

The Americans are Coming! The Americans are Coming!
Framing the Great Lakes Water Debate in the North American Press

Brent Gibson, B.A.

A thesis submitted to the
Faculty of Graduate Studies
In partial fulfillment of
The requirements for the degree of

Master of Arts

School of Journalism and Communication

©2008 Brent Gibson



Library and
Archives Canada

Bibliothèque et
Archives Canada

Published Heritage
Branch

Direction du
Patrimoine de l'édition

395 Wellington Street
Ottawa ON K1A 0N4
Canada

395, rue Wellington
Ottawa ON K1A 0N4
Canada

Your file *Votre référence*

ISBN: 978-0-494-36809-1

Our file *Notre référence*

ISBN: 978-0-494-36809-1

NOTICE:

The author has granted a non-exclusive license allowing Library and Archives Canada to reproduce, publish, archive, preserve, conserve, communicate to the public by telecommunication or on the Internet, loan, distribute and sell theses worldwide, for commercial or non-commercial purposes, in microform, paper, electronic and/or any other formats.

The author retains copyright ownership and moral rights in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

AVIS:

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque et Archives Canada de reproduire, publier, archiver, sauvegarder, conserver, transmettre au public par télécommunication ou par l'Internet, prêter, distribuer et vendre des thèses partout dans le monde, à des fins commerciales ou autres, sur support microforme, papier, électronique et/ou autres formats.

L'auteur conserve la propriété du droit d'auteur et des droits moraux qui protègent cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

In compliance with the Canadian Privacy Act some supporting forms may have been removed from this thesis.

Conformément à la loi canadienne sur la protection de la vie privée, quelques formulaires secondaires ont été enlevés de cette thèse.

While these forms may be included in the document page count, their removal does not represent any loss of content from the thesis.

Bien que ces formulaires aient inclus dans la pagination, il n'y aura aucun contenu manquant.


Canada

ABSTRACT

A 1998 proposal to export water from Lake Superior to Asia initiated a storm of protest across the Great Lakes region, setting in motion a series of policy responses. This thesis draws upon political communication and environmental communication literatures to explore how the U.S. and Canadian press framed bulk water export and diversion policies and debates from the period 1998-2005. Utilizing quantitative and qualitative methodologies, the research findings indicate much coverage side-stepped the media's traditional role as vehicles for transmitting and translating news and information from the elite to the public, emphasizing instead the importance of elite-elite communication networks. The news media provided arenas for myriad elite actors to engage in policy debate within a discourse defined by political motivations and experiences. The analysis also reveals much about the precarious nature of nationalist mythologies in Canada and the U.S. where 'dangerous Americans' are concerned.

ACKNOWLEDGEMENTS

I would like to thank my supervisor, Joshua Greenberg, for his support and insight throughout this research project. You always had thoughtful feedback, despite my wandering, book-length e-mails, and pushed me to write a thesis of which I could be proud.

From my examination committee, I would also like to thank Patricia Ballamingie and Andre Turcotte for their thoughtfulness and interest. The final product is stronger because of your help.

Thanks are also due to Anne and Gary who have been an unwavering source of encouragement and enthusiasm during my years at Carleton. To my parents, Marg and Tom, you've pushed me to take pride in my work, and to persevere through whatever challenges I may face.

Finally, a very special thank you to Sarah. You have never doubted my ability to succeed, no matter how much I might have questioned it myself. Whatever the circumstance – or time of day – you were always an attentive and supportive sounding board. You never let me settle for 'good enough' and I cannot express to you how much your support has meant to me.

TABLE OF CONTENTS

Abstract.....	ii
Acknowledgements.....	iii
Table of Contents.....	iv
List of Tables	vi
List of Figures.....	vii
List of Appendices	viii
1. Introduction.....	1
Media Discourse and Water Policy.....	5
Water In, Water Out.....	11
Understanding Water Scarcity	14
Thesis Overview	21
2. Discourses of the Environment.....	25
Covering the Environment: A Review of the Literature.....	25
Survivalism and the Promethean Response	35
3. Theorizing Politics, Policy and the News Media.....	40
The Intersection of Media and Policymaking.....	40
Developing a Theoretical Model to Understand Media Coverage of Water Policy	42
Agenda-Setting	42
Spheres of Influence and the Indexing Hypothesis.....	45
Political Contest Model.....	47
Critical Elite Theory	52
4. Methodology.....	57
The Research Sample.....	57
Sampling Strategy.....	58
Coding Strategy	59
Content Analysis.....	64
Framing Analysis.....	67
The Piper’s Tune: Ethical Considerations	71
5. Data Analysis.....	74
Establishing a Context	74
Discourses of the Elite	83
Elite Framing	83
Source Use	89
The Dangerous American	96
Great Lakes Survivalism and the Promethean Response.....	98

Regionally Focused News and the Consequences for Bi-national Media Influences	101
6. Conclusion	105
7. Appendix 1: Tables and Figures	122
8. Appendix 2: About the Newspapers	132
9. Appendix 3: Coding Information.....	134
Coding Scheme	134
Description of Frames.....	138
10. References.....	140

LIST OF TABLES

Table 1 - Number of articles written by reporter	125
Table 2 - Top frames, overall (n=241).....	127
Table 3 - Top frames, Canadian newspapers (n=167)	127
Table 4 - Top Frames, U.S. newspapers (n=74)	127
Table 5 - Breaking down the Interjurisdictional Relations frames.....	128
Table 6- Source type.....	128
Table 7 - Source type, first and second sources.....	128
Table 8 - Top frames used by Council of Canadians.....	129
Table 9 - Top frames used by Great Lakes United.....	129
Table 10 - Use of Dangerous Americans frame by sources.....	130
Table 11 - Other mentions of topics.	131

LIST OF FIGURES

Figure 1 - Articles written per year, by country.....	122
Figure 2 - Articles written per quarter, by topic.	123
Figure 3 - Article location in newspaper, by country.	124
Figure 4 - Top dominant frame when None is excluded.	125
Figure 5 - Interjurisdictional relations as a dominant frame.....	126
Figure 6 - Number of articles per newspaper.....	131

LIST OF APPENDICES

Appendix 1: Tables and Figures	Error! Bookmark not defined.
Appendix 2: About the Newspapers	Error! Bookmark not defined.
Appendix 3: Coding Information.....	Error! Bookmark not defined.
Coding Scheme	Error! Bookmark not defined.
Description of Frames.....	Error! Bookmark not defined.

1. INTRODUCTION

Two men walk along the shore of the Rideau River in Ottawa. Marc Lavigne is a seasoned political veteran and Solicitor General of Canada. The other, Tom McLaughlin, is a young Prime Minister who has taken over his father's party after McLaughlin Sr. was killed in a mysterious canoeing accident. The two are discussing the fate of Canada's sovereignty in light of an increasingly water-hungry United States.

“They will need water,” says McLaughlin. “And when they need it they will take it, and that puts us in the shitter. Unless we can do a deal now. Dictate the terms, manage the resource, and exact a price that will sustain the nation in the future because the alternative... there is no fucking alternative.”

The scene is from the 2004 CBC movie, *H₂O* (Binamé, 2006). A consortium of business interests have set into play a series of events to open Canada's water resources to the U.S. When the Prime Minister, McLaughlin Sr., shelves legislation that would pave the way for massive water diversion, he is killed by a former Canadian special forces commando. The consortium cajoles McLaughlin Jr. into taking over the party, and the plan is put back on track. McLaughlin forwards a scheme, making agreements between Ontario, Quebec and First Nations to sell water to pay for health care and ballooning provincial deficits. When evidence is found that confirms his father was assassinated, the Emergency Measures Act is invoked, and civil order begins its strategic erosion. The endgame: continental integration. By inciting just enough disobedience, McLaughlin creates pretence for inviting the U.S. military to assist Canada in protecting shared strategic installations. His vision is one of an integrated North America, where, in his

words, “We seek an autonomous relationship, similar to the one that Scotland enjoys with the United Kingdom. The Canadian parliament will retain control over issues which matter to the citizen: health, justice, education, culture. To the United States, we will cede fiscal policy, foreign affairs, and the military.” In exchange, McLaughlin offers water.

In the end, the plan spirals out of control. The U.S. Ambassador informs the Prime Minister that the collapse of civil order is endangering the well-being of the U.S., and parliament will remain suspended while a provisional government is put in place. Ultimately, the U.S. invades Canada and the Prime Minister has cleared the path. The film fades to black as the Centennial Flame in front of Parliament is extinguished.

As a navel-gazing political drama, *H₂O* invokes many deep-rooted Canadian national anxieties. It covers the full spectrum of gremlins that lurk under the beds of nationalists: turmoil and misunderstanding in Quebec-Canada relations; power-concentration in the Prime Minister’s Office; concentration of ownership and editorial policy in Canada’s media; the Emergency Measures Act and the memory of the October Crisis; and, the lack of a telegenic and unifying leader. Planted firmly on top, however, is a driving fear of the U.S. marching north, declaring Canada the fifty-first state, and usurping control of the country’s natural resources.

The controlling issue in the film is the treatment of Canada’s water resources. And in this respect, the film comes at an interesting point in the discourse over just how the resource should be treated and how much sovereignty Canada truly has over waters within its borders.

Six years before the film aired, the Nova Group, a small Sault St. Marie consortium under the leadership of John Febbraro, applied to the Ontario government for

a permit to withdraw approximately 600 million litres of water per year. The plan was to fill a tanker with the water, navigate south down the Atlantic Ocean to the Panama Canal where it would cross to buyers in Asia. Following a silent thirty-day comment period, the government granted the permit and Nova Group was given permission to remove water from Lake Superior (Annin, 2006).

It was not long, however, before news of the permit reached the press and set off a storm of protest, political backtracking, and years of policy wrangling. Sarah Miller, of the Canadian Environmental Law Association was quoted in the *Globe and Mail*, remarking “If it’s open season for all the water in the Great Lakes, wait and see what happens in the States, where there will be desperate water shortages in the next millennium” (Mittelstaedt, 1998: A6). Fury with the decision reached across both sides of the border with the Governor of Wisconsin Tommy Thompson, remarking, “There is not a snowball’s chance in hell that it is going to happen” (Behm, 1998: 1).

Febbraro, for his part, was surprised. “I was on the news almost everyday...*Time* magazine, CNN, CTV, ABC, it didn’t matter...I was absolutely surprised at the media attention” (quoted in Annin, 2006: 195). As far as Febbraro knew, he was trying to help people in Asia who did not have access to clean water: “They need water...and literally we look in our backyard and we have tons of it!” (quoted in Annin, 2006: 195). The issue, however, went far beyond simply shipping what is a miniscule amount of water relative to the volume of Lake Superior. The permit brought to a boil a simmering issue in Great Lakes politics for decades: what sort of access to Great Lakes water, if any, should communities outside of the basin be allowed?

The impact of this permit still resonates as the eight Great Lakes states and Ontario and Quebec implement legislation to prevent future withdrawal proposals. It is likely that full implementation of this legislation will take several more years. In this time, the discourse of water policy will mature. Focusing on the period 1998-2005, this project is a case study that explores how bulk export and diversion of Great Lakes water has been portrayed in the U.S. and Canadian daily press. While the issue may not garner excessive media attention, it is one that rises and falls in concert with events, announcements, and policy decisions. While substantive decisions may be made outside of the media sphere, the daily press is a space where discourse develops and matures in front of a wider audience. Though not as slick and tense as the events portrayed in *H₂O*, the strong response to the Nova Group proposal raised several fundamental questions: what is the relationship between the water of the Great Lakes as a natural resource and as a life-sustaining element of the Earth? Along that same line, how are enemies and heroes developed as it concerns the right of access to the resource? In this scenario, policy development is like an iceberg: many of the key decisions and discussions take place far below the surface of the water, out of sight of the public and media. It is the small portion that is visible to the wider public that becomes the central representation of the issue and it has significant power to shape the discourse of the policy. Unlike an iceberg, the perceptions of this visible portion have the ability to shift the nature of the policy development that remains hidden. These perceptions, and the discourse they affect, are informed by the beliefs, values, and attitudes of Great Lakes residents, politicians, public servants, industry, and indigenous populations. It is also informed by national

mythologies concerning who has abused the water and who can best be stewards of the resource.

This project explores how these mythologies – and the beliefs, values and attitudes that comprise them – are expressed in the daily press and how they interact with policy development as Great Lakes governments and public work through their response to a perceived threat to the Lakes.

Media Discourse and Water Policy

Hilgartner and Bosk (1988) suggest that there is a finite amount of space for a given social problem to position itself on the public and media agenda. Consequently, characteristics imbedded in the issue, both cultural and structural, contribute to it reaping greater salience than another issue. Hilgartner and Bosk (1988) argue that social problems compete with one another for positions of salience on the social agenda, and that to understand this competition one must consider six factors. The first is the sheer number of problems presently in contention and their relationship to one another while the second is the degree to which the structural reality is conducive to a problem becoming salient. Third, the carrying capacity of the arena for problems influences how an issue groups with others while, fourth, the content characteristics of the problem influence the nature of its reportage. Fifth, the amplification and repetitiveness of the problem can boost its lifespan, and sixth, the behaviour of the issue's advocates impacts whether the problem is perceived as a serious concern.

Within this case study, several elements require a different approach than conventional media analysis. A fair proportion of environmental news analyses take up an agenda-setting framework to explore how the salience of environmental issues

develops in the news media (e.g., Kwanasah-Aidoo, 2001; Bendix and Leibler, 1999; Mazur and Lee, 1993). Yet, agenda-setting approaches are methodologically limited by strict quantitative techniques whose goals are to develop predictive models. This orientation limits the insight to be gleaned from an examination of qualitative elements. That is to say, qualitative features give texture to an issue and the discourse that surrounds it. This provides space to discuss such things as the institutions, values and norms that shape the development of a given issue.

Agenda-setting theory is dependent on a relationship between the policy, media, and public spheres that does not move beyond the national scope. The shared nature of water resources means typical state-centred conceptions of the policy-media relationship must give way for a more inclusive role for transnational and bi-national communication¹. Much of the work done in this area takes place at the national level or lower. Understanding how the various spheres of one country interact with the various spheres of another has not been theorized extensively. In this sense, the ‘country’ is formulated as a closed entity. Such construction is not appropriate for an exploration of how the Great Lakes are construed as a shared resource. Despite globalizing trends, Curran (2002) notes that most news coverage remains predominately local. The nature of the issue examined in this thesis presents the opportunity to test whether this focus on the local is applicable in the case of a bi-national environmental issue.

Further complicating a typical coverage analysis is the degree of policy-centeredness of this bulk water export and diversion case; most action takes place on

¹ There is some contention over the use of transnational and bi-national. In this paper ‘transnational’ is defined as a relationship between two or more countries. ‘Bi-national’ defines a relationship between only two countries. As such, ‘bi-national’ is a category of transnational. Within this scope, both terms could be used to describe Canada-U.S. relations. In this thesis, bi-national is the preferred term.

paper and in meetings within the halls of government. The image of a tanker filling up with Lake Superior water is visually striking, but it is one of few that exist in this case. Unlike deformed frogs, barrels of toxic waste, or the brown blanket of smog hanging over a city, the issue of bulk water export and diversion is difficult to visualize. Until lake levels lower, understanding of the issue is primarily conceptual and the news media are not structured to deal with conceptual issues.

Although the news media offer a limited portrayal of abstract elements of environmental issues, they remain a forum often regarded as representative of broader debate. Media coverage of a particular issue is popularly equated to its public salience. Politicians consider an issue's presence in the press when deciding whether or not to move forward with it, and non-governmental organizations (NGOs) look to press coverage when rating their success at generating issue awareness and action. The news media act as a hub that connects policymakers, the public, and academics on a daily basis. Thus, the development of a discourse in the media offers a means of indexing and organizing wider public debates. In addition, the media act as long-term archives. Thirty years from now, when researchers look to understand how issues of bulk water export and diversion were discussed in the Great Lakes region, they will look to media reports. While the media are only one avenue of discourse, they are widely regarded as a significant one.

Typically, Davis (2003) explains, a dominant paradigm in coverage analysis centres on the news media as an elite-to-mass communication vehicle. He suggests that this is not always the best model. Instead, he argues that the news media also operate as an elite-to-elite vehicle. Since this case study is policy-centred, it is likely that much of

the coverage focuses on the concerns and opinions of elite actors: government officials, elected opposition politicians, industry, and leading NGOs. Davis' (2003) work is admittedly limited in scope. He bases his analysis primarily on interviews with government, business, and public relations professionals working on issues of high finance in the U.K. The present case study presents an opportunity to investigate, and potentially expand, this theory, but also to refine the definition of 'elite' through an examination of media texts. Within Davis' (2003) work, the term 'elite' is limited to a narrow range of government and business figures. In this case study, a more expansive understanding of 'elite' is used. An elite group includes all those with the resources and capability to both shape and drive discourse and policy on a given issue. Regarding environmental issues, this increasingly includes NGOs who often have an underappreciated influence on the development of policy. Similar to Wolfsfeld's (1997) identification of 'gates' for entry to the media arena, elite actors can be categorized as primary and secondary elites. Primary elites include those described by Davis (2003): government and industry leaders. However, in certain circumstances NGOs can gain access as elite actors. This status is usually only accessible when the nature of the policy debate and the environment of discourse provide space where those groups with legitimacy among primary elites and the capacity for communications relations may access the media as an elite actor. Commonly, NGOs are conceptualized as non-official sources that operate outside of the decision-making boundaries occupied by government, and to a lesser extent, business sources (Deacon, 1996; Schlesinger, 1990). While this may often be the case, as explored in this thesis, situations do exist where these groups play a strong role in the discourse over a particular policy debate.

While NGOs may have a greater influence than previously considered, the intention is not to presume more influence than actually exists. Bennett (1990) suggests that newspapers index their coverage to a baseline established by the government. This places government officials in a privileged position to set the range of discourse on a given topic. In this sense, the role of NGOs and other elite groups becomes one in which they respond – either favourably or unfavourably – to a mode of discourse established by another elite. This is very similar to the political contest model of Wolfsfeld (1997) who imagines the media environment as a grand battlefield where different warriors are granted access to ‘fight it out’ in front of an audience of journalists who then report the outcome to the public. He argues that different actors have varying privilege to the ring.

While Wolfsfeld (1997) assumes an elite-to-public paradigm that Davis (2003) attempts to move away from, Wolfsfeld (1997) elaborates on several key premises that help delineate the relationship between the policy arena and media sphere. The political contest model suggests there are two groups of actors in political conflict: authorities and challengers. Traditionally, authorities are government and industry officials, and challengers are citizen groups and NGOs. In the case of a bi-national water export issue, competing authority groups are already established: there are two federal governments as well as several provincial, state, and municipal governments. This research allows an exploration of the nature of battle between several titans and the role of challenger groups in this situation.

A key element of Wolfsfeld’s (1997) model is that it reins in the role of the media in setting a policy agenda. In many cases, he argues, the media are attributed inordinate influence in the development of policy. Drawing upon Hallin (1986), Wolfsfeld (1997)

argues that the influence of the media relates to its dependency on policy actors and that these relations of dependency can change over time. Hallin (1986) found that the turn in U.S. public support for the Vietnam War, normally attributed to declining media support of the war, was in fact primarily influenced by an increase in dissent among members of Congress. The media reported the war favourably until high profile sources started to speak out against the conflict. This allowed the media to report an aspect of the war that, until then, had been absent. This also created an opportunity for challenger groups to have access to the arena and to make their positions clear.

The relationship between policy development and the media is a blurry one and it becomes increasingly so as the scope expands to the bi-national or transnational level. This research project attempts to clarify trends in how elite-to-elite discourse permeates the news media and investigates the role of non-traditional elite groups in this process. Deacon (1996) suggests that NGOs with insider status to official sources operate with greater political savvy and firmer media contact. As he writes, “those organizations most assimilated into official networks of governance, and whose existence, status and expertise is recognized by policy-makers, receive more coverage because they are more likely to be treated seriously by news professionals than those more marginalized, whether inadvertently or ideologically, from the centres of political power” (Deacon, 1996: 193). Elite communication is not limited to only government channels. This research project seeks to understand how other groups operate as elite sources within a case study that focuses on a policy debate.

Water In, Water Out

The story of large-scale water diversion in the Great Lakes begins with the Chicago Diversion (also known as the Chicago Ship and Sanitary Canal). In the late nineteenth century, the city was facing a serious public health crisis. Its plumbing returned sewage waste to Lake Michigan down the Chicago River, where intake pipes inevitably pulled the waste back into the system. In 1887, the city responded with a plan to build a canal to join the Chicago River with the Des Plaines River, which fed the Illinois River, and ultimately the Mississippi River (Annin, 2006). The twenty-eight mile diversion effectively reversed the flow of the Chicago River and became the largest diversion of water to outside of the Great Lakes basin. Construction of the canal incited fierce resistance from citizens downstream who did not wish Chicago's waste to flow through their communities. Following divisive legal battles, the U.S. Supreme Court capped the diversion at 3200 cubic feet of water per second, or approximately 90,000 litres per second (2.8 trillion litres per year). Since then, other communities outside of the basin have attempted to tap into the Great Lakes with mixed results.

Since 1985, the Great Lakes states and provinces have attempted to cooperatively regulate the flow of water to outside of the basin through the Great Lakes Charter and the Water Resources Development Act. The Great Lakes Charter is an agreement between the eight Great Lakes states and the provinces of Ontario and Quebec to implement similar conservation legislation across each jurisdiction. It also includes a promise to seek the permission of the other jurisdictions should a withdrawal proposal exceed eighteen

million litres per day². On the U.S. side only, a short amendment to the federal Water Resources Development Act (WRDA) stipulates that any diversion of Great Lakes water to outside of the basin requires the approval of each Great Lakes governor. While there was broad understanding that the constitutional foundation of WRDA was shaky and that any decision based on the legislation risked being overturned by the courts as unconstitutional, it was hoped that the amendment and the Charter would be enough to keep Great Lakes water within the basin (Annin, 2006). With these two documents signed, those concerned about the diversion of Great Lakes water were relieved; however, the desire of communities outside of the basin to access the Great Lakes continued to grow.

The Nova Group permit galvanized fear across the Great Lakes basin about how easy it could be to export water (Annin, 2006). A year prior to the Nova Group proposal, a California company took the British Columbia government to court after the province banned bulk-water exports. The company, Sun Belt Water, argued that the export ban violated the North American Free Trade Agreement. Then, a few months following the Nova Group permit, the McCurdy Group of Newfoundland re-surfaced with a plan to export water from Gisborne Lake, Newfoundland, to potential buyers in the U.S. Meanwhile, Waukesha, a suburb of Milwaukee, Wisconsin lying just outside the Great Lakes basin, was dealing with increasing groundwater contamination, an issue that had been facing the community for decades (Annin, 2006). In 2003, the community signed an agreement with the state of Wisconsin to devise a solution by the end of 2006. For city

² There is some contention over whether the Nova Group proposal exceeded this limit. Ontario permitted the company to take up to 60 million litres in one year, but just how much of this would be taken per day is unclear.

officials, the most attractive solution was to pump water from Lake Michigan, less than thirty kilometres away (Annin, 2006).

The policy response since 1998 has been uneven. In the years following the revocation of the Nova Group permit, the Canadian and Ontario governments instituted export bans. The Sun Belt Water case is still before the courts, and while the McCurdy Group proposal saw some light when endorsed by then Newfoundland and Labrador Premier Roger Grimes, political support fell drastically under the weight of public criticism. In 2001, the Great Lakes states and provinces undertook a process to tighten the Great Lakes Charter, and to put in place U.S. legislation that could withstand constitutional challenge. In the wake of this response, the Waukesha case will be a serious test of new regulatory protections, assuming they are fully implemented before Waukesha takes definitive action.

In 2005, the Great Lakes states and provinces finalized the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement, a stronger replacement to the Great Lakes Charter. The Agreement committed each jurisdiction to introducing and passing identical legislation to protect Great Lakes water. The Great Lakes states also agreed to pass the Great Lakes-St. Lawrence Basin Water Resources Compact, an interstate agreement that would clean up the problems of WRDA and ultimately ban bulk exports and diversions with the possibility of legal consequences should a state break the Compact. Each state and province must pass the Sustainable Water Resources Agreement before it takes effect. Likewise, each of the eight Great Lakes states and the U.S. Congress must pass the Compact before its provisions are enforceable.

This response is interesting in and of itself. In Canada, though the Great Lakes are contained within a single province, they also delimit an international border.

Traditionally, the federal government has been leery to interfere in water management decisions, instead letting the provinces decide how best to manage water resources (Saunders and Wenig, 2007). In the U.S., the Great Lakes region is slowly losing federal power as the country's population distribution shifts to the south, and with it seats and power in Congress (Annin, 2006).

Understanding Water Scarcity

The salt water of the oceans covers 71 per cent of the Earth, and accounts for about 97 per cent of the total water supply on the planet (approximately 1.4 billion cubic kilometres of water). Yet, of the remaining 3 per cent of useful freshwater, almost two-thirds of it lies frozen in glaciers and ice sheets. Of that final third of freshwater, a large proportion is groundwater that is either too deep or otherwise unreachable by humans (Marshak, 2001; De Villiers, 1999; Gonzalez, 1998). After all the numbers are calculated, only about one-quarter of the Earth's freshwater is located in the rivers and lakes that sustain human populations (De Villiers, 1999); of the world's total water supply, this is about one-thousandth of a per cent (Marshak, 2001). The renewable supply of rivers and lakes – up to 14,000 cubic kilometres – is more than sufficient to satisfy the 4,000 cubic kilometres withdrawn by the human population each year (Ohlsson, 1995).

Inconveniently, when the Earth's freshwater was distributed, it was not aligned with the growing demands of the human population. The consequence is that “freshwater scarcity affects more than a billion people and the integrity of many of the world's ecosystems” (UNEP, 2006: 20). Donahue and Johnston (1998a) estimate chronic water

shortages affect up to 40 per cent of the world's population. By 2020, the United Nations Environment Programme (2006) predicts water scarcity will have increased in two-thirds of the water systems under study, a consequence of a billowing human population and agricultural and economic growth.

Water scarcity does not refer to a net lack of water on Earth, but to an imbalance in the distribution of water among human populations. As Johnston (2003) notes, "water scarcity in popular terms suggests a state of immediate or impending crisis resulting from an inadequate supply of water to meet the varied demands of humans and their environment" (74). Donahue and Johnston (1998b) also emphasize that water scarcity is not only about the natural distribution of water in the world, population increases, and the impacts of climate change, but also about water management projects that divert, block, or consume the resource.

Most people in North America grasp the notion of world water scarcity only when experienced through minor dry spells or dangerous droughts and famines reported in the news media (Donahue, 1998). And while these images and the accompanying reports signify the important, and often tragic, consequences of water that seems unwilling to fall from the sky, they overlook the more looming threats posed by over-consumption which stresses natural systems to the point of collapse (Donahue, 1998).

Water scarcity must not only be thought of as a natural occurrence that can be substantially measured and objectively determined, but also one that is socially constructed (Donahue, 1998; Johnston, 2003; Postel, 1997). Johnston (2003) points to the trouble with agricultural water use. She cites that 69 per cent of the world's water supply is consumed by agriculture – the highest consumer of freshwater. When water becomes

scarce for agricultural purposes, it may more accurately reflect a demand issue, not a scarcity issue: “perception of water scarcity due to inadequate supplies of irrigation water, for example, may dissipate when water demands are reduced with a change in the type of crops that are grown and the technology employed” (Johnston, 2003: 74).

Expanding on this, Donahue and Johnston (1998a) cite Homer-Dixon et al. who propose that scarcity is induced by increased demand, drops in supply due to depletion, and the “inequitable distribution of resources” (5). In the end, Donahue and Johnston (1998a) argue, “water scarcity is influenced by a variety of factors, including topography, climate, economic activities, population growth, cultural beliefs, perceptions and traditions, and power relationships” (2). Overcoming scarcity issues requires gaining control over local technical and social resources (Johnston, 2003).

Where water is scarce in developing countries, a major problem is that the comparatively wealthy city dwellers have access to clean water through municipal water systems while the rural poor are forced to purchase water from private vendors at rates that can be forty times higher (Donahue and Johnston, 1998a).

In India and Bangladesh, pollution of the Ganges River has been a source of constant conflict, and clean up has been stifled by the river’s religious significance as a place of purity and redemption (Ohlsson, 1995). The spirituality connected to the river has contributed to a degree of wilful blindness that makes clean up cumbersome. Rehabilitation of the river is further exacerbated by the fact that the source of the river (and much of its pollution) lies in India, a more powerful country than Bangladesh, where the Ganges empties into the Bay of Bengal. Bangladeshis hold little sway in prompting the restoration of the revered river (UNEP, 2006). In recent years this situation has

improved somewhat with India making clear commitments to clean up the river and asking little in return (UNEP, 2006; Ohlsson, 1995).

