other strategies included decreasing city or county expenses or stretching expenditures by shedding services into newly created non-profits, combining departments, and other means of reducing costs or stretching budgets. Attempts were made in some communities to raise property taxes or pass other levies aimed at increasing available funding. In Gold Beach these levies were almost entirely unsuccessful whereas in Florence the community passed several levies.

The decline in the fishing industry made it difficult for port authorities and communities to maintain the infrastructure for fishing. These entities began looking for alternative funding sources. In Florence, Newport, and Garibaldi the ports used RV parks to generate some of this funding. Depoe Bay considered transferring its municipally owned port to a port authority to enable it to generate taxes to support the fishing infrastructure. Despite the various strategies employed in these communities, making ends meet at the city and county level continued to be a struggle.

### Efforts to improve community livability to attract families

The study communities made general efforts to improve livability within their communities to attract new residents, especially families. In Garibaldi, Florence, Newport, Depoe Bay, and Gold Beach urban renewal projects were formed to make improvements in order to attract businesses or new residents. Communities made efforts to improve or maintain services as well, such as healthcare or after-school activities. Florence and Newport launched initiatives to create affordable housing. The Lincoln

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County Land Trust supported these efforts in Newport while the casino undertook these housing efforts in Florence. Efforts to improve the housing market were attempts to increase the livability of these communities and attract young people and families despite the lack of family wage jobs.

### Political responses and legal action

Community members and local elected officials sought legal and political responses to policies they viewed as problematic or unfair. These actions occurred through lobbying efforts for certain bills and policy changes or by pursuing lawsuits. In all six of the study communities, lobbying efforts were undertaken consistently to oppose regulations and policies the community fishermen were not supportive of or to push for the needs of fishermen on issues like dredging. Port Orford was able to fund its own dredging equipment through these efforts. One county official in Gold Beach worked to pass a state bill that would change the minimum property tax as an attempt to increase county government funds. In this way, the potential increase in county funds would be less reliant on local community members who had resisted these tax raises in the past since the vote would be statewide. These efforts were attempts to seek legal or political remedies to resolve issues in communities. They were undertaken at local, state, and federal levels.

In Florence, the recession contributed to cutbacks on behalf of local government. Community members unhappy with the measures expressed discontent, likely resulting in the election of new leadership in several different positions. The new leadership focused on economic development to lower the tax burden on residents and business owners in part due to the loss of residents during the recession. Electing new individuals to office signaled the population's desire for a different approach to the challenges the community confronted.

### Attempts to foster community cohesion

Several of the study communities planned events to develop community cohesion and break down the differences in understandings and opinions between groups of people that prevent progress. Sometimes these events may not have been specifically intended with the goal of community cohesion but, nonetheless, could contribute to it. These festivals and fairs facilitated connections between community members and organizations to improve internal networks and foster a unified vision for the community. Florence's Rhododendron Festival and other events were mentioned as a manner in which to not only foster the community in Florence but to bring back people who moved away.

In addition to these events, study communities realized the importance of a shared community vision, and many of the communities worked towards both developing a shared vision for the community's future or implementing that shared vision. Newport, for example, relied on a history of cohesive decision-making that enabled them to move forward towards new economic endeavors like developing the tourism industry with

community backing and support. In contrast, communities like Port Orford were able to develop a vision for the future of the community that included movement towards research and tourism-based entities like art galleries. Community leaders were unable to gain full support for these plans and so they were less successful.

### Emergency response preparedness

Community members, if they referenced earthquakes and tsunamis, were generally pessimistic about their ability to do anything to truly prepare for a potential earthquake or tsunami. The exceptions were in the communities of Newport and Florence where strong planning efforts were undertaken to prepare for a potential natural disaster. Depoe Bay made minor preparations installing sirens and trauma units. Otherwise, natural hazards were not a high priority for communities because they prioritized other issues or they did not bring it up in interviews.

### *Factors that enable response*

Factors that enable response enhance a community's ability to respond and recover from external stressors. Interviewees in the six study communities were asked what enabled response to external stressors. These factors are described below using the same terms referenced by interviewees. How these factors were experienced varied in degree and manner across communities and those differences are contrasted in the descriptions of the various factors. While many factors were referenced in several communities, some factors were mentioned as significant by interviewees in just one or two communities and are included here.

Table 9.3: Summary of enabling factors for each study community

Factor Enabling Response	Description	Garibaldi	Depoe Bay	Newport	Florence	Port Orford	Gold Beach
<b>Natural resources and amenities</b>	Presence of natural resources for extraction or amenity draw	X	X	X	X	X	X
<b>Active civic engagement</b>	Community awareness of issues and efforts; Participation in meetings and support for efforts; Volunteerism		X	X	X		
<b>Supportive community culture</b>	Community members supporting each other during crises	X		X			X
<b>Organizations positioned to take action</b>	Provides foundation for group action in response to challenges		X	X	X		X
<b>Existence of networks</b>	Connections to external organizations and collaboration within the community	X		X	X		
<b>Strong leadership</b>	Effective decision making and planning	X		X	X		
<b>Economic diversity</b>	Variety of industries and businesses			X			

### Presence of natural resources and natural amenities

The presence of natural resources and natural amenities were mentioned as important factors enabling response to external stressors by interviewees in all six study communities. These factors benefited all of the communities of study because of their ability to attract people to the communities. Interviewees in each community mentioned the reason for the origin and initial growth of the community was its ability to extract natural resources, in particular timber or fish. Although all of the study communities continue to rely upon these resources they do so in differing ways. Though the presence of natural resources and natural amenities were mentioned as enabling responses in each community, there were nuances in how the presence of each enabled responses.

Interviewees in Garibaldi and Newport mentioned that natural resources enabled responses through both the provision of a continued source of employment and contribution to a sense of community. Interviewees in other communities mentioned that scenic or natural beauty (i.e. natural amenities) provided by the non-extractive use of natural resources attracted residents and tourists. In Depoe Bay, whaling provided the

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basis for tourism, which was promoted in response to the decline of the fishing industry. The economy in Florence transitioned from extraction of natural resources to a retirement based economy, in large part relying on the natural amenities as a source of appeal. Residents in Port Orford, Gold Beach, Newport, and Garibaldi mentioned the natural beauty as an attraction for potential residents and tourists. Port Orford residents added that the presence of natural amenities created a sense of pride in their community.

### Active civic engagement

Volunteers were mentioned as a factor that enabled the community to respond to stressors in three communities: Newport, Depoe Bay, and Florence. Voluntary resident involvement in community activities and events included the number of residents willing to volunteer their time, put effort into planning and implementing community events, and/or assisting with or running community services such as food banks. In Depoe Bay, volunteers enhanced a sense of community and created and promoted tourism through festivals. In Newport the number of resident volunteers enabled a diversity of programs, initiatives, and institutions and their activism protected fishing grounds from being used for wave energy research. Interviewees in Florence attributed a culture of volunteerism to the high percentage of retirees. These retirees enabled many organizations, such as the food shelf, soup kitchen, chamber of commerce, and senior center to exist and thrive, even in the wake of the recession. Members of Florence were renowned for financial contributions in support of community causes. These communities with high rates of volunteerism were able to support and maintain programs that allowed them to respond in the face of external stressors by providing support for residents even in times of diminishing jobs and a poor economy.

Further, interviewees in two of the six study communities reported that, through the involvement of active citizens sharing their concerns and stepping into government positions, their communities were made aware of and moved to action to address issues. In Depoe Bay, civic engagement was demonstrated through attendance and participation at city council meetings and citizen commissions, which enabled many public functions to operate. In Newport, residents formed committees to raise awareness of issues, including a ballot measure for a pool that ultimately brought in revenue for the city.

### Supportive community culture

Interviewees in three communities referred to a strong sense of community survival and a degree of reliance on each other when facing challenges as factors that enabled community response to external stressors. Community members in Garibaldi, Newport, and Gold Beach referenced stories where the community came together in times of crisis to help each other out. For example, interviewees in Gold Beach referenced the time when a local business owner in the community became ill and community members raised funds to pay her medical expenses. In Newport, the fishing community rallied around an accidental death of a member in order to promote the use of personal floatation devices (PFDs) and helped fishermen navigate confusing regulations concerning PFDs.



