

The Devils Lake Controversy: Why Canada and the United States Need a New
Bilateral Understanding in Light of the Evolving Law of International
Watercourses

by

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ABSTRACT

Recent transboundary disputes between the United States and Canada and in particular, the dispute concerning Devils Lake outlet, call for an improvement of the agreements between the two countries that govern North American international watercourses. One way to do so is by assimilating the cooperative spirit contained in the more recent 1997 *U.N. International Watercourses Convention* and incorporating its guidelines for balancing different principles and interests into the 1909 *Boundary Waters Treaty* between the United States and Canada.

This paper analyzes the different theories and main international legal instruments in the area of transboundary waters within the context of the issues arising out of Devils Lake and its outlet. It is proposed that the *Boundary Waters Treaty* be vastly improved by increasing the participation of both the Canadian provinces and the American states as well as renewing and enhancing the role of the International Joint Commission.

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INTRODUCTION

Watercourses represent an important factor in the development of human society. Some of the most important civilizations rose and expanded along rivers because many of their primary needs were satisfied by their proximity to water, the vital element for supporting human life. In early history, rivers were primarily a natural means for defence and security, a source of food and a faster and often safer way to connect distant locations. Across the centuries the economic aspect of watercourses became even more important. The transportation of raw materials from production areas into cities, the commerce of goods, the harnessing of water to regain vast cultivated areas by irrigation and, more recently, the generation of electric energy for millions of homes are just a few examples of human activities involved with watercourses. These examples underline how much watercourses have shaped and continue to shape the lives of millions around the world.

Increasing population in the 20th century caused a more intense use of water resources in order to support the economic development. Today the situation is more complicated than ever as water is considered to be a scarce resource. In many parts of the world, especially in poor countries, lack of water is one of the causes that has sparked war and civil strife. Due to these phenomena, disputes between watercourse states have increased dramatically, as more than 300 important river basins cross two or more countries.

The purpose of this research is to study the international legal rules that apply to the management of transboundary watercourses, with particular attention to the

experience in North America and the recent case of Devils Lake, which triggered an ongoing dispute between the United States and Canada. The study will then try to propose improvement of the main agreement governing North American shared watercourses, the Boundary Waters Treaty, in order to achieve a better management regime for the 21st century.

In the first chapter, I will discuss the relationship between water and human civilization and the early development of international law concerning transboundary waters. In particular, the dissertation will review of the different legal doctrines applying to the field. The second chapter will consider the main codification in the field, the 1997 United Nations Convention on the Law of Non-Navigational Uses of International Watercourses. Accordingly, the content of the Convention and the main controversies concerning some of the fundamental principles contained in this international instrument will be ascertained with reference to the work of the International Law Commission. Moreover, an analysis of the role of the Convention, the contribution to the development of principles and the problems concerning its entering into force will be undertaken.

In the third chapter, I will explain the development and current status of the two fundamental principles in the law of international watercourses: the equitable and reasonable utilization, and the prohibition to cause significant harm. Subsequently, an analysis of the situation of Canada, and the relationship between Canada and the United States will be carried out, with particular reference to the Boundary Waters Treaty and the work of the International Joint Commission. Particular attention will be given to the provisions concerning transboundary pollution and their application through the experience of the Commission.

In the last chapter, it is my intention to analyze the ongoing controversy between Canada and the United States, in particular the situation of the Red River Basin shared by the two countries, concerning Devils Lake and its outlet. The decision of American authorities in North Dakota to build an outlet to divert excess water from the Devils Lake into the Sheyenne River raised strong environmental concerns in Manitoba, as the Sheyenne River is a tributary of the Red River. The analysis of the dispute will first consider the applicable domestic legislation and the pertinent decisions of the Supreme Court of North Dakota. The role of the Boundary Waters Treaty will then be considered, together with the difficulty in enforcing its regulation through the International Joint Commission. Finally, a series of suggestions for improving the Treaty and its functionality will be presented.

CHAPTER I

WATER: FROM CIVILIZATION TO LAW

1. Water and Human Civilization

Water is a limited resource that we cannot waste. Fresh water, the water we drink and the most important resource for our existence represents just 2.5% of the total stock of water in the hydrosphere.¹ However, two thirds of potable water is inaccessible, imprisoned in ice, particularly in the Arctic and Antarctic areas.² Therefore, the quantity of fresh water we can readily access makes up less than 1% and is held in lakes, rivers and the atmosphere.³ Furthermore, many factors negatively affect the availability of fresh water. Population growth, for example, is dramatically increasing the use of water. Consumption per capita is increasing due to economic development.⁴ In addition, rapid industrialization puts additional stress on water resources, since developed and undeveloped countries dump untreated industrial waste into rivers and lakes.⁵

Human history by itself provides the strongest evidence of the vital dependence we have on water. Some of the most important civilizations in history rose and expanded thanks to accessible water resources. The survival of all major ancient civilizations was strongly linked to watercourses. The development of the first settled communities was a direct consequence of the expansion of agricultural activities. Those communities needed

¹ Igor A. Shiklomanov, "World fresh water resources" in Peter H Gleick, ed., *Water in Crisis, A Guide to the World's Fresh Water Resources* (New York-Oxford: Oxford University Press, 1993) 13 at 13.

² *Ibid.*

³ United Nations Environment Program, *Statistics*, online: UN-Water < http://www.unwater.org/statistics_res.html >

⁴ Peter H. Gleick, "Water in the 21st century" in Peter H Gleick, *supra* note 1, 105 at 105-106.

⁵ Linda Nash, "Water quality and health" in Peter H Gleick, *supra* note 1, 24 at 32-34.

easy access to fresh water. Massive irrigation projects existed thousands of years ago along the major rivers of the world, such as the Nile, the Tigris, the Euphrates and the Indus.⁶

There is a story of another river that combines legend and historical fact about a city that once dominated the world. The story is about twin brothers abandoned in a river, the Tiber, and a female wolf that saved and nurtured them. Once the two children had grown, they decided to found a city. One of the twins, Romulus, killed his brother Remus and established the city of Rome. The female wolf that rescued him is now the symbol of the city. This story demonstrates the strong bond between the city and its inhabitants with the Tiber, which was fundamental for farming activities and transportation in the city's early expansion.⁷ Romans have always had a particular affection for their river, even when Rome later became the glorious empire that dominated the ancient world.

Many other European populations established urban communities along rivers. Watercourses facilitated communication and were safer than roads for the transportation of raw materials and supplies as communities developed. Paris gained predominance first regionally and later throughout France thanks to the Seine River.⁸ London's history cannot be separated from the Thames River,⁹ while along the Danube River magnificent cities like Vienna, Budapest and Belgrade developed. Nevertheless, people have not always settled where water was easily available. Especially in modern times, with the population growing and agricultural activities expanding, water has been diverted from

⁶ Ludwik A. Teclaff, *The River Basin in History and Law* (The Hague: Martinus Nijhoff, 1967) at 15.

⁷ On the importance of water in the ancient city's development, see generally Gerda De Kleijn, *The Water Supply of Ancient Rome: City Area, Water and Population* (Amsterdam: J.C. Gieben, Publisher, 2001).

⁸ On the city's strong dependence on the Seine River regarding the transportation of supplies and raw materials, see Andrew P. Trout, *City on the Seine: Paris in the time of Richelieu and Louis XIV*, 1st ed. (New York: St. Martin's Press, 1996) at 147-152.

⁹ Mick Sinclair, *The Thames: A Cultural Story* (New York: Oxford University Press, 2007) at 81-84.

regions with surplus to regions with deficit at an increasing rate. These activities have significant legal and economic implications and can lead to controversies between countries when international watercourses are involved.¹⁰

2. Fresh Water Resources in the World

The sustainable management of fresh water resources is one of the most urgent issues of our time. The Earth's human population is constantly increasing and human water use is growing at an even faster rate, with more than 50% of all the accessible freshwater contained in rivers, lakes and underground aquifers currently being exploited by the world's population.¹¹ The numbers show a dramatic situation; currently, one in six people worldwide have no access to the minimum daily amount of safe fresh water to ensure their basic needs,¹² while 2.5 billion people do not have water for basic sanitation services.¹³ The Food and Agriculture Organization of the United Nations predicts that by 2025, 1.8 billion people will experience absolute water scarcity and two-thirds of the world population will have difficulty accessing the necessary fresh water to meet their fundamental needs.¹⁴ This critical situation may be the triggering event for new conflicts,

¹⁰ On legal and economic implications of water transfers, see generally Dan A. Tarlock, "Water Transfers: A Means to Achieve Sustainable Water Use" in Edith Brown Weiss, Laurence Boisson de Chazournes and Nathalie Bernasconi-Osterwalder, eds., *Fresh Water and International Economic Law* (Oxford -New York : Oxford University Press, 2005) 35.

¹¹ World Water Assessment Programme, *Statistics, Water Use*, online: UN-Water <http://www.unwater.org/statistics_use.html>.

¹² World Health Organization, *Drinking Water and Sanitation*, online: UN-Water <http://www.unwater.org/statistics_san.html>. The UN suggests that each person needs 20-50 litres of safe freshwater a day to ensure their basic needs for drinking, cooking and cleaning.

¹³ *Ibid.*, data from the Water Supply and Sanitation Collaborative Council.

¹⁴ FAO, *Statistics, Water Use*, online: UN-Water <http://www.unwater.org/statistics_use.html>.

especially in the Middle East where numerous water resources are shared and groundwater reserves may be depleted in a short time.¹⁵

There is a real risk that the planet will soon be dry due to the extensive economical use of water and the pollution of water sources. Wastefulness is intensifying the worldwide water crisis, with part of the world experiencing shortages while in Europe and North America this precious natural resource is misused.¹⁶ The international community is trying to find quick solutions to confront the emergency, but it is difficult to reach a general consensus on measures that best mitigate the crisis. An idea would be finding new water sources, or more intensely exploiting existing ones but this could lead to catastrophic environmental consequences.¹⁷ A better solution would be to limit demand, which is achievable with more efficient water use.¹⁸ Unfortunately, people still believe in the myth of abundance. Any change of policy in this field is complicated and would directly affect the existence of millions of people living in developed countries.

3. Watercourses and the Law

Expanding human activity and increasing demand for fresh water resources has strengthened cooperation among nations, but has also created new disputes as a large part

¹⁵ Cynthia Baumann, *Water Wars: Canada's Upstream Battle to Ban Bulk Water Export*, (2001) 10 Minn. J. Global Trade 109 at 111.

¹⁶ Dan Shrubsole & Dianne Draper, "On Guard for Thee? Water (Ab)uses and Management in Canada" in Karen Bakker, ed., *Eau Canada, the Future of Canada's Water* (Vancouver: UBC Press, 2007) 37 at 39. See also Gleick, *supra* note 4 at 105-106.

¹⁷ Robert Kandel, *Water from Heaven* (New York: Columbia University Press, 2003) at 225-227.

¹⁸ *Ibid.*

of these resources are contained in international drainage basins.¹⁹ Following the evolution of human society, rules have been established to conciliate different interests. Since early times, riparian communities concluded agreements among them, sometimes to solve controversies concerning water use, and other times to improve cooperation.²⁰ Nowadays, rivers not only represent a source of water for agriculture and drinking or a means of communication, they are also used for other purposes, such as in the production of hydroelectric power. The construction of dams and water diversion projects can have a large impact on the entire drainage basin of a watercourse and can raise concerns for other riparian states.²¹ The number of agreements increased as a consequence of these new uses, creating the basis of the modern law of international watercourses.²² There have been major attempts by international law bodies to identify general guidelines which codify and develop principles of international law. These norms, even if not legally binding, are intended to help all international actors by providing clear rules governing their activities and giving procedures for the resolution of conflicts.²³

This part of the dissertation describes the three main areas in which legal issues and international watercourses meet: boundary-making, navigation and non-navigational uses. The last one, however, will be the main topic of the rest of this work.

¹⁹ Stephen C. McCaffrey, "Water, politics, and international law", in Peter H. Gleick, *supra* note 1, 92 at 92. The author cites a United Nations, Department of Economic and Social Affairs referring to around 165 international drainage basins. In addition, the author also mentions a work of the National Geographic Society, *Great Rivers of the World*, showing that thirteen of the world's twenty longest rivers are international.

²⁰ Teclaff, *supra* note 6 at 21.

²¹ On the raising dimension of water diversion projects and dams construction, see especially Diane Raines Ward, *Water Wars: Drought, Flood, Folly and the Politics of Thirst* (New York: Riverhead Books, 2002) at 45-69.

²² Lucius Caflisch, "The Law of International Watercourses and its Sources", in R. St. J. Macdonald ed., *Essays in Honour of Wang Tieya* (Dordrecht/Boston/London: Martinus Nijhoff Publishers, 1993) 115 at 116. The author describes treaty rules as "the bulk of the law of international watercourses."

²³ Heather L. Beach, *et al.*, *Transboundary Freshwater Dispute Resolution: Theory, Practice and Annotated References* (Tokio: United Nations University Press, 2000) at 9.

3.1. Rivers and Lakes as Boundaries

Throughout history, and in particular with the modern system of nation states, boundaries have often been set following natural obstacles such as rivers or lakes. The use of treaties to draw those borders was a common practice.²⁴ In the absence of contrary treaty provisions, boundaries in navigable waterways were frequently placed on the main channel of navigation, called *thalweg*, while in non-navigable rivers boundaries were formed by the medial line.²⁵ However, these rules are not generally accepted as customary law, since there is no uniformity in treaties or in the jurisprudence.²⁶ Controversies should be solved through an agreement or, as suggested by Caflisch, through the application of the general rules of territorial sovereignty.²⁷

3.2. Navigation

Navigation is a major legal aspect of international agreements on watercourses. For centuries, transportation of goods and people on waterways was the primary way of developing a nation's economy. Navigation issues were first discussed at the end of Napoleon Empire. The Final Act of the Vienna Congress contained the first provisions in the field, and essentially gave freedom of navigation to ships carrying the flag of a riparian state.²⁸ However, it is only after World War I that multilateral agreements such

²⁴ Lucius Caflisch, "Emerging Rules on International Waterways: the Contribution of the United Nations" (1996) 15 *Political Geography* 273 at 275.

²⁵ Lucius Caflisch, "The Law of International Watercourses and its Sources", *supra* note 22 at 120.

²⁶ *Ibid.* at 120-121.

²⁷ *Ibid.* at 121. The author cites, as example, title, recognition, effective exercise of State functions.

²⁸ *Act of the Congress of Vienna, signed between Austria, France, Great Britain, Portugal, Prussia, Russia and Sweden*, 9 June 1815, The Consolidated Treaty Series, vol. 64, 1815 at 453, Articles 108-116.

as the Treaty of Versailles, of 28 June 1919,²⁹ or the Barcelona Statute, of 20 April 1921,³⁰ opened up navigable rivers in Europe to all nations.

The trend toward increasing liberalization declined following World War II. The International Law Association's 1966 Helsinki Rules attempted the codification of the more restrictive customary rules.³¹ Article XIII entitles only riparian states "to enjoy rights of free navigation on the entire course of a river or lake."³² This general rule is followed by other provisions which specify that navigability refers to both natural and canalized portions of a river,³³ pleasure crafts and warships are excluded,³⁴ and that navigation includes transit to and from the sea.³⁵ However, American states have generally applied regional customs,³⁶ therefore preventing the universal acceptance of customary rules.³⁷

3.3. Non-Navigational Uses

All other activities concerning a watercourse fall within the general notion of non-navigational uses. The formation of general rules in the field has been a long process that cannot yet be considered complete. Navigation rules were well developed at the beginning of the 20th century but could not be transplanted in the field of non-

²⁹ See part XII, Section II, *Treaty of Peace signed in Versailles*, 28 June 1919, The Consolidated Treaty Series, vol. 225, 1919, at 188. [*Treaty of Versailles*]

³⁰ *Convention and Statute on the Regime of Navigable Waterways of International Concern*, 20 April 1921, British Treaty Series, No. 28 (1923), at 151.

³¹ International Law Association, International Law Association, "Report of the Fifty-Second Conference held at Helsinki" (1966) 52 Int'l L. Ass'n Rep. Conf. 484 [Helsinki Rules].

³² *Ibid.* Article XIII.

³³ *Ibid.* Article XII.

³⁴ *Ibid.* Article XIX.

³⁵ *Ibid.* Article XIV.

³⁶ In general, American states deny freedom of navigation even to riparians. Lucius Caflisch, "The Law of International Watercourses and its Sources", *supra* note 22 at 122.

³⁷ *Ibid.*

navigational uses due to the differences between the activities involved. For instance, it is difficult to entirely identify the effects of a use in another state, while it is obvious when a vessel of one state is located in the territory of another.³⁸ In addition, non-navigational uses sometimes have a harmful impact on other riparian states. A state permitting navigation in its territory, instead, suffers negligible negative effects.³⁹ Finally, many states are interested in freedom of navigation of international watercourses, while usually a controversy concerning non-navigational uses involves few countries. The uniqueness of each case, together with the fact that states with similar interests never formed a common position, generated a long process for the creation of general rules.⁴⁰

During the 20th century, with the utilization of watercourses increasing, the need for regulation became pressing. The International Law Association and, later, the International Law Commission, attempted to codify customary international rules applicable in the field. The work of the latter, in particular, led to the 1997 United Nations Convention on the Law of Non-Navigational Uses of International Watercourses. However, the fact that each watercourse basin is a special case, requiring sometimes specific rules, represents an additional obstacle to the full acceptance of the Convention and its rules. At the moment, a vast number of specific treaties are still the basis for the law of international watercourses concerning non-navigation uses.

³⁸ Stephen C. McCaffrey, *The Law of International Watercourses*, 2d ed. (Oxford: Oxford University Press, 2007) at 65.

³⁹ *Ibid.* at 66.

⁴⁰ *Ibid.*

4. Theoretical Bases of the Law of International Watercourses

Doctrine has a fundamental role in the formation of legal rules. This is particularly true in international law. The contribution of early jurists to the law of non-navigational uses of international watercourse deserves consideration. The different positions fall into four main theoretical categories, the absolute territorial sovereignty, the absolute territorial integrity, the limited territorial sovereignty, and the community of interests, which reflect different approaches to the problem of international watercourses and territorial sovereignty.

4.1. The “Harmon Doctrine” and the Absolute Territorial Sovereignty

During the last few decades of the 19th century, a strong dispute arose between the United States and Mexico concerning the Rio Grande, a river shared by the two countries. Farming settlements on the American side of the border needed more water for irrigation purposes and started diverting a larger volume of water from the Rio Grande. The reduction of the flow of the river resulted in protests by Mexico.⁴¹ Following Mexican concerns, the U.S. Department of State asked the opinion of the Attorney-General of the United States, Judson Harmon on the rights of the two countries under international law.

In an opinion dated December 12th, 1895, Harmon replied to the question of whether the diversions in the United States violated Mexico’s rights under principles of international law. In the part of the opinion known as the “Harmon Doctrine”, the Attorney General stated that no rule of international law imposed any obligation on the

⁴¹ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 76, citing the report of the International Water Boundary Commission of 25 November 1896.

United States to restrict uses of transboundary watercourses within its territory, even if these uses would cause harmful effects on the other side of the border.⁴² This opinion is based on the traditional notion of territorial sovereignty, where a state exercises an unlimited authority on the part of an international watercourse flowing through its territory.⁴³ Therefore, an upstream nation has no responsibility for the impact on a downstream territory for the activities on the portion of an international river flowing within its borders.⁴⁴ In particular, Harmon cited the judgment pronounced by the U.S. Supreme Court in 1812, in the case *The Schooner Exchange v. McFaddon*, affirming that in international law every nation has absolute sovereignty with no limitation imposed by others within its territory.⁴⁵

The United States did not follow this doctrine, but rather entered into an agreement with Mexico that allocated water resources in a manner that was equitable and acceptable to both of them. The dispute was finally settled in the 1906 Convention concerning the equitable Distribution of the Waters of the Rio Grande for Irrigation Purposes.⁴⁶ However, the United States would later definitively repudiate the Harmon

⁴² *Ibid.* at 113.

⁴³ Lucius Caflisch, “Règles Générales du Droit des Cours d’Eau Internationaux”, in 219 *Recueil des Cours* (1989 – VII) (Dordrecht/Boston/London: Martinus Nijhoff Publishers, 1992) 9 at 48.

⁴⁴ Ralph W. Johnson, “The Columbia Basin”, in A. H. Garretson, R. D. Hayton & C. J. Olmstead, eds., *The Law of International Drainage Basins* (New York: Oceana Publications, Inc. Dobbs Ferry, 1967) 167 at 168.

⁴⁵ *The Schooner Exchange v. McFaddon*, 11 U.S. 116 (1812) at 136. In this decision, Chief Justice Marshall said:

“The jurisdiction of the nation within its own territory is necessarily exclusive and absolute. It is susceptible of no limitation, not imposed by itself. Any restriction upon it, deriving validity from an external source, would imply a diminution of its sovereignty to the extent of the restriction, and an investment of that sovereignty to the same extent in that power which could impose such restriction. All exception, therefore, to the full and complete power of a nation within its own territories must be traced up to the consent of the nation itself. They can flow from no other legitimate source”

⁴⁶ *Convention Between Mexico and the United States for the equitable Division of the Waters of the Rio Grande for Irrigation Purposes*, signed at Washington, 21 May 1906, The Consolidated Treaty Series, vol. 201, 1906, at 225.

Doctrine in the disputes with Canada, where their geographical position was the opposite.⁴⁷

Few upstream states have claimed the theory of absolute sovereignty in disputes involving transboundary water resources. India and Pakistan have been involved in a long standing controversy over the Indus River, where India claimed its right to full freedom to control and use water resources within its territory.⁴⁸ Another dispute rose between Chile and Bolivia in the early 1920s concerning the Rio Mauri, where Chile, the upstream state, asserted its full and complete sovereignty over the part of the river flowing within Chilean territory.⁴⁹ Also, Ethiopia claimed its right to exploit all national natural resources and in particular the waters of the Nile River in response to the practice of Egypt and Sudan distributing all Nile waters between them based on asserted historical rights. It must be said that the Ethiopian statement was a response to Egypt's intention to prohibit exploitation of Nile waters by upstream countries.⁵⁰

Few positions supporting the theory of absolute territorial sovereignty can be found in doctrine, and those that exist were mainly formulated before non-navigational uses became significantly important. However, these theories are not uniform and most of the time they lack a serious evaluation of the overall consequences of certain activities on the environment.⁵¹ In addition, the positions supporting Harmon's view have been overturned by the development of international law in the field. A theory based on the absolute territorial sovereignty is obsolete in the contemporary world, which is

⁴⁷ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 103.

⁴⁸ *Ibid.* at 115.

⁴⁹ *Ibid.* at 120.

⁵⁰ *Ibid.* at 121.

