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Examining News Coverage and Framing in the Context of Environmental Reporting:
Using the Sea Lion and Salmon Controversy at the Bonneville Dam as a Case Study

by

Tess McBride

A thesis submitted in partial fulfillment of the
requirements for the degree of

Master of Arts
in
Communication

Thesis Committee:
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Leslie Rill
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Portland State University
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Abstract

This thesis examines how the construction of news stories reveals relationships among groups of stakeholders and how their views unfold within environmental conflict coverage. This study uses a content analysis of 161 newspaper articles concerning the sea lion and salmon controversy at the Bonneville Dam, focusing on source use and blame and solution frames in environmental conflict coverage. This analysis of articles published between January 2003 and June 2010 in Oregon, Washington, Idaho, California, and Montana contributes to research concerning journalistic norms (i.e., balance and objectivity) and news production routines, specifically within the field of environmental reporting.

The findings indicate governmental sources were most frequently quoted and presented the most successful solution frames; while advocacy/non-profit sources were quoted less frequently (in addition to tribal sources) and presented the most blame and failed solution frames. Additionally, this research reflects on the role of news filters, including journalistic norms and legal issues, and explores the relationship between blame frames and failed solution frames, which is perhaps a reflection of the role of spokespeople and media jargon.

Dedication

This thesis is dedicated to all of those who have been hurt, saddened, and frustrated by the sea lion and salmon controversy. Nobody can be right when either species is suffering because of our actions or inactions. Clearly there is no easy fix, but hopefully this thesis will force us to think harder about our role as humans in environmental conflicts. There can be no wrong in that.

Acknowledgements

This thesis would not have been possible without the encouragement and assistance of Portland State University faculty, in addition to my loving friends and parents. I would like to thank those who stood out in their assistance to me throughout this project.

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Additionally, this project relied on strong methodological recommendations and edits from Dr. Rill, as well as reassurance from Dr. Weasel. The varied types of insights and perspectives my committee members provided allowed this work to take on new directions and become a well-rounded study. Thank you.

Without the constant love and encouragement from my parents I would have never made it through this process. My parents have provided me with unconditional, life-long support. Tina Fey summed it up best in a 2008 acceptance speech, saying “I want to thank my parents for somehow raising me to have confidence that is disproportionate with my looks and abilities. Well-done, that is what all parents should do.” That is exactly what my parents have done and continue to do for me. Thank you.

I would also like to thank my friends, who have listened to me talk about sea lions and salmon for far too long, and most of the time pretended to be interested. They provided an ear when I needed to talk through ideas, a shoulder when I thought I could do

no more, and words of encouragement when I kept on going. Special thanks to my loving and supporting boyfriend, Paul Welch, my super hard-working study buddy, Leah Alvarez, and my deep conversationalist, Adrienne Chaillé. I love you all. Thank you.

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List of Abbreviations

Columbia River Inter-Tribal Fish Commission (CRITFC)

Endangered Species Act (ESA)

Information Council on the Environment (ICE)

Marine Mammal Protection Act (MMPA)

National Marine Fisheries Service (NMFS)

National Oceanic Atmospheric Administration (NOAA)

Oregon Department of Fish and Wildlife (ODFW)

Washington Department of Fish and Wildlife (WDFW)

Chapter 1: Introduction

In an era where the number of news organization owners is shrinking and corporate ownership is growing, it is imperative that individuals understand where their knowledge derives from and how it is presented to them. As the public continues to turn to the Internet for information, news producers are depending more on advertising revenue to sustain publication costs. This results in a decrease in space for news stories, which is referred to as the “news hole.” Within this shrinking news hole, environmental reporting, which often deals with “soft news” such as policy changes, is frequently forced to the back pages or is simply not printed. My thesis explores an area of news reporting that examines news production, particularly within the field of environmental reporting. To be more specific, I am interested in how the construction of news stories reveals relationships among groups of stakeholders and how their views unfold within environmental conflict coverage.

At its core, this study examines issues that influence news framing and source use, including internal journalistic values, such as balance and objectivity, and news production routines. In an article titled *The Sociology of News Production*, Schudson (1989) asked, “who are the journalists who cover beats, interview sources, rewrite press releases from governmental bureaus, and rarely (but occasionally) take the initiative in ferreting out hidden or complex stories?” (p. 15). In the same paragraph he answered his question by explaining that “it does not matter who they are or where they come from; they will be socialized quickly into the values and routines in the daily rituals of journalism” (p. 15). In order to measure how news construction reflects the daily journalistic rituals Schudson addressed more than 20 years ago, this thesis examines

framing and the use of sources in news stories surrounding the controversy concerning the increasing sea lion presence and declining salmon populations on the Columbia River in Oregon and Washington.

The Sea Lion and Salmon Controversy

As California sea lions swarm to the Columbia River's Bonneville Dam to feed on salmon, controversy has just as heavily flooded the Pacific Northwest's newspapers through the claims of opposing groups of stakeholders, speaking for both species of animals who have no voice in this conflict, yet whose lives hang by the verdict. The salience of this issue is visible in the media coverage of both the seesawing court battles and the street rallies relating to this debate. This issue is relevant to a variety of special publics in the Pacific Northwest, including anglers, tribes, advocacy organizations and governmental agencies, in addition to concerned and sympathetic citizens.

Governmental, tribal and angler organizations have argued for the need to lethally remove problem sea lions in order to protect the declining populations of threatened and endangered stocks of salmon, while sustaining the intrinsic and extrinsic values these species provide for the Pacific Northwest. Guy Norman of the Washington Department of Fish and Wildlife noted in an Associated Press article, "lethal removal is a management method we prefer not to use, but one that may be necessary to restore balance to the Columbia River ecosystem where threatened and endangered stocks of salmon and steelhead are being preyed on by a healthy and growing population of California sea lions" (Barnard, November 28, 2006).

On the other side of the argument, advocacy and non-profit groups remind publics that human actions have more heavily harmed salmon populations, such as building

dams, and that killing one animal for another is not a viable solution when the sea lions are simply doing what nature intended of them. Sharon Young of the Humane Society was quoted in an Associated Press article saying, “If you kill sea lions it looks like you’re doing something meaningful, but it’s meaningless” (April 17, 2007). Both groups of stakeholders (i.e., for or against lethal removal of sea lions) and their attributions of blame and propositions of solutions are filtered through the media, which are responsible for presenting objective and balanced coverage of this emotionally charged debate.

Reflecting on News Production

The manners in which we receive news, in addition to the topics covered, have changed over time; yet still revolve around a similar system of filters. These filters reside in journalistic routines, which are often rooted in the values that news organizations seek to provide and audiences expect to encounter. These values commonly include balance and objective news reporting (Hackett, 1984; Reese, 1990; Schudson, 2001). “According to the objectivity norm, the journalist’s job consists of reporting something called ‘news’ without commenting on it, slanting it, or shaping its formulation in any way” (Schudson, 2001, p. 150). While these norms are generally thought to guide journalistic behaviors, influence what is considered newsworthy, and manipulate how the news is presented, some researchers claim journalistic norms reinforce hegemonic structures where the elite (those with power and capital) dictate democracy (Deuze, 2005; Herman & Chomsky, 1988).

Power relationships between with the media are visible through corporate ownerships and their associations with governmental agencies and business executives, in addition to the underlying desire to make a profit. The economics of profit making play

an influential role in determining what is newsworthy and what sources are selected to comment on the news (Deuze, 2005; McManus, 1992; Moyers, 2007; Scmierbach, 2005). The news has become a commodity since news organizations became capitalist enterprises nearly 200 years ago (Brazeal, 2005). The Penny Press emerged when “Benjamin Day and other newspaper publishers transformed the daily newspaper from a narrowly focused and sparsely distributed publication to a broad-based, mass-produced medium” (Brazeal, 2005, p. 405). Newspapers are becoming more dependent on advertisers as subscriptions continue to fall when readers turn to free online content for their news. Consequences of this dependency should be explored in order to determine if journalistic values, such as balance and objectivity, are being upheld under this increasing pressure. This research seeks to contribute to this investigation within the field of environmental conflict coverage.

The case study of the sea lion and salmon controversy provides the ideal opportunity to examine some of the underpinnings this study is based on, such as the role of journalistic norms and the prominence of authority source use, in addition to the presence of blame and solution frames and their connections to stakeholders in the sea lion and salmon controversy.

Thesis Layout

In the following literature review, I begin with an examination of environmental news coverage and offer a theoretical overview of how such coverage intersects with these journalistic norms, and the power and profit motives that reinforce hegemonic structures. This literature review will also introduce the concept of framing, and I will draw linkages between framing and environmental news coverage, and then introduce

specific tenets of framing, specifically, blame and solution frames. I then provide a connection between use of sources, framing and environmental news coverage.

The next section provides an overview of the case study in question: the issue concerning increasing sea lion presence and declining salmon populations at the Bonneville Dam on the Columbia River. I discuss the history of sea lions at this location, how they have been managed, and the laws and policies involved in the conflict. Additionally, the key stakeholders and their claims will be presented and I will describe how blame has been assigned and what solutions have been proposed.

The subsequent section presents the hypotheses and research questions that emerge from the literature and are pertinent to this study. I then demonstrate how the concepts in the hypotheses and research questions were operationalized and measured through a content analysis of newspaper articles concerning the case study at hand. This thesis then presents the findings that emerged from this research, followed by a discussion of these results in an examination of what they mean for news production, the role of solution and blame frames, in addition to the relationships between stakeholders and frequently occurring frames found in the coverage. Finally, this thesis will confront its limitations, in addition to proposing future research.

Chapter 2: Literature Review

This literature review is comprised of two main sections, including an investigation of environmental conflict coverage and an examination of framing related to this research, including blame and solution frames. First, the environmental conflict coverage section will look at the evolution of this type of coverage, in addition to critically reflecting on two major critiques of the news beat, including an emphasis on episodic coverage and a reliance on authority source use. Second, the framing section will provide an introduction to framing research, and will further explore the theoretical literature surrounding blame and solution framing. This section will also link aspects of environmental conflict coverage with blame and solution framing and source use.

Environmental Conflict Coverage

Environmental journalism traditionally focused on environmentally related large-scale controversies and unexpected accidents (e.g., oil spills) resulting in negative outcomes (Bendix & Liebler, 1999; Friedman, 2004; McPherson & Shaw, 1994; Nisbet, 2009; Schoenfeld, Meier & Griffin, 1979). The true field of environmental conflict reporting did not emerge from the “hard news” category (i.e., dealing with serious topics or events) until environmental conflicts were examined on more of a daily basis in mainstream news coverage. Friedman (2004) noted that in the 1990s the environmental journalism field “matured as stories changed from relatively simple event-driven pollution stories to those of far greater scope and complexity such as land use management, global warming, resource conservation, and biotechnology.” Although, she also cautioned that “growing into new shoes can be painful if they pinch” (Friedman, 2004, p. 176). This pinching, represented by the shrinking “news hole” previously

discussed in the introduction, has resulted in criticisms of environmental reporting that are intertwined within journalistic routines and motive of power and profit inside the news industry. This section will outline the history of the environmental beat and environmental conflict coverage, in addition to examining the critiques, including an emphasis on crisis coverage and a reliance on authority sources.

A history of the environmental beat.

While prominent and recurring news coverage of environmental issues did not fully emerge until the 1990s, the seed was planted in the 1960s when public awareness grew surrounding the four P's: Pollution, pesticides, population and people's habits (Schoenfeld, et. al, 1979). Jones (2006) noted journalistic and public awareness grew in the late 1960s and early 1970s when the media covered lawsuits relating to the regulation of industries harming the environment. News coverage showed corporate America in a negative light. Governmental regulation increased, in addition to imposing compliance costs on such industries. In response, industries responsible for polluting the environment constructed public relations campaigns, which sought to ward off negative attention brought on by their economic activities (Jones, 2006). While public awareness of these industries' actions increased, public relations campaigns and "think tanks" focused on counteracting environmental groups' research by establishing environmental affairs divisions within the corporate world. Public relations campaigns were established with corporate capital and manpower devoted to legitimizing the activities of corporations held responsible for polluting and harming the environment. The Information Council on the Environment (ICE), established by utility and oil companies, launched a campaign in 1991 that inaccurately challenged the existence of climate change

(Gelbspan, 1998; Jones, 2006). The campaign stated its aim was to reposition global warming as theory rather than fact. (Gelbspan, 1998). Gelbspan noted the ICE ran clever newspaper advertisements, although they are inaccurate. For example, they published an advertisement with a headline reading, “If the earth is getting warmer, why is Minneapolis getting colder?” while in reality data show that in the last century Minneapolis has warmed between 1 and 1.5 degrees Celsius (p. 34). As long as groups such as the ICP continue to use newspapers to present false information, the media are responsible for uncovering these errors. The role of the media is often considered to be seekers of truth (Berry, 2008; Hackett, 1984; Soffer, 2009). This example shows that because big businesses utilize their public relations groups as a way out of environmental wrongdoings, the media should therefore be responsible for investigating environmental conflicts and the stakeholders involved in them in efforts to reveal the truth.

In the last 40 years the growth of the environmental news beat has spurred an epistemological shift surrounding environmental issues and controversies. This shift in knowledge is recognizable in social, political, and technological changes visible in our everyday lives. By informing readers how their actions have environmental consequences (e.g., using technology that is more eco-friendly, such as hybrid cars, and providing information on politicians’ environmental policies), the media have played a role in this shift. Gamson and Modigliani (1989) argued media discourse is affected by cultural resonances, meaning how the media relate to cultural themes through language and ideas. Therefore, ideas that relate to a greater number of (and larger) cultural groups have a greater potency than those that do not. Using high praise symbols, which can be present as words or individuals. Words relating to environmental awareness, such as

“carbon footprint,” “reusable,” “eco-friendly,” and “green” have become high praise words in popular American discourse. Environmental awareness has become a highly valued concept that is reflected in the conscious choices we make every day. Bring your own grocery bags to the store, drink from a reusable water bottle, drive a hybrid car, and vote for the candidate pushing for stricter environmental regulations. These messages have undoubtedly found a way into our beliefs and values, which resonate culturally.

Environmental conflicts in the news.

In order to understand what environmental conflict coverage is, it is necessary to more fully comprehend how the term conflict is defined. Conflict is a concept that arises in many fields, most of which are beyond the scope of this research. The current literature review specifically looks at conflict within the field of media coverage. A conflict typically “consists of two or more opposing accounts of what is going on. These accounts are more or less shared... and influence how the situation is acted out or *enacted*” (Brummans, Putnam, Gray, Hanke, Lewicki & Wiethoff, 2008, p. 28). Conflict is often used to pit two sides or perspectives against each other, and within the media is considered “a staple of the news” (Price, Tewksbury & Powers, 1997, p. 484). For example, while an event can be widely agreed upon as being conflict-ridden, the type of conflict and the details that frame it may vary between stakeholders and observers of the event. An U.S. oil spill, for example, can be perceived as a local conflict between onshore residents and the oil company, while environmentalists may look at the event on a larger scale and perceive it as a conflict between environmental protection and the nation’s oil dependency.

Conflict within the environmental field can be seen as a morally laced debate (Peterson, Peterson, Peterson, Lopez, Silvy, 2002). Peterson, et. al., noted that these types of conflicts are timely and loom large. “Conflict, or expressed disagreements among people who see incompatible goals and potential interference in achieving these goals, regarding the conservation and/or preservation of natural resources is one of the greatest challenges of the 21st century” (p. 947). That is, the challenge rests in the notion that serious environmental conflict is rooted in morals: Deciding if something is good or bad. Peterson, et. al., believed this moral connection is based on the fact that environmental conflict is often culturally rooted in individual or group values and beliefs. In response to this concept, they identified two opposing moral cultures, which they defined as the process of moral authority, which brings individuals from different socially constructed backgrounds (e.g., race, class, and education level) together and identify themselves as a group. The first moral culture is rooted in Calvinist theology, recognizing the need of individuals going without for the greater good, meaning social responsibility stems from good government (Peterson et al., 2002). The other moral culture reflects John Locke’s (1632-1704) view of private property advocacy, emphasizing the benefits of individual freedom and rights over those of the larger society. These conflicting moral cultures are often visible within the political spectrum regarding environmental policy.

Researching environmental conflict coverage.

Case studies are frequently used to examine news coverage of environmental conflicts because they provide the benefit of reducing an issue into a manageable set of data where a researcher can explore a topic more thoroughly. In other words, this approach seeks to research an issue exhaustively, rather than examine a mile wide and an

inch deep of material. Within the field of environmental crisis coverage, Molotch and Lester (1975) used the Santa Barbara oil spill of 1969 as a case study, where the researchers examined local and national source use and topics covered in news coverage of the event, and McPherson and Shaw (1994) used the Yellowstone fires as one of two case studies in their efforts to examine the frequency of crisis news stories. In relation to ongoing environmental policy issues, Lacy and Coulson (2000) analyzed newspaper coverage of the federally mandated motor vehicle emissions standard while using the Clean Air Act of 1968 as a case study. Other environmental case study researchers examined news coverage of Endangered Species Act (ESA) issues in their studies. For example, McPherson and Shaw (1994) looked at the frequency of ESA references in news coverage, while Bendix and Liebler (1999) examined the endangered northern spotted owl/old-growth protection conflict in the Pacific Northwest. By using the issue of the sea lion and salmon controversy as a case study, this research is in good company with the tradition of case study researchers.

Overall, both environmental new coverage and conflict coverage pose a juxtaposition of two perspectives. Jones (2006) noted, “environmental issues appear to become news when there is some event that serves as a focal point and represents a conflict between two or more groups that have a vested interest in influencing how the environmental issue is addressed” (p. 30). While environmental conflict coverage has proven its place as a substantial beat within the media, critiques of this type of coverage still remain, including a focus on episodic, crisis coverage and a reliance on authority sources. Understanding these critiques, in addition to examining why they occur, is necessary to improve news coverage and scholarly literature on environmental coverage.

Emphasis on crisis coverage.

One central critique of environmental coverage is that reporters tend to cover conflicts involving a dramatic crisis or accident in the environment rather than covering ongoing phenomena (Bendix & Liebler, 1999; Friedman, 2004; McPherson & Shaw, 1994; Nisbet, 2009; Schoenfeld, et al., 1979). While environmentally related crises or accidents are certainly newsworthy, they should not be considered substitutes for ongoing environmental conflicts. Perhaps environmental crises (e.g., oil spills) helped put environmental coverage in the newspaper to begin with, but without accidents to report, the environmental beat begins to disappear. This occurred in the mid to late 1990s when “without the attention-getting benefits of the environmental disasters of the 1980s and pseudo-events such as Earth Day anniversaries, the environmental news hole kept shrinking” (Friedman, 2004, p. 178). Some of the 1980s disasters included the Exxon Valdez oil spill, Chernobyl nuclear leak, Bhopal gas leak, and Mount St. Helen's eruption. In other words, relying on events to sustain environmental news coverage is neither substantial in regards to filling the news hole nor effective in generating long-term awareness.

McPherson and Shaw (1994) examined media coverage of environmental crises and on-going issues. The 1988 Yellowstone fires and the Endangered Species Act (ESA) were the topics selected and articles from three elite newspapers (*New York Times*, *Washington Post*, and *Los Angeles Times*) were examined between five months (the Yellowstone fires sample) and a year (the ESA sample). The researchers found 73 stories covering fires and only 41 relating to the ESA, and concluded that reporters were less likely to follow non-crisis stories. They attributed this difference in coverage to a two-

way fear between journalists and scientists/natural resource professionals. They concluded that wildlife officials “miss opportunities to help provide more accurate in-depth information to the public. Reporters and managers can mutually benefit by building stronger working relationships” (McPherson & Shaw, 1994, pp. 337-338).

Dramatized news has been studied frequently outside of the environmental beat, and many of the news routine patterns are applicable in this field. Iyengar (1991) noted episodic news coverage, meaning concrete instances, are more commonly covered than thematic news coverage, which refers to more general or abstract stories such as policy issues or historical trends. He noted the majority of news framing studies has shown that episodic frames dominate within television news coverage. “For example, television news coverage of mass-protest movements generally focuses more closely on specific acts of protest than on the issues that gave rise to the protests” (Iyengar, 1991, pp. 14-15). He claimed a repercussion of this dominance of episodic news coverage is the inability of individuals to make connections between the prominent issues covered in this type of coverage, with the underlying issues that caused the dramatic problems or events in the first place.

In alignment with Iyengar, Boykoff and Boykoff (2007) noted that crisis reporting is a first-order journalistic norm in the media, where policy information takes a back seat to news dramas. “Dramatized news tends to eschew significant and more comprehensive analysis of the enduring problems, in favor of covering the spectacular machinations that sit at the surface of events” (Boykoff & Boykoff, 2007, p. 1192). Substantial coverage in the environmental field requires both news coverage of event related incidents and on-going issues, such as climate change (Boykoff & Boykoff, 2007; Gordon, Deines, &

Havice, 2010; Jones, 2006; Takahashi, 2010) and endangered species issues (Bendix & Liebler, 1999; Carolan, 2008; McPherson & Shaw, 1994; Peterson et. al, 2002).

Additionally, the media depend on glamorous, issue-selling images when covering environmental topics, knowing that good images attract readers and sell newspapers. When thematic topics, such as climate change and endangered species matters, are not capable of producing such photos, the media neglect to cover these issues (Nisbet, 2009). Nisbet noted past environmental events, such as oil spills and nuclear disasters, were able to center on a specific place or prominent visual, which “helped trigger collective concern. However, the complex nature of climate change means no single news headline or visual image will catalyze widespread public attention or policy action” (p. 5). In other words, newspapers want to sell issues and powerful images that have the ability to help do this.

Thematic coverage has proven to be less prominent and more problematic in environmental coverage. Jones’ (2006) study revealed less than 20 percent of climate change coverage directly focuses on the issue of global warming, and the coverage was more often linked to other economic or political issues. “The framing of global warming and the content conveyed by news media is highly problematic, thanks to the inclusion and emphasis of skeptical and economic paradigms” where the public “is left with an understanding of global warming that is at best confused, at worst, a phenomenon for which nothing can be done” (Jones, 2006, p. 182). When articles that actually do cover thematic environmental issues leave the reader feeling confused or helpless, this work negatively contribute to the growth of the environmental news beat (Jones, 2006).

While episodic coverage dominates the news, it is important to note that this type of reporting can be beneficial for readers when forming public opinions and attributing responsibility. “People seek information about a crisis and evaluate the cause of the event and the organizational responsibility for the crisis based on media coverage of the crisis” (An & Gower, 2009, p. 107). In Molotch and Lester’s (1975) examination of news coverage of the Santa Barbara oil spill of 1969, they noted accidental news coverage differs from everyday or planned event reporting. “An accident may thus provide access to some groups who ordinarily lack it; the randomness of its timing, location, and substantive features precludes appropriate newsmaking preparations on the part of the powerful” (p. 258). Therefore, environmentally related accidents provide the opportunity for individuals or groups to be included in the newsmaking process that the normal routine of news creation might exclude. Additionally, accidental events and crises lay the groundwork for public discourse and ongoing follow-up news coverage of the environmental conflicts relating to the event. While a crisis, such as an oil spill, may dominate the environmental conflict coverage in a publication, this unfortunate accident may well provide a jumping off point for reporters, editors and audiences to increase awareness regarding environmental repercussions for oil dependency.

Reliance on authority sources.

One of the strongest critiques of source use (i.e., an individual or group representative quoted within a news story) within environmental conflict coverage is the heavy reliance on authority sources, such as governmental officials and business leaders (Bendix & Liebler, 1999; Bennett, 1997; Lacy & Coulson, 2000; McPherson & Shaw, 1994; Molotch & Lester, 1975). “Sources are an integral part of news reporting. Those

who have access to journalists often determine what becomes news. Typically, sources representing government bureaucracies and corporations have more impact on what becomes news than ordinary citizens” (Lacy & Coulson, 2000, p. 13). In contrast to a heavy reliance on authority sources, grass roots groups, social movement groups, and protest organizations will receive fewer opportunities to voice their opinions (Lacy & Coulson, 2000). In Gamson and Modigliani’s (1989) study of media coverage and public discourse regarding nuclear power, they noted most television coverage portrayed these groups as “hippies” by showing visuals of people with long hair and bandanas, and very few news programs actually quoted any antinuclear sources.

When McPherson and Shaw (1994) examined coverage of the Yellowstone fires in comparison to Endangered Species Act issues, the authors noted media coverage mostly relied on elected officials and local merchants, rather than fire ecologists and scientists. “Reporters misled the public through reliance upon people and organizations with vested interests rather than upon scientific researchers investigating long-term policies” (McPherson & Shaw, 1994, p. 337). This reliance led to inaccurate and skewed reports that did not reflect the event and related environmental issues, but rather blamed the National Park Service for being “inept” when dealing with fire policies.

Similarly, Lacy and Coulson (2000) examined newspaper coverage of federally mandated motor vehicle emission standards to determine whether environmental reporters use more diverse sources (i.e., more than governmental or official sources). The researchers noted most studies on news source use revealed that journalists limit their choice of sources and choose governmental sources over others (Lacy & Coulson, 2000). “Considering the growth of environmental reporting and the importance readers

and newspapers place on major environmental stories, research on environmental sources seems both timely and warranted” (p. 14). By examining 190 news stories, features, and news analyses published from six prominent newspapers in 1995, Lacy and Coulson (2000) found an average of 3.5 sources per story. Additionally, the majority of the sources used (43 percent) were from the government, followed by businesses (39 percent). Only four percent of sources used were environmentalists. Lacy and Coulson (2000) noted they were unable to conclude why environmentalists were so under represented as sources in these articles, since they also had invested interests to shape public discourse regarding environmental topics. “Whatever the reason, their limited access to the news pages likely diminished their contribution to the public dialogue on this issue” (Lacy & Coulson, 2000, p. 22). In other words, when environmentalists are not represented in the news, the issues they consider salient will be muted and the public will remain uninformed on environmental issues.