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In Garibaldi, the community responded after a strong storm in 2008 by collectively sharing resources, organizing food distribution, and taking stock of all community residents to ensure everyone was safe. Interviewees spoke of this action as more than a support for individuals, but as a support for the community itself. The sense of community exhibited in times of need did not necessarily translate to cohesive community action on longer term issues on a higher scale but rather displayed itself in regards to more personal, short term problems that arose, with the exception of Newport where the sense of community led to a shared vision and long term preventative action.

### Organizations positioned to take action

The existence of organizations is a factor that enabled rapid response as it eliminated delays by limiting coordination costs and time associated with group formation and provided a basis by which to motivate group action on issues in the study communities. The organization of fishermen in Gold Beach existed prior to the sea lions becoming a problem but because it existed the fishermen were able to act in response to the threat by utilizing the organization. If the organization had not existed, it would have required much more effort to organize the fishermen and create a group to pursue solutions to the issue. Likewise, in Newport, the existence of the Fishermen's Wives organization allowed for immediate action to be taken in response to the threat of relocation of the Coast Guard's helicopter air station from Newport. In Florence, the involvement of the Ford Family Foundation built leadership skills and developed networks that later aided in forming a shared vision. In Depoe Bay, the Near-Shore Action Team educates the community about issues affecting fishermen and lobbies on behalf of fisherman. Organizations can coordinate actions of groups of people in response to challenges facing the community. Without these organizations, the study communities would have been less able to react as rapidly in response to challenges.

### Existence of networks

The existence of networks within study communities provided access to resources such as new ideas and solutions, as well as financial resources, which enabled communities to respond to external stressors. The largest communities of Newport and Florence were the main two where the existence of networks was explicitly mentioned as a way to facilitate response, though networks were also mentioned as a factor in Garibaldi. In Newport, interviewees reported that external networks provided financial resources and support for government and social services. The presence of long-standing institutions in Newport helped to create and foster these networks. In Florence, the existence of networks was attributed to strong leadership. City leaders actively encouraged staff to reach out to and identify solutions to current problems from both internal and external organizations, which strengthened and maintained these networks. In Garibaldi, descriptions of strong internal networks primarily focused on information sharing between the city council and the port that enabled response to higher level, long term stressors.

## Strong leadership

In the two largest study communities, Florence and Newport, strong leadership was explicitly reported as a factor that enabled responses to external stressors. Interviewees in Garibaldi also mentioned leadership as an important factor. Many of the changes in Florence taking place in 2015 were attributed to the change in leadership and the new ideas that emerging leaders presented. New leadership in Florence led to the formation of an executive committee that sought to collaborate and offer assistance where possible. In Newport, the leadership of an early city manager paved the way for much of the economic diversity that minimized the impacts of natural resource decline. In both Newport and Florence, leadership was credited with making sound financial decisions. In Newport, strong leadership enabled planning, which led to repairs of the docks and consolidations of debt related to the port. In Florence, the city manager refinanced debt to free up funds for the Florence Urban Renewal Agency in order to attract businesses. In Garibaldi, interviewees recalled the extensive efforts of a former city manager who sought out and successfully acquired several grants for the city that were used for larger infrastructure projects, such as the wastewater treatment plant. In addition, others mentioned the effectiveness of the port manager, who was the former Master Chief Petty Officer of the USCG station in Tillamook Bay and was described as an effective organizer and collaborator. The attributes of individual leaders in these communities were said to be a major reason responses were able to be successfully implemented.

## Economic diversity

Only in Newport was economic diversity reported by interviewees as an enabling factor in responding to external stressors. Newport's diverse economy, which included timber, commercial and recreational fishing, research, education, and tourism, made the loss of jobs in fishing and timber less severe overall for the community's well-being. Their economic diversity has enabled the community to respond by attracting family wage jobs and an educated demographic. By attracting and retaining people, economic diversity has decreased seasonal swings and supported a tax base. The enabling presence of economic diversity in Newport stands in contrast to the lack of diversity in industries that constrains the ability to respond in the other study communities.

## *Factors that constrain response*

Interviewees in the six study communities were asked what constrained their ability to respond to external stressors. Factors that constrain response limit a community's ability to respond and recover from external stressors. These factors are described below using the same terms referenced by interviewees. How these factors were experienced varied in degree and manner across communities and those differences are contrasted in the descriptions of the various factors. While many factors were referenced in most

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communities, some factors were highlighted by interviewees in just one or two communities and are also included here.

*Table 9.4: Summary of constraining factors for each community*

Factor Constraining Response	Description	Garibaldi	Depoe Bay	Newport	Florence	Port Orford	Gold Beach
<b>Lack of government funding</b>	Limited funding for the City, County, and Port	X	X	X	X	X	X
<b>Limited housing availability</b>	Access, availability, and affordability of housing for different income levels	X	X	X	X		X
<b>Lack of family wage jobs</b>	Limited number of jobs that offer wages to support a family	X	X	X	X		X
<b>Geographic isolation</b>	Access to transportation; remoteness; Coast's separation from Willamette Valley	X		X		X	X
<b>Declining quality of education</b>	Quality, access, and perception of schools	X	X		X	X	X
<b>Differing perspectives</b>	Lack of unified vision, divided community	X	X	X		X	X
<b>Presence of poverty</b>	Presence of poverty in communities			X	X	X	X
<b>Proximity to other communities</b>	Surrounding area places burden on demand in larger communities while drawing businesses away from smaller communities	X	X	X	X		
<b>Lack of civic engagement</b>	Lack of awareness, understanding, and support for community efforts		X			X	X
<b>Lack of activities</b>	Limited options for entertainment, nightlife, and cultural activities	X	X		X	X	
<b>Lack of economic diversity</b>	Limited number of industries and businesses	X				X	X
<b>Limited availability of healthcare</b>	Limited access and quality of healthcare			X		X	

### Lack of government funding

Government funding came up in all six study communities as an important factor that affected the community's ability to respond. The communities faced a number of challenges that required funding to overcome; when financial resources were not available the community was not able to address these problems. Several study communities, including Gold Beach, Port Orford, and Garibaldi, were highly dependent on timber receipts for the funding of county government and did not possess alternate funding sources because of that dependence. The decline of the timber industry reduced the amount of funding the counties received and drastically limited their ability to resolve community challenges because of the reduced funds. These three communities continued to rely on funds from the Secure Rural Schools and Community Self-Determination Act as a replacement for timber receipts and had yet to find longer term solutions for stable funding. Florence, however, was dependent on timber receipts but was able to compensate for the loss of these receipts at least partially by passing new community-supported levies. Similar levies were attempted in Curry County but did not pass. Similarly, Port Orford, Gold Beach, and Depoe Bay have low or no property taxes which limits their ability to generate tax revenue to support government services. The small size of the communities also limited their tax base. In contrast, Newport has a larger population than any of the other six study communities and so had a larger tax base and pool of financial resources. Despite this large tax base, Newport lacked the administrative resources to meet the demand for health and human services.

Because they lack sufficient resources to maintain and update their infrastructure, public infrastructure has suffered as a side effect of many of the issues these towns are experiencing. In Port Orford and Depoe Bay, the water systems were outdated and broken, draining the towns' few resources through loss of treated water or performing necessary repairs. Much of the fishing infrastructure in these communities had degraded over the years and was no longer well maintained. This included the harbor in Depoe Bay, jetties in Port Orford and Garibaldi, and the docks in Newport. Previously dredged ports have also become dangerous in several of the communities. The communities did not have the resources to maintain this infrastructure and the federal agencies that originally performed these tasks had stopped providing these services. The lack of resources available to these towns limited their ability to maintain or replace outdated infrastructure.