⁵¹ *Ibid.* at 122.

characterized by natural resources scarcity and the need to better protect the environment.⁵² The rejection of this theory is found also in judicial decisions and arbitrations, like the one in the Lake Lanoux dispute between France and Spain in 1956. A passage of the decision says: “Le Tribunal est d’avis que l’Etat d’amont a, d’après les règles de bonne foi, l’obligation de prendre in consideration les différents intérêts en présence, de chercher à leur donner toutes les satisfactions compatibles avec la poursuite de ses propres intérêts et de montrer qu’il a, à ce sujet, un souci réel de concilier les intérêts de l’autre riverain avec les siens propres.”⁵³

4.2. Absolute Territorial Integrity

The opposite of the theory of absolute territorial sovereignty is the theory of absolute territorial integrity. Following this theory, a downstream state can demand the upstream neighbours to maintain the normal level of water quantity and quality in the river. This means that the upstream riparian cannot plan activities that might affect the flow of the river into the downstream state.⁵⁴ This may include various activities from large-scale irrigation projects to diverting water in order to regulate water levels or to produce hydraulic power. In fact, the proposal of a downstream state having a right of

⁵² Caflisch, “Règles Générales”, *supra* note 43 at 50.

⁵³ *Affaire du Lac Lanoux (Spain/France)*, (1957), 12 U.N.R.I.A.A. 281, at 315. “The Tribunal considers that the upper riparian State, under the rules of good faith, has an obligation to take into consideration the various interests concerned, to seek to give them every satisfaction compatible with the pursuit of its own interests and to show that it has, in this matter, a real desire to reconcile the interests of the other riparian with its own.” Translated in “Legal Problems Relating to the Utilization and Use of International Rivers, Report by the Secretary General” (UN Doc. A/5409) in *Yearbook of the International Law Commission 1974*, vol. 2, part 2 (New York: UN, 1976) at 33-264 (UNDOC A/CN.4/SER.A/1974/Add.I), at 198.

⁵⁴ Caflisch, “Règles Générales”, *supra* note 43 at 51. McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 126.

veto may be seen as the reason behind the failure of the 1923 Geneva Convention relating to the Development of Hydraulic Power Affecting More than One State.⁵⁵

In state practice, several downstream countries invoked the theory of absolute territorial integrity. Egypt, for example, has always been concerned about maintaining its predominant role in the Nile basin. In Egypt's opinion "each riparian has the full right to maintain the status quo of the rivers flowing on its territory" and "it results from this principle that no country has the right to undertake any positive or negative measure that could have an impact on the river's flow in other countries".⁵⁶ However, Egypt has not followed this extreme position, but has actively cooperated with upstream countries to create a framework for the sustainable development of the Nile River basin.⁵⁷

During its dispute with India over the Indus River Basin, Pakistan, the downstream state, took a similar position, claiming its right to receive a supply of water without any interference from the upper riparian. However, Pakistan too receded from this extreme position, proposing in 1949 that a conference be held in order to find an agreement concerning an "equitable apportionment" of the waters shared by the two countries.⁵⁸

However, the theory of absolute territorial integrity is contained in the Lake Lanoux arbitration, one of the most cited cases in the field.⁵⁹ The case involved a French plan to produce electricity by diverting water from the River Carol upstream of the Spanish border. However, France would have returned the same amount of water to the

⁵⁵ Caflisch, "Règles Générales", *supra* note 43 at 44 and 51.

⁵⁶ *Country Report, Egypt*, paper presented at the Interregional meeting of International River organizations held at Dakar, 5-14 May 1981, quoted in McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 129.

⁵⁷ *Ibid.* at 258-272.

⁵⁸ Richard R. Baxter, *The Indus Basin*, in Garreson, Hayton & Olmstead, *supra* note 44, 443 at 454.

⁵⁹ Caflisch, "Règles Générales", *supra* note 43 at 52.

Carol River before it crossed the border. Although there was no alteration in the quantity and quality of water flowing downstream, Spain raised several concerns: first, that the returned water was coming from another basin, that of the Ariège; and second, that the supply of water could be suspended by human intervention, creating an unequal condition between the two countries.⁶⁰

The tribunal rejected Spain's thesis, stating that transfer of water between different basins is not against rules of international law and there was not a threat of a serious harm.⁶¹ Furthermore, Spain argued that France could not proceed without obtaining Spain's agreement, as provided in the 1866 Treaty of Bayonne and Additional Act between the two countries. The tribunal decided against Spain, affirming that no customary rule or principle of international law required an agreement between two countries in order to use the hydraulic power of an international watercourse.⁶² Even though Spain's position was not strictly one of absolute territorial integrity but was based on the obligations contained in a treaty, the tribunal refused any argument in favour of a Spanish right of veto over French activities, regardless of its basis.⁶³

Ironically, the United States also invoked the doctrine of absolute territorial integrity in the Trail Smelter Arbitration.⁶⁴ In this case, the Legal Advisor of the U.S. Department of State stated the right of state citizens to "use and enjoy their territory and property without interference from an outside source".⁶⁵ The United States claimed that

⁶⁰ *Affaire du Lac Lanoux*, *supra* note 53 at 295-296.

⁶¹ *Ibid.* at 304-305 and 308.

⁶² *Ibid.*

⁶³ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 130.

⁶⁴ *Trail Smelter Arbitration (United States/Canada)* (1941) 3 U.N.R.I.A.A. 1905.

⁶⁵ Memorandum in Relation to the Arbitration of the Trail Smelter Case, United States and Canada, Aug. 10, 1937, prepared by Green H. Hackworth, Legal Adviser, for Swagar Sherley, Agent of the United States, cited in McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 127.

an international wrong had been committed in this case, depriving them of the right to use the nation's territory.⁶⁶ The tribunal rejected any claim based on this doctrine and allowed the smelter to continue operating, although it was subjected to a stringent emission regime. In addition, the decision included a duty to provide compensation for any damage caused on the other side of the border, despite compliance with this rule.⁶⁷

The decision in the Trail Smelter arbitration confirms the lack of consistent application of the theoretical extremes. A right of veto in favour of the downstream riparian is unacceptable and has never been recognized by the international community. Especially nowadays, with the need to exploit water resources increasing and more international cooperation on water issues, insubstantial trans-frontier effects must be tolerated when resulting from lawful activities.

4.3. Limited Territorial Sovereignty

The theory of limited territorial sovereignty is the prevailing theory in the field of international watercourses.⁶⁸ It is based on the idea, developed in the beginning of the 19th century, that the sovereignty of a state over its territory is limited by the obligation not to cause harm to others.⁶⁹ A state could use the portion of the watercourse within its territory, but it had to pay attention not to cause considerable prejudice to the interests of the other riparian countries.⁷⁰ Every riparian had equal rights, no matter the geographical

⁶⁶ *Ibid.*

⁶⁷ *Trail Smelter Arbitration*, *supra* note 64 at 1966

⁶⁸ Caflisch, "Règles Générales", *supra* note 43 at 55. See also, Jerome Lipper, *Equitable Utilization*, in Garreson, Hayton & Olmstead, *supra* note 44, 15 at 24-25 and 38.

⁶⁹ Johan G. Lammers, *Pollution of International Watercourses*, (The Hague: Martinus Nijhoff Publishers, 1984) at 381-382.

⁷⁰ Caflisch, "Règles Générales", *supra* note 43 at 55.

position, but it had an obligation under international law to respect the rights of the other watercourse states.

The theory of limited territorial sovereignty has been acknowledged in numerous early international conventions. The 1933 Montevideo Declaration of American States, for example, acknowledged that the right of a state to use the portion of an international river that flowed in its territory was limited and also included a duty to inform other watercourse states of planned works.⁷¹ In addition, state practice and international law decisions support the idea that riparian states have equal rights to use the water resources of a shared watercourse, but they must also respect the rights of the others. One of the first cases to strengthen this theory in practice is dated 1856 when Holland made what has been recognized as “the first diplomatic assertion of any rule of international law” in the field of non-navigational uses of international watercourses.⁷² A controversy arose between Holland and Belgium concerning the diversion of water from the River Meuse. Holland complained of diminished navigability, increased velocity of the related watercourse and flooded land.⁷³ Holland claimed that under general principles of law, each party must desist from any action which might cause damage to the other.⁷⁴

In several cases upstream countries have recognized the rights of downstream neighbours, as in the discussion between the United Kingdom and Egypt leading to the 1929 Nile Treaty. The United Kingdom recognized Egypt’s right to maintain water

⁷¹ *Declaration of Montevideo concerning the Industrial and Agricultural Use of International Rivers*, 24 December 1933, UN Doc. A/5409, Annex I. [*Declaration of Montevideo*]. Article 7 states: “The works which a State plans to perform in international waters shall be previously announced to the other riparian or co-jurisdictional States.”

⁷² Herbert A. Smith, *The Economic Uses of International Rivers* (London: King & Son Ltd, 1931) at 137.

⁷³ *Ibid.* at 217, citing a letter of May 30th, 1862, by the government of the Netherlands to the Dutch ministers in London and Paris, describing the claim.

⁷⁴ *Ibid.*

supplies for agricultural purposes and to an equitable proportion of potential future supplies resulting from engineering developments.⁷⁵ This position can be seen as “a significant example of the refusal of a powerful state to rely upon the doctrine of the absolute rights of the territorial sovereign”,⁷⁶ and the United Kingdom was willing to concede Egypt’s “ancient and historic rights in the waters of the Nile.”⁷⁷

In the case concerning the Rio Lauca, Chile, the upstream state, admitted that Bolivia had rights to the water and stated that the Montevideo Declaration of 1933 “may be considered as a codification of the generally accepted legal principles on this matter”.⁷⁸ States have the right to exploit rivers within their jurisdiction “upon the necessity of not injuring the equal right due to neighbouring State”.⁷⁹ An analogous position can be found in the dispute regarding the River Jordan,⁸⁰ and in the French memoir on the affaire of Lake Lanoux, which affirmed the right of a state to exploit water resources for hydraulic power within its territory, with a concomitant obligation not to cause prejudice to the other state.⁸¹

Decisions of both domestic and international courts also affirm the theory of limited territorial sovereignty. A significant judgment to this effect was made by the U.S. Supreme Court in the case *New Jersey v. New York* on May 4th, 1931. The controversy concerned a proposal by the upstream riparian state of New York to divert a significant amount of water from certain tributaries of the Delaware River. The plan would have

⁷⁵ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 137.

⁷⁶ Smith, *supra* note 72 at 147.

⁷⁷ *Ibid.*

⁷⁸ Statement of Martinez Sotomayor, Minister of foreign affairs of Chile, to the Council of the Organization of American States, 19 Apr. 1962, OEA/Ser.G/VI, p. 1, quoted in Lipper, *supra* note 68 at 27-28.

⁷⁹ *Declaration of Montevideo*, *supra* note 71, Article 2.

⁸⁰ Lipper, *supra* note 68 at 28.

⁸¹ *Affaire du Lac Lanoux*, *supra* note 53 at 296-297.

caused injury to the downstream riparian state of New Jersey. The court clarified that the interest of both states must be taken under consideration and satisfied in the best way possible, an approach that implicitly rejected the extreme theories previously discussed.⁸²

In the decision concerning Lac Lanoux, the tribunal referred to the doctrine of limited territorial sovereignty and stated that when a state plans a project regarding the shared part of a watercourse flowing within its territory, it must consider the interests and concerns of the other riparian states, even though these interests do not have the status of rights. In particular, an upstream country should take into account the different interests involved, try to balance them with its own interests, and show a real will to accommodate all those concerns.⁸³

The Trail Smelter arbitration confirmed the role of this theory in the field. Even though this case concerned air pollution, the arbitral tribunal was clear in its conclusion that under principles of international law, “no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the proprietaries or person therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.”⁸⁴ This principle can easily be applied to the use of shared water resources and to the general prohibition of transboundary water pollution.

⁸² *New Jersey v. New York*, 283 U.S. 336 (1931), at 342 Judge Holmes, in delivering the opinion of the Court, said: “A river is more than an amenity, it is a treasure. It offers a necessity of life that must be rationed among those who have power over it. New York has the physical power to cut off all the water within its jurisdiction. But clearly the exercise of such a power to the destruction of the interest of lower States could not be tolerated. And on the other hand equally little could New Jersey be permitted to require New York to give up its power altogether in order that the River might come down to it undiminished. Both States have real and substantial interests in the River that must be reconciled as best they may be.”

⁸³ *Affaire du Lac Lanoux*, *supra* note 53 at 315.

⁸⁴ *Trail Smelter Arbitration*, *supra* note 64 at 1965.

Canada has favoured the theory of limited sovereignty since early negotiations with the United States that led to the 1909 Boundary Waters Treaty. Canada is both upper and lower riparian with respect to its southern neighbour. The two countries share a considerable number of watercourses and lakes, making their relationship an important test for the development of principles in the field. Canadian negotiators proposed that all existing and future disputes should have been resolved in accordance with principles to be incorporated into the treaty, principles which were “apparently believed in general to be existing law” and which reflected a limited sovereignty approach.⁸⁵

4.4. Community of Interests

Contemporary theories in the field of environmental law have the tendency to look at natural resources as a whole belonging to all countries. A communitarian approach to water resources existed since ancient times and can be found in the works of past philosophers and poets.⁸⁶ The idea that states sharing an international river form a “community” despite political borders was first endorsed by the Permanent Court of International Justice (PCIJ) in 1929 in the case concerning the *Territorial Jurisdiction of the International Commission of the River Oder*.⁸⁷ The dispute involved the jurisdiction

⁸⁵ William L. Griffin, “Legal Aspects of the Use of Systems of International Waters”, Memorandum of the United States department of State, 21 Apr. 1958, U.S. Senate Doc. No. 118, 85th Cong., 2nd Sess., 1958, cited in McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 142. Those principles are:

1. Navigation was not to be impaired by other uses.
2. Neither country could make diversions or obstruction which might cause injury in the other without the latter’s consent.
3. Each country would be entitled to the use of half the waters along the boundary for the generation of power.
4. Each country would be entitled to an “equitable” share of water for irrigation.

⁸⁶ F. J. Berber, *Rivers in International Law* (London: Stevens & Sons Limited, 1959) at 22.

⁸⁷ *Territorial Jurisdiction of the International Commission of the River Oder*, [1929] P.C.I.J. (ser. A) No. 23.

of the International Commission of the Oder, with reference to the rights of navigation of states other than Poland to the sections of the tributaries of the Oder, Warthe or Netze, all located within the Polish border.⁸⁸ The Court was asked to determine if the right of navigation was extended to these segments of the rivers and, in case of an affirmative response, to establish the principle to determine the upstream limits of the Commission's jurisdiction.⁸⁹

The Commission was created by the Treaty of Versailles⁹⁰ with the purpose of creating a draft Act of Navigation.⁹¹ The case in debate concerned the territorial extent of the internationalized regime of the river,⁹² or, in other words, if this included tributaries and sub-tributaries upstream of the last international border.⁹³ The Court analyzed the text of Article 331 of the Treaty, and stated that the wording subjected internationalization to two conditions: "the waterway must be navigable and must naturally provide more than one State with access to the sea".⁹⁴ The Court interpreted the article by referring to "principles governing international fluvial law in general" and considered in particular the relationship between those principles and the Treaty of Versailles.⁹⁵ The final decision referred to the existence of a community of interests involving all riparian States and established equality in the use of the whole course of the

⁸⁸ Warthe and Netze are themselves tributaries of the Oder.

⁸⁹ *Territorial Jurisdiction of the International Commission of the River Oder*, *supra* note 87 at 6.

⁹⁰ *Treaty of Versailles*, *supra* note 29, Article 341.

⁹¹ *Ibid.* Article 343.

⁹² *Ibid.* Article 331. "The following rivers are declared international:...the Oder (*Odra*) from its confluence with the Oppa;...and all navigable parts of these river systems which naturally provide more than one State with access to the sea..." The "regime of internationalization" of the Oder is contained from Articles 332 to 337 of the Treaty of Versailles. *Territorial Jurisdiction of the International Commission of the River Oder*, *supra* note 87 at 23.

⁹³ *Ibid.* at 25.

⁹⁴ *Ibid.* at 25.

⁹⁵ *Ibid.* at 26.

river and excluded any privilege.⁹⁶ Accordingly, the Court decided that the jurisdiction of the Oder Commission extended to the sections of the rivers situated in Polish territory.

Even though the case concerned the right of navigation, the Court's reference to "principles governing international fluvial law in general" suggests a broader application of those principles.⁹⁷ For example, the Court referred to a "single waterway", lending understanding to the idea of an international watercourse as a unity, undivided by political boundaries.⁹⁸ In addition, the Court does not explicitly limit the application of these considerations only to navigation. If navigation of an international river does not violate state sovereignty, all other uses a State carries out within its own territory would have the same legal status and would be subjected to "the perfect equality of all riparian States".⁹⁹

Such a regime goes well beyond the simple idea of equitable utilization, and instead conceptualizes the river as a bond forming a common organism composed by all riparian states, acting together to achieve a common profit.¹⁰⁰ This idea was recently reinforced by the International Court of Justice in the case involving Hungary and

⁹⁶ *Ibid.* at 27-28. "When consideration is given to the manner in which States have regarded the concrete situation arising out of the fact that a single waterway traverses or separates the territory of more than one State, and the possibility of fulfilling the requirements of justice and the consideration of the utility which this fact places in relief, it is at once seen that a solution of the problem has been sought not in the idea of a right of passage in favour of upstream States, but in that of a community of interest of riparian States. This community of interest in a navigable river becomes the basis of a common legal right, the essential features of which are the perfect equality of all riparian States in the use of the whole course of the river and the exclusion of any preferential privilege of any riparian State in relation to the others.

...

If the common legal right is based on the existence of a navigable waterway separating or traversing several States, it is evident that this common right extends to the whole navigable course of the river and does not stop short at the last frontier..."

⁹⁷ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 149; Lammers, *supra* note 69 at 506-507; Lipper, *supra* note 68 at 29.

⁹⁸ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 149-150.

⁹⁹ Lipper, *supra* note 68 at 29.

¹⁰⁰ Caflisch, "Règles Générales", *supra* note 43 at 60.

Slovakia concerning the Gabčicovo-Nagymaros Project.¹⁰¹ In its decision, the Court first cites the passage from the *River Oder case* about the community of interest in a navigable river, and then explicitly extends this theory to non-navigational uses.¹⁰² In the Court's opinion, "Czechoslovakia, by unilaterally assuming control of shared resources, and thereby depriving Hungary of its right to an equitable and reasonable share of natural resources of the Danube...failed to respect the proportionality which is required by international law".¹⁰³ In this case, the International Court of Justice gives a concrete application to the theory of the community of interests and created an actual obligation toward riparian states that required an equitable utilization of water resources.¹⁰⁴

Publicists soon embraced the theory of community of interests. In the beginning of the 20th century, American writer H. R. Farnham wrote: "A river which flows through the territory of several states or nations is their common property.... It is a great natural highway conferring, besides the facilities of navigation, certain incidental advantages, such as fishery and the right to use water for power and irrigation. Neither nation can do any act which will deprive the other of the benefits of those rights and advantages.... The gifts of nature are for the benefit of mankind, and no aggregation of men can assert and exercise such right and ownership of them as will deprive others having equal right, and

¹⁰¹ *Case concerning the Gabčikovo-Nagymaros Project (Hungary/Slovakia)*, [1997] I.C.J. Rep. 7.

¹⁰² "Modern development of international law has strengthened this principle for non-navigational uses of international watercourses as well, as evidenced by the adoption of the Convention of 21 May 1997 on the Law of the Non-Navigational Uses of International Watercourses by the United Nations General Assembly." *Ibid.* at 56.

¹⁰³ *Ibid.*

¹⁰⁴ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 150.

means of enjoyment....the common right to enjoy the bountiful provisions of Providence must be preserved...”¹⁰⁵

Farnham also affirmed a nation’s inherent right “to protect itself and its territory”, justifying “the one lower down the stream in preventing by force the one further up from turning the river out of its course or in consuming so much of the water for purposes of its own as to deprive the former of its benefits...”¹⁰⁶ This position was, for example, embraced by Mexico in the beginning of the dispute with United States over the Rio Grande, which led to Harmon’s opinion.¹⁰⁷

The same idea can be found in the work of the German writer Lederle who stated, “International water law is thus governed in the main by two principles, the principle of the community of property in flowing water and the principle of territorial sovereignty over a watercourse”.¹⁰⁸ In the conflict between the two principles, he stated that “the principle of the community of property in water is...of decisive importance for all those cases in which only the use of waters comes into consideration...” In his work, the author refers to common usage of water, as for drinking purposes, domestic needs or irrigation, saying that “no state may obstruct or impair the possibilities of common usage in the territory of another state by measures undertaken in its own territory.”¹⁰⁹ Nevertheless, Lederle’s position does not confront more common, contemporary issues like water scarcity. While talking about common usage, the author left aside more significant human

¹⁰⁵ Henry P. Farnham, *The Law of Waters and Water Rights* (Rochester: The Lawyers Co-operative Publishing Co., 1904) at 29.

¹⁰⁶ *Ibid.*

¹⁰⁷ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 78-83.

¹⁰⁸ Lederle, *Das Recht der internationalen Gewässer*, 1920, cited and translated in Berber, *supra* note 86 at 24.

¹⁰⁹ *Ibid.*

alterations of international watercourses, like large scale diversions or pollution, giving his theories scarce possibility of a significant application.¹¹⁰

More recently, Lucius Caflisch theorized that common natural resources placed beyond the limits of domestic jurisdiction are the “common heritage of humanity”.¹¹¹ He suggested that the development of those shared resources should be for the benefit of all states and under the supervision of international institutions.¹¹² This regime, which already existed for some resources, should be extended to international watercourses, “denationalizing” them and transferring their management from individual states to joint and supranational organizations.¹¹³ In Caflisch’s opinion, some of existing treaties already imposed wide limits on the sovereignty of states, but they did not establish sufficient integration to consider the watercourse a common heritage of all riparian states.¹¹⁴

McCaffrey believed that this theory reinforced the doctrine of limited territorial sovereignty, rather than contradicting it.¹¹⁵ The community of interests theory gave a more accurate idea of the relationship that existed among states sharing a watercourse. States might find it difficult to accept the idea of a limited sovereignty, but it is better understood as involving rights subject to certain responsibilities.¹¹⁶ Furthermore, this theory communicates in a more specific way the normative consequences of the fact that a watercourse system is a unity. All riparian states linked through the river form a community, which implies collective or joint action. The more significant outcome of a

¹¹⁰ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 158.

¹¹¹ Caflisch, “Règles Générales”, *supra* note 43 at 59.

¹¹² *Ibid.*

¹¹³ *Ibid.* at 60.

¹¹⁴ *Ibid.*

¹¹⁵ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 164-165.