Similarly, Molotch and Lester (1975) concluded national oil spill coverage provided more access to the federal executive branch and oil spill companies (91 percent), than to conservationists and local officials (9 percent). “The findings provide a clearly discernible hierarchy among the potential newsmakers in terms of access to newspapers, with the president of the United States being the most potent creator of events” (Molotch & Lester, 1975, p. 243). This reliance on official and governmental sources reflects journalistic practices of reporters, editors and news organizations that provide more access to these types of sources and consequently regard their opinions as more sound and salient than those of alternative sources. Boykoff and Boykoff (2007) regarded authority-order bias as a second-order journalistic norm, claiming, “research has

shown that through media coverage of climate change, there is often significant acceptance of political and expert voices by the public” (p. 1193). Journalists, they noted, primarily consult authority figures, such as government officials or business leaders, who are sought to reassure the public.

Critics agree it is important to investigate the repercussions of relying on authority sources (Carragee & Roefs, 1999; Reese, 1990; Schmierbach, 2005). Carragee and Roefs (1999) argued the need to investigate frame sponsorship (i.e., stakeholders supporting issues in the news) and understand the linkages between frame use and the political and social powers central to media hegemony. They claimed “a meaningful examination of frame sponsorship acknowledges that access to news as a political resource is distributed inequitably within American society and that this inequality has profound implications for the framing of issues” (p. 220). This quote establishes the need to continue to examine those who are provided opportunities to comment on the news. Social constructionists argue that “news organizations limit the range of information about a topic because journalists judge that there are few credible sponsors (i.e., sources) about a topic” while critical scholars “view source selection as a process of media hegemony” (D’Angelo, 2002, p. 877). Reese (1990) argued that traditional objective reporting reinforces hegemony and allows the rules of the game to be determined by elite sources. “Thus while journalists are being ‘objective’ when they let prominent sources dictate the news, if they use their own expertise to draw conclusions they are considered biased” (p. 395). Reese recognizes the double standard of journalistic subjectivity, stating that when journalists’ values fall in with the “norm” of elite sources they are not as likely to be identified as lacking objectivity, in comparison to those who differ in their values.

Additionally, economic restrictions influence a journalist's construction of a newsworthy story and who they reach out to to participate in the news (i.e., sources). "Financial pressures mean journalists often have tighter deadlines and more beats to cover. This leads journalists to strive to find ways to produce news while maximizing ease" (Schmierbach, 2005, p. 271). When government sources are willing to participate and make themselves easily available to comment on a story, it could be difficult for a journalist to decline. While this might be a repercussion of the current economic state of the news industry, trends show newspapers continue to lose money and are making more cutbacks.

In response to these pressures, journalists often rely on press releases (i.e., informational pieces created by organizations or individuals for the media) for topics to cover and facts to cite, allowing large companies and elite sources to dictate the contents of the news (Schmierbach, 2005). Another response journalists have is creating a "net" of expert sources who they regularly turn to, which gives a select few the authority to critique the issues covered by the media (Schmierbach, 2005). These select few are often government and business sources who provide a "regular flow" of material and authoritative expertise. "However, limited source use becomes problematic when reporters writing environmental stories face experts and official sources who have differing agendas and who offer differing supportive evidence" (Lacy & Coulson, 2000, p. 15). By restricting the amount of participants in a news story, reporters are only presenting one side of the story and are not providing the opportunity for other points of view to participate in the discussion.

Reliance on authority source use is perhaps more thoroughly explained when the shrinking news hole is examined, but this does not mean there are not serious repercussions when it comes to relying on authorities to participate in the news and excluding others who might contribute an alternative opinion. Providing balanced and unbiased coverage is not possible when source use does not reflect these values reporters and news organizations claim they provide. The literature review will continue with an overview of framing that then explores specific tenets of the concept, including blame and solution frames.

Framing

Media framing, which examines what and how the media select to report on specific events and issues, is imperative to understand where our knowledge derives from and how it is presented to us. Various fields of research look at framing, and each assigns the term its own unique definition (Dardis, 2007; Druckman, 2001; Entman, 1993; Haider-Markel & Joslyn, 2001; Iyengar, 1991; Semetke & Valkenburg, 2000). Definitions of framing within the communication field reference frames as meaning and interpretation, such as “conceptual tools which media and individuals rely on to convey, interpret and evaluate information” (Neuman, Just, & Crigler, 1992, p. 60), or as, “a central organizing idea or story that provides meaning to an unfolding strip of events, weaving a connection among them” (Gamson & Modiglianai, 1987, p. 143). While others suggest framing is more closely related to problems or controversies by arguing “the concept of framing refers to subtle alterations in the statement or presentation of judgment and choice problems” (Iyengar, 1991, p. 11), or as a way of presenting a story “in such a way to promote a particular problem definition, casual interpretation, moral

evaluation and/or treatment recommendation” (Entman, 1993, p. 52). Despite these divergences in framing definitions, scholars agree that framing is omnipresent and plays an important role in contributing to public knowledge.

Framing research can be found among “scholars of social movements, bargaining behavior, foreign policy decision making, jury decision making, media effects, political psychology, public opinion and voting, campaigns, and many others” (Druckman, 2001, p. 226). Studying news frames is critical in understanding the epistemological underpinnings of the news media, public opinion, and legislative policy. News frames influence public opinion because of “the limited cognitive capacity of citizens to attend and process relevant policy information” (Haider-Markel & Joslyn, 2001, p. 522). News framing research can examine the effects of public perceptions regarding stories or events covered by the media through content analysis research, surveys, experiments, and focus groups (Gamson & Modigliani, 1989, Haider-Markel & Joslyn, 2001, Neuman, et al., 1992). These types of studies argue for the need to look at what individuals take away from the news because “media discourse and public opinion are treated as two parallel systems of constructing meaning” (Gamson & Modigliani, 1989, p. 1). In addition to studying overall media frames, it is beneficial to investigate specific frame types in order to more fully comprehend how and why they appear in news coverage, such as blame and solution frames.

Blame frames.

Blame framing presents a problem by assigning blame or responsibility to an individual or group. The concept stems from many fields of study, including interpersonal communication, social psychology, and media studies. In its simplest form,

blame is considered a behavioral reflex when something goes wrong, also known as a negative event (Anderson, 1991). When an individual witnesses a negative event he or she will immediately try to identify a cause of the problem. “Accordingly, it follows that presenting a sociopolitical problem while also naming a specific source of the problem should appeal to the basic psychological impulses evoked when persons try to understand the world around them” (Dardis, 2007, p. 251). Blame models have been constructed by looking at responsibility (Heider, 1958), moral reasoning (Piaget, 1932), determination of causal involvement (Fincham & Schultz, 1981), and personal causation (Weiner, 1995). Shaver’s (1985) model divides blame attributions into stages of casual attribution, responsibility, and blameworthiness, and “represents the most comprehensive perspective on blame to date” (Alicke, 2000, p. 557). Shaver’s theory will therefore be outlined below.

Shaver (1985) provides three general perspectives on studying blame, stating that blame is affected by cultural values, blame is perceived through an individual’s own motives, and the process of assigning blame is important to examine (Shaver, 1985). Essentially, these perspectives look at why and how blame is assigned. He noted that in order to develop a sound theory of blame, one has to fully understand the three pillars of blame, including causality, responsibility, and blameworthiness (i.e., culpability).

In order to understand how and why people assign blame to some individuals and not to others, Shaver emphasized the need to examine the intentions of those performing actions that lead to negative events.

People make errors. They sometimes assign blame to individuals only remotely connected with the event. They occasionally deny the blameworthiness of people

whose clearly intentional actions have produced a misfortune. Therefore, although the prescriptive definition of a cause (and later, prescriptive accounts of responsibility and blameworthiness) will guide our subsequent theory, that theoretical conception must be tested against the uses to which the term is put by perceivers (Shaver, 1985, p. 35).

Shaver (1985) listed four dimensions of causality, (i.e., the first pillar of blame) by presenting them in the form of an ascending staircase, where an individual's relationship to causing the negative event grows stronger as the stairs climb. The bottom level is referred to as an *association* between the individual and the outcome, and the second level is *causality*, which accounts for a close association between the individual and the outcome. *Foreseeability* is the third level in which Shaver argues an individual should be considered more of a cause the more he or she anticipates the negative consequences of this behavior. The final level is *intentionality*, which refers to an individual's understanding that the outcome of his or her actions and intention of carrying these actions out will lead to a desired negative event (Shaver, 1985).

Additionally, Shaver (1985) constructed five dimensions of responsibility that should be considered before assigning blame to an individual. These include causality (i.e., causing the effect of the action), knowledge (i.e., awareness of the action's repercussions), intentionality (i.e., performing the action with intent), lack of coercion (i.e., not being compelled by others to perform the action), and being cognizant of the moral wrongness of the action (Lagnado & Channon, 2008; Shaver, 1985).

Blameworthiness can be assigned once an individual is ruled as the cause of the event and is then assigned a level of responsibility for the event, according to the

previously explored dimensions of causality and responsibility. Shaver (1985) noted blameworthiness and responsibility are not identical, although this distinction is not always made in the literature. This is similar to the notion that causality and responsibility are not always one in the same. This would occur in the case of a child finding a gun and fatally shooting another individual. While the child caused the death of another, he or she would not be held responsible because the child was not cognitively capable of setting an intention and understanding the repercussions of the action. Shaver (1985) explained the assignment of blame is thus a complicated process of social attribution, which can be explicated as:

A particular set of actions (those that produce negative consequences), a specific level of personal causality (single causation at the intentional level), a special combination of the dimensions of responsibility (causation, knowledge of the consequences, intentionality, voluntary choice, and the capacity to distinguish right from wrong), and the failure to have an adequate justification or excuse (p. 173).

While individuals might disagree about where an individual falls in regards to causality, responsibility and blameworthiness, Shaver (1985) suggested his theory serves as a basic structure for understanding how and why individuals assign blame.

While Shaver's model is highly valued in the scholarly community, it is not without its limitations and shortcomings. A central concern that arises from Shaver's model is the problem of circularity in regards to determining causality; specifically that causality is a sub-component of the dimension of causality (in addition to a sub-component of responsibility). Lagnado and Channon (2008) noted the only way to avoid

circularity is to think of causality as both personal and impersonal notions. “But then it is natural to inquire whether the personal notion can be dispensed with altogether, and assimilated within the notion of responsibility” (Lagnado & Channon, 2008, p. 756).

Another shortfall of Shaver’s model is that it is based on how blame and responsibility are assigned by rational perceivers. Shaver’s model of blame describes the processes that would be traditionally taken by somebody entirely rational, such as identifying casualty and responsibility. In reality, “few attribution researchers, of course, believe observers are perfectly rational. In fact, some theorists who propound logical models have shown how observers deviate from these models” (Alicke, 2000, p. 559). When negative events occur and the need to assign blame emerges, few individuals are in a state to think rationally, and are probably more likely to interpret events and emotions irrationally. Shaver’s model therefore does not account for spontaneous (or non-rational) circumstances of blame assignment.

In addition to lacking adaption to irrational perceptions, Shaver’s theory does not account for irrational actors in performing blameworthy actions. Since foresight and understanding of morality are required under Shaver’s causality and responsibility dimensions, this requires the actor to possess these abilities in order to be blamed. If an individual does something horrible but does not believe it to be wrong, should he or she not be blamed? This would exclude terrorists or individuals committing hate crimes from being blamed, because they did not perceive their actions as morally wrong.

Shaver and Drown (1986) further examined Shaver’s (1985) model of blame while questioning the roles of casualty, responsibility, and blameworthiness in instances of self-blame for illnesses and criminal victimization. The authors noted that while

Shaver's original model of blame "was explicitly designed to describe the way in which a perceiver attributes blame to another person, the distinctions among the major conceptual elements also apply when the perceiver and the actor are one in the same person" (p. 701). They concluded that while a victim can accept some level of causality and responsibility for his or her actions that lead to an illness or incident, true blame is only applicable to those who intend to bring harm.

What we know about blame framing research.

Blame is a concept we confront in our everyday interactions and routines, where we assign blame to others and accept blame for our own behaviors (Anderson, 1991). It is also a concept that shapes our views on the world, including issues surrounding public policy, politics, and international relations, among others (Haider-Markel & Joslyn, 2001; Iyengar & Kinder, 1987). Molotch and Lester (1975) noted the world is full of "occurrences" (everyday happenings in the word), which are transformed into "public events," meaning they are deemed valuable as news material. Both individuals and organizations have different perspectives on what should be considered a public event, and their purposes for turning occurrences into public events often shape what they share or keep quiet. "It is in these terms that one dimension of power can be construed as the ability to have one's account become the perceived reality to others" (Molotch & Lester, p. 237). In other words, being able to construct how public events are defined places power in the individual or group doing the constructing.

Iyengar and Kinder (1987) examined how individuals' perceptions of political responsibility and accountability were affected by television news framing. They claimed, "attribution of responsibility--which is critical to exercise of civic control--is

very much a function of how television news frames the issues” (Iyengar & Kinder, 1987, p. 3). Essentially, Iyengar and Kinder argued attributions of blame are necessary to study because they help form political opinions and evaluations of public policy. The authors noted the concept of attributions of responsibility and blame are essential in understanding social knowledge.

From the demeanor of one’s next-door neighbors to the behavior of elected officials in the nation’s capital, people spontaneously attribute responsibility for the behaviors they observe. Attributions of responsibility are known to exert powerful influence over a broad spectrum of interpersonal and social attitudes (Iyengar & Kinder, 1987, p. 60).

Iyengar and Kinder’s statement reinforces the need to study blame frames in the media. Assigning responsibility and blameworthiness to individuals and groups can play a powerful role in influencing opinions that can change the way we live. Haider-Markel and Joslyn (2001) noted that researching blame frames can lead to a better understanding of current policy and potentially lead to life or death changes. These researchers looked at attributions of blame and issue framing following the school shooting in Littleton, Colorado. Haider-Markel and Joslyn (2001) that “by highlighting limitations in current policy, focusing events may influence the attribution of blame for disasters, tragedies, or simple failures, and can be key to legislative success” (p. 521). By looking at how blame is assigned to gun-related deaths, the researchers claimed they can link these attributions of blame to government inaction, which would influence policy makers to create stricter laws regarding gun control.

Researching blame frames can materialize consequences outside of the scholarly world, by constructing shifts in public thought (Knobloch-Westerwick & Taylor, 2008), influencing political decisions (Iyengar & Kinder, 1987 & Gomez & Wilson, 2001), and potentially leading to policy changes (Haider-Markel & Joslyn, 2001). Therefore, more research in the field of blame framing can contribute to both scholarly and real world knowledge surrounding issues that affect us on everyday and larger scales.

Linking blame frames to environmental coverage.

Blame frames within environmental conflict coverage perpetuate episodic news coverage and reinforce hegemony. Environmental disasters, unlike natural disasters, rarely occur on their own, and therefore there is more likely an actor or party to blame (Luke, 1987). When an oil tanker spills or a nuclear power plant explodes there is an individual, company, manufacturer, or government to blame. Luke (1987) came across the reoccurrence of blame while examining Eastern and Western media coverage of the 1986 Chernobyl nuclear disaster. He noted that Western coverage packaged the event by claiming the Soviets had “no one to blame but themselves,” while Moscow shifted blame for the accident to “the delay in evacuations, inefficient relief reports, and tardiness in reporting the accident for three days on to the Brezhnev appointees in the local and regional party apparatus” (p. 359). In contrast to this concept that episodic coverage deems more blameworthiness, it can be more difficult to find a actor or party to blame when it comes to coverage of thematic, environmental news stories. Who is really to blame for climate change or the status of endangered species? While a variety of opinions are circulating surrounding the blameworthiness of these issues, the answers are much less concrete than those of crises and singular dramatic events.

A repercussion of this dominance of episodic news coverage, which was previously defined, is the inability of individuals to make connections between the prominent issues covered in this type of coverage and the underlying issues that caused the dramatic problems or events in the first place. Blame frames reinforce environmental episodic news coverage when blame either falls on authorities or authorities are blaming others (e.g., in oil spills, nuclear plant explosions, etc). The media will therefore turn to authority sources to comment on the disaster. Even though it may be assumed this would show authority sources in a negative light, because they are able to control the conversation regarding blame, they are able to shift blame away from themselves.

When Molotch and Lester (1975) concluded national oil spill coverage provided more access to the federal executive branch and oil spill companies, they also noted these targets of blame were able to shift the discussion. Oil company sources in the news noted their clean up efforts and technological advances that would prevent future spills, and the Department of the Interior noted their increased priority on tougher safety regulations for oil companies. This is problematic because the focus of the discussion is shifting towards the good deeds the targets of blame are doing, rather than focusing on their wrongdoings and those hurt by these actions (i.e., the people, animals and land harmed by the oil spill), who are not given a chance to voice their concerns.

Blame is omnipresent in our lives where we choose to blame individuals and groups for negative events. Members of the media, who reflect on these events, also constantly incorporate blame frames in news articles. While blame frames in environmental coverage can generate public awareness surrounding issues and encourage changes to ineffective policies, these frames can also reinforce episodic coverage and

authority source use. Blame frames are therefore influential in news production and audience interpretations of issues covered by the media and need to be examined further.

Solution frames.

In addition to making claims of blame and responsibility, many reporters include solutions to the problems identified in their articles. While blame and controversy frames stir up emotions and sell newspapers, solution frames can encourage audience involvement and inspire a call to arms for policy and/or social change within the government and communities (Benford & Snow, 2000). Structurally, news stories will often balance out blame frames with solutions (Coleman & Corbitt, 2003). Solution frames examine a problem through the perspective of offering insights into solving the issue or creating awareness about how individuals can remedy the cause. Additionally, solution frames can present insight into how previous attempts to solve problems failed, or identify beliefs that future solutions will be unsuccessful.

Gamson (1992) suggested frames identify, evaluate and seek prescriptions (i.e., solutions) relating to a particular issue. Entman (1993) provided an example of this by examining the “cold war” frame coverage in the U.S. news. He stated this frame labeled a source, which was the communist rebels, then evaluated them as atheist aggressors, and provided solutions, which was U.S. support for the opposition. He further defined frames, in agreement with Gamson, stating:

“Frames, then, *define problems*--determine what a causal agent is doing with what costs and benefits, usually measured in terms of common cultural values; *diagnose causes*--identify the forces creating the problem; *make moral judgments*--evaluate causal agents and their effects; and *suggest remedies*--offer and justify

treatments for the problems and predict their likely effects” (Italics in original)
(Entman, 1993, p. 52).

This suggests solution frames are an essential aspect of media framing, and would likely follow attribution of blame frames, which would define a problem, identify the cause, and make moral judgments, according to Shaver’s model involving responsibility and causality evaluations.

Benford and Snow (2000) noted the structural need within social movement framing to counter blame and responsibility framing with solution frames, which they referred to as “prognostic framing.” This type of framing “involves the articulation of a proposed solution to the problem, or as least a plan of attack, and the strategies for carrying out the plan” (Benford & Snow, 2000, p. 616). Structurally, the presence of solution frames is often used to create balance within news stories. Balance is often referred to as a staple of objective reporting, as previously explored. Coleman and Corbitt (2003) noted that in addition to presenting resolutions to problems, some scholars claimed solution frames normalize the news. “No matter the crisis, the journalist will nearly always return the situation to normal by the end of the story. Therefore solution frames should be expected to be embedded in stories” (Coleman & Corbitt, p. 104). Because of the dominance of episodic news coverage, controversial issues often are held at the forefront of news coverage, which often only represents the viewpoints of one side of the debate. Solution framing provides the opportunity for balance to be achieved within topical coverage.

Some research has examined how the presence of solution frames affects audience perceptions. Entman (1993) discussed the concept of audience autonomy in

news framing, in which the dominant meaning of a topic covered, which includes a problem, cause, and an evaluation of the problem and treatment interpretations. “If the text frame emphasizes in a variety of mutually reinforcing ways that the glass is half full, the evidence of social science suggest that relatively few in the audience will conclude it half empty” (Entman, 1993, p. 56). In other words, when a news story emphasizes solutions and positive aspects of the story, audiences will walk away remembering those aspects of the issues more than the negative ones.

Similarly, Dardis (2007) examined the role of suggesting solutions in public relations and message campaigns. These messages, he noted, are effective when they present a public concern and provide credible solutions to the problem. The purpose of this is to give the audience the opportunity to consider the issue through their perceptions of the solution and reevaluate their original opinions. Additionally, Dardis (2007) concurred with Gleicher and Petty’s (1992) interpretations of presenting solutions, which claimed offering a solution promotes individuals to accept it positively as a way to solve the problem, even if the individual does not feel especially enthralled with the proposed solution. “There is an indication that the offering of solutions in relation to a specified problem may enhance individuals’ acceptance or evaluations of a message, and thereby may lead individuals to agree more with the notions promoted by the message’s source” (Dardis, 2007, p. 252). Therefore, presenting solutions that are in line with assessments of a problem or attributions of blame could persuade audiences to align more strongly with those accusations, even if they are not strong supporters of the proposed solutions.

What we know about solution framing research.

The literature at large addresses solution frames as secondary to conflict and blame frames. Dardis was unable to find substantial evidence supporting his claim that individuals who read written messages with solutions will have greater frame alignment with the source providing the solution, rather than those who read messages without proposed solutions. He was able to suggest the presence of blame was powerful enough to achieve greater source alignment. While this may simply be an accurate reflection of audience reactions to reading accusations of blame so commonly in the news, it may also speak to our desire to point fingers at others instead of searching for solutions.

Research relating to climate change and environmental framing often includes solution frames (Gordon, Deines & Havice, 2010; Jones, 2006; Pellow, 1999; Takahashi, 2010). However, few evaluate the repercussions of these solutions. Jones noted that approximately 51 percent of newspaper stories looked at solutions to climate change, most of which related to providing tax incentives for industrial polluters and creating markets for emissions trading. Takahashi's (2010) evaluation of framing and mass media coverage of climate change in Peru noted the reference of solution frames as the third highest on a list of 12 frames (below effects and international politics). Despite this high placement, the author almost entirely excluded analysis relating to this frame and the results section noted the solutions presented were vague and mostly in alignment with preventing economic losses.

As Takahashi (2010) noted in his research, the under-reporting of climate change issues can result in uninformed individuals who are persuaded to hold certain beliefs by big businesses who focus on profit making rather than the needs of society at large.

Presenting solution frames can lead to policy change, encourage the public to increase their knowledge and awareness of the problem, and shift discussions away from accusations and toward problem solving references.

Solution frames can encourage a call to action that mobilize individuals and groups to stand up in support/opposition of a cause in hopes of creating a solution. Dardis (2007) noted social movement organization studies are commonly integrated into mass communication studies. In his research examining blame and solution frames, he noted this work has significant implications in the field of communication and social movement research “because it can provide insight into how individuals’ perceptions of sociopolitical issues can be shaped or altered by the information contained within mass-communicated messages, which can inundate a society in myriad ways as crucial issues are debated upon and decided” (Dardis, p. 248).

An additional incentive to study solution frames exists in the gap of solution framing that exists in current framing and media studies. While the frame is addressed as being present, few scholars examine the repercussions behind solution frames separate from problem or blame frames. It is often considered an afterthought to conflict and responsibility, which further represses the presence of solutions framed by the mass media. Without the presence of solutions in the news, conflict will continue to dominate the media and our lives. Controversial stories are labeled as “hard news” and make the front page, while “feel good” solution-based pieces are not considered salient enough by standards imposed as journalistic norms.

Linking solution frames to environmental coverage.

Solution frames presented within environmental conflict news coverage can influence policy changes (Medler & Medler, 1993). While environmental news coverage may prominently reflect crises, solutions presented in the reporting of unfortunate accidents may well increase awareness regarding environmental repercussions (Molotch & Lester, 1975). Even if public opinion is overlooked, reporters form relationships with public policy makers who seek to acknowledge the solutions framed by the media (Cook, Tyler, Goetz, Gordon, Protess, Leff, & Molotch, 1983).

In a study examining how the media influence public opinion, policy makers, interest groups leaders, and public policy, researchers noted the influence of policy changes did not result from efforts of the public, but rather emerged from an active collaboration between journalists and officials (Cook, et. al., 1983). In other words, officials informed by reporters of policy issues responded by implementing changes before the public had an opportunity to be outraged and call for change. Overall, public opinion and policy changes are doomed to reflect the blame game (i.e., officials deflecting blame in the media so that the public does not view them as the cause) played by the mass media until solutions are viewed as newsworthy as are scandals.

Environmental policy, Medler and Medler (1993) noted, is new and complex within the world of policymaking. “In contrast to foreign policy or national security policy which have been historically dominated by elites, environmental policymaking has frequently involved high levels of citizen participation” (p. 122). Therefore, solution frames within environmental coverage negate the need to gain elite support in order to determine policy changes. The authors noted Oregon and California directly involve

citizens in environmental policymaking by turning to populist methods of policy changes, such as ballot measures. These measures would logically be debated in newspapers as part of pre-election coverage. Therefore, it is safe to assume the measures would be presented as solutions to environmental issues the publics are concerned with, and consequently these solutions would be reported. Without the need to turn to government elites, solution frames relating to environmental policy therefore chip away at the media's reliance on authority sources.