### Limited housing availability

Due in part to the desirable climate and scenic beauty, wealthier people had been moving to or purchasing second homes along the Oregon coast. As more people moved to the coast, available and affordable housing stock was mentioned by interviewees in five communities as a factor constraining their ability to respond to external stressors. In Garibaldi, housing development has been limited by resistance from current residents who do not want growth to detract from Garibaldi's image as a small fishing village. In Garibaldi and Depoe Bay, an increasing number of homes were being used as vacation

rentals. Second home ownership increased in Newport and Florence. Depoe Bay reported the lack of available housing as an issue due to recent rapid growth. Complicating the matter was often the limited available space in which to expand outward. Garibaldi has a land area of under a square mile and a majority of the developable land is under a single owner who has not advanced projects since the 2008 recession. For Newport, expansion was limited by private ownership of large tracts of land which prevented development. Further south in Gold Beach, urban growth boundaries and federally owned land limited outward expansion for the city. In all of these communities, housing issues were closely connected to employment. There was a concern about the mismatch between local salaries and housing costs, which placed a difficult burden on low income residents. In Newport and Garibaldi, residents also reported concern that employers were more resistant to starting businesses in these cities due to the inability to find or house employees due to the high cost of housing. The limited housing market made it difficult for these communities to attract businesses and a diverse range of people.

### Lack of family wage jobs

As timber and fishing industries declined, the amount of jobs on which a family could be supported declined. The loss of these jobs led to an exodus of people from the study communities as they moved elsewhere where jobs were available. Once these jobs and the workers they once supported were gone, the lack of sufficient family-wage jobs as well as the lack of amenities and services able to be supported by these communities further deterred people from moving to these locations. Tourism had been seen as a replacement for resource extractive industries on the coast, but it did not provide many family-wage jobs, and many of the employment opportunities from tourism were seasonal. The loss and lack of family wage jobs was considered a major constraining factor in Garibaldi, Depoe Bay, Newport, Florence, and Gold Beach because of how it limited the communities' ability to attract and retain younger community members and families. Newport interviewees mentioned a lack of family wage jobs as a deterrent for people moving to the community but did not experience the loss of population as did other communities. In Newport, residents were concerned about tourism's lack of provision of family wage jobs despite its benefit to the overall economy. Family wage jobs were important for the retention of community members as well as the attraction of new ones in all of these communities.

### Geographic isolation

The geographic distance from major metropolitan areas and major transportation routes was reported as a constraining factor by interviewees in four study communities: Garibaldi, Newport, Port Orford, and Gold Beach. This distance increased costs to businesses in the area for both shipping and transportation. It also made the community less attractive to families because of the increased time and distance of travel to reach major metropolitan areas. Groceries and other necessities were said to be more expensive on the coast in these communities. The community's accessibility influenced the amount of contact with visitors traveling along the Oregon coast, which had implications for

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seasonal tourism. The isolation also left the communities vulnerable in cases of emergency, which increased response time for relief. Notably, while Port Orford and Gold Beach are significantly more isolated geographically relative to Newport and Garibaldi, these two communities nonetheless reported that their isolation similarly constrained their ability to respond to stressors.

### Declining quality of education

Interviewees in all of the communities except Newport frequently mentioned that the quality of education in the community was declining. Interviewees in Garibaldi, Florence, and Gold Beach perceived that declining school quality posed a barrier to their growth and hence ability to respond to external stressors. When potential new community members would investigate a city, the education system did not appear as an attractive component in their decision making process. In Garibaldi, the limited availability of quality education and teacher retention caused a poor perception of schools. In Florence, poverty contributed to low attendance and test scores. Some interviewees added that parents who worked in resource extractive industries were not required to have a higher degree, so they did not encourage their children to pursue one, and thereby placed less emphasis on doing well in high school. In Gold Beach, the decreases in funding from timber and decreased enrollment led to decreased quality and programmatic cutbacks. The declining quality of education made it difficult for the communities to retain families or attract new ones which led to an increasingly higher median age among the populations in the communities. The inability to attract or retain families also limited communities' ability to improve education since school funding was based on the number of students enrolled.

### Differing perspectives on appropriate responses and community future

The study communities of Garibaldi, Port Orford, Depoe Bay, Newport and Gold Beach experienced conflicting perspectives among residents that presented a challenge in managing the issues in the community. The reasons and motivations for these attitudes varied, but the general impact was that they were an obstacle to change. Some of these attitudes related to disagreement on visions for the community or the means by which to pursue visions. An "old guard versus new guard" mentality appeared in communities as retirees moved in and presented different ideas and perspectives from the residents that had been in the communities longer. Some residents in the community of Port Orford tried to transition the town away from a sole dependence on fishing, but these efforts were stalled by fellow community members who felt that fishing was still a viable future endeavor for the community. In Garibaldi, long term growth was recognized as a need, but was difficult to reconcile with the idea of maintaining the town's image as a small fishing village.

One consequence of these differing perspectives was a divisiveness within the communities that discouraged citizens from stepping into leadership positions. This was

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seen in both Port Orford and Gold Beach. In Port Orford, the controversy surrounding leaders and decision-making deterred individuals from wanting to accept leadership positions because they did not want to be at the center of conflict and criticism. In Gold Beach, a similar attitude was expressed whereby individuals taking on leadership roles were said to be more likely to experience negative criticism for stepping up than they were likely to receive positive support for their efforts. In both communities, the limited number of individuals willing to take on leadership roles led to a few people doing too much. The few individuals doing so much led to leadership burnout, constraining the already small pool of potential leaders willing to take on responsibilities, which limited the ability of the communities to respond to external stressors.

### Presence of poverty

Poverty was referenced as a major issue in Newport, Florence, Port Orford, and Gold Beach. The high number of students on free and reduced lunch in schools was a signal of the degree of poverty in the study communities. Port Orford, for example, has the highest percentage of students living in poverty in the state. Poverty also caused a resistance to increasing taxes and therefore contributed to cutbacks and shedding of government services. The presence of poverty was said to have led to a prevalence of drug use and absenteeism in schools. Poverty also made it difficult for individuals to seek opportunities elsewhere or support local efforts to improve the conditions in their community. Issues relating to poverty created pressing needs in these communities that required attention and resources, but detracted from attention and resource expenditure on other issues.

### Proximity to more attractive or unincorporated communities

Interviewees in four communities mentioned that a significant constraining factor in their ability to respond to stressors was their proximity to communities that were either more attractive to new businesses, residents, tourists, and funding, or reliant on the study community for services without providing return for those services in the form of taxes. Depoe Bay and Garibaldi's locations presented a challenge because of their proximity to larger towns. These larger towns were seen as taking away opportunities from the study communities because they attracted more tourism and businesses due to their greater capacities and larger populations. Small towns, like Depoe Bay, near larger towns, like Newport, were less visible to people driving through given their more limited businesses and infrastructure. The proximity to larger towns led residents of the smaller communities to travel to these larger communities for services and shopping, detracting from the local economy. Some residents in Depoe Bay reported the ability to shop and utilize services in a larger town as a positive as well, since it provided them services beyond what their community could support, but also that the access prevented those services and businesses from developing in their own town.

In Florence, residents of smaller unincorporated communities located nearby came to Florence for services but did not contribute taxes for these services. This demand on

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services increased the burden on Florence to cover the costs of services it provided and further strained their resources. Having unincorporated communities nearby caused Florence's costs for providing services to rise and constrained their ability to respond to other issues.

### Lack of civic engagement

Community members in Depoe Bay, Gold Beach, and Port Orford reported limited civic engagement in community activities and committees which constrains community response. In Port Orford, the lack of sufficient volunteers was seen as a factor constraining the community's ability to respond to external stressors. This was exemplified by city committees having open positions due to lack of applicants and community events that were unable to generate enough community volunteer support and had to be canceled or postponed. Some interviewees attributed the lack of volunteers to retirees being less engaged and involved, while others speculated that residents were just not willing to step up and take on potentially difficult roles. Residents that were volunteers could be ineffective or burn out quickly because of the low population and therefore lack of support or replacement. This situation limited Port Orford's ability to respond to external stressors such as industry decline because the community did not have a base of active and engaged citizens to rely on to continue to support government committee roles or community events.

### Lack of activities

Interviewees in Florence, Port Orford, Depoe Bay, and Garibaldi reported that limited leisure or recreation activities – or, as one interviewee put it, “lack of stuff to do” – constrained their ability to respond because it made retaining and attracting families more difficult. In Garibaldi, the reason for the limited activities was due to the small community size and elderly population. Without much to do, there was little incentive for those passing through to spend additional time and money in Garibaldi. In Florence, the lack of activities was due to the high percentage of retirees in the community. Though there were an abundance of things for retirees to do, there was little for families and kids. With little to do, residents reported that attracting and retaining families and younger community members was more difficult. The lack of activities limited the appeal of living in the communities to these demographics and detracted from the community's ability to maintain a healthy demographic distribution of diverse ages and families.