¹¹⁶ *Ibid.* at 165.

communitarian approach is that it evokes shared governance and joint action, while limited territorial sovereignty simply calls for unilateral restraint.¹¹⁷

The theory of the community of interests does not create a legal obligation in the field of non-navigational uses of international waterways. The community formed by riparian states is a condition resulting from the fact that those states have something in common and they can normally affect the others in some way.¹¹⁸ However, the idea of a community should give states a sense of responsibility for their actions and encourage them to work together and to improve the shared interests in a way that is acceptable for everyone. This obligation was reinforced by more recent international instruments where wider cooperation was required, together with the obligation of prior notification to other riparian states and negotiations in managing international watercourses.

¹¹⁷ *Ibid.*

¹¹⁸ *Ibid.* at 167.

CHAPTER II

THE 1997 UNITED NATIONS CONVENTION ON THE LAW OF THE NON- NAVIGATIONAL USES OF INTERNATIONAL WATERCOURSES

1. Introduction

On May 21st, 1997 the United Nations General Assembly adopted the Convention on the Law of Non-Navigational Uses of International Watercourses.¹¹⁹ It followed the negotiation of the Sixth Committee of the General Assembly, convened as a “Working Group of the Whole”, a negotiation opened to all U.N. members states and member states of specialized agencies of the U.N.¹²⁰ The Convention was a general framework instrument and contained the fundamental rules for the utilization, development, conservation, management and protection of international watercourses.¹²¹ The Convention was the first major world-wide codification of the rules in the field of uses different than navigation and is composed of 37 articles divided into seven parts: Part I, Introduction (Articles 1-4); Part II, General Principles (Articles 5-10); Part III, Planned Measures (Articles 11-19); Part IV, Protection, Preservation and Management (Articles 20-26); Part V, Harmful Conditions and Emergency Situations (Articles 27-28); Part VI, Miscellaneous Provisions (Articles 29-33); and Part VII, Final Clauses (Articles 34-37).

¹¹⁹ The Convention is annexed to: *Convention on the Law of the Non-Navigational Uses of International Watercourses*, G.A. Res. 51/229, UNGAOR, 51st Sess., UN Doc. A/RES/51/229 (1997), adopted by a vote of 103 for and 3 against, with 27 abstentions, UNGAOR, 51st Sess., 99th Mtg., UN Doc. A/51/PV.99 (1997) 8 [Convention].

¹²⁰ *Draft Articles on the Law of the Non-Navigational Uses of International Watercourses*, GA Res. 49/52, UNGAOR, 49th Sess., Supp. No. 49, UN Doc. A/RES/49/52 (1995) at 2, para. 3. [Draft Articles].

¹²¹ *Convention*, *supra* note 119, Preamble, fifth paragraph.

The Convention also has an Annex that sets procedures in case the parties to a dispute have agreed to submit the question to arbitration.

The Convention is based on the Draft Articles approved by the International Law Commission (ILC) in 1994,¹²² which concluded a long work started in 1970 when the General Assembly adopted Resolution 2669 (XXV) entitled “Progressive development and codification of the rules of international law relating to international watercourses”.¹²³ The Working Group convened for the first time in autumn 1996 and did not complete the elaboration because the delegations did not find a general consensus on the text.¹²⁴ The final text submitted to the General Assembly was the result of the second session of the Working Group, held between 24 March and 4 April 1997.¹²⁵

The number of ratifications required to bring the Convention into force is 35,¹²⁶ but as of November 2009 only 16 states had signed and 18 had become part of the Convention,¹²⁷ a limited success considering the large majority achieved during the General Assembly adoption. To find the reasons behind the lack of accession to the Convention, we should look to the activities of the Working Group and the debates

¹²² “Report of the International Law Commission on the work of its Forty-Sixth Session” (UN Doc. A/49/10) in *Yearbook of the International Law Commission* 1994, vol. 2, part 2 (New York and Geneva: UN, 1997) at 88-135 (UNDOC A/CN.4/SER.A/1994/Add.1).

¹²³ *Progressive Development and Codification of the Rules of International Law Relating to International Watercourses*, GA Res. 2669 (XXV), UNGAOR, 25th Sess., Supp. No. 28, UN Doc. A/8028 (1971) at 127 [*Progressive Development and Codification*].

¹²⁴ J.R. Crook & S.C. McCaffrey, “The United Nations Starts Work on a Watercourse Convention” (1997) 91 Am. J. Int’l L. 374 at 376.

¹²⁵ *Report of the Sixth Committee convening as the Working Group of the Whole*, UNGAOR, 51st Sess., UN Doc. A/51/869 (1997).

¹²⁶ Convention, *supra* note 119, Article 36 (1), “The present Convention shall enter into force on the ninetieth day following the date of deposit of the thirty-fifth instrument of ratification, acceptance, approval or accession with the Secretary-General of the United Nations.” The Convention was open for signature from 21 May 1997 until 21 May 2000. However, states may continue to ratify, accept, approve or accede to the Convention indefinitely.

¹²⁷ United Nations, *Treaty Collection – Status of Treaties*, online: United Nations Treaty Collection <http://treaties.un.org/Pages/ViewDetails.aspx?src=UNTS&tabid=2&mtdsg_no=XXVII-12&chapter=27&lang=en#Participants>.

within it. The following part focuses on the issues raised during the elaboration of the Convention, while the second part of this chapter deals with the structure and main principles of the Convention. The last part will illustrate the major issues concerning the Convention and its role in international law more than a decade after its adoption.

2. The Genesis of the Convention

2.1 The ILA Helsinki Rules

The final text of the Convention is the result of a lot of work. In 1970, the General Assembly charged the ILC to begin “the study of the law of the non-navigational uses of international watercourses with a view to its progressive development and codification”.¹²⁸ The general principles and customary rules were still the main source of law in the field, and the General Assembly considered a codification of those rules appropriate.¹²⁹ However, an important set of articles on the matter already existed, adopted by the International Law Association (ILA) in 1966 and known as the Helsinki Rules on the Uses of the Waters of International Rivers.¹³⁰

The ILA was founded in Brussels in 1873 and its objectives are “the study, clarification and development of international law, both public and private, and the furtherance of international understanding and respect for international law”.¹³¹ The membership of the association, about 3700 members in different fields, is spread amongst

¹²⁸ *Progressive Development and Codification*, *supra* note 123 at para 1.

¹²⁹ *Ibid.* at fourth and sixth preambular paragraphs.

¹³⁰ Helsinki Rules, *supra* note 31.

¹³¹ International Law Association, *Constitution of the Association*, online: International Law Association <<http://www.ila-hq.org/download.cfm/docid/30692D54-747F-4D66-B9F8E5C08F69F3AF>>.

branches throughout the world. The ILA is considered an international non-governmental organization and has consultative status like the United Nations specialised agencies.¹³² The Helsinki Rules had a significant role in the field of international watercourses and actively contributed to the development of the notion of limited sovereignty and conceptualised the idea of equitable utilization of shared resources.¹³³

The Helsinki Rules apply “to the use of the waters of an international drainage basin,”¹³⁴ which is defined as “a geographical area extending over two or more States determined by the watershed limits of the system of waters, including surface and underground waters, flowing into a common terminus.”¹³⁵ The definition is important, both for its broad approach and because it mentions underground water, an important source of freshwater which is often left unregulated under international law.¹³⁶

The Helsinki Rules also asserted the prominence of equitable utilization among the principles of the law of international watercourses.¹³⁷ On the other hand, the Rules do not consider the prohibition against causing significant harm as an independent principle, but merely a factor to be taken into account in determining when a use is equitable.¹³⁸ The ILA’s attempt to codify the field of international watercourses has been used as a

¹³² International Law Association, *About us*, online: International Law Association <http://www.ila-hq.org/en/about_us/index.cfm>.

¹³³ Rosalyn Higgins, *Problem and Process, International law and How We Use It* (Oxford, Clarendon Press, 1994) at 135.

¹³⁴ Helsinki Rules, *supra* note 31 Article I.

¹³⁵ *Ibid.* Article II.

¹³⁶ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 380

¹³⁷ Helsinki Rules, *supra* note 31 Article IV. “Each basin State is entitled, within its territory, to a reasonable and equitable share in the beneficial uses of the waters of an international drainage basin.”

¹³⁸ *Ibid.* Articles XI (2) (j) and (k).

reference by scholars and states in the elaboration of subsequent international instruments.¹³⁹

The ILA had significant influence on the adoption of the U.N. Convention and many of the principles and developments included in the Helsinki Rules can be found in the latest codification.¹⁴⁰ In early discussions about the codification of the legal principles applicable in the field, the Finnish delegation proposed the Helsinki Rules as a model to the General Assembly.¹⁴¹ This opened a highly controversial debate within the U.N. Sixth Committee, which was divided on whether to mention the Helsinki Rules in the draft resolution for the future work of the ILC.¹⁴² Some delegations were against the inclusion because the members of the ILA did not represent states or their interests.¹⁴³ However, the main reason that prevented this proposal from being accepted was that the Helsinki Rules acknowledged the drainage basin, which was considered too broad for some States and extended the geographical scope of the rules too far.¹⁴⁴

2.2 The ILC and the Geographical Scope of the Convention

The debate about the geographical scope was one of the main issues leading up to the Convention. In the early activities of the ILC, the majority of members pressed for the concept of river basin as the appropriate approach for an international agreement.¹⁴⁵ This

¹³⁹ Higgins, *supra* note 133 at 134.

¹⁴⁰ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 381.

¹⁴¹ *Ibid.*

¹⁴² James L. Wescoat, "Beyond the River Basin: The Changing Geography of International Water Problems and International Watercourse Law" (1992) 3 Colo. J. Int'l Envtl. L. & Pol'y 301 at 306-308.

¹⁴³ *Ibid.* at 307.

¹⁴⁴ Attila Tanzi & Maurizio Arcari, *The United Nations Convention on the Law of International Watercourses: a Framework for Sharing* (The Hague/Boston: Kluwer Law International, 2001) at 36.

¹⁴⁵ Wescoat, *supra* note 142 at 308. The concept of river basin, or the even more comprehensive one of drainage basin, involves all waters connecting to a watercourse.

formulation did not find a general consensus. It met the opposition of some important members and created an impasse in the work of the ILC and the Sixth Committee.¹⁴⁶ This situation pushed the ILC to embrace a different formulation in the beginning of the 1980's, which introduced the concept of a "watercourse system" that included tributaries, canals and underground waters.¹⁴⁷ This definition seemed to be a simple replacement for the drainage basin and the main purpose of this new reformulation was likely to remain vague on this issue while working on the draft articles in its entirety.¹⁴⁸

The watercourse system approach did not last long. In 1984, the new Special Rapporteur narrowed down the geographical scope of the draft and simply talked of an international watercourse.¹⁴⁹ This definition finally met the expectation of those states that opposed the basin approach, although it raised concerns in the ILC and the Sixth Committee.¹⁵⁰ The new compromise did not help the work of the ILC. Instead, it created more confusion and frustration, and led the following Special Rapporteur, Stephen McCaffrey, to immediately object to the new terminology.¹⁵¹ He reintroduced the word

¹⁴⁶ Brazil led the members unhappy with the drainage basin framework, a group including Afghanistan, Peru, the USSR and Iraq. *Ibid.* at 313.

¹⁴⁷ Stephen Schewebel, "Second Report on the Law of the Non-Navigational Uses of International Watercourses" (UN Doc. A/CN.4/332 and Add.1) in *Yearbook of International Law Commission 1980*, vol. 2, part 1 (New York: UN, 1982) 159 at 167-170 (UNDOC. A/CN.4/SER.A/1980/Add.1).

¹⁴⁸ Wescoat, *supra* note 142 at 314.

¹⁴⁹ Jens Evensen, "Second Report on the Law of the Non-Navigational Uses of International Watercourses" (UN Doc. A/CN.4/381) in *Yearbook of International Law Commission 1984*, vol.2, part 1 (New York: UN, 1986) 101 at 103-106 (UNDOC. A/CN.4/SER.A/1984/Add.1).

¹⁵⁰ *Ibid.* at 105.

"Article 1. Explanation (definition) of the term "international watercourse" as applied in the present Convention.

1. For the purposes of the present Convention, an "international watercourse" is a watercourse—ordinarily consisting of fresh water—the relevant parts or components of which are situated in two or more States (watercourse States).
2. To the extent that components or parts of the watercourse in one State are not affected by or do not affect uses of the watercourse in another State, they shall not be treated as being included in the international watercourse for the purposes of the present Convention.
... " *Ibid.* at 106

¹⁵¹ Wescoat, *supra* note 142 at 316-317.

system and advised the committee to continue its work while leaving this question suspended.¹⁵²

The issue of the geographical scope was reconsidered when the draft articles were almost complete and eliminated the term “watercourse system” once again. Instead, an international watercourse would be identified as a “unitary whole” composed of different hydrographic components where a use affecting waters in one part of the system may have consequences in another part.¹⁵³ Nevertheless, the draft articles, adopted on second reading in 1994, maintained the international watercourse approach and defined watercourse as “a system of surface and underground waters constituting by virtue of their physical relationship a unitary whole [and flowing into a common terminus].”¹⁵⁴

2.3 The Working Group of the General Assembly

The Sixth Committee of the General Assembly started working on the ILC Draft Articles immediately after its adoption.¹⁵⁵ On December 1994, the General Assembly adopted the resolution 49/52, in which it authorized a Working Group of the Whole to develop a framework convention on the basis of the ILC draft articles.¹⁵⁶ The resolution invited all members to submit written comments and observations on the draft articles no

¹⁵² Stephen McCaffrey, “Second Report on the Law of the Non-Navigational Uses of International Watercourses” (UN Doc. A/CN.4/399 and Add.1 and 2) in *Yearbook of the International Law Commission 1986*, vol. 2, part 1 (New York: UN, 1987) 87 at 97-98 (UNDOC. A/CN.4/SER.A/1986/Add.1).

¹⁵³ Stephen McCaffrey, “Seventh Report on the law of the non-navigational uses of international watercourses” (UN Doc. A/CN.4/436) in *Yearbook of the International Law Commission 1991*, vol. 2, part 1 (New York and Geneva: UN, 1994) 45 at 49 (UNDOC. A/CN.4/SER.A/199 I/Add. 1).

¹⁵⁴ Robert Rosenstock, “Second Report on the law of the non-navigational uses of international watercourses” (UN Doc. A/CN.4/462) in *Yearbook of the International Law Commission 1994*, vol. 2, part 1 (New York and Geneva: UN, 2001) 116 at 116 (UNDOC A/CN.4/SER.A/1994/Add.1).

¹⁵⁵ *International Law Commission, Report on the Forty-Sixth Session*, UNGAOR, 47th Sess., U.N Doc. A/CN.4/464/Add.1, (1995) 43-56.

¹⁵⁶ *Draft Articles*, *supra* note 120.

later than July 1st, 1996. The resolution determined that the Working Group was open to State members of the United Nations and to members of specialized agencies and set the method of works and procedures. However, during the October 1996 meetings the Working Group did not accomplish its task and thus required further negotiations.¹⁵⁷

One of the main issues during the Working Group meetings was the relationship between the Convention and existing or future watercourse agreements. This question potentially affected the national interests of various states and was debated in the earliest works of the Sixth Committee. Many States were already party to international agreements and feared that the new Convention threatened their existing agreements.¹⁵⁸ For this reason, a broad coalition of states pressured for an accord that ensured the Convention would not alter existing agreements.¹⁵⁹

A French proposal on this issue was voted on during the adoption of the draft articles,¹⁶⁰ but it was not approved and the Sixth Committee adopted the draft resolution as a whole without a vote.¹⁶¹ This decision was a consequence of the strong movement representing states that wanted to modify agreements they were not party to, but that applied to international watercourses flowing within their territories.¹⁶² Some of the most controversial water disputes arise where treaties do not include all countries within the river basin.¹⁶³

¹⁵⁷ Tobias Nussbaum, "Report on the Working Group to Elaborate a Convention on International Watercourses" (1997) 6 Rev. Eur. Com. & Int'l Envtl. L. 47 at 47.

¹⁵⁸ *Ibid.* at 48.

¹⁵⁹ Crook & McCaffrey, *supra* note 124 at 376.

¹⁶⁰ UNGAOR, 49th Sess., 41st Mtg., UN Doc. A/C.6/49/SR.41 (1994) at 9.

¹⁶¹ *Report of the Sixth Committee*, UNGAOR, 49th Sess., UN Doc. A/49/738 (1994) at 10-15.

¹⁶² Nussbaum, *supra* note 157 at 48.

¹⁶³ Sandra Postel, "Forging a Sustainable Water Strategy" in Lester R. Brown et al. eds., *State of the World: a Worldwatch Institute Report on Progress toward a Sustainable Society* (New York: W.W. Norton & Company, 1996) 40 at 52.

The balance between the principle of equitable utilization and the duty not to cause harm, contained in article 5 and in article 7 of the draft was another source of controversy. The delegations held positions that can be divided into three main groups: a first group mainly composed by upstream states favoured stronger principles of equitable and reasonable utilization. A second group of states supported the ILC text and its balance between the two principles. A third group, largely consisting of downstream states, favoured strengthening the no-harm rule and a more environment oriented approach.¹⁶⁴ In particular, the delegations representing downstream riparians argued that the letter of article 5 failed to include important principles of environmental law and did not protect their interests. On the other hand, upstream states were afraid that an explicit prohibition to cause no harm could unjustifiably limit possible development on international watercourses.¹⁶⁵

Since the Working Group failed to solve these issues during the autumn of 1996, the General Assembly decided to convene a second session in 1997.¹⁶⁶ The Working Group focused its efforts on working out the unresolved issues. During long negotiations, the normative role of the Convention was taken under consideration again. The final text of the Convention represents a compromise between the different groups of states mentioned above. While Article 3 (1) inserted an exclusion clause,¹⁶⁷ the following paragraph foresaw the possibility for states to “consider harmonizing such agreements

¹⁶⁴ Nussbaum, *supra* note 157 at 49.

¹⁶⁵ Crook & McCaffrey, *supra* note 124 at 376.

¹⁶⁶ *Convention on the Law of the Non-Navigational uses of International Watercourse*, GA Res. 51/206, UNGAOR, 51st Sess., UN Doc. A/RES/51/206 (1997).

¹⁶⁷ *Convention*, *supra* note 119, Article 3 (1): “In the absence of an agreement to the contrary, nothing in the present Convention shall affect the right and obligations of a watercourse State arising from agreements in force for it on the date on which it became a party to the present Convention.”

with the basic principles” of the new Convention. In addition, Article 3(6) explicitly excluded any legal effect in relation to third parties.¹⁶⁸

The result of these negotiations was an international instrument that did not affect, under any circumstance, existing agreements or third parties. This compromise received criticism from several states¹⁶⁹ and appeared unsatisfactory to some scholars as well.¹⁷⁰ Nevertheless, harmonizing the enormous volume of existing agreements appears unrealistic.¹⁷¹ This does not mean that the Convention has no effects on those agreements; it reflects existing and emerging principles of customary international law and states could adopt those principles in the interpretation of the rules contained in the agreements to which they are parties. In addition, the Convention will have an impact in the future as the draft articles have already influenced the drafting of water agreements and there is no doubt that states negotiating new agreements will use its provisions as a solid base to start from.¹⁷²

A separate vote was also necessary for the adoption of Articles 5, 6, and 7, concerning respectively equitable utilization, the factors relevant to equitable utilization, and the duty not to cause harm.¹⁷³ In conclusion of its work, the Working Group adopted the whole text of the draft convention by a vote of 42 in favour and 3 opposed, with 19

¹⁶⁸ Malgosia Fitzmaurice, “Convention on the Law of the Non-Navigational Uses of International Watercourses” (1997) 10 *Leiden J Int'l L.* 502 at 503.

¹⁶⁹ UNGAOR, 51st Sess., 62nd Mtg., UN Doc. A/C.6/51/SR.62 (1997) at 6-7.

¹⁷⁰ Fitzmaurice, *supra* note 168 at 504. In the view of the author, “the only effective way to secure the rights of all states of the region is to strive for comprehensive regional participation in an existing watercourse agreement.”

¹⁷¹ Stephen C. McCaffrey, “An Overview of the U.N. Convention on the Law of the Non-Navigational Uses of International Watercourses” (2000) 20 *J. Land Resources & Environmental L.* 57 at 59.

¹⁷² *Ibid.* at 72.

¹⁷³ These articles were adopted by 38 votes to 4, with 22 abstentions (China, France, Tanzania and Turkey voted against). UNGAOR, 51st Sess., 62nd Mtg., UN Doc. A/C.6/51/SR.62 (1997) at 2-3.

abstentions.¹⁷⁴ Following this vote, it recommended the General Assembly to adopt the text, composed of 33 articles and an annex on the settlements of disputes.¹⁷⁵

3. Overview of the Convention

The Convention is divided into seven parts and contains thirty-seven articles. This part will analyse the main provisions of the Convention and highlight some of the controversies that arose during their elaboration. The two most important principles contained in the Convention, the equitable and reasonable utilization and the obligation not to cause significant harm will be examined in detail in a separated part of this work.

After a long debate, the ILC defined the geographical scope of the Convention at the conclusion of its works. The last Special Rapporteur put aside the term watercourse system, which was considered too wide in the opinion of some states, and tried to find a simpler compromise.¹⁷⁶ The result of these negotiations is in Article 1, which states that the Convention applies to uses of “international watercourses.”¹⁷⁷ However, this expression is not a synonym of “international river”, but has a broader meaning. Article 2 defines watercourse as “a system of waters and groundwaters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus.”¹⁷⁸ This definition refers to all water interacting with a river, and in particular to groundwater, which extends the effects of the Convention to a broad array of activities

¹⁷⁴ UNGAOR, 51st Sess., 62nd Mtg., UN Doc. A/C.6/51/SR.62/Add.1 (1997) at 2. China, France and Turkey voted against the draft convention as a whole.

¹⁷⁵ *Report of the Sixth Committee convening as the Working Group of the Whole, supra* note 125 at 6-24, para. 10.

¹⁷⁶ McCaffrey, “Seventh Report”, *supra* note 153 at 49.

¹⁷⁷ *Convention, supra* note 119, Article 1.

¹⁷⁸ *Ibid.* Article 2(a).

affecting freshwaters.¹⁷⁹ It is in harmony with the hydrologic reality and it requires states to be mindful of the interrelationship of waters.¹⁸⁰ However, some states were unhappy with the inclusion of groundwater in the Convention, which was cited as a reason for abstention during the final vote by two delegations.¹⁸¹

A very important source of fresh water is left almost unregulated by the Convention. It is the confined groundwater, also called “fossil water”, which does not contact surface water. This type of fresh water is fundamental in some arid regions and sometimes it is shared by two or more countries. However, in those cases it falls outside the definition of international watercourse contained in the Convention.¹⁸² The ILC adopted a resolution on the matter, recommending the application of the principles contained in the draft to these waters.¹⁸³ In addition, some authors think that the basic principles, such as equitable utilization and a general prohibition to pollute, apply also to fossil water.¹⁸⁴ In any case, there is a lack of specific and clear regulation in the field. The ILC had the opportunity to fill this deficiency, but may have wanted to avoid adding more controversial issues to the already difficult work that was expected in the Working Group.