In conclusion, the literature review has sought to provide an overview of the theoretical issues related to the thesis proposal. By better understanding how journalistic routines, hegemonic structures, and profit motives unfold in the newsroom, it is visible that they are apparent within environmental conflict coverage, specifically when examining the media's emphasis on episodic coverage and their reliance on authority source use. Additionally, it is evident that blame frames can perpetuate these concepts, while solution frames can potentially influence policy change.

Chapter 3: Current Study

This section will provide an overview of the sea lion and salmon controversy at the Bonneville Dam located on the Columbia River, which divides Oregon and Washington and is the fourth largest river in North America. It will begin with an overview on the history of sea lion populations in the area, in addition to reviewing how the animals have been managed, and subsequent laws and policies surrounding the debate. A discussion of the current controversy will be presented, and the key stakeholders and their claims will be introduced while examining blame assigned and solutions proposed within the controversy.

Sea Lion Background Information

In order to fully understand why the presence of sea lions at Bonneville Dam is controversial, it is necessary to review some basic information about the marine mammals, also known as pinnipeds, including how their populations have fluctuated over time and how they affect salmon populations. It will also be beneficial to provide a brief overview on how sea lions have been managed at the Dam (i.e., trapping, branding, and sight monitoring), and what these efforts reveal about sea lion populations and salmon predation at the Dam.

A background on sea lions.

To provide some background on why the presence of sea lions at Bonneville Dam is controversial, it is necessary to review some basic information on the animal.

California sea lions are among three types of pinnipeds that travel to the Dam; including Steller sea lions and Pacific harbor seals. California sea lions belong to the otariidar family and are found between southern Mexico and southeastern Alaska. The males can

grow to 8 feet long and reach 1,000 pounds, while the females grow to 6 feet in length and weigh 300 pounds (NMFW, 2008). They feed on different fish and squid depending on the season, location and available food. “Based on analysis of intestinal samples the California sea lion diet in the Columbia River estuary includes smelt, salmonids, rockfish, lamprey, and herring” (Brown, et. al, 1995, as cited in NMFW, 2008, sec. 3 p. 4).

California Sea lion populations have seesawed in the past century. While their numbers dwindled to an estimated population of 1,000 in the 1930s, they recovered to 238,000 by 2007 (NMFW, 2008). This upturn in populations began with the banning of bounties paid for sea lions and later flourished with the 1972 federal listing as “threatened” on the Endangered Species List (ESA) and Marine Mammal Protection Act (MMPA), which banned lethal harassment or removal of the species and is further examined in a proceeding section. Current estimates rate the annual increase of California sea lions off the west coast at more than five percent, and currently, “the population is stable and has reached carrying capacity” (NMFW, 2008, sec 3, p. 6). While Pacific harbor seals were identified to be present on the Columbia River as early as the turn of the 19th century, the first known sighting of California sea lions at the Bonneville Dam occurred in the 1970s (NMFW, 2008).

California sea lions hunt adult salmon as they move through the channel downstream from Bonneville Dam, below the Dam, and as they enter the eight fishway entrances, which take them to the fish ladders, located on the Oregon and Washington sides of the Columbia River. There are five population groups of Endangered Species Act listed (i.e., either threatened or endangered) salmon that are affected by the sea lions.

These include the Upper Columbia River Spring-run, the Snake River Spring/Summer-run, salmon from the Snake River Basin, populations from the Middle Columbia River, and others from the Lower Columbia River (NMFW, 2008).

A background on sea lion management.

In 1997, the Oregon Department of Fish and Wildlife (ODFW) began trapping and branding California sea lions on the Columbia River in response to concerns of growing pinniped populations. The animals were released unharmed. Six hundred and thirty sea lions had been marked permanently by 2006. In addition, the U.S. Army Corps of Engineers Fisheries Field Unit began conducting surface observations of all pinnipeds at Bonneville Dam in 2002. They recorded seasonal presence, abundance, and predation activities of pinnipeds (Stansell, Gibbons, & Naggy, 2010).

The National Marine Fisheries Service noted the numbers gathered are likely lower than the actual number of present sea lions, since observations were recorded from stations at Bonneville Dam during the day time only and unbranded sea lions were not counted. Additionally, poor weather conditions, such as rain or fog, made it difficult to identify sea lions that made a brief appearance (NMFW, 2008). The Oregon Department of Fish and Wildlife “estimated the probability of detection for known individuals at approximately 85 percent,” therefore, “while the sample size is small, this work supports the assumptions that there are likely more sea lions at the Dam than the number of animals observed” (NMFW, 2008, sec. 3, p. 7). In 2003 the numbers of identified California sea lions peaked at 106, which is a substantial leap from 30 California sea lions in 2002 (see Appendix A). Additionally, most of the sea lions seen in 2003 were new to Bonneville Dam, showing an 83 percent leap over the previous year. Between

2002 and 2007, a total of 267 identified sea lions were present at Bonneville Dam (NMFWS, 2008) (see Appendix B and C).

The U.S. Army Corps of Engineers concluded that while California sea lion presence was down at the Dam from 82 in 2008 to 54 in 2009, observations suggested the average number of salmon consumed was higher (Stansell, et al., 2010). Official reports accounted this lower number of California sea lions to El Niño, which warmed water temperatures in Oregon and forced the pinnipeds to travel farther north for cooler waters and more abundant prey (Stansell, et al., 2010). Official reports in 2010 revealed the estimated salmonid catch has ranged from about 4,000 to 6,000 per year since 2008, where between 2.2 and 2.9 percent of the run was consumed annually by pinnipeds (Stansell, et al., 2010, p. iii) (see Appendix D). The amount of California sea lions spotted at the Dam rose to 89 in 2010, the amount of observed Steller sea lions increased nearly tripled, and overall pinniped presence rose significantly (see Appendix A and E).

Concerns regarding rising numbers of sea lions at Bonneville Dam have forced key stakeholders (i.e., The National Marine Fisheries Service) into the court room to fight for legal rights to remove these animals, which has been met with appeals from stakeholders opposing these methods (i.e., the Humane Society). These battles will be examined below.

Laws and Policies Regarding Sea Lions

As previously mentioned, sea lion populations plummeted to a mere 1,000 in the 1930s. In 1972 two significant sister acts were established to protect animals species whose populations were in danger of extinction. The Endangered Species Act (ESA) defends land and freshwater species and is overseen by the U.S. Fish and Wildlife

Service (USFWS), while the Marine Mammal Protection Act (MMPA) looks after marine species and is overseen by the National Marine Fisheries Service (NMFS), which is run by the National Oceanic and Atmospheric Administration (NOAA). The California sea lion is one of 72 listed species the NMFS has jurisdiction over (MMPA, 2008).

According to section two of the MMPA, the piece of legislation was established by Congress to protect certain populations of marine mammals populations in danger of extinction or depletion. The MMPA stated,

Such species and population stocks should not be permitted to diminish beyond the point at which they cease to be a significant functioning element in the ecosystem of which they are a part of, and, consistent with this major objective they should not be permitted to diminish beyond their optimum sustainable population (MMPA, 1972, p. 5).

Under the MMPA, killing or lethally harassing California sea lions is illegal and punishable by law. Even though California sea lion populations have risen to a point where they are considered stable, the MMPA does not have a process for delisting animals, unlike the ESA, and therefore listed sea lions remain federally protected despite population increases.

In 1994, an amendment was made to the Marine Mammal Protection Act, which provided the National Marine Fisheries Service the authority to respond to states' requests to lethally remove certain California sea lions and Pacific harbor seals. This permission may be granted if the species "are having a significant negative impact on the recovery of salmonid fishery stocks which have been listed as endangered species or threatened species under the Endangered Species Act," or if they are causing "broader

impacts on the coastal ecosystems of Washington, Oregon, and California” (MMPA, 1972, p. 73). In response to the amendment, Oregon, Washington and Idaho requested lethal removal of California sea lions in 2006. That same year, two Washington state congressmen, Republican Doc Hastings and Democrat Brian Baird, proposed a bill allowing Oregon and Washington officials and American Indians to quickly obtain permits allowing the lethal removal of a limited number of California sea lions.

In 2007, the National Marine Fisheries Service Pinniped task force recommended the removal of sea lions identified as salmon consumers at Bonneville Dam. This plan was supported by additional stakeholders including, Oregon and Washington state governments (Oregon Department of Fish and Wildlife and Washington Department of Fish and Wildlife); federal agencies (National Oceanic Atmospheric Administration, National Marine Fisheries Service, and Army Corps of Engineers); federal individuals (U.S. representatives Doc Hastings and Brian Baird); tribal governments (Columbia River Inter-Tribal Fish Commission and the Confederated Tribes of Grand Ronde); in addition to angler organizations (Columbia-Pacific Anglers and Columbia River Fisheries Protective Union, among others). This removal plan was proposed in addition to the continuation of non-lethal activities, such as shooting rubber bullets at California sea lions, and continued monitoring of the area.

As requested by the Marine Mammal Commission, a two-part test was conducted in 2007 to determine first whether California sea lions as a group were having a significant negative impact on salmonid populations listed on the Endangered Species Act, and secondly, to record which sea lions were causing this damage. The National Marine Fisheries Service Pinniped Task Force concluded California sea lions as a group

were having, and would continue to have, significant negative impact on adult salmonids. The task force also concluded the amount of salmonids being consumed by California sea lions was comparable to the mortality rates from other cases of salmon consumption where lethal removal for sea lions was approved, such as in Ballard Locks, Washington (NMFS, 2008).

In 2008, the Humane Society asked the United States Court of Appeals for the Ninth Circuit to stop the killing of sea lions after the federal district court in Oregon denied its request for an injunction (*United States Humane Society v. Gutierrez*, 523 F.3d 990). In a response to the proposed lethal removal, Sharon Young, spokesperson for the United States Humane Society, drafted the *Bonneville Minority Report*, in which she argued that evidence did not support the National Marine Fisheries Service's claim that sea lions were having a significant negative impact. The report stated, "California sea lions are far from the only source of extractive mortality to the fish in the river," and to really determine if they are causing significant negative impact "we may look to other extractive activities and impacts that the NMFS permits at levels it believes to be sustainable by the fish" (Young, 2008, p. 1). Young's action was supported by additional stakeholders in opposition to lethal removal including, In Defense of Animals, the Sea Lion Defense Brigade, and the Portland Animal Defense League.

In November 2008, U.S. District Judge Michael Mosman ruled that the states could begin killing as many as 85 California sea lions annually for five years, as a last resort to relocating them to zoos, aquariums and wildlife parks. This permitted the National Marine Fisheries Service and the states of Oregon, Washington, and Idaho to trap and relocate "repeat offenders" to zoos, aquariums and wildlife parks. Euthanizing

would be a last resort if the animals were unable to be transferred (i.e., the animal posed a health threat to other animals if transferred), or if officials were unable to locate establishments willing to accept these sea lions. Additional legal actions regarding this controversy took place after coding began (i.e., June 2010), and were therefore not addressed in the sample of news article used in the research.¹

Figure 1 <i>Timeline of events</i>	
Date	Event description
1930s	Sea lion populations plummeted to a mere 1,000.
1972	Two significant sister acts were established to protect animals species whose populations were in danger of extinction. The Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA). The California is listed on the MMPA, and therefore makes killing or lethally harassing them illegal.
1994	An amendment was made to the MMPA, which provided the National Marine Fisheries Service the authority to respond to states' requests to lethally remove certain California sea lions and Pacific harbor seals.
1997	The Oregon Department of Fish and Wildlife (ODFW) began trapping and branding California sea lions.
2002	The US Army Corps of Engineers Fisheries Field Unit began conducting surface observations of all pinnipeds at Bonneville Dam.
2006	The ODFW permanently marked 630 sea lions California sea lions to date.
2006	Oregon, Washington and Idaho requested lethal removal of California sea lions.
2006	Two Washington state congressmen, Republican Doc Hastings and Democrat Brian Baird, proposed the Endangered Salmon Predation Prevention Act, a bill allowing Oregon and Washington officials and American Indians to quickly obtain permits allowing the lethal removal of a limited number of California sea lions.

Date	Event description
2007	Some California sea lions were transported back to the ocean. Not only did the animals return to the Bonneville Dam to feed on salmon, but they returned so quickly they arrived before the boat that transported them did.
2007	The National Marine Fisheries Service Pinniped task force recommended the removal of sea lions identified as salmon consumers at Bonneville Dam, to begin in January of 2008.
Jan-June 2008	This year: 15 California sea lions were captured, of which four were released, six were relocated, one died under anesthesia, and four died when accidentally locked inside traps (in addition to two Steller sea lions).
2008	The Humane Society asked the United States Court of Appeals for the Ninth Circuit to stop the killing of sea lions.
November 2008	U.S. District Judge Michael Mosman denied the Humane Society's request and ruled that the states could begin killing as many as 85 California sea lions annually for five years, as a last resort.
Jan-June 2009	This year: 20 California sea lions were captured, of which five were released, two were relocated, and ten were euthanized.
Jan-June 2010	This year: 18 California sea lions were captured, of which four were released and 14 were euthanized.
November 2010	The United States Court of Appeals for the Ninth Circuit overturned the ruling allowing lethal removal of California sea lions, once again making it illegal to lethally remove them.
March 2011	Rep. Doc Hasting repurposed the Endangered Salmon Predation Prevention Act, allowing Washington, Oregon and four Columbia River treaty tribes the opportunity to seek one-year permits for lethal removal of a limited number of California sea lions.

The Sea Lion and Salmon Controversy

The current case study revolves around the presence of California sea lions at the Bonneville Dam. It has previously been established that there is a significant need to further investigate environmental conflict news coverage of thematic topics (such as policy changes) where source use can be examined. Current research has focused on

thematic coverage of climate change (Gordon, Deines & Havice, 2010; Jones, 2006; Pellow, 1999; Takahashi, 2010), but has neglected to look further into other pertinent topics, such as endangered species issues (McPherson & Shaw, 1994). This case study provides an opportunity to examine how controversial, on-going ESA issues are constructed in the news; including an investigation into source use and the role of blame and solution frames.

This topic is pertinent to study not only because California sea lion populations have grown significantly at the Dam, resulting in more salmon predation (See Appendix A), but it is a legally and emotionally charged debate affecting a variety of individuals. Some stakeholders are concerned with salmon because their populations have been getting dangerously low and some stocks of salmonid are listed as threatened or endangered under the Endangered Species Act (NMFS, 2008). Specifically, anglers are concerned with salmon populations in that they rely on catching and selling fish for economic stability. Native Americans “have harvested salmon from the Columbia River for commercial, physical, and spiritual sustenance” for thousands of years, and still rely on the Columbia’s salmon populations today (CRITFC, 2010). Advocacy organizations, such as the Humane Society, state they worry about salmon populations, but do not believe sea lions are eating enough salmon for this to be a contributing factor in their population decline (Young, 2008). These groups are outraged in the government’s request to kill sea lions, and argue it is morally wrong to sacrifice one animal for another (Young, 2008).

The public is divided in their opinions on lethal removal. This division is revealed in rallies for commercial and tribal fishermen and protests against lethal removal of sea

lions. During the public comment period, more than 3,5000 public comments were made on the NMFS' January 2008 environmental assessment titled, *Reducing the Impact on At-risk Salmon and Steelhead by California Sea Lions in the Area Downstream of Bonneville Dam on the Columbia River, Oregon and Washington* (NMFS, 2008). This is clearly an emotionally driven debate that affects the public's well-being, including economic, spiritual and personal needs (CRITFC, 2010; NMFS, 2008; Young, 2008).

Blame assigned.

Sea lions are clearly the subject of blame for salmon decline by some agencies and individuals (CRITFC, 2010; NMFS, 2008). The Columbia River Inter-Tribal Fish Commission's web site states tribes surrounding the Columbia River basin have "supported and invested in salmon recovery efforts for decades" while "pinnipeds responding to protection under the MMPA are enjoying 5 to 6% annual population growth rates. This has lead to increased pinniped-fisheries conflict between the mouth of the Columbia River to Bonneville Dam" (CRITFC, 2010). Other stakeholders do not view sea lion predation as a significant concern, and assign blame to other groups and activities (Portland Animal Defense League, 2010; Rossell, 2008; Young, 2008). The Humane Society, for example, views lethal removal as a "failed solution," noting the amendment to the Marine Mammal Protection Act that allowed states to request lethal removal of sea lions was intended to address more severe negative impact on endangered or threatened fish (Young, 2008). This organization claimed, "far from resolving the predation, killing sea lions at the Dam will only provide a vacated foraging niche for other remaining sea lions to exploit" (Young, 2008, p. 4). In other words, killing California sea lions will only provide more food (and easier access to food) for other

pinniped predators, such as Steller sea lions, whose populations are growing at Bonneville Dam (see Appendix A).

The Humane Society's spokesperson, Sharon Young, argued other activities are harming salmonid populations more significantly than sea lions. Young (2008) claimed the Columbia River Inter-Tribal Fish Commission's tribal harvest rates of spring Chinook were considerably higher than sea lion predation. The tribes documented harvesting between 6 and 10 percent between 2002-2006 (Young, 2008). Young noted that while some of the spring Chinook are caught for ceremonial purposes, the amount sold for profit is still noticeably higher than what all three types of pinnipeds consumed at Bonneville Dam during these years.

Additionally, Young (2008) pointed out the heavy impact of ocean intercept fishing on spring Chinook stocks (i.e., commercial fishing that takes place in the ocean where salmon spend the majority of their lives). The amount of salmonids caught by commercial fisherman in the ocean has averaged 7,3000 Chinook annually for the past 15 years, she noted (Young, 2008). Other fishing-related harm to salmon populations in the Pacific Northwest include Alaskan trawl fishing, where 237,594 various stocks of Chinook were caught between 2001 and 2005 (Young, 2008).

Young (2008) attributed blame to other human activities and dams for harming salmon populations. Hydropower dams are assessed at killing between 30 and 35 percent of fish that are forced to pass through them twice in their lives (i.e., fish pass a dam when they make their way from their stream of origin to the ocean, and then again when they return to spawn). Additionally, she noted damage and development to tributaries and

estuaries (i.e., habitat effects) kill between 26 and 49 percent of fish, and human harvesting can kill as much as 11 percent of an annual run (Young, 2008).

In Defense of Animals, an international California-based animal advocacy organization, also blamed human-related factors for low salmon populations. In a 2008, Matt Rossell, the organization's Northwest Coordinator, noted in a news release posted on the organization's web site, "scapegoating and killing sea lions will not remedy the real threat to the endangered salmon - habitat loss and survival of juvenile fish. We should be protecting both of these species," (Rossell, 2008). Portland Animal Defense League's web site agreed that other human-related factors hold more responsibility for reducing salmon populations. They claimed sea lion predation accounts for "around 2% of the run," while humans "kill 18% of the run, and dams that kill around 60% of every run" (Portland Animal Defense League, 2010).

American Rivers is a non-profit conservation organization that believes dams and other human-related factors are to blame for loss of salmon. In a 2000 report on America's most endangered rivers, the group noted dams, such as the Bonneville Dam, take a heavy toll on both juvenile salmon traveling to the ocean and adult salmon returning to their rivers of origin to spawn. American Rivers noted that dams can make the spawning journey for adult salmon extremely difficult, so much so that "scientists believe that many of the adults that do eventually reach their spawning grounds upstream are often too exhausted from the grueling journey to spawn successfully" (American Rivers, 2000, p. 8). While traveling past a dam, high water temperatures caused by dams delay migration, and salmon can have difficulty finding fish ladders and are forced to repeatedly climb ladders after they fall back down the ladder.

Additionally, the Sea Lion Defense Brigade's web site noted that "blaming and killing sea lions is not going to save wild salmon" (Sea Lion Defense Brigade, 2011). They claimed "the health of the river and all its inhabitants have been compromised by the destructive industries of people, namely overfishing and dams" (Sea Lion Defense Brigade, 2011). According to this organization, the only way to help salmon recovery is to right the wrongs humans have done, and not to blame sea lions (Sea Lion Defense Brigade, 2011).

Actions taken.

Initial efforts to stop sea lion predation included relocating the animals. In 2007, some California sea lions were transported back to the ocean. Not only did the animals return to the Bonneville Dam to feed on salmon, but they returned so quickly they arrived before the boat that transported them did. Non-lethal hazing efforts included sea lion exclusion devices (SLEDs), which are large, barred, grate-like physical barriers. In addition, acoustic devices are used to keep sea lions out of fishways, including underwater firecrackers and aerial pyrotechnics (i.e., cracker shells, screamer shells or rockets). Authorities also use rubber bullets, rubber buckshots, and beanbags fired from shotguns to chase sea lions away from the areas below the Dam (NMFS, 2008; Stansell, et al., 2010). These methods were not proven effective, but have continued to be used (Stansell, et al.).

In addition to the hazing methods noted above, the NMFS has trapped California sea lions. In 2008, authorities seized 15 California sea lions. Of these 15, four were released, six were relocated to Sea World facilities, and one sea lion died while under anesthesia (Stansell, et al., 2010). The remaining four died (in addition to two Steller sea

lions) when they wandered into open cages that malfunctioned and locked them inside overnight, resulting in death from heat exhaustion.²

Twenty California sea lions were trapped in 2009. Five were branded and released, two were relocated to the Shedd Aquarium in Chicago, and two were relocated to Gladys Porter Zoo in Texas. The remaining 10 were euthanized after health exams revealed they had diseases that could spread to other animals (Stansell, et al., 2010). The following year, 18³ California sea lions were trapped, of which four were branded and released, and the remaining 14 were euthanized when no zoos or aquariums offered to take the animals (Stansell, et al.).

The controversy surrounding the presence of sea lions at the Bonneville Dam and the declining salmon population has pitted two sides against each other; those supporting lethal removal of sea lions in order to reestablish salmon populations, and those opposing lethal removal on the grounds that other factors are more significantly damaging salmon populations and it is unmoral or ineffective to sacrifice one animal for another. The debate continues to spur controversy as it seesaws in the courts and makes its way to our streets with protests and rallies. This case study provides the ideal opportunity to examine some of the theoretical underpinnings this study is based on. These include an examination of how journalistic norms appear in the coverage through subjects covered and source use; reviewing the prominence of authority source use and how it perpetuates hegemonic structures and profit motives; in addition to looking at the presence of blame and solution frames and examining how they relate to source use.

<p>Figure 2</p> <p><i>Stakeholders involved in the controversy</i></p>			
Stakeholder organization	Organization type	Organization's mission as stated on its web site	Position and/or involvement in the sea lion/salmon controversy
American Rivers	Non-profit /advocacy organization	Working to protect our remaining natural heritage, undo the damage of the past and create a healthy future for our rivers and future generations.	Believe other factors, such as overfishing, dams, bird predation, and habitat loss are responsible for more salmon deaths
Army Corps of Engineers	Federal agency	Provide vital public engineering services in peace and war to strengthen our Nation's security, energize the economy, and reduce risks from disasters.	Participated in monitoring of sea lions and support trapping and removal solutions.
Columbia-Pacific Anglers	Angler organization	None listed	Participated in monitoring of sea lions and support trapping and removal solutions.
Columbia River Fisheries Protective Union	Angler organization	None listed	Support trapping and removal solutions.
Columbia River Inter-Tribal Fish Commission	Tribal government	To ensure a unified voice in the overall management of the fishery resources, and as managers, to protect reserved treaty rights through the exercise of the inherent sovereign powers of the tribes.	Argue that not only are sea lions consuming salmon, but this has lead to increased pinniped-fisheries conflict. Support trapping and removal solutions.

Stakeholder organization	Organization type	Organization's mission as stated on its web site	Position and/or involvement in the sea lion/salmon controversy
Confederated Tribes of Grand Ronde	Tribal government	To improve the quality of life for Tribal people by providing opportunities and services that will build and embrace a community rich in healthy families and capable people with strong cultural values.	Support trapping and removal solutions.
Humane Society	Non-profit /advocacy organization	Seeks a humane and sustainable world for all animals—a world that will also benefit people. We are America's mainstream force against cruelty, exploitation and neglect, as well as the most trusted voice extolling the human-animal bond.	Asked the United States Court of Appeals for the Ninth Circuit to stop the killing of sea lions. They believe other factors, such as overfishing, dams, bird predation, and habitat degradation are responsible for more salmon deaths and sea lions are not significantly harming the population.
In Defense of Animals	Non-profit /advocacy organization	Dedicated to ending the abuse and exploitation of animals by defending their rights, welfare, and habitats.	Believe humans have more of a negative impact on salmon populations and are against trapping and removal solutions.

Stakeholder organization	Organization type	Organization's mission as stated on its web site	Position and/or involvement in the sea lion/salmon controversy
National Marine Fisheries Service	Federal agency	Stewardship of living marine resources through science-based conservation and management and the promotion of healthy ecosystems.	Have jurisdiction over the California sea lion MMPA status and in 2007 recommended the removal of sea lions identified as salmon consumers at Bonneville Dam.
National Oceanic Atmospheric Administration	Federal agency	To understand and predict changes in Earth's environment and conserve and manage coastal and marine resources to meet our Nation's economic, social, and environmental needs	Support trapping and removal solutions.
Oregon Department of Fish and Wildlife	State government	To protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations.	In 1997, began trapping and branding California sea lions on the Columbia River in response to concerns of growing pinniped populations. They support trapping and removal solutions.
Portland Animal Defense League	Non-profit /advocacy organization	Dedicated to exposing and abolishing animal exploitation in all of its forms, specifically as it manifests in our community.	Believe humans and dams have more of a negative impact on salmon populations and are against trapping and removal solutions, and believe killing sea lions is illegal.