Gaard (2001) explores how environmental classism, racism and sexism operate when water is treated as a resource to be harnessed. She considers this a linear model where “energy can be continuously extracted from nature—from water, from poor people, from people of color, from women—without giving back anything of sustenance.” (167).

A similar situation existed between the U.S. and Mexico. Much of the American Southwest receives very little rainfall, yet its population has exploded and agriculture has become a major industry. The consequence has been extensive damming and irrigation projects that have reduced the flow of the once mighty Colorado River to a mere trickle of flow into the Gulf of Mexico. Other rivers have been similarly dammed and diverted. Only recently have flow agreements been settled between the countries; it was later still before water quality agreements were settled (de Villiers, 1999).

The consequence has been intense conflict between states, each vying for what they deem to be their fair share of the water. There have also been major concerns over the quality of the water once it has been used and returned to the water system. Irrigation, though allowing the desert to bloom, contributes to the salinization of the returned water. Because traditional irrigation is a relatively inefficient process, only a fraction of the water used to irrigate is returned to its source. This fraction multiplies over thousands of fields, resulting in water with such a high salt content (and other minerals and heavy metals) that it is toxic and dangerous for consumption or irrigation.

Part of the problem is not only the corporate control of water resources, but also the desire by governments to use resource exploitation as a nation-building strategy. Sofoulis (2005) describes the close relationship between water and modern Australia, noting that the latter could not exist without massive diversions of water. These projects he refers to as “Big Water” and notes that “it is no news to cultural studies scholars that Big Water projects like dams and pipelines are part of colonial and nation-building processes and ideologies, often destined to serve mainly business interests” (454). What is interesting about his discussion, however, is how Big Water is translated to the individual user, and how “fantasies of abundant water in the midst of scarcity stop being topics of wonder and discourse, and are literally ‘black-boxed’ into unobtrusive metropolitan systems, standard domestic water fittings, and daily household routines” (454). This is epitomized by the water meter, which is about

...presenting water in its taken-for-granted abundance as a ‘utility’, part of the inconspicuous background of urban life. In exchange for being inextricably entangled with Big Water via the meter, the meter-reader, water bills, pipes and drains, users receive the security and abundance of an ever-flowing supply, the comfort of an all-accepting drain, and the convenience doing nothing to maintain water supply except pay the water bills. The water meter, that quietly clicking sentinel in the front yard, reminds users that responsibility for water supply and monitoring of use has already been delegated to Big Water. (455)

Scarcity is a problem of both quantity and quality. Droughts represent quantity scarcity, while an abundance of contaminated water represents quality scarcity. In North America, both of these scarcities exist, and sometimes intermingle. In recent years, increasing concern regarding the safety of municipal water supplies has arisen as a result of outbreaks of disease causing human suffering and death, as well as the discovery of toxins in the water. In Canada, deaths from E coli contamination in Walkerton, Ontario in 2000, the evacuation of the First Nations community of Kashechewan, Ontario, in 2005

after persistent boil water advisories (not infrequent among First Nations communities), and boil-water advisories affecting Vancouver residents for several days in late 2006 have refocused attention on the issue of water quality. In the U.S., similar cases exist, with the 1993 outbreak of *Cryptosporidium* in Milwaukee, as an example. In this case, the outbreak caused 69 deaths and made more than 40,000 people sick (Opel, 1999).

As concern over the safety of public water supplies has become more salient by such recent events, the bottled water industry has successfully exploited these concerns to generate considerable profit. A key strategy of these companies has been to present their products as the safer alternative to water that may contain dangerous bacteria, harmful toxins, and other pollutants, while capitalizing on consumers' desire for healthy alternatives to sugary sodas and juices (Opel, 1999).

The problem, Opel (1999) contends, is that water, which is a necessary element to life, transforms into a commodity to be bought and sold in a neo-liberal capitalist system. Jeffries (2003) finds similar results in a critical discourse analysis of a water crisis in Britain, in which water was primarily represented as "an inert passive substance with no agency of its own and at the mercy of its human 'owners'" (535).

For the most part, water resource management spans borders: 263 rivers or watershed basins overlap or delimit national borders. These watersheds drain up to 60 per cent of the world's water supply; furthermore, up to 40 per cent of the world's population draw their water from such basins (UNEP, 2006). Clearly, managing these shared resources equitably requires a strong degree of cooperation.

Public participation in the management of such resources tends to rely on how many countries share the resource, and whether a community on the shared resource is

located near the border (Bruch, Jansky, Nakayam and Salewicz, 2005). Regardless, Bruch et al. (2005) see that public involvement in the management of transboundary water “can improve the credibility, effectiveness, and accountability of governmental decision-making processes” (24). This can occur through government consultation, the creation of outspoken citizen groups, and to some extent, the institutionalization of NGOs in water management plans (Mori, 2004).

The importance that the above authors place in public involvement of water management points to the important social role of the resource. The centrality of water to life imbues the substance with important social attributes. Jarvela and Rinne-Koistinen (2005) note that while the cleanliness of water can be empirically measured, the notion of ‘cleanliness’ is often configured in relation to preconceived normative standards. For example, a strange new odour suggests dirtiness, as does discolouration.

Blatter, Ingram and Leveseque (2001) identify several meanings that emerge in discourses of water policy, including its economic value as a commodity and a “subsistence resource, a component of national security, and a focal point of identity” (34). They argue that as water moves through these constructions, its salience on public and political agendas increases. When debate invokes water as part of a person’s identity, it is not uncommon for him or her to lock into this identity. This is particularly relevant in a transnational jurisdiction where “the decline of the nation-state as the gatekeeper between the domestic and the international realm has led to a situation in which numbers of new and emerging actors are crowding the field of transboundary relations” (Blatter et al., 2001: 51).

Moore (1989) points to four factors that affect large-scale water transfer. First, institutional factors include the political environment and the relationship between municipal, regional and federal governments as well as the degree of participation by the public. Legal obligations, such as water rights, protections and agreements can limit the type of transfers that are possible. The second factor is environmental impacts, both in terms of the effects on the source environment, but also the impact of new water in the receiving locale. Such impacts will not only affect physical, chemical and biological systems but also have socioeconomic repercussions. The third factor involves looking for alternative strategies before a large-scale (and often expensive) diversion is considered. Alternatives include greater conservation and efficiency by water users, a readjustment of water allocations, and desalinization. Moore (1989) also points out the usefulness of weather modification; however, one must wonder whether this solution would really be better than a large-scale diversion. Finally, one must also consider the motivations for the transfer in the first place. Is this an issue of an industry lobby? A social or economic development project? A nation-building exercise?

Thesis Overview

In this thesis, issues arising from water scarcity are explored through a case study of a Great Lakes bulk water export and diversion plan and the discourse that developed as policymakers responded to the proposal. The first chapter reviews the pertinent literature on media coverage of the environment. While there has not been a substantial amount of scholarship about media coverage of water issues specifically, there is a broader literature that explores how the environment is portrayed in the media.

The second chapter takes a closer look at the theoretical terrain that will inform the case study. The chapter opens with review of the intersection between communication studies and policy studies, and how the interaction of these fields is conceptualized. Often, this is done through agenda-setting theory. However, agenda-setting theory, with its roots in quantitative processes and its preference toward a predictive methodology, is an incomplete means of understanding the texture and nuance of the overlapping, and at times contradictory or paradoxical, discourses that permeate news coverage of policy issues. In order to move beyond this, the chapter looks at three theoretical frameworks to explore how bi-national water resources are understood in the daily press: the indexing hypothesis (Bennett, 1990), the political contest model (Wolfsfeld, 1997), and critical elite theory (Davis, 2003). Taken together, these models provide a theoretical scope to evaluate the nature of the discourse of bulk water export and diversion in the Great Lakes basin.

Chapter three outlines the methodology used in this case study. In the first section, content analysis is introduced as the primary tool to investigate how nine newspapers reported on Great Lakes bulk water export and diversion issues over an eight-year period. The second section of this chapter employs framing analysis to explore some of the more nuanced aspects of the discourse. The result is a methodology suited to exploring a large sample for both its general and particularistic discursive elements. The chapter also explores certain ethical considerations in light of my professional relationship with one of the NGOs working on Great Lakes issues.

Chapter four presents the findings of the research and an analysis of their significance. The chapter opens with a big picture view of the distribution of articles over

the sample period, including the rise and fall of different topics over time, the page placement of articles, and differences in opinion and hard news coverage. This is followed by a discussion of the general discourses that permeate the coverage. The next section examines source use more closely and considers the manner in which elite sources, particularly those located in government, came to dominate the coverage. This section builds on critical elite theory to establish a sense of how elite-to-elite communication is a major component of bulk water and export coverage. Of particular interest, this chapter explores how the southern U.S. states were constructed as a danger to the sustainability of the Great Lakes in both Canadian and U.S. coverage. While the types of fears exemplified in the film *H₂O* resonate in frames used in this case study, Canadians' anxiety surrounding export of Great Lakes water to the U.S. southwest is shared by U.S. citizens of the Great Lakes states. This shows that the cultural trope of 'dangerous Americans' is more complex than strictly cultural nationalist ideologies in Canada suggest. It also indicates that a nationalist protectionism in how the policy issue is addressed may be misplaced. The final section of this chapter investigates any bi-national media influence and the significance of regional events in the coverage of bulk water export and diversion.

The fifth and final chapter provides concluding remarks and offers a brief commentary about the limitations of this study and the opportunities for future research. It also reiterates the relevant theoretical, methodological and analytical findings of this study as well as the contributions offered for an expanded understanding of critical elite theory and the role of framing in a bi-national environmental issue. Finally, it poses some

critical considerations for NGOs entering into media discourse to help shape the public sphere.

The research project that follows is only a small slice of an understudied area of environmental communication research. Despite the life-sustaining nature of water, what research that does exist tends to focus on what is *in* it, not *it* itself. I suspect this is, in part, a result of a double blindspot affecting both communication and media scholars and news media itself. Other environmental issues – toxic pollution, endangered species, nuclear energy, clear-cutting of forests, and global warming – are much more prominently covered in the news media and subsequently by those who study media and environmental issues. This research project attempts to open new ground in the understanding of how news media cover the environment, while simultaneously offering a fresh perspective on how environmental issues are constructed through elite-to-elite channels.

2. DISCOURSES OF THE ENVIRONMENT

The relationship between politics, policy and the news media has been a persistent area of discussion in communications research. The development of the study of environmental communication mirrors that of communication more broadly, where issues of limited and strong effects are played out, and increasing stress is placed on the agency of the audience or public to construct meaning. In the case of environmental communication, this means a broader focus, moving beyond simply understanding how environmental problems are reported in the press and striving to understand how environmental characteristics are constructed. Exploring this link between environmental policy, the media, and the role of the audience has become more complex since the environment emerged as a stand-alone issue in the 1970s (Kraft, 2000). The first Earth Day was held in 1970, as the environment emerged with its own beat among the press, and in the same year the Environmental Protection Agency was established in the U.S. The founding of the modern environmental movement took place in light of Rachel Carson's *Silent Spring* a few years earlier (Kraft, 2000). This chapter offers a review of the literature in regard to how the environment has been covered in the press and of the tension between what Dryzek (2005) describes as survivalist and Promethean discourses of the environment.

Covering the Environment: A Review of the Literature

Reportage of the environment ebbs and flows as environmental priorities shift up and down the political agenda. May relates in Dale (1996) that low interest in the environment can correspond to troubled economic times. The more concerned people are with sustaining their own standard of living, the more likely the environment, a complex

matrix of uncertainty and risk, is pushed to the back of public thought (cited in Dale, 1996). While an economy-centric model might be appealing for its simplicity, the cause for varying concern over environmental issues is likely more strongly related to a fog of converging interests, coincidence, and good timing. Mazur (1998) attributes the rise of the environment during the late 1980s to the connections drawn between various environmental issues, while major drought, forest fires, and the *Exxon Valdez* oil spill provided a visually rich backdrop for broader coverage of environmental problems. Mazur (1998) notes that environmental issue salience dropped between 1990 and 1992, and that this was caused likely by media-intensive events such as the collapse of the Soviet Union and the 1991 Gulf War, which redirected the public's attention. A variety of factors can explain why the environment never regained its prominence after 1992, including the departure of high-profile environmental champions from the U.S. Congress, changes in environmental reporter staffing at elite newspapers, and more popularized scepticism (Mazur, 1998). Furthermore, there is also the likelihood that "major news stories during 1987-90 – especially those about the ozone hole, the hot summer of 1988, the *Exxon Valdez* in 1989 and the 20th anniversary of Earth Day in 1990 – provided a unique context that made the global hazards appealing to journalists; there was no comparable story during 1992-6" (ibid: 468-9).

The organizational structure of newsrooms helps to construct an order of discourse that establishes issue importance on broader media, public, and policy agendas. The decline of labour beats and the rise of business and consumer sections, for example, both shape and reflect broader changes in political economy. Detjen, Fico, Li and Kim (2000) found that institutional resources for environmental reporters were continually

dropping. This supports earlier findings by de Mott and Tom (1990) who found the number of reporters assigned to environmental issues declined sharply throughout the 1980s. de Mott and Tom (1990) predicted that with the rise of global warming issues in the early 1990s, journalists assigned to the environment beat would increase.

Detjen et al. (2000) do not address de Mott and Tom (1990), but their survey results show that dedicated environmental writers spend less than half their time on the beat. These journalists report institutional constraints on their work more frequently than in the past. However, Detjen et al. (2000) do not address whether or not this is representative of a wider trend among all journalists amid tightening budgets for newsgathering. The decline in newsgathering resources is widely reported in news research (Taras, 2001; Hackett and Gruneau, 2000; Bird, 1997).

The development of the environmental beat was intended to generate greater diversity of source use and selection by allowing journalists to focus on a single area of expertise (Lacy and Coulson, 2000). Yet, as Lacy and Coulson (2000) found, in the case of the U.S. Clean Air Act, government and business sources dominated as sources. Environmental groups and other non-official sources are rarely cited in such stories. While their study does not explore *why* this is the case, Lacy and Coulson (2000) suggest that greater access to official sources contributes to greater coverage, or that “perhaps their public relations strategies were ineffective, or perhaps they were judged to be less reliable than more established sources such as government and business. Whatever the reason, their limited access to the news pages likely diminished their contribution to the public dialogue on this issue” (para. 52).

In Canada, Hackett and Gruneau (2000) report that much environmental coverage focuses on large-scale disasters as opposed to “the systemic and ongoing connections between global environmental degradation and the ordinary every-day workings of the economy” (169). With official sources often oriented as the leading actors in event-based disaster reportage, alternative sources are likely ignored alongside systemic and institutional issues.

Within the broader academic literature, environmental issues can be seen as a subcategory of science reporting, which may touch on issues such as health, aerospace, or consumer safety. Allen (2002) identifies three types of journalists who report on science: scientists writing for technical publications that reach an expert audience, scientists writing for a non-expert audience, and the non-scientist writing for a non-expert audience. Of course, while environmental news is closely related to science news, it is not necessarily the same thing. In many cases, environmental news is more closely related to political news than science. Indeed, Allen’s (2002) distinction between scientist and journalist is an unclear one: is a science writer a scientist first and a journalist second? Or, is it the other way around?

Some, such as Farrow (2000) and May and Pitts (2000), tend to isolate science news as distinct from other news. Farrow (2000) argues “scientists are reluctant to engage with the news media” because the media focus on ‘a good story’ can blur the science underlying it (189). May and Pitts (2000) argue that journalism should be more concerned with informing readers about how science operates, not necessarily of scientific facts. Both of these arguments work to isolate environmental news from the broader sphere of human concern. In contrast to Allen (2002) where the distinction

between scientist and journalist is unclear, for Farrow (2000) and May and Pitts (2000) the distinction is very clear: science writers should be scientists first. Such argumentation hives off science as a field distinct from politics, business, and social justice, when in fact, the activities in the scientific sphere are intimately bound to these other fields.

In a study of environmental issues from 1987-1990 and 1992-1996, Mazur (1998) found that in only one case did a scientific discovery prompt media coverage: the discovery of the hole in the ozone layer over Antarctica. He argues, generally, that “more often coverage of a hazard developed because of its connection to other prominent issues, or because of human interest angle, or because of previously existing relationships between journalists and the scientists who were their sources of news (469)”. Similarly, Mazur (1998) cannot explain why coverage suddenly dropped in 1991, despite broad scientific evidence of continued or worsening environmental problems. Hansen (1991) comes to a similar conclusion, finding that media interest wavers independent of changes in the severity of an environmental problem. He argues that analyses of the interaction between the media and the environment must “[go] beyond – without ignoring the contributions of – traditional approaches to the study of mass media” (454).

Bendix and Leibler (1999) add a new dimension to traditional coverage studies: the role of geographical space as a factor in increasing the salience of an issue. While they could not prove that geographic distance had an influence on the framing of an issue, they did find that “physical and social distance can be used to successfully predict variables related to amount of coverage” (673). Despite Bendix and Leibler’s (1999) strict quantitative approach, they appear to reflect a broader systems/holistic approach to

understanding environmental issues, providing empirical substance to Galtung and Ruge's (1973) news value of 'proximity'.³

The strict empirical discussion of environmental communication to which Hansen (1991) refers can give way to a more holistic, constructionist approach. Sturken (2001) highlights a growing awareness of environmental communication as more than simply performing quantitative analyses of how the press cover environmental problems. Instead, Sturken (2001) employs a cultural studies approach that widens the employment of 'environment' and 'nature' beyond previous work that had focused predominately on problems caused by human action. Usefully, she attempts to come to an understanding of how the social construction of the environment shapes how people interact with such seemingly mundane elements as weather.

In this way, Sturken (2001) moves toward exploring the interaction between the public and media representations of the environment. Atwater, Saiwen and Anderson (1985) found that, in the case of environmental issues, interpersonal communication "may mediate the media's ability to structure audience members' intrapersonal salience of environmental issues" (42). They suggest that there may exist a bias toward media that minimizes the role of interpersonal communication in one's understanding of a news item. This is not to say that the media have no role to play, but that a broader socio-cultural environment affects this role.

³ Galtung and Ruge (1973) identify a series of 12 factors they see as impacting the likelihood an issue would be considered newsworthy by the press. The more factors present in an issue, the more likely that the event will be reported. The factors arise out of characteristics of the issue itself as well as broader cultural conditions that shift independent of the issue.

Once a story has been selected, Galtung and Ruge (1973) argue that it becomes distorted by a privileging of the factors that made it newsworthy in the first place. Following this, they argue that this process of selection and distortion takes place during each step in the story's movement from the actual event to the reader. Thus, the more steps in the process, the more likely the story will twist according to the principles of news production.

Similarly, Cottle (2006) teases out the dynamics that give shape to the public's interaction with the media in a broader sense. Dispensing with a closed and unidirectional system, he proposes to examine the media as a central figure in "[mobilizing] collective sentiments and solidarities" (461). In doing this, Cottle (2006) identifies several ritualized media events: moral panics, celebratory media events, conflicted media events, media disasters, media scandals, and mediatized public crises. In each of these cases, the role of the media can vary from that of instigator, conductor, narrator, mediator, advocate, campaigner, champion, or a combination of these (Cottle, 2006). Interpreting the role of the media in this fashion allows much more space to acknowledge and understand how media values impact coverage, within an empirical research paradigm.

Despite an ever-present media, greater access to information and knowledge, and increasing entrenchment of democratic principles in the popular consciousness, there is persistent concern over the public's disinclination to engage with public affairs and the political process (Althaus, 1996; Delli Carpini and Keeter, 1992; Neuman, 1986). The most recent example of this is the record-low voter turnout in Ontario's 2007 provincial election, where only 52 per cent of eligible voters actually cast a ballot (Elections Ontario, 2007). Neuman (1986) explains this paradox of mass politics by looking to a theory of stratification where informed opinion leaders represent the views of a constituency. He finds that a large majority of people (75 per cent) pay little attention to politics, but still understand the importance of voting and do so regularly. In light of the trend toward lower voter turnout, evaluating the political behaviour of this majority could be better informed by the factors that can influence an individual's intention to vote, including the significance of different levels of government (municipal, provincial/state

and federal), the dominant issues for debate, and perceptions of whether new political leadership is desired.

At one margin of this majority are the politically disinterested (approximately 20 per cent of the population) who have no interest in politics or the political process, despite the factors that may influence voting choices by the majority (Neuman, 1986). At the opposite extreme is a narrow band of political elites who are very involved in politics and demonstrate a great degree of sophistication in their conceptualization of political issues. This general trend is supported by later survey research by Althaus (1996).

The role of the media in this political environment varies according to the stratum in which an individual finds him/herself. Neuman (1986) writes, “all citizens spend a varying amount of their energy keeping track of the world around them. When one medium suspends activity, the public shifts its attention to other media and to interpersonal information sources” (143). For the majority in the middle, the role of the media is to maintain the status quo. When the status quo shifts, the mass public responds in a way that returns equilibrium to their relationship with the press.

While the middle may be inattentive, they are not necessarily disinterested. Since Neuman (1986), various studies have attempted to provide more detail on the nature of the public’s engagement in politics. The results suggest that socioeconomic status plays an important role in political engagement (Delli Carpini and Keeter, 1992), as does one’s perceptions of their own power in the political system (McCluskey, Deshpande, Shah and McLeod, 2004). Schoenfeld, Meier and Griffin (1979) find that the reportage of environmental issues is strongly impacted by the circumstances of the social world. In looking at why the environment was minimally reported in the 1960s, they suggest that it

was due to a lack of a defined environmental beat to structure environmental stories. Nor did the news system have the resources to explore complicated, scientifically-dense issues. As environmental issues became popularized in the 1970s, news systems were developed that promoted and supported the development of the skills necessary to report on the environment as a system.

Yin (1999) attempts to extend the literature on how the public interacts with environmental news by introducing the elite opinion leadership model to a field dominated by theories that hold people to decision-making based primarily on deeply-held values or on the basis of rational choices. Yin (1999) argues that public attitudes on the environment follow closely with elite opinion on environmental issues, especially when there is consensus on the issue.

Despite the opportunities for a broader examination of the social construction of the environment, much analysis of environmental news focuses on discrete events, and typically, the perceived failure of the press to represent adequately these issues to the public. For instance, Jarell (2005) found that penalties levied against petroleum refineries received very little coverage despite a large number of cases of violations. The cases that received any press coverage were the ones where large penalties were assessed. She suggests that this leads to an undermining of the value attached to this sort of crime, including the risk to environmental and human health.

Similarly, Kensicki (2004) found that coverage of pollution, poverty and incarceration rarely mentioned NGOs working in the field nor did the coverage move beyond the simplistic, offering little discussion of solving the problems or the systemic elements that contribute to their existence. This, she argues, develops citizen apathy by

creating a disconnect between the problem and its solution. In addition, the minimal mention of citizen groups further isolates the individual from solutions outside of government action.

This perception of the isolation of environmental action groups from the wider public is reflected in the results of Taylor, Jung-Sook, and Davie (2000) who found that in a small community, daily newspaper reportage of a conflict over a proposed hazardous waste incinerator tended to favour government and legitimized the voice of industry over the voices of local activists. They found that “the forces of business and industry leaders have powerful ways in the face of environmental hazard, and that the press in ‘fragmented’ communities may succumb to the corporate line and become oblivious to the cause of environmental activists and the concerns they represent” (Taylor et al., 2000: 189). This assessment is similar to the work of Demers (1996) who noted that small local newspapers are more likely to become cheerleaders because of the higher dependence they have on keeping readers and advertisers happy. That is to say, an imbalanced local community can hurt a newspaper whose livelihood is dependent on the economic well-being of the community. This is in contrast to larger newspapers who are expected to report critically and whose greater market presence creates a buffer to such economic shifts.

Jarrell (2005), Kensicki (2004) and Taylor et al. (2000) state that activist voices are unfairly and problematically marginalized; these researchers ignore, however, the fact that the media do not operate alone in constructing the discourse of environmental issues. McCright and Dunlap (2000) find that in the case of global warming, opposition forces mount a very strong campaign to undermine the science that demonstrates that human

behaviour is contributing to the warming of the planet. This concerted campaign ensures that perceived uncertainty within the scientific community forestalls any progressive action based on a principle of preventative measures.

Such a campaign is evident in Dispensa and Brulle's (2003) analysis of global warming coverage in the U.S., New Zealand and Finland. They find that U.S. coverage presents global warming as a controversial and uncertain subject, despite overwhelming scientific evidence demonstrating human influence as a significant factor. Such scientific evidence is much more likely to be found in the New Zealand and Finnish coverage. In line with McCright and Dunlap's (2000) findings, they too assess that the U.S. coverage is heavily swayed by the presence of the fossil fuel industry in that country.

Hansen (2000) explores the frames present in British newspaper coverage of the plan to sink Shell's decommissioned *Brent Spar* oil platform into the Atlantic Ocean. Greenpeace, fearing dire environmental consequences, occupied the abandoned rig, effectively preventing crews from sinking it. Following widespread public criticism, Shell eventually relented and towed the platform to harbour and its steel was recycled. While the event proved a successful media campaign, it was later revealed that Greenpeace had exaggerated the potential environmental impact of sinking the *Brent Spar*. Greenpeace later apologized for the error, but Hansen (2000) is left wondering what this particular stunt did for raising the discourse of just what *should* be done with decommissioned rigs.

Survivalism and the Promethean Response

Dryzek (2005) provides a succinct analysis of discourses surrounding the environment, noting that like other social issues, environmental issues are not well-

bound, independent occurrences, but rather a complex bundle of competing and complementary values, events and issues. Dryzek (2005) defines discourse as “a shared way of apprehending the world. Embedded in language, it enables those who subscribe to it to interpret bits of information and put them together into coherent stories or accounts” (9). Discourses bring meaning to a social world and the relationships that define it. He writes, “Each discourse rests on assumptions, judgements, and contentions that provide the basic terms for analysis, debates, agreements, and disagreements” (Dryzek, 2005: 9). Consequently, just as discourses can define problems, problem-solving cannot take place without discourse (Dryzek, 2005).

Dryzek (2005) finds that most discourses of the environment can be categorized into one of two camps: the survivalist camp or the Promethean camp. Though he identifies other, minor, discourses surrounding the environment, these two categories best represent a macroscopic understanding of the construction of environmental discourses.

A survivalist discourse argues that there is a finite capacity for an environment (at its largest scale, the Earth) to accommodate the activities of the organisms within it. When this capacity is exceeded, a gross imbalance takes place and there is a decline in environmental health. In some cases, the environment can adjust for this imbalance. For example, when a deer population grows too large, the lessened food supply contributes to the death of some of the population, and balance is restored. At the larger, human level, survivalists argue that the Earth has a limited carrying capacity and that humans are approaching, if not exceeding, it. The consequences of this will be radical and massive environmental shifts. A classic metaphor of the survivalist camp is the Petri dish problem (lilies on a pond or a test tube are also common analogies). Imagine a Petri dish with a

single bacterial cell. Every minute the cell divides. At the sixty-minute mark, the Petri dish is completely full. For fifty-nine minutes, there was plenty of room for growth: up to half the Petri dish. But, because of exponential growth, one minute there is room, the next minute, none. When applied to the global environmental situation, survivalists argue that we are sitting at that fifty-ninth minute or beyond and that our planetary Petri dish is full.

Survivalism received its first brush of mass popularity and recognition when Hardin (1968) published *The Tragedy of the Commons*. In it, he uses the analogy of a village to describe human activity. He reasons that if each villager owns a single cow, each grazing upon the same field, there is a limited return on each villager's cow as there is a finite amount of milk that can be sold at market. The rational, self-interested villager would see the benefit in adding another cow to the pasture. The benefits of the extra cow belong only to that villager while the cost – the degradation of the pasture – is distributed amongst all the villagers. Therefore, for the villager who adds the second cow, the personal benefit outweighs the personal cost since his cost is a fraction of the degradation caused by that cow. The other rational and self-interested villagers, seeing the benefits that can be accrued through the addition of a second cow, and not wanting the first farmer to outdo them, follow suit. Eventually, more and more cattle are added to the pasture until the pasture is no longer sustainable and collapses. Yet, until the pasture's ecosystem collapses, the benefit of the extra cattle outweighs the cost of the damage to the pasture. With a diffused personal stake in the sustainability of the commons, no individual farmer can pragmatically feel the force of his/her action on the community.