One of the main debates in the Working Group concerned the relationship of the Convention to existing agreements in the field and upcoming treaties. Articles 3 and 4 of the Convention deal with this matter. Article 3 gives the main guideline and states that

¹⁷⁹ McCaffrey, “An Overview of the U.N. Convention”, *supra* note 171 at 58.

¹⁸⁰ Stephen C. McCaffrey & Mpazi Sinjela, “The 1997 United Nations Convention on International Watercourses” (1998) 92 Am. J. Int’l L. 97 at 97.

¹⁸¹ UNGAOR, 51st Sess., 99th Mtg., UN Doc. A/51/PV.99 (1997) at 5 and 12.

¹⁸² McCaffrey, “An Overview of the U.N. Convention”, *supra* note 171 at 59.

¹⁸³ Report of the International Law Commission on the work of its Forty-Sixth Session”, *supra* note 122 at 135.

¹⁸⁴ McCaffrey, “An Overview of the U.N. Convention”, *supra* note 171 at 59.

the Convention does not affect the rights or obligations of a watercourse state arising from agreements that already exist. Article 4, however, promotes the harmonization of existing agreements with the basic principles of the Convention. States are also given the opportunity to “apply and adjust” the conventional general principles to “the characteristics and uses of a particular international watercourse” through “watercourse agreements”.¹⁸⁵ In addition, whenever a state believes that the rules of the Convention should be used to govern the waters it shares with one or more riparian states, they are required to enter into consultation, with the aim to conclude an agreement.¹⁸⁶

The Convention also establishes the right for riparian states to participate in the negotiation of agreements that apply to the entire international watercourse or to those that apply only to part of the watercourse but may affect them to a significant extent.¹⁸⁷ In the first case all watercourse states have the right to be party to an agreement. In the case of an agreement concerning only part of a watercourse or a specific project, the riparian state may participate in consultation, “and, where appropriate, in the negotiation thereof in good faith, with a view to becoming a party thereto, to the extent that its use is thereby affected.”¹⁸⁸

Part two contains the general principles and is the heart of the Convention. It includes the two pillars: the equitable and reasonable utilization and participation (Article 5) and the obligation not to cause significant harm (Article 7). Equitable and reasonable utilization is the basic principle of the entire Convention. It declares the fundamental rights and obligation of all riparian states with regard to the utilization of international

¹⁸⁵ *Convention, supra* note 119, Article 3(3).

¹⁸⁶ *Ibid.* Article 3(5).

¹⁸⁷ *Ibid.* Article 4.

¹⁸⁸ *Ibid.* Article 4(2).

watercourses for purposes other than navigation.¹⁸⁹ The ILC delineates the key characteristics of this principle as “a watercourse State has the right, within its territory, to a reasonable and equitable share, or portion of the uses and benefits of an international watercourse,”¹⁹⁰ and in doing so each state has the obligation “not to deprive other watercourse States of their right to equitable utilization.”¹⁹¹ Although this idea implies equality of rights, each state is not entitled to an equal share of the uses and benefits of the watercourse; nor is the water itself divided into identical portions. Instead, each state “is entitled to use and benefit from the watercourse in an equitable manner”. The purpose is to achieve a sustainable utilization and satisfactory protection of water resources.¹⁹²

Article 6 contains a list of factors to be taken into account by states to achieve the equitable and reasonable utilization of an international watercourse.¹⁹³ The list is non-exhaustive and several countries have suggested different additions, such as the contribution to the development of watercourse activities by each watercourse state. However, those proposals were unsuccessful due to a lack of consensus among other delegations.¹⁹⁴ The Working group added paragraph 3 to this article to emphasise that all

¹⁸⁹ “Report of the International Law Commission on the work of its Forty-Sixth Session”, *supra* note 122 at 96.

¹⁹⁰ *Ibid.* at 97

¹⁹¹ *Ibid.* at 98

¹⁹² *Ibid.*

¹⁹³ *Convention, supra* note 119, Article 6(1). The list is the follow:

“(a) Geographic, hydrographic, hydrological, climatic, ecological and other factors of a natural character;
(b) The social and economic needs of a watercourse States concerned;
(c) The population dependent on the watercourse in each watercourse State;
(d) The effects of the use or uses of the watercourse on one watercourse State on other watercourse States;
(e) Existing and potential uses of the watercourse;
(f) Conservation, protection, development and economy of use of the water resources of the watercourse and the costs of measures taken in that effect;
(g) The availability of alternatives, of comparable value, to a particular planned or existing use.”

¹⁹⁴ UNGAOR, 51st Sess., 24th Mtg., UN Doc. A/C.6/51/SR.24 (1997) at 5.

factors must be considered together.¹⁹⁵ This provision might appear redundant but it is almost identical to the corresponding provision in the 1966 Helsinki Rules, from which it is probably inspired.¹⁹⁶

The second general principle in the Convention is the obligation not to cause significant harm. This rule is a direct application of the principle “*sic utere tuo ut alienum non laedas*,” expressed by the International Court of Justice in the *Corfu Channel Case*, which affirmed the obligation for a state to not cause any prejudice to others.¹⁹⁷ The Convention, following the general approach recognized in international law, requires the harm to be significant.¹⁹⁸ The ILC has interpreted this term to mean substantial. The Convention, however, only requires that a significant adverse effect “must be capable of being established by objective evidence and not be trivial by nature.”¹⁹⁹ It should not, therefore, be required to achieve the level to be considered substantial.

The third general principle of the Convention is a general obligation to cooperate and is stated in Article 8. The provision underlines one of the main characteristics of the Convention, namely that riparian states are positively involved in the management of shared water resources. The Working Group added the second paragraph to the ILC’s draft in order to improve collaboration among watercourse states. To do so, they are

¹⁹⁵ *Ibid.* at 4.

¹⁹⁶ Helsinki Rules, *supra* note 31, Article V, paragraph 3.

¹⁹⁷ About the obligations of Albania in preventing the incidents leading to the trial, the Court affirms that such obligations are based on certain general and well-recognizable principles. In particular, “every State’s obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States.” *Corfu Channel Case, (U.K. v. Albania)*, [1949] I.C.J. 5 at 22.

¹⁹⁸ Mireya Castillo Daudi, “La Protección y Preservación de los Cursos de Agua Internacionales: el Convenio sobre el Derecho de los Usos de los Cursos de Agua Internacionales para Fines Distintos de la Navegación de 21 Mayo de 1997” (1999) 15 *Anuario de Derecho Internacional* 115 at 139.

¹⁹⁹ *Report of the Sixth Committee convening as the Working Group of the Whole, supra* note 125 at 5.

invited to establish joint mechanisms or commissions to better manage international watercourses.²⁰⁰

The general obligation to cooperate has a strong impact on the equitable utilization of the watercourse.²⁰¹ In order to achieve this objective watercourse states need up-to-date data and information. Otherwise it would be impossible for a state to meet the standards of equitable and reasonable utilization and, at the same time, it will not be able to fully comprehend and judge the behaviours of other riparian states. The process of gathering information must be continuous and independent from information concerning specific projects.²⁰² The importance of this is captured in article 8 which considers the difficulties a downstream state might face in developing a watercourse without accurate information about the quality and quantity of water flowing upstream in the basin.²⁰³

Article 10 closes this part of the Convention. It deals with the hierarchy between the different uses of a watercourse and it states that no use takes precedence over others. This provision allows parties to make specific agreements. It also refers to customs as an exception to the rule. The second paragraph contains an interesting aspect: conflicts are to be resolved with reference to article 5 to 7 and special regard is to be given to “vital human needs.”²⁰⁴ This expression needed to be defined and was the subject of several discussions in the Working Group.²⁰⁵ A “statement of understanding” at the end of the Working Group’s activities specified that, “[i]n determining ‘vital human needs’, special

²⁰⁰ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 368.

²⁰¹ Castillo Daudi, *supra* note 198 at 143.

²⁰² *Ibid.*

²⁰³ McCaffrey & Sinjela, *supra* note 180 at 102.

²⁰⁴ *Convention*, *supra* note 119, Article 10(2).

²⁰⁵ McCaffrey & Sinjela, *supra* note 180 at 103.

attention is to be paid to providing sufficient water to sustain human life, including both drinking water and water required for production of food in order to prevent starvation.”²⁰⁶

Part III of the Convention contains the procedures to be followed when one state plans a new activity that may have significant negative effects on other riparian states. Article 11 establishes a general obligation to inform other watercourse states, giving them the opportunity to evaluate the possible effects of a planned project, especially with regards to their right to an equitable and reasonable utilization of water resources. The subsequent provision is concerned specifically with the notification required for those projects that “may have a significant adverse effect upon other watercourse States.”²⁰⁷ The concept of “significant adverse effect” is different from the idea of “significant harm” as stated in article 7. It is a lower level of alert and sets a different threshold.²⁰⁸

After receiving a notification, states have six months to respond. If one or more of the states involved considers the planned measures to have a negative effect on the portion of the watercourse within its territory, they must enter into consultation with the notifying state “with the view to arriving at an equitable resolution of the situation.”²⁰⁹ If it is impossible to come to an agreement, the rules for the settlement of disputes contained in article 33 will be applicable.²¹⁰

Part IV is the environmental section of the Convention. The first obligation is very general and requires riparian states to “protect and preserve the ecosystems of

²⁰⁶ *Report of the Sixth Committee convening as the Working Group of the Whole*, *supra* note 125 at 5.

²⁰⁷ *Convention*, *supra* note 119, Article 12.

²⁰⁸ Castillo Daudi, *supra* note 198 at 145.

²⁰⁹ *Convention*, *supra* note 119, Article 17(1).

²¹⁰ McCaffrey, “An Overview of the U.N. Convention”, *supra* note 171 at 65.

international watercourses.”²¹¹ This might appear simple but it is extremely significant because it is not limited to water, but also embraces, through the word ecosystem, all of the environmental aspects surrounding a watercourse.

Article 21 specifically deals with pollution of international watercourses. It defines pollution as “any detrimental alteration in the composition or quality of the waters of an international watercourse.”²¹² This definition is more general than in other international instruments and it does not cite any concrete type of contamination.²¹³ Nevertheless, this is a qualified obligation, triggered by a “significant harm” caused to “other watercourse States or their environment.”²¹⁴

Article 22 requires watercourse states to prevent the introduction of alien or new species into international watercourses. The reason for this provision is the high risk of alteration in a very delicate ecosystem, which can lead to significant problems in other riparian states.²¹⁵ Once introduced, these species can be very difficult to eradicate and for this reason prevention is important. However, the obligation requires a causal relationship between the introduction of the species and the significant harm to the other riparian state.

Part V contains an obligation functioning in two directions. On one side, states are required to “take all appropriate measures” to prevent or mitigate harmful conditions, such as flood or ice conditions, water-borne diseases, siltation, erosion, salt-water

²¹¹ Convention, *supra* note 119, Article 20.

²¹² *Ibid.* Article 21(1).

²¹³ Castillo Daudi, *supra* note 198 at 151-152.

²¹⁴ Convention, *supra* note 119, Article 21(2).

²¹⁵ In its draft articles, the ILC pointed out some of the most serious consequences of the introduction of alien or new species: “the acceleration of eutrophication, the disruption of food webs, the elimination of other, often valuable species, and the transmission of disease.” “Report of the International Law Commission on the work of its Forty-Sixth Session”, *supra* note 122 at 124.

intrusion, drought or desertification.²¹⁶ On the other, it deals with emergency situations, asking a state “to notify other potentially affected States and competent international organizations of any emergency originating within its territory.”²¹⁷ It also requires states “to take all practicable measures...to prevent, mitigate and eliminate harmful effects of the emergency.”²¹⁸ Emergency is a broad concept in the Convention and includes different situations, either natural or arising from human activities.

The last part of the Convention contains Article 33, which deals with the settlement of disputes. It provides for compulsory fact-finding at the request of any party after negotiations have failed to settle the dispute within six months.²¹⁹ This article was at the centre of a strong debate in the Working Group. States were unhappy about compulsory dispute settlement procedures and preferred instruments, like negotiations, that leave wider political freedom and control.²²⁰ In particular, a group of upstream states opposed a norm that would undermine their geographically dominant position.²²¹

Fact finding represents an important tool in carrying out some of the basic obligations of the Convention. It helps to determine if a use is equitable and reasonable and to evaluate if a state’s action led to a harmful situation affecting another party.²²² Article 33 also gives states the opportunity to declare if they accept a compulsory

²¹⁶ *Convention, supra* note 119, Article 27.

²¹⁷ *Ibid.* Article 28(2).

²¹⁸ *Ibid.* Article 28(3).

²¹⁹ *Ibid.* Article 33(3).

²²⁰ See for example, China, which favours consultations, and India, which also talks about settlement means chosen by parties involved. UNGAOR, 51st Sess., 99th Mtg., UN Doc. A/51/PV.99 (1997) at 7 (China) and 9 (India).

²²¹ France, Israel and Rwanda supported the idea that states should be free to choose the instruments to settle a rising dispute. In particular, in the opinion of French representative, all the Convention was weighted in favour of interests of downstream states. *Ibid.* at 8 (France), 11 (Israel), and 12 (Rwanda).

²²² McCaffrey & Sinjela, *supra* note 180 at 104.

submission of disputes to the International Court of Justice or to arbitration in accordance with the procedures of the annex to the Convention.²²³

Part VII contains the provisions dealing with ratification, acceptance, approval or accession.²²⁴ Article 36, establishes the number of ratifications necessary to bring the Convention into force to thirty-five. It may appear a modest number, but after more than a decade, only 18 states have ratified the Convention. The reasons behind this slow progress are numerous. Many states already have treaties governing their international watercourses and do not look at the Convention as a helpful instrument, while others have ongoing disputes and prefer not to use the new instrument. In addition, some states simply do not have international watercourses or are islands and therefore do not have interest in becoming a party.²²⁵

4. Reflections about the Convention

4.1 A Framework Convention

The Convention is considered a framework, but the term is used in a different way than generally used in international law. A framework convention is usually an international instrument that contains minimum standards and requires further elaboration or specific rules. They can be included in protocols or annexes to the framework convention, or in decisions of institutions established by the convention.²²⁶ Examples of

²²³ *Convention*, *supra* note 119, Article 33(10).

²²⁴ *Ibid.* Article 35.

²²⁵ McCaffrey & Sinjela, *supra* note 180 at 105.

²²⁶ Ellen Hey, "The Watercourse Convention: To What Extent does it Provide a Basis for Regulating Uses of International Watercourses?" (1998) 7 *Rev. Eur. Com. & Int'l Envtl. L.* 291, 293

framework conventions are the United Nations Framework Convention on Climate Change and its Kyoto Protocol, the Convention on the Protection of the Ozone Layer and its Montreal Protocol, and, at the regional level, the Convention on the Protection and Use of Transboundary Watercourses and Lakes (Helsinki Convention).²²⁷

The 1997 UN Convention does not affect existing agreements and parties are free to deviate from its provisions by agreement. In 1980, the ILC described the need for a “set of draft articles that would lay down principles regarding the non-navigational uses of international watercourses in terms sufficiently broad to be applied to all international watercourse systems, while at the same time providing the means by which the articles could be applied or modified to take into account the singular nature of an individual watercourse system and the varying needs of the States in whose territory part of the waters of such a system were situated.”²²⁸ This approach, and in particular the meaning of the term “modified”, is reflected in article 3, paragraph 3, of the Convention. It gives states the opportunity to enter into “watercourse agreements” that “apply and adjust the provisions” of the Convention “to the characteristics and uses of a particular international watercourse or part thereof.”²²⁹

If the Convention enters into force, parties will not have any obligation to implement the rules in any watercourse agreements. States will be free to regulate their relations as they wish, with the Convention being residual in nature.²³⁰ This situation, however, raises several concerns. The Convention is weaker in its original normative

²²⁷ *Ibid.*

²²⁸ “Report of the International Law Commission on the work of its Thirty-Second session” (UN Doc. A/35/10) in *Yearbook of International Law Commission 1980*, vol. 2, part 2 (New York, UN, 1980) 5 at 109 (UNDOC A/CN.4/SER.A/1980/Add.I).

²²⁹ *Convention*, *supra* note 119 Article 3(3).

²³⁰ “Report of the International Law Commission on the work of its Forty-Sixth Session”, *supra* note 122 at 93.

function and many states and observers are dissatisfied with this decision.²³¹ It does not sufficiently protect certain interests through minimum standards that states are bound to respect. For example, states can collectively decide to sacrifice vital human needs, environmental protection, or sustainable water use to industrial or economical uses that might be polluting.²³² In addition, the Convention does not give enough protection to watercourse states that have reduced political or negotiating power. Those states, when entering into a new agreement, cannot claim minimum standards to be met.²³³

4.2 The Ratification Process and Related Problems

After more than a decade, the Convention has still not entered into force. More than one hundred states voted in favour in May 1997, but there has been a general reluctance to sign and ratify, or accede, to the Convention. One of the biggest problems, which generally affects all international law instruments, is the different views and interpretations of the provisions contained within. In particular, the Convention raised several misconceptions that contributed to slowing down the ratification process.²³⁴

One of the biggest conflicts is the relationship between the principle of equitable and reasonable utilization and the obligation not to cause significant harm. Due to the specific and separate article concerning the second principle, upper riparian states consider the Convention to favour downstream states.²³⁵ Downstream riparians also seem to be unhappy and consider the no-harm principle subordinate to equitable and reasonable

²³¹ See Part 2.3, above.

²³² Hey, *supra* note 226 at 293.

²³³ *Ibid.* at 293-294.

²³⁴ Salman M.A. Salman., "The United Nations Watercourses Convention Ten Years Later: Why Has its Entry into Force Proven Difficult?" (2007) 32 *Water International* 1 at 8.

²³⁵ *Ibid.*

utilization. However, it is a mistake to believe that each principle is in favour of only one category of states. For example, as a result of activities developed downstream, an upstream state can suffer certain harm too, even if this can appear less obvious.²³⁶

Another source of controversy is the dispute settlement procedure. Many states did not approve the fact finding procedures, essentially because it limits their freedom to choose an ad hoc settlement procedure for each case. However, some states consider this compromise too weak, preferring a binding mechanism to solve arising disputes.²³⁷ The arguments of both parties appear to be groundless. On one side, the Convention leaves parties free to use a variety of instruments for the resolution of their disputes, such as the formation of a joint commission, negotiation, mediation or conciliation by a third party. Further, they are free to submit the case to arbitration or to the International Court of Justice. On the other hand, the basic mechanism to determine the facts of a controversy is a valuable instrument. It gives states an opportunity to better understand the situation and favours the resolution of disputes. When facing information coming from an independent fact finding procedure, many states would prefer negotiation to a binding decision.

There are other areas of conflict that are slowing down the ratification process. One concerns the notification procedure for planned measures established in part III of the Convention. Many upstream states see this as a veto power in favour of downstream riparians over their projects and programs.²³⁸ In addition, states are concerned about the limits to their sovereignty over shared water resources. Even if the idea of limited territorial sovereignty is accepted, some states see the Convention as setting the

²³⁶ *Ibid.* at 9.

²³⁷ *Ibid.* at 11.

²³⁸ *Ibid.*

boundaries too far. They are not comfortable with the idea of riparian states as a community acting together to achieve the best utilization possible of the shared watercourse.

The Convention does not have a terminal date by which it has to enter into force. It will happen whenever the 35 instruments of ratification and accession are achieved. The process of joining international treaties is usually long and complex, as governments must follow complicated domestic procedures. After almost 13 years this process is still extremely slow and there is a serious risk that the Convention may never enter into force. It has to be said that the recent ratification by Germany and Spain, two important members of the international community, brought back a little optimism about the possibility of a positive outcome. Unfortunately, this slowness does not bring legal certainty to a delicate matter like required to the management of water resources.

4.3 The Role of the Convention in the Law of International Watercourses

Despite all the problems and concerns surrounding the Convention, there are several reasons to be optimistic about its capacity to influence the management of shared water resources. First, some of the most important provisions of the Convention, such as the equitable utilization, no-harm rule, and prior notification, appear to be the codification of existing norms.²³⁹ The fact that the ILC placed them in its draft, which strongly influenced the final version of the Convention, is important evidence of the recognized status of those rules. The ILC's objective is "the promotion of the progressive

²³⁹ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 376.

development of international law and its codification”,²⁴⁰ which makes it the highest authority in the matter. The Working Group explicitly made reference to the importance of the work of the ILC in the final elaboration of the Convention.²⁴¹ Moreover, states are expected to follow not only the norms that are currently recognized as international customary rules, but also those that may develop in the future into international obligations.²⁴²

Many bilateral and multilateral treaties concerning shared fresh water resources were influenced by the Convention or even by the ILC’s draft articles. Although the Convention has not yet entered into force, states’ negotiations in the field use its provisions as a point of departure.²⁴³ The genesis of the Convention itself is considered to be evidence of its value. The fact that it was negotiated in a forum where all interested states could participate suggests that it reflects the views of the international community.²⁴⁴ The largely positive adoption vote also indicates general agreement on the main principles governing the non-navigational uses of international watercourses.

Some of the principles contained in the Convention, such as equitable utilization, no-harm rule, and the provisions concerning the protection of ecosystems, must be considered reflections of crystallized rules of international law. The consensus in the Working Group of the General Assembly strongly supports this opinion. Recently, some states, academics, and jurists have underlined the General Assembly’s role in norm

²⁴⁰ “Statute of the International Law Commission” (New York: UN, 1982) (UN Doc. A/CN.4/4/Rev.2), Article 1(1).

²⁴¹ The report of the Working Group states: “Throughout the elaboration of the draft Convention, reference had been made to the commentaries to the draft articles prepared by the International Law Commission to clarify the contents of the articles.” *Report of the Sixth Committee convening as the Working Group of the Whole*, *supra* note 125 at 6.

²⁴² McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 376.

²⁴³ Salman, *supra* note 234 at 12.

²⁴⁴ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 376

creation.²⁴⁵ Not all resolutions of the General Assembly can be considered as “law-making” and many states deny them this status.²⁴⁶ Still, they have a remarkable influence in the interpretation of agreements in the field and can contribute in the normative process of law creation.²⁴⁷ Indeed, the vast corpus of both the General Assembly resolutions and the work of the ILC helped the formation of generally accepted principles concerning international watercourses.