Stakeholder organization	Organization type	Organization's mission as stated on its web site	Position and/or involvement in the sea lion/salmon controversy
Sea Lion Defense Brigade	Non-profit /advocacy organization	To make popular the truth- that the health of the river and all its inhabitants have been compromised by the destructive industries of people, namely overfishing and dams	Believes humans are responsible for low salmon populations. Opposes trapping and removal solutions, and believe killing sea lions is illegal.
Washington Department of Fish and Wildlife	State government	To serve Washington's citizens by protecting, restoring and enhancing fish and wildlife and their habitats, while providing sustainable fish and wildlife-related recreational and commercial opportunities.	Support trapping and removal solutions, noting that hazing efforts have not been successful.

Chapter 3 Notes

¹ In November 2010, the United States Court of Appeals for the Ninth Circuit overturned the ruling allowing lethal removal of California sea lions. The court noted the National Marine Fisheries Service was not able to prove that California sea lions were having a significant negative impact in relation to fisheries' negative impacts, and "the agency has not adequately explained why a California sea lion predation rate of 1 percent would have a significant negative impact on the decline or recovery of these salmonid populations" (United States Humane Society v. Locke, 2010, p. 18688). In March 2011, U.S. Representative Doc Hasting repurposed the Endangered Salmon Predation Prevention Act, allowing Washington, Oregon and four Columbia River treaty tribes the opportunity to seek one-year permits for lethal removal of a limited number of California sea lions.

² Of the four California sea lions that died in these cages, two had not been indentified, one had been on the list for removal, and one had qualified for removal although it had not yet been added to the list (Stansell, et al., 2010).

³ While the record showed 22 trappings of California sea lions occurred, two were trapped twice and one was captured three times.

Chapter 4: Hypotheses and Research Questions

This study examines issues that influence news framing and source use, including journalistic values, such as balance and objectivity, and news production routines, which are influenced by cultural and social norms. In order to measure how news construction reflects journalistic values, this study examines framing and the use of sources in news stories surrounding the controversy concerning increasing sea lion presence and declining salmon populations at the Bonneville Dam on the Columbia River between Oregon and Washington.

Environmental Conflict Coverage

Recall that environmental news coverage is criticized for a heavy reliance on authority sources, such as governmental officials and business leaders (Bendix & Liebler, 1999; Lacy & Coulson, 2000; McPherson & Shaw, 1994; & Molotch & Lester, 1975). One group of researchers claimed journalists depend on information provided by sources, noting, “scholars concur that sources equipped with the resources to manage information are those most successful in getting their voices heard and who thus ‘set the frame’ in discourse” (Coleman, Hartley & Kennamer, 2006, p. 551). Balance among source use and opinions is considered a staple of objective journalism. According to Hackett (1984), bias occurs when, among other factors, competing viewpoints are imbalanced. Additionally, Reese (1990) noted objective news reporting has evolved to “more defensible standards: such as accuracy, balance and fairness” (p. 393). Therefore, no matter the number of stakeholders involved in the controversy, an objective story should present equal opportunities for competing sources and viewpoints (Hackett, 1984; Reese, 1990). Some researchers have concluded news stories present a false balance while

attempting to achieve objective reporting, and consequently, “attending to two sides of a debate may gloss over deeper, underlying issues” (Coleman, et al., 2006, p. 559).

Knowlton (1997) referred to this balance as artificial, noting that there is not always a naysayer for every supporter of an event or belief.

Previous research conducted on source use within environmental conflict coverage has found that reporters tend to rely on authority sources (i.e., governmental and business sources) more frequently than other types of sources (Bendix & Liebler, 1999; Lacy & Coulson, 2000; McPherson & Shaw, 1994; & Molotch & Lester, 1975). Molotch and Lester (1975) looked at an issue that pitted authority sources (i.e., oil companies) against conservationists, and concluded both national and regional coverage more frequently relied on authority sources (although less so within regional coverage). Therefore, the literature suggests that reporters rely heavily on government sources, particularly in environmental contexts. I consequently predict the following in the context of the sea lion and salmon controversy:

Hypothesis 1: Looking at the news stories concerning the sea lion and salmon conflict at the Bonneville Dam, the coverage, on average, will reflect a statistically greater number of governmental sources than advocacy and tribal sources per article.

Blame Frames

Recall from the literature that the concept of blame has been studied in several academic disciplines, including interpersonal communication, social psychology, and media studies. Shaver (1987) explicated blame as a set of actions producing negative consequences, where intentional causality and responsibility are present and no adequate

justification exists. My research will also look at where blame is assigned (i.e., to whom or what) in order to better understand what subjects are being exposed or targeted as having a causal and consequential relationships in the controversy. Therefore the following pair of research questions concerning blame frames has been proposed:

Research Question 1a: On average, what types of blame frames appear per article concerning the sea lion and salmon conflict at the Bonneville Dam?

Research Question 1b: Among the blame frames that appear in the news coverage, who or what, on average, is attributed as the cause of the blame per article?

Blame is not simply manifested by reporters, but is tied to sources and organizations within the coverage. These are visible through both quoted sources and organization representatives not quoted in the articles. Similarly, blame may be attributed to other phenomenon, such as laws and policies, nature, etc. Therefore, based on the literature and stakeholder claims, this research examines which stakeholders and types of organizations assign blame in news coverage.

Research Question 2: Looking at the blame frames that appear in the news coverage, which types of organizations, on average, are most commonly linked to attributions of blame per article?

Solution Frames

Recall that solution frames provide a way to examine a problem through the perspective of insights to solving issues or creating awareness about how individuals can remedy problems. Gamson (1992) suggested frames identify, evaluate and seek prescriptions (i.e., solutions) relating to a particular issue. Entman (1993) stated that

frames “*suggest remedies* (that) offer and justify treatments for the problems and predict their likely effects” (p. 52). Some researchers suggested solutions that are in line with assessments of a problem or attributions of blame could persuade audiences to align more strongly with those perspectives, even if readers are not strong supporters of the proposed solutions (Dardis, 2007). Additionally, presenting solution frames in discourse may lead to policy changes, encourage the public to increase their knowledge and awareness of the problem, and shift discussions away from accusations and towards problem-solving choices. While controversial stories are labeled as “hard news” and make the front page, “feel good” solution-based stories are not considered salient enough by standards imposed by journalistic norms, and therefore, solution frames appear to be less prominent than blame frames in the media (Boykoff & Boykoff, 2007; Nisbet, 2009).

Based on the information generated from key stakeholders, including the National Marine Fisheries Service and the Humane Society, solutions presented in the sea lion and salmon controversy are seen as either as “successful” or “failed” solution frames. While non-lethal hazing was viewed as a failed solution by the NMFS, this method continued to be used and some believed it to be a successful solution as well. Additionally, lethal removal was viewed as a successful solution by the NMFS and as a failed solution by the Humane Society, who argued more sea lions would take the place of any removed pinnipeds (Young, 2008).

Based on the lack of empirical research in the framing literature regarding “failed” solution frames, my study also looked at which “successful” and “failed” solution frames are presented in the news stories. This will contribute to the scholarly field of knowledge surrounding solution framing, while providing a better understanding

of what solutions are considered more salient in the news coverage regarding the sea lion/salmon controversy. I therefore asked:

Research Question 3a: On average, what successful solutions frames appear most commonly per article in the news coverage of the sea lion/salmon controversy?

Research Question 3b: On average, what failed solution frames appear most commonly per article in the news coverage of the sea lion/salmon controversy?

Because the literature links frames to sources and organizations mentioned in the coverage, my research looked at which types of organizations present solutions in news stories. I therefore asked:

Research Question 4a: Looking at the successful solution frames that appear in the news coverage, which types of organizations, on average, are linked to such solutions per article?

Research Question 4b: Looking at the failed solution frames that appear in the news coverage, which types of organizations, on average, are linked to such solutions per article?

Comparing Blame and Solution Frames

Recall from the literature that solution frames are often considered secondary to conflict and blame frames. Benford and Snow (2000), noted social movement framing has a structural need to counter blame framing with solution frames. In other words, when a blame frame is proposed, it must be balanced with a solution frame. This type of framing “involves the articulation of a proposed solution to the problem, or as least a plan of attack, and the strategies for carrying out the plan” (Benford & Snow, 2000, p. 616).

Solution and blame framing are thus often associated, as solutions offer remedies to blame proposed in news stories, and provide balance between opposing stakeholders. This research hypothesized blame frames will be more prominent than successful solutions frames.

Hypothesis 2: When blame frames and successful solution frames appear in the news coverage of the sea lion/salmon controversy, the coverage, on average, will reflect a statistically significant greater number of blame frames than successful solution frames per article.

Because the literature rarely makes a distinction between blame and failed solutions, the case study presented a rare opportunity to compare the two constructs. The literature did suggest blame frames are common, however, this is often assumed because of the tendency of creating episodic news coverage that reflects controversy and relates to the humanistic reflex to cite blame when a negative event occurs. Failed solutions perhaps also fill this need, and reflect dissension among stakeholders. In order to contribute to the scholarly knowledge surrounding failed solution frames, this research also examined how often blame frames occurred in relation to failed solution frames.

Research Question 5: When looking at the blame frames and failed solution frames that appear in the news coverage of the sea lion/salmon controversy, will news stories, on average, include more instances of blame frames or failed solution frames per article?

Chapter 5: Methodology

In order to address the hypotheses and answer the research questions surrounding source use and blame and solution frames, this study applied a quantitative content analysis technique to newspaper coverage of the sea lion and salmon controversy at the Bonneville Dam. Weber (1990) defined content analysis as classifying texts in efforts to reduce the amount of measurable material to a manageable set of data, while Krippendorff (2004) stated “content analysis is a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use” (p. 18). In the case of newspaper content analysis, which is pertinent to this research, this study used this method to examine the frequency of source use and blame and solution frames. “The assumption made is the words that are mentioned most often are the words that reflect the greatest concerns” (Jones, 2006, p. 73). This research therefore operationalized blame and solution frames by key words. These words constituted frame categories. For example, coders read news stories and looked for such words as “blame” and “responsibility” to identify blame frames. (This is detailed later in the variables section).

The current study took a deductive approach to content analysis, where the frames (i.e., blame and solution) were selected *à priori*. “The literature to date has identified a handful of frames that occur commonly in the news.” (Semetke & Valkenburg, 2000, p. 95). While some studies have focused on the existence of a single frame in the news, (Semetke & Valkenburg, p. 95), others have examined a handful of frames concurrently (Neuman, Just, & Crigler, 1992; Semetke & Valkenburg). According to Berelson, “the general categories of a content analysis must be stated in analyzable forms appropriate to

the particular content under investigation” (Berelson, 1952, p. 164). The analyzable forms under investigation for this study are further explored in this section.

By applying deductive content analysis techniques, this study was able to examine issues of source use and blame and solution frames surrounding the seal lion and salmon controversy from the perspective of an unbiased researcher who was examining the world experienced by others. Newspapers reflect not only the occurrences and stakeholders involved in a conflict, but they provide insight into an exact time and space that others, including the researcher, would otherwise not have a window into (Gamson & Modigliani, 1989). No single person, and no single news article, can fully understand the perspectives of the two strongly opinionated and opposing viewpoints in the sea lion and salmon debate. Therefore, by applying content analysis techniques to many news articles, written by various authors, and published in various states, this research sought to understand how source use and blame and solution frames generally appeared in the news coverage of the sea lion and salmon controversy.

A codebook was created to examine the unit of analysis under investigation, which for the purposes of this research follows Benoit, Brazeal and Airne’s (2007) notion of coding themes, “which are claims, statements, or arguments (a sentence may contain one or more themes; a theme could also span more than one sentence)” (p. 82). Themes can also be described as subject assertions (Berelson, 1952; Holsti, 1969). In the context of this research, themes were coded as either quoted sources or as frames. Themes could be coded as both quoted sources and as frames, but themes could not be coded as multiple frames. For example, Sharon Young’s statement previously presented in Chapter 3 claiming, “far from resolving the predation, killing sea lions at the Dam will

only provide a vacated foraging niche for other remaining sea lions to exploit” (Young, 2008, p. 4), contains multiple themes as a source theme and as a frame theme. This statement would be recorded as four themes (as pertinent to this research) in the source section of the codebook. These include Young’s name, her title (if given in the statement), and her organization’s name and type (i.e. advocacy). Additionally, this statement would be recorded as three themes (as pertinent to this research) in the appropriate frame section of the codebook. This statement would be recorded as a failed solution in the solution frame section of the codebook, where theme would be described (and noted that it is failed), the quote would be written, and Young’s organization would be recorded as an advocacy group. Additionally, this frame would contribute to the overall count of the total number of solution frames that appeared in the news article (which would later separated into failed and successful solution frames). While the codebook used for this research was created to examine a variety of frames, only solution and blame frames, in addition to source use, were examined for the purpose of this study.

Regional newspapers were selected as the medium of reference for the current case study. News stories provide the researchers access to a sample of news articles via LexisNexis, a database of news coverage. Researchers who study environmental conflict coverage and framing have frequently used newspapers in their research sample (Bendix & Liebler, 1999; Gordon, Deines & Havice, 2010; Lacy & Coulson; McPherson & Shaw, 1994; Molotch & Lester, 1975; Takahashi, 2010). Molotch and Lester (1975) described newspapers as providing “tracings or residues that can be used to reveal the purposes and programs of the social actors who had practical reasons for producing one sort of news

instead of another” (p. 236). In other words, this study offers a snapshot of “tracings” that reflect a type of reality constructed by news workers and their sources.

The timeline selected for this research, the states where these articles were produced, and the search terms used, were all part of purposive sampling, meaning the sample was selected “on the basis of knowledge of a population, its elements, and the purpose of the study,” (Babbie, 2007, p. 184). This research therefore selected specific dates, regions, and search terms purposively, based on the rationale provided in this section. These specifics are further described in the following pages.

Sample

The sample initially resulted in a total of 451 articles from 15 newspapers (333 stories) and wire services (118 stories). After coding, 67 articles were determined to be duplicates that were reprinted by two or more publications. When duplicates were found during the coding process, only one article (selected randomly) was included in the dataset. This reduced the sample to 384 articles. For the purposes of this study, only news articles are examined. Editorial, opinion pieces, letters to the editor, and other types of stories do not reflect news production routines, which this study seeks to examine. Question 12 in the codebook asked the coder to record what type of article was being recorded, with the options; (1) News; (2) Editorial, letter, opinion; and (3) Unknown, can’t tell, other. Therefore only codebooks that were marked as News were used in the study, which included 264 articles.

The sample was reduced further by discarding all stories that did not principally concern the sea lion and salmon issue. Some examples of stories that did not principally concern the sea lion and salmon controversy included articles solely or primarily

addressing fishing and hunting policies and forecasts, unrelated salmon issues, sturgeon issues, and sea lion issues taking place in areas other than the Bonneville Dam/Columbia River area. Question 18 in the codebook asked coders to determine if the story principally concerned the sea lion/salmon controversy by marking (0) No or (1) Yes. As a result, 161 articles remained that met the research criteria.

Timeline.

A LexisNexis search was conducted for news articles between January 1, 2003 and June 21, 2010. The beginning date marked the second season of sea lion monitoring at Bonneville Dam. At this time there were new sea lion monitoring numbers the year's previous data could be compared to, and officials, the media, and public would have the opportunity to know if the sea lion problem was being resolved or getting worse. In other words, did monitoring reveal fewer sea lions sightings at the dam, or were more pinnipeds flocking to the Dam? Stakeholders would surely be commenting on either outcome, and the media would be there to record these findings, quote stakeholders involved in the controversy, and incorporate blame and solution frames in these news articles. The end date, June 21, 2010 was determined because it marked the end of the sea lion season at Bonneville Dam that year.

States sampled.

A regional sample of newspapers was selected for this research. Coverage of environmental conflicts, like any type of news coverage, varies regionally because local news often reflects what the public cares about, which might not necessarily be an accurate reflection of another region's interests. This is not to say local environmental conflicts are not nationally newsworthy, but simply addresses the realization that heavy

coverage will be more prominent in the areas where the environmental conflict occurs (Medler & Medler, 1993).

Recall from the literature review that environmental policy often involves more citizen participation than national or foreign policy. Medler and Medler (1993) noted this type of participation frequently involves ballot measures, which they mentioned are commonly used in Oregon and California when determining environmental laws and policies. State election coverage is localized, since the outcomes usually do not affect other regions. Most states probably do not care if Oregon passes a library funded levy, but many states are interested in a legalization of marijuana measure, since it may set precedent that could influence other states. Likewise, the controversy surrounding the sea lion and salmon conflict is not relevant to other regions where sea lions are not present, fisheries management issues are not salient, and where individuals or organizations are not impacted by the outcomes.

In addition to not being applicable to national coverage, some researchers have shown that local coverage of an issue can result in more balanced reporting than national coverage. This is likely a result of national reporters not having as much insight on the topic and having less access to sources than regional reporters who are working in the action. As previously noted, balance is considered a journalistic norm. Molotch and Lester (1975) revealed coverage from the local newspaper (*Santa Barbara News Press*) provided more balanced coverage of the 1969 Santa Barbara oil spill than the national publications. While local coverage referenced oil companies and conservationists an almost identical amount of times, national coverage favored oil company references nearly 85 percent of the time. The researchers explained that while the oil spill was an

extensively covered story nationally, its presence in these publications faded much faster than in local coverage.

For the current study, news articles were selected from states located in the Pacific Northwest that have interests in fisheries management and sea lion habitat, in addition to states that have tribal investment in fisheries policies. These states included Oregon, Washington, California, Idaho, Alaska, and Montana (See Appendix F). For this research, Oregon and Washington were clear options because Bonneville Dam is located between the two states on the Columbia River. Additionally, Idaho was selected because Idaho state officials officially requested and received permission to lethally remove California sea lions (NMFW, 2008). California was also included in the study because its sea lions reside in California for the majority of the year and are usually present on the Columbia River between January and June (NMFW, 2008). Alaska was selected because it has interests in fisheries management issues surrounding salmon and other fish populations. Montana, in addition to the other states, is the home to Native American tribes, who have spiritual, economic, and legal interest and involvement in fisheries policies and salmon populations.

The final sample (N = 161) resulted in articles published in nine newspapers located in five states. Oregon had the most articles with 88, followed by Washington with 56, Idaho with ten, California with six, and Montana with one. There were no relevant articles from Alaska concerning the sea lion and salmon controversy. The *Associated Press* contributed the most articles to the final sample with 61, followed by the *Columbian* (a Washington publication) with 42, the *Oregonian* (an Oregon publication) with 39, the *Lewiston Morning Tribune* (an Idaho publication) with nine, the

Seattle Post-Intelligencer (a Washington publication) with four, the *San Jose Mercury News* (a California publication) with three, and the *Contra Costa Times* (a California publication), the *Monterey County Herald* (a California publication), and the *Tri-City Herald* (a Washington publication) with one each.

Search terms.

The search terms selected included “sea lion” and “Bonneville.” These were clear choices because the controversy surrounds sea lions and takes place at the Bonneville Dam. It was debated whether the term “salmon” should be included, and it was decided to exclude the term because a trial search that included this term yielded many stories about annual numbers of salmon runs near the Bonneville Dam, with no mention of the sea lion conflict. It is important to note that because “sea lion” was selected as a search term, a potential implication of this could result in more frames revolving around sea lion issues than other search terms would produce.

Procedure

In order to reliably document patterns observed in the sample, a procedure must be established for creating records of the researcher’s findings. According to Krippendorff (2004), *recording* is a method often used to interpret what is seen or read, or to describe experiences, while *coding* is preferred among the natural sciences for recoding data because the observer is independent from the rules. “Thus researchers attempt to formulate recording instruments that contain explicit and detailed rules that coders can apply reliably, just as mechanical devices would” (p. 126). The proposed study, which seeks to maintain such independence by eliminating individual

interpretations, has created a codebook to establish uniformity among operationalizations and documented data.

Codebook creation process.

One graduate professor, two graduate students, and one upper-level undergraduate student created the codebook over a six-month period in 2010. The process of deciding what frames to examine and how to measure them included multiple stages and sets of data. The group first reviewed literature on environmental framing and examined the sea lion and salmon background by reading key stakeholders' web sites, blogs, and editorials on the controversy. In addition, the team read mainstream news articles and Native American news publications that discussed concerns regarding growing sea lion populations and shrinking salmon populations.

The team used Weber (1990) as a guide in creating and testing a coding scheme, where researchers must define the categories or "themes" they are attempting to code, which was established through the process of group members presenting, evaluating, explicating, and leading discussions on possible frames or topics that should be included in the codebook. Additionally, the graduate professor presented frame ideas posed in previous research. Complete consensus was required when determining what frames should be included in the codebook and how they should be categorized. After a frame was selected, the group debated how the frame should be operationalized and measured.

After each draft of the codebook was modified, the professor and graduate students coded practice articles used in constructing the coding frames, as required in Weber's next step, where a sample of the text is coded for practice. "Testing not only reveals ambiguities in the rules, but also often leads to insights suggesting revisions of

the classifications scheme” (p. 23). Weber noted the importance of assessing accuracy and reliability while creating and coding a testing scheme, in addition to revising coding rules if reliability is low. This process continued until consensus was reached regarding the validity of questions posed and listed categories used for quantitative coding.

Coder training.

The coding process took place over a five-month period in 2010. In addition to the two graduate students, an additional upper-level undergraduate was trained and completed coding. Even though Krippendorff (2004) noted it is not ideal for the codebook constructors to complete the coding, the graduate students, in addition to the professor, believed they were able to remain objective and identify manifest frame content. According to Krippendorff (2004), the coders must have the necessary cognitive abilities in which they are “capable of *understanding these rules and applying them consistently* throughout analysis” (p. 127). The three coders were selected because they were capable of maintaining this consistency.

The two graduate students began coding after they established high agreement while comparing practice articles. An undergraduate coder was trained using what Benoit et al. (2007) described as the “functional approach” coder training method, meaning she was given codebooks, texts to practice coding with, and was provided feedback on her work. One of the graduate coders met twice a week with the coder-in-training for nearly three months of functional approach training, which overlapped with her coding work. Krippendorff (2004) described the coder training process as a natural activity that must be repeated often. The trainee was determined reliable when agreement on practice coding was estimated at nearly full agreement.

When confusion arose, decision rules were made between the two coders and the third graduate coder was informed via email of the final decisions. An example of a decision rule that was made includes the process of deciding when a source or organization is linked to a discussion of blame or solution frames. While a quote clearly links a source and stakeholder to a frame, stakeholders can still be linked to the discussion of a frame without a quote. Through the construction of a decision rule, this linkage was defined as a direct attribution to the statement or sentence where there can be no doubt that this thought can from the source or organization. The coders decided to look for specific words in order to determine this linkage, which included; said (with or without quotes), noted, discussed, claimed, mentioned, voiced concern/support for, and wrote (e.g., from a news release). The coders agreed that when these words did not appear in conjunction with the discussion of the frame, the source or organization would not be recorded as being linked to the frame.

Variables

In order to address the hypotheses and answer the research questions proposed, this study defined and contextualized the variables under study. To ensure validity and reliability among the data, this research recorded manifest information, meaning the presence of words that identified themes, such as sources or frames. Berelson (1952) noted content analysis is a research method that records manifest content of communication, and he defined manifest as essentially prohibiting the coder to read between the lines while recording data. Krippendorff (2004) expanded on Berelson's call for "systematicity," noting "for a process to be replicable, it must be governed by rules that are explicitly stated and applied equally to all units of analysis" (p. 19). Conflicts in

the media, such as the sea lion and salmon debate, can be emotionally driven by stakeholders and full of complicated social, legal, economic, and political references that can be interpreted differently. Therefore, this research sought to regulate potential false inferences by exclusively recording manifest information.

Operationalization of coded variables.

The final codebook contained four main sections; with an additional space for secondary mentions for the coder to add, such as “interesting metaphors.” The first section (see Appendix G) looked at quantitative information regarding the publication and where it was printed. The coder was instructed to write out the newspaper name and record the state of publication by selecting a list of states. These include, (1) Alaska; (2) California; (3) Idaho; (4) Oregon; (5) Montana; (6) Washington; or (8) Unknown, other, cannot tell. The coder was also instructed to record the date of publication.

This section also asked information about the specific article by requesting the coder to write out where (i.e., what section) the article is located in the newspaper, what the page number is, and what the page letter is, in addition to the word count. The type of article was determined by quantitatively selecting (1) News; (2) Editorial, letter, opinion; or (3) Unknown, cannot tell, other. If the coder selected three, she was provided a space to write the type of article. For the purpose of this research, only news articles were examined. In the following section, the coder was asked if the story principally, meaning “the lead or the *majority* part of the story,” concerns the sea lion-salmon issue. If the answer was (0) No, the coder stopped coding at this point, and if the answer was (1) Yes, the coder continued coding.

Sources.