For Hardin, the *Tragedy of the Commons* became a rationale for extensive and invasive population control in developing countries and garnered much criticism

(Dryzek, 2005; McKenzie, 2002). However, despite Hardin's extreme solutions, his analogy defines an understanding of environmental discourse envisioning finite carrying capacities, the dangers of liberalism, and the need for radical solutions to correct the imbalance.

In contrast to the survivalists, Prometheans argue that there is no finite carrying capacity to the Earth because people will always develop new technologies to compensate for any changes to the physical environment.⁴ In fact, concern over resource depletion has characterized industrialism since its development (Dryzek, 2005). When fears emerged that lumber would no longer be a viable fuel alternative because of over-logging, coal was discovered. When coal risked depletion, not only was more coal soon discovered, but the usefulness of petroleum was harnessed. Presently, there are fears that the world's oil supplies will become depleted or in some way inaccessible, driving a looming global energy crisis. The Promethean response would be recognition that a new energy technology will simply be developed to counter what is lost by the disappearance of petroleum.

A Promethean approach to environmental problems is strongly anthropocentric, suggesting that humans have rule over the organisms below them (Dryzek, 2005). As a means of developing solutions, it places an almost blind faith in humanity to overcome the problems that it creates. This blind faith translates into two main strategies for dealing with criticisms of the state of the environment. The first is to identify the ways in which technology has improved life; the second is to deny there is a problem in the first place (Dryzek, 2005). It is a troublesome approach because it operates on such a macroscopic

⁴ This discourse is named after the Greek god Prometheus who stole fire from Zeus and gave it to the mortals. Thus, a Promethean approach suggests that solutions will, almost magically, appear.

level: while in many cases the effects of human action are localized, a Promethean approach dilutes these local effects by employing a broad scope. In addition, the improved environment of the developed world can be attributed to displacement practices: the consequences or causes of environmental problems are relocated to poorer areas (Dryzek, 2005).

In an analysis of shifts in coverage of Danish public discourse on the environment, Petersen (2007) found that a survivalist discourse that dominated in the 1990s had given way to a discourse that puts environmental concerns secondary to economic growth. Following from Dryzek (2005), a Promethean logic has overtaken a survivalist discourse that once considered environmental problems as a limit to economic prosperity.

While there has been little work exploring the coverage of water issues in the news media, it is clear that interest in environmental issues has been widely explored by scholars. As this chapter has demonstrated, the degree of complexity of these studies varies widely. Attempts to create a predictive model where one can anticipate the growth and diffusion of environmental issues has met with limited success due to the unexpected and erratic variables that affect social processes. Instead, a more reliable approach is to envision coverage of the environment as informative of how a broader discourse of environmental issues is constructed in the news media.

3. THEORIZING POLITICS, POLICY AND THE NEWS MEDIA

The Intersection of Media and Policymaking

Tension between the media and policymaking can be investigated by conceptualizing the issue as two separate tensions plotted against one another on two axes. In the communications realm, this tension is between strong and weak effects. In the political realm, the guiding tension is between policymaking as an open or closed process.

The received view of the history of communications research has been characterized by the struggle between the strong effects and weak/limited effects schools (Bineham, 1988). While the strong versus weak effects binary primarily involves perceptions of how the audience uses, and is used by, the mainstream media, it also reflects a broader understanding about how the political process operates, how policy is formed, and the role of news media in these processes. The media are simultaneously participants in, and reporters of, policymaking practices. Peculiarly, this often has to do with whether or not a commentator agrees with the media's perceived support of a policy. It is easy to criticize when one sees the media favouring a controversial policy as opposed to when the media push a progressive or acceptable policy. In any case, if the media have a strong effect on people's perception or understanding of a particular policy, then those with the power to shape the content of the news wield a very strong weapon in the fight to meet their policy objectives. Alternatively, a weak media effect means one must be aware of the other routes of policy influence, such as the importance of corporate actors lobbying politicians, the reality of elite circles which make it challenging for outsiders to penetrate policymaking processes, and the minimal role of the public in policymaking

practices. Indeed, as Miller (2002) notes, “huge swathes of decision making and power-brokering occur not just beyond the reach and influence of the public but also outside the purview of public and media debate” (246). This is particularly relevant in cases that involve the deployment of scientific evidence and processes. Miller (1999) argues that in the case of the communication and scientific risks (i.e. Bovine Spongiform Encephalopathy), a focus on the role of media in developing risk controversies undermines the various ways risk is constructed and played out in the scientific community.

In this sense, policymaking, too, can be understood as a tension between an open and closed system in terms of public access to policymaking mechanisms. An open system tends toward consensus building among constituents, relying upon the active engagement of concerned citizens and policymakers who listen to, appreciate, and act on behalf of, the will of the public. In contrast, a closed system is characterized by policy actors who are concerned with appeasing private interests, maintaining their own power, and listening to the public when it best suits their own agenda. Levine and Florence (1990) describe this as a tension between ‘public interest’ and ‘regulatory capture.’ In the public interest model, the “ultimate goal of regulation [is] to pursue some conception of the general good, however mean-spirited, messy, and confused the process may seem at any given time...” (Levine and Florence, 1990: 167). Conversely, the regulatory capture model sees “regulation simply [as] an arena in which special interests contend for the right to use government power for narrow advantage...” (Levine and Florence, 1990: 167). Such advantage might include promotion or a potential post-public service position in the private sector.

Barkdull and Harris (2002) build on this distinction with a typology of theories that explains the development of environmental foreign policymaking. They describe three categories of theory: societal, systemic and state-centric. These categories range from the relatively open relationship of societal theories, where interest groups do battle and policymakers act as judges, to the closed nature of systemic theories, where institutionally defined power relationships direct policymaking. Between these two poles are state-centric approaches, which, though similar to systemic theories in privileging institutional power, allow for the influence of social and political dynamics to impact policymaking.

Developing a Theoretical Model to Understand Media Coverage of Water Policy

Agenda-Setting

The relationship between the media and environmental policymaking has been primarily studied through theories of agenda-setting. The agenda-setting model offers a useful place to begin exploring the influence of the media in issues of environmental policy. According to Philo, Hewitt, Beharell and Davis (1982), media coverage, especially television coverage, sets an agenda for public discourse. Particularly, the distinctions between ‘event’ and ‘issue’ provide tools to understand how “discrete happenings” (Shaw, 1977: 7) combine and grow into an issue, something “in contention among a relevant public” (Lang and Lang, 1981: 451). The ordering of the importance of issues within a sphere is an agenda. The higher an issue is on an agenda, the more likely action will be taken. Of course, there is no single agenda and, consequently, no single model of agenda-setting. Within communication studies, the goal has been to develop an

understanding about how policy, media and public agendas interact to influence policy action or inaction.

Drawing on agenda-setting theory, one might surmise that increased media attention to environmental issues would raise public consciousness and thus the likelihood of governmental action. To illustrate, in the acclaimed film *An Inconvenient Truth*, Al Gore despairs the fact that members of the U.S. Congress need the issue of global warming to be on the “tips of the tongues of their constituents” before they will be willing to act (Guggenheim, 2006). However, despite its seemingly straightforward account, as a model for understanding policy development, agenda-setting suffers from quantitative bias that assumes a correlation between issue salience and public interest. While it is generally argued that increased coverage leads to increased attention from the public, there has also been evidence of a reverse effect (e.g. Mazur and Lee, 1993). Despite the direction of influence, it is presumed that increased coverage has a correlative effect on salience. The fact that researchers cannot pin down whether it is a positive or negative correlation suggest that something more is at work.

Although attempts have been made to introduce qualitative analyses to agenda-setting research (e.g. Kwanasah-Aidoo, 2001), it has thus far been insufficient to overcome the shortcomings of strictly quantitative measures. Part of this goes beyond simple methodological techniques to the manner in which policy, media, and public spheres are seen to interact internally and with one another. Agenda-setting assumes that through a quantitative process a predictive model can be established. To achieve this predictive ability, agenda-setting approaches presume an identifiable agenda is held in common by most members of a particular body. Although there often exists a degree of

consensus among agenda-holders, members can have different and competing goals; though they may cooperate, they may also disagree.

These problems relate to an assumption of the media system as closed and unidirectional. Mazur and Lee (1993) begin with the proposition, “news media certainly affect public opinion, but the links are complex and often difficult to demonstrate” (682). Translated, this statement argues that ‘we know the media have effects – how can they not? – but we do not know what those effects are.’

Cohen and Young (1973) take a similar approach, arguing that “...the mass media are in the business of manufacturing and reproducing images. They provide the guiding myths which shape our conception of the world and serve as important instruments of social control” (12). Implicit in this conclusion is an assumption that news media are highly influential and limit the diversity of discourse in how policy is made, and conversely, access to policymaking capabilities. And, should the public have access to policymaking circles, the effect of a centralized media system would forestall any input that was alternative to prevailing thought.

The series of *Bad News* publications from researchers at Glasgow University echo these sentiments (Philo et al., 1982; Glasgow University Group, 1980 and 1976). The series suggests that the structural realities of the production of television news, particularly hierarchy and the close links between newsmakers and newscasters, create a structured bias in news coverage. Underlying this conclusion is the assumption that there exists an objective truth to be reported (Philo et al., 1982; Glasgow University Group, 1980 and 1976). In the final book of the series, Philo et al. (1982) adopt an agenda-setting framework, suggesting that

“[television] has a profound effect, because it has the power to tell people the *order* in which to think about events and issues. In other words it ‘sets the agenda’, decides what is important and what will be featured. More crucially it very largely decides what people will think *with*: television controls the crucial information with which we make up our minds about the world” (1, original italics).

Spheres of Influence and the Indexing Hypothesis

An alternative approach to understanding how media and policy systems interact is illustrated in Hallin’s (1986) account of the impact of the news media in shaping U.S. public opinion of the Vietnam War. Writing in the face of the widely held conclusion that critical news coverage of the war turned the American public against the war, Hallin (1986) argues that the news media of the time merely reflected a growing dissent among elite policymakers and government officials. The media are granted less influence, policymaking is led by an elite group and the public follows a path that elites blaze. As Schlesinger (1989) notes, Hallin (1986) is arguing against the presumption that the relationship between the press and the government is necessarily defined by conflict.

In Hallin’s (1986) analysis, elite opinion led media opinion and the two developed public opinion. Importantly, he identifies a need to think of the news media not as an entity distinct from the policymaking apparatuses, but rather as a member of the community of policymakers. He writes, “the behavior of the media...is intimately related to the unity and clarity of the government itself, as well as to the degree of consensus in the society at large” (Hallin, 1986: 213).

Part of the struggle in understanding the relationship between the news media and policy development is sorting out causality. Hallin (1986) points to two dominant ways of understanding the role of the media: as a mirror and as a watchdog. In both cases the news media play a role outside of policy development. In the first, the media are a

disinterested observer, reporting the 'facts' to the public. In the second, the media keep close tabs on policymakers, ensuring, through their surveillance, that policymakers act in ways acceptable to the public. In both cases, the interest of the news media is downplayed or seen as altruistic. It is interesting, as well, that the mirror/watchdog distinction aligns well with the strong/weak effects notion of policy influence, where a mirror is much less influential than a watchdog.

Hallin's (1986) argument is further developed by Bennett (1990) who suggests that newspapers index their coverage along a baseline established by the government. Within this framework, the government is the primary speaker on an issue. This privileged position is limited, however, when "the range of official debate on a given topic excludes or 'marginalizes' stable majority opinion in society" (104). This process is evident in Hallin's (1986) work, where the press is indexed to government voices until such dissent grows and disperses within a wider social arena. Within the indexing model, the government establishes the range of debate possible on an issue. Other voices are selected to complete the picture when "those voices express opinions already emerging in official circles" (Hallin, 1986: 106). In the case of the Vietnam War, dissenting groups gained traction in the media because the actions of official channels sanctioned that sphere of discourse.

Policymaking often requires the identification of something as a 'problem.' The media can play a signifying role in the process problem definition (Major and Atwood, 2004.; see also Munro, 1997). Rochefort and Cobb (1994) note that problem-making is a social process where "cultural values, interest group advocacy, scientific information, and professional advice all help to shape the content of problem definition. Once crystallized,

some definitions will remain long-term fixtures of the policymaking landscape; other definitions may undergo constant revision or be replaced altogether by competing formulations...” (4). Defining problems sets the tone for how the problems can be addressed and how “the uninterested become engaged in response to the way participants portray their struggle” (Rochefort and Cobb, 1994: 5). Similarly, Hanningan (1995) sees three steps to defining an environmental problem. First, the problem must be named and its parameters established. Second, its claim as a problem must be legitimized through stakeholder internalization. And, third, the claim must be contested through political activity.

Although an issue may be termed a problem, its presence in the policy, media, or public sphere is not necessarily related to its degree of objective severity (Hilgartner and Bosk, 1988). Instead, the salience of a particular problem is “governed by a complex organizational and cultural competition” (Hilgartner and Bosk, 1988: 58). A variety of factors have been suggested in order to break down these complexities (see Fowler, 1991; Hilgartner and Bosk, 1988; Galtung and Ruge, 1973). What these factors share in common is a combined focus on the institutional and cultural elements influencing the actions of policymakers, journalists, corporate actors, and other stakeholders on a given issue.

Political Contest Model

Considering this, Wolfsfeld (1997) proposes that analyses of political conflict and policymaking examine an issue from its structural and cultural dimensions simultaneously. The development of news content is directly linked to its institutional context. Conversely, the institutional context is driven, in part, by issues of content

development and messaging, such that institutional norms and behaviours become built into genres, like the press release or media event. Not only does this leave the door open to more robust analyses, it also provides a means of bridging qualitative analysis with quantitative analysis, which ultimately establishing a much firmer ground for drawing conclusions.

There has been surprisingly little application and criticism of the political contest model. Karatzogianni (2004) adapts the model in an exploration of cyberconflict, where she uses Wolfsfeld's (1997) definition of variables affecting coverage of antagonists to explore how activists act in cyberspace and real space. She extends Wolfsfeld's model and elaborates that tactics to initiate control, regulate the flow of information, and mobilise support extend to the digital realm where antagonists battle for both supremacy over their opponent and the discourse of the issue. Greenberg (2005) explores the model as a framework for evaluating and explaining how electricity restructuring and deregulation in Ontario collapsed into a failure of political communication and public policy. Journalists' reliance on government and industry sources combined with consistent framing practices by these sources ensured coverage of restructuring remained uncritical and event-focused. However, as external forces, such as a marketing campaign by the United Power Workers Union opposing deregulation, and a lawsuit by the Canadian Union of Public Employees and Communications, Energy and Paper Workers Union, turned the 'event' into a 'problem' did government and industry increasingly lose discursive control.

Wolfsfeld's (1997) political contest model begins with five central arguments:

1. The political process is more likely to have an influence on the news media than the news media are on the political process.

2. The authorities' level of control over the political environment is one of the key variables that determine the role of the news media in political conflicts.
3. The role of the news media in political conflicts varies over time and circumstance.
4. Those that hope to understand variations in the role of the news media must look at the competition among antagonists along two dimensions: one structural and the other cultural.
5. While authorities have tremendous advantages over challengers in the quantity and quality of media coverage they receive, many challengers can overcome these obstacles and use the news media as a tool for political influence. (Wolfsfeld, 1997: 3-5)

These arguments are premised on several key assumptions. First, similar to Soroka's (2002) explanation of agenda-setting, it establishes distinct entities: the 'media' and the 'political process.' In this case, the political process consists of both political and public entities, with their differing agendas, which affect the development of public policy. Following this, the second assumption is that there is a reasonably strong distinction between the political process and the media. This supports a view of the media as being somewhat detached from the political process. Wolfsfeld's (1997) first argument leaves space for the media to be involved in the political process. Though influence ultimately moves from the political process to the news media, there is still some space for bi-directional influence.

The third argument counters traditional agenda-setting which assumes that the news media will behave similarly in common situations or circumstances. This identifies the model not as a quantitatively predictive one, but rather as one that contributes to research exploring the more interpretive aspects of context and tendency. Although

research employing the political contest model does not develop a strong predictive capacity, its reflective nature provides a much more adaptable lens for examining how issues change over time and the impact they may have on future developments.

Wolfsfeld's model assumes that there are always clearly defined authorities and challengers. This is a problematic assumption and a driving factor in the development of this research project. Simply, who defines the identity of the authority or challenger? Can authorities act as challengers in different circumstances? This is especially relevant in the discussion of bi-national policy. When an issue is at the national level it is easy to argue that government officials act as authorities. But what if the issue operates at the transnational level? Is it possible that a government can take on the role of challenger? Or, does the conflict then involve two authorities? What is the consequence of this for traditional challenger groups?

Hallin and Mancini (2004) identify that "most of the literature on the media is highly ethnocentric, in the sense that it refers only to the experience of a single country, yet is written in general terms, as though the model that prevailed in that country were universal" (2). Granted, the differences between the Canadian and the U.S. media systems are less significant than, for example, the differences between the U.S. and the South African media systems, yet differences persist. Illustrating one such difference, Soroka (2002) points to greater consolidation of newspaper ownership in Canada than in the U.S., as well as the influence the U.S. news industry has on the Canadian media agenda. In the political realm, Canada's party system leads to a much different role for elected officials than for their U.S. counterparts, while the parliamentary system and the overlap of the executive and legislative branches mean policy development and execution

also take a much different path. The dynamics of Question Period, minority governments, and the ritual of the Throne Speech, generate different structures of policy discourse (Soroka, 2002). As Hallin and Mancini (2004) summarize, “one cannot understand the news media without understanding the nature of the state, the system of political parties, the pattern of relations between economic and political interests, and the development of civil society, among other elements of social structure” (8).

A key criticism of the political contest model comes from Robinson (2001) who argues, “in short, Wolfsfeld’s political contest model and case studies provide a strong theoretical account that explains why challengers can come to set the media agenda, but it does not theorize the link between the resulting media coverage and actual policy outcomes” (540). This draws on some of the problems of media coverage analyses in general. To an extent, Wolfsfeld’s (1997) model is contradictory in this regard. Though he argues that the political process is more influential on the media than the media are on the political process, he also privileges media behaviour over action taking place at the political level. Paradoxically, Wolfsfeld (1997) invests much attention in examining media discourse while arguing that the media is less influential than scholars have traditionally argued. In a later publication (Wolfsfeld, 2004) he clarifies this point, suggesting a dialectical relationship where the political environment impacts the media environment, which then impacts the political environment. In this way, the linkages between the two spheres become stronger and the media sphere is granted the ability shape its own influence on the political environment (Wolfsfeld, 2004).

Critical Elite Theory

For political elites, a shifting media atmosphere means greater dynamism in addressing emerging issues and responding with appropriate policy decisions. Davis (2003) argues that “most negotiations take place outside the public sphere of the mass media and without reference to the mass of consumer-citizens” (669-670). Most media communication is between elites; the mass of mildly interested citizens are outside of this system (Davis, 2003; Miller, 2002). In describing a paradigm shift away from a focus on a fragmenting public, Davis (2003) proposes that “research needs to begin by observing those who make or influence significant policy decisions, and looking at how media, culture and communications influences [sic] regular processes of decision-making” (672).

Davis (2003) uses four points to support this argument. Firstly, consistent with other critical media research, the news media rely heavily on comments and context provided by elite news sources. Government and industry, in particular, compose the vast majority of ‘primary definers’ (Hall, Chritchler, Jefferson, Clark and Roberts, 1978) used in media reports. Secondly, conflict in the media is often between different elites. This could take the form of bickering between the provincial and federal governments, industry sniping at each other for market dominance, industry arguing against government regulations, or governments arguing that industry actions demand tighter regulation. Thirdly, while it is easy to characterize the public as susceptible to ideological messages, there is much evidence to support that elites are just as susceptible to influence as the public. Finally, much strategic elite source communication is not aimed at a broad audience, but rather is targeted to other elites, notably decision-makers and market competitors. While the public may be brought into the fold on such promotion, the intended audience is usually another elite source or actor. These elite sources, of course,

do not only include government and industry, but also major NGOs, which are increasingly entering into tripartite relations with businesses and governments on policy issues.

Davis' (2003) call for a new model to situate political news media within an elite paradigm not only addresses Neuman's (1986) earlier observations about the role of the disinterested mass, but also begins to address problems of the closed agenda-setting frameworks that Soroka (2002) identifies.

Despite these advances, much communication research still relies on a paradigm that envisions the press as a relatively homogeneous body playing a mediating role between policy and the public. That is to say, it is still quite common to see studies that identify an environmental problem, track its coverage in the press, and extrapolate on how corresponding policy is affected by the perceived 'public interest' (e.g. Jarell, 2005; Kensicki, 2004; Taylor et al. 2000; Bendix and Leibler, 1999). However, press coverage of environmental issues may be more significant in terms of how it affects elite opinion. For instance, Protesse, Cook, Curtin, Gordon et al. (1987) found that "media disclosures... had limited effects on the general public but were influential in changing the attitudes of policymakers" (166).

While not addressed by Davis (2003), there is space within critical elite theory to include NGOs as part of the elite sphere. In an analysis of the environmental policy of Alberta and Ontario, Winfield (1994) identifies affiliation between oppositional political parties and environmental groups concerned over emerging problems. Although it is clear that, on the part of the opposition parties, the alliance was used to make political gains, the alliances also accompanied real change to policy. Furthermore, these collaborations

helped to legitimize dissenting environmental organizations. This relationship suggests an opportunity for traditional outsiders in the political process to affect change within the system.

Taking this into account, this thesis follows Davis (2003) and uses critical elite theory as a framework to explore the interaction between elite actors and the news media in the case of bi-national water management coverage. Whereas Davis (2003) focuses primarily on government and business elites, this thesis suggests that in the case of environmental policy certain NGOs can also be considered elite actors.

Wolfsfeld (1997) suggests that participants enter the media sphere through a series of gates, the size of which depends upon the actor's status. Governments and businesses enter through larger gates, while NGOs and citizen activists enter through a smaller, well-guarded gate. It is possible to expand this metaphor to distinguish between two types of elite actors: primary and secondary. Primary elites include government and business officials, who, as Davis (2003) argues, use the media to communicate and jostle for position on a variety of policy issues. In certain circumstances, it is possible for NGO groups, often conceptualized as non-official sources, (Deacon, 1996, Deacon and Golding, 1993; Schlesinger, 1990), to enter the arena with secondary elite status. This status is attained when a primary elite actor – government or industry – fails to enter into the discourse leaving a vacuum of comment that NGO groups assume. This status can also arise when issues require the representation of public interests, for which NGOs act as proxies. Promotion to the 'rank' of secondary elite from non-official source is contingent upon NGOs possessing significant material resources, institutional legitimacy, and communicative capacity (e.g. Deacon, 1996; Jacobs and Glass, 2002; Greenberg and

Walters, 2004). By providing a space for NGOs to act as elites, Davis' (2003) critical elite model can address the typical construction of the media as an elite-to-public forum. Because NGOs often position themselves as representatives of public opinion, the public at large is not completely sidelined and pacified from policy discussions.

With this in mind, this thesis will explore how these actors develop the discourse of bulk water export and diversion within the Canadian and U.S. press. The strong response to the Nova Group proposal took place within a specific discursive tension that questions the relationship between the water of the Great Lakes as a natural resource and as a life-sustaining element. This discourse is informed by the beliefs, values, and attitudes of Great Lakes residents, politicians, public servants, industry, and indigenous populations. These combine to create the national mythologies that identify heroes and villains in the management of the resource.

This case study explores how these mythologies – and the beliefs, values and attitudes to which they are related – are expressed in the daily press and how they interact with policy development as a series of policy responses are considered by governments, industry and the public. The first research question asks: How is ownership/stewardship of water constructed through the news media in cases of the unnatural movement of large amounts of bulk water across an international border and to places outside its natural basin? From this question, several supplementary questions arise: Is there a difference in this coverage between the Canadian and U.S. press? Is there evidence of regional differences? Who are the primary sources and primary definers in news reports? Does this differ between the Canadian and U.S. press? What are the primary frames employed

in the discourse of water rights? Is there evidence of a bi-national inter-media influence at work?

4. METHODOLOGY

The Research Sample

This research project was conducted through a content analysis of nine newspapers within the Great Lakes basin and across the Canada-U.S. border. On the Canadian side, the *National Post*, *Globe and Mail*, and *Toronto Star* were selected. On the U.S. side, *The New York Times*, *Washington Post*, *Milwaukee Journal-Sentinel*, *Cleveland Plain Dealer*, *Chicago Tribune*, and *Buffalo News* were examined. Newspapers were selected with the aim of achieving a balance across geographic regions, readership, and political significance. The relatively early start of the sampling period (1998) limited the number of newspapers that could be sampled, since many newspapers, particularly Canadian newspapers, did not start electronically archiving their content until closer to the year 2000.

The selection of the *Globe and Mail*, *National Post* and *Toronto Star*, three Toronto-centric and policy-elite newspapers was a strategic decision based on several factors. First, digital access to smaller-market, regional newspapers in Canada was mostly unavailable for the sample period. Second, the high number of articles returned for Canadian newspapers meant a much narrower sample was necessary, based on the scope of the analysis and available resources for coding. Third, the population and circulation differences of a smaller, but issue-relevant city such as Windsor or Thunder Bay creates a variation in the types of newspapers sampled, considering the U.S. newspapers selected serve a much larger audience, and consequently affects the nature of coverage that is possible. The fact that, of the 42 million people that live within the Great Lakes basin, approximately 30 million reside on the U.S. side of the border makes creating an equal

sample challenging. Finally, the influence and relevance of the three Canadian newspapers sampled makes it a difficult decision to exclude any of them without causing greater harm to the research project.

Ideally, a newspaper from Michigan would have been sampled. However, the database for the state's major newspapers were inconsistent during the sample period, with major blackouts in coverage. The newspapers sampled represent a diversity of editorial perspectives based on what was available.

The higher number of U.S. newspapers was selected to account for the greater political diversity and higher population that exists across the eight U.S. states relative to the one Canadian province. The higher selection also makes it possible to boost the analytical usefulness of the fewer number of articles that printed in the U.S. press, as shall be explored later.

Admittedly, the process of selection and exclusion has an effect on the results of the research and its analysis. This is a reality of any research project. The decision to include the above nine newspapers in this research program was a conscious choice to ensure that the leading policy newspapers from across the basin were addressed, while touching on regional elements as best as possible. While this is not a flaw, it has the effect of carving out a specific element of reality for a detailed analysis.

Sampling Strategy

Using the Factiva database, a search was conducted for the dates between 1 January 1997 and 31 December 2005 creating a sample of articles that dealt substantively with the issue of inter-basin bulk water export and diversion. Developing a keyword search to maximize the number of useful returns and minimize the number of irrelevant

articles was challenging. A full-text search of ‘water and (export or diversion)’ returned articles in the high hundreds for each newspaper. Thus, without an extraordinary amount of manual filtering, it was impossible for this research project to include *every* article that dealt with the issue of water export. Nonetheless, I am confident that the final search parameters created a representative sample (n=244) from which solid conclusions can be drawn. The final search string was applied to the headline and lead paragraphs of articles, as follows:

[(water and (export or diversion or divert)) or "nova group" or ("great lakes" and (compact or annex or agreement))]

The headline and lead paragraph ensured that the articles returned dealt with the issue substantively, as opposed to a passing reference at the end of a story. Within the search string itself, articles could have been retrieved by three means: a reference to water export or diversion, a reference to Nova Group, or a reference to the Great Lakes Charter and Annex 2001. The returned results were further refined to ensure that the article did actually address these topics and was not simply a coincidental result.

Coding Strategy

For each article in the sample, the basic information about the article was recorded, including:

- Headline
- Date
- Newspaper
- Page Number
- Word Count
- Section
 - Front Page
 - National News
 - Local News
 - International News
 - Other News

- Business News
- Editorial/Op-Ed/Letters
- Other
- Type of Document
 - Hard/Straight News
 - Column/Commentary
 - Editorial
 - Letter to the Editor
 - Other

This basic information allows for the indexing of each article and establishes a context for a more elaborate analysis. The following sections describe the strategies used for coding the more complex elements, including topic, frames, source use and opinion piece specifics. See Appendix 3: Coding Information for a detailed breakdown of the coding sheet.

Topic

The broad nature of the search criteria meant that articles spanning various events and topics were caught in the sample. To differentiate articles based on the specific diversion/export case they dealt with, articles were coded in two categories: Main Topic and Other Topics Mentioned. For both categories, the following topics could have been coded:

- Akron Diversion
- Annex or Charter
- Chicago Diversion
- Devil's Lake
- Export Ban
- Export Generally
- Gisborne Lake
- Long Lac / Ogoki
- Nova Group
- Sun Belt Water
- Waukesha
- Other (Specify)

In order to differentiate the main topic from other topics mentioned, the relative dominance of the various topic was taken into consideration. If a topic was evident throughout an article and provided the bounds of discussion in most paragraphs it was coded as a main topic. Other topics, in contrast, only appeared intermittently, providing context or basis for further analysis.