Additional support to the Convention’s important role can be found in the decision of the International Court of Justice in the *Gabčíkovo-Nagymaros* case between Hungary and Slovakia.²⁴⁸ The case concerned a series of dams and barrages on the Danube River and the construction of a bypass canal to operate a hydroelectric power plant.²⁴⁹ Citing environmental concerns, Hungary stopped work on its portion of the project, while Slovakia decided to put the Gabčíkovo part of the project into operation.²⁵⁰ The case was decided in September 1997, four months after the adoption of the Convention. The Court cited the new agreement as evidence of the importance of the principle of the community of interests in the field of non-navigational uses of international watercourses. In particular, after quoting the eminent passage in the River Oder judgement concerning this principle,²⁵¹ the International Court of Justice stated that

²⁴⁵ Jose E. Alvarez, “Positivism Regained, Nihilism Postponed” (1994) 15 Mich. J. Int’l L. 747 at 774-775. The author also cites instances where international and domestic courts have relied on General Assembly resolutions as sources of law.

²⁴⁶ Duncan B. Hollis, “Why State Consent Still Matters - Non-State Actors, Treaties, and the Changing Sources of International Law” (2005) 23 Berkeley J. Int’l L. 137 at 143.

²⁴⁷ Christopher C. Joyner, “U.N. General Assembly Resolutions and International Law: Rethinking the Contemporary Dynamics of Norm-Creation” (1981) 11 Cal. W. Int’l L. J. 445 at 477.

²⁴⁸ *Case concerning the Gabčíkovo-Nagymaros Project*, *supra* note 101.

²⁴⁹ Treaty concerning the Construction and Operation of the Gabčíkovo-Nagymaros System of Locks, 32 ILC 1247 (1993).

²⁵⁰ *Case concerning the Gabčíkovo-Nagymaros Project*, *supra* note 101 at 31.

²⁵¹ *Territorial Jurisdiction of the International Commission of the River Oder*, *supra* note 87 at 23.

“modern development of international law has strengthened this principle for non-navigational uses of international watercourses as well, as evidenced by the adoption of the Convention of 21 May 1997 on the law of the Non-Navigational Uses of International Watercourses by the United Nations General assembly.”²⁵² The reference to the Convention has a remarkable value, considering that at that time no state had ratified it and it had received just three signatures.

The Convention also received several criticisms that emerged in negotiation²⁵³ and later in the ratification process.²⁵⁴ The achievement of sustainable water use, considered one of the aims of the Convention, is another source of debate.²⁵⁵ The new agreement does not require states to protect basic human needs, the development of cooperative water policies or to respect minimum standards in this area.²⁵⁶ The environmental obligations contained in the Convention can already be considered representing customary international law,²⁵⁷ but the Convention does not provide any

²⁵² *Case concerning the Gabčíkovo-Nagymaros Project*, *supra* note 101 at 56.

²⁵³ Part 2.2 and 2.3, above.

²⁵⁴ Part 4.2, above.

²⁵⁵ *Convention*, *supra* note 119, Preamble. It refers to “the problems affecting many international watercourses resulting from , among other things, increasing demand and pollution”, to the fact that a framework convention “will ensure the utilization, development, management and protection of international watercourses and the promotion of the optimal and sustainable utilization thereof for present and future generations”, and it affirms “the importance of international cooperation and good-neighbourliness in this field”; “the special situation and needs of developing countries”; “the principles and recommendations adopted by the United Nations Conference on Environment and Development of 1992 in the Rio Declaration and Agenda 21.”

²⁵⁶ Hey, *supra* note 226 at 291.

²⁵⁷ See Patricia W. Birnie & Alan E. Boyle, *International Law and the Environment* (Oxford: Clarendon Press, 2002), at 298-331; Alexandre Kiss and Dinah Shelton, *Guide to International Environmental Law*, 2nd ed. (Leiden: Martinus Nijhoff Publishers, 2007) at 109-110. Significant obligations considered customary international rules are, for example: the general obligation to co-operate (Article 8); the obligation to give information concerning planned measures (Article 11); the obligation to protect and preserve the ecosystems of international watercourses (Article 20); the obligation to protect and preserve the marine environment (Article 23); the obligation to prevent and mitigate harmful conditions (Article 27); and the obligation to notify other watercourse states in case of emergency situations and to co-operate in the prevention and mitigation of such situations (Article 28).

guideline or instrument to implement them.²⁵⁸ This leaves states the freedom to deviate from its provisions through specific agreements.²⁵⁹

In order to achieve the acceptable management of water resources, states must look beyond their borders. The interests of individuals or groups, whose lives depend on the water of an international watercourse, should be a concern of all riparian states. For this reason, the international community is called to work on attaining equitable and sustainable water use.²⁶⁰ However, the Convention still holds to the classic scheme of international law. It emphasizes the discretionary powers of states, instead of switching to a system which emphasizes the functional role of states.²⁶¹

A last criticism toward the Convention is strongly linked to the above statement. As is frequently the case in international law, the Convention deals essentially with interstate relationships. This means that no legal tools are implemented in order to secure fresh water access for individuals. The principle of equitable and reasonable utilization could be used in an extensive way, but it presents a main problem. The principle does not entitle each watercourse state to an equal apportionment of water resources. Rather, the entitlement is subject to a set of relevant factors to be taken into account.²⁶² The list is non-exhaustive, but it does provide two factors that can be applied to pursue the basic need of water: “the social and economic needs of watercourse states concerned,”²⁶³ and

²⁵⁸ Hey, *supra* note 226 at 292.

²⁵⁹ See the part regarding the framework nature of the Convention, Part 4.1, above.

²⁶⁰ Hey, *supra* note 226 at 292.

²⁶¹ René-Jean Dupuy, “Humanity and the Environment” (1991) 2 *Colo. J. Int’l Envtl. L. & Pol’y* 201-204. The author distinguishes between the discretionary and the functional powers of states, pointing out that in the second system, mankind delegate powers to states to act in the common interest.

²⁶² *Convention*, *supra* note 119, Article 6(1).

²⁶³ *Ibid.* paragraph (b)

“the population dependent on the watercourse in each watercourse state.”²⁶⁴ However, those are only two of the factors and there is no standard procedure to determinate how each single factor should be weighted.

The combined reading of the principle of equitable utilization together with the no-harm rule could help improve access fresh water resources for individuals. The prohibition against causing significant harm does provide minimum standards of protection, namely when the harm involves possible consequences for human life or health, otherwise this principle would have no meaning.²⁶⁵ For this reason, the obligation to guarantee those minimum standards has to be taken into account while evaluating the factors listed in article 6.²⁶⁶ Regrettably, these two principles have been projected and codified in the Convention with the main task of helping manage controversies arising between states. In addition, the two principles are too broad to help find solutions to very specific problems in this field. They forbid states from jeopardizing water resources directed to sustain the basic human need for water, but they do not provide concrete legal instruments to work with or clear standards to be achieved.²⁶⁷

Two other provisions refer to basic human needs: Article 10, which deals with the relationship between different kinds of uses,²⁶⁸ and Article 21(2), which deals with

²⁶⁴ *Ibid.* paragraph (c)

²⁶⁵ Knut Bourquain, *Freshwater Access from a Human Rights Perspective* (Leiden, Boston: Martinus Nijhoff Publishers, 2008) at 39.

²⁶⁶ On this issue, the ILC stated that “[a] use which cause significant harm to human health and safety is understood to be inherently inequitable and unreasonable.” “Report of the International Law Commission on the work of its Forty-Sixth Session” *supra* note 122 at 104

²⁶⁷ Bourquain, *supra* note 265 at 43.

²⁶⁸ *Convention*, *supra* note 119, Article 10(2). “In the event of a conflict between uses of an international watercourse, it shall be resolved with reference to articles 5 to 7, with special regard being given to the requirements of vital human needs.

prevention, reduction and control of pollution.²⁶⁹ These articles do not provide a standard to be respected, but simply emphasize the importance of human needs and add nothing new to the general principles of the Convention. Vital human needs cannot be placed in competition with other uses and states are required to guarantee at least a very low standard of water supplies for basic needs. If there is a threat to those needs, any other use should be blocked to the necessary extent.²⁷⁰ Other than this very low standard, there is no obligation for states to guarantee general fresh water access, leaving a very important issue out of the most important international instrument in the field of water resources.

²⁶⁹ *Ibid.* Article 21(2). 'Watercourse States shall, individually and, where appropriate, jointly, prevent reduce and control the pollution of an international watercourse that may cause significant harm to other watercourse States or to their environment, including harm to human health or safety, to the use of waters for any beneficial purpose or to the living resources of the watercourse. Watercourse States shall take steps to harmonize their policies in this connection.

²⁷⁰ Bourquain, *supra* note 265 at 43.

CHAPTER III

FUNDAMENTAL PRINCIPLES

1. Introduction

Customary rules represent one of the most important sources of international law. They are norms and principles derived from the conduct of states, which act on the belief that the law required certain behaviour. In the field of environmental law, principles have emerged and have become widely accepted. The principles were included in both treaties and in national laws concerning environmental issues.²⁷¹ Two of the most important rules that emerged in the law of non-navigational uses of international watercourses are the principle of equitable and reasonable utilization and the obligation not to cause significant harm.

This section of the work discusses these two main principles. In particular, it will analyze their origin, their role in the 1997 UN Convention and the controversial issue of the relationship between the two.

2. Equitable and Reasonable Utilization

Among the various rules that emerged in the field of international watercourses and the management of their waters, one in particular received almost unanimous support

²⁷¹ Alexandre Kiss & Dinah Shelton, *International Environmental Law*, 3rd ed. (New York: Transnational Publishers, Inc., 2004) at 99.

for its authority and legitimacy: the principle of equitable and reasonable utilization.²⁷² This principle made its first important appearance in international law as the main, governing principle of the 1966 Helsinki Rules.²⁷³ However, its genesis goes back to federal court decisions, in particular U.S. Supreme Court's decisions on interstate apportionment cases. One of the most relevant cases is that of *New Jersey v. New York* decided by the U.S. Supreme Court in 1931.²⁷⁴ The controversy involved a New York project to divert water from the Delaware River in order to increase the water supply to New York City. New Jersey, the lower riparian, sought to restrain New York from carrying on this diversion. In its decision, the Court required New York to modify the project, affirming that "[b]oth States have real and substantial interests in the River that must be reconciled as best they may."²⁷⁵ In solving these cases "the effort always is to secure an equitable apportionment without quibbling over formulas."²⁷⁶

One of the first U.S. Supreme Court's cases dealing with equitable apportionment is *Kansas v. Colorado*, in 1907.²⁷⁷ Kansas, the lower riparian, was also the prior user of the Arkansas River. Colorado started to divert water for irrigation. The Court found that Colorado had caused "perceptible injury to portions of the Arkansas valley in Kansas,"²⁷⁸ but this detriment has to be compared "with the great benefit which has obviously resulted to...Colorado."²⁷⁹ The rights of the two States had to be evaluated in a way that

²⁷² Owen McIntyre, *Environmental Protection of International Watercourses under International Law* (Aldershot: Ashgate Publishing Ltd., 2007) at 53

²⁷³ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 384

²⁷⁴ *New Jersey v. New York*, *supra* note 82.

²⁷⁵ *Ibid.* at 342-343

²⁷⁶ *Ibid.*

²⁷⁷ *Kansas v. Colorado*, 206 U.S. 46 (1907).

²⁷⁸ *Ibid.* at 117

²⁷⁹ *Ibid.* at 114

assured “the advantages of irrigation in Colorado, without depriving, at the same time, Kansas of the similar advantages of a waterway.”²⁸⁰ The Court’s decision confirmed the existing equality of rights between the two States, but opened up the possibility of new evaluation in the future. In fact, the Court stated, “it is obvious that if the depletion of waters of the river by Colorado continues to increase there will come a time when Kansas may justly say that there is no longer equitable division of benefits, and may rightfully call for relief against the action of Colorado...”²⁸¹

In 1945, another decision helped the developing process of this principle. In the case of *Nebraska v. Wyoming* the controversy regarded the allocation of water from the North Platte River.²⁸² Like in the former case, Nebraska had prior usage and claimed that diversion for irrigation in Wyoming deprived it of its equitable share. Among the numerous factors to be considered, the Court defined the priority of appropriation as the guiding principle.²⁸³ Other important factors that emerged in this decision are “the practical effect of wasteful uses on downstream areas” and ‘the damage to upstream areas as compared to the benefits to downstream areas if a limitation is imposed on the former.’²⁸⁴ Thus, in considering equitable apportionment, priority is important, but not decisive. The Supreme Court also recognized an extended meaning of “harm” and was aware not only that a downstream state can be harmed, but also that an upstream state can suffer harm if its uses are limited in favour of a state downstream.²⁸⁵

²⁸⁰ *Ibid.* at 100

²⁸¹ *Ibid.* at 117

²⁸² *Nebraska v. Wyoming*, 325 U.S. 589 (1945).

²⁸³ *Ibid.* at 618

²⁸⁴ *Ibid.*

²⁸⁵ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 387. It is interesting to notice that the misconception that just downstream states can be harmed by activities placed upstream is one of the

The notion of equal rights, which is the basis for an equitable share of water resources, was recognized at an international level by the Permanent Court of International Justice in the *River Oder case*, and was recently confirmed for non-navigational uses by the International Court of Justice in the *Gabčíkovo-Nagymaros case*. The IJC cited this passage from the former case: “[the] community of interest in a navigable river becomes the basis of a common legal right, the essential features of which is the perfect equality of all riparian States in the use of the whole course of the river and the exclusion of any preferential privilege of any riparian State in relation to the others...Modern development of international law has strengthened this principle for non-navigational uses of international watercourses as well...”²⁸⁶

The importance of the principle of equality of rights can be also found in *Kansas v. Colorado*, where the U.S. Supreme Court defined it as “[o]ne cardinal rule, underlying all the relations of the States to each other.”²⁸⁷ However, this principle does not guarantee an equal division of waters among the riparian states. In the Supreme Court’s opinion, it must be applied having regard to the “equal level or plane on which all the States stand, in point of power and right, under our constitutional system.”²⁸⁸ Although this case involves two states within a federation, this approach can be equally applied to the relationship between states at an international level.²⁸⁹

There are several decisions of international tribunals that apply the principle of equitable utilization either to international watercourses or as a general principle of

main reasons slowing down the process of ratification of the 1997 U.N. Convention. See Chapter II, Part 4.2, above.

²⁸⁶ *Case concerning the Gabčíkovo-Nagymaros Project*, *supra* note 101 at 56.

²⁸⁷ *Kansas v. Colorado*, *supra* note 277 at 97.

²⁸⁸ *Connecticut v. Massachusetts*, 282 U.S. 660 (1931) at 670

²⁸⁹ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 390.

international law applicable in different fields. The *Lake Lanoux* case, for example, recognizes the obligation to consult and to safeguard the rights of another state before carrying out new activities. The dispute started when Spain objected to a French proposal to build hydroelectric plants on the Carol River, which flows from France into Spain.²⁹⁰ The tribunal, concerning state obligations triggered by a new use, said that the interests to be safeguarded included all those “which might conceivably be affected by the work undertake, whatever their nature and even though they do not correspond to a right.”²⁹¹ The tribunal went further and stated that “the upstream State has, according to the rules of good faith, the obligation to take into consideration the different interests at stake, to strive to give them all satisfaction compatible with the pursuit of its own interests, and to demonstrate that, on this subject, it has a real solicitude to reconcile the interests of the other riparian with its own.”²⁹²

While supporting the principle of equitable utilization, these cases point out the main problem concerning its application, namely the determination of a state’s equitable share. Different situations raise different technical and legal issues that must be resolved. Various, and sometimes large, number of factors must be taken into account when determining whether a use meets equity and reasonableness or not, and their importance can vary from case to case.²⁹³ In some of the cases illustrated above, courts developed indicative lists of those factors, depending upon the specific and distinctive characteristics of the controversy they were dealing with. Therefore, it is impossible to

²⁹⁰ *Affaire du lac Lanoux*, *supra* note 53.

²⁹¹ *Ibid.* at 315, translation from Brunson MacChesney, “The Lake Lanoux case” (1959) 53 Am J. Int’l L. 156 at 169.

²⁹² *Ibid.*

²⁹³ For the potential relevance of the different factors, see generally Ximena Fuentes, “The Criteria for the Equitable Utilization of International Rivers” (1996) 67 British Y.B Int’l L. 337.

have an exhaustive list of all factors in the codification of this principle. Nevertheless, international codification bodies accepted the authority of the principle of equitable utilization and tried to define its general features.

The International Law Association made an important attempt at a comprehensive and exhaustive codification of this principle in the work prior to the 1966 Helsinki meeting where it adopted the Rules on the Uses of Waters of International Rivers, commonly referred to as the Helsinki Rules.²⁹⁴ Article IV recognized the principle of equitable utilization, providing states a “reasonable and equitable share in the beneficial uses of the waters.”²⁹⁵ Its importance is underlined in the commentary, where it is defined as the key principle of international law in the field.²⁹⁶

The Helsinki Rules contain a non-exhaustive list of factors to be considered when evaluating what is a reasonable and equitable share,²⁹⁷ and provide some remarkable aspects. In particular, a state is not entitled to a share of the water itself, but only to its

²⁹⁴ McIntyre, *Environmental Protection*, *supra* note 272 at 67.

²⁹⁵ Helsinki Rules, *supra* note 31, Article IV.

²⁹⁶ McIntyre, *Environmental Protection*, *supra* note 272 at 67.

²⁹⁷ Helsinki Rules, *supra* note 31, Article V (2). “Relevant factors to which are to be considered include, but are not limited to:

- a. the geography of the basin, including the particular extent of the drainage area in the territory of each basin State;
- b. the hydrology of the basin, including in particular the contribution of water by each State;
- c. the climate affecting the basin;
- d. the past utilization of the waters of the basin, including in particular existing utilization;
- e. the economic and social needs of each basin State;
- f. the population dependant on the waters of the basin in each basin State;
- g. the comparative costs of alternative means of satisfying the economic and social needs of each basin state;
- h. the availability of other resources;
- i. the avoidance of unnecessary waste in the utilization of waters in the basin;
- j. the practicability of compensation to one or more of the co-basin States as a means of adjusting conflicts among uses; and
- k. the degree to which the needs of a basin State may be satisfied, without causing a substantial injury to a co-basin State.”

beneficial uses.²⁹⁸ In addition, no use or category of uses has any inherent preference over any other use or category of uses.²⁹⁹ Finally, the Helsinki Rules reject the doctrine of prior apportionment developed in the United States decisions, which allowed new uses to compete with existing ones.³⁰⁰

The most important codification is the one carried on by the ILC, which led to the Draft Articles and then to the adoption of the 1997 UN Convention. Article 5 was the subject of significant attention during the activities of the Working Group. Several changes were proposed by delegations with the intention of reflecting recent developments in international environmental law.³⁰¹ However, there was only one notable innovation in ILC's draft, which was making the objective of equitable and reasonable utilization the attainment of "optimal and sustainable utilization" of an international watercourse.³⁰² The provision also required the "adequate protection of the watercourse", which seems superfluous after the previous addition, but it was likely a way to reinforce attention to environmental issues.

One important innovation in the Convention is the introduction of the notion of participation in an equitable and reasonable manner, as stated in paragraph 2 of article 5.

²⁹⁸ *Ibid.* Article IV.

²⁹⁹ *Ibid.* Article VI.

³⁰⁰ *Ibid.* Article VIII (1). "An existing reasonable use may continue in operation unless the factors justifying its continuance are outweighed by other factors leading to the conclusion that it be modified or terminated so as to accommodate a competing incompatible use." See McIntyre, *Environmental Protection*, *supra* note 270 at 67. See also Fuentes, *supra* note 291 at 356-373. The author explains that the relevance of existing uses is a very complicated matter raising a strong debate. The practice of the U.S. Supreme Court in which the priority of appropriation has been used to solve inter-State water disputes cannot be exported to the international level, since it is incompatible with the rule of equitable utilization as developed in customary international law. Existing uses should be considered as a factor like the others in the evaluation of a use as equitable and reasonable. Nevertheless, those uses generally affect other factors (e.g. economic dependence) and this can work in favour of their continuance, but there is no automatic priority of existing utilization over other criteria.

³⁰¹ McCaffrey & Sinjela, *supra* note 180 at 99.

³⁰² *Ibid.* The original Article 5 in the draft articles did not contain the words "and sustainable". Report of the International Law Commission on the work of its Forty-Sixth Session", *supra* note 122 at 96.

This concept has a positive feature, since it does not ask states to keep from acting in a way that would prevent others from participating in the use of the shared water resources. Instead, the basic idea is that states must cooperate with each other and take measures, both individually and jointly, to achieve not only an equitable utilization of the international watercourse basin, but also to protect a river's ecosystem and environment.³⁰³ Environmental factors should have a greater importance in the balancing process the factors leading to an equitable evaluation of the use, or environmental concerns should at least be a link in the consideration of all these factors.³⁰⁴

However, concerns remain about the environmental side of Article 5. The final impression is that the actual aim of the principle of equitable utilization does not involve the protection of environmental aspects, but merely a balancing among the different possible uses.³⁰⁵ Article 7, as drafted in early 1994, said that “a use which cause[d] significant harm in the form of pollution shall be presumed to be an inequitable and unreasonable use”, with some specific exceptions.³⁰⁶ This part disappeared in the definitive version of the Convention, reinforcing the opinion that this principle, although generally accepted in the law of international watercourses, is less suitable for the international protection of the environment.³⁰⁷

Another important aspect of equitable utilization, as codified in the Convention, is the acknowledgement of the importance of a regular exchange of information. This information helps riparian states properly assess if certain uses are legitimate. In addition,

³⁰³ McCaffrey & Sinjela, *supra* note 180 at 99-100.

³⁰⁴ Owen McIntyre, “The Role of Customary Rules and Principles of International Environmental Law in the Protection of Shared International Freshwater Resources” (2006) 46 Nat. Resources J. 157 at 191.

³⁰⁵ Castillo Daudi, *supra* note 198 at 136.

³⁰⁶ Rosenstock, *supra* note 154 at 117.

³⁰⁷ Birnie & Boyle, *supra* note 257 at 307-310.

all watercourse states are involved in a communication process that makes all uses relevant to all other uses in the drainage basin, which highlights the authentic cooperative nature of equitable and reasonable utilization. There is not only a right to receive information from the other riparians, but also a duty to provide all useful information.³⁰⁸ This involves not only the data and information mentioned in Article 9,³⁰⁹ but also the prior notification of new uses or fundamental changes in the utilization of an international watercourse, a principle set out in part III of the Convention and considered by some authors as a customary international rule.³¹⁰

Equitable utilization requires cooperation in order to achieve results. In particular, this cooperation might be more effective through the establishment of joint institutions. This is confirmed by the wide number of those bodies created by existing bilateral or multilateral agreements.³¹¹ Riparian states acting individually, although motivated by good faith, cannot create a regime of equitable utilization of an international watercourse basin, especially regarding an important issue like the protection and preservation of an ecosystem.³¹² Equity can be considered a general principle of international law and is applicable to all natural resources shared by one or more states, particularly flowing water.³¹³ When it comes to a river, as recognized in *Kansas v. Colorado*, “the action of

³⁰⁸ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 402.