### Lack of economic diversity

Several study communities were highly dependent on a single natural resource extractive industry such as timber or fishing to support their economy. When these industries declined, the communities had nothing to fall back on to help maintain family-wage jobs. Gold Beach, Port Orford, and Garibaldi lost families and much of their middle class when extractive industries declined and people sought jobs elsewhere. The lack of economic diversity made the communities susceptible to severe shocks to their wellbeing from the



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loss of any business or the decline of a single industry. It constrained their ability to cope with changing conditions and regulations that limited the income and jobs available from the industries they rely on since they did not have other industries to fall back on to support their economy.

### Limited availability of healthcare

Considering the increasing aging population along the coast, the ability to provide and maintain access to adequate healthcare came up as an issue in two of the study communities. Port Orford interviewees mentioned the difficulty of getting care in Port Orford, making it important to have access to healthcare available in Gold Beach, despite being almost 30 miles away. In Newport, the hospital had a shortage of primary care and specialty providers, which caused residents to travel to Corvallis for healthcare services. The situation created difficulty for these communities in attracting and retaining a diverse demographic.

# Chapter 10: Factors of Resilience

## *Introduction*

This chapter describes the state of resilience in each of the six communities as well as the factors evident in these communities that appear to be contributing to their resilience. It will highlight factors of resilience that were found to be important in these six communities. This chapter will also identify findings that complement those of other researchers and factors that are not found in the literature. The answers to these questions are intended to benefit not only these communities as they face and respond to current and future external stressors, but the policymakers who seek to help facilitate these responses.

Presented below is a discussion of how resilient the study communities are based on community resilience frameworks from the scholarly literature. This is followed by a discussion of factors that influenced that resilience, which we identified in each community as derived from the community interviews and analysis of those interviews. These factors come from the examination, discussion, and comparison of the external stressors, impacts, responses, and enabling and constraining factors discussed by interviewees and described in previous chapters. The factors of resilience are meant to provide insight into important considerations in assessing and promoting the resilience of the six communities in this study.

## *Hierarchy of resilience: where do the study communities stand?*

As was discussed in Part 1, resilience refers to the capacity of a system to absorb disturbance and reorganize while undergoing change to retain essentially the same function, structure and identity (Berkes, 2013; Gooch, 2009; Wilson, 2013; Walker, 2006; Saavedra, 2009). The focus of this study was community resilience, which encompasses a community's ability to sustain and retain its form and function or adapt in the face of change (Magis, 2010; Norris et al., 2008). Therefore, the definition of community resilience used for this report adapted from Cutter et al. (2003) was:

*The ability of a social system to respond and recover from external stressors, including those inherent conditions that allow the system to absorb impacts and cope with an event, as well as post-event, adaptive processes that facilitate the ability of the social system to re-organize, change and learn in response to an external stressor.*

## Chapter 10: Factors of Resilience

Community resilience is primarily concerned with the state of functioning of a community after an event or disturbance, and what factors within the community lead to or shape that state (Magis, 2010; Norris et al., 2008; Berkes and Ross, 2012; Wilson, 2013).

There are two main components of community resilience discussed in the scholarly literature. These include, the state of functioning of a community after a disturbance, and the factors in a community that determine that state of functioning. The states of functioning, as described in the literature review, include: weathering, coping, adapting, reorganizing, and thriving (Norris et al., 2008; Berkes et al., 2003; Smit and Wandel, 2006; Cutter et al., 2003; Akamani, 2012). These can be arranged into a hierarchy of community resilience where those behaviors at the bottom of the pyramid suggest lower forms of resilience, and those nearer the top suggest more advanced forms of resilience as is shown in Figure 10.1. At the bottom of the hierarchy are behaviors such as coping that involve management of the impacts of external stressors and survival on the part of the community (Norris et al., 2008; Berkes et al., 2003; Cutter et al., 2003). These behaviors encompass short-term reactive responses taken by communities that may enable them to continue to function, but do not address a long-term plan for community response to external stressors. Moving up the hierarchy are behaviors such as adapting and reorganizing that suggest management of the impacts of external stressors, but also the steps a community takes to ensure these impacts do not occur again in the future (Smit and Wandel, 2006; Cutter et al., 2003). These behaviors encompass the more long-term, proactive responses on the part of the community that allow them to not only survive, but learn from external stressors and adapt.

Communities that are able to adapt or reorganize in the face of external stressors are exhibiting the ability to deal not only with current external stressors, but potential future external stressors as well. Finally, at the top of the pyramid is thriving. This encompasses communities that are able to not only respond to external stressors, but to do so in a way that allows them to function better than they did before facing the stressor. This hierarchy of resilience can be used to suggest where each of the study communities in this report might stand in terms of resiliency.

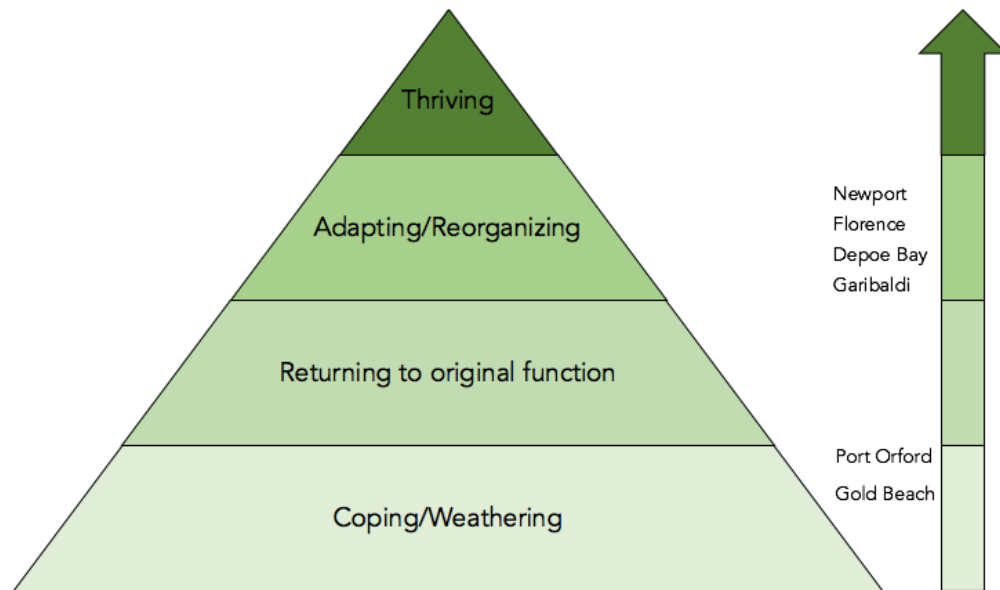


Figure 10.1: Hierarchy of resilience

It is important to note that each of the study communities was struggling. In choosing communities of study, the point was not to examine communities that were exhibiting high levels of resilience and compare them to those exhibiting lower levels of resilience. We chose to examine coastal Oregon communities, and it happened that each community was stressed and responding to that stress with varying levels of effectiveness. However, in their response to external stressors, each community showed some form of resilience from the hierarchy of resilience described above from weathering and coping to adapting and reorganizing.

Port Orford and Gold Beach were exhibiting only the first levels of resilient behaviors. Both were showing signs of weathering and coping with little to suggest they were trying to adapt or reorganize in the face of the external stressors facing the communities at the time of the interviews for this study. Gold Beach was focused more on short-term reactive responses to external stressors that allowed the community to get by, but did not allow them to do much more. There were some hints at reorganization within the community as it took steps towards reinvention as a tourist destination, but the prevailing feeling that the community was and always would be a timber community had not enabled this reorganization to come to full fruition.

Port Orford, on the other hand, though now rooted in the coping and weathering forms of resilience, had begun to show signs of reorganization in recent years. The town was able to come together and request that the Redfish Rocks Marine Reserve be placed near their community. This reserve allowed for the development of the research station that made the town a destination for researchers and tourists alike. These steps demonstrated an

effort to adapt to changing fishing conditions and reorganize as a research or tourist destination. However, the more recent conflicts surrounding the designation of a National Marine Sanctuary unraveled some of the community cohesion around this vision for the town. That and a similar feeling to Gold Beach that the town should remain rooted in its natural resource extraction past have left Port Orford simply coping with its external stressors and trying to get by. While the actions exhibited by these two communities do suggest resilience in that they allow the communities to survive, they are only exhibiting early and basic signs of this resilience.