Frames

The most complex element of the methodology was developing the structure to undertake a framing analysis. As described above, the frames in this research project follow the 'media package' approach of Gamson and Modigliani (1989). A complete list of frames and their descriptions are available in Appendix 3: Coding Information.

Framing is a multi-dimensional approach and, as outlined earlier, is subject to contention. This project was deliberately open when it came to defining frames and configuring their analysis. Within this analysis, 32 frames were identified. These frames were coded in four elements of the article: as a dominant frame, if identifiable, within the lead paragraph, within the rest of the article, and for each source cited.

Dominant frames were identified in processes similar to the identification of main topics. A dominant frame is one that appears significantly more than any other frame within an article. Such a frame would be a controlling element of the article, arising in many paragraphs and giving shape to other frames. If such a frame was not readily identifiable, then None was recorded.

In addition to the dominant frame, each article was coded for the appearance of 'microframes'. Microframes here describe the variety of frames that appear throughout an article in contrast to an overriding dominant frame. Although framing is routinely

described as a selective process, emphasizing one part of reality over another, news articles complicate this. News texts are discursively rich and can employ a variety of frames based on the sources cited and the argumentative or analytical intentions of the author. Particularly, in the case of hard news items, many frames are often employed within a 500 word article, by the sources cited and the journalist. Simply defining an article as employing a single frame, no matter how robustly described, may not catch the nuances in the discursive development of an issue. By identifying the dominant frame (if present) as well as the microframes it is possible to determine how a discourse is constructed from diverse sources and positions into a single coherent text.

Microframes were coded for the lead paragraph and the rest of the article. The rationale behind this lies in the recognition that few articles are read from start to finish, and most are written in an inverted pyramid style. By identifying the frames within the lead paragraphs, it may be possible to glean a better sense of which frames control the discourse over bulk water export and diversion. When analyzing the article as a whole, the frames identified in the lead and in the rest of the article are simply merged.

Source Use

Source use information was only coded if the article was coded as a Hard/Straight News item. For each source used in the article, the following information was coded:

- Source's name
- Source's organizational affiliation
- Words describing the source, other than job title
- Words describing the source's organization
- Frames employed by the source

For each source identified in a hard/straight news article, the frames employed by that source – either by direct quotation or by attribution – were recorded.

Opinion Piece Specifics

Many studies consider news coverage or editorial coverage individually. A discourse is developed within a newspaper through both news coverage and editorial coverage. These two elements play collaborative, but diverging roles within a newspaper. As Greenberg (2000) notes, “the function of opinion discourse within the larger context of newspaper coverage is to offer newsreaders a distinctive and authoritative ‘voice’ that will speak to them directly about matters of public importance” (519). This is in contrast to hard news coverage, which aims to provide an objective and fair representation of events, issues and actors.

Traditionally, opinion discourse in a newspaper centres around the editorial, which is considered to have significant influence on the public reader, as well as on political and business elites (Greenberg, 2000). After the editorial, the op-ed column is typically regarded as the next most important. Letters to the editor, on the other hand, are often under-valued in critical discourse. Hessing (2003) attempts to fill this critical gap by exploring letters to the editor in the context of a logging debate in British Columbia. Terming these letters ‘green mail’, Hessing (2003) acknowledges that while ultimate power rests with the newspaper to decide which letters are printed and which are not, they do represent how editorial policy and position give shape to the presentation of issues:

Green mail provides a forum for political discussion of land use policy; it becomes an arena of conflict. Support or opposition to environmental policy is expressed, but letters do more than reflect the news. Their exchange of views ‘puts a human face’ on current issues, transports issues into everyday world inhabited by readers. Letters comprise a process of cultural diffusion through which new definitions of environment emerge. Letters to the editor are part of the agenda-setting process through which land use policies are contested and revised. (29)

In providing this 'human face', Hessing (2003) suggests that letters legitimize the adversarial approach to news reporting and reinforce conflict as a key news value. Digging further, however, she finds that letters to the editor also work to undermine these forces as letter-writers appropriate the conflicting frame to further their own position. While offering only a limited scope of how readers interact with news, the study of green mail reveals that an active population of newspaper readers and issue stakeholders simultaneously work to reinforce dominant paradigms while also subtly undermining them.

Within this research, opinion pieces were coded in terms of the author's position toward bulk water export and/or diversion. The contentious nature of the debate made identifying this position relatively easy. Supporters were very clear in their encouragement and opponents were equally transparent. If neither support nor opposition could be determined, the item was coded as Mixed/Unclear. In many cases, the author was focused on other elements of the bulk water export and diversion debate. In such cases, it was clear the author was not working through a position, but rather discussing something wholly different. In these cases the item was coded as Not Relevant.

Content Analysis

This research project employs content analysis to identify and code elements of the sample. Deacon, Pickering, Golding and Murdock (1999) describe its purpose as "to quantify salient and manifest features of a large number of texts... the statistics are [then] used to make broader inferences about the processes and politics of representation" (116). The method provides a means of processing and analyzing a large sample of data in order to create a consistent set of results.

Berelson (1952) defines content analysis as “a research technique for the objective, systematic, and quantitative description of manifest content of communication” (18), yet much of the criticism of this method centres around claims of objectivity (Hansen, Cottle, Negrine, and Newbold, 1998). Berelson’s (1952) call for objectivity quickly degrades when it is defined by a desire to distance the coding system from the interference of human values, that is, a desire to replicate a physical system external to human intervention and observable as such. A multitude of values and decisions go into the construction of a research sample, the questions asked of it, and the categories and elements used to quantify it.

This is not, however, exactly how Berelson (1952) defines objectivity. Rather, his definition sets objectivity as a means of creating a reproducible coding system. While this implies a separation of values from the coding system, this is not the motivating factor. Rather, it is to develop a means of analyzing data that strives for the capability to be consistently applied to different samples in different contexts and to ensure reliability and validity.

Distancing himself from the criticisms attached to Berelson (1952), Krippendorff (1980) generalizes Berelson’s (1952) definition, stripping the quantitative, systematic, and objective attributes, to understand the process as “a research technique for making replicable and valid inferences from data to their context” (Krippendorff, 1980: 21). A leading rationale behind this definition is that the role of qualitative processes in the development of a content analysis must be acknowledged. While content analysis is often presented in quantified terms, the coding system upon which results can also be the consequence of an interpretive process. Content analysis developed as a means of

bringing more 'science' into the social sciences; however, unlike the natural sciences, both the tool and the object under study are subjective constructions. For example, to measure whether a newspaper article is supportive or unsupportive of a particular policy, it is necessary to infer what sort of language connotes support and the rhetorical structure that identifies an opposing viewpoint.

Hansen et al. (1998) delineate six steps to content analysis: definition of the research problem; selection of media and sample; defining analytical categories; constructing a coding schedule; piloting the coding schedule and checking reliability; and, data-preparation and analysis. This case study follows these steps, but with one variation, that being the construction of the schedule. As Hansen et al. (1998) describe, typically a researcher develops coding categories independently of the sample. After the categories are developed, the researcher codes the sample. This is often easier because the results of previous content analyses inform the new coding scheme. The lack of such work on the study of bulk water export and diversion, however, renders this impossible. As a result, with the exception of identifying categories to account for news structure (e.g. story location, word count) the coding categories were developed out of the sample. Before coding was undertaken, the sample was extensively reviewed to develop the framing categories and descriptions. The source organization categories were also developed in such a manner. While this is not the typical process for content analysis, it is a more effective way of capturing the elements of discourse within the sample. The coding categories emerge out of the sample, as opposed to the sample being massaged into the categories. While this partially affects the reproducibility of the results, it does create a system of analysis that more accurately reflects the content of the sample.

Krippendorff (1980) is quite correct when he describes content analysis as simply a “tool” (21). Like any tool, it is built to maximize its effectiveness in some areas, while other attributes are unavoidably minimized. In this case study, the content analysis is supplemented by the critical techniques of textual analysis and a framing approach (c.f. Greenberg and Knight, 2004). Content analysis helps to facilitate the organization and analysis of a large number of newspaper articles spanning a long period of time. In addition, framing and textual analysis bolster the limitations of a quantitative process, because ideological resonance cannot be inferred on the basis of issue saliency. As such, these qualitative elements help to round out the scope of this study, enhancing the strength and breadth of its conclusions.

Framing Analysis

Framing is an often utilized, often misunderstood, and often criticized, approach to coverage analyses. Reese (2001) argues that the lure of framing lies in its duplicity. It acts as both a noun and a verb – the action and the actor – and it “bridges the competing tendencies of social analysis toward closure and openness” (Reese, 2001: 8). This tension is the same tension that occurs between qualitative and quantitative research paradigms.

This duplicity has, as Scheufele (1999) notes, been used “repeatedly to label similar but distinctly different approaches” (103). Even as a term, ‘frames’ is often equated with schemata, stereotypes and categories, and is often used interchangeably as a means of conceptualizing how people make sense of reality (Entman, 1993; Fowler, 1991). When used imprecisely, framing approaches can be fraught with inconsistency and inaccuracy. However, when framing analysis is employed with a clear definition of ‘frame’ and an understanding of the limitations inherent in the approach, the technique

provides a means to organize and analyze diverse sets of texts in such a way that allows for precision and nuance.

In an attempt to untangle some of these inconsistencies, Scheufele (1999) locates framing within the context of media effects research and identifies two categories of frames: individual frames and media frames. A media frame is text-focused. Texts are collections of sense-making indicators that understand the world through defined windows. Individual frames operate similarly, but where media frames operate on the page, stage, or screen, for example, individual frames operate cognitively.

Media and individual frames are connected. Journalists bring their own individual frames to bear on the media text. As Miljan and Cooper (2003) argue, “the opinions of journalists are important because those opinions influence the news they produce” (10). These underlying individual frames, however, cannot be reliably extracted from a media text because a media text does not accurately reveal intention. As such, this research project focuses on understanding the media frames employed in the discussion of bulk water export and diversion.

Gamson and Modigliani’s (1987) oft-cited definition of a frame as “a central organizing idea or story line that provides meaning to an unfolding strip of events” (quoted in Scheufele, 1999: 106) is a media frame. Entman (1993) offers a similar definition: “to frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described” (52). Other common definitions of framing include Tankard Hendrickson, Silberman, Bliss, and Ghanem (1991), who describe a frame as “a central

organizing idea for news content that supplies a context and suggests what the issue is through the use of selection, emphasis, exclusion and elaboration” (11). Gitlin (1980) defines frames similarly, as “persistent patterns of cognition, interpretation, and presentation, of selection, emphasis, and exclusion, by which symbol-handlers routinely organize discourse” (7).

After reviewing these definitions, Reese (2001) pens his own definition of frames as, “*organizing principles* that are socially *shared* and *persistent* over time, that work *symbolically* to meaningfully *structure* the social world” (11; original italics). This definition fits comfortably with those that precede it.

While it is accepted that framing often takes place at an unconscious level and is impacted by institutional and other such factors, the speaker is ultimately the source of the text they offer. This creates a methodological problem for the researcher: if it is assumed that frames are employed primarily at an unconscious level, to what extent is the speaker capable of shifting frames? And, following this line of reasoning, who is capable of identifying the use of frames? There is a risk toward privileging the researcher as the one who is capable of identifying frames in contrast to those employing them (Reese, 2001).

This returns us to Scheufele’s (1999) placement of framing as part of an effects paradigm. Reese (2001) recognizes this as a common approach to the use of framing. Yet, this is as problematic as any other form of audience research that attempts to infer processes of meaning construction from the organization of a text. As Reese (2001) questions, “this approach leads one to ask how readily the audience adopts the framing presented through the media” (9). Simply, it is not possible to answer this question by

examining the text alone. Any study that attempts to infer audience reactions based simply on the reading of a text will be empirically unsupportable. This is not to say that these analyses do not have something to offer; rather, it is necessary to move beyond an effects paradigm. The strength of the framing approach lies in its ability to describe the texts and the circumstances that cause it to take the shape that it does. In other words, media coverage structure the field of discourse from which a range of likely meanings are to be constructed.

The 'effects' and 'intention' issues of framing are not fatal problems, and are implicit in coverage studies. Rather, the point is raised to ensure that any analysis does not forget that because frames are socially constructed the speaker and audience both play a role in the development of frames. While a coverage study is limited in its ability to explore these aspects, they are nonetheless present. Consequently, one must always be alert to identify how the speaker and audience might work with frames to develop or read a text.

This thesis adapts a notion of framing most in line with Reese's (2001) definition, but it is also cognizant of the role of exclusion and inclusion. This is both a conceptual and pragmatic decision. Conceptually, this notion best suits a coverage analysis: it gives necessary recognition to the importance of the journalist as an issue framer, it does not presume to read intention out of the text. Such a conclusion can be reached only through the deployment of other methodological strategies. While some inferences can be made in this regard, it is a limited choice. Secondly, when conceived of as consistent over time and socially shared, it allows for a study that spans several years and makes possible a comparison between a numerous actors. Pragmatically, the texts under study here are of a

diverse nature, with multiple authors, varying styles, tones, and genres, and are dependent on a degree of cooperation between stakeholders in the issue. These factors mean that the development of frames is a somewhat arbitrary or artificial act. That is to say, with a wide variety of texts, frame sets must be developed which are capable of addressing each article accurately, without creating a set so diverse as to make analysis overwhelming.

Frames were developed for this study following a method described by Gamson and Modigliani (1989) as the ‘media package’ approach. By this method articles are read and key themes, phrases, and descriptions are noted. These elements are then grouped into similar categories, which are then converted to frame statements. For this study, 32 frame statements were devised to describe ways of understanding water issues.

The Piper’s Tune: Ethical Considerations

As this research project was taking shape I began working as a consultant for Great Lakes United, a bi-national environmental organization whose organizational mission is to “protect and restore the Great Lakes and St. Lawrence River basin ecosystem” (Great Lakes United, 2007). With Great Lakes United as a significant NGO voice in the development of the discourse over bulk water export and diversion, one might argue that this project is biased toward the strategic goals and epistemological position of the organization. These are fair concerns; however, throughout this project’s development, it was a priority to maintain a necessary degree of separation between these two spheres.

In reality, separating the researcher’s own values and beliefs from a research project is impossible. Researchers select their subject matter deliberately based on their own interests and professional goals. This is no different here. Exploring Great Lakes

bulk water export and diversion, while working with Great Lakes United, opened several avenues to better understand the issue and its communicative dimensions firsthand, realizing the underlying politics and mythologies influencing the case, and to take advantage of the knowledge and insight of colleagues, within both Great Lakes United and the broader field.

Throughout the development of this research contacts within the Great Lakes environmental NGO community have been invaluable in pointing me toward relevant resources, and providing necessary background information and guidance on the U.S. media landscape. This type of knowledge-gathering would have been impossible without working with Great Lakes United, and has positively affected the quality and breadth of this work.

Indeed, this role sidesteps some of the major concerns that normally arise in participant observation. As Jones (1985) explains, a major concern is the over-identification of an issue by a researcher who may then lose his or her critical position. Often, this occurs as a researcher attempts to build rapport with the people under study. A participant observer can find themselves thrust into a situation where they do not know anyone nor fully understand the interpersonal dynamics taking place. In an attempt to enter the social setting, the researcher may unduly take on the values and attitudes of the group without maintaining a necessary degree of disengagement. In this case, my pre-employment with Great Lakes United allows me to distinguish clearly between paid work and my academic pursuit. Admittedly, to work with such an organization I naturally identify with many of their endeavours (for example, maintaining a sustainable water resource, conservation and good stewardship, government and industry accountability,

and public participation in decision-making). This mindset would be present regardless of my employment. Unlike a participant researcher, my academic success is not dependent upon my access to the organization. In addition, I have already established a working relationship with the staff of Great Lakes United and their allies who are aware of my dual role. I have established rapport through the working relationship, and extending that rapport to questions or inquiries arising out of my academic pursuits are less complicated.

I fully recognize that paid employment while working on a project where the employer is a participant in the study does present a potential risk in negatively biasing the results of the work. While I maintain that I have been forthright and honest with my treatment of Great Lakes United's role in this case study as another stakeholder group, the reader will have final judgement in this regard.

5. DATA ANALYSIS

Establishing a Context

Throughout the sample period, developments in the policy environment drove coverage patterns, resulting in periods of very high coverage and periods of little or no coverage. The relatively low number of returned results suggests that bulk water export and diversion were not high salience items. In addition, the nature of the coverage suggests that the issue, when reported, was overwhelmingly responsive to ‘event’ indicators. This creates significant fluctuations in coverage over time and the potential for the issue to be strongly influenced by the communication strategy of key stakeholders.

The pattern in the issue attention cycle is characterized by a series of spikes in coverage, starting with a major spike occurring in 1998 (Figure 1). This spike is caused by fallout surrounding the news that Nova Group had been granted a permit to take water from Lake Superior. Attention to the issue remained strong into 1999 as the Ontario and Canadian governments discussed the implementation of a water export ban. In these two years, the Nova Group’s permit was revoked, challenged by Nova Group, and then the federal government attempted to institute an export ban country-wide. By the end of 1999, Nova Group’s appeal had been withdrawn, and the Canadian government had turned inward to develop the ban and seek the cooperation of the provinces and territories.

In 2000, as the Canadian federal government concentrated on developing policy and as public events faded into memory, coverage dropped sharply. In 2001, coverage increased again as the Great Lakes states and provinces agreed to an amendment to the Great Lakes Charter called Annex 2001, which marked a commitment to strengthening

conservation and diversion prevention measures across the jurisdictions. The signing of Annex 2001 was met with much fanfare: several governors and premiers met in Niagara Falls, New York, to sign the document. It was an attention grabbing media event, as this sampling of newspaper headlines shows:

Pact Aims to Protect Lakes Would Avert Diversion of Water (Bonfatti, 2001b: A1)

Great Lakes spigot fine-tuned Governors to sign new accord on water diversions (Long, 2001b: 1)

Harris, Landry sign Great Lakes water accord: 8 U.S. governors on board: Agreement first step toward protecting export of resource (Benzie, 2001: A09)

Way paved for ban on bulk water sales (Brennan, 2001: A06)

Governors Curb Use Of Great Lakes Water; Canadians Join Plans to Limit Diversions (Claiborne, 2001:A02)

However, once the event itself was over, the issue all but disappeared from the media agenda and policymakers once again turned inward to develop a policy framework that would form the response to requirements of Annex 2001. In 2004, coverage ramped up when just such a document was released for public comment. The document met with strong reaction in the U.S.: critics in industry and agriculture argued that the agreement created burdensome regulation that risked eliminating jobs, while environmentalists were unhappy that the agreement did not treat water diversion and water consumption equally (Annin, 2006). In Canada, the response to the document was extremely critical, with opponents arguing that it was a means of enabling a permit system for water diversion that would only benefit the country's southern neighbour (ibid.). The Council of Canadians led the charge against the agreement, The *Toronto Star* reported, "the Council of Canadians is calling on Prime Minister Paul Martin to intervene and scrap a draft

agreement that allows for water to be diverted from the Great Lakes, saying it is nothing more than a ‘unilateral water grab’ by the United States” (Black, 2004: A07). An op-ed authored by university professors Adele Hurley, David Schindler, and Andrew Nikiforuk and published in the *Globe and Mail* offered a similar sentiment:

After sifting through the rhetoric, however, the 40 million people who drink Great Lakes water will discover that Annex 2001 is little more than a licence to take water. What should have been a simple mechanism to limit diversions of water, has become a way to say “yes” to water-challenged communities all along the edge of the basin... Thirsty towns or industries will be able to put another straw in the lakes as soon as they satisfy some pretty mild conditions set out in the technocratic document. (2004: A13)

Canadian critics argued that if Canada could ban exports, why could the U.S not do the same? The driving metaphor within these arguments was the image of the U.S. rallying together and sucking the Great Lakes dry. What these critics did not acknowledge was that under U.S. law, such an export ban would be unconstitutional as an unfair trade restriction. Instead, what was necessary was a mechanism where, theoretically, bulk water export and diversion would be possible, but cost prohibitive. Such prohibitions could be worked into return-flow clauses, where a percentage of water diverted to outside the basin had to be returned clean (Annin, 2006).

As Annin (2006) observes,

The Canadian criticism was heavily influenced by the broader geopolitical climate as well. Anti-Americanism was running high throughout the world at the time the Compact hearings were held, and Canada was no exception. The Iraq war was notably unpopular north of the border, but more important, the United States and Canada were engaged in a number of cross-border disputes – from softwood lumber exports to North Dakota’s plans to divert tainted, unwanted water from Devil’s Lake into Canada’s Hudson Bay watershed. And while most Americans were blissfully unaware of these issues, the topics were perennial front-page stories in Canada, which helped to whip up Anti-American fervor. (221)

Facing strong pressure, the Ontario government acquiesced and reversed their support of the document and policymakers returned to the drawing board.

In 2005, the governors and premiers presented the public with a new, more acceptable, agreement. If the 2004 proposal can be described as permitting diversion with restrictions, the 2005 proposal “banned diversion with limited exceptions” (Annin, 2006: 226). Among stakeholders, the new draft documents were acceptable: environmental groups on both sides of the border settled some key differences from 2004 while agreeing to disagree on others (ibid.). It is this version of the Annex Implementing Agreements that is currently working its way through legislatures in the U.S. and Canada.

While Annin’s (2006) assertion that these agreements were highly controversial appears supportable in light of the number of articles during these periods of public comment, without an ‘event’ to drive coverage of the issue, media attention all but disappeared. The spikes in coverage, as outlined above, can be attributed to a primary event followed by two policy response periods. The main event was the Nova Group permit, lasting throughout 1998 and into 1999. During the latter part of 1999, the first policy response emerges: the Canadian government’s attempt to restrict water exports. This response was never fully resolved within the news media, but rather lost momentum as the issue became entangled in interjurisdictional quarrelling. A few provinces had strong reservations to the export ban and effectively stifled much movement on it. The second policy response is the Annex 2001 process, which takes place in two time periods: 2001, with Annex 2001 to the Great Lakes Charter, and the 2004-2005 with the Annex Implementing Agreements. Outside of these two periods there was very little, if any, coverage of bulk water export or diversion.

Figure 1 shows wide fluctuations in coverage of bulk water export and diversion from quarter to quarter. This can be related to event-driven coverage, beginning with the granting of the Nova Group permit in the second quarter of 1998. Coverage falls, rises slightly, and then falls again until late 1999, where a second spike occurs. This second spike is related to the Canadian government's attempt to come to an agreement among the provinces to ban water exports. The federal government successfully amended the International Boundary Water Treaty Act to prevent the bulk transfer of water from bodies such as the Great Lakes, but the Act did not apply to waters completely within Canada. Such a ban would require the action of the provinces. While the Canadian government attempted to cajole the provinces, five – British Columbia, Alberta, Saskatchewan, Manitoba and Quebec – rejected the national accord with the argument that they had their own provincial bans in place.

This event-driven coverage also opens the newspapers to more general coverage of the issue. Figure 2 tracks different topics throughout the sample period. Most topics are event-focused, except for Export Generally, which best describes more abstract discussions of bulk water export and diversion. There are three major spikes in this topic, and all correspond to a specific event period. The smallest significant spike occurs during the second quarter of 1998 when five articles are published focusing on this topic. This is dwarfed by the large peak in the Nova Group topic (n=24 articles). Relative to the high coverage of the Nova Group permit, coverage is clearly focused on the event and its fallout. While there is some space for more generalized discussions of bulk water export and diversion, it is not very great. The second spike, however, indicates a period of much larger discussion of the issue as a broad concern. This spike to 12 articles on the Export

Generally topic during the fourth quarter of 1999 is simultaneous to the spiking of several other events: export legislation in Canada (6 articles), a mini-spike in concern to the Nova Group permit (3 articles), the Gisborne Lake proposal (2 articles), and the Great Lakes Charter (1 article). These events – all disparately reported – create an atmosphere where the issue of bulk water export and diversion can be discussed more generally. This discussion, however, remains tightly tied to specific events.

The third spike in the Export Generally topic occurs during the third quarter of 2001 when 10 articles are published on this topic. It follows increased coverage of Gisborne Lake (5 and 1 articles in the previous two quarters) and the Great Lakes Charter (3, 5 and 1 articles in the previous three quarters). While not occurring simultaneous to these events, the close proximity indicates a strong tie to outside events in generating coverage of bulk water export and diversion.

Up until this point, there is evidence of a relationship between specific events and the presence of articles that discuss export and diversion generally. The spikes in coverage occurring in 2004 and 2005, however, do not see a corresponding spike in coverage of the Export Generally topic. Instead, topics are more firmly related to event coverage: that coverage being of the Great Lakes Charter Annex and the Devil's Lake conflict, with peaks of 12 and 16 articles, respectively. Unlike the articles published in 1998, 1999, and 2001, there is little discussion of the issue in a broader sense, which the presence of the Export Generally topic would indicate.

This event-focused coverage suggests two things. First, relative to the topics that spiked in relation to the Great Lakes Charter Annex, bulk water export and diversion have lost significant traction as abstract issues of discussion. Second, in relation to the

spike in the Devil's Lake issue, export and diversion are not relevant topics of discussion. This does not come as a shock because the nature of the Devil's Lake conflict is not related directly to the movement of drinking water from an area of plenty to one of scarcity. The Devil's Lake discussion centres primarily on issues of cross-border pollution – in other words, it is a quality issue. Yet, at the same time, it is surprising that bulk water export and diversion are not raised because of the fact that they pertain to a cross-border diversion. It is significant, however, that it involves the transfer of water from the U.S. to Canada. Unlike other bulk water export or diversion proposals, the water is flowing south to north, avoiding the activation of the same narratives that dominate diversions from Canada. Of course, as Annin (2006) points out, this is not to suggest that the Devil's Lake affair did not have a palpable effect on sentiment toward U.S. behaviour in relation to water management. Indeed, the affair became very heated with NDP MP Pat Martin remarking about U.S. action, "People in Manitoba are saying let the bastards freeze in the dark if they are going to do this to us; if they are going to compromise every established treaty relationship we have. They have ignored us blatantly" (Samyn, 2005: A7). While such a comment triggers the same anti-Americanism that crops up in other pieces, the Devil's Lake affair as a central discursive event was processed through a 'water quality' discursive paradigm as opposed to a 'water quantity' paradigm.

Just as the total number of articles on an issue can be an indication of its salience, so too is the article's placement in the newspaper. An issue that appears on the front page is considered more newsworthy than one buried in the back pages of a newspaper. Figure 3 shows the location of articles in Canadian and U.S. newspapers, as well as the total of the two. Although the relative number of articles is higher among Canadian newspapers

than U.S. newspapers, this case study is overwhelmingly located in the later pages of the front section, with nearly two thirds of articles later than page A6. Indeed, only ten per cent of Canadian articles appear on the front page, and only 15 per cent more between pages two and five. In the U.S., however, the issue is much more likely to appear on the front page, published here just over a quarter of the time. Approximately an equal number of articles appear on page A6 or later.

While article placement is not a perfect measure of issue salience, it, alongside the relatively few articles written, demonstrates that bulk water export and diversion are not considered by the media in either country as a highly salient issue. Instead, it is one driven by events. This plays a significant role in terms of how the issue can be framed and taken up by the news media. Specifically, it creates a situation where stakeholders have greater influence in shaping the media framing of the issue. Event-focused coverage means a higher degree of media dependence on the role of actors in the event. In such cases, the key media anchor is the event and the actors involved. This contrasts with issue-focused coverage where the key anchor tends to be a more conceptually oriented discussion of ideas. In event-focused coverage, the degree of cooperation between actors can stifle a story much quicker than in issue-focused coverage where a journalist's independent analysis can drive a report. Consequently, because the media do not take up the issue except when prompted by an event, they are much less likely to move outside of the framing paradigm created by the stakeholders. This creates an atmosphere suited for elite discourse.

Who reports a given story has a significant impact on how that story is reported. The coverage of bulk water export and diversion can be reported from numerous angles.

It is a political story about the lack of effective public policy and how the government bumbled from the outset, creating a patchwork of regulation. It is also a business story of an entrepreneur's attempt to create wealth through the sale of water. And, it is an environmental story about how massive exports and diversions can damage a region's ecosystem.