³⁰⁹ Article 9 refers in particular to data and information “of a hydrological, meteorological, hydrogeological, and ecological nature and related to the water quality as well as related forecast”. *Convention*, *supra* note 119, Article 9(1).

³¹⁰ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 471-476.

³¹¹ *Ibid.* at 403. The importance of joint institutions is also acknowledged in the Convention, where paragraph 2 of Article 8 suggests states to “consider the establishment of joint mechanisms or commissions...to facilitate cooperation on relevant measures and procedures...”

³¹² McCaffrey, “An Overview of the U.N. Convention”, *supra* note 171 at 62.

³¹³ In his individual opinion in the Diversion of Water from the Meuse Case, Judge Hudson wrote: “It must be concluded, therefore, that under Article 38 of the Statute if not independently of that article, the Court

one State reaches through the agency of natural laws into the territory of another State.”³¹⁴ For this reason every effort should be directed “to secure an equitable apportionment without quibbling over formulas.”³¹⁵ This obligation cannot be discussed separately from the other recognized principle in this area, the obligation not to cause significant harm, which has a strong and controversial relationship with the principle of equitable utilization.

3. Obligation not to Cause Significant Harm

The obligation of one state not to cause harm to another is a fundamental rule of international law. This principle has been considered by some scholars as emerging first in private law, in the prohibition of somebody to allow their territory to be used in a way that could cause damage to their neighbours.³¹⁶ It is better known with the maxim *sic utere tuo ut alienum non leades* (use your own as not to harm the one of another). It is a recognized principle of customary international law and is attested to in international practice.³¹⁷ Some authors understand *sic utere tuo* as emerging in international law “from a ‘general principle of law recognised by civilised nations’ within the meaning of Article 38(1)(c) of the Statute of the IJC.”³¹⁸ Nevertheless, the no harm principle also has evident connections with other legal doctrines, such as the one of abuse of rights and the one of

has some freedom to consider principles of equity as part of international law which must apply.” *Diversion of Water from the Meuse Case (Netherlands v Belgium)*, [1937] PCIJ (ser. A/B) No. 70 at 76-77.

³¹⁴ *Kansas v. Colorado*, *supra* note 277 at 97.

³¹⁵ *New Jersey v. New York*, *supra* note 82 at 343.

³¹⁶ Caflisch, “Règles Générales”, *supra* note 43 at 136.

³¹⁷ Caflisch, “The Law of International Watercourses and its Sources”, *supra* note 22 at 123.

³¹⁸ *Ibid.*

good neighbourliness. They do not represent an absolute prohibition against causing harm, but they are all useful in attempting to reconcile conflicting rights concerning shared resources.³¹⁹

There are several relevant cases in the field of transboundary harm that support the no-harm rule in international law. The first and most important decision, however, has nothing to do with problems related to international watercourses. In the *Corfu Channel* case, the ICJ stated “every State’s obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States.”³²⁰ The Court does not specify those rights, and neither the context of the case provides assistance in finding a possible link with shared water resources.³²¹ However, the Court confirmed that a state does not have unlimited rights to use its territory, but is limited by the rights of others.³²²

The most significant case concerning transboundary harm is the *Trail Smelter* arbitration between the U.S. and Canada.³²³ The tribunal had to deal with transboundary air pollution from a smelter operating in Trail, British Columbia. The most cited passage of the decision can be extended to the field of international watercourses. The tribunal stated that “[u]nder principles of international law, as well of the law of the United States, no State has the right to use or to permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the proprieties of persons

³¹⁹ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 417.

³²⁰ *Corfu Channel Case*, *supra* note 197 at 22.

³²¹ The case concerned the laying of mines in Albanian waters that damaged British vessels.

³²² McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 421.

³²³ *Trail Smelter Arbitration*, *supra* note 64.

therein, when the case is of serious consequence and the injury established by clear and convincing evidence.”³²⁴

The case is relevant because the tribunal did not simply ask for the polluting activities to be discontinued. Instead, it tried to find a balance between Canadian and American interests.³²⁵ The smelter was allowed to operate under a detailed regime with the addition that in case of damage, despite the smelter’s adherence to the regime, it would have to pay compensation.³²⁶ This decision is not a complete prohibition of harm, but it acknowledges that a certain level of harm as a direct consequence of some activities must be accepted. The damaged party must receive compensation for the harm suffered. An approach, called by some authors the “liability for injurious consequences of an act not prohibited by international law”,³²⁷ that found codified support in Article 7, paragraph 2, of the 1997 UN Convention and dealt with the compensation of a significant harm that occurred despite actions taken to mitigate or prevent it.

Other cases support the consolidated status of the no-harm rule in international law. In the *Lake Lanoux* arbitration, the tribunal affirmed that “there is a rule prohibiting the upper riparian State from altering the waters of a river in circumstances calculated to do a serious injury to the lower riparian State...”³²⁸ The UN Secretary general stated in

³²⁴ *Ibid.* at 1965.

³²⁵ A fair solution is interpreted to be one “which would allow the continuance of the operation of the Trail Smelter but under such restrictions and limitations as would, as far as foreseeable, prevent damage in the United States, and as would enable indemnity to be obtained if, in spite of such restrictions and limitations, damage should occur in the future in the United States.” *Ibid.* at 1939.

³²⁶ *Ibid.* at 1966.

³²⁷ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 421. See also the text of the draft articles on international liability for injurious consequences arising out of acts not prohibited by international law. *Report of the International Law Commission on the work of its fiftieth session*, UNGAOR, 53rd Sess., Supp. No. 10, UN Doc. A/53/10 (1998) at 18.

³²⁸ *Affaire du lac Lanoux (Spain/France)*, *supra* note 53 at 308, translation from “Legal Problems Relating to the Utilization and Use of International Rivers, Report by the Secretary General” *supra* note 53 at 197.

1949 that “there has been general recognition of the rule that a State must not permit the use of its territory for purposes injurious to the interests of other States in a manner contrary to international law.”³²⁹ Finally, in *Gabčíkovo-Nagymaros*, Hungary called for this principle to be respected.³³⁰ Instead the Court applied the principle of equitable utilization for the resolution of the dispute and probably considered it more suitable for this purpose. However, it also mentioned a general obligation to “respect the environment of other States [and] of areas beyond national control.”³³¹ The no-harm principle might have not appeared to be a useful tool in solving complex problems concerning the allocation of shared freshwater resources.³³²

This principle has been incorporated in numerous bilateral and multilateral agreements and in many other international instruments.³³³ Once again, particular attention should be given to the work of the ILA. The 1966 Helsinki Rules do not prohibit harm in a specific article, but consider it as one of the factors to be used in evaluating if a use is equitable and reasonable.³³⁴ The Rules take a severe approach for what concerns pollution, providing that states, according with the principle of equitable utilization:

³²⁹ “Survey of International Law in Relation to the Work of Codification of the International Law Commission (Memorandum submitted by the Secretary-General)” (UN Doc. A/GN.4/1/Rev.I) (New York: UN, 1949) at 34.

³³⁰ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 422.

³³¹ *Case concerning the Gabčíkovo-Nagymaros Project*, *supra* note 101 at 41.

³³² McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 422.

³³³ Mohammed S. Helal, “Sharing Blue Gold: The 1997 Convention on the Law of the Non-Navigational Uses of International Watercourses Ten Years On” (2007) 18 *Colo. J. Int’l Envtl. L. & Pol’y* 337 at 358.

³³⁴ Helsinki Rules, *supra* note 31, Article V(2)(k). “Relevant factors to which are to be considered include, but are not limited to:

...
k. the degree to which the needs of a basin State may be satisfied, without causing a substantial injury to a co-basin State.”

- “a. must prevent any new form of water pollution or any increase in the degree of existing water pollution...which would cause substantial injury in the territory of a co-basin State, and
- b. should take all reasonable measures to abate existing water pollution...to such an extent that no substantial damage is caused in the territory of a co-basin State.”³³⁵

In addition, whenever a state violates its duty to prevent pollution, it will be required to compensate the injured co-riparian.³³⁶ In the case of an infringement of the obligation to abate existing water pollution, a state will only have a duty to negotiate with the injured state in order to reach an equitable settlement.³³⁷ The approach of the Helsinki Rules toward pollution is similar to the one adopted in the Trail Smelter decision regarding air pollution. It is almost impossible to totally eliminate existing harmful effects of ongoing activities. What the ILA required was good faith behaviour on the part of the state and the exercise of due diligence in order to decrease the pollution or, in case of failure in doing so, to negotiate a solution with the injured state.³³⁸

Article 7 of the 1997 Convention does not absolutely prohibit causing significant harm. It asks states to take all appropriate measures to prevent causing such harm. The elaboration of this article raised some of the most controversial debates within the codification process. It is interesting to focus attention on the wording of Article 7. In particular, the Working Group replaced the phrase “exercise due diligence” with “take all

³³⁵ *Ibid.* Article X(1)

³³⁶ *Ibid.* Article XI(1)

³³⁷ *Ibid.*, Article XI(2)

³³⁸ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 430.

appropriate measures.” The two expressions seem to be saying exactly the same thing,³³⁹ that this is not an obligation of result but an obligation of conduct.³⁴⁰ It means that a watercourse state, which causes harm to other riparian states through the use of the watercourse, can be considered responsible only “when it has intentionally or negligently caused the event which had to be prevented or has intentionally or negligently not prevented others in its territory from causing that or from abating it.”³⁴¹ In addition, the Working Group made explicit reference to the prevention of causing significant harm. This is something that was probably already implicit in the ILC’s draft, but the Working Group eliminated any doubt about the precautionary nature of this obligation.³⁴²

All relevant codifications of this principle contain the notion of harm or injury, but many of them are vague about the type or level of harm prohibited.³⁴³ In practice, some tribunals required the consequences of an act to be serious, in order to break this obligation.³⁴⁴ The Helsinki Rules spoke of substantial damage when dealing with pollution of an international watercourse,³⁴⁵ and a similar approach was used in other international instruments.³⁴⁶ The 1997 UN Convention referred to significant harm, although earlier drafts of the ILC referred to appreciable harm. Significant harm is defined as a “real impairment of use, i.e. a detrimental impact of some consequence upon, for example, public health, industry, property, agriculture or the environment in the

³³⁹ In its commentary to Article 7, the ILC cited two agreements in supporting the due diligence obligation, which use the expression “all appropriate measures.” “Report of the International Law Commission on the work of its Forty-Sixth Session”, *supra* note 122 at 103.

³⁴⁰ *Ibid.*, at 103. See also McCaffrey & Sinjela, *supra* note 180 at 100.

³⁴¹ Lammers, *supra* note 69 at 384.

³⁴² McCaffrey & Sinjela, *supra* note 180 at 101.

³⁴³ Owen McIntyre, *Environmental Protection*, *supra* note 272 at 93.

³⁴⁴ See for example the Trail Smelter arbitration, where the tribunal asks the case to be “of a serious consequence.” *Trail Smelter Arbitration*, *supra* note 64 at 1965.

³⁴⁵ Helsinki Rules, *supra* note 31, Article X(1).

³⁴⁶ McIntyre, *Environmental Protection*, *supra* note 272 at 94.

affected State”.³⁴⁷ However, in its commentary to the 1994 Draft Articles, the ILC drew attention to the fact that replacing the word “appreciable” with the word “significant” was not done with the intention of raising the applicable standard.³⁴⁸

There have been several attempts to draw a threshold of significant harm. Some authors conclude that there is no specific line after which harming the waters of another state breaches an obligation under international law. There is instead a flexible standard, which involves evaluating the facts and circumstances concerning the specific case.³⁴⁹ General rules about the threshold of significant harm can be traced, starting from the fact that in good neighbourliness there is a general good faith rule to ignore small, insignificant inconveniences.³⁵⁰ For example, in defining the use of the term “significant” in the Convention, the ILC required a “significant adverse effect” to be “capable of being established by objective evidence and not to be trivial in nature....”³⁵¹ In addition, some serious types of harm, which causes an unreasonable risk, should be considered automatically prohibited. This includes the most serious forms of environmental pollution that cause irreparable damage and threaten human health.³⁵² Therefore, to be significant

³⁴⁷ “Report of the International Law Commission on the work of its Fortieth session” (UN Doc. A/43/10) in *Yearbook of the International Law Commission 1988*, vol. 2, part 2 (New York: UN, 1990) 1 at 36 (UNDOC A/CN.4/SER.A/1988/Add.1). The ILC also specifies that “appreciable” harm is therefore that which is not insignificant or barely detectable, but it is not necessarily ‘serious’.” *Ibid.*

³⁴⁸ “Report of the International Law Commission on the work of its Forty-Sixth Session”, *supra* note 122 at 94. The ILC explains the reason of this change of wording, essentially done because of the dual meaning of the term “appreciable” as both “measurable” and “significant”.

³⁴⁹ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 431. In the author’s opinion, harm can be always considered unreasonable if endangers human health or is of an irreparable or long-lasting nature.

³⁵⁰ McIntyre, *Environmental Protection*, *supra* note 272 at 94-95.

³⁵¹ “Report of the International Law Commission on the work of its Forty-Sixth Session”, *supra* note 122 at 94. See also the statement of understanding on Article 3, the first provision of the Convention in which the term “significant” is used. *Report of the Sixth Committee convening as the Working Group of the Whole*, *supra* note 125 at 5.

³⁵² McIntyre, *Environmental Protection*, *supra* note 272 at 95.

the harm must lie between minor or trivial and substantial or serious.³⁵³ It is a flexible standard that has to be applied to the specific situation. What is significant in one case may not be in another.

One of the reasons for including a threshold of significance is to provide guidance to states in relation to the standards they must adopt at the domestic level to respect their international obligations.³⁵⁴ Another important function of the threshold is to indicate the level of harm suffered by a state after which the matter can be raised with the state causing this harm. It creates a legitimate expectation that the other state will respond and an obligation on the part of the state whose conduct caused the situation to consult with the affected state.³⁵⁵ The obligation to consult is supported by the decision in *Lake Lanoux*³⁵⁶ and by Article 6(2) and Part III of the Convention, which asked for cooperation and established a regime of consultation and negotiations. The resulting discussion will later determine whether the uses at the centre of the dispute were equitable and reasonable.

The required standard of conduct is the final aspect of the no-harm rule to be discussed. In the 1991 ILC Draft, Article 7 provided that watercourse states “shall utilize an international watercourse in such a way not to cause appreciable harm”³⁵⁷, thereby setting an obligation of result. The 1994 version of the article and the Convention

³⁵³ See the ILC’s commentary to Article 3 of its draft articles, “Report of the International Law Commission on the work of its Forty-Sixth Session”, *supra* note 122 at 94.

³⁵⁴ *Ibid.*

³⁵⁵ McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 433.

³⁵⁶ For a detailed discussion about French obligations to consult, see “Legal Problems Relating to the Utilization and Use of International Rivers, Report by the Secretary General”, *supra* note 53 at 198.

³⁵⁷ “Report of the International Law Commission on the work of its Forty-Third session” (UN Doc. A/46/10) in *Yearbook of International Law Commission 1991*, vol. 2, part 2 (New York and Geneva: UN, 1994) 1 at 67 (UNDOC A/CN.4/SER.A/1991/Add.1).

transformed this obligation into one of due diligence.³⁵⁸ The ILC, citing the Alabama case, defined due diligence as "a diligence proportioned to the magnitude of the subject and to the dignity and strength of the power which is to exercise it" and as "such care as governments ordinarily employ in their domestic concerns."³⁵⁹ The ILC then referred to a large number of international instruments whereby states agreed to take all "practicable" or appropriate" measures to prevent, control, or reduce pollution or its effects.³⁶⁰

The obligation not to cause significant harm represents a customary norm of international law. Nevertheless, its status and role in the management of transboundary water resources remains vague.³⁶¹ It is still very difficult to identify the standard behind the concept of significant harm and the concept of due diligence. The definitions given by the ILC and found in practice are unclear and there is a wide range within which it is possible to evaluate each distinct case. Nevertheless, McCaffrey recognizes three fundamental conditions that should be satisfied before the no-harm obligation is breached: "significant harm must result in one state from activities in another state; the latter must not only have failed to prevent the harm by its conduct but must also have been capable of preventing it by different conduct; and the conduct or use resulting in the harm must be unreasonable under the circumstances."³⁶²

³⁵⁸ The ILC commentary to the 1994 Draft Articles is clear in defining that Article 7 "sets forth the general obligation for watercourse States to exercise due diligence in their utilization of an international watercourse in such a way as not to cause significant harm to other watercourse States." "Report of the International Law Commission on the work of its Forty-Sixth Session", *supra* note 122 at 103.

³⁵⁹ *Ibid.*

³⁶⁰ *Ibid.* at 103-105.

³⁶¹ Helal, *supra* note 333 at 362.

³⁶² McCaffrey, *The Law of International Watercourses*, *supra* note 38 at 433.

4. The Relationship between the Equitable Utilization and the No-Harm Rule

The relationship between Article 5 and Article 7 of the Convention created a strong division among states. Upstream states were in favour of the equitable utilization, because it would allow them more flexibility in developing new projects. Downstream states argued for giving priority to the no-harm rule, because it would offer greater protection of their interests.³⁶³ This controversy was also reflected in the ILC negotiations, where some members favoured the elimination of articles stating the prohibition of causing harm, while others preferred an explicit mention of this rule as found in the 1991 and 1994 ILC Draft Articles.³⁶⁴

The balance of these conflicting interests led to compromises in the elaboration of the Convention. The doctrine of equitable utilization has long been considered as the guiding principle for the determination of the right of states to non-navigational uses of international watercourses.³⁶⁵ Nevertheless, some authors believe that certain limits should be drawn in identifying whether a use is acceptable or not under international law. General norms in the field require at least a minimum protection for vital human needs, ecosystem protection and sustainability. Some uses that harm particular interests should be considered automatically inequitable, or at least wrong even if equitable.³⁶⁶ However,

³⁶³ For an overview about some states' position concerning Articles 5,6 and 7, see Aaron Schwabach, "The United Nations Convention on the Law of Non-navigational Uses of International Watercourses, Customary International Law and the Interests of Developing Upper Riparians" (1998) 33 Tex. Int'l L. J. 257 at 269-273.

³⁶⁴ "Report of the International Law Commission on the work of its Forty-Sixth Session" *supra* note 122 at 105.

³⁶⁵ McCaffrey "Second report on the Law of the Non-Navigational Uses of International Watercourses", *supra* note 152 at 130.

³⁶⁶ André Nollkaemper, "The Contribution of the International Law Commission to International Water law: does it Reverse the Flight from Substance" (1996) 27 Nethl. Y.B. Int'l L. 39 at 48.

a different opinion can be found in the ILC commentary, which reflected the Commission's position concerning the relationship between the two principles. The prohibition to cause significant harm, and all the other rules contained in the Convention, seems to be subject to equitable utilization.

The ILC's decision to introduce an explicit prohibition against causing significant harm is due to the awareness that Article 5 alone does not provide states sufficient guidance where harm is a factor.³⁶⁷ However, the Commission also drew attention to the fact that even though an activity involves significant harm, it "would not of itself necessarily constitute a basis for barring it."³⁶⁸ There are circumstances where a use is equitable and reasonable and can still cause significant harm. In a case like this, "the principle of equitable and reasonable utilization remains the guiding criterion in balancing the interests at stake."³⁶⁹ Therefore, a use that is equitable and reasonable and done with due diligence is not prohibited, even if it causes significant harm to another riparian state.³⁷⁰

This conclusion is reinforced by a closer examination of the Convention. Article 7(2) provides that a watercourse state whose use causes significant harm must enter into consultations with the affected state and shall take all appropriate measures to mitigate or eliminate the harm caused, "having regard for the provisions of article 5 and 6."³⁷¹ This clearly implies that the prohibition is subordinate to equitable and reasonable utilization.

³⁶⁷ "Report of the International Law Commission on the work of its Forty-Sixth Session", *supra* note 122 at 103.

³⁶⁸ *Ibid.*

³⁶⁹ *Ibid.*

³⁷⁰ Charles B. Bourne, "The Primacy of the Principle of Equitable Utilization in the 1997 Watercourses Convention" (1997) 35 Can. Y.B. Int'l L. 215 at 224.

³⁷¹ Convention, *supra* note 119, Article 7(2).

In other words, what is forbidden is a legal harm, which affects the ability of co-riparians to enjoy their equitable share of the beneficial uses of the watercourse.³⁷² The principle of equitable and reasonable utilization is considered the fundamental one in the field and in the opinion of other international institutions. For example, in the Helsinki Rules, the ILA acknowledged the possibility of causing harm to another state if the use would anyway help in achieving an equitable apportionment of water resources.³⁷³ Therefore, under the general principles of international law, a significant harm does not constitute a violation if equitable and reasonable utilization is achieved.³⁷⁴

The fact that the ILC decided to place the prohibition to cause significant harm in a specific article means that in the management of a watercourse basin, the no-harm rule, holds a fundamental importance. It cannot be considered merely a factor in the equitable balancing of the interests and uses of states.³⁷⁵ The ILC's work can be seen as pointing out that some factors must be weighted more than others to determine if a use is legal or not. Among them, there is the prevention of significant harm, the protection of human needs, the protection of ecosystems, and the sustainability of water resources.³⁷⁶ These principles relate to separate norms and should be considered distinctly from the mere balance of interests. Otherwise the Commission would have followed the approach of the ILA, by placing significant harm, for example, in Article 6.

Considering the development of international law in the field and in particular the importance that environmental protection is gaining, it is becoming more difficult to

³⁷² Helal, *supra* note 333 at 364.

³⁷³ The Helsinki Rules consider harm as one of the factors to be considered in determining if a use is equitable and reasonable, Helsinki Rules, *supra* note 31, Article V(2)(k).

³⁷⁴ Helal, *supra* note 333 at 364.

³⁷⁵ McIntyre, *Environmental Protection*, *supra* note 272 at 114.

³⁷⁶ Nollkaemper, *supra* note 366 at 52-53.

clearly favour one principle over the other. The importance of the continual evolution of international environmental law has been recognized by the ICJ in *Gabčíkovo-Nagymaros*, where the court stated: “[i]n the field of environmental protection...new norms and standards have been developed, set forth in a great number of instruments during the last two decades. Such new norms have to be taken into consideration, and such new standards given proper weight, not only when States contemplate new activities, but also when continuing with activities begun in the past.”³⁷⁷

The Convention is a compromise of many conflicting interests and is the best possible codification of equitable utilization and no-harm.³⁷⁸ Nevertheless, the management of international watercourses changes with time, with more consideration toward environmental issues.³⁷⁹ In addition, the increased importance given to cooperation and joint mechanisms of management will certainly affect the relationship between the two principles. In a world that is rapidly getting dryer,³⁸⁰ the sole application of the doctrine of equitable utilization is not enough to confront increasing pollution in international watercourses and degradation of aquatic ecosystems. In the balancing process, the rules concerning the prohibition to cause significant harm and other substantive rules concerning environmental protection will have to be more heavily weighted in order to achieve a lasting equity in the apportionment and allocation of shared natural resources.