The other study communities of Newport, Florence, Depoe Bay, and Garibaldi still showed signs of the coping and weathering levels of resilience, but these communities had largely moved past these stages and on to higher levels of resilience including adaptation and reorganization. Newport, largely because of the foundation built from its connection to the rest of Oregon, was able to reorganize and diversify its economy when natural resource extractive industries such as fishing and timber were no longer as profitable as they once were. Fishing is still a large part of the economic make-up of the community, but Newport was able to move away from a sole reliance on this industry. Newport has also begun the task of strategic planning necessary to adapt to conditions on the coast such as the expected Cascadia Subduction Zone event. This planning suggests long-term thinking to address external stressors that is largely absent in Port Orford and Gold Beach. In fact, relative to the other study communities, Newport almost appears to be thriving in the face of its external stressors because of its designation as a research and tourist hub along the Oregon coast. However, Newport is still dealing with issues such as a lack of affordable housing that keep the community rooted in adaptation and reorganization.

Similar to Newport's reinvention as a tourist and research destination, the community of Florence was able to reorganize toward a retirement-based community in response to declining natural resource extractive industries. While all of the study communities are facing an influx of retirees, Florence is the only one that rebranded itself in the face of a potential stressor. Florence, like Newport, is also actively engaged in long-term planning both for natural hazards such as earthquakes and tsunamis and visioning for the community's future. These actions suggest the community is exhibiting adaptive and reorganizing behaviors.

Garibaldi has also moved into the adaptation and reorganization stages of resilience through the incorporation of and shift towards tourism industries. Because it is a smaller community than Newport, Garibaldi's shift towards tourism has been slower as they do not want to compete with nearby larger cities and they do want to retain their identity as a quaint fishing village even as tourism becomes more prominent. However, Garibaldi has embraced sport fishing and other tourist activities as a way to respond to the declining fishing industry, which suggests these moves towards reorganization are occurring. Further, Garibaldi is part of the first multi-jurisdictional natural hazard mitigation plan in the state of Oregon. That this plan is not only in place but encompasses Garibaldi and surrounding communities suggests adaptation on the part of the community to the threat of natural hazards along the coast. These responses suggest that Garibaldi is beyond the

coping and weathering stages of community resilience even if the reorganization in the community may be slower than in other study communities.

Finally, Depoe Bay has also exhibited signs of adaptation and reorganization. Depoe Bay made a shift towards a tourism-based economy focused on using the ocean for chartered whale-watching expeditions rather than fishing as the fishing industry began to decline. There is also some strategic, long-term planning occurring in Depoe Bay focused on the threat of earthquakes and tsunamis. However, unlike Florence and Newport, the level of coping responses still occurring in Depoe Bay is large. The community is currently dealing with a political climate that has not allowed much forward movement towards complete reinvention of the town. The large reinvention that did occur in response to the declining fishing industry along with community agreement that reinvention is necessary, however, suggest that the town is further along on the spectrum of resilience than other communities solely exhibiting these coping and weathering behaviors.

The hierarchy of resilient processes described above is one of the many ways community resilience is described in the literature. This hierarchy allows for a snapshot view of where the study communities may stand in terms of actions they are taking towards resiliency, but it does not answer the question of why these communities are evidencing their particular behaviors in response to external stressors. To answer this question, it is necessary to look at all of the external stressors, impacts, and responses facing the study communities as well as how and why they responded as they did.

### *Factors of resilience*

The following is a list of the factors of resilience for the communities examined in this study. This list was developed from an examination and discussion of the external stressors, impacts, and responses as well as the factors that enabled or constrained response in each of the study communities. When these attributes are taken together across the range of communities examined for this study, these are the factors that are shared in common and contribute to the ability to evidence the degrees of resilience found in the study communities.

Previous research examining community resilience has led to many frameworks describing potential factors of resilient communities. A few of these widely cited studies are discussed in the literature review above and expanded upon below in relation to the key characteristics found in this study (Figure 10.2 below). This examination of community resilience in the study communities in relation to what has been found in the literature helps to both affirm and further explain the important resiliency characteristics across the study communities.

<p><b>Magis, 2010</b></p> <ul style="list-style-type: none"> <li>• <b>8 primary characteristics of community resilience:</b> <ul style="list-style-type: none"> <li>• Community resources</li> <li>• Active agents</li> <li>• Collective action</li> <li>• Strategic action</li> <li>• Equity</li> <li>• Impact</li> <li>• Resource engagement</li> <li>• Resource development</li> </ul> </li> <li>• <b>Emphasis on adaptation to change, intentional action, and ability to draw on resources</b></li> </ul>	<p><b>Berkes &amp; Ross, 2013</b></p> <ul style="list-style-type: none"> <li>• <b>9 community strengths that assist in resilience development:</b> <ul style="list-style-type: none"> <li>• Positive outlook</li> <li>• Community infrastructure</li> <li>• Diverse and innovative economy</li> <li>• People-place relationships</li> <li>• Leadership</li> <li>• Knowledge, skills, and learning</li> <li>• Values and beliefs</li> <li>• Social networks</li> <li>• Engaged governance</li> </ul> </li> <li>• <b>Through agency and self-organization, these strengths are used and combined to further a community's resilience</b></li> </ul>
<p><b>Wilson, 2012</b></p> <ul style="list-style-type: none"> <li>• <b>The interaction of 3 capitals combine to achieve community resilience:</b> <ul style="list-style-type: none"> <li>• Social capital</li> <li>• Economic capital</li> <li>• Environmental capital</li> </ul> </li> <li>• <b>Communities with only one of the three capitals developed are only weakly resilient. Those with two of the three capitals developed are moderately resilient, and those communities with all three capitals achieve the strongest resilience.</b></li> </ul>	<p><b>Kulig et al., 2013</b></p> <ul style="list-style-type: none"> <li>• <b>8 factors contributing to resilience:</b> <ul style="list-style-type: none"> <li>• Ability to cope with divisions</li> <li>• Getting along</li> <li>• Networks</li> <li>• Ability to cope with change</li> <li>• Leadership</li> <li>• Community problem solving</li> <li>• Community togetherness</li> <li>• Mentality/outlook</li> </ul> </li> <li>• <b>The 8 listed factors are seen as contributing to and influencing resilience rather than being components of resilience themselves</b></li> </ul>

Figure 10.2: Existing resiliency frameworks

The five key characteristics identified in this study are: the presence of foundational assets; the degree of community livability; the presence of capacities for effective action; the existence of community cohesion, engagement, and support; and the salience of external stressors.

### Presence of foundational assets

A major factor influencing resilience in the study communities was the nature of the pre-existing foundation that could be built upon. These “foundational assets” included natural features and resources, economic factors, and the presence of institutions capable of responding to external stressors. The presence of foundational assets allowed communities to diversify their economy, support new industries, and connect with organizations and institutions outside of the community, which allowed the study communities to at least cope and weather external stressors and in some cases to adapt and reorganize in the face of those stressors.

The presence of natural features and resources such as surrounding ocean and forests was a trait shared by all of the study communities. Access and use of these assets allowed the communities to become established either through the timber industry, fishing, or both. Further, the forests and oceans surrounding these communities continue to draw in visitors and new residents making the idea of rebranding as a tourist or retirement destination possible for these communities. These assets also support new industries such as whale watching, river rafting, and charter fishing. Some of the communities have been more active and purposeful in the use of these natural foundational assets for purposes other than extraction, and these communities are demonstrating higher levels of resilience through this reorganization.

In addition to natural assets, communities with adequate finances that allowed for continued government services were better equipped to respond to external stressors. The existence of these finances was often linked to the ability of the community to make long-term plans and establish connections with outside entities such as state or national government agencies or foundations. Having enough money to provide community services without having to make cuts or tradeoffs allowed those communities where this was the case to respond to more external stressors and to respond more effectively rather than deciding which stressors were most important to focus on first. Therefore, the presence of adequate finances was a key characteristic of the level of resilience displayed by the communities.