The third section (see Appendix H) examined source use in the articles. Five identifying factors were recorded for each source. For the purpose of this research, not all identifying factors were used and will therefore not be detailed in this section (See Appendix H for the complete list of questions). A source must be quoted in the article in order to be recorded as a source. It was later determined that all quoted sources must be individuals (i.e., not organizations), and source quotes had to contribute a complete sentence, statement, or thought. For example, if a story read, *Sharon Young believes killing sea lions is “wrong”* (where only “wrong” is in direct quotes) this would not be counted as a quote, and Sharon Young would only be recorded as a source if she contributed another complete thought in quotes, such as *“The Humane Society is considering the needs of both salmon and sea lions” Sharon Young said.*

In this section, the coder wrote the source’s name and his or her title, if given. The codebook then requested the source’s organization to be written and coded based on seven options. These options included; (1) Local or state government; (2) Federal or international government; (3) Tribal government; (4) Non governmental agency; (5) For-profit organization (e.g., an aquarium); (6) Advocacy group, non-profit group (e.g., the Humane Society); or (7) Other, which directed the coder to describe what the organization is. Following the example above with Sharon Young, her name would be written out and her title would be recorded as spokesperson. The Humane Society would then be written out as her organization, which would then be coded as (6) Advocacy group, non-profit group.

Frames.

The fourth and most extensive section of the codebook addressed frames as the unit of analysis. In addition to the qualitative description of an overall frame, including key words and description of the frame, nine additional frames were included. These included a war or battle frame, solution frame, causal blame or consequence frame, intrinsic value, ethics and morality frame, extrinsic value relating to the economy frame, balance and harmony frame, imbalance frame, laws and/or policies frame, and a politics frame. All frames were determined independent of one another, meaning one frame, such as a blame frame, could not also be coded as another frame as well, such as an extrinsic value frame. Only the solution frame and casual blame or consequence frame (hereafter referred to as the blame frame) are detailed in this section. For the purpose of this research, not all questions relating to the blame and solution frame themes in the codebook were used and will therefore not be detailed (See Appendices I and J for the complete list of questions).

Blame frames.

Recall from the literature that blame is manifestly identified as social, legal and environmental accountability assigned to individuals, groups, animals, actions or habits, laws or policies, or general natural occurrences. The blame frame section of the codebook (see Appendix I) asked coders to identify manifest content that discussed a cause and consequence, such as *sea lions are eating salmon and lowering their populations*. In addition to asking how many blame frames were presented in the article, the codebook provided four factors to identify blame themes, three of which were used in this research and are therefore described in detail in this section. First, the codebook

instructed the coder to describe the instance of causal blame by using words and phrases from the story. For example, if an article included a quote from Matt Rossell, the Northwest Director of In Defense of Animals, specifically citing the Oregon Department of Fish and Wildlife as the party to blame for the accidental deaths of six sea lions (four California and two Steller) in 2008, a description of this was included here.

In order to determine what or who is receiving the attribution of blame, the coder was directed to record the cause of the blame based on eight options. These included, (1) Individual (i.e., human); (2) Group (i.e., small, unofficial group); (3) Formal group or organization (e.g., the Humane Society); (4) Systemic man-made cause (e.g., dams or laws); (5) God, time, fate, Mother Nature; (6) Individual animal (i.e., a fish, sea lion); (7) Groups of animals; or (9) Unclear, cannot tell, other. Following the example of blame presented by Matt Rossell described above, (3) Formal group or organization would be selected as the cause of blame, as the Oregon Department of Fish is the party being blamed.

Finally, the coder identified the source's organization, which was recorded based on seven options. These options included, (1) Local or state government; (2) Federal or international government; (3) Tribal government; (4) Non governmental agency; (5) For-profit organization (e.g., an aquarium); (6) Advocacy group, non-profit group (e.g., the Humane Society); or (7) Other, which directed the coder to describe the organization. Following the example of blame listed above, (6) Advocacy group, non-profit group would be selected because In Defense of Animals was the organization linked to the discussion of blame.

Solutions frames.

Recall from the literature that solutions are manifestly identified as social, legal, and environmental methods, processes, steps, actions, and approaches to resolve issues. It was decided that if a coder found that a theme frame could be interpreted as including a solution and another frame (such as laws and/or policies), the decision rule was to record the frame as a solution. This step was necessary to maintain independence among the frame themes. Additionally, the sea lion and salmon literature generated from stakeholders revealed the ultimate goal of the stakeholders, both in favor of lethal removal and against it, was to create resolutions.

The solution frame section (see Appendix J) of the codebook asked coders to identify a manifest frame theme “that offers a solution to any problem relevant to the sea lion-salmon issue,” which can take place in the past, present, or future. Based on the literature generated from key stakeholders, including the National Marine Fisheries Service and the Humane Society, the nature of this coverage suggested solutions present in the sea lion and salmon controversy are both presented as successful and failed solution frames. Therefore, the coder was instructed to include solutions themes even if they were poor or ineffective (i.e., failed solutions). A solution was identified as failed if it was presented in the article as being either ineffective or wrong. Coders looked for identifying words and specifically noted whether a solution frame was failed or successful while coding. For example if the article quoted Charles Hudson, a spokesperson for the Columbia River Intertribal Fish Commission saying, “*Hazing and other non-lethal methods are not working*,” this would be coded as a failed solution.

In addition to asking how many solution frames were presented in the article, the codebook asked four identifying questions about each solution theme, three of which were used in this research and are therefore described in detail in this section. First, the coder described the solution in her own words. She was then instructed to write the full source quote if applicable (i.e., if a quotation articulates the failed or successful solution). Following the example above, the coder would describe non-lethal methods as a failed solution and record Charles Hudson's quote, "*Hazing and other non-lethal methods are not working.*"

The next step required the coder to identify the source's organization, which was recorded quantitatively based on seven options. These options included; (1) Local or state government; (2) Federal or international government; (3) Tribal government; (4) Non governmental agency; (5) For-profit organization (e.g., an aquarium); (6) Advocacy group, non-profit group (e.g., the Humane Society); or (7) Other, which directed the coder to describe the organization. Following the example above, (3) Tribal government would be selected because the Columbia River Intertribal Fish Commission was the organization linked to the discussion of the failed solution.

Data Analysis

Coding was completed in November 2010. Between November and January the data were entered into SPSS by a graduate student who neither took part in constructing the codebook, nor was involved in the coding process. The data were then cleaned. Weber (1990) recommended this step in order to provide more reliable data. This process took place by both a coder and the student who entered the data into SPSS. Spelling and grammar mistakes were corrected, missing data were filled in by reviewing

the initial codebooks (e.g., the state where the article was published was not recorded in the code book but the article notes it was printed in Oregon), and in some cases frames were grouped by categories. For example, when blame frames were coded they were written in the coder's own words, as instructed by the codebook. Therefore, some coders might have recorded *Sea lions are eating salmon*, and another coder could have used the word *consuming* or *killing* instead. These are the same instances of blame. The data were reviewed and blame and solution frame categories were constructed by the researcher, and were reviewed and confirmed by the data recorder. These added variables were entered in SPSS by creating new quantitative variables.

The ten blame categories created include, "Sea lions killing salmon," "A Specific sea lion is killing salmon," "Humans are to blame for salmon counts," "Anglers and overfishing are killing salmon," "Dams are killing salmon," "Birds are killing salmon," "Habitat loss/degradation are killing salmon," "Government and government policies and management are to blame," "Other issues are to blame for salmon loss," and "Other blame/not salmon related." The six solution categories include, "Hazing/non-lethal," "Physical and electronic/sonar barriers," "Tracking/monitoring/branding," "Electronic jolt field," "Dam removal," and "Trapping, relocating or lethal removal." More information on these blame and solution categories, including examples, is provided in the results section.

Intercoder Reliability

In order to determine intercoder reliability, slightly more than 10 percent of the sample ($N = 17$) was coded by multiple coders and was examined through Cohen's Kappa. Intercoder reliability is necessary to establish within content analysis "given that

a goal of content analysis is to identify and record relatively objective (or at least intersubjective) characteristics of messages, reliability is paramount. Without the establishment of reliability, content analysis measures are useless” (Neuendorf, 2002, p. 141). Previous researchers have suggested that 10 percent of the total sample is an adequate portion to use when checking intercoder reliability (Benoit, et. al, 2007; Kaid & Wadsworth, 1989; Lacy & Riffe, 1996; Neuendorf, 2002; Wimmer & Dominick, 1991).

When calculating intercoder reliability, only the codebook questions applicable to this research were analyzed. Questions relating to frames other than blame, solution, and source use were not examined (i.e., overall story information, overall frames, war or battle frames, intrinsic and extrinsic values frames, balance and imbalance frames, law frames, and politics frames). Additionally, some questions within the examined frame sections were not included in this research (e.g., the position level of sources, such as person-on-the-street, low-level, mid-level, or executive or unknown); therefore the responses to these questions were not included in the intercoder reliability testing.

When examining general information about the newspapers included in the study, percentage agreement was calculated because there was no possibility for varied interpretations. Each article provided this information for the coder to record, therefore no subjective decisions had to be made. There was 100 percent agreement by the coders when looking at the publication’s name and the state where it was printed.

Cohen’s Kappa was used to examine the remaining source and frame information examined in this research, which was calculated on the web site Vassar Stats (Lowry, 2011). The unweighted Kappa was determined for all frames where responses were nominally recorded ($N = 6$), while the weighted Kappa was calculated for two of the

questions (i.e., the number of blame frames and the number of solution frames) where the responses were numerically recorded (i.e., not categorical information). Since there were no categories to choose from, this type of coding allowed for more subjective interpretations of the data. Weighted Kappa takes into consideration the differences between the responses in disagreement. In other words, while the difference between coding the cause of blame as an individual animal or as an individual human is valued the same as disagreeing that the cause of blame is an individual animal or is a small, unofficial group, there is a difference in the range of agreement between recording a disagreement of one and two instances of blame in comparison to one and five instances of blame. Weighted Kappa accounts for this variance in agreement.

Intercoder reliability testing revealed the highest calculated level of agreement was found in coding the type of blame (e.g., sea lions are killing salmon, dams are killing salmon) ($k = .96$), and the lowest level of agreement was found in coding the organization linked to discussion of blame frame ($k = .69$). The full list of calculated Kappas can be found in Table 1 below. According to Landis and Koch's (1977) interpretation of Kappa agreement, half of the calculated Kappas were considered to be in *almost perfect agreement* (.81-1.00), and the other half fell under the *substantial agreement* (.61-.80) category.

Table 1

Cohen's Kappa Intercoder Reliability Testing

Codebook question	<i>k</i>
Type of blame	.96
Type of solution	.92
Source's organization type	.88
Cause of blame	.81
Number of blame frames	.80*
Organization linked to discussion of the solution frame	.77
Number of solution frames	.71*
Organization linked to discussion of the blame frame	.69

*Note: *Indicates weighted Kappas*

Chapter 6: Results

The coding results for questions analyzed for this study's hypotheses and research questions showed a total of 244 source themes that were from either governmental ($N = 182$), advocacy/non-profit ($N = 43$), or tribal ($N = 19$) organizations. Additionally, the results found a total of 1,725 frame themes. Of these, 984 were blame related (i.e., $N = 279$ total blame frames, $N = 279$ blame descriptions, $N = 279$ attributions of blame, and $N = 147$ organizations linked to discussion of blame) and 741 were solution related (i.e., $N = 307$ total successful and failed solutions frames, $N = 307$ successful and failed solutions descriptions, and $N = 127$ organizations linked to the discussion of successful and failed solutions).

All frames were determined independent of one another during the coding process, meaning one type of frame, such as a blame frame, could not also be coded as another frame, such as an extrinsic value frame. Among the current dataset ($N = 161$), blame frames were presented the most frequently, with up to six mentions per story and a total of 279 appearances ($N = 279$, $M = 1.73$, $SD = 1.36$). Law frames were presented with the next most frequency with up five mentions per story and a total of 256 appearances ($N = 256$, $M = 1.59$, $SD = 1.08$). The four categories created for the most frequently occurring laws included, "ESA/MMPA of '72," "MMPA Amendment of '94," "Humane Society lawsuit to stop lethal removal," and "Endangered Salmon Predation Prevention Act," which was the bill/ruling allowing the trapping, relocating or lethal removal of sea lions. It became apparent in the analysis of the frames that law frames were very prominent in the coverage. Although they were not further examined in the results section (e.g., how often each law frame appeared) because this research did not

specifically address these types of frames in the hypotheses and research questions. Their presence within the coverage is addressed in the discussion section of this thesis.

Both types of solution frames were presented with the third and fourth most frequencies. Successful solution frames were presented up to four times per story with a total of 211 appearances ($N = 211$, $M = 1.31$, $SD = .69$), and failed solution frames were presented up to three times per story a total of 96 mentions ($N = 96$, $M = .60$, $SD = .71$). Extrinsic value frames were presented up to two times per story with a total of 48 appearances ($N = 48$, $M = .30$, $SD = .60$). Seven categories were constructed for frequently occurring extrinsic value frames, including, “Billions spent on salmon recovery (by federal government and taxpayers),” “Millions spent on salmon protection/recovery (by federal government and taxpayers),” “\$1 million spent on steel barricades by the Army Corps of Engineers,” “Bounties paid for sea lions,” “Money Spent by federal government to recover salmon populations” (i.e., not a specified amount), “\$1.4 million grant from state power council for electronic barrier system created by Smith-Root,” and “\$55 million spent on chutes to move salmon around the dam by Army Corps of Engineers.”

Balance frames were mentioned infrequently with a total of eight appearances ($N = 8$, $M = .05$, $SD = .22$), followed by politics frames, which were also presented infrequently, with a total of six appearances ($N = 6$, $M = .04$, $SD = .19$). War frames, in addition to intrinsic value frames, were mentioned only five times ($N = 5$, $M = .03$, $SD = .17$). Five categories were created for frequently occurring intrinsic value frames including, “Killing sea lions is wrong/cruel/inhumane,” “Sea lions are smart/beautiful/valued,” “Sea lions are wrongfully blamed/used as scapegoats,” “Sea

lions are bad/violent/delinquents,” and “Salmon are treasured.” Finally, imbalance frames were mentioned once ($N = 1$, $M = .01$, $SD = .08$).

Table 2

Overall Frames

Frame	<i>M</i>	<i>SD</i>
Blame	1.73 (N = 279)	1.36
Laws	1.59 (N = 256)	1.08
Successful Solutions	1.31 (N = 211)	.69
Failed Solutions	.60 (N = 96)	.71
Extrinsic Values	.30 (N = 48)	.60
Balance	.05 (N = 8)	.22
Politics	.04 (N = 6)	.19
War	.03 (N = 5)	.17
Intrinsic Values	.03 (N = 5)	.17
Imbalance	.01 (N = 1)	.08

Hypotheses

Recall that hypothesis 1 predicted the news stories concerning the sea lion and salmon conflict at the Bonneville Dam would reflect a statistically greater number of governmental sources than advocacy and tribal sources. Governmental sources were coded under two categories including, local or state government and federal or international government. For the analysis, a governmental source variable was

established by collapsing the two categories into one master governmental source variable ($N = 182$). Tribal sources ($N = 19$) and advocacy/non-profit sources ($N = 43$) were coded separately and therefore did not need to be collapsed or combined with any variables. In order to take into consideration the use of multiple sources per article, a variable was created to account for the total amount of governmental sources, the total amount of tribal sources, and the total amount of advocacy/non-profit sources per article.

Governmental sources (both state and federal) appeared far more frequently than the other types of sources, with a total of 182 governmental source appearances (up to five per story) and a mean of 1.13 ($SD = 1.19$). Advocacy/non-profit sources appeared four times less frequently than governmental sources with a total of 43 sources (up to two per story) with a mean of .27 ($SD = .48$). Tribal sources appeared a total of 19 times (and up to two per story) with a mean of .19 ($SD = .34$). To test Hypothesis 1 predicting a statistically greater number of governmental sources than advocacy and tribal sources, a paired sample t -test run in SPSS, which supported hypothesis 1. This indicated that a statistically significant difference was found between governmental sources and advocacy/non-profit sources [$(t(160) = 9.87, p < .000)$], and between governmental sources and tribal sources [$(t(160) = 10.72, p < .000)$]. In other words, governmental sources ($M = 1.13$) appeared more frequently than advocacy/non-profit sources ($M = .27$) and tribal sources ($M = .19$) at a statistically significant level.

In order to test hypothesis 2, which predicted that the coverage would reflect a statistically significantly greater number of blame frames than successful solution frames, the total amount of blame frames were compared to successful solution frames. Blame frames appeared a total of 279 times ($M = 1.73, SD = 1.36$). For solution frames, a

separate variable was created for the total number of failed solutions, including a description of these failed solutions, in addition to the sources, organizations and quotes linked to the discussion of these failed solutions. Successful solutions appeared a total of 211 times ($M = 1.31$, $SD = .69$). A paired sample t -test was run in SPSS in order to establish whether there was a statistically significant difference between the means of the total number of blame frames and the total number of successful solution frames. The results of this test indicated that a statistically significant difference was found between blame frames and successful solution frames [$t(160) = 3.92$, $p < .000$]. Hypothesis 2 was therefore supported, meaning blame frames ($M = 1.73$) appeared more frequently than successful solution frames ($M = 1.31$) at a statistically significant level.

Research Questions

Turning to the research questions, this study examined what types of blame frames appeared in the news coverage of the sea lion/salmon conflict at the Bonneville Dam. Recall from the data analysis section that when the data were cleaned up after entered into SPSS some frames were grouped into categories. For example, categories were created for types of blame frames, which were recorded in the coder's own words during the coding process. Therefore, some coders might have recorded *Sea lions are eating salmon*, and another coder could have used the words *consuming* or *killing* instead. These are the same instances of blame. Ten categories were created for blame frames, which were examined when answering research question 1a. In order to take into consideration the multiple instances of blame per article, a variable was created for each of the ten categories to account for the total amount of blame relating to each category per article.

The data showed most of the instances of blame related to the decline in salmon populations. Only 18 instances of blame were not related to the decline in salmon populations ($M = .11$, $SD = .35$). Since the codebook noted there must be “a **cause** and a **consequence**” for each instance of blame, an unrelated salmon blame might have the same cause of blame (e.g., sea lions) as a salmon related form of blame, but the consequence is not the decline in salmon populations. An example of this is when sea lions are blamed for damaging and defecating on docks and upsetting anglers or employees of the boat dock. The cause of this blame is sea lions, and the consequence is upsetting anglers or boat dock employees.

The data showed 261 instances of blame were salmon related. Sea lions killing salmon were cited as blame the most frequently with a total of 133 mentions ($M = .83$, $SD = .38$). This could have been phrased in the examples shown in the previous paragraph regarding the various ways to express this form of blame. This instance of blame stands out as being presented with considerable more frequency than any other form of blame. Dams were blamed for killing salmon with the second most frequency with a total of 39 mentions ($M = .24$, $SD = .43$). An example of dams killing salmon could include a mention of the toll they take on juvenile salmon heading out to the ocean, or adult salmon returning to their stream of origin to spawn.

Anglers and overfishing were blamed for killing salmon with the next most frequency with a total of 25 mentions ($M = .16$, $SD = .36$). An example of this type of blame could cite sports fishing, commercial fishing or tribal fishing as the culprits of harming salmon populations. Habitat loss and degradation was blamed for killing salmon less frequently with a total of 22 mentions ($M = .14$, $SD = .34$). An example of this type

of blame could include loss of areas for salmon spawning or damages to salmon runs that prevent them from accessing spawning areas or provide less than ideal conditions for them to survive in (e.g., poor water quality or lack of shade).

Birds were blamed for killing salmon a total of 14 times ($M = .09$, $SD = .28$). An example of this type of blame could include birds gathering at the dam and diving to capture salmon bottlenecking into fish ladders. Other factors were blamed for salmon loss a total of twelve times ($M = .07$, $SD = .33$). An example could include blaming the Humane Society for fighting lethal removal of sea lions, resulting in more salmon loss. A specific sea lion was blamed for killing salmon, and humans were blamed for salmon loss seven times each ($M = .04$, $SD = .20$). An example of blame relating to a specific sea lion could include the story about sea lion C-404 who managed to enter the fish ladders and gorge on salmon, while an example of blame relating to human actions could include attitudes or actions relating to salmon populations, such as over dependency on salmon meat as a food source. The government and government policies and management were blamed for salmon loss twice ($M = .01$, $SD = .11$). An example of this type of blame could include ineffective hazing policies enforced by the government.

A paired sample *t*-test was run in SPSS in order to establish whether there was a statistically significant difference between the means of the two most frequently occurring blame frames (i.e., sea lions killing salmon blame frames and dams killing salmon blame frames). The results of this test indicated that a statistically significant difference was found between these two frames [$(t(160) = 14.61, p < .000)$], meaning sea lions killing salmon blame frames ($M = .83$) occurred more frequently than dams killing

salmon blame frames ($M = .24$) at a statistically significant level. See Table 3 for additional t -test findings.¹

Table 3

Types of Blame Frames

Type of Blame	M	SD
Sea lions are killing salmon	.83(1) _a (N = 133)	.38
Dams are killing salmon	.24(2) _b (N = 39)	.43
Anglers are killing salmon	.16(3) _c (N = 25)	.36
Habitat loss is killing salmon	.14(4) _c (N = 22)	.34
Birds are killing salmon	.09(5) _c (N = 14)	.28
Other factors blamed for salmon loss	.07(6) _c (N = 12)	.33
A specific sea lion is killing salmon	.04(7) _c (N = 7)	.20
Humans are killing salmon	.04(8) _c (N = 7)	.20
The gov/policies are killing salmon	.01(9) _c (N = 2)	.11

Note: Differing subscripts (e.g., a to b) in each M column indicates a statistically significant different mean score with the previous variable's mean (i.e., $P < .05$). A repeating subscript (e.g., b to b) in each M column indicates there is not a statistically significant different mean score with the previous variable's mean (i.e., $P > .05$).

While research question 1a examined the types of blame found in the news coverage, research question 1b asked what is attributed as the cause of the blame in this coverage. Recalling that the codebook specifically noted every instance of blame requires a “a **cause** and a **consequence**,” this research question was answered by

examining the question in the codebook that asked what the cause was and provided seven options and an other category. In order to account for the multiple instances of blame per article, a variable was created for each of the eight optional answers the codebook provided to account for the total amount of blame causes relating to each type of cause per article.

The data showed groups of animals were the most frequently blamed subject with a total of 153 attributions of blame and the highest mean ($M = .95$, $SD = .52$). An example of this type of blame could be sea lions or birds that are blamed as the cause for salmon loss. This cause of blame appeared a considerable amount of times more than any other cause. Systematic man-made causes were blamed a total of 48 times ($M = .30$, $SD = .56$). An example of this type of blame could be dams or laws that are blamed as the cause for salmon loss. This cause of blame also appeared at least twice as frequently as any of the remaining causes.

God, fate, and Mother Nature appeared as a cause of blame a total of 24 times ($M = .15$, $SD = .45$). This type of cause could be natural erosion that has occurred over time and is damaging salmon spawning grounds, resulting in a decline in salmon numbers. Small, unofficial groups were blamed 23 times ($M = .14$, $SD = .35$). For example, anglers could be blamed as the cause of salmon loss. Formal groups or organizations appeared as the cause of blame ten times ($M = .06$, $SD = .27$). An example of this type of group could include the Humane Society, who could be blamed as the cause of disrupting sea lion management plans. An individual (human) was blamed seven times ($M = .04$, $SD = .23$) as were individual animals ($M = .04$, $SD = .21$). An example of a human as the cause of blame could be a person blamed for illegally shooting a sea lion, while blame on

an individual animal could be a reference to sea lion C-404 as the cause of blame when he feasted on salmon in the fish ladders. Unclear, can't tell, or other forms of blame were cited as the cause of blame seven times ($M = .04$, $SD = .23$).

A paired sample t -test was run in SPSS in order to establish whether there was a statistically significant difference between the means of the two most frequently occurring attributions of blame (i.e., groups of animals and systematic man-made causes). The results of this test indicated that a statistically significant difference was found between these two attributions of blame [$t(160) = 13.45$, $p < .000$], meaning groups of animals were blamed ($M = .95$) more frequently than systematic man-made causes were blamed ($M = .30$) at a statistically significant level. For a complete list of t -test findings see Table 4.²

Table 4

Cause of Blame

Attributed blame	M	SD
Groups of animals	.95(1) ^a (N = 153)	.52
Systematic man-made causes	.30(2) ^b (N = 48)	.56
God, fate, and Mother Nature	.15(3) ^b (N = 24)	.45
Small, unofficial groups	.14(4) ^b (N = 23)	.35
Formal groups	.06(5) ^c (N = 10)	.27
An individual (human)	.04(6) ^c (N = 7)	.23
An individual animal	.04(7) ^c (N = 7)	.23

Note: Differing subscripts (e.g., a to b) in each M column indicates a statistically significant different mean score with the previous variable's mean (i.e., $P < .05$). A repeating subscript (e.g., b to b) in each M column indicates there is not a statistically significant different mean score with the previous variable's mean (i.e., $P > .05$).

Recalling that research question 2 asked which types of organizations are most commonly linked to attributions of blame, this was tested by examining the question in the codebook that asked what organization type was linked to the discussion of blame, and provided six options and an other category. In order to account for the multiple instances of blame per article, a variable was created for each of the seven optional answers the codebook provided to account for the total amount of organization types linked to the discussion of blame per article.

Additionally, while a quote clearly links a source and stakeholder to an attribution of blame, stakeholders can still be linked to the discussion of blame without a quote. This linkage was defined in the coding process as a direct attribution to the statement or sentence where there can be no doubt that this thought came from the source or organization. Specific words were looked for in order to determine this linkage, including, said (with or without quotes), noted, discussed, claimed, mentioned, voiced concern/support for, and wrote (e.g., in a news release). When these words did not appear in conjunction with the attribution of blame, the source or organization was not recorded as being linked to the blame frame.