³⁷⁷ *Case concerning the Gabčíkovo-Nagymaros Project*, *supra* note 101 at 78.

³⁷⁸ Tanzi & Arcari, *supra* note 144 at 177.

³⁷⁹ In a 1996 opinion, the I.C.J. stated that: “The existence of a general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment.” *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, [1996] I.C.J. Rep. 226, at 241-242. The opinion is also cited in *Case concerning the Gabčíkovo-Nagymaros Project*, *supra* note 101 at 38.

³⁸⁰ See Chapter I, Part 2, above.

CHAPTER IV

CANADIAN WATERS AND THE BOUNDARY WATERS TREATY

1. The Blue North

Canada's water wealth is universally known and water is considered one of its most valuable natural resource. The country has about 20% of the world's total fresh water resources, mainly held in its lakes and glaciers.³⁸¹ However, these numbers hide a more complicated truth. The quantity of water Canada can actually utilize for human activity, also known as the renewable supply, is a totally different matter. This includes precipitation and water flowing in rivers. The water that replenishes underground aquifers and is renewed every year represents the actual water supply.³⁸² Canada's topography, together with its cool weather and low evaporation, shows a country rich with water. However, Canada's major fresh water resources are inaccessible. It is locked in glaciers and in the far North. The country's renewable supply is about 6.5% of the world supply, setting Canada in third place, behind Brazil and Russia and at the same level of Indonesia, United States and China.³⁸³

This myth of abundance could result in decisions with irreparable implications. Poor management of water, pollution, and the removal from lakes without enough natural replacement can cause irreversible damages to the environment. Misconception about the availability of fresh water resources might lead to behaviour that will endanger water

³⁸¹ John Sprague, "Great Wet North? Canada's Myth of Water Abundance" in Karen Bakker, *supra* note 16, 23 at 23.

³⁸² *Ibid.*

³⁸³ *Ibid.* at 25.

resources. In Canada each person uses more than 300 litres of water per day, placing Canadians among the highest per capita waters users in the world, slightly below the United States. However, this amount considerably exceeds the quantity of water used by Europeans, who have similar life style.³⁸⁴

Increasing attention toward water issues is required in rural areas. Water supplies are not unlimited and shortages have been experienced in several urban areas and among farmers due to uneven distribution of water resources.³⁸⁵ Nevertheless, Canada has a remarkable water supply, especially compared to other countries. This abundance, combined with low population density, places Canada in a leading position in the world's water scarcity battle.³⁸⁶ To face new challenges, water governance in Canada is developing a growing participation of non-federal actors, which includes both local entities and non-state actors.³⁸⁷ The independence of Canada's provinces and territories in the management of fresh water resources, together with all the different actors participating in this process, is producing a wide differentiation of practices.

The experiences do not involve only drinking water, but also broad policies concerning water allocation. The majority of the initiatives are still held under the authority of a public actor, which owns the water supply systems and controls all water related projects through statutory authority. Nevertheless, the awareness that the public authority can no longer undertake all necessary activities is reflected in the delegation of many functions to private actors, which may also include groups of citizens or different

³⁸⁴ Shrubsole & Draper, *supra* note 16 at 38.

³⁸⁵ Rob de Loë & Reid Kreutzwiser, "Challenging the Status Quo: The Evolution of Water Governance in Canada" in Karen Bakker, *supra* note 16, 85 at 85.

³⁸⁶ Peter Bowal, "Canadian Water: Constitution, Policy, and Trade" (2006) 2006 Mich. St. L. Rev. 1141 at 1146.

³⁸⁷ Loë & Kreutzwiser, *supra* note 385 at 88. In particular, the authors cite the increasing involvement of municipalities, local water management agencies, First Nations communities and local NGOs.

entities working together.³⁸⁸ The involvement of private actors is the consequence of the increasing investment required to maintain water supply infrastructures and to meet the growing demand of water in the country. However, this trend, called “public private partnership”, is raising a sharp debate about the status of water resources in Canada, with many concerned about the possibility that water could soon be treated as any other commodity.³⁸⁹

The management of Canadian fresh water resources is not only a matter of domestic policy and jurisdiction. Many watercourse basins are shared with the United States. The two countries share a 5000 mile border that crosses about 150 rivers and lakes.³⁹⁰ This count includes the Great Lakes and St. Lawrence River, the world’s largest surface freshwater system, containing twenty percent of the total world’s supply.³⁹¹ The management of transboundary waters between United States and Canada has been based for a century on the Boundary Waters Treaty of 1909,³⁹² which has never been altered or amended. The Treaty established an International Joint Commission with investigative and adjudicative functions.³⁹³

The next paragraphs will examine the Boundary Waters Treaty, with particular attention given to Article IV, which contains the provision concerning pollution of transboundary waters.

³⁸⁸ *Ibid.* at 94

³⁸⁹ On the involvement of private actors in water related activities, see generally Karen Bakker, “Commons or Commodity? The Debate over Private Sector Involvement in Water Supply” in Karen Bakker, *supra* note 16, 185.

³⁹⁰ Noah D. Hall, “Transboundary Pollution: Harmonizing International and Domestic Law” (2007) 40 U. Mich. J. L. Reform 681 at 682.

³⁹¹ *Ibid.*

³⁹² *Treaty between the United States and Great Britain Relating to Boundary Waters Between the United States and Canada*, United States and United Kingdom, 11 January 1909, 36 U.S. Stat. 2448. [*Boundary Waters Treaty*].

³⁹³ *Ibid.* Article VII.

2. The 1909 Boundary Waters Treaty and the International Joint Commission

Signed in 1909 by Great Britain and the United States, the Boundary Waters Treaty regulates boundary waters between the United States and Canada. Its main function is to solve possible disputes regarding lakes and rivers the two countries share. The Preamble states that the Treaty was created to “prevent disputes regarding the use of boundary waters and to settle all questions which are now pending between the United States and the Dominion of Canada”³⁹⁴ The Treaty guarantees freedom of navigation on boundary waters,³⁹⁵ and acknowledges a series of possible uses of boundary waters, establishing a hierarchy among them.³⁹⁶ In order to prevent and resolve controversies, Article VII created the International Joint Commission, a body composed of six commissioners: three appointed by the United States and three appointed by Canada.

The IJC is atypical compared to similar international bodies. Usually members of bodies established through international treaties represent views and interests of their own states. Instead, the IJC works in the interest of the two countries, examining matters impartially and finding solutions that do not take into consideration national interests.³⁹⁷ This is the reason for 100 years of success for the IJC. It is considered an impartial and independent body whose advice has always received high regard and in many cases has

³⁹⁴ *Ibid.* Preamble.

³⁹⁵ *Ibid.* Article I.

³⁹⁶ *Ibid.* Article VIII. Three broad categories are described: 1. Uses for domestic and sanitary purposes; 2. Uses for navigation, including the service of canals for the purposes of navigation; 3. Uses for power and for irrigation purposes.

³⁹⁷ Leonard H. Legault, “The Management and Resolution of Cross Border Disputes as Canada/U.S. Enter the 21st Century: the Roles of Law and Diplomacy in Dispute Resolution: the IJC as a possible Model” (2000) 26 Can.-U.S. L.J. 47 at 49.

influenced the political strategies of both countries.³⁹⁸ The Commission helped diplomatically solve many transboundary water controversies and pressured for the development of new and more effective environmental policies to prevent transboundary pollution.³⁹⁹

To accomplish its duties, the Commission was assigned three main functions. The first is a quasi-judicial power based on Articles III and IV of the Treaty. This function has always been considered the most important. It is a tool able to resolve water use conflicts between the parties and to ensure that water development on one side would not be detrimental to the interests of the other country.⁴⁰⁰ Article III states that all new uses, obstructions or diversions of boundary waters that “materially affect the level or flow of the boundary waters on the other side”, shall be approved by the IJC.⁴⁰¹ Similarly, Article IV empowers the Commission to rule upon new developments regarding rivers flowing from boundary waters, or waters flowing across the border, in case these projects will raise the natural level of waters in the upstream country.⁴⁰² In the decision process, the Commission can be guided by additional criteria contained in Article VIII. Any decision is final and binding, although Canada and the United States are allowed to bypass the IJC through specific agreement.⁴⁰³

The second main function given to the Commission is investigative and advisory. The parties can decide to refer any dispute to the IJC, which is authorized to examine

³⁹⁸ Noah D. Hall, “The Centennial of the Boundary Waters Treaty: a Century of United States – Canadian Transboundary Water Management (2008) 54 Wayne L. Rev. 1417 at 1422.

³⁹⁹ Noah D. Hall, “Transboundary Pollution”, *supra* note 390 at 707.

⁴⁰⁰ Timothy B. Heinmiller, “The Boundary Waters Treaty and Canada-U.S. Relations in Abundance and Scarcity” (2008) 54 Wayne L. Rev. 1499 at 1504.

⁴⁰¹ *Boundary Waters Treaty*, *supra* note 392, Article III.

⁴⁰² *Ibid.* Article IV.

⁴⁰³ Heinmiller, *supra* note 400 at 1505. However, the two governments rarely took advantage of this possibility.

facts and can issue conclusions and recommendations on these matters.⁴⁰⁴ This advisory function is the most common way the IJC has exercised its powers in the past. The reports released are not binding, which leaves the parties free to negotiate further in order to achieve an agreeable solution. The recommendations have been used by both countries as a starting point in the management of emerging water issues.⁴⁰⁵ The submission of a reference may be done by one party alone, but in the past both countries have always referred to the IJC with the consent of the other.⁴⁰⁶

Finally, the IJC has an arbitrary role. Whenever both countries agree, they can refer a matter of difference to the Commission and the decision issued is binding.⁴⁰⁷ This is the only case where the Commission has an authoritative role in the resolution of conflicts. However, this role has never been exercised.⁴⁰⁸ Commentators have searched for reasons behind the reluctance of the two countries to undergo an arbitral process.⁴⁰⁹ In general it appears that both parties prefer to maintain control over transboundary issues and this is guaranteed through the advisory function, which leaves open the possibility of further negotiations.

The Treaty governs four of the five Great Lakes,⁴¹⁰ but many tributary rivers, streams and ground waters are outside of its jurisdiction.⁴¹¹ The limited application of the

⁴⁰⁴ *Boundary Waters Treaty*, *supra* note 392, Article IX.

⁴⁰⁵ Heinmiller, *supra* note 400 at 1506.

⁴⁰⁶ Stephen J. Toope & Jutta Brunnee, "Freshwater Regimes: The Mandate of the International Joint Commission" (1998) 15 *Ariz. J. Int'l & Comp. L.* 273 at 285.

⁴⁰⁷ *Boundary Waters Treaty*, *supra* note 392, Article X.

⁴⁰⁸ Legault, *supra* note 397 at 51.

⁴⁰⁹ Heinmiller, *supra* note 400 at 1506.

⁴¹⁰ Lakes Superior, Huron, Erie and Ontario. Lake Michigan sits entirely within the United States.

⁴¹¹ *Boundary Waters Treaty*, *supra* note 392, Article II. "Each of the High Contracting Parties reserves to itself...the exclusive jurisdiction and control over the use and diversion...of all waters on its own side of the line which in their natural channels would flow across the boundary or into boundary waters". See also, Noah D. Hall, "Toward a New horizontal Federalism: Interstate Water Management in the Great Lakes Region" (2006) 77 *U. Colo. L. Rev.* 405 at 417.

Treaty has consequences in many cases, such as the Devils Lake outlet controversy that will be discussed later. This is probably due to the period when the Treaty was negotiated. In the beginning of the 20th century, the biggest concerns were related to navigation and access to boundary waters, rather than the management of shared water resources.⁴¹² In addition, both countries wanted to limit the erosion of sovereign control over their waters, with the United States in a more powerful position and determined to protect its opportunity for further big diversion projects.⁴¹³

There are several other weaknesses in the IJC's ability to actively influence the management of transboundary waters. The Commission applies the appropriate rules of international law to accomplish its mandate.⁴¹⁴ This means that the IJC does not have the power to shape principles of law or to suggest the application of emerging principles.⁴¹⁵ Under Article IX, the Commission does have the opportunity to advise the two countries to follow modern developments of international law. However, it is difficult to have success in this task when the two countries have opposing interests.⁴¹⁶ The IJC's attempts to actively participate in the development of the principles applicable to transboundary disputes have not found great support in the two governments, at least in the last decades.⁴¹⁷ In particular, the United States has always been concerned about losing

⁴¹² Hall, "The Centennial of the Boundary Waters Treaty", *supra* note 398 at 1421.

⁴¹³ Toope & Brunnee, *supra* note 406 at 277.

⁴¹⁴ Legault, *supra* note 397 at 51.

⁴¹⁵ Toope & Brunnee, *supra* note 406 at 281.

⁴¹⁶ Heinmiller, *supra* note 400 at 1508.

⁴¹⁷ David Lemarquand, "The International Joint Commission and Changing Canada-United States Boundary Relations" (1993) 33 Nat. Resources J. 59 at 74.

sovereignty to Canada, in particular regarding environmental issues. This has eroded the role that the IJC can play in the protection of water resources.⁴¹⁸

The IJC is also negatively affected in its functions by other factors, primarily linked to its dependence on governments. It sometimes requires cooperation of government agencies, which inevitably take the side of the country they work for.⁴¹⁹ In addition, the Commission does not possess the power to take initiative or to suggest that parties submit a matter for reference. In its advisory function, it is unable to negotiate the conditions of the investigation. The conditions are decided by the parties.⁴²⁰ The Boundary Waters Treaty has been considered by some commentators to be out of step with current developments of environmental law.⁴²¹ It lacks the specific tools to allow public participation, accountability, and access to justice. This deficiency has a negative impact in the management of situations involving pollution or invasive species threats, particularly considering new tensions caused by climate changes and economic difficulties.⁴²²

These issues are probably the consequence of the fact that the Treaty has remained totally unchanged since 1909. Many modern challenges in the management of shared water resources could not be foreseen in the beginning of the 20th century. The Treaty's design was strongly influenced by water conflicts at that time, which particularly involved the Great Lakes and scarcity problems in the Prairies.⁴²³ A detailed look at

⁴¹⁸ Itzhak E. Kornfeld, "Polycentrism and the International Joint Commission" (2008) 54 Wayne L. Rev. 1695 at 1697.

⁴¹⁹ Lemarquand, *supra* note 417 at 78.

⁴²⁰ *Ibid.*

⁴²¹ Robert V. Wright, "The Boundary waters Treaty: A Proposed Public Submission Process to increase Public Participation, Accountability and Access to Justice, (2008) 54 Wayne L. Rev. 1609 at 1609.

⁴²² *Ibid.* at 1610.

⁴²³ Heinmiller, *supra* note 400 at 1502-1503.

possibilities for the improvement of the Treaty and the Commission's activities will be undertaken later, in the specific discussion about the Devils Lake outlet controversy.

3. Prohibition on Transboundary Pollution

The Treaty contains norms designed to prevent and solve problems resulting from the pollution of water resources. One of its most important provisions is Article IV, which imposes a general duty not to pollute.⁴²⁴ This norm has been invoked several times in the past and the risk of damage resulting from transboundary pollution has been used to recommend against various projects or to propose essential modifications.⁴²⁵ Nevertheless, IJC decisions addressing environmental issues related with transboundary waters highlight a wide interpretation of this article.

As discussed above,⁴²⁶ injury to other riparians cannot be completely avoided in the utilization of an international watercourse. Pollution routinely happens without any violation of international norms. For this reason, customary international law requires states to undertake due diligence in order to meet their obligations.⁴²⁷ At first sight it is difficult to understand if Article IV of the Treaty is an obligation of due diligence or one of result. The IJC's initial approach was to consider this obligation as not absolute, but as limited to damage that would have significant negative effects on human health and

⁴²⁴ *Boundary Waters Treaty*, *supra* note 392, Article IV. "It is further agreed that the waters herein defined as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other"

⁴²⁵ John H. Knox, "The Boundary Waters Treaty: ahead of its Time, and Ours" (2008) 54 Wayne L. Rev. 1591 at 1600-1602.

⁴²⁶ See Chapter III, Part 3, above.

⁴²⁷ Kiss & Shelton, *Guide to International Environmental Law*, *supra* note 257 at 91.

life.⁴²⁸ However, later references show an attempt to set specific water quality standards. In the investigation concerning pollution in the channels connecting the Great Lakes, the IJC did not use a general approach as in previous cases, but instead recommended a series of specific “Objectives for Boundary Waters Control”.⁴²⁹ These were technical objectives designed to maintain waters in adequate condition.⁴³⁰

The Commission started to adopt even more detailed quality standards in the following references involving transboundary water pollution.⁴³¹ Of particular interest is the 1968 report on pollution of the Red River, since it offers an early Commission’s view on the introduction of non-native species causing water degradation and representing a potential violation of the obligations contained in Article IV.⁴³² However, a more important report evaluated pollution in Lake Erie, Lake Ontario and the international section of the St. Lawrence River.⁴³³ It set out a specific list of water quality objectives

⁴²⁸ In the Court’s opinion, the reference to injury in Article IV “does not mean mere harm or damage, but harm or damage which is in excess of the amount of harm or damage which the sufferer, in view of all the circumstances of the case, and of all the coexistent rights...and of the paramount importance of human health and life, should reasonably be called upon to bear”. International Joint Commission, *Final Report on the Pollution of Boundary Waters Reference* (Washington: Government Printing Office, 1918) at 34, online: IJC Publications <<http://ijc.org/php/publications/pdf/ID33.pdf>>.

⁴²⁹ International Joint Commission, *Report on the Pollution of Boundary Waters* (Washington-Ottawa: IJC, 1951) at 18, online: IJC Publications <<http://ijc.org/php/publications/pdf/ID244.pdf>>.

⁴³⁰ Richard B. Bilder, “Controlling Great Lakes Pollution: A Study in United States-Canadian Environmental Cooperation” (1972) 70 Mich. L. Rev. 469 at 493.

⁴³¹ *Ibid.* at 494-495.

⁴³² Hollis, Duncan B., “Disaggregating Devils Lake: Can Non-State Actors, Hegemony, or Principal-Agent Theory Explain the Boundary Waters Treaty” in *Responsibility of Individuals, States and International Organizations* (Ottawa: Canadian Council on International Law, 2007) 32, at 54 The IJC required water to be of a quality “such that after treatment by conventional purification process, it will be safe for human consumption; will not cause damage to propriety;... will permit the propagation and life of fish species native to the vicinity under natural conditions; will permit its use by livestock and wildlife without inhibition or injurious effects;...” International Joint Commission, *Report on the Pollution of the Red River* (IJC, 1968) at 27 online: IJC Publications <<http://ijc.org/php/publications/pdf/ID335.pdf>>.

⁴³³ International Joint Commission, *Pollution of Lake Erie, Lake Ontario and the International Section of the St. Lawrence River* (Ottawa: Information Canada, 1971) online: IJC Publications <<http://ijc.org/php/publications/pdf/ID364.pdf>>.

that would be the basis for the Great Lakes Water Quality Agreement.⁴³⁴ The Agreement, however, did not establish an absolute obligation to meet certain water quality standards. The parties do not fail to meet their legal obligations if they do not respect these standards. Instead, they must prove that they acted using due diligence, even if they were unsuccessful.⁴³⁵

While the Great Lakes have their own set of rules, all other transboundary waters are still under Article IV. It sets an obligation not to pollute that seems to be absolute but requires the injury of health or propriety.⁴³⁶ There is no general rule defining what constitutes injury. The evaluation must be done on a case by case basis.⁴³⁷ In the first reference concerning Article IV in 1918, the Commission made it clear that a state could remedy the harm by assuming the financial burden, in which case there would be no “injury” within the meaning the Treaty.⁴³⁸ The Commission clearly tried to balance many conflicting interests. A prohibition to pollute that is unconditional would have the effect of preventing any possible activity or development of an international watercourse. Instead, the Commission approached the situation like the tribunal in the *Trail Smelter* arbitration and allowed some activities despite possible damage with the condition that compensation must be paid.⁴³⁹

The IJC later radically changed its approach to reporting in response to referrals involving projects that would potentially cause transboundary pollution outside the Great

⁴³⁴ Bilder, *supra* note 430 at 496-499.

⁴³⁵ Knox, “The Boundary Waters Treaty”, *supra* note 425 at 1603.

⁴³⁶ *Ibid.* at 1604

⁴³⁷ International Joint Commission, *Report on Water Quality in the Poplar River Basin* (IJC: 1981) at 190-191, online: IJC Publications <<http://ijc.org/php/publications/pdf/ID588.pdf>>.

⁴³⁸ International Joint Commission, *Final Report on the Pollution of Boundary Waters Reference*, *supra* note 428 at 33.

⁴³⁹ *Trail Smelter Arbitration*, *supra* note 64 at 1966.

Lakes. In the 1970's and 1980's, the IJC adopted a "zero risk" approach, refusing to recommend projects with a potential for significant, injurious pollution.⁴⁴⁰ The parties had to show that there was no risk of pollution or that both parties agreed that the risk of pollution was acceptable. The Commission was not willing to wait and see if the project actually resulted in pollution and instead embraced a precautionary approach.⁴⁴¹ The immediate consequence was that both Canada and the United States became less and less willing to refer questions to the Commission.⁴⁴² Undoubtedly, the zero risk approach has deleterious consequences on the development of a water basin, given that all human activities pose some risk of causing injurious pollution.⁴⁴³ Both parties would have a very dangerous right of veto over projects, since the IJC's reports are usually respected even if not binding.

Both governments already felt uncomfortable with Article IV and started to be frustrated with the IJC's interpretation of this provision.⁴⁴⁴ Reading Article IV as an absolute prohibition does not benefit Canada or the United States. The Treaty and the instruments contained in it, including the IJC, have been bypassed.⁴⁴⁵ The consequence has been an increased number of disputes over cross border waterways that have become

⁴⁴⁰ Hollis, "Disaggregating Devils Lake", *supra* note 432 at 56.

⁴⁴¹ International Joint Commission, *Impacts of a Proposed Coal Mine in the Flathead River Basin* (IJC, 1988) at 9, online: IJC Publications <<http://ijc.org/php/publications/pdf/ID590.pdf>>. "The Commission believes that, to ensure that the provisions of the Boundary Waters Treaty are honoured, when any proposed development project has been shown to create an identified risk of a transboundary impact in contravention of Article IV, existence of that risk should be sufficient to prevent the development from proceeding."