Finally, the presence of institutions that existed within the community such as cooperative groups and chambers of commerce provided a foundation for action and response within the study communities. In Gold Beach, for example, though the community was only in the coping and weathering stages of resilience, the prior existence of a fisherman’s organization allowed them to respond quickly when faced with a threat to fishing in the town from sea lions. Just the existence of this group made the response timelier and therefore more effective.



## Chapter 10: Factors of Resilience

The presence of these assets, or resources as they are commonly called, is a frequently mentioned characteristic in community resilience literature. For example, it is the first factor mentioned by Magis (2010) in her description of eight primary characteristics of community resilience. In this case it is mentioned under “community resources,” that can include, “natural, human, cultural, social, financial/build, and political capital.” The presence of natural assets as important to community resilience is also mentioned by Wilson (2013) as one of three capitals essential to social resilience. In this case, a community possessing only one of the three capitals (natural, social, or economic) is only, “weakly resilient.” This summation fits with the earlier ranking of the resilience of our communities of study. Communities such as Port Orford and Gold Beach do not possess many of the other characteristics of community resilience found in this study and, as such, are focused more on weathering and coping than reorganizing and adapting in the face of their external stressors.

The presence of foundational assets was found to be an important starting block for the resilience of the communities in this study.

### Community livability

A second major factor influencing resilience in the study communities was attributes the community either possessed or lacked that made living in the community both possible and more enjoyable. These attributes, including: family wage jobs; good schools; healthcare; sufficient and affordable housing; activities and entertainment; and proximity to cultural and practical opportunities such as museums or grocery stores all contributed to the livability of the study communities. The presence of more of these attributes increased the livability of a community, which allowed the community to attract and retain a diverse range of people and more effectively respond to external stressors, thus increasing the community’s resilience.

A lack of family wage jobs following the decline of the timber and fishing industries was a common theme across the study communities. This loss of jobs led to the exodus of families and younger people from the communities. Without available jobs, most people moving into the study communities were retirees. While these retirees did contribute to the overall population of the community, the lack of families moving into the area led to declining school enrollment, a higher need for healthcare, increased housing costs, and a lack of events and opportunities catered towards younger families. This lack of livability, in turn, weakened incentives for families or younger people to move into these communities, further decreasing livability.

Study communities that were able to maintain some attributes of livability were higher on the hierarchy of resilience. Newport, for example, struggled with high housing prices, but provided cultural and practical opportunities that catered to both tourists and residents alike. The availability of these amenities increased the livability of Newport and made it a more attractive destination for families and younger people. Attracting a healthy demographic of families, younger people, and retirees to the community increased the

resilience of the community because it fostered an atmosphere of new ideas and vitality within the communities.

On the other end of the spectrum in Gold Beach and Port Orford, the lack of amenities, attractions, and jobs hindered the ability of the communities to take action when external stressors arose. The lack of community livability hindered their resilience because they were not able to retain or attract a diverse demographic of residents. This led to a dearth of new ideas and people to step into leadership and volunteer roles when current residents began to feel burned out from the responsibility. As such, these communities were not able to respond in more proactive ways on issues and were left coping and weathering their external stressors.

Livability differs from foundational assets in that attributes that make a community livable are not necessarily pre-existing within a community. These assets have to be built and cultivated in order to make a difference in the community's resilience. The creation of this livability appears in the literature as "resource development," and "resource engagement" (Magis, 2010). Both of these factors of resilience speak to the cultivation of resources within a community to further the resilience of that community.

Possessing traits of livability that made a community more attractive to a wider variety of residents increased the resiliency of the study communities.

### Capacity for effective action

The third factor of resilience in the study communities was the capacity for effective action within the community. These capacities included the ability to use existing internal and external networks; the presence of supported leaders; a diversified economy; the ability to implement plans; and skills and expertise within a community. Communities that did have these capacities were better able to respond effectively to external stressors and therefore increase their resilience.

Communities like Newport and Florence, which were higher on the hierarchy of resilience used existing external networks such as connections to elected officials in Newport and funding partnerships with the Ford Family Foundation in Florence. The use of these connections made it easier to tap into resources the community may need because the relationships already existed and could be readily used rather than forged in times of need. This availability and use of resources when they were needed helped to increase the resiliency of these communities.

Further, communities with both skills and expertise within the community and that supported, effective leaders were better able to move beyond short-term responses to external stressors, and onto longer-term responses more indicative of higher levels of resilience. None of the study communities lacked residents with leadership skills and potential. However, leaders in some of the communities such as Port Orford and Gold Beach did not have the same amount of support as leaders in other communities and so were less effective at enhancing the community resilience. This support could mean

people backing the decisions of the leaders or others willing to step up and provide other volunteer or leadership services for the community so a small group of people was not left doing everything, which could lead to burnout. Interviewees in Florence, in particular, specifically cited effective leadership as influential in their rebound from the 2007-08 recession. The planning and reorganization that occurred following this external stressor is one of the main reasons for Florence's higher level on the hierarchy of community resilience.

A diversified economy that allowed for steady employment opportunities was also an important capacity for effective action, and the study communities with more diversified economies were the communities that were higher on the hierarchy of resilience. Newport, for example, diversified its economy through catering to tourism and research. While the town still struggled to retain residents for other reasons, the availability of job opportunities in the community made the town a more attractive place for new and current residents. These attributes were a draw both for tourists and residents and enabled Newport to be more resilient because of the diverse demographic of people drawn to the community.

The ability to not only create but implement long-term plans was also an important component of the capacity for effective action within the study communities. Garibaldi, for example, was not as far along in diversifying its economy, and it did not have the geographical advantages of places like Newport. However, through the ability to develop and implement successful plans for natural hazard threats and the future of the community, Garibaldi was able to increase their resilience through adaptation to current and changing circumstances.

Communities with capacities for effective action such as effective leadership, internal and external networks, supported leaders, and a diversified economy were better able to respond effectively to external stressors and therefore increase their resilience. This capacity is discussed in the literature on community resilience in many ways. Berkes and Ross (2012) for example, list leadership, social networks, and engaged governance among their nine community strengths that feed into community resilience. Kulig et al. (2013) also mention leadership and networks as two of their eight factors influencing community resilience. Though these authors list the factors separately, for the purposes of this report the various components were combined to reflect their interconnectedness when contributing to a community's resilience.

Within the six study communities, possessing these capacities for effective action was an important component of a community's resilience.

### Community Cohesion, Engagement, and Support

The existence of community cohesion, engagement, and support was another factor of resilience found in the six study communities. This included feelings of: optimism, pride, perseverance, engagement, and support for other community members. The degree to which these ties that bound a community together were present was found to be an

important determinant of community resilience. Within the study communities, communities with more of these traits were found to be higher on the hierarchy of resilience than those with fewer or none of these traits.

Communities such as Florence and Newport exhibited higher levels of resilience, and these communities also exhibited community unity and a shared vision for the future of the community. Other study communities including Port Orford and Gold Beach did not display this unity. There was a disconnect between those wishing to move towards new town identities such as tourism and retirement, for example, and those that wished to remain rooted in the historical natural resource extraction economies of the communities. As such, both of these communities were unable to move past the coping and weathering stages of resilience.

However, even Port Orford and Gold Beach were not without some of these traits. Community members in Port Orford spoke of a pride for the people in their community and the school system, and those in both Port Orford and Gold Beach spoke of the perseverance of residents and the community that allowed them to survive despite facing challenges, and the pride that came from that perseverance. Though these attitudes may not have helped the community to reorganize or adapt to changing conditions or challenges, pride and perseverance were necessary for absorbing impacts and coping with change.

Again, other researchers have discussed these traits and their relationship to community resilience. For example, Kulig et al. (2013) lists community togetherness as one of their eight primary attributes of resilience. According to Kuglig et al., community togetherness involves having and working toward a shared objective across the community. This definition fits with the finding within study communities that working together toward common goals within a community furthers a community's resilience. Wilson's (2013) capitals framework also discusses these traits through the lens of social capital. These social capitals include an understanding of, "positive qualities of a community." The understanding of these qualities leads to the pride and perseverance present in study communities that allowed them to display resilience even if only at the level of coping with or weathering external stressors. Further, in their discussion of community strengths that contribute to resilience, Berkes and Ross (2012) mention both, "positive outlook," and "values and beliefs" as important. These strengths correspond to traits such as optimism, pride, and internal community support found to contribute to resilience.