Overall, the data showed that not every instance of blame had an organization linked to the discussion of blame. Of the 279 instances of blame, organizations were linked to these discussions of blame 147 times. Advocacy and non-profit groups dominated this blame section, presenting a total of 109 discussions of blame ($M = .68$, $SD = 1.17$). This could include the Humane Society or the Sea Lion Defense Brigade blaming dams or overfishing for salmon loss. Federal and international governmental organizations presented 18 discussions of blame ($M = .11$, $SD = .35$). An example of this could include the National Marine Fisheries Services blaming sea lion for eating salmon.

State and local governments presented nine discussions of blame ($M = .06$, $SD = .23$), which could include the Washington Department of Fish and Wildlife blaming individuals for illegally shooting sea lions. Tribal governments presented seven discussions of blame ($M = .04$, $SD = .26$). An example of this could include the Columbia River Inter-Tribal Fisheries Council blaming laws that prevent lethal removal of sea lions. Other types of organizations presented three discussions of blame ($M = .02$,

$SD = .18$), and non-governmental agencies and for-profit organizations each presented two discussions of blame ($M = .01$, $SD = .11$).

A paired sample t -test was run in SPSS in order to establish whether there was a statistically significant difference between the means of the two most frequently occurring organizations linked to the discussion of blame (i.e., advocacy and non-profit groups and federal and international governmental organizations). The results of this test indicated that a statistically significant difference was found between these two organizations linked to the discussion of blame [$t(160) = 5.81$, $p < .000$], meaning advocacy and non-profit groups were linked to the discussion of blame ($M = .68$) more frequently than federal and international governmental organizations were linked to the discussion of blame ($M = .11$) at a statistically significant level. For a complete list of t -test findings see Table 5.³

Table 5

Organization Types Presenting Blame Frames

Organizations types	<i>M</i>	<i>SD</i>
Advocacy/non-profits	.68(1) ^a (N = 109)	1.17
Federal & international governments	.11(2) ^b (N = 18)	.35
State & local governments	.06(3) ^b (N = 9)	.23
Tribal governments	.04(4) ^b (N = 7)	.26
Other types of organizations	.02(5) ^b (N = 3)	.18
Non-governmental agencies	.01(6) ^b (N = 2)	.11
For-profits	.01(7) ^b (N = 2)	.11

Note: Differing subscripts in each column indicate statistically significant different mean scores. Note: Differing subscripts (e.g., a to b) in each M column indicates a statistically significant different mean score with the previous variable's mean (i.e., $P < .05$). A repeating subscript (e.g., b to b) in each M column indicates there is not a statistically significant different mean score with the previous variable's mean (i.e., $P > .05$).

Moving on to examining solution frames, research question 3a asked what successful solutions frames would appear most commonly in the news coverage of the sea lion/salmon controversy. Recall from the data analysis section that when the data were cleaned-up after entered into SPSS some frames were grouped into categories. For example, when solution frames were coded they were written in the coder's own words, as instructed by the codebook. Therefore, some coders might have recorded *Hazing sea*

lions is a solution, and another coder could have used the word *Non-lethal methods such as shooting rubber bullets at sea lions is a solution* instead. These are the same type of solution. Six categories were created for solution frames, which were examined in order to answer research question 3a.

Recalling the six categories constructed for solutions, the data showed there were four solutions that appeared much more frequently than the other six. Trapping, relocating, or lethal removal solutions appeared the most commonly with 163 references ($M = 1.01$, $SD = .66$). An example of this type of solution could include trapping sea lions and sending them to a Sea World facility. This solution appeared considerably more frequently than any other solution. Hazing and other non-lethal method related solutions appeared the second most frequently with 26 mentions ($M = .16$, $SD = .37$). This solution could include the use of rubber bullets or loud noises to startle sea lions.

Of the remaining solutions, physical and electronic/sonar barrier solutions appeared six times, ($M = .04$, $SD = .22$) as did solutions relating to tracking, monitoring, and branding ($M = .04$, $SD = .19$). Examples of these solutions could include the use of sonar to discourage sea lions from certain areas, and on-going monitoring projects by governmental agencies. Other solutions framed as successful that were not categorized into frequently occurring frames occurred six times as well ($M = .04$, $SD = .19$). An example of this type of solution includes putting sea lion blood at the site of salmon predation, in attempts to scare sea lions away. Electronic jolt field solutions appeared three times ($M = .02$, $SD = .14$). This type of solution could include the electroshocking solution proposed by Smith-Root Inc. Finally, dam removal appeared as a solution once

($M = .01$, $SD = .08$). This could be a reference to the removal of Bonneville Dam, or other dams affecting salmon located on the Columbia River.

A paired sample t -test was run in SPSS in order to establish whether there was a statistically significant difference between the means of the two most frequently occurring successful solutions frames (i.e., trapping, relocating, or lethal removal and hazing and other non-lethal methods). The results of this test indicated that a statistically significant difference was found between these two successful solutions frames [$(t(160) = 12.77, p < .000)$], meaning trapping, relocating, or lethal removal were presented as successful solutions ($M = .50$) more frequently than hazing and other non-lethal methods were presented as successful solutions ($M = .16$) at a statistically significant level. For a complete list of t -test findings see Table 6.⁴

Table 6

Successful Solution Frames

Successful solutions	<i>M</i>		<i>SD</i>
Trapping, relocating/lethal removal	1.01(1)a	(N = 163)	.66
Hazing/non-lethal methods	.16 (2)b	(N = 26)	.37
Physical & electronic/sonar barriers	.04(3)c	(N = 6)	.22
Tracking, monitoring, & branding	.04(4)c	(N = 6)	.19
Electronic jolt fields	.02(5)c	(N = 3)	.14
Dam removal	.01(6)c	(N = 1)	.08

Note: Differing subscripts (e.g., a to b) in each M column indicates a statistically significant different mean score with the previous variable's mean (i.e., $P < .05$). A repeating subscript (e.g., b to b) in each M column indicates there is not a statistically significant different mean score with the previous variable's mean (i.e., $P > .05$).

In addition to successful solutions, research question 3b asked what types of failed solutions would appear in the coverage of the controversy. Recall that before coding began it was determined that failed solutions would both be recorded and a mention would be made if they were failed or not. An example of a failed solution would include, *Hazing efforts have been unsuccessful*. The same six categories used to examine successful solutions are used when examining failed solutions. Again, in order to account for the multiple instances of failed solutions per article, a variable was created

for each of the six categories to account for the total amount of failed solutions relating to each category per article.

The data showed two solutions were presented as failed solution far more frequently than any other. Hazing and other non-lethal methods appeared the most frequently as failed solutions with 51 mentions ($M = .32$, $SD = .48$). Trapping, relocating, or lethal removal solutions appeared the second most frequently with 41 mentions ($M = .25$, $SD = .46$). Physical and electronic/sonar barrier proposals appeared as failed solutions three times ($M = .02$, $SD = .14$). Tracking, monitoring, and branding were presented as a failed solution once ($M = .01$, $SD = .08$). Electronic jolt field solutions and dam removal solutions did not appear as failed solutions.

Two paired sample *t*-tests were run in SPSS in order to establish whether there was a statistically significant difference between the means of the three most frequently occurring successful solutions frames (i.e., hazing and other non-lethal methods, trapping, relocating, or lethal removal, and physical and electronic/sonar barriers). The results of this test indicated that while there was not a statistically significant difference found between the two most frequently occurring failed solutions frames [$t(160) = 1.64$, $p < .246$], there was a statistically significant difference found between the second and third most frequently occurring failed solutions frames [$t(160) = 7.79$, $p < .000$]. This means trapping, relocating, or lethal removal solutions were presented as failed solutions ($M = .25$) more frequently than physical and electronic/sonar barrier solutions were presented as failed solutions ($M = .02$) at a statistically significant level. For a complete list of *t*-test findings see Table 7.⁵

Table 7

Failed Solution Frames

Failed solutions	<i>M</i>	<i>SD</i>
Hazing/non-lethal methods	.32(1) _a (N = 51)	.48
Trapping, relocating/lethal removal	.25(2) _a (N = 41)	.46
Physical & electronic/sonar barriers	.02(3) _b (N = 3)	.14
Tracking, monitoring, & branding	.01(4) _b (N = 1)	.08

Note: Differing subscripts (e.g., a to b) in each M column indicates a statistically significant different mean score with the previous variable's mean (i.e., $P < .05$). A repeating subscript (e.g., b to b) in each M column indicates there is not a statistically significant different mean score with the previous variable's mean (i.e., $P > .05$).

In addition to looking at the types of successful solutions that appeared in the coverage, this research sought to examine which types of organizations were linked to such solutions, which research question 4a asked. This research question was answered by examining the question in the codebook that asked what organization type was linked to the discussion of the solution, and provided six options and an “other” category. In order to account for the multiple instances of solutions per article, a variable was created for each of the seven optional answers the codebook provided to account for the total amount of organization types linked to the discussion of solution per article.

Additionally, while a quote clearly links a source and stakeholder to a solution, stakeholders can still be linked to the discussion of solutions without a quote. Recalling

the process used to link sources and organizations to discussions of blame, solution frames required a stakeholder to have a direct attribution to the statement or sentence where there can be no doubt that this thought came from the source or organization. The same specific words presented for research question 2 were looked for in order to determine this linkage. When these words did not appear in conjunction with the solution frame, a source or organization was not recorded as being linked to the blame frame.

Overall, the data showed that not every appearance of a solution had an organization linked to the discussion of the solution. Of the 211 successful solutions presented, organizations were linked to the discussion of these solutions 78 times. Governmental stakeholders dominated this area, by presenting a total of 61 solutions, 34 by federal governmental organizations ($M = .21$, $SD = .49$), and 27 by state and local government organizations ($M = .17$, $SD = .46$). An example of this could be the Army Corps of Engineers and the Oregon Department of Fish and Wildlife proposing lethal removal of sea lions as solutions.

The remaining four types of organizations presented considerably fewer solutions. For-profit organizations presented seven solutions ($M = .04$, $SD = .23$), which could include a company such as Smith Root inc. advocating for electronic barriers. Advocacy/non-profit agencies presented five solutions ($M = .031$, $SD = .17$). This could include American Rivers suggesting the removal of dams as a potential solution. Tribal governments presented four solutions ($M = .029$, $SD = .16$), which could include the Columbia River Inter-Tribal Fish Commission suggesting the use of hazing as a solution. Finally, non-governmental organizations presented one solution ($M = .01$, $SD = .08$). An

example of this proposed solution could include a boat dock company suggesting capturing and relocating sea lions destroying their property.

Two paired sample *t*-tests were run in SPSS in order to establish whether there was a statistically significant difference between the means of the three most frequently occurring organizations linked to the discussion of successful solutions (i.e., federal governmental organizations, state and local government organizations, and for-profit organizations). The results of this test indicated that while there was not a statistically significant difference found between the two most frequently occurring organizations linked to the discussion of successful solutions [$t(160) = .78, p < .438$], there was a statistically significant difference was found between the second and third most frequently occurring successful solutions frames [$t(160) = 3.79, p < .000$]. This means state and local government organizations were linked to the discussion of successful solutions ($M = .17$) more frequently than for-profit organizations were linked to the discussion of successful solutions ($M = .04$) at a statistically significant level. For a complete list of *t*-test findings see Table 8.⁶

Table 8

Organization Types Presenting Successful Solution Frames

Organization types	<i>M</i>		<i>SD</i>
Federal & international governments	.21(1)a	(N = 34)	.49
State & local governments	.17(2)a	(N = 27)	.46
For-profits	.04(3)b	(N = 7)	.23
Advocacy/non-profits	.03(4)b	(N = 5)	.17
Tribal governments	.03(5)b	(N = 7)	.16
Non-governmental agencies	.01(6)b	(N = 1)	.08

Note: Differing subscripts (e.g., a to b) in each M column indicates a statistically significant different mean score with the previous variable's mean (i.e., $P < .05$). A repeating subscript (e.g., b to b) in each M column indicates there is not a statistically significant different mean score with the previous variable's mean (i.e., $P > .05$).

This research also sought to examine the types of stakeholders that were linked to failed solutions, which research question 4b asked. This research question was answered in an identical manner to the previous one, however organizations linked to the discussion of failed solutions were examined instead of those linked to successful solutions. Again, not every failed solution had an organization linked to the discussion of it. Of the 96 failed solutions presented, organizations were linked to the discussion of these solutions 49 times.

The data showed advocacy/non-profit groups dominated this section, presenting a total of 24 failed solutions ($M = .15$, $SD = .36$). Governmental organizations presented a total of 19 failed solutions. Federal and international governmental organizations presented 11 failed solutions ($M = .07$, $SD = .25$), and state and local government organization presented eight failed solutions ($M = .05$, $SD = .22$). The remaining four organizations presented a limited amount of failed solutions. For-profit organizations presented three failed solutions ($M = .02$, $SD = .16$), and tribal governments presented two failed solutions ($M = .01$, $SD = .11$). Non-governmental agencies presented one failed solution ($M = .006$, $SD = .08$). Other types of organizations did not present failed solutions.

A paired sample *t*-test was run in SPSS in order to establish whether there was a statistically significant difference between the means of the two most frequently occurring organizations linked to the discussion of failed solutions (i.e., advocacy and non-profit groups and federal and international governmental organizations). The results of this test indicated that a statistically significant difference was found between these two organizations linked to the discussion of blame [$(t(160) = 2.45, p < .015)$], meaning advocacy and non-profit groups were linked to the discussion of blame ($M = .15$) more frequently than federal and international governmental organizations were linked to the discussion of blame ($M = .07$) at a statistically significant level. For a complete list of *t*-test findings see Table 9.⁷

Table 9

Organization Types Presenting Failed Solution Frames

Organization types	<i>M</i>	<i>SD</i>
Advocacy/non-profits	.15(1) ^a (N = 24)	.36
Federal & international governments	.07(2) ^b (N = 11)	.25
State & local governments	.05(3) ^b (N = 8)	.22
For-profits	.02(4) ^b (N = 3)	.16
Tribal governments	.01(5) ^b (N = 2)	.11
Non-governmental agencies	.01(6) ^b (N = 1)	.08

Note: Differing subscripts (e.g., a to b) in each M column indicates a statistically significant different mean score with the previous variable's mean (i.e., $P < .05$). A repeating subscript (e.g., b to b) in each M column indicates there is not a statistically significant different mean score with the previous variable's mean (i.e., $P > .05$).

The final research question (5) sought to compare blame and failed solution frames and asked if the coverage would reflect more instances of blame frames or failed solution frames. Recall from Hypothesis 2 that the number of blame frames per story was recorded during the coding process, and the data showed they appeared a total of 279 times ($M = 1.73$, $SD = 1.36$). Additionally, recall that during the trial coding that took place during the construction of the codebook, coders noticed the frequent appearance of failed solutions and agreed to code them so as not to exclude this potentially significant group of findings. An example of a failed solution would include, “*Hazing efforts have*

been unsuccessful.” Before coding began it was therefore agreed that failed solutions would be recorded in this section and a mention would be made if they were failed or not. When entered into SPSS a separate variable was created for the total number of failed solutions, the description of these failed solutions, in addition to the sources, organizations and quotes linked to the discussion of these failed solutions. After entered into SPSS, these variables were reviewed by the researcher to verify that successful and failed solutions were properly organized. The data showed failed solution frames appeared a total of 96 times ($M = .60$, $SD = .71$). A paired sample t -test was run in SPSS in order to establish whether there was a statistically significant difference between the means of the total number of blame frames and the total number of failed solution frames. The results of this test indicated that a statistically significant difference was found between blame frames and failed solution frames [$t(160) = 10.96$, $p < .000$], meaning blame frames ($M = 1.73$) appeared more frequently than failed solution frames ($M = .60$) at a statistically significant level.

Chapter 6 Notes

¹ Sea lions killing salmon appeared as blame frames more often than dams ($t(160) = 14.61, p < .000$), angers ($t(160) = 18.06, p < .000$), habitat loss ($t(160) = 17.84, p < .000$), birds ($t(160) = 21.29, p < .000$), other factors ($t(160) = 20.09, p < .000$), a specific sea lion ($t(160) = 22.42, p < .000$), humans ($t(160) = 21.14, p < .000$), and the government/government policies ($t(160) = 25.41, p < .000$) at a statistically significant level. Dams also appeared as blame frames more often than angers ($t(160) = 2.92, p < .004$), habitat loss ($t(160) = 3.68, p < .000$), birds ($t(160) = 5.18, p < .000$), other factors ($t(160) = 4.72, p < .000$), a specific sea lion ($t(160) = 5.20, p < .000$), humans ($t(160) = 5.34, p < .000$), and the government/government policies ($t(160) = 6.68, p < .000$) at a statistically significant level. While anglers did not appear as blame frames more often than habitat loss ($t(160) = .51, p < .614$) at a statistically significant level, it did appear more often than birds ($t(160) = 2.23, p < .027$), other factors ($t(160) = 4.54, p < .012$), a specific sea lion ($t(160) = 3.28, p < .001$), humans ($t(160) = 3.28, p < .001$), and the government/government policies ($t(160) = 4.71, p < .000$) at a statistically significant level. Additionally, while habitat loss did not appear as a blame frame more often than neither birds ($t(160) = 1.58, p < .117$), nor other factors ($t(160) = 1.84, p < .068$) at a statistically significant level, it did appear more often than a specific sea lion ($t(160) = 22.42, p < .004$), humans ($t(160) = 21.14, p < .002$), and the government/government policies ($t(160) = 25.41, p < .000$) at a statistically significant level. Birds killing salmon did not appear more frequently than other factors ($t(160) = .36, p < .716$), a specific sea lion ($t(160) = 1.53, p < .127$), and humans ($t(160) = 1.53, p < .127$) at a statistically significant level, although it did appear more often than the government/government policies ($t(160) = 3.09, p < .002$) at a statistically significant level. Other factors blamed for salmon loss did not appear more often than either a specific sea lion ($t(160) = 1, p < .319$) or humans ($t(160) = 1.04, p < .299$) at a statistically significant level, although it did appear more often than then government/government policies ($t(160) = 2.27, p < .025$) at a statistically significant level. A specific sea lion neither occurred more frequently than humans ($t(160) = .00, p < 1.00$) nor the government/government policies ($t(160) = 1.68, p < .096$) at a statistically significant level. Finally, humans did not occur more often than the government/government policies ($t(160) = 1.91, p < .059$) at a statistically significant level.

² Groups of animals appeared more often as causes of blame than systematic man-made causes ($t(160) = 13.45, p < .000$), God, fate and Mother Nature ($t(160) = 16.38, p < .000$), small, unofficial groups ($t(160) = 19.31, p < .000$), formal groups ($t(160) = 20.16, p < .000$), an individual (human) ($t(160) = 20.26, p < .000$), and an individual animal ($t(160) = 20.26, p < .000$) at a statistically significant level. Systematic man-made causes appeared more often than God, fate and Mother Nature ($t(160) = 3.30, p < .001$), small, unofficial groups ($t(160) = 3.71, p < .000$), formal groups ($t(160) = 4.48, p < .000$), an individual (human) ($t(160) = 5.34, p < .059$), and an individual animal ($t(160) = 5.44, p < .000$) at a statistically significant level. While God, fate and Mother Nature did not appear more often than small, unofficial groups ($t(160) = .16, p < .876$) at a statistically significant level, it did appear more often than formal groups ($t(160) = 2.19, p < .030$), an

individual (human) ($t(160) = 2.71, p < .008$), and an individual animal ($t(160) = 2.64, p < .003$) at a statistically significant level. Small, unofficial groups appeared more often than formal groups ($t(160) = 2.22, p < .028$), an individual (human) ($t(160) = 2.89, p < .004$), and an individual animal ($t(160) = 2.99, p < .003$) at a statistically significant level. Formal groups did not appear more often than neither an individual (human) ($t(160) = .65, p < .514$) nor an individual animal ($t(160) = .73, p < .469$) at a statistically significant level. Finally, a an individual (human) did not appear more often than an individual animal ($t(160) = .00, p < 1.00$) at a statistically significant level.

³ Advocacy/non-profits were linked to the discussion of blame frames more often than federal and international governments ($t(160) = 5.81, p < .000$), state and local governments ($t(160) = 6.72, p < .000$), tribal governments ($t(160) = 6.77, p < .000$), other types of organizations ($t(160) = 7.22, p < .000$), non-governmental agencies ($t(160) = 7.13, p < .000$), and for-profits ($t(160) = 7.13, p < .000$) at a statistically significant level. Federal and international governments did not appear more frequently than state and local governments ($t(160) = 1.68, p < .095$) or tribal governments ($t(160) = 1.93, p < .055$) at a statistically significant level, but did appear more often than other types of organizations ($t(160) = 3.22, p < .002$), non-governmental agencies ($t(160) = 3.37, p < .001$), and for-profits ($t(160) = 3.53, p < .001$) at a statistically significant level. State and local governments did not appear more frequently than tribal governments ($t(160) = .45, p < .656$) or other types of organizations ($t(160) = 1.61, p < .109$) at a statistically significant level, but did appear more often than non-governmental agencies ($t(160) = 2.37, p < .019$) and for-profits ($t(160) = 2.13, p < .034$) at a statistically significant level. Tribal governments did not appear more frequently than other types of organizations ($t(160) = 1.00, p < .319$), non-governmental agencies ($t(160) = 1.39, p < .166$), and for-profits ($t(160) = 1.39, p < .166$) at a statistically significant level. Other types of organizations did not appear more frequently than non-governmental agencies ($t(160) = .38, p < .707$) and for-profits ($t(160) = .38, p < .707$) at a statistically significant level. Finally, non-governmental agencies did not appear more frequently than for-profits ($t(160) = .00, p < 1.00$) at a statistically significant level.

⁴ Trapping, relocating/lethal removal was presented as a successful solution more often than hazing/non-lethal methods ($t(160) = 12.77, p < .000$), physical & electronic/sonar barriers ($t(160) = 16.89, p < .000$), tracking, monitoring, & branding ($t(160) = 17.09, p < .000$), electronic jolt fields ($t(160) = 18.42, p < .000$), and dam removal ($t(160) = 18.90, p < .000$) at a statistically significant level. Hazing/non-lethal methods appeared more often than physical & electronic/sonar barriers ($t(160) = 3.95, p < .000$), tracking, monitoring, & branding ($t(160) = 3.80, p < .000$), electronic jolt fields ($t(160) = 4.52, p < .000$), and dam removal ($t(160) = 5.18, p < .000$) at a statistically significant level. Physical & electronic/sonar barriers did not appear more often than tracking, monitoring, & branding ($t(160) = .00, p < .1$), electronic jolt fields ($t(160) = .90, p < .367$), and dam removal ($t(160) = 1.68, p < .096$) at a statistically significant level. Tracking, monitoring, & branding did not appear more often than electronic jolt fields ($t(160) = 1.27, p < .207$) at a statistically significant level, but it did appear more often than dam removal ($t(160) =$

2.15, $p < .033$) at a statistically significant level. Finally, electronic jolt fields did not appear more often than dam removal ($t(160) = 1.00, p < .319$) at a statistically significant level.

⁵ Hazing/non-lethal methods were not presented as failed solutions more often than trapping, relocating/lethal removal ($t(160) = 1.64, p < .246$) at a statistically significant level, but it did appear more often than physical & electronic/sonar barriers ($t(160) = 7.79, p < .000$) and tracking, monitoring, & branding ($t(160) = 8.25, p < .000$) at a statistically significant level. Trapping, relocating/lethal removal appeared more often than physical & electronic/sonar barriers ($t(160) = 6.40, p < .000$) and tracking, monitoring, & branding ($t(160) = 6.64, p < .000$) at a statistically significant level. Finally, physical & electronic/sonar barriers did not appear more often than tracking, monitoring, & branding ($t(160) = 1.42, p < .158$) at a statistically significant level.

⁶ Federal and international governments were not linked to the discussion of successful solutions frames more often than state and local governments ($t(160) = .78, p < .438$) at a statistically significant level, but they were linked to the discussion of successful solutions frames more often than for-profits ($t(160) = 3.79, p < .000$), advocacy/non-profits ($t(160) = 4.37, p < .000$), tribal governments ($t(160) = 4.59, p < .000$), other types of organizations ($t(160) = 7.22, p < .000$), and non-governmental agencies ($t(160) = 5.19, p < .000$) at a statistically significant level. State and local governments appeared more often than for-profits ($t(160) = 3.09, p < .002$), advocacy/non-profits ($t(160) = 4.43, p < .001$), tribal governments ($t(160) = 4.59, p < .000$), other types of organizations ($t(160) = 3.64, p < .000$), and non-governmental agencies ($t(160) = 4.33, p < .000$) at a statistically significant level. For-profits did not appear more often than advocacy/non-profits ($t(160) = .53, p < .595$), tribal governments ($t(160) = 4.59, p < .407$), other types of organizations ($t(160) = .83, p < .058$), and non-governmental agencies ($t(160) = 1.91, p < .000$) at a statistically significant level. Tribal governments did not appear more often than other types of organizations ($t(160) = .33, p < .740$), and non-governmental agencies ($t(160) = 1.64, p < .103$) at a statistically significant level. Finally, other types of organizations did not appear more often than non-governmental agencies ($t(160) = 1.35, p < .181$) at a statistically significant level.