Within this case study, the newspapers that published the highest number of articles tended to have single journalists who reported extensively on these issues (Table 1). These newspapers include the *Globe and Mail*, *National Post*, and *Milwaukee Journal-Sentinel*. This is also seen, although to a lesser extent, in the *Toronto Star*. The most frequent author overall is Heather Scoffield of the *Globe and Mail*'s Parliamentary Bureau who authored 27 per cent of that newspaper's bulk water export and diversion articles. Within the *Globe and Mail* this creates a focus on the political elements of water diversion and export; this makes intuitive sense, given that the lead journalist on these issues is a parliamentary reporter. This is in contrast to the *Milwaukee Journal-Sentinel*, where Dan Egan and Lee Bergquist are the most frequent authors. While a particular beat is not identified for either of these journalists, the nature of the articles they write (especially Egan) are often longer and more complex. Such length and complexity suggest that Egan and Bergquist explore the issues in sizable depth and from varied perspectives. It is not unusual for their articles to approach 1,000 words. Indeed, of hard news items, the *Milwaukee Journal-Sentinel* far exceeded other articles in average word count at 801. The *Globe and Mail*, despite the higher number of articles printed, only averaged 436 words per news article. With Egan and Bergquist responsible for 21 per

cent of these articles there is a greater likelihood that they explore the issues with greater depth and from more varied perspectives.

Discourses of the Elite

Elite Framing

In both Canada and the U.S., the discourse of bulk water export and diversion is defined by political elites and concerns the political process. As Davis (2003) argues, the sources who are cited and the frames they employ reflect a discourse conducted between policy elites attempting to influence decision-making on the handling of bulk water export and diversion in a legislative and regulatory context. This leads to dominance by elite actors (particularly government agents) who develop a discourse based primarily on interjurisdictional relations and legislative and regulatory processes. In Canada, such frames refer to Interjurisdictional Conflict and Cooperation, while in the U.S. Interjurisdictional Cooperation alone is the leading political frame.

Over half of the dominant frames, when one is present, deal with political relationships and actions (Figure 4). The most frequent dominant frame deals with Interjurisdictional Relations, including conflict and cooperation (32 per cent). From the overall sample, the second most frequent item is None, suggesting a certain degree of complexity and mixed framing.

The relationship between different governments can be examined through conflict or cooperation. For instance, conflict occurs as one government body attempts to shift blame or responsibility to another body. This is illustrated by Foreign Affairs Minister Lloyd Axworthy's comments upon finding out a permit had been granted to the Nova Group:

Clearly the environmental authority in Ontario which gave this permit really didn't consult with anybody...Even though there were clearly jurisdictional questions, there was no consultation done with ourselves, with the U.S., or the International Joint Commission, which is established to look at water matters across the border. (Scofield, 1998: A1)

Cooperation, in contrast, is present when solutions to policy problems are identified through joint measures to protect water resources. This often occurs at staged media events or in joint statements, such as New York Governor George Pataki's comments when the Annex 2001 agreements were introduced:

I'm not going to say it's not difficult...[but]...we have an overriding common interest, and that is what really brings us together. (Bonfatti, 2001b: A1)

The next most frequent dominant frame is the Legislative/Regulatory Action frame (23 per cent). This frame is unique because its ideological character is less overt than other frames. It indicates an issue is event-driven and less subject to deeper analysis and critical interrogation. For example,

The agreement outlining the standards, called Annex 2001, isn't binding. It's an amendment to the 1985 Great Lakes Charter. It's the precursor--a road map, officials call it--to a comprehensive set of laws that governments on both sides of the U.S. and Canadian border want to have in place in the next three years. (Long, 2001b: 1)

Federal concern over possible water exports was raised when an Ontario company, the Nova Group, secured a permit to draw water from Lake Superior for sale to Asia.

The company has since offered to return the permit and Ontario has now changed its policy on granting permits. But Newfoundland is considering allowing a company called the McCurdy Group to export water in an attempt to shore up the province's ailing economy.

Although water falls under provincial jurisdiction, Ontario Environment Minister Norm Sterling has called on Ottawa to solve the problem. Other provinces seem interested in a federal solution as well, Stewart said.

Stewart's department drafted legislation dealing with water exports that died last year. That bill could be resurrected after consultations with the provinces to update it, department officials have said. (Eggerston, 1998b: SA2)

This is amplified when the Legislative/Regulatory Action frame is the dominant frame in an article. In this case study, nearly a quarter of all items dealt primarily with the straight reporting of specific activities – legislative and regulative decisions and actions. While this frame is ideological in nature in that it treats the political process as a matter of fact, it is more representative of a broader institutional structure than of a particular orientation toward the issue of bulk water export and diversion. That is to say, as a frame it is ideologically significant because it offers evidence of how the acceptance of particular knowledge and policy structures are engrained into news reportage. Within the context of debates over water export and diversion, however, the frame offers less insight than others in terms of how this discourse was constructed.

The Interjurisdictional Relations and Legislative/Regulatory Action frames, as the most frequently employed frames, identify the issue of bulk water export and diversion as one primarily taking place in the halls of government. That is to say, the mode of discourse is not one that escapes political jockeying. There are, however, some significant differences between coverage in the U.S. and in Canada. Concerning the use of political frames, the most significant is the absence of Interjurisdictional Conflict as a dominant frame in U.S. coverage (Figure 5). Instead, of the 15 per cent of articles in which the dominant frame is Interjurisdictional Relations, all deal with issues of cooperation. In Canada, cooperation accounts for 11 per cent of all dominant frames. This compares to conflict, which is the dominant frame in a quarter of all articles where a dominant frame exists. The number of articles in which the leading frame deals with governments in conflict with one another is significant.

This trend is also evident when microframes are examined. Table 2, Table 3 and Table 4 break down the top frames overall, in Canadian newspapers and in U.S. newspapers. Within each category, the top frames are again Interjurisdictional Relations and Legislative/Regulatory action. The Interjurisdictional Relations frame ranges from 62 per cent in U.S. newspapers to 77 per cent in Canadian newspapers. The Legislative/Regulator Action exhibits a similar range, from 53 percent in U.S newspapers to 66 per cent in Canadian newspapers. The next most frequent frames do not appear in more than 50 per cent of articles for either country.

Table 5 breaks down Interjurisdictional Relations into Conflict and Cooperation. In Canada, Conflict was present in 55 per cent of all articles while Cooperation was present in 43 per cent of all articles. This is in contrast to the U.S. where the conflict frame only appeared in 16 per cent of articles. The Interjurisdictional Cooperation frame appeared over three times more often than Interjurisdictional Conflict in U.S. articles (54 per cent), unlike in Canada where the two were more evenly represented. Coverage of interjurisdictional relations in Canada was strongly slanted toward conflict, while in the U.S., it was slanted toward cooperation.

The most likely reason for this is the difference in the governmental structure of each country. In the U.S. jurisdiction over water resources is more firmly established as a state responsibility; however, in Canada such responsibility is much less clearly defined (Saunders and Wenig, 2007). Instead, the provincial government is granted general responsibility for managing water quality and usage, except in cases where the water body crosses an international boundary, such as in the case of the Great Lakes. In addition, while the provincial government has responsibility for managing the resource,

the federal government has responsibility for international trade. Within this case study, this jurisdictional grey area was a centre of contention. Early explanations by the Ontario government argued that the province was well within its jurisdiction to grant Nova Group permission because all that Nova Group applied to do was to take a specified amount of water out of Lake Superior. The Ontario Minister of the Environment at the time, Norm Sterling, defended the decision. As reported the *Toronto Star*, “Sterling said his ministry had no alternative but to issue a water permit to the Nova Group... ‘Basically you can get a permit to draw water in Ontario as long as it doesn't cause any significant environmental damage in drawing that water,’ [Sterling] said.” (Goodspeed, 1998: A1). The minister was also reported saying, “The permit issued by my ministry was simply a permit to take the water, not to export it...The primary responsibility for laws governing export remain clearly in the federal domain” (Maley and Behm, 1998: 1).

The province was charged with evaluating whether Nova Group’s extraction of Lake Superior water would have a negative impact upon the environment. Just *what* Nova Group would do with this water was of little consequence to the province. Not until the company actively sought to sell the water would it become the responsibility of the federal government under international trade. As the case developed, it became clear that this logic was not convincing many people. The federal government responded quickly to the permit; within days of the story breaking, the federal government was described as aggressively finding a means to stop the export. One headline in the *Globe and Mail* read, “Ottawa seeks to halt water exports; Axworthy hunts for law with teeth” (Scofield, 1998, A1). In the same article the federal Minister of Foreign Affairs, Lloyd Axworthy is

quoted, “clearly the environmental authority in Ontario which gave this permit really didn't consult with anybody” (Scoffield, 1998, A1).

When it became clear that defending the permit would only agitate an already hostile arena, the Ontario government assumed the awkward position of attempting to revoke a permit that it had already granted. This reeling by the Ontario government is further supported when the frames employed by sources are considered. The Canadian federal government employed the Interjurisdictional Conflict frame twice as often as the Ontario government. In contrast, Ontario employed the Interjurisdictional Cooperation frame five per cent more often than the federal government. While this is not a large margin, it does indicate that the federal government was acting more aggressively than its provincial counterpart.

These sorts of interjurisdictional issues did not arise in the U.S. Instead, while legislators did speak out against Ontario's granting of the permit, articles were more likely to discuss the possibilities that could be found in the Great Lakes Charter for resolving this issue.

The parliamentary system⁵ in Canada can exacerbate conflict within the political system. Because of the merging of the executive and legislative branches, opposition members are much more vocal about executive matters within a legislative context. This means that both executive and legislative matters are debated in the same context, essentially merging the two issues. In the U.S., at both the state and federal level, there is greater distinction between executive and legislative branches. While political conflict

⁵ Within Canada's parliamentary system the Prime Minister and his/her cabinet are members of both the legislative and executive branches of government. This makes the executive branch accountable to the legislative branch, which is itself accountable to the general public (Kernaghan and Siegel, 1999). This is in contrast the Congressional system of the United States where the legislative and executive branches are equally powerful (Kernaghan and Siegel, 1999).

takes place, it is drawn along slightly different lines. In the case of bulk water export and diversion, these lines are not crossed. Instead, what is seen in this case of political discourse is cooperation between members of Congress and politicians of the executive branches (primarily at the state level). In addition, because the issue is primarily one of state concern, federal members of Congress are more likely to work jointly, since the protection of the Great Lakes ecosystem is often a bipartisan issue. In the case of the Great Lakes Compact, Egan describes the motivating factor to be fear:

Fear is driving the bipartisan proposal – fear that it is only a matter of time until booming desert towns such as Las Vegas or Albuquerque scheme to draw down Great Lakes water. And, on a more local and immediate level, fear that the cumulative toll of hundreds of smaller diversions from communities just beyond the basin could, over time, dramatically shrink lake levels. (Egan, 2004: 1A)

Source Use

Looking at source use, there is a nearly even split between federal and provincial sources in Canadian newspapers (Table 6). Looking back on the framing data above, this is not wholly surprising: with interjurisdictional conflict playing such a significant role in the discourse on this issue in Canada, it is predictable that there would be relatively even play given to these two branches of government.

In U.S. news coverage, the state-level government receives much greater attention than the federal government, accounting for 35 per cent of all sources reported; the federal government only accounts for 17 per cent of sources cited. Making up this difference is the prominence of NGO sources, cited in nearly a quarter of the articles. This is nine per cent higher than in Canada. The limited role of the federal government as a quoted source suggests that Great Lakes issues are much more regional in nature in the U.S. than in Canada, and that the NGO community has a fairly strong voice in developing

discourse on diversion issues. As Deacon (1996) identifies in his study of the media and NGOs in Britain, this could suggest greater resource allocation and public relations capacity among these groups in the U.S. relative to Canada. It could also indicate that preferred groups in the U.S., including different levels and branches of government and business or industry, are purposefully silent or otherwise irrelevant to the issue more so than in Canada. For instance, in Canada, opposition political parties are often characterized as the antagonist to the government. This can have the effect of squeezing out other groups with less influence or clout.

Among all the newspapers, and in both countries, government officials were the dominant source in news reports, accounting for 67 percent of all sources quoted (Table 6). When looking only at stories where government representatives are the first or second source, this proportion increases to 75 per cent (Table 7). The strong policy orientation of the bulk water export and diversion issue accounts for the increased emphasis on government sources. When it comes to understanding who defines the bounds of the discourse over bulk water export and diversion it is, by far, the various branches of governments in Canada and the U.S. As position in news articles go, they not only dominate by sheer number, but also by preferable position. The prevalence of these sources early in the article establishes these sources as the 'primary definers', whose definition of the situation provides the baseline against which all other source claims and arguments are assessed (Hall et al., 1978).

With these data in mind, a story unfolds describing coverage in Canada. The setting is the halls of Parliament and Queen's Park and the dominant actors are politicians and the primary stakeholders with whom they communicate. The story they are telling is

one of concern over how bulk water export and diversion opens a Pandora's Box with significant impact on the environment and economy. And, not surprisingly, in Canadian discourse, the enemy is the U.S. The degree of interjurisdictional conflict, however, does not suggest that this story evolves along a well-defined arc, as those best in a position to solve the problem are themselves engaged in political debate.

Looking at U.S. coverage, a similar story appears, but the foil that is interjurisdictional conflict in the Canadian story is absent here. While the spread among the top frames is a little more fragmented than in Canada, the same frames dominate (minus the Interjurisdictional Conflict): Interjurisdictional Cooperation, Legislative/Regulatory Action, Environmental Impact, and Dangerous Americans. As in Canada, the story that evolves here is one where other U.S. citizens are cast as the enemy and where lawmakers working together to solve the dilemma before the ecosystem is irreparably damaged.

Often the enemy who develops in an environmental story is industry and business (for example, see Kensicki, 2004; McCright and Dunlap, 2000). Whether it is toxic waste, air pollution, oil spills, or the myriad other scenarios of environmental degradation, the classic construction is one of irresponsible corporations doing bad things and mobilizing its spin machine to determine the shape of discourse. In this case, it does not appear that this is at work. Business sources are, for the most part, absent from the discourse. This is even across both countries.

Davis' (2003) analysis focuses primarily on government and business officials and their public relations branches. Within the environmental context, it is possible to expand the range of elite actors to include certain high profile environmental NGOs such

as the Council of Canadians, Great Lakes United, Lake Michigan Federation⁶ and National Wildlife Federation. The discourse of bulk water export and diversion in this sample allows specific leading NGOs to present their views in opinion pieces and be cited alongside other elites. These groups also act as proxies for public opinion, both to the press and to political elites. Relative to government and industry, NGOs often construct themselves as representatives of citizens and citizen groups. Within this case study, the primary NGO groups cited are the Council of Canadians and Great Lakes United. The former describes itself as “Canada’s largest citizens organization, with members and chapters across the country” (Council of Canadians, 2006). Great Lakes United envisions itself similarly, “made up of member organizations representing environmentalists, conservationists, hunters and anglers, labor unions, community groups, and citizens of the United States, Canada, and First Nations and Tribes” (Great Lakes United, 2007). In both cases, the groups self-identify as a representatives of the public interest. For the press and politicians, then, support of these groups can be equated to the support of the public. Of course, there is no guarantee that the strategic motivations of the Council of Canadians or Great Lakes United directly reflect any sort of public consensus. While both organizations have formalized structures for incorporating public sentiments, strategic decisions are made on the basis of advancing internally defined goals. These goals often reflect the broader public interest, though they may not necessarily be the product of consultative processes. For example, action against the release of mercury is often pushed by environmental groups, not necessarily because the public has identified mercury as a problem to be solved, but because action to combat

⁶ In 2005, Lake Michigan Federation changed its name to the Alliance for the Great Lakes. Since this research deals primarily with the group when it operated under its former title, this name is retained throughout this thesis.

mercury brings with it important action against other pollutants. As a result, such groups look to gain public support for action against mercury pollution because it enables other protections as well.

While NGOs are not quoted nearly as often as government sources, there is a distinct difference between the groups covered in Canada and the U.S. In each country, one group leads the discourse on bulk water export and diversion: in Canada, it is the Council of Canadians, and in the U.S., it is Great Lakes United, and to a lesser extent Lake Michigan Federation.

The frames that the Council of Canadians employ are much less politically focused than those used by government sources. Instead, these frames explore many of the issues underlying the political discussion undertaken in the halls of government. The Council of Canadians, for instance, was strongly on-message concerning fears of the commodification of water, employing a Slippery Slope frame in this regard approximately twice as often as the second most frequent frame, Interjurisdictional Conflict (Table 8).

This contrasts with Great Lakes United, which focused principally on the Legislative/Regulatory Action frame, which appeared one-third of the time when the group was cited (Table 9). The second most frequent was the Dangerous Americans frame, the significance of which will be discussed in detail below.

Between the two, Great Lakes United enjoyed better media access in the U.S. than the Council of Canadians did in Canada. This could be related to the diverging nature of the frames employed by each group. The Council of Canadians is a strongly nationalistic group, and is very vocal about its position. Maude Barlow, Chairperson of the

organization, wrote several op-ed pieces throughout the sample period, and each was very much on-message: the group's biggest fear is that the sale of bulk water, and even bottled water, risks identifying the resource as a commodity subject to the free trade provisions of NAFTA and other international trade agreements. An op-ed appeared in both the *Toronto Star* and *Globe and Mail* in May 1998. After explaining the implications that a water export plan can have, Barlow concludes, "the federal government must act now to protect Canadian water. But it cannot do so while still under NAFTA obligation. What is more important to Canada - these trade obligations, or our water?" (Barlow 1998a: A19; Barlow, 1998b: A18). This sentiment is echoed by Council of Canadians representatives throughout the sample period:

Now any American company can come in and claim exact equal treatment to what this Canadian company has got to export any of our water to the same amount (Maude Barlow quoted in Eggertson, 1998a: A1)

What NAFTA says is, once the tap is on, you can't turn it off. (Maude Barlow, quoted in Scoffield, 1998: A1)

Once water becomes a tradeable commodity, under NAFTA it becomes much more difficult for Canada to protect its own natural resource. (Jo Dufay quoted in Lawton, 1998: D3)

Once you open it up, you won't be able to say 'but only for Newfoundland companies,' or 'only for Canadian companies'... Water was only protected [under NAFTA] as long as nobody was [exporting it]. (Maude Barlow, quoted in MacKinnon, 2001: A4)

The eight U.S. states are forming an agreement where they're going to sell Great Lakes water... It's going to open the door for the sale of water on a large scale. (Sarah Ehrardt, quoted in Perkel, 2004: A06)

This focus on a narrow range of discourse has a two-fold effect: it solidifies the Council's position on the issue, but it limits the breadth of issues on which the Council can speak. That is to say, if a journalist wants a strong quote on commodification, they could go to the Council of Canadians. Reporters seeking other angles would be unlikely to seek out

the Council of Canadians and instead turn to sources who were not boxed into a limited range of discourse on the issue.

Great Lakes United offered a broader scope in terms of framing, though when quoted they were primarily a source of basic information, as indicated by the dominance of the Legislative/Regulatory Action frame. This breadth is also made clear in the op-eds written by Reg Gilbert, the lead staff on the issue. In one op-ed published in both the *Toronto Star* (2000a: ED01) and *Buffalo News* (2000b: H5), for example, Gilbert works through several frames, including the Slippery Slope, Environmental Impact, Interjurisdictional Relations, Legislative/Regulatory Action, Conservation, and Sanctioned Mediocrity. An earlier piece by Gilbert employs these frames as well (Gilbert, 1999a: 1; 1999b: B2). Unlike the pieces written by Barlow, Gilbert's op-eds traversed several areas, from issues of environmental concern, to commodification, to fears of the U.S. Southwest.

When quoted in sources, the trend continues:

I was shocked by the statement that trade laws will not affect government's ability to protect the resource. (Reg Gilbert quoted in Behm, 1999: 1)

Time is slipping away...A golden opportunity to prevent export and diversion of Great Lakes water to the rest of the United States and the world is being squandered. The governors and premiers need to reach an agreement and start to work.. (Reg Gilbert, quoted in "Groups urge no export of lakes water", 2000: B3)

The so-called de minimis provision "controverts everything else in this document," said Gilbert, who added that the philosophy should be "minimal harm to the environment, not minimal amounts" of diversions. (Bonfatti, 2001a: B2)⁷

⁷ The de minimis provision was an element of the 2001 Annex Agreement that would allow diversions of up to 1 million gallons per day under certain specific circumstances. Critics, however, viewed this as a significant potential loophole that could undermine the protections that the agreement was intended to create. The provision was ultimately removed from the agreement.

If we don't [pass the Great Lake Compact], what happens is it becomes controlled by Congress... And who controls the Congress? Not the Great Lakes delegation. (Reg Gilbert, quoted in Kuehner, 2005: A1)

The consequence is a dampening of the group's leading message. This results in a trade-off: while the Council of Canadians were strongly opinionated and remained tied to its core message of commodification, Great Lakes United's focus on policy elements led to greater coverage of the group. How effective this communication strategy was in forwarding the goals of the organization is not clear from a content analysis alone.

The Dangerous American

If only one frame could be used to describe the scene from *H₂O* recounted in the introduction to this thesis, it would be the Dangerous Americans frame. Simply, it suggests that the dry southern U.S. states are a major threat to the water of the Great Lakes. The seemingly obvious assumption, in light of the plot of *H₂O*, is that this frame would be pronounced in Canadian coverage. As Dornan (2008) argues in the context of media policy in Canada, "we have always been taught to believe that Canadian sovereignty is a fragile thing... This decidedly Canadian anxiety is as old as Canada itself. It is as though we need to tell ourselves this cautionary tale even though, deep down, no one truly believes it, the way children like to be frightened by stories of monsters in the basement they know are not real" (29). In fact, the frame is more active in U.S. coverage than it is in Canadian coverage. Surprisingly, citizens of Milwaukee and Buffalo are just as fearful as citizens of Toronto that states like Arizona or California could gain unlimited access to 'their' water.

As a dominant frame, Dangerous Americans accounts for six per cent of the total sample when None is removed (Figure 4). While it may not represent a significant

percentage, there are a surprising number of articles that focus on the threat of U.S. states siphoning Great Lakes water.

More importantly, however, is the fact that this frame is the dominant frame in twice as many U.S. articles as Canadian ones. In addition, as a microframe, Dangerous Americans appears in nine per cent more U.S. articles than Canadian (Table 3 and Table 4). This frame is clearly more likely to arise in the discourse of bulk water export and diversion in the U.S. than in Canada. Furthermore, the sources employing this frame include state governments, federal members of Congress and NGOs (Table 10). As a percentage of total frames employed, the National Wildlife Federation and the Ohio state government cite this frame most frequently, at 22 and 20 per cent, respectively.

The greater employment of the Dangerous Americans frame in the U.S. likely hinges on the shifting sphere of political influence in that country. As representation in Congress shifts toward the south in response to a changing population, the Great Lakes states sense an increased threat to their natural resource. The Great Lakes region used to be the industrial heartland of the U.S. Many of those jobs have since moved elsewhere, and the states have been forced to reconfigure their self-image. The region is often colloquially referred to as the 'Rust Belt' in light of the decline of industry. Considering the size of the lakes, and the predisposition of residents to view themselves as living in a Great Lakes state (this is especially true in Michigan where grassroots citizen groups are especially active), protecting this resource implies protecting state interests. By underlining the threat posed by southern U.S. states, this discourse reinforces a pre-existing defensive posture.

In Canada, the federal government never employed the ‘Dangerous American’ frame, though provincial governments did so once (Table 10). This frame was most often used by opposition political parties in the Ontario legislature (27 per cent of the source organization’s frames) and by NGOs such as the Council of Canadians and Canadian Environmental Law Association (12 and 17 per cent of the source organization’s frames, respectively). Considering the nature of Canadian political structures, it is not necessarily surprising that opposition parties would latch onto this frame. Canadian politics can be especially divisive, and often quick political points can be scored by building fear of American domination.

The lower presence of this frame in Canada compared to the U.S. can also be understood as indicative of a predisposition to evoke fear of the U.S. implicitly. For example, among frequent non-governmental sources cited, the Council of Canadians employed a slippery slope commodification frame 27 per cent of the time, followed by interjurisdictional conflict and Dangerous Americans (Table 8). The fear over commodification is an indirect reference to a threat posed by the U.S., namely that if water is treated as a tradable good it could fall under the fair-treatment provision of the North American Free Trade Agreement and Canada could face punitive legal action by preventing exports. Indeed, Dangerous Americans is an insidious frame, and though lower numbers generated by techniques associated with content analysis may not indicate it as strongly relevant in Canada, it is embedded within the discourse nevertheless.

Great Lakes Survivalism and the Promethean Response

Opinion coverage, as well as hard news coverage to some extent, can be usefully examined through Dryzek’s (2005) survivalist/Promethean response binary described in

Chapter 2. In articles with frames that focus on the environmental consequences of bulk water export and diversion as opposed to the regulatory and interjurisdictional debates, a survivalist discourse dominates. Specifically, the Significant Environmental Impact, Scarce Resource, and to a lesser extent Slippery Slope frames, take up a survivalist point of view in that the environment is a finite resource that has an established carrying capacity. Actors throughout the sample engaged in such a discourse:

The message that we want to make clear is that the most effective and certain way to protect the environment from bulk water removals is to take a watershed approach and not a trade-based approach to the issue (David Anderson, Minister of the Environment, quoted in Scoffield, 1999: A4).

You can stick lots of little straws into the bathtub and draw the water down just as easily as putting in a big straw (Cameron Davis, Lake Michigan Federation, quoted in Long, 2001a: 1).

Environmentalists were naturally in the forefront of public furor over the plan, but we also knew that bulk water export was only the most recent development in 200 years of abuses to the region's water system (Gilbert, 2000a: ED01).

The Great Lakes contain 20% of the planet's supply of fresh water, a gift from the last Ice Age. Only a tiny percentage of the lakes' volume is replenished through the natural rain cycle. There's already one 'hole' in the system near Detroit that is sending extra gallons of water toward the Atlantic Ocean. The lakes don't need others sucking out water that won't be replaced. Diversions could result in long-term harm to the basin (Franzen, 2005: A18).

We have come to the conclusion that we have more latitude if we are focused on protecting the resources, and not simply creating a device for economic advantage (Sam Speck, Ohio Department of Natural Resources quoted in Bergquist, 2005: A1).

When these frames are employed they are used to refute the sustainability of bulk water export and diversion. In contrast, some source frames would fit comfortably in the Promethean camp: Just Another Resource, Sustainable Resource Management, and in some cases, Insignificant Environmental Impact. These are popular frames among those

supportive of bulk water export and diversion. Underlying these frames is a belief that the environmental impact of bulk water export and diversion is tolerable because human ingenuity, self-restraint, and innovations in technology will prevent any real harm to the ecosystem as a result of the withdrawal. This was a common position in the *National Post's* coverage:

But why should anyone get our water for free? Despite its apparent abundance, Canadian cottagers, fishermen, farmers, municipalities, power producers, industrialists and tourist operators increasingly compete for this essential resource. Like the United States and other industrialized countries, Canada should remove subsidies from water. Once we pay full value for its use, export deals will never again be a threat, for our water will truly be too precious for any exporter to ever want to touch (Solomon, 1999: C07).

As an economic asset, water has many advantages. It is plentiful, much in demand and infinitely renewable" ("Sell the water, but don't soak the poor", 2001: A19).

We were pioneers. We are the Microsoft, the Nortel of the water industry (Jack Lindsay of Sun Belt Water, quoted in Jack, 2001: C03).

What is wrong with selling an even smaller fraction abroad? The answer, of course, is nothing. Protectionists who raise the hue and cry over the issue have yet to provide any rational argument. Rather, they traffic in lofty, patriotic platitudes calculated to cast bulk water entrepreneurs as sinister bagmen bent on desiccating our nation under cover of international trade agreement...The group's attitude represents a crude anti-trade political reflex. It is certainly not animated by environmentalism -- if it were, the council would be far more concerned about the waterfalls we waste at home than the thimblefuls we might one day sell abroad ("Hydrnationalism", 2001: A13).

While those unsupportive of the transport cite the International Joint Commission (2000) study that states that there is no excess water in the Great Lakes, Prometheans argue that some water can be removed without harm to the system and that any harm done can be mitigated through technological innovation.

The Dangerous Americans frame also assumes elements of a Promethean position. The logic of the frame is that the southern U.S. states are water-thirsty after filling swimming pools and growing grass in a desert. Yet, technology has succeeded in diverting much of the natural flow of water in these states to urban centres. The result is an urgent need to find new water. As Dryzek (2005) puts forth, this 'technology will save us' response would involve finding new water resources and using human ingenuity to move the water to where it is needed most.