### Salience of external stressors relative to internal stressors

The salience of external stressors relative to internal stressors was the final factor of resilience identified by this study. This salience suggests that internal stressors facing a community are more pressing and must be dealt with on a day-to-day basis, while external stressors are more long-term and therefore easier to overlook or set aside in the face of other issues. Hence, external stressors were often not addressed not because they were not recognized as an issue, but because there were more pressing problems the community had to deal with first. Those study communities with enough resources,

people, and support to tackle ongoing internal stressors while still maintaining enough time, staff, and resources to deal with external stressors were able to increase their community's resilience.

Often, it seemed, there was a mismatch between the services and funds outside agencies and organizations wanted and were able to provide the communities and what the communities actually needed. For example, a geologist working for the Department of Geology and Mineral Industries may understand every detail of the likely impact of a Cascadia Subduction Zone event and why coastal communities should be alarmed, but for a city manager that is one among a number of concerns and it exists merely as a potentiality in a pile of immediate challenges already sitting on their desk. The salience of stressors goes beyond the severity of the problem. How soon consequences will manifest, how direct the impact on the community will be, and what ability the community has to prepare for a stressor are all important considerations in how a community prioritizes its needs. For an agency that focuses on specific issues at a state level it is easy to assume their issue should be the top priority, but small communities must consider each singular issue among the many confronting them and amid the recommendations and policy interventions pressuring the community from different agencies. Each issue has to be addressed along with all of the other challenges in a community. This mismatch seemed the most pronounced in communities like Gold Beach at the lower end of the resilience hierarchy, but it was apparent even in the seemingly more resilient Florence and Newport.

When communities were completely occupied by their day-to-day, internal stressors they were not focused on dealing with the external stressors at a level that allowed them to even cope or weather the stressors let alone adapt or reorganize. In communities where basic needs were addressed either due to existing resources, networks, or skills and knowledge possessed and used by community residents, external stressors were better able to be addressed. These communities were able to deal with both the internal and external stressors they faced, and therefore increase their resilience.

### *What has been found, what is new, and what is missing?*

This study identified five key factors of resilience displayed in the six study communities. These included: the presence of foundational assets; community livability; the capacities for effective action; community cohesion, engagement, and support; and the salience of external stressors relative to internal stressors, which are listed in Figure 10.3 below. Though many other factors, characteristics, strengths, and capitals have been identified in the literature as important to community resilience, these five factors explained the resilience of the study communities. While these communities are representative of rural, coastal, natural resource dependent Oregon communities, the resiliency assessment of these communities may not be applicable to all communities in the United States or abroad. However, despite this particular niche, many similarities were found in the

factors that described resilience for these communities and other factors that have been discussed in the literature.

	Presence of foundational assets	Community livability	Capacity for effective action	Community cohesion, engagement, and support	Salience of external stressors
<b>Magis (2010)</b>	<ul style="list-style-type: none"> <li>Community resources</li> </ul>	<ul style="list-style-type: none"> <li>Resource development</li> <li>Resource engagement</li> </ul>			
<b>Wilson (2013)</b>	<ul style="list-style-type: none"> <li>Environmental capital</li> <li>Economic capital</li> </ul>			<ul style="list-style-type: none"> <li>Social capital</li> </ul>	
<b>Berkes and Ross (2012)</b>			<ul style="list-style-type: none"> <li>Leadership</li> <li>Social networks</li> <li>Engaged governance</li> </ul>	<ul style="list-style-type: none"> <li>Positive outlook</li> <li>Values and beliefs</li> </ul>	
<b>Kulig et al. (2013)</b>			<ul style="list-style-type: none"> <li>Leadership</li> <li>Governance</li> </ul>	<ul style="list-style-type: none"> <li>Community togetherness</li> </ul>	

*Figure 10.3: This study's findings about factors contributing to community resilience in comparison to prominent resiliency frameworks in the literature*

This study has primarily used the community resilience frameworks of Magis (2010), Wilson (2013), Berkes and Ross (2012), and Kulig et al. (2013) in order to compare our findings about community resilience with what has been previously discussed in the literature. We found that there was some overlap in factors of resilience identified in the literature and our study. However, there were some factors of resilience identified by the literature that were not mentioned in our study, and some important factors mentioned in our study that were not identified in the existing literature.

Those factors that were identified in the existing resiliency frameworks examined for this report included: Magis's (2010) community resources, development and engagement of community resources, active and strategic action, and collective action; Berkes and Ross's (2012) engaged governance and leadership, and a positive outlook; Wilson's (2013) environmental, social, and economic capital; and Kulig et al.'s (2013) leadership and networks. Factors such as community resources, environmental capital, and economic capital align with our factor of the presence of foundational assets. Resource development and engagement are included in our factor of community livability. The factor of capacity for effective action identified by this study includes the existing factors of engaged governance, leadership, and networks. Our factor of community cohesion, engagement, and support encompasses community togetherness, social capital, positive outlook, and values and beliefs. Despite the fact that these factors often fell under different names when they were included in other studies, the ideas they represent were captured in the factors of resilience identified in this study.

Conversely, the existing resiliency frameworks examined for this report also included factors that were not identified in this study. For example, impact and equity were identified by Magis (2010) as important factors of resilience. Equity refers to the equal access to social benefits, and impact refers to a community's response to change and implementation of plans (Magis, 2010), which were found to be more important as a demonstration of resilience in this study than a factor of resilience. The community strengths of community infrastructure, skills and learning, and values and beliefs identified by Berkes and Ross (2012) were not found to be major factors of resilience by this report. Similarly, Kulig et al.'s (2013) ability to cope with change, community problem solving, and mentality/outlook were not major factors identified in this study.

Finally, the factor of salience of external stressors relative to internal stressors, which played such a key role in the resilience of our study communities, is not one that has been presented in the literature on community resilience. The community perception of how to prioritize stressors was a critical deciding factor in what issues were dealt with and what issues were set aside to deal with later.

Often community leaders were struggling just to keep basic services such as policing or animal control up and running and having to cut budgets and make tradeoffs to do so. When outside agencies and organizations offered assistance, this assistance was usually tailored to the focus of that particular agency or organization. This could mean that the organization was only able to provide funds and services for natural hazards planning, for example, and a state agency may not understand why a community did not take advantage of abundant funding to deal with climate change or tsunamis, but may not recognize that climate change is a distant concern when considered in light of the other issues currently facing the community. Communities were often not in a position to deal with these issues because leaders had to make choices, and the more immediate matters had to be addressed first. These immediate matters often took the form of more internal stressors such as water availability, housing, and policing, among others. Often, not dealing with the longer-term external stressors because of a lack of personnel or resources to deal with these issues was the reason communities were only in the coping or weathering stages of resilience rather than returning to normal function, adapting, or reorganizing.

Taken together, these five factors were critical to analyzing and understanding community resilience in the six study communities. These attributes were shared in common among the communities of study and help to explain the degree and demonstration of resilience within each study community. The connections found to the literature on community resilience highlight the fact that, though the six study communities were all rural, coastal, natural resource dependent communities, their demonstrations of resilience are in line with other communities across the United States. This study also identified a new factor that could improve other investigations of community resilience.

# Chapter 11: Policy Implications and Conclusion

## *Policy Implications*

The final section of this study addresses the policy implications of our findings. Policy-makers and agency managers are in positions to advance community resiliency but doing so necessitates an understanding of both the on-the-ground realities of a community's context as well as the critical factors of resilience identified in this report.

Some factors, such as “foundational assets” and “capacity for effective action” have logical policy correlates. To help advance community resilience, policy-makers and agency managers would be advised to find ways to assist communities in both identifying and capitalizing upon the opportunities and raw ingredients that a community already has in hand. Policy-makers should identify a community's assets, whether they are natural, social, economic and/or institutional, and then think strategically about policies and programs that are explicitly targeted at building upon this pre-existing foundation.