⁷ Advocacy/non-profits were linked to the discussion of failed solution frames more often than federal and international governments ($t(160) = 2.45, p < .015$), state and local governments ($t(160) = 2.99, p < .003$), for-profits ($t(160) = 4.25, p < .000$), tribal governments ($t(160) = 4.57, p < .000$), and non-governmental agencies ($t(160) = 4.92, p < .000$) at a statistically significant level. Federal and international governments did not appear more often than state and local governments ($t(160) = .69, p < .493$) at a statistically significant level, but did appear more often than for-profits ($t(160) = 2.34, p < .020$), tribal governments ($t(160) = 2.54, p < .012$), and non-governmental agencies ($t(160) = 2.96, p < .004$) at a statistically significant level. State and local governments did not appear more often than for-profits ($t(160) = 1.39, p < .166$) and tribal governments ($t(160) = 1.91, p < .058$) at a statistically significant level, but did appear

more often than non-governmental agencies ($t(160) = 2.37, p < .019$) at a statistically significant level. For-profits did not appear more often than tribal governments ($t(160) = .38, p < .707$) and non-governmental agencies ($t(160) = .82, p < .416$) at a statistically significant level. Finally, tribal governments did not appear more often than non-governmental agencies ($t(160) = .58, p < .565$) at a statistically significant level.

Chapter 7: Discussion

The findings presented in the previous chapters reveal how the news is produced and what information is passed from stakeholders, through the media, to the public. In general, the types of stakeholders represented in the news articles concerning the sea lion and salmon controversy, their attributions of blame, proposals of successful solutions, and claims of failed solutions reflect what the literature suggested it would. In other words, more governmental sources were quoted than other types of sources, and blame was assigned more frequently than successful solutions were proposed. Additionally, the research indicated that blame frames appeared more often than failed solution frames, which previous framing literature had not adequately examined. This discussion will include a further exploration of these findings, in addition to an examination regarding why these results occurred and what some of their implications are.

Environmental News Coverage

Looking at the overall findings, the two most frequently appearing frames potentially contradict themselves when considering episodic and thematic news coverage concerning environmental conflicts. Blame frames, which the literature suggested are more closely associated with controversial issues found in episodic coverage, appeared 279 times ($M = 1.73$, $SD = 1.36$), while law frames, which the literature suggested are more closely associated with policy issues found in thematic coverage, appeared 256 times ($M = 1.59$, $SD = 1.08$). These findings suggest the media provided more balanced coverage than the literature review suggested, recalling that a critique of environmental coverage was that reporters tend to cover conflicts involving a dramatic crisis or accident in the environment rather than covering ongoing phenomena (Bendix & Liebler, 1999;

Friedman, 2004; McPherson & Shaw, 1994; Nisbet, 2009; Schoenfeld, Meier & Griffin, 1979). Of the law frames that occurred, four appeared the most frequently, including the ESA/MMPA of '72, the '94 amendment to the MMPA, the Humane Society lawsuit to stop lethal removal of sea lions, and the Endangered Salmon Predation Prevention Act, which allowed trapping, relocating or lethally removing sea lions. These instances show that coverage on policy issues appeared more frequently than the literature on environmental conflict coverage suggested it would.

It is important to note that blame frames did appear more often than law frames, and were the most frequently appearing frames in the findings. Additionally, while law frames often address policy issues, which are commonly associated with thematic news coverage, one of the legal events was a controversial lawsuit, and other legal matters (e.g., the ESA/MMPA) could have been cited when discussing episodic events, such as illegal shootings of sea lions. The frequency of blame, legal, and solution frames suggests there is perhaps a connection between the occurrences of these topics. Blame frames, which cite problems, can call for the need of legal interference (e.g., sea lions are to blame for killing salmon), while successful solution frames can rely on the decisions of the courts to allow changes to be made (e.g., using lethal removal to stop salmon predation). On the other hand, blame frames can stem from legal issues (e.g., the Humane Society blaming governmental agencies for killing sea lions), as can failed solutions (e.g., killing sea lions is an unsuccessful solution). This type of circular causality can go on and on, revealing there is likely an interconnection between the role of blame, legal, and solution frames within the discussion of these issues as well as in news production routines.

The role of legal frames and their relationships to blame and solution frames can be explained by recalling that the literature suggested journalistic values promote balance and objectivity, and that solution frames can be used to normalize the news (Coleman & Corbitt, 2003). Reporters are perhaps playing it safe and assuring they adhere to these norms by allowing legal controversies to dictate how their stories are produced. Blame causes conflict, which is addressed through legal processes that seek to establish outcomes and solutions. This pattern is often visible in the inverted pyramid style of newspaper reporting and is reflected in a 2007 Associated Press article by Joseph B. Frazier that will be used as an example of this type of journalistic writing.

Reporters usually lead with an attention grabbing line where blame is assigned. Frazier begins with an accusation of blame regarding sea lions stating, “To Columbia River tribes, California sea lions are salmon-gobbling menaces that have outgrown their need for federal protection, threaten tribal livelihoods and fly in the face of treaty rights” (August 25, 2007). The body of the story often includes a description of the conflict where journalists describe both sides of the debate, often allowing the legal plaintiff-defendant relationship to provide balance to the story. For example, this article presents four legal frames including, the ‘72 ESA/MMPA, the ‘94 amendment to the MMPA, 1855 federal treaties regarding tribal access to salmon, and the lethal removal of sea lions bill proposed by U.S. Representatives Brian Baird and Doc Hastings. Finally, reporters often end their stories with less newsworthy material, such as proposed solutions. Frazier again follows true to form ending with a contribution from Sharon Young, who disapproved of the lethal removal bill and the fast-track legislation that was proposed to bypass environmental reviews. Frazier writes, “(Young) said existing law can handle the

sea lion-salmon conflict by using the environmental review process” (August 25, 2007). As shown, Frazier opened with blame, filled the body of the story with four legal issues that described both sides of the debate, and ending with a reflection on solutions.

Source use.

Significantly more governmental sources (N = 182) were quoted in the news stories concerning the sea lion/salmon controversy than other types of source. Returning to the literature, this reflects Lacy and Coulson’s (2000) statement that “typically, sources representing government bureaucracies and corporations have more impact on what become news than ordinary citizens” (p. 13). In comparison, quoted sources from other types of organizations were quoted far less frequently, with advocacy/nonprofit sources appearing 43 times and tribal sources 19 times. Again, this aligns with Lacy and Coulson’s (2000) predictions that in contrast to a heavy reliance on authority sources, grass roots groups, social movement organizations, and protesters receive fewer opportunities to voice their opinions.

These findings reinforce the conclusions from the literature on environmental reporting, and provide a stronger need for news reporters to branch out from their reliance on authority sources, and instead seek the opinions of alternative organizations and individuals. However, it can be noted that perhaps this reliance can be reflected back to news organizations downsizing, resulting in fewer reporters to fill the news hole. With a heavier workload, journalists do not have the time, energy, or funds to reach out to alternate sources. Governmental sources are available and willing to talk, as are other stakeholders with legal agendas (e.g., an on-going lawsuit), such as the Humane Society, and thus they get their voices heard. Although when the only voices the public hears are

the ones with legal arguments, they are not reading a complete account of the story, and therefore will not fully comprehend the conflict.

When governmental sources are appearing more than four times as often as advocacy/nonprofit sources and nearly 10 times more often than tribal sources, there is clearly an imbalance in the role of source use in news production routines. Governmental sources were perhaps represented more frequently in the coverage because they were sought to be a neutral authority on the matter, which they often can be considered in other types of news articles. Although in this sea lion and salmon controversy, governmental sources did not represent unbiased perspectives because they were so heavily invested in the conflict. Not only were they involved in a string of legal battles regarding lethal removal, but they were responsible for monitoring, hazing, trapping, relocating and lethally removing sea lions, in addition to being involved in salmon production (i.e., hatcheries) and are legally responsible for producing enough salmon for tribal fishing. While their involvement in sea lion management was often front and center in the news articles examined, their connection and responsibilities relating to sustaining salmon populations was not as prominently recorded. Governmental sources are often viewed as authorities in news articles, as they often were in this coverage, but when reporters neglected to admit to themselves that these sources were major stakeholders in the controversy, they also neglected to recognize that these sources should therefore negate their role as unbiased authority sources. In other words, the public perhaps perceived these sources as unbiased authorities when they were not.

In the case of the sea lion and salmon controversy, where governmental sources and advocacy/nonprofit sources were supporting contradictory positions, it can be

assumed that the media were favoring one side over the other. While this should not sway decisions made in the courtroom, only the naive would deny that the same social and economic pressures that affect news production also influence legal matters. In other words, our justice system seeks to be a neutral ground where opposing voices can be heard and their opinions openly debated. The media seek to be the same neutral ground where debates take place and both sides are awarded the opportunity to present their points of view (e.g., provide balance and objective reporting). This research has shown that in some cases the media are no such neutral ground. Therefore, an implication of this research is the resulting question regarding the courtroom's ability to be one as well.

Looking closer at spokespeople.

After looking closer at the types of sources found in the sea lion and salmon controversy, the role of spokespeople becomes more prominent and should also be examined. Perhaps the media are governed not only by journalistic practices of balance and objectivity, but also by news filters that are more closely related to legal issues. Not only were law frames (N = 256) the second most frequently presented frame in the sample of articles, but discussions of blame and solutions often revolved around legal ones. Government sources and advocacy/non-profit sources stood behind their legal arguments and simply reproduced the same comments when contributing to news articles. In efforts to better understand who is presenting these claims, it is beneficial to look more closely at the roles of the sources from governmental, advocacy/non-profit, and tribal organizations.

Spokespeople (i.e., spokesman, spokeswoman) is defined by Merriam-Webster as “a person who speaks as the representative of another or others often in a professional

capacity” (Spokesman, n.d.). In other words, these individuals hold positions where they speak for the organization they represent and are well-versed on the organization’s official position, which is often constructed with legal considerations in mind. Of the 244 governmental, tribal and advocacy/non-profits sources (i.e., quoted in a story), a total of 92 were spokespeople ($M = .57$, $SD = .77$). Therefore, nearly 38 percent of the governmental, tribal and advocacy/non-profits sources were spokespeople.

When looking at the spokespeople, it is more important to understand the role of the individual (or the organization he or she represents) who is providing information in the story, rather than how they are presented in the article, which would remain the priority when examining news production. Therefore, when determining if an individual is a stakeholder, the name of the individual was examined, rather than the title they were given in the article. Some individuals have multiple titles and are not always presented as a spokesperson. For example, Sharon Young is both a spokesperson and the Marine Issues Field Director for the Humane Society. In some articles she is referred to as a spokeswoman for the Humane Society, and in others she is noted as the organization’s Marine Issues Field Director, although this title does not reflect a change in her position within the organization.

Of the 182 governmental sources, 51 were spokespeople, which means 28 percent of the governmental sources quoted in the coverage held this position. Of the 43 advocacy/non-profit sources quoted, 33 were spokespeople, which means nearly 77 percent of the advocacy/non-profit sources quoted in the coverage were spokespeople. Finally, of the 19 tribal sources, eight were spokespeople, which means more than 41 percent of the tribal sources quoted in the coverage held this position. These findings

reveal the varying types of reliance on spokespeople. While 131 sources were not spokespeople within governmental organizations, only ten sources were not spokespeople within advocacy/non-profit organizations, and 11 sources were not spokespeople within tribal organizations. Additionally, when the media reached out to spokespeople, governmental spokespeople in these articles came from two federal agencies (i.e., National Marine Fisheries Service and U.S. Army Corps of Engineers) and one state agency (i.e., Oregon Department of Fish and Wildlife). In contrast, the media included quotes from only one advocacy/non-profit individual and organization, which was Sharon Young of the Humane Society. Additionally, Charles Hudson of the Columbia River Inter-Tribal Fish Commission was the only spokesperson quoted from a tribal organization.

An implication of this finding is that readers were able to access a greater variety of perspectives from governmental sources, in addition to being exposed to a wider variety of types of spokespeople from governmental agencies. When reading quotes from advocacy/non-profit or tribal spokespeople, news consumers were only exposed to the opinions of two organizations and two individuals. Not only does this limit the contribution these types of organizations are able to make to the ongoing debate covered by the media, but readers are only exposed to the arguments from a limited number of organizations. Those exposed to these messages would also likely come across repetitive statements, since these two spokespeople are being turned to repeatedly.

When looking at these findings, we not only know that when governmental, advocacy/non-profit and tribal organizations spoke to the media regarding the sea lion and salmon controversy, between 28 percent and 77 percent were spokespeople, but also

that the media decided to include these individuals in their articles the same percentage of the time. This section previously established the role of spokespeople as well-versed individuals representing an organization, and it would therefore make sense that these individuals prepared well-worded, logical sentences that the media could easily fit into a story. When establishing a balanced story, the media rely on contributions from both sides of a controversy to voice their positions. Spokespeople understand what the media look for when they select quotes from an interview or news release, and therefore deliver their messages in a fashion that almost guarantees their presence in the story. While reporters might reach out to additional sources, they may not receive clearly worded quotes that achieve the balance they seek to provide in their articles.

Frames and Stakeholders

The findings showed that the types of stakeholders were associated with the amount and types of blame and solution frames most commonly presented in the coverage. For example, since governmental sources were most frequently quoted, and governmental sources were backing a trapping, relocating or lethal removal solution, this solution was presented the most frequently. These findings relating to blame and solutions frames consistently reflected the legal arguments made by stakeholders, who either supported or proposed lethal removal of sea lions in efforts to increase salmon populations. For example, governmental and advocacy stakeholders, who were involved in a string of legal battles surrounding the policies of sea lion management, consistently presented (or appropriately omitted to present) blame and solution frames that aligned with their legal stance on the controversy (See Appendix K). This concept will be more thoroughly explored in the following pages.

Solution frames.

As noted, governmental stakeholders, who were involved in a string of legal battles surrounding the policies of sea lion management with advocacy/non-profit sources, consistently presented solution frames (N = 61), which aligned with their legal stance on the controversy (See Appendix K). Additionally, governmental stakeholders presented the most frequently occurring solution, which was trapping, relocating, or lethal removal of sea lions (N = 163). These results reflect the legal arguments made by both state and federal governmental stakeholders that the increased presence of sea lions at the Bonneville Dam is a problem and needs a solution, which they proposed trapping, relocating or lethal removal to be the priority solution. Some quotes found in the news coverage noted the need for lethal removal. For example, Doc Hastings, a U.S. Representative from Washington, claimed, “After trying everything in the book, lethal removal is the only option left to stop the sea lions” (Frazier, April 20, 2007). Other quotes focused on the relocation efforts that were attempted before the last resort of lethal removal, including a statement from Guy Norman of the Washington Department of Fish and Wildlife, who said, “Six (sea lions) at Point Defiance passed the health screening and will be on their way to permanent locations this week” (Columbian editorial staff, May 2, 2008, p. 3C).

Hazing and non-lethal methods was presented as a successful solution the second most frequently (N = 26), which was another method the government used before arguing for lethal removal. Additionally, hazing and non-lethal methods was likely cited as the most frequently occurring failed solution (N = 51), likely because both the government and advocacy sources wanted it to be perceived as one. Both parties represented their

organization's legal stand either for or against the lethal removal of sea lions even when addressing non-lethal solutions as failed. For example, governmental stakeholders, who presented the second most failed solutions ($N = 19$), referenced hazing and non-lethal methods as failed in attempts to show that lethal removal is a last, and necessary, resort. This argument found in the news coverage, also reflects the government's claims made in the courtroom. For example, in reference to scaring sea lions away with hazing efforts, Brian Gorman of the National Marine Fisheries Service noted in a 2006 article, "It's like moving drug dealers off a street corner, they just go somewhere else" (Robinson, March 8, p. 1A). Again the following year Gorman said, "I got one (sea lion) in the back of the neck with a beanbag and he didn't even drop the fish he was eating" (Frazier, June 21, 2007).

Advocacy/non-profits referenced hazing and non-lethal methods as a failed solution in efforts to show that all government-backed solutions had or would fail, because sea lions were not a problem and therefore all solutions were unnecessary (e.g., failures). Therefore the proposed solution of trapping, relocating, or lethal removal was presented as a failed solution the second most frequently ($N = 41$) and advocacy/non-profits were the organization type most frequently linked to overall discussion of failed solutions ($N = 24$) (See Appendix K). Sharon Young of the Humane Society said in a 2007 article, "My frustration is there is no point in killing them if it isn't going to make a difference, and it isn't going to make a difference" (McCall, November 3).

Governmental stakeholders were more active in the overall discussion of the sea lion and salmon controversy, in addition to the discussion of successful solutions, perhaps because they wanted reporters to not only agree that sea lions were causing a significant

negative impact on salmon, but to also to accept their proposed solution of lethal removal. The battle in the courtroom often revolved around a specific line from the 1994 amendment to the Marine Mammal Protection Act, which provided states with the permission to lethally removal sea lions if the species “are having a significant negative impact on the recovery of salmonid fishery stocks which have been listed as endangered species or threatened species under the Endangered Species Act,” (MMPA, 1972, p. 73). The term “significant negative impact” was often reflected in the news coverage, where governmental sources argued sea lions were having a negative effect on salmon, and advocacy/non-profit organizations argued they were not. Advocacy/non-profit groups presented fewer solutions because doing so would be a partial admittance that sea lions were a problem. This accounts for advocacy/non-profit organizations’ more frequent activity linked to the discussion of failed solutions (N = 24), in addition to the discussion of blame (N = 109).

What this means for news production can be interpreted through difference lenses. One such lens addresses the total amount of solutions found in the coverage. Since the search terms for this research included “sea lion,” it was not surprising that four out of the five the most frequently occurring successful solutions referenced sea lion management (the fifth being dam removal), and all four of the most frequently occurring failed solutions referenced sea lion management. Dam removal only appeared once as successful solution, in comparison to 210 sea lion related solutions. Although this finding does show that when both types of solutions revolve around the discussion of “fixing” sea lion populations, there is little space left to discuss alternative solutions to restore salmon populations that are not related to sea lions.

To be more specific, the findings showed that blame frames found in the coverage addressed non-sea lion related factors that caused low salmon populations. Why are journalists not also investigating alternative solutions? When reporters (and the sources they turn to) are willing to address all the factors that cause declines in salmon populations (i.e., blame frames), why are they unwilling to do the same with solutions frames? This implication reveals an imbalance within the frames present in environmental conflict coverage. While this was not researched as a specific journalistic value reporters seek to uphold, when the concept of objective reporting follows the definition of achieving truth (Hackett, 1984; Berry, 2008; Soffer, 2009), all types of balance must be sought after. In other words, the truth potentially lives in both the solutions related to sea lion management and alternative ones, and selecting to cover some solutions over others is biased, which is commonly considered an antonym of objective reporting (Hackett, 1984). When the public are receiving imbalanced, or perhaps biased, coverage, they are unable to fully and accurately understand the issue at hand.

Blame frames.

When looking further at blame frames in the news coverage, recall that the Humane Society sought to reinforce the notion that such a significant negative impact was not occurring. They did so by blaming other factors for salmon decline in efforts to show the amount of salmon that sea lions were consuming was a small percentage in comparison to the negative impact humans have on them. Consequently, advocacy/non-profit organizations presented the most attributions of blame (N = 109) (See Appendix K). They also cited multiple forms of blame, which accounts for the high number of total

blame frames relating to the loss of salmon (N = 261). While the most frequent blame was attributed to sea lions for killing salmon (N = 133), this is perhaps a result of the government reinforcing one single agenda, while advocacy/non-profit groups showed an array of blame for salmon loss, including dams (N = 39), overfishing (N = 25), habitat loss and degradation (N = 22), birds (N = 14), and humans (N = 7).

Therefore, the consumers of these news articles were exposed to more messages blaming sea lions for the loss of salmon populations. An implication of this finding is that readers might believe the amount of references to a type of blame reflects the percentage of harm these types of blame are having on salmon populations. For example, while sea lions were blamed for killing salmon for nearly half of the salmon related blame frames, between 2002 and 2010 only between 0.3 percent and 3.3 percent of the annual percentage of Chinook run was consumed by pinnipeds at the Bonneville Dam (see Appendix D), and the total amount of salmon consumed by sea lions was never estimated at more than 6 percent.

In contrast to the amount of blame sea lions faced in the media, only 15 percent of salmon related blame frames attributed dams as the culprit of salmon loss. In reality, dams are responsible for a much greater number of salmon deaths by sucking salmon into turbines, stunning them on the fall over the dam (i.e., providing opportunities for birds and other predators to eat them), increasing water temperatures and flows (i.e., warm temperatures can sicken or kill salmon and low flows provide more opportunities for predators to spot and attack salmon), and by destroying and preventing access to spawning habitat. Sharon Young of the Humane Society conservatively estimated salmon loss to hydropower dams at 30 to 35 percent and damage and development to tributaries

and estuaries (i.e., habitat effects) at 26 to 49 percent (Young, 2008). When these messages of blame are presented at disproportionate rates to the actual damage these attributors of blame are responsible for, news consumers are perhaps taking away a skewed perspective regarding blame and responsibility for salmon loss.

When examining the current body of opinion polls regarding blame for salmon loss, many of these polls are located on web sites that generally attract one side of stakeholders over the other (i.e., for lethal removal or against it). For example, a 2010 poll looking at the removal of dams was posted on the web site Care2(make a difference), which is self described as “a trusted social action network that empowers millions of people to lead a healthy, sustainable lifestyle and support socially responsible causes” (Care2.com). The poll asked readers, “Should dams be dismantled to restore salmon runs?” where 83 percent of the voters chose “Yes!” and only 3 percent selected “No!” (out of 1,167 votes) (Mueller, 2010). Other opinion polls examining sea lion management have resulted in more balanced responses, even when conducted for pro-fisheries organizations. For example, in 2009 Responsive Management conducted a nationwide survey of public opinion on the management of ocean resources for the Alliance of Communities for Sustainable Fisheries. The researchers found that in a telephone survey of 729 U.S. residents, 39 percent of respondents favored legalizing lethal removal of sea lions, while 37 percent preferred non-lethal methods, and 13 percent chose the “no management” option (Responsive Management, 2009).

While discussing the potential reasons why sea lions were blamed for salmon loss so frequently, it is important to note that “sea lion” was a search term this research used to find articles, which could explain why sea lions were blamed for killing salmon with

such high frequency. Additionally, it should be noted that this form of blame would potentially be presented in all articles, because it was provided as background information on the issue. To be more specific, an explanation of its relevance would be needed when reporting on the Humane Society's lawsuit and perspective that other factors were to blame for salmon decline, which could include a description of the government's request to lethally remove sea lions who are being blamed for lowering salmon populations. For example, when Sharon Young claimed lethal removal "won't save declining salmon runs in the Columbian River because sea lions aren't the problem," the governmental position on sea lions being a problem would be explained to provide context to this statement (Frazier, June 21, 2007).

Looking back at Shaver's (1985) perspectives on studying blame, he stated that blame is affected by cultural values and is perceived through an individual's own motives. When looking at the parties who assigned blame in the sea lion and salmon controversy, perhaps cultural values and motives are one in the same. Native Americans on the Columbia River, for example, "have harvested salmon from the Columbia River for commercial, physical, and spiritual sustenance" for thousands of years (CRITFC, 2010). This quote presented on the Columbia River Inter-Tribal Fish Commission's web site shows the cultural traditions, spiritual beliefs, physical health, and economic well-being of the tribes are all connected to fishing. Motives for assigning blame to sea lions come from a spectrum of values and motives.

Shaver (1985) also noted that when it comes to blameworthiness, a party must be the cause of the negative outcome and be responsible for the wrongdoing by possessing "knowledge of the consequences, intentionality, voluntary choice, and the capacity to

distinguish right from wrong” (p. 173). Sea lions, who could possess causality for the loss of salmon (i.e., their actions caused the outcome), would not likely be held responsible for the outcome. Not only are they unable to distinguish right from wrong, but it could also be argued that their actions are not voluntary and instead they are acting on animalistic needs to feed.

While blame quotes were not recorded in the coding process, some failed solution quotes showed a significant connection between the two concepts. When discussing lethal removal as a failed solution, Sharon Young claimed, “It’s so much easier to point fingers at a species other than ourselves,” reflecting on the Humane Society’s position that human-related factors should be held responsible for salmon loss and blaming sea lions is an easy out (Learn, March 13, 2008). Returning to the literature, Anderson (1991) noted that in its simplest form, blame is considered a behavioral reflex when something goes wrong. Young spoke to Anderson’s statement with her quote by reminding the public that when angered by declining salmon populations (i.e., the “something” going wrong), our behavioral reflex is blame others, and in this case another species. Anglers who depend on salmon for income and tribes who use salmon for ceremonial purposes are angered by lowering salmon populations, and with this quote Young attempted to remind them that their anger is misplaced. Being angry is okay and citing blame is logical in this circumstance, but this blame should be assigned to the guilty and our fingers should not be pointed at the innocent. While Young’s organization frequently assigned blame, the Humane Society’s motives for doing so were in efforts to reveal where blame is incorrectly assigned and emphasize where it should more appropriately be placed.

As previously mentioned, blame frames, unlike solution frames, contained more variety in that they referenced sea lions as well as other factors as blame types. While it can partially be assumed that sea lions were blamed for salmon loss the most frequently because “sea lion” was a search term this research used to find articles, this does not explain why a strong majority of the types of blame frames were related to salmon loss. “Salmon” was not a search term used, and yet 94 percent of the blame frames did relate to salmon loss. An implication of this finding is that salmon were shown as the victim the most often in these articles. Salmon populations were being harmed by sea lions, dams, anglers, habitat loss, birds, a specific sea lion, humans, and the government/government policies, while sea lions’ only opportunities to be victimized were at the hands of those implementing lethal removal.