The low support for bulk water export and diversion among all the newspapers except the *National Post* reinforces the survivalist point of view and further settles this as an accepted mythological position from which to view water management. And, it highlights the tension between survivalism and the Prometheanism. In one letter to the editor, a frustrated *National Post* reader writes,

Your editorial, Canadian Water: It's Time to Sell It, Sept. 7, would be forgivable were it not on such an important subject, and if you had bothered to do even the most rudimentary research on the subject. (Creese, 2000: A17)

While bulk water export and diversion appears to be a divisive issue, there is a strong consensus against such transfers and all of these arguments centre on a survivalist discourse. Ultimately, the debate that is occurring in this case study reflects and helps to shape the struggle between the survivalist and Promethean discourses.

Regionally Focused News and the Consequences for Bi-national Media Influences

Soroka (2003) suggests that the Canadian press may be subject to influence by coverage in leading U.S. news outlets. Particularly, he points to the *New York Times* as an agenda-setting newspaper capable of driving media agendas in both countries. In this

case study there is no immediately evident data to support bi-national inter-media influence (Figure 6).

The obvious evidence for this is the stark contrast in the amount of coverage between the U.S. and Canada. If U.S. coverage did affect Canadian coverage it is unlikely this gaping difference would exist. Additionally, the weighting would be reversed. In actuality, we see the Canadian daily press actively gives shape to this story independent of U.S. influence. In many cases, the issue of bulk water export and diversion is filtered through events going on throughout Canada. As mentioned earlier, the period just before the year 2000 was a hotbed of bulk water export and diversion discussion and proposals in Canada. As such, new proposals are filtered through the lenses of previous proposals. Table 11 demonstrates that among coverage of events taking place primarily in Canada, there is a tendency to mention other current export proposals. There is little similarity among those elements dealing with U.S. diversions, with the exception of the Nova Group and Annex/Charter topics.

A major indicator of an inter-media influence would be an overlap in source use. Although in Canada and the U.S. hard news stories were dominated by government sources, these sources tended to be the country's respective governments (Table 6). And even then, the branches of government that were reported in the coverage differed: Canadian press was relatively evenly mixed between federal and provincial sources, while in the U.S., the federal voice was much less relevant than at the state voice.

There is some evidence to support a more elaborated understanding of inter-media influence. The notion of inter-media influence implies that one country's coverage will mimic that of another in a top-down, centralized, manner. In this standard view, one that

Soroka (2002) explores, the dominant agenda-setting newspaper is *The New York Times*. This, along with the *Washington Post*, are in essence the United States' leading national, elite newspapers. This is unlike the case of Canada in which there is a degree of stratification between national newspapers. The *Globe and Mail* has a defined elite readership and enjoys a long-held reputation as a national newspaper. The *National Post*, in contrast, is much younger and with a readership less defined by elite decision-makers in government than captains of industry.

As Karkkainen (2005) suggests, Great Lakes issues are primarily a regional concern. This understanding is supported by this research, evidenced by the minimal coverage in elite U.S. newspapers and by the finding that primary sources, where they do emerge, are local in nature. Indeed, coverage in the *Milwaukee Journal-Sentinel* is particularly focused on the local concerns over Waukesha, Wisconsin's proposed diversion. As the *Milwaukee Journal-Sentinel* works through bigger issues of bulk water export and diversion, they do so by filtering the issue through the lens of the Waukesha diversion proposal. Although the amount of coverage is still less than that in the Canadian newspapers, it must be remembered that much of it is focused on the later years of the sample, primarily 2004 and 2005, after the Annex process had begun to take shape and it became clear that Waukesha would be its first challenge. In this particular research study, the more geographically proximate an issue is, the more likely it is to be picked up by a particular newspaper. Even the *Buffalo News* had a fairly significant local hook, with the most cited source being the locally-based Great Lakes United, an NGO working extensively on bulk water export and diversion issues.

In Canada, the case is similar but probably attributable to a smaller news market within a geographically larger political jurisdiction. While Nova Group was located in Sault St. Marie, the political action took place in Toronto and Ottawa, major political centres in the province, and headquarters to all three newspapers. This places news sources within easy reach.

Following the lead of the political contest model, the opportunity for inter-media influence seems to depend heavily on a political environment that is compatible with the news flow. In this particular case, the regional and local nature of the issue limited the opportunity for inter-media influence. Instead, overlap occurred when state and provincial governments worked cooperatively. In this case, the trend was not toward one media outlet or system leading another, but rather a political system and process leading the media.

6. CONCLUSION

“There is probably more poetry, more literature and more art describing the form of water than any other aspect of the environment. Apart from the air, it is the most omnipresent and the most essential part of the world that humans inhabit.”

(Strang, 2005: 97)

“Changing the word is not changing the world.”

(Miller, 2002: 259)

Peter Annin (2006) described the brewing conflict over access to Great Lakes water as the *Great Lakes Water War*. While he admits that his choice of words for the title of his book were intentionally exaggerative, he does not underestimate the intense emotions that threats of bulk water export and diversion muster. In the fall of 2007, as this thesis neared completion, tensions flared when Democratic nominee hopeful Bill Richardson, Governor of New Mexico, suggested the idea of a national water policy. He was quoted in the *Las Vegas Sun*,

I believe that Western states and Eastern states have not been talking to each other when it comes to proper use of our water resources... We need a dialogue between states to deal with issues like water conservation, water reuse technology, water delivery and water production. States like Wisconsin are awash in water (Mishak, 2007; para 2).

When asked for her response, Michigan governor Granholm was swift:

Hell No. That's my response. This is exactly why we need someone in the White House who understands Michigan's concerns. The minute someone starts talking about a national water policy, watch your lakes. That's all I can say (WGRZ, 2007: para 6).

Several Great Lakes newspapers also editorialized against Richardson's proposal, including the *Milwaukee Journal Sentinel* (“Editorial: Hands off our H2O”, 2007) and the *Sheboygan Press* (“Editorial: Get serious about the Great Lakes”, 2007). After a week and a half Richardson retreated, with his press secretary stating “Richardson in no way

proposes federal transfers of water from one region of the nation to the other...Richardson believes firmly in keeping water in its basin of origin and of the rights of states to oversee water distribution” (Lam, 2007: para. 2). *New York Sun* columnist Patrick McIlheran (2007) characterized the episode as misplaced fear-mongering:

...Mr. Richardson gave form to the bogeyman Midwesterners have feared for years – the thirsty westerner. He might as well have drawn a pentagram on the Indiana Dunes and said he was going to pull open Satan’s own drain plug. Editorialists raged. Fear got mongered...The Great Lakes are already in biological chaos, their fisheries in deep trouble from weird invasive species. They’re unusually low, and lakes Huron and Michigan, it turns out, have been lowered further by a botched dredging of their outlet in the 1960s. Amid all this, the wake-up call is supposed to be the engineering and economic improbability of piping water over 1,000 miles of prairie, desert, and Rocky Mountains? (para. 3-4)

This swift, strong, and coordinated response is representative of nearly a decade of intensive public and policy debate over the issue of bulk water export and diversion. In responding to Richardson’s remark, politicians and NGOs reacted similarly, despite the relatively innocuous nature of Richardson’s remark (it was, essentially, one vague sentence in a much longer conversation). This episode above and the research presented in this thesis all suggest that bulk water export and diversion are volatile topics among policymakers in the Great Lakes region. Water may commonly be characterized as the oil of the twenty-first century, yet such a characterization limits the ways in which the movement of water is actually discussed in the news media. Implicit in this notion is an impending military conflict. While battles have been waged or threatened across the globe for access to clean, potable water, such an outcome is unlikely in the Great Lakes case. Suggesting a physical conflict will take place in North America in the foreseeable future masks the actual battles that are currently being fought over this resource.

Above anything else, the research presented here makes very clear that any conflict over water in the Great Lakes basin is one that will be fought in the halls of legislatures across state, provincial and national capitals of Canada and the U.S. And, the sides that will be taken will not necessarily be erected along national borders. The threat of a thirsty Southern U.S. is a frame that is more prevalent in the U.S. than in Canada. A Torontonians' fear that Los Angeles is going to be drinking their water is a concern shared by residents of Detroit, Milwaukee, and Buffalo. Despite assertions by the International Joint Commission (2000) that the threat of long-distance diversion of Great Lakes water is over, there remains a consistent fear that the Great Lakes will be scooped or sucked away to far away places. More likely, however, is that the real threat will come from near-basin communities (*ibid.*). That exact conflict is heating up in Waukesha, Wisconsin.

The regional focus that appears in this research may have a significant ramification on how these issues are constructed. It took a major international withdrawal proposal by Nova Group to spark action and coverage. However, as some of these results suggest, there is a strong regional trend to water reporting. This means that the small diversion proposals, such as that of Waukesha, may escape the radar of major news outlets. If so, this might affect how a broader understanding of water issues is developed. There is strong evidence to suggest that polarization may be present in water issue coverage between the local management of water resources, and the macroscopic threat of big ships hauling water long distances. This dynamic may contribute to a blurring of the real threats to water resources and promote a discourse of fear, conflict, and greed.

This case study is in no way an exhaustive exploration of how Canadian and U.S. news media discuss water issues. Rather, it should be considered a baseline upon which other studies can be developed. Very little work explores how water is constructed bi-nationally in Canada and the U.S. despite the simmering nature of the issue. In light of the sheer volume of water that is shared between Canada and the U.S., the development of a discourse to talk about it is limited to how to regulate its use, how to keep it clean, and how to keep others from getting at it. This study is limited in the extent to which it can adequately address the multitude of threats, interests, actions, and mythologies that permeate the discourse of the Great Lakes. As an empirical study, the scope of this research was large: it covered a wide geographic area, nearly a decade of coverage, and recognized many potential frames that appeared in media discourse. However, as a part of the even wider world of discourse on water resources, this study only dips its toes below the surface.

In any coverage analysis, two temptations present themselves to the researcher: the risk of over-privileging the media as a central defining vehicle of a discourse, and the assumption that coverage can be equated with saliency and affect. The news media is only one avenue through which a discourse of water resources is developed. Even within the wider mediascape, water is constructed in numerous ways, whether it is through fiction film and television, documentary work, books, or even music. News coverage is only one element of the broader tapestry of media discourse. And, the media sphere is only one element of an even wider world where mythologies, values, beliefs and behaviours shape the actions that take place within policy circles and the daily lives of the citizenry. In addition to the news media, one's understanding of water is shaped by

his or her interaction with water itself, whether it is the water that flows out the tap, or the lake upon which he or she canoes. It is also shaped by the policy decisions that dictate how water *can* be used.

Additionally, a reader does not absorb the discourse published in newspapers uncritically. It is erroneous to assume that because newspaper coverage frames water in a certain way that all readers will automatically take up a similar position. This thesis makes no such assumption. Instead, the discourse that emerges in the media is an indicator of trends. The manner in which articles are presented to readers demonstrates how sources and journalists, through their actions and interactions, actively construct water use. But, in terms of untangling the cognitive processes that occur within the minds of readers, sources and journalists, this research cannot provide conclusive evidence.

Coverage studies intentionally carve a slice from larger issues in an attempt to understand the dynamics taking place within that slice. This appears analogous to removing a slice of cake and assuming that the piece is a part of a larger, homogeneous cake. However, this is simply not the case. A more apt metaphor would be that of cutting a piece from a very loosely woven cloth. The act of cutting severs crucial connections between the remnant and the original cloth. This inevitably distorts both the piece that is removed and the remaining cloth. Putting the piece back together is impossible. So it is when looking at coverage of bulk water export and diversion. These issues are inextricably linked to others, including urban development, municipal water use, toxic pollution, and shipping. Thinking about bulk water export and diversion independent of these influences provides only a partial view. It is, unfortunately, a necessary process if one wants to examine the issue at all. Overcoming this partiality requires analyses that

cut the cloth in different shapes and sizes. When these analyses are taken together, a more complete view of Great Lakes water issues will emerge.

This limitation is apparent when attempting to understand the voices that were excluded from the discourse. For example, First Nations voices were all but absent during the sample period. Despite their vested interest in how water resources are governed, this absence suggests broader institutional and cultural factors were at play. Understanding these factors and the subsequent absence is difficult in a coverage analysis it focuses on voices that were heard, not those that were silent. As such, addressing this issue requires moving outside the bounds of this research methodology, presenting interesting opportunities for future research.

Overwhelmingly, the issue of bulk water export and diversion in the Great Lakes region during the sample period was a story told by elites to elites. Davis (2003) suggests a critical elite theory approach to policy coverage reveals that much discussion in the media is a process of inter-elite communication. The research presented in this thesis supports such a claim, with one important modification. Given the focus on the world of high finance, Davis (2003) looks only at government and business sources as elite actors, effectively sidelining NGOs from the wider debate. This exclusionary view negates any influence that such groups may have on policy discussion. Within this thesis, the definition of elite is expanded to cover two groups: primary elites and secondary elites. Primary elites are government and business actors, whereas secondary elites include NGOs with the resources and legitimacy to enter into policy discussion. Traditionally characterized as non-official sources (Deacon, 1996; Schlesinger, 1990), these groups can be promoted to an elite level when there is a lack of primary elite presence, or if the

representation of public opinion is central to the construction of the story. Both of these circumstances were present in this case study.

The nature of the discourse taking place within this case study focused on the actions of elite actors working through a policy discussion. While coverage occasionally touched on public action, it was often filtered through policy goals. In both Canadian and U.S. reporting, source use was strongly dependent on government officials. In Canada, these actors, namely the provincial and federal levels of government, frequently employed frames of Interjurisdictional Conflict. In contrast, U.S. government sources often looked to frames of Interjurisdictional Cooperation to establish the nature of discourse on bulk water export and diversion. The frames employed by government sources in both countries establish the bounds of discourse available to this issue, an issue primarily defined by the relationship between government offices and the procedural elements necessary to manage Great Lakes water.

The different way that levels of government interacted in Canada and the U.S. stems back to the root proposal: Nova Group. In Canada, the proposal and subsequent permit divided the Ontario government and the federal government as they waded through a jurisdictional quagmire. Ontario is responsible for regulating water use, but the federal government is responsible for regulating international trade. The export of freshwater resources straddles these jurisdictional relationships. As a result, the Ontario government walked a tightrope between supporting their own action of granting the permit and attempting to reverse the decision in light of the controversy. The federal government, in contrast, was forced to oppose exports, but did concede that the provinces have a right and responsibility to manage their resources. Thrown in to this mix is the

resurgence of other bulk water export and diversion proposals, such as the McCurdy Group's proposal to export water from Gisborne Lake, Newfoundland, a lawsuit against the British Columbian government's ban on water exports, and a proposal to divert polluted water north via the Red River from Devil's Lake, North Dakota. Across the board, there was little room for a conflict-free interjurisdictional relationship.

In the U.S., these issues were non-existent. Instead, governors and members of Congress at the state and federal levels, banded together to oppose bulk water export and diversion. Because water resource management is a state responsibility, there was little influence from the executive branch of the federal government. This means all political stakeholders relied on the votes of Great Lakes citizens presenting little reason to in-fight over an issue on which they all agreed. Early on, the impetus for action rested with the province of Ontario, and so these U.S. actors could both scrutinize the proposal and cooperate to develop a solution.

Overall, Canadian discourse was dominated by frames of political conflict and policymaking. U.S. discourse paid more attention to issues of an environmental nature, particularly that bulk water export and diversion would negatively impact the Great Lakes ecosystem.

The role of NGO actors as elite sources is indexed to the discourse developed by primary elites. In Canada, the active conflict between governments created an opportunity for the Council of Canadians to emerge as a player in this conflict. This organization was very outspoken in their opposition to any bi-national agreement that did not explicitly ban water exports. Anything less, they argued, was a means of acquiescing Canadian sovereignty of its water to the U.S. Considering the media landscape had

already been established as one of conflict, the discourse of the Council of Canadians fit well within this frame.

In the U.S., NGOs operated within a different discursive environment. These groups, led in frequency by Great Lakes United, utilized the same interjurisdictional cooperation frames as government sources, but also supported frames of Environmental Sustainability and the Dangerous Americans frame. Bulk water export and diversion in the U.S. media landscape was not so much defined as an issue of conflict between levels of government, but as an issue of conflict between different regions of the country. As a result, opposition required the cooperation of the Great Lakes states and frames of Environmental Sustainability arose more frequently since such frames provided a rationale to oppose bulk water export and diversion.

The contrast between the Canadian and U.S. situations for NGOs points to the dilemma that these groups face when contributing to media discourse. While the Council of Canadians strove to attain focused coverage on a single issue, they removed themselves from the larger discussion of water policy that did not touch on cross-border issues. This movement toward activism meant that coverage of the Council of Canadians was intense, but risked undermining the organization's credibility as a source of policy advice. Great Lakes United, on the other hand, played a role defined less by activism and more by broad analysis. Consequently, Great Lakes United received coverage less focused on conveying the group's strategic goals and priorities and more toward providing colour and commentary on an agenda set by a separate entity. Such action established the organization as an intelligent source for future work; however, it also limited their effectiveness in shaping discourse on this particular issue.

NGOs would be wise to address the dilemma experienced by the Council of Canadians and Great Lakes United as they develop communication and media strategies. Although organizations can play the role of targeted activist and general analyst to varying degrees of success, eventually coverage is going to tip the balance toward one end or the other. Important gains for the cause and the organization can be made on both sides of the balance, but NGOs should be aware of which side they wish to assume and should develop outreach strategies to ensure these goals are met.

Whereas NGOs played a balancing position to government discourse, business and industry were mostly absent from this case study. Considering a key component of the issue revolves around a business proposal to transport water, it is a curious silence. There are two possible explanations. First, a political discourse was driving the issue, and a strategic decision was made by business to stay out of the public discourse in deference to those who define regulation. This story took place primarily in the halls of government, yet it seems logical that business would have been concerned with discourse surrounding the treatment of water as a tradable good. In reality, these sources actively avoided the conflict. This is evidenced by the lack of business sources in news items and the few opinion pieces supportive of bulk water export or diversion. Business and industry chose to remain in the shadows while other actors discussed why bulk water export and diversion was a bad idea, becoming mired in debates over how to implement a solution. It may very well be that business and industry took an active role in letting those in agreement tire themselves of the issue. Indeed, the fact that transporting water long distances is not an economically viable concept, those who see potential profit may very well see that as something that will not develop during the span of this study or the

immediate period afterwards. Since water is a resource that the entire human population depends on, it is likely that there will come a time when such transport is feasible. Since that time has not yet arrived, it seems reasonable that these sources would enter a debate in which they would surely lose. However, water companies make large profits by moving water in bottles, whether it be in bottles of beer, wine, soda, juice, or just as water. In addition, there have been significant pressures placed on water bottling companies in some communities throughout the basin to become more environmentally sustainable. Moving into a debate on large-scale water diversion only irritates an already precarious balance.

The second possible explanation for the silence of business and industry is the fact that the media are but one sphere in which influence over water policy can be leveraged. Business interests may have been silent on this issue in the press, but that is not to say that backchannel discussions and lobbying were not taking place, loosening the terrain for a potential industry in bulk water movements. It is quite likely that business interests, noting a potential market for water resources, made a strategic decision to pursue their goals in more discrete ways.

In shaping the debate on bulk water export and diversion, opinion pieces provide a forum in which to push policy goals. Overall and by country, opinion coverage was clearly unsupportive of bulk water export and diversion. Less uniformity exists when individual newspapers are examined. In Canada, the *National Post* published several columns and editorials that were supportive the transfer, employing frames of Sustainable Resource Management and refuting concerns over commodification. This is not a surprising position for this newspaper to take. Generally speaking, the *National Post* was

developed to be a conservative response to perceived liberal bias in the Canadian press. As a result, positions assumed by this newspaper often tout with a religious fervour the benefits of free trade while overlooking the more complex rationale as to why unmitigated trade may not be in the best interests of citizens or governments.

At the other end of the spectrum, the *Toronto Star* was strongly unsupportive of bulk water transport, and published several pieces submitted by the Council of Canadians or by consultants and advisors to that organization. Fears of commodification and the notion that bulk water export and diversion may undermine Canadian sovereignty were driving frames in editorial coverage. Such frames were well in line with the position developed by the Council of Canadians.

In U.S. coverage there was much more uniformity in the lack of support, with no opinion coverage supporting the notion at all. Few words were written in the opinion pages here, those that were written were primarily unsupportive of the diversion practices, citing frames regarding Environmental Impact, Slippery Slope, and the threat of other U.S. states.

The frames employed by opinion writers focused less on political manoeuvrings and more on hard news coverage, though writers were often critical of the ability of different levels of government to interact with one another. At the same time, however, concern for the environmental integrity of the Great Lakes ecosystem and the threat posed the U.S. appeared quite frequently. As such, opinion coverage was certainly inflected by narratives of conflict and fear. This is peculiar considering the uniform lack of support for bulk water export and diversion. In fact, with the exception of criticism directed at the inability of governments to act together, the foe that was most often

attacked in opinion coverage was a composite of archetypes greedy Americans, Promethean industrialists and capitalists who would sacrifice the environment to turn a profit. As is clear in this case study, such a foe was never a major player, if it ever existed at all. In the case of Nova Group, the driving desire was purportedly to help thirsty people in developing countries who had very limited access to clean water. This Moral Obligation frame never appeared predominantly, primarily because the sources who would have extolled it were absent from the discourse.

While more abstract frames comprised a larger portion of opinion coverage, within the sample as a whole politically-oriented frames that were the most prominent. As mentioned earlier, this developed the issue into one occurring between levels of government as they worked out a politically motivated policy response. The consequence, in Canada at least, was the promotion of conflict frames as different levels of government apparently failed to come to a consensus on the regulation of water resources.

The greatest surprise, however, is that the Dangerous Americans frame was more dominant in U.S. coverage than in Canadian coverage. During the initial stages of this project, when asked what this case study was about, the response as typically that it would entail an investigation of how a sovereign mythology is articulated in Canada through media coverage of bulk water export and diversion schemes. This is clearly a naïve and potentially false understanding of the issue. While the Dangerous Americans frame did figure into Canadian newspaper articles, demonstrating that Canadians were, to some extent, fearful of the U.S. taking 'our' water; however, U.S. coverage was much

more likely to employ this frame. It seems U.S. citizens were more afraid of themselves than were Canadians.

The greater popularity of the Dangerous Americans frame in the U.S. is partly due to politics as discussed earlier. A second reason is that Dangerous Americans are an easy – and perhaps expected – target. This is the likely same reason this that the frame was found in Canadian discourse. Seeing grass flourish in a desert, massive dams divert southwestern rivers, and water trickle from the once-mighty Colorado River are tangible and unsettling images. It is easy to criticize wasteful water users in places where conservation should be a primary motivation. The “Cadillac Desert”, as Reisner (1993) terms it, is an easy target for critics, just as the elephant on the other side of the bed is an easy target for Canadians.

The difference in the amount of coverage combined with the differences in frame and source use indicate that there was very little bi-national influence of media coverage. Sources were rarely drawn from the opposite side of the national border, and coverage focused on local issues. This is particularly true in the case of the *Milwaukee Journal-Sentinel*, which focused heavily on the development of the Waukesha diversion plan. This is reinforced by the lack of coverage in the U.S. ‘national’ newspapers. In Canada, coverage was strong in all three newspapers, even though the issue could be considered a local one: as all three newspapers are based in Ontario cities, meaning that the event as well as the primary sources are local.

Despite this being a bi-national issue, there is little evidence of a bi-national influence. This may be a consequence of news markets that are not oriented toward a cross-border audience. Canadians are unlikely to read a U.S. daily newspaper, and vice

versa, so newspapers hesitate to expend resources presenting a bi-national perspective. Such a perspective would draw require journalists to develop contacts in a different country while nurturing a relationship in which they would be one of the lowest priorities to the source. This experience occurred during my work with Great Lakes United. In recent years, the organization had been operating extensively from a U.S. office, despite it being a bi-national organization. Until only very recently staffing and operations in Canada have been reinforced. This, however, is not apparent to a journalist with limited interactions with the organization. When a press release was distributed that tipped slightly toward a U.S. focus, a journalist called asking who the Canadian source was on the issue. They were clearly uninterested in comment from a U.S. citizen despite the fact that our lead person on the issue was very well informed on perspectives from both countries.

Media coverage of water issues in Canada and the U.S. is but one element of the understanding of water as a shared resource. The regional nature of news media in both countries makes it very difficult for a full bi-national discussion to emerge. Instead, the coverage we see in both countries is defined by an implicit and explicit fear of Americans who might threaten this resource, and one of political machinations constructed as the only way to protect the resource.

This thesis necessitates serious reconsideration of the ways in which the news media operates as an instrument for policy discussion. Critical elite theory essentially sidelines public input on policy decisions within the very medium that is supposed to act as the forum for public engagement in political processes. As such, the news media risk becoming a vehicle for elite propaganda, where capitalist voices give shape to news that

maintain the status quo (e.g. Herman and Chomsky, 2002). While this is an attractive hypothesis, its simplicity masks the institutional realities outside the profit motivation affecting news coverage. Indeed, the conclusion that access to news media belongs to a privileged few is not disputed. What is disputed, however, is who this privileged few are, and the assumptions made regarding the ways in which the news media respond to them. As is evidenced in the starkly different viewpoints of the *National Post* and the *Toronto Star*, the news media do not speak with a unified voice in all circumstances. In addition, while political economic reasons may impact the structure in which news is created, it does not necessarily undermine the values of journalists who are eager to write thoughtful, balanced and fair pieces.

What should be gleaned from this thesis is that the route for public input in policy discussions is via NGOs who pressure primary elites to act responsibly and to be held accountable to the public. It is accepted that Davis' (2003) critical elite model sidesteps the public. But, even an understanding of the media as channels for elite-public flow disengages the public from policy discussions. In this orientation, the public become spectators rather than players in policy development. By creating a space for public-oriented organizations to engage in the news media discourse of policy, serious public engagement in issues is both permitted and encouraged.

It is likely that water management will continue to peak and dip in news coverage as global warming and climate change affect water levels, drought conditions persist, pollution continues, and new invasive species enter the Great Lakes ecosystem. Alongside these peaks and dips will be stories of potential bulk water export and diversion of water. As the Great Lakes Compact works through the legislatures of the

Great Lakes states and eventually Congress, many of the frames identified in this study will resurface, not least of which is the Dangerous Americans frame. Just how this frame will adapt is difficult to predict considering that the existing concerns are extremely local, and that much of the divisiveness in the current U.S. federal administration may shift dramatically following the next presidential election.

Water issues do not often take centre-stage in policy discussions in the media, yet the mythologies and values that inflect such discourse bear on broader environmental issues. Over 42 million people live within the bounds of the Great Lakes and St. Lawrence River ecosystem. Many are blissfully ignorant of potential threats or the magnitude of these threats. This is until the steady stream of clean, fresh water from their kitchen tap suddenly changes. The most disruptive shocks to one's life come when the things most taken for granted abruptly disappear or are significantly altered. In these situations, residents' responses to perceived and real threats to the Great Lakes muster the deepest held values. These values give shape to the cycle of reciprocal influence between the news media, the policy sphere, and the public.