Coupled with this focus on foundational assets should be attention to capacity gaps and how they might be filled through policy and programmatic actions. Resilience, as evidenced in our six study communities, is a bottom-up enterprise. Communities are the locus of action, and the only actions that will be taken are those for which capacity and aspiration exists. Seeding capacity-building programs will likely prove more effective than imposing new policies or programs for which no capacity for response exists. Similarly, if “livability” and “community cohesion and engagement” are critical factors of resilience, policy actions that are livability-focused might at times have greater impact than those that are stressor-focused. And, identifying the issues that spark community pride and action might provide insights to good places to start building resiliency.

A notable finding from this study is the shadow cast by the issue of salience. This finding suggests that it is imperative for policy-makers and agency managers to recognize the realities of a community's situation. At times, the policy priorities at the state or national levels are mismatched with the more immediate issues confronting communities. In these instances, well-intended policy can impose additional stress rather than help advance a community's resilience.

Described below are three observations from this study that have particular bearing on policy and management action but may not be readily apparent when viewed from afar. Specifically, while population growth was a factor directly aligned with enhanced resilience, there is an important nuance that should be recognized. It is not just absolute population numbers that strengthen a community's resiliency; more importantly, it is a



*Community Composition* that represents a diverse demographic that gives vitality to the community.

Similarly, a community's own vision for its future should be acknowledged and guide policy interventions. If community resilience is a bottom-up process, local-level actions will only be taken when they align with *Community Aspirations* for their future.

Finally, policy and management initiatives never occur on a blank slate. Historical relationships, tensions and misunderstandings frequently impede the communication and trust between policy-makers, managers, and communities that are needed for both sound policy development and implementation. These *Community-Agency Tensions* must be recognized and addressed for policy to be effective.

## *Community Composition*

This study identified community livability as an important factor of community resilience. This involves attracting and retaining community members, however, resilience is not merely a function of the number of people in a community. What may be more important is that a community keep and attract a healthy demographic of residents that spans different ages, interests, knowledge and capabilities. For the most part, the populations of each of the six study communities have remained relatively steady over the last 20 years. However, an exodus of working families was observed in all six communities at some point in time. Because these communities are still struggling with providing family-wage jobs, their population numbers have remained steady due to an influx of retirees, not returning families. A community evidencing a healthy demographic is better able to support retirees and benefit from the skills they may bring, while also providing family-wage jobs for younger people looking to move into the community. This must be examined beyond a simple count of people within a community in order to provide a true sense of the community make-up. It is important for policy-makers to understand that growth in population numbers without attention to the attributes of the population will not necessarily enhance a community's resilience.

Sometimes, as was seen in Florence, retirees can be an asset to a community. Retired community members in Florence brought skills and expertise from past jobs, and, many were willing to donate their time so the community could benefit from these attributes. These capacities were beneficial to increasing the resilience of the community. However, a large population of retirees relative to working age adults can sometimes lead to fewer paying jobs and reduce tax support for the community. Retirees also usually live off of a fixed income and, in some cases, do not want to see the community change from the way it was when they moved in. These differing interests and perspectives can lead to tensions as other community members seek to make the community more attractive for new businesses that may support family-wage jobs.

A community evidencing a healthy demographic may be better able to support retirees and benefit from the skills they may bring, while also providing family-wage jobs for

younger people looking to move into the community. This must be examined beyond a simple count of people within a community in order to provide a true sense of the community make-up. It is important for policy-makers to understand that growth in population numbers without attention to the attributes of the population will not necessarily enhance a community's resilience because it will not necessarily increase a community's livability.

### *Community Aspirations*

While conducting interviews with community members for this study, project team members were struck by the disparate community aspirations within each community. There is a discrepancy as to who is defining resilience, and that discrepancy matters as to what assistance might be sought or welcomed within a community. This implication correlates with the factor of community cohesion, engagement, and support. Communities often struggled with achieving cohesive visions as to the identity of the community and future directions the community should take. When cohesive visions were present, the community desires were not necessarily the same as the desires that external agencies or researchers might perceive. In Gold Beach for example, when asked how the community exhibited resilience, one interviewee responded that Gold Beach was resilient because they were there, they were surviving. There was no talk of coping, or weathering, or adapting, or thriving. To this resident, the very fact that the town was still standing was enough. The distinction is important because it affects how the communities plan and respond to challenges related to social, economic, and environmental changes. While some may be tempted to diagnose communities as either resilient or not resilient, the study found both differing degrees and differing manners of resilience.

How resilience is viewed can have a large impact on planning and decision making at various scales. Recognizing these potential differences can help to ensure that the resources allocated by outside agencies match the needs, concerns, and visions that the community worked so hard to achieve. The community of Port Orford, for example, according to the interviews conducted for this study, did not appear to want to be centered on tourism like Newport, and the community of Florence did not appear to want to mirror Lincoln City. Every community has a unique identity that governs its vision for the future. Sometimes disparate opinions within a community muddle these visions, but the community voice still matters. It is important for policymakers to recognize the subtleties distinguishing communities and avoid generalized prescriptions that may be at odds with a community's own aspirations. In this way, policymakers can help communities enhance and utilize their already existing foundational assets in order to maintain functioning communities in the face of many external stressors. Generalized socio-economic concepts are useful for examining and assessing the state of communities broadly, but without gaining a firm understanding of how a specific community sees itself and what a community actually wants, these concepts can lose their value in policy implementation.

## *Community-Agency Tensions*

Perhaps triggered by the disconnect between agency and community goals and expectations, were tensions observed in the study communities. These tensions strained community-agency relationships. Community members and leaders felt that agencies were not always straightforward or clear in their intentions when it came to decisions regarding the future of their community. There was an understanding that agencies were doing their job, but the manner in which these jobs were carried out was often a source of resentment for community members. In Port Orford, for example, there was resentment over the fact that the water system was not run as efficiently or inexpensively as it could be because an endangered fish in the area prompted ODFW restrictions. Although residents in the community recognized that the ODFW workers were only doing their job, there was, nonetheless, resentment rooted in a perception that the agency cared more about the fish than the people.

Feelings of surprise, misunderstanding, and coercion by agencies in implementing plans or regulations caused community members to distrust agency motives. The complicated relationships between communities and external agencies can detract from their ability to work together. Abating the distrust of external agencies or creating trusted, collaborative processes can enhance a community's resilience because it enables the community to reach out to external agencies for support when local resources are insufficient.

To some degree, these tensions speak to the varying degrees of salience of external stressors relative to internal stressors important to the resilience of these communities. The communities may simply have other problems to deal with besides endangered fish or far-off natural hazards that preclude them from focusing on issues that the agencies may deem important. Therefore, a misunderstanding emerges and the two entities cannot work together. However, it became apparent throughout this study that agencies such as ODFW and the study communities have a common stake in the health and well-being of the Oregon coastal areas. Both parties want to see the fisheries, for example, thrive but differ on how to achieve that shared goal. Recognizing their common goals can help both the agency and the communities rectify their differences and begin to trust one another and work together towards achieving this goal, thus alleviating community stress and enhancing community resiliency.

## *Conclusion*

This study has described what was learned about community resilience from the experiences of six communities along the Oregon coast. In its examination of these six communities, this study answered the following research questions:

1. What are the main ways in which coastal communities in Oregon exhibit resilience to external stressors such as policy or environmental change?
2. What factors explain resilience in coastal communities in Oregon?
3. What critical characteristics of resilience identified in the literature are evident in the six Oregon communities?
4. How might coastal community resilience be enhanced through policy or programmatic actions by ODFW, other agencies and organizations, and community leaders?

Through a review of the literature as well as understanding and analysis of the experience of each of the six study communities, this study has described what was learned about community resilience in communities along the Oregon coast, and described the state of resilience in each of the six communities, factors that contribute to that resilience, and policy implications of these factors.

This study and its findings are intended to benefit policymakers interested in enhancing resilience of not just these six study communities, but communities all along the Oregon coast and throughout the country. The insights provided above are meant to provide context to the vast amount of literature on community resilience by grounding that research in the words and experiences of real people in real communities.

This study is also intended to benefit the six coastal communities profiled by providing another perspective on the challenges they are facing as well as putting those challenges in context with surrounding communities. Each of the communities profiled in this study faces numerous stressors, and yet each community exhibits signs of resilience that have allowed them to survive.

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