Readers often side with the victims of news stories. In some cases the victim is easy to identify, and in the case of a controversy such as this one it is less straightforward. In the complicated instances where it is more difficult to identify the victim, it can be assumed that the subject most mentioned as being harmed would be associated as the victim, which in this case would be salmon. Therefore, news consumers would perhaps feel more inclined to support lethal removal after reading about so many salmon-harming factors. While the amount of salmon deaths caused by sea lions is a small percentage in relation to the other types of blame, such as dams, the proposed solutions reflect sea lions as the problem, and therefore readers are inclined to agree if unable to think of their own alternative solutions. In 2006, KATU News posted a poll asking readers’ opinions regarding the allowance of lethal removal. The poll appeared after an article on the controversy where sea lions and a specific sea lion (C-404) were

blamed for killing salmon, hazing and non-lethal methods was presented as a failed solution, and lethal removal was proposed as a successful solution. The article contained two quotes; one that showed salmon as the victim (from the Army Corps of Engineers) and another that opposed lethal removal (from a person-on-the-street). When asked, “Would you be opposed to problem sea lions being killed?” 67 percent responded “No” and 33 percent answered “Yes” (out of 455 votes) (KATU, 2006). In this case, readers did not encounter a variety of blame frames against salmon, but the only blame that was assigned showed salmon as victims to the actions of sea lions.

From a journalistic standpoint, perhaps reporters included more blame frames in their articles because they were seeking balanced coverage of both sides of the controversy (i.e., sea lions are to blame for salmon loss vs. other factors are to blame for salmon loss), which only further deepens the complexity of balanced reporting. Maybe blame frames appeared the most frequently because in order to provide balanced coverage of both sides of the debate, more blame had to be mentioned than solutions were proposed or counted as failed. Maybe salmon were victimized because in fact they were victims in the conflict. This research sought to examine the bigger picture of the controversy while still examining individual instances. In other words, looking closer at the issue of blame might help us grasp a more comprehensive understanding of the concept when we back away and reflect on the issue.

Comparing blame and failed solution frames.

Reflecting back on Young’s quote claiming that pointing the finger at sea lions is easier than taking responsibility for our actions, it becomes clear how closely related the concepts of blame and failed solutions are. This again might reflect the legal motives

behind organizations. Referring to a solution as failed is perhaps just a less controversial way of assigning blame. Instead of claiming that another organization is wrong, those who present failed solutions are simply noting that others are not right. While the Humane Society made considerable attributions of blame towards human related factors for salmon loss, they usually did not outright blame the government for lethal removal, but instead noted their proposed solutions would fail or were not good enough to succeed. For example, in a 2008 article Sharon Young noted, “We do not believe killing sea lions is the answer,” (Frazier, January 17), and again in a 2009 article she said, “We want something meaningful to happen for salmon and this isn’t it” (Learn, November 7). Essentially these might be the same claims where each “wrong” has been reworded to a “not right.”

Perhaps this act of downplaying claims is occurring because accusations of blame are stronger than accusations of failure, and can stir negative reactions from the media and public. Even though Anderson (1991) described blame as a behavioral reflex when something goes wrong, and Dardis (2007) claimed that when describing a problem it should appeal to one’s basic psychological impulses to also name a specific source of the problem, most informed sources, such as spokespeople, try to put their own preconceptions and psychological impulses aside when speaking to the media. Therefore, news production perhaps has the ability to redefine blame. While being told one did not do something right would not respectively be replaceable with an accusation of blame in real life, this may be the case in media studies. Reporters, and those who communicate through the media, use jargon just as lawyers and politicians do. Communicating to large audiences in a tangible and inerasable format causes journalists

and spokespeople to carefully reflect on their thought formation and word choice, which can possibly be attributed to changing a blame frame to a failed solution frame.

In general, the findings showed that the types of stakeholders were associated with the amount and types of blame and solution frames most commonly presented in the coverage. Since governmental sources were most frequently quoted (N=182), and governmental sources were backing a trapping, relocating or lethal removal solution, this solution was presented the most frequently (N = 163). Additionally, advocacy/non-profit groups were claiming that sea lions were not the most significant problem in the decline of salmon populations, and therefore these organizations did not frequently propose solutions (N = 5), although they did most frequently propose failed solutions (N = 24) and assign blame (N = 109). Instead of blaming sea lions, which was the most frequent type of blame describing salmon loss (N = 133), these organizations argued for the need to consider other human-related factors in salmon loss, including dams (N = 39), over-fishing (N = 25), and habitat loss (N = 22). These findings consistently reflected the legal arguments made by governmental and advocacy/non-profit groups, who either supported or proposed lethal removal of sea lions in efforts to increase salmon populations.

Limitations and Future Research

While this research looked at the roles of sources and blame and solution frames, it did so within a larger context of research, which coded war, balance and imbalance, intrinsic and extrinsic values, legal, and political frames. Space and timing were issues that arose when coding such a large variety of frames. While a space was added to record quotes relating to solutions, the blame frame section substituted this for a question

determining the attributed cause of blame. Future research could examine a wider range of frames, particularly legal frames, which appeared the second most frequently out of all of the frames (N = 256). It became apparent with the analysis of frames that legal issues in general appeared very prominent in the coverage, since stakeholders presented both blame and solution frames that aligned with their legal claims (i.e., what they argued in the courtroom) regarding lethal removal. Focusing on a wider variety of frames in future research, including legal frames, could add more comparative richness to the current study.

Another limitation that lack of time and space contributed to included coding types of organizations and individuals' roles within organizations in a quantitative way that clumped groups together. For example, the Humane Society and American Rivers were both coded as advocacy/non-profit organizations and spokespeople and biologists were both coded as mid-level roles. While this saved time and space during the coding process, it did limit the amount of detail this study could examine in the data analysis section. While it was possible to go back and identify which sources were spokespeople by adding a variable to quantify this position, it was a time-consuming activity that could be avoided in future research. Additionally, understanding what type of stakeholder used in the article could add to richer findings when examining source use. For example, are the majority of governmental sources in the science field (e.g., biologists), external affairs (e.g., spokespeople), or administration/management (e.g., regional directors)? Not only would this allow researchers to better understand what types of organization depend what different areas of specialty to speak for them, but also help researchers better understand what voices are the most prominent in the overall coverage.

Because the coders did not recognize the role of failed solutions until after the codebook was constructed, this research did not include a section that allowed the coders to compare or discuss potential relationships between failed solutions and blame, which this discussion section has more thoroughly explored. Future research could include a section in the codebook where coders could examine relationships between the frames, and further investigate what failed solutions are and how the media and stakeholders present them. Recalling that the literature review suggested there is very limited to no research examining failed solutions, this is an area of research that could be more thoroughly explored and in a wider variety of media studies that perhaps looks beyond its role within environmental conflict reporting.

While only looking at regional coverage of environmental conflict reporting does not have to be considered a limitation of this research, it could be when addressing the local perspective of the sea lion and salmon controversy in comparison with a national perspective. Future research could examine these data of regional newspapers with a content analysis from national publications. Since this controversy is of particular interest to the parties directly affected by the policy decisions made, it would be interesting to look at the roles of local stakeholders in Northwest coverage, including tribal and angler sources, in comparison to their roles in national coverage.

In addition to looking only at regional coverage, this study only examined newspapers yielded by the LexisNexis search results. Therefore, smaller community publications, weeklies, and specialty publications were not included in the content analysis. These types of publications might have breached the “norms” of source use and reached out to more people on the street and other types of organizations when looking

for sources to contribute to the stories covering the sea lion and salmon controversy. Additionally, tribal newspapers and angler publications might have presented very different perspectives that further research could examine. Since the current study was interested in understanding news production routines, specialty publications that only presented one side of the story would have been inappropriate to include, but future research could compare these results to those of tribal or angler publications.

While this research only looked at articles involving the sea lion and salmon controversy, the literature focusing on episodic coverage within environmental conflict coverage suggested visual images are capable of playing an important role when it comes to deciding what stories fill the news hole. The fact that images were not included in this study could be considered a limitation, which future research could take into consideration and include an examination of images accompanying news stories, in addition to exploring other multimedia aspects such as videos, podcasts, and slideshows.

When examining the sea lion and salmon controversy, or any environmental conflict issue, future research could incorporate public opinion of the conflict, specifically regarding the role of blame and solutions surrounding the controversy. Does the public's perspectives surrounding blame match those of the news coverage, and what are their opinions surrounding the role of stakeholders and their attributions of blame? A content analysis of opinion pieces and letters to the editor could examine this perspective, responses posted on online articles could be reviewed, or the public could be asked directly about their thoughts through an opinion poll.

The discussion section of this thesis brought into consideration some opinion polls addressing blame and sea lion management methods. A more comprehensive poll

investigating blame, successful and failed solutions, in addition to opinions regarding stakeholders in the controversy could enrich the findings of this research by comparing what the media present and what publics believe. Research that directly involves the public has the potential to examine these frames more deeply, and through multiple lenses regarding not only what they believe, but what they believe other stakeholders think, and how these opinions align or not, in addition to better understanding what information the public attributes to having gained from the media. Reflecting on the first sentence of this thesis noting the importance of individuals understanding where their knowledge derives from and how it is presented to them, research that builds on this need contributes not only to a deeper understanding of newsworthy issues in the present, but provides more balanced news production in the long run.

Conclusion

At the turn of the century, Peterson, Peterson, Peterson, Lopez, Silvy, (2002) noted that environmental conflict between groups who have opposing goals is one of the greatest challenges of the 21st century. This claim has continued to ring true regarding the sea lion and salmon controversy at the Bonneville Dam, where opposing stakeholders continue to assign blame, propose solutions, and reject these solutions in the court room, public, and the media.

This research has shown that governmental sources continue to be more actively represented in environmental news coverage than advocacy/non-profit and tribal sources are. While a variety of conclusions can be drawn from this, perhaps the most significant interpretation reveals the responsibility reporters have to seek more a more balanced

representation of sources in their work in order to provide objective news coverage that adheres to the journalistic values they claim to uphold.

Looking more closely at framing, this thesis aligned with the literature regarding the prominence of blame frames over solution frames, reflecting an emphasis on episodic news coverage. This study also found a high frequency of legal frames, revealing there might be movement towards more thematic coverage of environmental conflicts and perhaps proving these types of conflicts may indeed be as large of a challenge as Peterson, et al. (2002) proposed. Additionally, this thesis provided an original examination of failed solution frames and discussed the differences and similarities between assigning blame and denying success, which can contribute to scholarly knowledge within the field of communication and media studies. What these frames mean for the outcome of the animals whose lives are at stake is still unknown, but this thesis, in addition to the future research it has laid the groundwork for, has sought to provide a more comprehensive examination of the role of source use and blame and solution framing within environmental conflict coverage.

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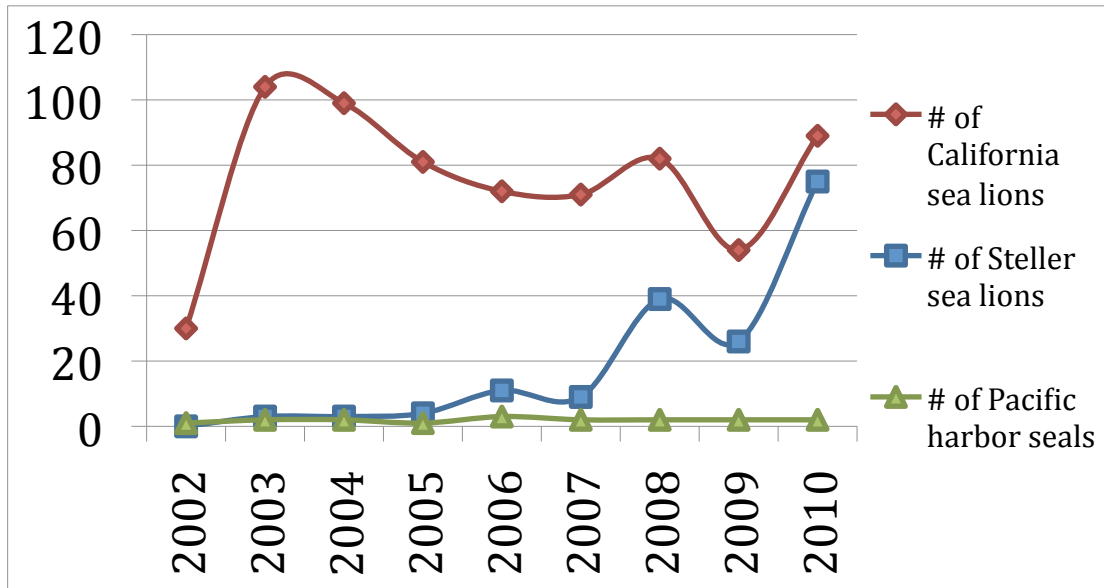
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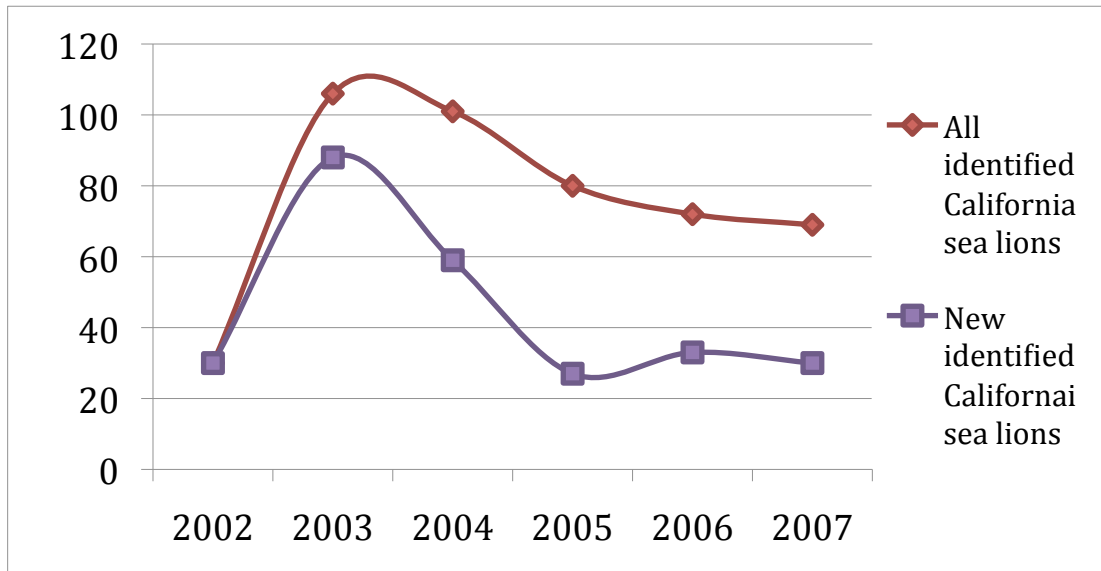
Appendices

A. Annual summaries of minimum pinniped abundance at Bonneville Dam (2002-2010).



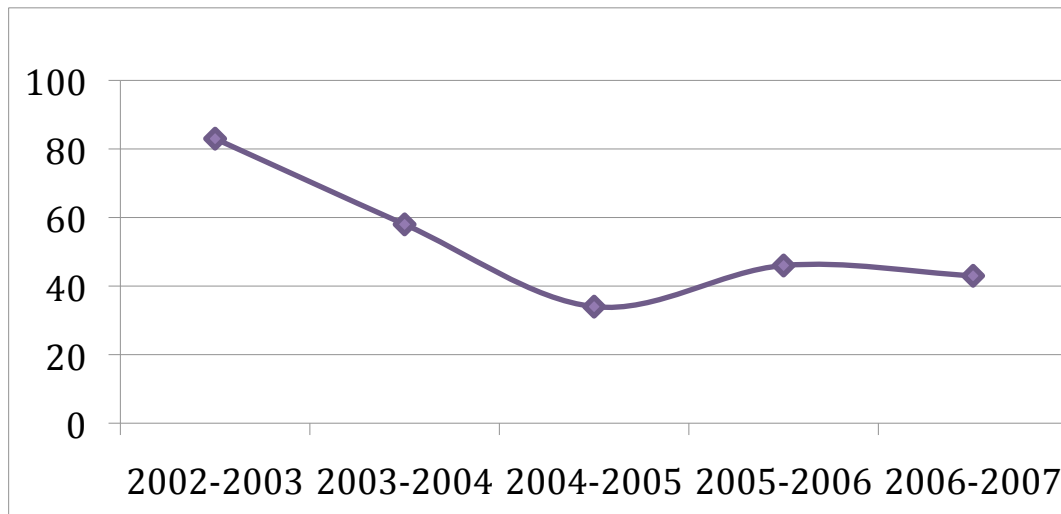
National Marine Fisheries Service (2008) and Stansell et al., (2010).

B. Summary of minimum California sea lion counts at Bonneville Dam (2002-2007).



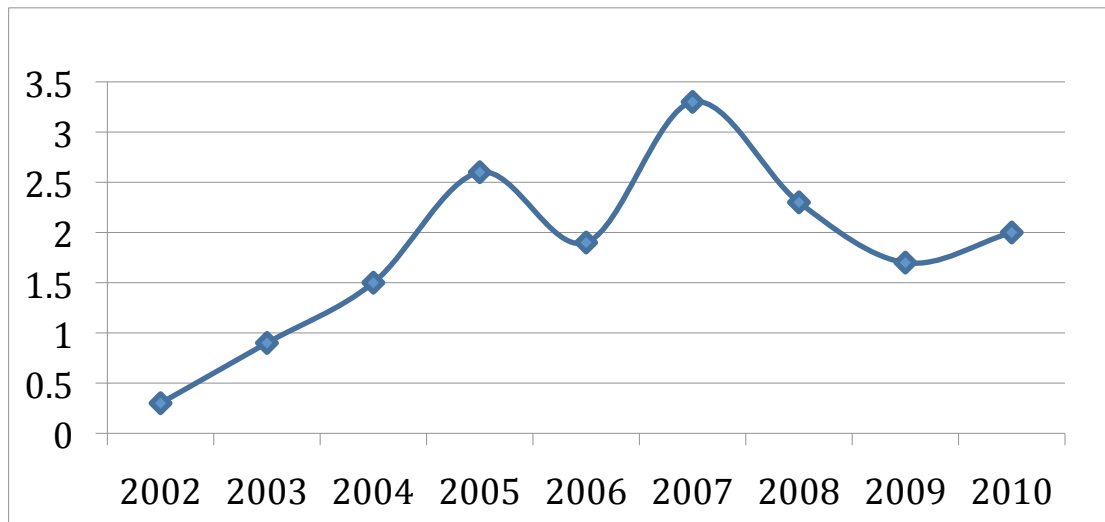
National Marine Fisheries Service (2008) and Stansell et al., (2010).

C. Annual increase in newly identified California sea lions at Bonneville Dam (2002-2007).



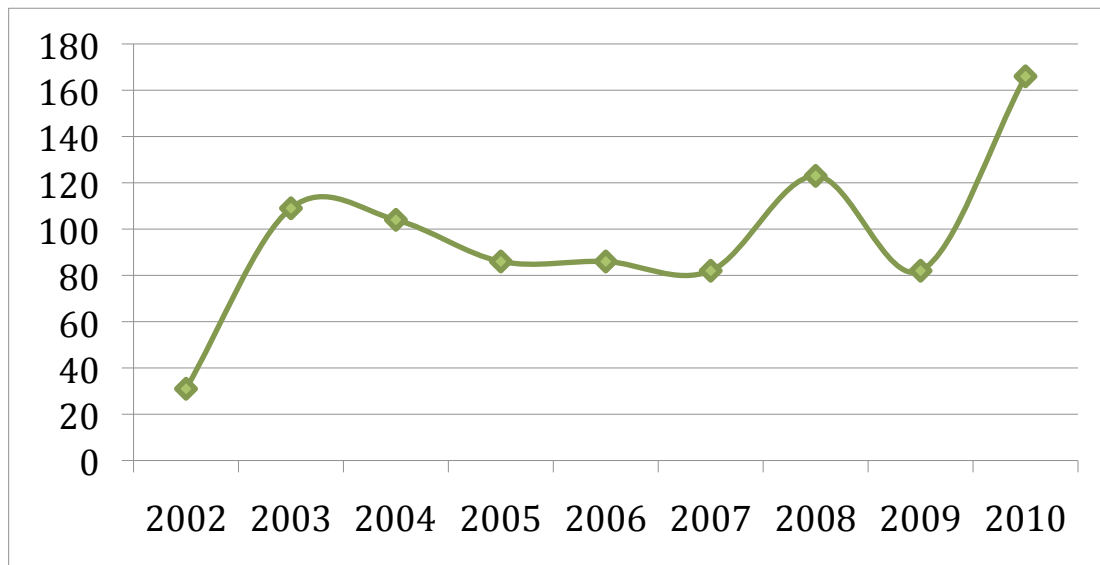
National Marine Fisheries Service (2008) and Stansell et al., (2010).

D. Annual percentage of Chinook run consumed by pinnipeds at Bonneville Dam (2002-2010).



National Marine Fisheries Service (2008) and Stansell et al., (2010).

E. Total number of pinnipeds at Bonneville Dam (2002-2010).



National Marine Fisheries Service (2008) and Stansell et al., (2010).

F. Map of states where articles were gathered from, including Washington, Oregon, Montana, Idaho, California, and Alaska



G. Codebook part one (i.e., article information)

PART 1
ARTICLE INFORMATION: QUANTITATIVE

4. Newspaper name _____ (write in)

5. _____ Code for newspaper name [leave blank]

6. _____ Which state?

- (1) Alaska
- (2) California
- (3) Idaho
- (4) Oregon
- (5) Montana
- (6) Washington
- (7) Unknown, other, can't tell (check another source)

7. Story date _ _ _ _ _ (month, day, year)

8. Section name (if given, write in): _____
EXAMPLES: Sports, Business, Living, News

9. _____ Page number only if given (example: "12")

10. _____ Page Letter (if given, such as "C")

11. _____ Word Count (total story)

12. _____ Type of article

- (1) News
- (2) Editorial, letter, opinion
- (3) Unknown, can't tell, *other (see below)*

13. _____ If *OTHER*, what kind?

14. _____ WRITE IN Byline (first and last name)

15. _____ Writer's affiliation (code):

- (1) Staff editor or writer
- (2) Wire writer
- (3) Special or guest writer [noted in byline]
- (4) Letter writer, reader
- (5) Unknown
- (6) Other _____

H. Codebook part three (i.e., sources)

PART 3 **SOURCES**

For this section identify and count the **sources** quoted in the article. A quote should be direct or attributed to the source. The source's organization need NOT be named.

If no source BUT AN ORGANIZATION is mentioned as the source, then code the **organization mentioned as the source** (must be mentioned).

SOURCE #1

26. _____ WRITE in source NAME

27. _____ WRITE in source TITLE if given

28. _____ CODE source TITLE

- (1) Observer, person-on-the-street
- (2) Low-level staff person
- (3) Mid-level [include spokesperson, biologist, professor]
- (4) Executive, head, principal, owner, president/vice pres
- (5) Unknown, not stated, cannot tell

I. Codebook part four (i.e., blame frames)

CAUSAL BLAME OR CONSEQUENCE FRAME

Based on the news story is there manifest content that discusses **causal relationships** in the story? An example is: "Sea lions are causing a decline in salmon." There must be a **cause** and a **consequence**.

*Frames may not overlap. Defer to law frame if legal or policy mention.
If there is a solution, use solution frame.*

65. _____ Total number of "causal relationship" instances [do not count the same causal relationship if repeated; count separate instances]

For the following, describe each instance. For example "sea lions cause decline in salmon"

66. Describe first instance using words & phrases from the story:

67. _____ What is the **CAUSE**? An individual? A group?

- (1) Individual (human)
- (2) Group (small, unofficial group)
- (3) Formal group or organization (e.g. Humane Society)
- (4) Systemic man-made cause (building dams or laws)
- (5) God, time, fate, mother nature
- (6) Individual animal (fish, sea lion)
- (7) Groups of animals
- (8) Unclear, can't tell, other

68. _____ which **source** is linked to the causal issue?

- (0) NO source
- (1) source 1
- (2) source 2
- (3) source 3
- (4) source 4
- (5) source 5

69. _____ which **organization** is linked to the causal issue?

- (1) Local or state government
- (2) Federal or international government
- (3) Tribal government
- (4) Non governmental agency
- (5) For-profit organization (Shedd Aquarium)
- (6) Advocacy group, non-profit group (Humane Society)
- (7) Other. Describe:

J. Codebook part four (i.e., solution frames)

SOLUTION FRAME

Based on the news story is there manifest content that offers a **solution** to **any problem** relevant to the sea lion-salmon issue? A solution might be a source that says: "We can solve the problem by removing sea lions." Solution can be now or in the future. Include even if the solution is poor or ineffective (e.g., "The holding pens to secure the sea lions malfunctioned")

Solution **takes priority** over other frames (such as blame frame).

55. _____ Total number of solution frames (count separate instances)

56. Describe **first** solution in your own words:

57. _____ which source is linked to discussing the solution?

- (0) NO source
- (1) source 1
- (2) source 2
- (3) source 3
- (4) source 4
- (5) source 5

58. Write in full source quote that describes solution (source's words):

59. _____ which organization is linked to the solution?

- (1) Local or state government
- (2) Federal or international government
- (3) Tribal government
- (4) Non governmental agency
- (5) For-profit organization (Shedd Aquarium)
- (6) Advocacy group, non-profit group (Humane Society)
- (7) Other. Describe:

K. Stakeholders and frames

Governmental Stakeholders

Advocacy/Non-profit Stakeholders