7. APPENDIX 1: TABLES AND FIGURES

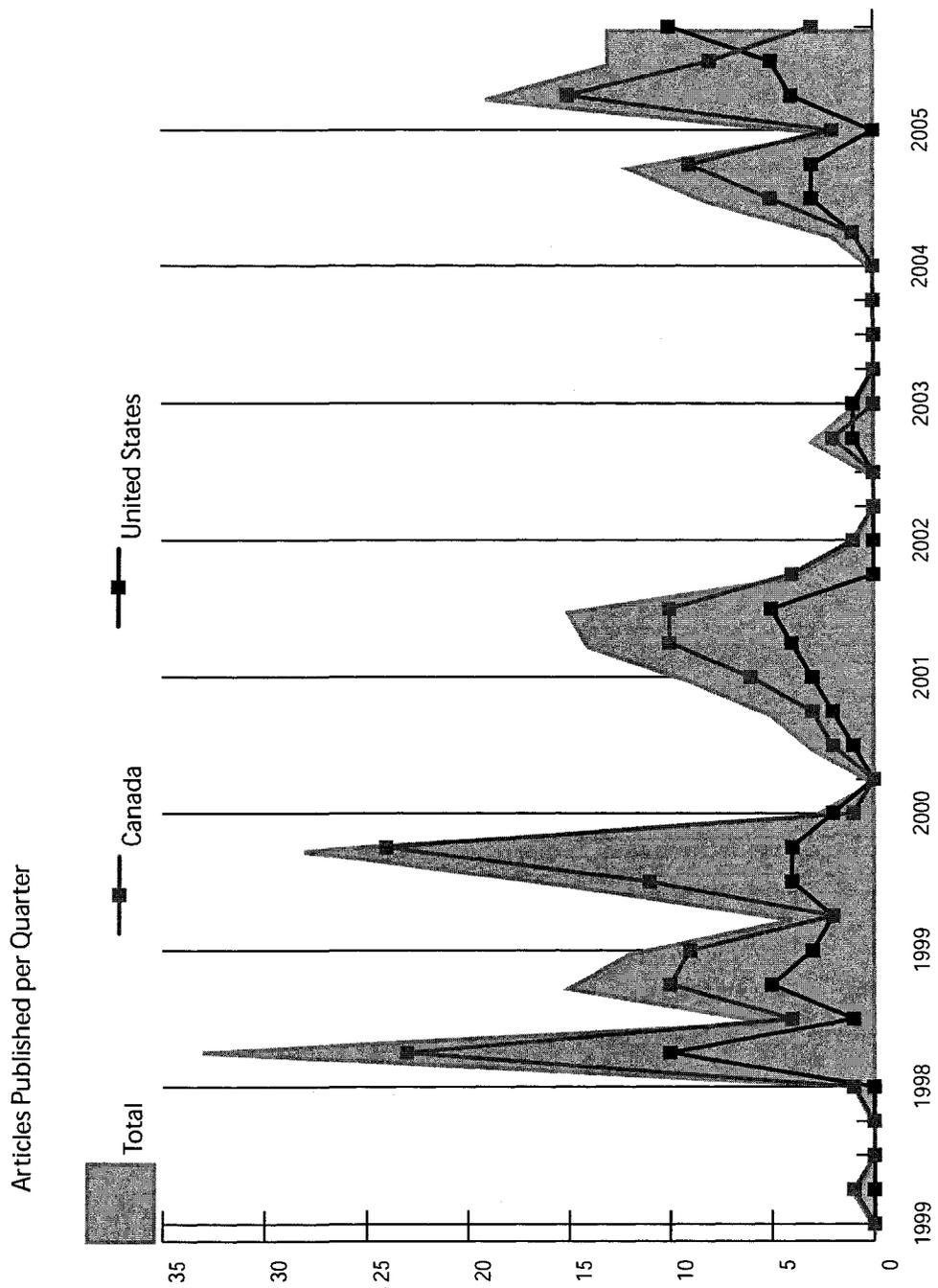


Figure 1 - Articles written per year, by country.

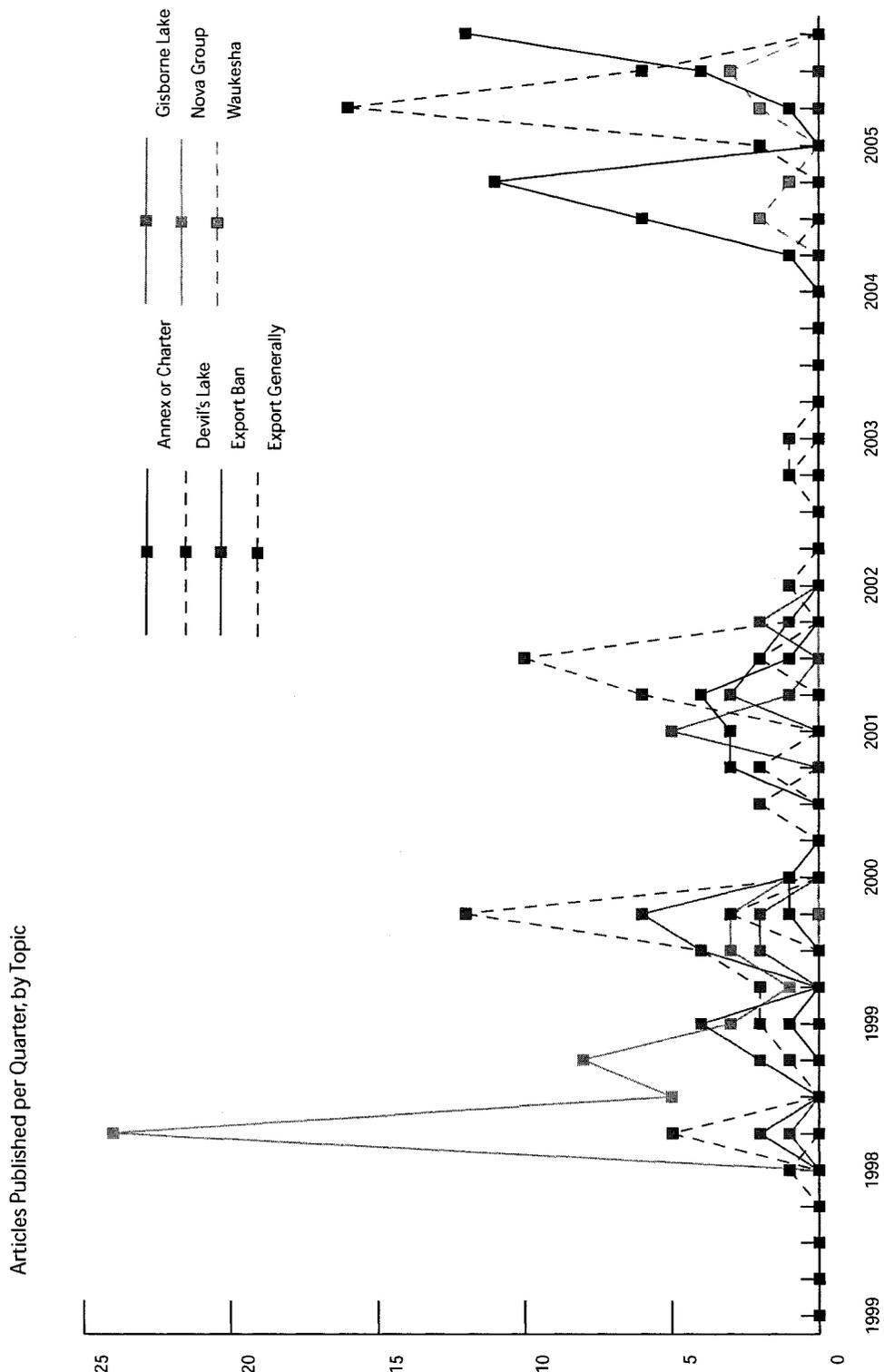


Figure 2 - Articles written per quarter, by topic.

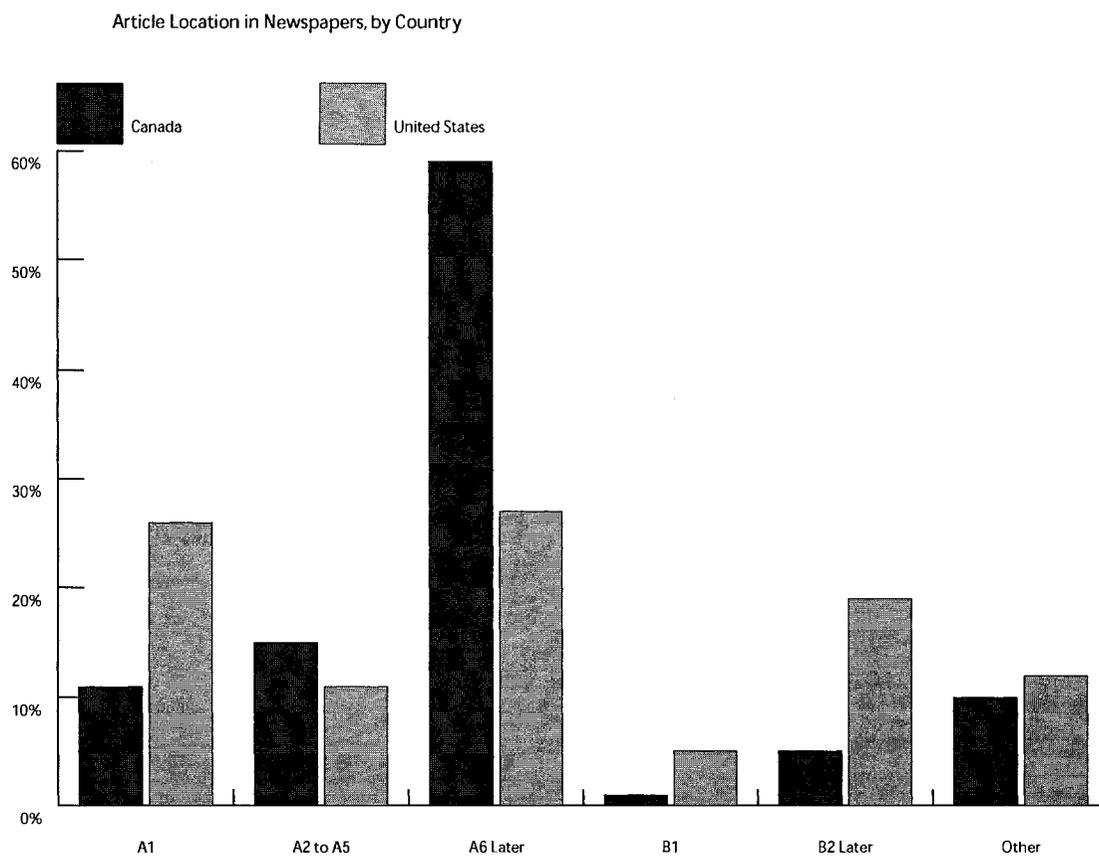


Figure 3 - Article location in newspaper, by country.

	Number of articles	% of articles written for newspaper
Globe and Mail		
Heather Scoffield	17	27
Canadian Press	13	21
Martin Mittelstaedt	5	8
Toronto Star		
Brian McAndrew	3	9
Mary Gordon	3	9
None	3	9
National Post		
None	6	21
Paul Samyn	5	17
Ian Jack	5	17
Milwaukee Journal-Sentinel		
Dan Egan	5	21
Lee Bergquist	5	21
Don Behm	4	17
Buffalo News		
John F. Bonfatti	4	29
None	4	29
Douglas Turner	2	14

Table 1- Number of articles written by reporter
 Broken down as the percentage of that this represents for the newspaper. This includes the top three bylines for newspapers where the top reporters wrote four or more articles.

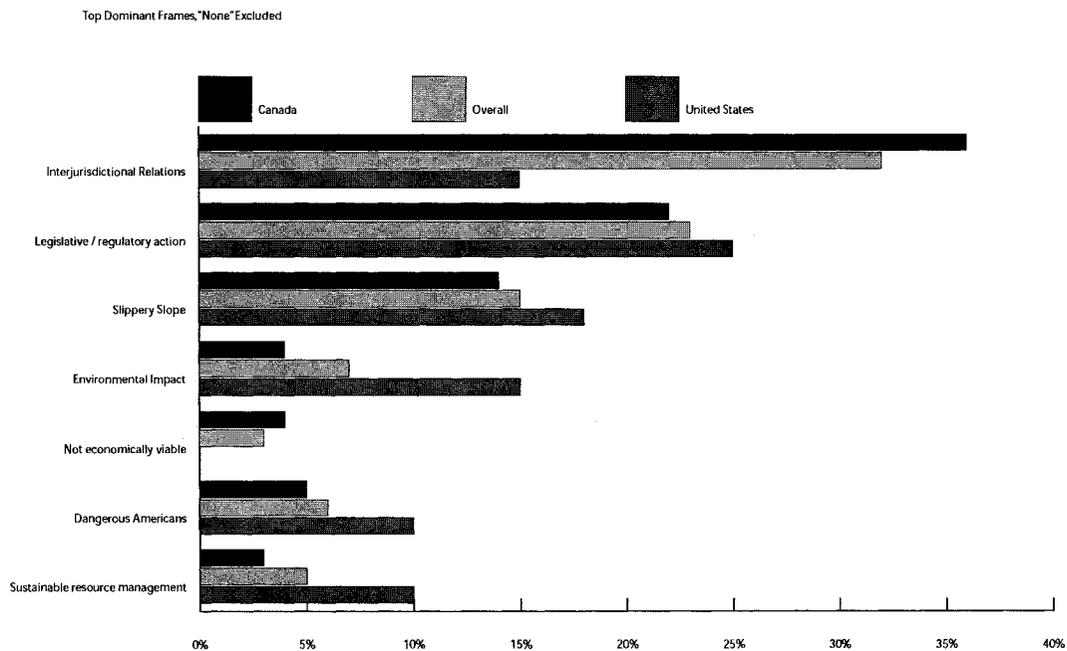


Figure 4 - Top dominant frame when None is excluded.

Interjurisdictional Relations - Conflict and Cooperation

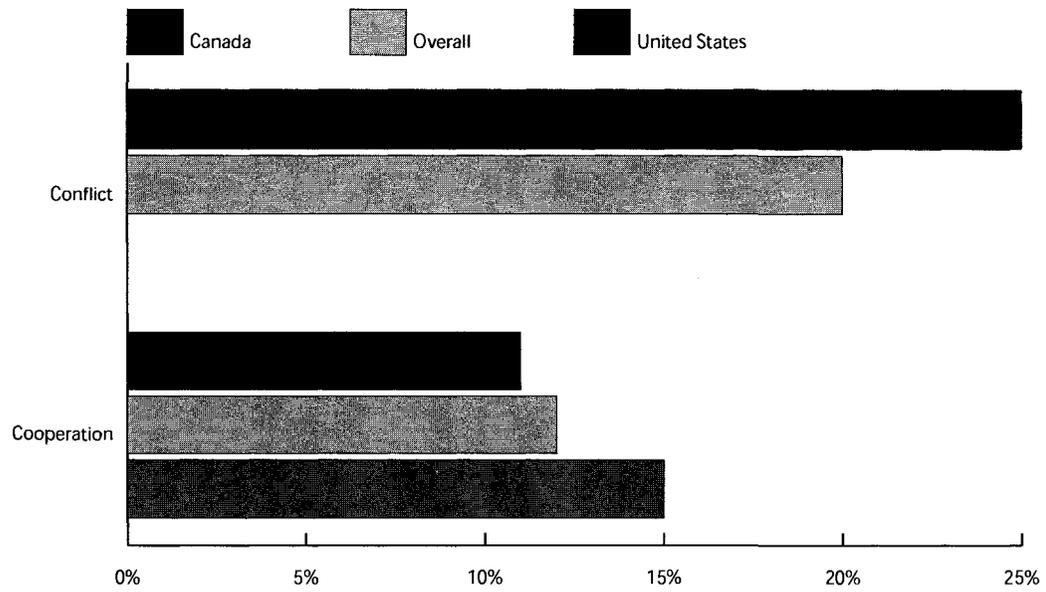


Figure 5 - Interjurisdictional relations as a dominant frame
Broken down by conflict and cooperation.

Frame	% of articles present in
Interjurisdictional Relations	72
Legislative/Regulatory Action	62
Slippery Slope	48
Environmental Impact	43
Dangerous Americans	33
Sustainable Resource	18
Conservation	17
Scarce Resource	14
Other	11
Just Another Resource	7

Table 2 - Top frames, overall (n=241)

Frame	% of articles present in
Interjurisdictional Relations	77
Legislative/Regulatory Action	66
Slippery Slope	48
Environmental Impact	41
Dangerous Americans	30
Sustainable Resource	20
Conservation	14
Scarce Resource	11
Just Another Resource	11
Other	10

Table 3 - Top frames, Canadian newspapers (n=167)

Frame	% of articles present in
Interjurisdictional Relations	62
Legislative/Regulatory Action	53
Slippery Slope	49
Environmental Impact	47
Dangerous Americans	39
Conservation	26
Scarce Resource	20
Sustainable Resource	14
Other	14
Not Economically Viable	7
A Stop-Gap Measure	7

Table 4 - Top Frames, U.S. newspapers (n=74)

Frame	Overall %	Canada %	U.S. %
Interjurisdictional Conflict	43	55	16
Interjurisdictional Cooperation	46	43	54

Table 5 - Breaking down the Interjurisdictional Relations frames.

These figures show percentages of the Interjurisdictional Relations frame when it is broken down.

Source Type	Total		Canada		U.S.	
	n	%	n	%	n	%
Federal Government	109	28	87	33	22	17
State/Provincial Government	128	32	82	31	46	35
NGO	77	19	45	17	32	24
Industry	24	6	18	7	6	5
Other	22	6	15	6	7	5
Municipal Government	26	7	11	4	15	11
Academic	8	2	4	2	4	3
First Nations	2	1	2	1	0	0
Total	396	101	264	101	132	100

Table 6- Source type

Percentages may not add to 100 due to rounding.

Source Type	Total		Canada		U.S.	
	n	%	n	%	n	%
Academic	4	2	1	1	3	4
Federal Government	80	33	65	39	15	19
First Nations	1	0	1	1	0	0
Industry	13	5	11	7	2	3
Municipal Government	16	7	6	4	10	13
NGO	33	14	19	11	14	18
Other	12	5	7	4	5	6
State/Provincial Government	85	35	57	34	28	36
Total	244	101	167	101	77	99

Table 7 - Source type, first and second sources

Percentages may not add to 100 due to rounding.

	Council of Canadians
Slippery Slope, Commodification	27
Interjurisdictional Conflict	15
Dangerous Americans	12
Legislative/Regulatory Action	12
Undermines Sovereignty	9

Table 8 - Top frames used by Council of Canadians.
Broken down as percentage of frames used by source.

	Great Lakes United
Legislative/Regulatory Action	32
Dangerous Americans	14
Conservation	9
Slippery Slope, General	5
Slippery Slope Commodification	5
Interjurisdictional Cooperation	5
Significant Environmental Impact	5
Interjurisdictional Conflict	5

Table 9 - Top frames used by Great Lakes United.
Broken down as percentage of frames used by source.

	Number of times frame is used	As percentage of total frames used by source
Canadian Sources		
Ontario Legislature, Opposition	4	27
Canadian Environmental Law Association	3	17
Council of Canadians	4	12
Canadian Parliament, Opposition	1	5
Ontario Provincial Government	1	2
Canadian Federal Government	0	0
Newfoundland Provincial Government	0	0
Manitoba Provincial Government	0	0
unnamed, lawyer	0	0
Sun Belt Water	0	0
U.S. Sources		
National Wildlife Federation	2	22
Ohio State Government	3	20
Great Lakes United	3	14
Great Lakes Commission	2	11
U.S. Congress	2	6
Ontario Provincial Government	1	2
Wisconsin State Government	0	0
City of Waukesha	0	0
Council of Great Lakes Governors	0	0
Lake Michigan Federation	0	0
Nova Group	0	0
unnamed	0	0
U.S. Federal Government	0	0

Table 10 - Use of Dangerous Americans frame by sources

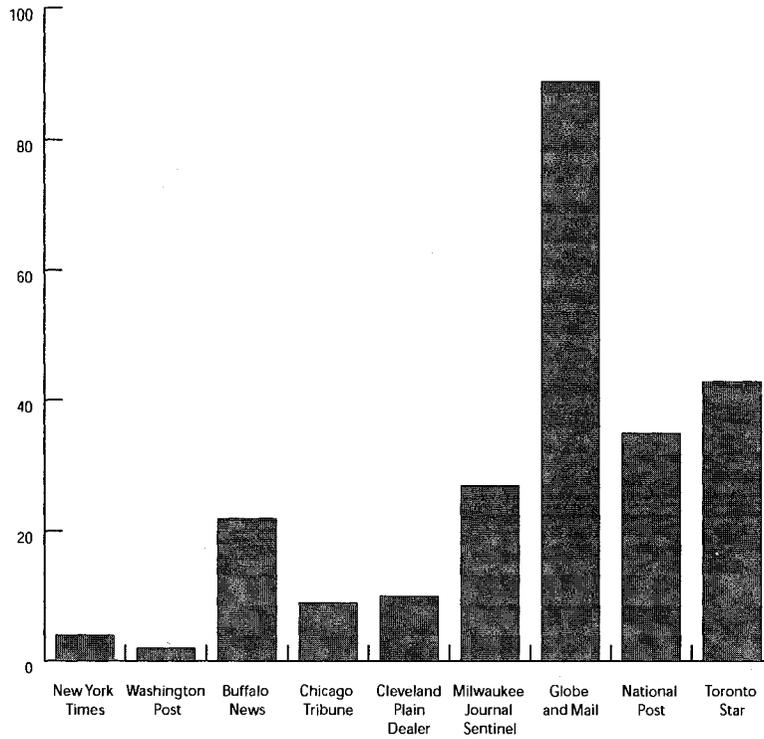


Figure 6 - Number of articles per newspaper.

	Waukesha	Sun Belt Water	Nova Group	Gisborne Lake	Export Generally	Export Ban	Devil's Lake	Chicago Diversion	Annex or Charter	Akron diversion	Other
Waukesha	X	0	0	0	0	0	0	0	4	1	1
Sun Belt Water		X		1							
Nova Group	0	2	X	5	0	0	0	3	0	1	1
Gisborne Lake		1	1	X							
Export Generally		2	6	5	X	0	0	0	1	0	4
Export Ban	0	2	7	9	0	X	0	0	0	0	2
Devil's Lake	0	0	0	0	0	0	X	0	0	0	0
Chicago Diversion	0	0	0	0	0	0	0	X	0	0	0
Annex or Charter	5	0	16	0	0	0	0	5	X	1	0
Akron diversion	0	0	0	0	0	0	0	0	0	X	0
Other	1		2	0	0	0	0	0	0	0	X

Table 11 - Other mentions of topics.

Main topic is displayed along 'y' axis, other mentions along 'x' axis.

8. APPENDIX 2: ABOUT THE NEWSPAPERS

Newspaper	Audience Reach	Circulation*	Idiom	Ownership
New York Times	International	1,120,000	Considered a liberal newspaper, its reportage having influence with policymakers and other newspapers across the U.S. and world	The New York Times Company
Washington Post	National	635,000	Considered a liberal newspaper, its one of the oldest in the U.S. and known for breaking the Watergate scandal	Washington Post Company
Buffalo News	Buffalo, NY and surrounding area	181,000	Buffalo is a city in transition following steady decline in its industrial base and the newspaper reflects this history	Berkshire Hathaway
Chicago Tribune	Chicago, IL, though also considered leading newspaper for the U.S. Midwest	566,000	Conservative in nature, with preference toward limited government and greater personal freedom liberty.	Tribune Company
Cleveland Plain Dealer	Largest newspaper in Ohio, serving Cleveland and surrounding area	344,000	Editorially, it is considered conservative. In 2004 the publisher elected to endorse no candidate, despite the editorial board's endorsement of Democratic nominee John Kerry.	Advance Publications
Milwaukee Journal Sentinel	Distributed widely throughout Wisconsin	230,000	strong history of reporting on environmental and water issues due the state's economic reliance on water-based industry.	Journal Communications
Globe and Mail	National newspaper	329,000	Describes it's audience as "made up of Canada's thought leaders and taste makers- the people whose opinions influence others." And as "Canada's wealthiest and highest income families"	Bell Globemedia
National Post	National newspaper	201,000	Launched as an alternative to a perceived liberal-bias in the Canadian news media	Launched in 1998 by Hollinger Inc. after the Financial Post was purchased from

Newspaper	Audience Reach	Circulation*	Idiom	Ownership
				Sun Media and converted into the National Post's business section. Is currently owned by CanWest Global Communications
Toronto Star	Focused on the Greater Toronto Area, though does have anational circulation	436,000	traditionally considered to be more socially liberal than other major news publications and critical of conservative fiscal policy	Torstar

9. APPENDIX 3: CODING INFORMATION

Coding Scheme

Article #: <open>

General Information

1. Headline: <open>
2. Date: ___/___/___ (dd/mm/yyyy)
3. Newspaper:
 - a. Globe and Mail
 - b. National Post
 - c. Toronto Star
 - d. New York Times
 - e. Washington Post
 - f. Milwaukee Journal-Sentinel
 - g. Cleveland Plain Dealer
 - h. Chicago Tribune
 - i. Buffalo News
4. Page Number: <open>
5. Word Count: <open>
6. Section:
 - a. Front Page
 - b. International News
 - c. National News
 - d. State or Provincial News
 - e. Local News
 - f. Other News
 - g. Business
 - h. Editorial/Op-Ed/Letters
 - i. Other
7. Type of Document
 - a. Hard/straight news
 - b. Column/commentary
 - c. Editorial
 - d. Letter to the editor
 - e. Other

8. Headline: <open>

Body

Other instances of diversion or export

9. Which diversion or export plan or issue is this article about?

- a. Nova Group
- b. Gisborne Lake
- c. Sun Belt Water
- d. Akron diversion
- e. Waukesha
- f. Devil's Lake
- g. Chicago Diversion
- h. Long Lac / Ogoki
- i. Export Generally
- j. Export Ban
- k. Other, specify: <open>

10. What other diversion or export plans or issues are referred to in this article?

- a. Nova Group
- b. Gisborne Lake
- c. Sun Belt Water
- d. Akron diversion
- e. Waukesha
- f. Devil's Lake
- g. Chicago Diversion
- h. Long Lac / Ogoki
- i. Export Generally
- j. Export Ban
- k. Other, specify: <open>

General themes/frames

11. What frames appear in the first three paragraphs? <see list in next section>

12. What frames appear in the remainder of the article? <see list in next section>

13. For the article on a whole, what one frame appears more than the others? <see list in next section>

**CODE LINES 14 TO 18 ONLY IF ITEM CODED AS HARD/STRAIGHT NEWS,
OTHERWISE SKIP**

For all sources cited:

14. Name: <open>
15. Organizational affiliation: <open>
16. What words/phrases are used to describe this source? <open, separate with semi-colon>
17. What words/phrases used to describe this source's organization? <open, separate with semi-colon>
18. What frames are employed by this source? <see list in next section>

CODE LINES 19 TO 23 ONLY IF ITEM CODED AS COLUMN/COMMENTARY OR EDITORIAL, OR LETTER TO THE EDITOR, OTHERWISE SKIP

19. Is the author supportive of bulk water export or diversion to outside of its natural basin?
 - a. Yes
 - b. No
 - c. Mixed/Unclear
 - d. Not Relevant
20. What is the nature of the primary evidence that the author uses to support his/her position?
 - a. Scientific
 - b. Economic
 - c. Social impact / social justice
 - d. Political analysis
21. What frames does the author employ to support his/her position? <see list in next section>
22. What people or organizations, in order of appearance, does the author cite to support his/her position?
 - a. Person 1: _____
 - b. Organization 1: _____
 - c. Person 2: _____
 - d. Organization 2: _____
 - e. Person 3: _____
 - f. Organization 3: _____
 - g. More than three

h. Not applicable

23. What people or organizations are cited that the author argues against?

- a. Person 1: _____
- b. Organization 1: _____
- c. Person 2: _____
- d. Organization 2: _____
- e. Person 3: _____
- f. Organization 3: _____
- g. More than three
- h. Not applicable

Description of Frames

Frame		Description
Slippery Slope	Environmental Impact	Allowing water diversions/exports sets precedence for future withdrawals, generally and including destruction of the ecosystem.
	Commodification of water	Allowing water diversions/exports identifies water as a commodity that is subject to trade agreements and may open the door to larger withdrawals.
Dangerous Americans		Southern U.S. states are water-dry and greedy and we must keep them from taking our water, like foxes in a chicken coup.
Environmental Impact	Significant Environmental impact	Water removals may have a significant environmental impact, affecting water levels and flows that support fish and wildlife.
	Insignificant Environmental Impact	Small-scale removals may have a negligible impact and not upset the sustainability of the ecosystem.
Inter-jurisdictional relations	Inter-jurisdictional cooperation	Solutions can come when jurisdictions cooperate. This includes federal-provincial/state and bi-national relationships.
	Inter-jurisdictional conflict and disagreement	Individual jurisdictions are acting, or have acted, selfishly or unilaterally, and have trouble cooperating with others levels of government.
Sustainable resource management		Water exports/diversions present an opportunity to rejuvenate our economy, creating jobs, prosperity, and profit and they can be managed sustainably.
Lead by example		Conservation activities can protect the water from withdrawal/export while ensuring its sustainability.
Just another resource		Water is just like any other natural resource, and should be regulated as such, including export opportunities.
A stop-gap measure		Water problems are not solved through diversion or export because it only supports unsustainable practices, including urban sprawl. These practices must change.
Legislative / regulatory action		Legislative, regulatory, or judicial action is being taken.
Public Trust		Water is sacred, vital to life, and held in public trust. Corporations cannot buy or sell it.
Moral obligation to share		We have a moral obligation to share our resources, including water, with those less who need it.
Not economically viable		Exporting water is not economically viable and should not be considered
Scarce resource		Water resources are not as plentiful as they appear, in both abundance and quality.
A resource otherwise wasted		The water just flows into the sea anyway, where it becomes a wasted resource.
We maintain it, We own it		Only those who contribute to the region should have access to the benefits of its use
More information needed		More research and knowledge is needed before decisions can be made
Leadership		Our jurisdiction must act swiftly and decisively, becoming a leader on this issue.
Fair treatment to exporters		Exporters should be treated fairly when it comes to

	decisions to export or not
Gift to protect	This water is a gift of God/nature and we should protect it
Precautionary approach	Environmental phenomena, like global warming, will have dramatic and unpredictable effects on the ecosystem and we should act cautiously or we risk exacerbating these threats
Other threats	There are other, more important, threats to our water's health and security that we must address first.
Future generations	We must protect the water for future generations
Low standards are worse than no standards	the lowest standards possible aren't just as bad as no standards and they give a seal of approval to mediocrity
Incompetent government	Our government has acted incompetently and put us in this position
Guilt free protectionism	It's our water and we shouldn't feel guilty for protecting it
Undermines sovereignty	Action undermines the sovereignty of a nation, or treaty agreements
Inevitable consequence	The effect is inevitable, so there is no point in resisting it

10. REFERENCES

- Groups urge no export of lakes water. (2000, December 6). *Buffalo News*, p. B3.
- Hydrationalism (2001, April 6). *National Post*, p. A13.
- Sell the water, but don't soak the poor. (2001, March 29). *National Post*, p. A19.
- Editorial: Get serious about the Great Lakes, OK water compact [Electronic (2007). Version]. *Sheboygan Press*, October 16. Retrieved October 24, 2007 from <http://www.sheboygan-press.com/apps/pbcs.dll/article?AID=/20071016/SHE06/710160403/1109/SHEopinion>.
- Editorial: Hands off our H2O [Electronic (2007). Version]. *Milwaukee Journal-Sentinel*, October 11. Retrieved October 24, 2007 from <http://www.jsonline.com/story/index.aspx?id=673776>.
- Allan, S. (2002). *Media, risk, and science*. Philadelphia, PA: Open University Press.
- Althaus, S. (1996). Opinion polls, information effects, and political equality: Exploring ideological biases in collective opinion. *Political Communication*, 13(1), 3-21.
- Annin, P. (2006). *The Great Lakes water wars*. Washington: Island Press.
- Atwater, T., Saiwen, M. B., & Anderson, R. B. (1985). Interpersonal discussion as a potential barrier to agenda-setting. *Newspaper Research Journal*, 6(4), 37-43.
- Barkdull, J., & Harris, P. G. (2002). Environmental change and foreign policy: A survey of theory. *Global Environmental Politics*, 2(2), 63-91.
- Barlow, M. (1998a, May 19). Water exports: Canada is getting in over its head. *Globe and Mail*, p. A19.
- Barlow, M. (1998b, May 26). Ottawa must act to protect our water. *Toronto Star*, p. A18.
- Behm, D. (1998, May 7). Lake water sale spurs action Lawmakers call on Clinton to block firm from selling Superior water to Asia. *Milwaukee Journal Sentinel*, p. 1.
- Behm, D. (1999, September 27). Citizens speak out against sales of Great Lakes water Commissioners told that resource shouldn't be used for profit. *Milwaukee Journal Sentinel*, p. 1.
- Bendix, J., & Liebler, C. M. (1999). Place, distance, and environmental news: geographic variation in newspaper coverage of the spotted owl conflict. *Annals of the Association of American Geographers*, 89(4), 658-676.

- Bennett, W. L. (1990). Toward a theory of press-state relations in the United States. *Journal of Communication*, 40(2), 103-127.
- Benzie, R. (2001, June 19). Harris, Landry sign Great Lakes water accord: 8 U.S. governors on board: Agreement first step toward protecting export of resource. *National Post*, p. A09.
- Berelson, B. (1952). *Content analysis in communication research*. Glencoe, Ill.,: Free Press.
- Bergquist, L. (2005, July 1). Great Lakes tap tightens; Plan toughens rules for taking water from basin. *Milwaukee Journal Sentinel*, p. A1.
- Binamé, C. (Director) (2004). *H₂O*. Canada: Morningstar Entertainment Inc.
- Bineham, J. L. (1988). A Historical account of the hypodermic model in mass communication. *Communication Monographs*, 55(3), 230-246.
- Bird, R. (1997). *The end of news*. Toronto, Canada: Irwin Pub.
- Black, D. (2004, September 21). Plan for Great Lakes may kill them, critics say; Bilateral accord aims to preserve Opponents claim it's a U.S. water grab. *Toronto Star*, p. A07.
- Blatter, J., Ingram, H. M., & Levesque, S. L. (2001). Expanding perspectives on transboundary water. In J. Blatter & H. M. Ingram (Eds.), *Reflections on water : new approaches to transboundary conflicts and cooperation* (pp. 31-53). Cambridge, Mass.: MIT Press.
- Bonfatti, J. F. (2001a, February 22). Any diversion of Lakes' water opposed. *Buffalo News*, p. B2.
- Bonfatti, J. F. (2001b, June 19). Pact aims to protect lakes would avert diversion of water. *Buffalo News*, p. A1.
- Brennan, R. (2001, June 19). Way paved for ban on bulk water sales. *Toronto Star*, p. A06.
- Bruch, C., Jansky, L., Nakayama, M., & Salewicz, K. A. (2005). Conclusion: Strategies for advancing public involvement in international watershed management. In C. Bruch, L. Jansky, M. Nakayama & K. A. Salewicz (Eds.), *Public participation in the governance of international freshwater resources* (pp. 477-485). Tokyo ; New York: United Nations University Press.
- Claiborne, W. (2001, June 19). Governors curb use Of Great Lakes water; Canadians join plans to limit diversions. *Washington Post*, p. A02.

- Cohen, S., & Young, J. (1973). Introduction. In S. Cohen & J. Young (Eds.), *The manufacture of news; social problems, deviance and the mass media* (pp. 12-14). London,: Constable.
- Cottle, S. (2006). Mediatized rituals: beyond manufacturing consent. *Media Culture Society*, 28(3), 411-432.
- Council of Canadians. (2006). About us. Retrieved September 22, 2007, from <http://www.canadians.org/about/index.html>
- Creese, R. (2000, September 15). H2O-oh. *National Post*, p. A17.
- Curran, J. (2002). *Media and power*. London ; New York: Routledge.
- Dale, S. (1996). *McLuhan's children: the Greenpeace message and the media*. Toronto: Between the Lines.
- Davis, A. (2003). Whither mass media and power? Evidence for a critical elite theory alternative. *Media, Culture & Society*, 25(5), 669-690.
- de Mott, J., & Tom, E. (1990). The Press corps of spaceship Earth. *Newspaper Research Journal*, 11(4), 12-23.
- de Villiers, M. (1999). *Water*. Toronto: Stoddart.
- Deacon, D. (1996). The Voluntary sector in a changing communication environment: A case study of non-official news sources. *European Journal of Communication*, 11(2), 173-199.
- Deacon, D., & Golding, P. (1993). Barriers to centralism: Local government, local media and the charge on the community. *Local government studies*, 19(2), 176-189.
- Deacon, D., Pickering, M., Golding, P., & Murdock, G. (1999). *Researching communications: a practical guide to methods in media and cultural analysis*. New York: Oxford University Press.
- Delli Carpini, M. X., & Keeter, S. (1992). The public's knowledge of politics. In J. D. Kenamer (Ed.), *Public opinion, the press, and public policy* (pp. 19-40). Westport, Conn.: Praeger.
- Demers, D. (1996). Corporate newspaper structure, editorial page vigor, and social change. *Journalism & Mass Communication Quarterly*, 73(4), 857-877.
- Detjen, J., Fico, F., Li, X., & Kim, Y. (2000). Changing work environment of environmental reporters. *Newspaper Research Journal*, 21(1), 2.

- Dispensa, J. M., & Brulle, R. J. (2003). Media's social construction of environmental Issues: Focus on global warming -- A Comparative study. *International Journal of Sociology and Social Policy*, 23(10), 74-105.
- Donahue, J. M. (1998). Water wars in south Texas: Managing the Edwards Aquifer. In J. M. Donahue & B. R. Johnston (Eds.), *Water, culture, and power : local struggles in a global context* (pp. 187-208). Washington, D.C.: Island Press.
- Donahue, J. M., & Johnston, B. R. (1998a). Introduction. In J. M. Donahue & B. R. Johnston (Eds.), *Water, culture, and power : local struggles in a global context* (pp. 1-5). Washington, D.C.: Island Press.
- Donahue, J. M., & Johnston, B. R. (1998b). Conclusion. In J. M. Donahue & B. R. Johnston (Eds.), *Water, culture, and power : local struggles in a global context* (pp. 339-346). Washington, D.C.: Island Press.
- Dornan, C. (2008). America in our midst: U.S. news and entertainment in Canada. In J. Greenberg & C. Elliot (Eds.), *Communication in Question: Competing Perspectives on Contentious Issues in Communication Studies* (pp. 27-34). Toronto: Nelson.
- Dryzek, J. S. (2005). *The politics of the earth: environmental discourses* (2nd ed.). Oxford ; New York: Oxford University Press.
- Egan, D. (2004, July 25). Waukesha at crest of water debate. *Milwaukee Journal Sentinel*, p. 1A.
- Eggertson, L. (1998a, May 5). Ottawa to fight export of water Moving to stop deal involving Lake Superior. *Toronto Star*, p. A1.
- Eggertson, L. (1998b, May 16). Ottawa willing to pass law banning freshwater exports. *Toronto Star*, p. SA2.
- Elections Ontario. (2007). Real time results. Retrieved October 13, 2007, from http://www3.elections.on.ca/internetapp/realtimehome.aspx?lang=en&channel_id=was &lang=en
- Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43(4), 51-58.
- Farrow, C. (2000). Communicating about climate change: An NGO view. In J. Smith (Ed.), *The daily globe: Environmental change, the public, and the media*. London: Earthscan.
- Fowler, R. (1991). *Language in the news: discourse and ideology in the press*. London ; New York: Routledge.

- Franzen. (2005, July 8). Work together on water. *Milwaukee Journal Sentinel*, p. A18.
- Gaard, G. (2001). Women, water, energy: An ecofeminist approach. *Organization & Environment*, 2001, 14, 2, June, 14(2), 157-172.
- Galtung, J., & Ruge, M. (1973). Structuring and selecting news. In S. Cohen & J. Young (Eds.), *The manufacture of news; social problems, deviance and the mass media* (pp. 52-63). London,: Constable.
- Gamson, W. A., , and A. Modigliani. (1987). The changing culture of affirmative action. *Research in Political Sociology*, 3, 137-177.
- Gamson, W. A., & Modigliani, A. (1989). Media discourse and pulbic opinion on nuclear power: A constructionist approach. *American Journal of Sociology*, 95, 1-37.
- Gilbert, R. (1999a, March 29). The Great Lakes --- Preventing the export of bulk water. *Toronto Star*, p. 1.
- Gilbert, R. (1999b, April 7). Great Lakes should be leader in conserving water resources. *Buffalo News*, p. B2.
- Gilbert, R. (2000a, November 7). The Great Lakes --- Exemption threatens water pact. *Toronto Star*, p. ED01.
- Gilbert, R. (2000b, November 12). Pact protecting Great Lakes faces problems. *Buffalo News*, p. H5.
- Gitlin, T. (1980). *The whole world is watching : mass media in the making & unmaking of the New Left*. Berkeley: University of California Press.
- Glasgow University Media Group. (1976). *Bad news*. London ; Boston: Routledge & K. Paul.
- Glasgow University Media Group. (1980). *More bad news*. London ; Boston: Routledge & K. Paul.
- Globe and Mail. Globe link: Advertising with the Globe. Retrieved October 2, 2007, from <http://www.globelink.ca/about/advertising/>
- Gonzalez, C. E. A. (1998). Water management in the Americas. *International Journal of Water Resources Development*, 14(3), 289-291.
- Goodspeed, P. (1998, May 3). Water sale bid raises alarms permit to export Lake Superior water to Asia a first for Canada. *Toronto Star*, p. A1.
- Great Lakes United. (2007). Who we are. Retrieved September 22, 2007, from http://www.glu.org/english/who_we_are.htm

- Greenberg, J. (2000). Opinion discourse and Canadian newspapers: The case of the Chinese 'Boat People'. *Canadian Journal of Communication*, 25(4), 517-537.
- Greenberg, J. (2005). This news may come as a shock. *Canadian Journal of Communication*, 30(2), 233-258.
- Greenberg, J., & Knight, G. (2004). Framing sweatshops: Nike, global production, and the American news media. *Communication & Critical/Cultural Studies*, 1(2), 151-175.
- Greenberg, J., & Walters, D. (2004). Promoting philanthropy? News publicity and voluntary organizations in Canada, *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations* (Vol. 15 %W /cgi-bin/sciserv.pl?collection=journals&journal=09578765&issue=v15i0004&article=383_ppnpavoic, pp. 383 - 404): Kluwer Academic Publishers-Plenum Publishers, New York.
- Guggenheim, D. (Director) (2006). *An inconvenient truth*. USA: Paramount Classics.
- Hackett, R. A., Gruneau, R. S., & Canadian Centre for Policy, A. (2000). *The Missing news: filters and blind spots in Canada's media*. Ottawa, Ont.,: Canadian Centre for Policy Alternatives.
- Hall, S., Critcher, C., Jefferson, T., Clark, J., & Roberts, B. (1978). *Policing the crisis: mugging, the state, and law and order*. London: Macmillan.
- Hallin, D. C. (1986). *The "uncensored war": the media and Vietnam*. New York: Oxford University Press.
- Hallin, D. C., & Mancini, P. (2004). *Comparing media systems: three models of media and politics*. Cambridge ; New York: Cambridge University Press.
- Hannigan, J. A. (1995). Environmental sociology: A social constructionist perspective.
- Hansen, A. (1991). The Media and the social construction of the environment. *Media, Culture & Society*, 13(4), 443-458.
- Hansen, A. (2000). Claims-making and framing in British newspaper coverage of the 'Brent Spar' controversy. In S. Allan, B. Adam & C. Carter (Eds.), *Environmental risks and the media* (pp. 55-72). London ; New York: Routledge.
- Hansen, A., Cottle, S., Negrine, R., & Newbold, C. (1998). *Mass communication research methods*. New York: New York University Press.
- Hardin, G. (1968). The tragedy of the commons. *Science*, 162(3859), 1243-1248.
- Herman, E. S., & Chomsky, N. (2002). *Manufacturing consent: the political economy of the mass media*. New York: Pantheon Books.

- Hessing, M. (2003). Green mail: The social construction of environmental issues through letters to the editor. *Canadian Journal of Communication*, 28(1), 25.
- Hilgartner, S., & Bosk, C. L. (1988). The rise and fall of social problems: A public arenas model. *The American Journal of Sociology*, 94(1), 53-78.
- Hurley, A., Schindler, D., & Nikiforuk, A. (2004, September 20). The Great Lakes: death by a thousand straws. *Globe and Mail*, p. A13.
- International Joint Commission., Baldini, T. L., & Legault, L. H. (2000). *Protection of the waters of the Great Lakes: final report to the governments of Canada and the United States*. Ottawa: International Joint Commission.
- Jack, I. (2001, March 26). U.S. firm eager to take another run at water exports: Using NAFTA's Chapter 11: Decade-old plan for B.C. water not sunk yet, Sun Belt vows. *National Post*, p. C03.
- Jacobs, R. N., & Glass, D. J. (2002). Media publicity and the voluntary sector: The case of nonprofit organizations in New York City, *Voluntas: International Journal of Voluntary and Nonprofit Organizations* (Vol. 13 %W /cgi-bin/sciserv.pl?collection=journals&journal=09578765&issue=v13i0003&article=235_mpatvsnoinyc, pp. 235-252): Kluwer Academic/Plenum Publishers.
- Jarrell, M. L. (2005). All the news that's fit to print? Media reporting of environmental protection agency penalties assessed against the petroleum refining industry, 1997-2003. *Dissertation Abstracts International, A: The Humanities and Social Sciences*, 66(3), 1175-A.
- Jarvela, M., & Rinne-Koistinen, E.-M. (2005). Purity and dirt as social constructions: Environmental health in an urban shantytown of lagos. *International Journal of Urban and Regional Research*, 29(2), 375-388.
- Jeffries, L. (2003). Not a drop to drink: Emerging meanings in local newspaper reporting of the 1995 water crisis in Yorkshire. *Text*, 23(4), 513-538.
- Johnston, B. R. (2003). The political ecology of water: An introduction. *Capitalism*, 14(3), 73-90.
- Jones, R. A. (1985). *Research methods in the social and behavioral sciences*. Sunderland, Mass.: Sinauer Associates.
- Karatzogianni, A. (2004). The politics of 'cyberconflict'. *Politics*, 24(1), 46-55.
- Karkkainen, B. C. (2005). Transboundary ecosystem governance: Beyond sovereignty? In C. Bruch, L. Jansky, M. Nakayama & K. A. Salewicz (Eds.), *Public participation in the governance of international freshwater resources* (pp. 73-87). Tokyo ; New York: United Nations University Press.

- Kensicki, L. J. (2004). No cure for what ails us: The media-constructed disconnect between societal problems and possible solutions. *Journalism & Mass Communication Quarterly*, 81(1), 53-73.
- Kernaghan, K., & Siegel, D. (1999). *Public administration in Canada* (4th ed.). Toronto, : Methuen.
- Kraft, M. E. (2000). U.S. environmental policy and politics: From the 1960s to the 1990s. *Journal of Policy History*, 12(1), 17-42.
- Krippendorff, K. (1980). *Content analysis: an introduction to its methodology*. Beverly Hills: Sage Publications.
- Kuehner, J. C. (2005, December 14). Lakes pact puts limits on water's diversion. *Cleveland Plain Dealer*, p. A1.
- Kwanasah-Aidoo, K. (2001). The appeal of qualitative methods to traditional agenda-setting research. *Gazette: International Journal for Communication Studies*, 63(6), 521.
- Lacey, C., & Longman, D. (1993). The press and public access to the environment and development debate. *The Sociological review*, 41(2), 207-243.
- Lacy, S., & Coulson, D. C. (2000). Comparative case study. *Newspaper Research Journal*, 21(1), 13.
- Lam, T. (2007). Richardson changes tune on tapping Great Lakes for dry West [Electronic Version]. *Detroit Free Press*, October 15. Retrieved October 24, 2007 from <http://www.freep.com/apps/pbcs.dll/article?AID=/20071015/NEWS06/71015042>.
- Lang, G. E., & Lang, K. (1981). Watergate: An exploration of the agenda-building process. In G. C. Wilhoit & H. de Bock (Eds.), *Mass communication review yearbook* (Vol. 2). Beverly Hills, CA: Sage Publications.
- Lawton, V. (1998, December 9). Water export case may cost millions U.S. company seeks compensation under free-trade agreement. *Toronto Star*, p. D3.
- Levine, M. E., & Forrence, J. L. (1990). Regulatory capture, public interest, and the public agenda: Toward a synthesis. *Journal of Law, Economics, & Organization*, 6, 167-198.
- Long, J. (2001a, March 1). Governors may loosen grip on Great Lakes tap environmentalists fear loss of too much water. *Chicago Tribune*, p. 1.
- Long, J. (2001b, June 18). Great Lakes spigot fine-tuned Governors to sign new accord on water diversions. *Chicago Tribune*, p. 1.

- MacKinnon, M. (2001, March 28). Grimes may OK water exports. *Globe and Mail*, p. A4.
- Major, A. M., & Atwood, L. E. (2004). Environmental stories define problems, not solutions. *Newspaper Research Journal*, 25(3), 8-22.
- Maley, M., & Behm, D. (1998, May 6). Lake Superior water sale plan assailed Thompson wants probe of firm's plan to export millions of gallons to Asia. *Milwaukee Journal Sentinel*, p. 1.
- Marshak, S., & Prothero, D. R. (2001). *Earth : portrait of a planet*. New York: Norton.
- May, R., & Pitts, R. (2000). Communicating the science behind global environmental change issues. In J. Smith (Ed.), *The daily globe: Environmental change, the public, and the media*. London: Earthscan.
- Mazur, A. (1998). Global environmental change in the news: 1987-90 vs 1992-6. *International Sociology*, 13(4), 457-472.
- Mazur, A., & Lee, J. (1993). Sounding the global alarm: Environmental issues in the US national news. *Social Studies of Science*, 23(4), 681-720.
- McCluskey, M. R., Deshpande, S., Shah, D. V., & McLeod, D. M. (2004). The efficacy gap and political participation: When political influence fails to meet expectations. *International Journal of Public Opinion Research*, 16(4), 437-455.
- McCright, A. M., & Dunlap, R. E. (2000). Challenging global warming as a social problem: An analysis of the conservative movement's counter-claims. *Social Problems*, 47(4), 499-522.
- McIlheran, P. (2007). Water as a weapon [Electronic Version]. *New York Sun*, October 17. Retrieved October 24, 2007 from http://www.nysun.com/article/64715?page_no=1.
- McKenzie, J. (2002). *Environmental politics in Canada : managing the commons into the twenty-first century*. Don Mills, Ont.: Oxford University Press.
- Miljan, L. A., & Cooper, B. (2003). *Hidden agendas : how journalists influence the news*. Vancouver: UBC Press.
- Miller, D. (1999). Risk, science and policy: Definitional struggles, information management, the media and BSE. *Social Science and Medicine*, 49(9), 1239-1255.
- Miller, D. (2002). Media power and class power: Overplaying ideology. In C. Leys & L. Panitch (Eds.), *The Socialist Register* (pp. 245-264). London: Merlin.

- Mishak, M. J. (2007). Sharing water is key to Richardson's plan [Electronic Version]. *Las Vegas Sun*, October 4. Retrieved October 24, 2007 from <http://www.lasvegassun.com/sunbin/stories/sun/2007/oct/04/566614893.html>.
- Mittelstaedt, M. (1998, May 1). Permit to export Lakes water draws U.S. fire Ontario company hopes to make sales in Asia by using cargo ships in five-year Superior project. *Globe and Mail*, p. A6.
- Moore, J. W. (1989). *Balancing the needs of water use*. New York: Springer-Verlag.
- Mori, S. (2004). Institutionalization of NGO involvement in policy functions for global environmental governance. In N. Kanie & P. M. Haas (Eds.), *Emerging forces in environmental governance* (pp. 157-175). Tokyo ; New York: United Nations University Press.
- Munro, L. (1997). Framing cruelty: The construction of duck shooting as a social problem. *Society & Animals*, 5(2), 137-154.
- Neuman, W. R. (1986). *The paradox of mass politics : knowledge and opinion in the American electorate*. Cambridge, Mass.: Harvard University Press.
- Ohlsson, L. (1995). The role of water and the origins of conflict. In L. Ohlsson (Ed.), *Hydropolitics : conflicts over water as a development constraint* (pp. 1-28). Atlantic Highlands, N.J.: University Press.
- Opel, A. (1999). Constructing purity: Bottled water and the commodification of nature. *Journal of American Culture*, 22(4), 67-76.
- Perkel, C. (2004, September 20). Proposal called danger to Lakes; U.S. states want to divert water Canadian critics to appear at hearings. *Toronto Star*, p. A06.
- Petersen, L. K. (2007). Changing public discourse on the environment: Danish media coverage of the Rio and Johannesburg UN Summits. *Environmental Politics*, 16(2), 206-230.
- Philo, G., Hewitt, J., Beharell, P., & Davis, H. (1982). *Really bad news* (Vol. 3). London ; Boston: Routledge & K. Paul.
- Postel, S. (1997). *Last oasis: facing water scarcity* (1st ed.). New York: W.W. Norton.
- Protess, D. L., Cook, F. L., Curtin, T. R., Gordon, M. T., Leff, D. R., McCombs, M. E., et al. (1987). The impact of investigative reporting on public opinion and policymaking targeting toxic waste. *The Public Opinion Quarterly*, 51(2), 166-185.
- Reese, S. D. (2001). Framing public life: A bridging model for media research. In S. D. Reese, O. H. Gandy & A. E. Grant (Eds.), *Framing public life : perspectives on*

media and our understanding of the social world (pp. 7-32). Mahwah, N.J. Lawrence Erlbaum Associates.

- Reisner, M. (1993). *Cadillac desert: The American West and its disappearing water* (Rev. and updated. ed.). Vancouver: Douglas & McIntyre.
- Robinson, P. (2001). Theorizing the influence of media on world politics: Models of media influence on foreign policy. *European Journal of Communication*, 16(4), 523-544.
- Rocheftort, D. A., & Cobb, R. W. (1994). Problem definition: An emerging perspective. In D. A. Rocheftort & R. W. Cobb (Eds.), *The politics of problem definition : shaping the policy agenda* (pp. 1-31). Lawrence, Kan.: University Press of Kansas.
- Samyn, P. (2005, June 15). Let Americans freeze in the dark, NDP MP says: Devils Lake dispute. *National Post*, p. A7.
- Saunders, J. O., & Wenig, M. M. (2007). Whose water? Canadian water management and the challenges of jurisdictional fragmentation. In K. J. Bakker (Ed.), *Eau Canada : the future of Canada's water* (pp. 119-142). Vancouver: UBC Press.
- Scheufele, D. A. (1999). Framing as a theory of media effects. *Journal of Communication*, 49(1), 103-122.
- Schlesinger, P. (1989). From production to propaganda? *Media, Culture & Society*, 11(3), 283-306.
- Schlesinger, P. (1990). Rethinking the sociology of journalism: Source strategies and the limits of media-centrism. In M. Ferguson (Ed.), *Public communication : the new imperatives : future directions for media research* (pp. 61-83). London ; Newbury Park: Sage Publications.
- Schoenfeld, A. C., Meier, R. F., & Griffin, R. J. (1979). Constructing a social problem: The press and the environment. *Social Problems*, 27(1), 38-61.
- Scofield, H. (1998, May 5). Ottawa seeks to halt water exports Axworthy hunts for law with teeth. *Globe and Mail*, p. A1.
- Scofield, H. (1999, November 19). Water-export plan created to weather trade challenges federal-provincial agreement would ban removal from basin, letter to provinces says. *Globe and Mail*, p. A4.
- Shaw, E. F. (1977). The interpersonal agenda. In D. L. Shaw & M. E. McCombs (Eds.), *The emergence of American political issues: The agenda-setting function of the press*. St. Paul, MN: West Publishing.

- Sofoulis, Z. (2005). Big Water, everyday water: A sociotechnical perspective. *Continuum: Journal of Media & Cultural Studies*, 19(4), 445-463.
- Solomon, L. (1999b, November 30). Water export threat is trickling away: Farm conservation, desalination make shipments unlikely. *National Post*, p. C07.
- Soroka, S. (2002). *Agenda-setting dynamics in Canada*. Vancouver: UBC Press.
- Strang, V. (2005). Common senses: Water, sensory experience and the generation of meaning. *Journal of Material Culture*, 10(1), 92-120.
- Sturken, M. (2001). Desiring the weather: El Nino, the media, and California identity. *Public Culture*, 13, 160.
- Tankard, J., Hendrickson, L., Silberman, J., Bliss, K., & Ghanem, S. (1991). *Media frames: Approaches to conceptualization and measurement*. Paper presented at the Association for Education in Journalism and Mass Communication, Boston.
- Taras, D. (2001). *Power and betrayal in the Canadian media* (Updated ed.). Peterborough, Ont., Canada ; Orchard Park, NY: Broadview Press.
- Taylor, C. E., Jung-Sook, L., & Davie, W. R. (2000). Local press coverage of environmental conflict. *Journalism & Mass Communication Quarterly*, 77(1), 175-192.
- United Nations Environment Programme. (2006). *Challenges to international waters – Regional assessments in a global perspective*. Nairobi, Kenya: United Nations Environment Programme.
- WGRZ. (2007). Governor not keen on sharing Great Lakes [Electronic Version]. *WGRZ News*, October 11. Retrieved October 24, 2007 from http://www.wgrz.com/news/news_article.aspx?storyid=51709.
- Winfield, M. (1994). The ultimate horizontal issue: The environmental policy experiences of Alberta and Ontario, 1971-1993. *Canadian Journal of Political Science*, 27(1), 129-152.
- Wolfsfeld, G. (1997). *Media and political conflict: News from the Middle East*. New York, NY: Cambridge University Press.
- Wolfsfeld, G. (2004). *Media and the path to peace*. Cambridge, U.K. ; New York: Cambridge University Press.
- Yin, J. (1999). Elite opinion and media diffusion. *Harvard International Journal of Press/Politics*, 4(3), 62.