⁴⁴² Knox, "The Boundary Waters Treaty", *supra* note 425 at 1604.

⁴⁴³ Hollis, "Disaggregating Devils Lake", *supra* note 432 at 57.

⁴⁴⁴ Knox, "The Boundary Waters Treaty", *supra* note 425 at 1605.

⁴⁴⁵ Lemarquand, *supra* note 417 at 76-77, describing how the United States have never given the IJC much consideration, how Canada "lost confidence in bilateral institutional mechanisms", and how recently both governments "have little interest in seeing the IJC regain the profile it used to have in bilateral relations or take on any of the new environmental challenges facing the two countries". See also Tooze & Brunnee, *supra* note 406 at 282.

more complicated.⁴⁴⁶ Neither the United States nor Canada would currently be in compliance with the Treaty and its provisions concerning pollution, even if the obligation would be considered one of due diligence.⁴⁴⁷ The best solution would be to establish specific water quality standards outside of the Great Lakes. Every water basin is unique in its characteristics so the IJC and the two governments should try to create a specific set of rules for at least the main watercourses. If this would be too difficult, they could create more detailed standards applicable to North American watercourses in general.

A set of specific standards would represent a more efficient instrument compared to the never accepted absolute prohibition stated in Article IV. The Devils Lake dispute demonstrates the weakness of the system controlling transboundary pollution. In this case, the two countries reached an agreement which failed to enforce Article IV of the Treaty. The creation of standards for the Red River basin, together with the explicit characterization of the obligation as a duty of due diligence would make the parties more politically inclined to comply. Perhaps, it will represent a first step in preventing similar controversies in the future.

⁴⁴⁶Austen L. Parrish & Shi-Ling Hsu, "Litigating Canada-U.S. Transboundary Harm: Environmental Lawmaking and the Threat of Extraterritorial Reciprocity", (2007) 48 Va. J. Int'l L. 1 at 15.

⁴⁴⁷ Knox, "The Boundary Waters Treaty", *supra* note 425 at 1605.

CHAPTER V

DEVILS LAKE OUTLET: HOW A SMALL LAKE SPREADS INTO A CONTROVERSY BETWEEN COUNTRIES

1. Introduction

The image of Canada is based on pure and plentiful water. White snow, eternal glaciers, running rivers and vast lakes are part of the idea the world has about this nation. Few things are more threatening than polluting national waterways, but now Canadians are also afraid of contaminated water coming from the south. Devils Lake is a closed basin of water located in north-east North Dakota. In recent years water levels have risen, creating frequent flooding with grave damage for farmland, homes and businesses. The only way to face the emergency seems to be draining excess water into a watercourse. The North Dakota government decided to build an outlet that emptied into the Sheyenne River, just fifteen miles south of the lake. The Sheyenne River merges into the Red River, which flows north, crosses the border into Canada and empties into Lake Winnipeg. The decision to build this outlet created a lot of concern among people living in Manitoba who worried about the quality of their water.

The controversy might appear, at first glance, to be a simple dispute involving farmers and landowners from North Dakota on one side and Manitobans, and in general Canadians, with an interest in protecting the quality of their lakes and rivers on the other side. As Devils Lake spreads, so does its capacity to affect the diplomatic relationship between Manitoba and North Dakota, and by extension the relationship between Canada

and the United States. This dispute could have a negative impact on the development of environmental protection measures at an international level. Behaviour of important neighbouring nations like the United States and Canada, which have enjoyed a long history of fruitful cooperation on environmental issues, will have important consequences for the international community and for the way nations negotiate the use of shared natural resources and the protection of these resources.

2. The History of Devils Lake Outlet

Devils Lake is a lake with no natural outlet and is part of the Hudson Bay basin. The water level of the lake is closely connected with weather conditions. During periods of copious precipitation the water level rises and it naturally decreases through evaporation and diminishes significantly during dry periods.⁴⁴⁸ In recent years Devils Lake has been the subject of a dispute regarding an outlet built to control its water level, which drains excess water into the Sheyenne River. Between 1993 and 1999, significant precipitation caused Devils Lake elevation to rise approximately 25 feet.⁴⁴⁹ During this period the lake doubled its size and caused frequent and devastating flooding including the inundation of over 80,000 acres of land.⁴⁵⁰ The Federal government, as well as

⁴⁴⁸ U.S. Army Corps Of Engineers, St. Paul District, *Final Devils Lake, North Dakota Integrated Planning Report and Environmental Impact Statement*, (April 2003), Vol. 1, S-4, online : U.S. Army Corps of Engineers

<http://www.mvp.usace.army.mil/fl_damage_reduct/default.asp?pageid=14&subpageid=83>. [EIS].

⁴⁴⁹ *Ibid.* at I-1. The record elevation of 1448.33 ft msl was reordered in July 2001.

⁴⁵⁰ *Ibid.* at S-4.

authorities in North Dakota, spent over \$350 million in emergency funding to combat the flooding.⁴⁵¹

In 1997, to prevent the frequent flooding caused by fluctuation of the lake's water level, Congress directed the United States Army Corps of Engineers (Corps) to plan a project and to prepare an associated Environmental Impact Statement (EIS) for an emergency outlet from Devils Lake to the Sheyenne River.⁴⁵² The Sheyenne River was chosen because of its proximity to Devils Lake, which is only fifteen miles north of the river bed.⁴⁵³ Devils Lake and the Sheyenne River are both geographically part of the Hudson Bay Basin and this choice would not involve the inter-basin transfer of water. Devils Lake water would naturally flow from the lake overland to Sump Lake and then to the Sheyenne River when it reaches an elevation of 1459 feet above sea level. However, the last natural spill is estimated to have happened 800 to 1,200 years ago.⁴⁵⁴

The Corps' final report and EIS are dated April 2003. Among several alternatives, the Corps proposed the construction of an outlet in the area of Pelican Lake, with a maximum discharge capacity of 300 cubic feet per second of water. In addition, the Corps recommended that the outlet be operated seven month per year, from May to November.⁴⁵⁵ This proposal was subject to several conditions, including the assurance of

⁴⁵¹ *Ibid.* at S-1.

⁴⁵² *Ibid.* see Abstract

⁴⁵³ *People to Save the Sheyenne River, Inc. et al., v. North Dakota Department of Health et al.* 697 N.W.2d 319 at 323 (N. Dak. Sup. Ct. 2005). [People to Save the Sheyenne River, 2005].

⁴⁵⁴ Federal Emergency Management Agency, *Final Programmatic Environmental Assessment Devils Lake Region, North Dakota*, (May 11, 2006), at 1, online: Federal Emergency Management Agency <http://www.fema.gov/library/file.jsessionid=598F9D6922473775ADD017E18E31A3E8.Worker2Library?type=publishedFile&file=pea_devils_lake.nd.pdf&fileid=f6884e10-592d-11db-8645-000bdba87d5b>.

⁴⁵⁵ EIS, *supra* note 448 at S-2.

the Secretary of State that the outlet would not violate the Boundary Waters Treaty (BWT) of 1909, and North Dakota's compliance with the Clean Water Act regulations.⁴⁵⁶

The Corps' project was estimated at a cost of \$186.5 million. Under the Corps' cost sharing schedule, North Dakota's share would have been approximately \$70 million.⁴⁵⁷ Although the estimated cost was high, this project seemed to have the smallest environmental impact of the alternatives analysed.⁴⁵⁸ The EIS required the construction of a sand filter to prevent the transfer of invasive species. It also included monitoring the Sheyenne River's water condition before opening the outlet and comparing information gathered in associated with the operation of the outlet.⁴⁵⁹

The proposed outlet was never constructed. North Dakota officials did not agree with the provisions of the Corps' project concerning water quality and biota transfer, as well as the State's share for the cost of the outlet.⁴⁶⁰ The North Dakota Legislature asked the North Dakota Water Commission to prepare a study in order to plan the construction of an outlet relying entirely on state funds.⁴⁶¹ The Water Commission required and obtained a North Dakota Pollutant Discharge Elimination System (NDPDES) permit from the North Dakota Department of Health (NDDH).⁴⁶² This new project also planned to discharge excess water from Devils Lake to the Sheyenne River, but at a rate of 100 cubic feet per second and with a remarkable difference in construction and operation costs. The state's project cost was initially estimated to be around 28 million dollars, not

⁴⁵⁶ *Ibid.* at S-1.

⁴⁵⁷ International Joint Commission, *Status Report on the Activities of the International Red River Board* (15 Apr. 2004) at 5, online: IJC Publications < <http://ijc.org/php/publications/pdf/ID1551.pdf>>.

⁴⁵⁸ For an evaluation of the alternatives, see EIS, *supra* note 448 at 5-53.

⁴⁵⁹ *Ibid.* see Abstract.

⁴⁶⁰ International Joint Commission, *Status Report on the Activities of the International Red River Board*, *supra* note 457 at 5.

⁴⁶¹ *People to Save Sheyenne River, 2005*, *supra* note 453 at 323.

⁴⁶² *Ibid.*

even 15% of the cost of the Corps project.⁴⁶³ The difference came from the decision not to include many of the environmental protection features adopted in the previous project, in particular the sand filter designed to limit the risk of invasive biota transfer.⁴⁶⁴

North Dakota's actions raised several concerns, especially on the other side of the border in Manitoba. The Sheyenne River is a tributary of the Red River, which crosses the border and empties into Lake Winnipeg. Many interests lay in the Canadian part of the Hudson Bay drainage basin; Lake Winnipeg is the tenth largest freshwater lake in the world and it supports an important commercial fishery. This industry is directly worth over \$15 million Canadian and involves First Nations communities.⁴⁶⁵ In addition, fresh waters in Manitoba are important sport fishing destinations and the Red River represents nearly 20% of the total value of this industry to the province.⁴⁶⁶

Manitoba opposed the Devils Lake outlet proposals because of the negative impact this kind of water diversion would have on the province's waters and ecosystems. The water quality of Devils Lake is lower than the Red River, since it contains a high level of total dissolved solids, sulphates and high salt.⁴⁶⁷ In addition, the long isolation of Devils Lake from the rest of the Hudson Bay drainage basin resulted in the diversification of the biota existing in its waters. Invasive species represent a real threat when they come

⁴⁶³ International Joint Commission, *Status Report on the Activities of the International Red River Board*, *supra* note 457 at 6.

⁴⁶⁴ *Appellant's Brief, People to Save the Sheyenne River, Inc. et al. v. North Dakota Department of Health et al.*, (N. Dak. Sup. Ct. 2005) 697 N.W.2d, (Sup. Ct. Nos. 20040376 and 20040377) at 8-9. [*Appellant's Brief*].

⁴⁶⁵ Manitoba Water Stewardship, *Manitoba's Interests Regarding Transboundary Water Projects, Background*, online: Government of Manitoba
<http://www.gov.mb.ca/waterstewardship/water_info/transboundary/manitoba.html>

⁴⁶⁶ *Ibid.*

⁴⁶⁷ See generally Manitoba Water Stewardship, *A Limited Survey of Biota in Devils and Stump Lakes, North Dakota, Report No. 2005-03*, online: Government of Manitoba

<http://www.gov.mb.ca/waterstewardship/reports/transboundary/2005-10mb-devilslake_biota_rpt.pdf>

in contact with a new ecosystem and controlling their spread and effects can be almost impossible and expensive.

Manitoba, together with several groups opposing the outlet and the State of Minnesota, appealed the NDDH's decision to issue a NDPDES permit to the Water Commission to the North Dakota district court. The district court affirmed the NDDH's issuance of the permit, so Manitoba appealed to the North Dakota Supreme Court.⁴⁶⁸ Manitoba argued that NDDH's decision "failed to adequately consider increased phosphorus loading in downstream waters".⁴⁶⁹ In addition, the opponents raised concerns regarding a presumed permit violation of the North Dakota's anti-degradation regulations⁴⁷⁰ and a lack of measures to minimize the risk of biota transfer.⁴⁷¹ North Dakota Supreme Court, like the district court, confirmed NDDH's decision affirming that it was not "arbitrary, capricious, or unreasonable".⁴⁷²

In April 2005, Canada wrote to the International Joint Commission, expressing its concern about the situation. The Canadian statement cited the Commission's recommendation on the Garrison Diversion Project, which asserted that a project involving the transfer of water between different drainage basins should not proceed "unless and until Governments agreed that methods had been proven that would eliminate the risk of biota and disease transfer or that those issues were no longer of concern".⁴⁷³ Canada stated its apprehension that, in its opinion, the state project did not go through an

⁴⁶⁸ *People to Save Sheslayne River*, 2005, *supra* note 453 at 324.

⁴⁶⁹ *Ibid.* at 239.

⁴⁷⁰ *Ibid.* at 330.

⁴⁷¹ *Ibid.* at 331.

⁴⁷² *Ibid.* at 333. For a definition of the "arbitrary, capricious, or unreasonable" standard, see , *ibid.* at 323.

⁴⁷³ Government of Canada, *Canada's Statement to the International Joint Commission*, online: Embassy of Canada in Washington <http://geo.international.gc.ca/can-am/washington/shared_env/statementtoijc-en.asp>

environmental assessment. Other concerns were related to the prevention of invasive species transfer and pollution passing into the waters of the Sheyenne and Red Rivers, which would have grave economic and environmental consequences.⁴⁷⁴ Devils Lake outlet did not merely raise a matter of potential damage to Manitoba waters. This controversy would set a negative precedent. Both sides would have the opportunity to cite the Devils Lake project in support of any project and only take concrete actions to protect the environment if there is a real potential for damage.

The position of the U.S. Federal Government has not been clear during the entire dispute. The Corps's proposal was subjected to several conditions, in particular that the outlet would not violate the 1909 BWT. In effect, the United States requested that Canada join it in referring the matter to the IJC.⁴⁷⁵ Canada declined the request at that time, arguing that a reference was premature because the U.S. Federal Government did not definitively decide to build the proposed outlet.⁴⁷⁶ This dispute has shown the power difference between the two nations, not only diplomatic, but economic too.⁴⁷⁷

In the beginning of 2004, the Secretary of State Colin Powell gave the formal assurance to the Corps that, in his opinion, the federal project would not "actually violate the 1909 Treaty as long as certain conditions are met".⁴⁷⁸ The reference to the Corps' plan was clear, as well as the need to carry on activities to prevent transfer of biota from Devils Lake to the Sheyenne and Red Rivers. However, North Dakota officials, who had

⁴⁷⁴ *Ibid.*

⁴⁷⁵ Hollis, "Disaggregating Devils Lake", *supra* note 432 at 46.

⁴⁷⁶ John Knox, "Environment: Garrison Dam, Columbia River, the IJC, NGOs" (2004) 30 Can.-U.S. L.J. 129-139 at 138.

⁴⁷⁷ Herb Gray, "Proceedings of the Canada-United States Law Institute Conference on Understanding Each Other Across the Largest Undefended Border in History" (2005) 31 Can-U.S. L.J. 287-300 at 289.

⁴⁷⁸ Knox, "Environment", *supra* note 476 at 133, citing the Letter from Colin Powell, U.S. Secretary of State, to General Flowers USA Army Corp of Engineers (Jan. 20, 2004).

complained several times in the past about the delay of the federal project and the cost associated with the measures to prevent biota transfer, took the Secretary's letter as implicit authorization for the state's proposal as well.⁴⁷⁹ Given that no federal funds were used and neither federal jurisdiction was involved, the state project was not subject to an environmental impact assessment. In addition, the federal government did not have any influence on North Dakota's plans.⁴⁸⁰

In 2005, after the Supreme Court of North Dakota upheld NDDH's decision to issue the NDPDES permit, the U.S. Federal Government called for diplomatic negotiations with the Government of Canada and included the administrative bodies of North Dakota, Minnesota and Manitoba.⁴⁸¹ An agreement was signed at the end of the negotiations, which allowed for the operation of the outlet under certain conditions pertaining to environmental protection and continued monitoring of water quality. The parties agreed that it was possible to operate the outlet "in a manner that [would] not pose an unreasonable risk to the other part of the Basin".⁴⁸² In response to the concerns raised, especially regarding deterioration of water quality and other environmental effects, certain measures were taken. Specifically, the two governments agreed:

⁴⁷⁹ Government of North Dakota, News Release, "Hoeven Welcomes Powell Ruling on Devils Lake Outlet" (22 January 2004), online: Government of North Dakota <<http://www.governor.nd.gov/media/news-releases/2004/01/040122.html>>

⁴⁸⁰ David Whorley, "The Devils Lake Outlet and Canada-U.S. Transboundary Water Relations; or, how George C. Gibbons got the Last Laugh" (2008) Hamline L. Rev. 615 at 626.

⁴⁸¹ John R. Crook, "United States and Canada Agree on Measures to Address Devils Lake Flooding and Ecological Protection" (2005) 99 A.J.I.L. 909 at 910.

⁴⁸² Government of Canada, News Release, No.142, "Joint Canada-U.S. Declaration on the Devils Lake Diversion Project" (5 August 2005), online: Canada News Centre <<http://news.gc.ca/web/article-eng.do?ctr.sj1D=&mthd=advSrch&ctr.mnthndVl=4&nid=162729&ctr.dpt1D=&ctr.tp1D=&ctr.lc1D=&ctr.yrStrtVl=2004&ctr.kw=devils%2Blake&ctr.dyStrtVl=26&ctr.aud1D=&ctr.mnthStrtVl=2&ctr.yrndVl=2010&ctr.dyndVl=1>>.

1. North Dakota would install a rock and gravel intermediate filter before opening the outlet;
2. The U.S. and Canada would cooperate in the design and construction of a more advanced filtration and/or disinfection system;
3. To develop and implement a shared risk management strategy for the greater Red River Basin in cooperation with the International Red River Board of the International Joint Commission;
4. To take immediate measures to prevent the spread of any invasive species that should be identified;⁴⁸³

In addition, both North Dakota and the U.S. Federal Government affirmed that they had no intention to propose or plan the construction of an inlet from the Missouri River to Devils Lake to help stabilize lake levels.⁴⁸⁴

North Dakota immediately closed the outlet in August 2005, after a few days of operation, due to increased sulphate levels in the Sheyenne River. In addition, North Dakota could not operate the outlet in 2006 because of state regulations.⁴⁸⁵ In May 2006 the Water Commission asked the NDDH to modify the permit, requesting an increase to the sulphate limit, a revision of the limit of total suspended solids (TSS) and an extension the operating time.⁴⁸⁶ On August 17th, 2006, the NDDH modified the permit and accepted the Water Commission's request.⁴⁸⁷ Once again, Manitoba appealed the decision to the

⁴⁸³ *Ibid.*

⁴⁸⁴ *Ibid.*

⁴⁸⁵ Hollis, "Disaggregating Devils Lake", *supra* note 432 at 40.

⁴⁸⁶ *People to Save the Sheyenne River, Inc. et al., v. North Dakota Department of Health et al.*, 744 N.W.2d 748 at 751 (N. Dak. Sup. Ct. 2008). [*People to Save the Sheyenne River*, 2008].

⁴⁸⁷ *Ibid.*

North Dakota district, which affirmed NDHH's decision, and again to the North Dakota Supreme Court.⁴⁸⁸

The Court, as in the 2005 case, analyzed the decision to issue the permit under an "arbitrary, capricious, or unreasonable" standard. At the end of this trial, the Court affirmed the NDDH's decision to modify the sulphate limit provided in the permit.⁴⁸⁹ In addition, the Court held that an anti-degradation review was not required because the use of downstream waters would not be affected by the permit modification.⁴⁹⁰ However, the Court revised the decision to modify the TSS standard and to extend the period of operation of the outlet, giving instruction to remove the modification.⁴⁹¹

The outlet is currently operating under the modified permit. The lake's natural level continues to rise and fall and was considerably diminishing until the beginning of 2008.⁴⁹² It rose again in 2009, and by summer, Devils Lake had reached a new record of 1,450.72 feet above sea level. On April 14th, 2010, the elevation registered by the USGS was 1451.28 feet.⁴⁹³ To confront the continuous emergency, authorities raised the levee protecting the City of Devils Lake and other urban areas. A more recent project plans to raise the levee from 1,460 feet to more than 1,465.⁴⁹⁴ Another attempt to control flooding was to increase the limit of sulphate allowed in the Sheyenne River by operating the outlet for longer periods of time and by allowing larger quantities of water. In July 2009,

⁴⁸⁸ *Ibid.* at 752.

⁴⁸⁹ *Ibid.* at 757.

⁴⁹⁰ *Ibid.* at 755.

⁴⁹¹ *Ibid.* at 759.

⁴⁹² Whorley, *supra* note 480 at 623.

⁴⁹³ U.S. Geological Survey, "Elevation of Devils Lake" (14 April 2010), online: North Dakota Water Science Center <<http://nd.water.usgs.gov/devilslake/data/dlelevation.html>>.

⁴⁹⁴ Louise Oleson, "State approves more money for Devils Lake" *Devils Lake Journal* (02 September 2009), online: Devils Lake Journal <<http://www.devilslakejournal.com/news/x1886199767/State-approves-more-money-for-Devils-Lake>>.

North Dakota's authorities had already raised the sulphate limit to 700 milligrams per litre of water on a temporary basis.⁴⁹⁵ The aim is now to make a permanent change and raise the limit to 750 milligrams per litre, but this possibility creates new and stronger concerns on the Canadian side of the border.⁴⁹⁶

3. Legal Framework

3.1. The Clean Water Act

The most important legislation involved in this controversy is the Clean Water Act (CWA). Enacted by Congress in 1972,⁴⁹⁷ its purpose is to prohibit the discharge of any pollutant unless a National Pollutant Discharge Elimination System (NPDES) permit is obtained.⁴⁹⁸ To obtain a discharge permit, the applicant may request it from the Environmental Protection Agency (EPA) or from the state if it has adopted an EPA approved permit program.⁴⁹⁹ Each state program must meet the minimum federal requirements provided for the CWA, but the EPA retains a right of veto for any permit issued by a state if the permit is outside the guidelines and requirements of the CWA.⁵⁰⁰

Under the CWA, a state is not only required to maintain the existing water quality standards, but also to create implementation plans to reach the standards required by the

⁴⁹⁵ Mia Rabson, "Devils Lake outlet pouring sulphate into Red" *Winnipeg Free Press* (23 October 2009), online: Winnipeg Free Press <<http://www.winnipegfreepress.com/world/devils-lake-outlet-pouring-sulphate-into-red-65736892.html>>.

⁴⁹⁶ Staff Writer, "Fargo hosting hearing about Devils Lake" *Winnipeg Free Press* (18 February 2010), online: Winnipeg Free Press <<http://www.winnipegfreepress.com/local/fargo-hosting-hearing-about-devils-lake-84681157.html>>.

⁴⁹⁷ *Federal Water Pollution Control Act*, 33 U.S.C. § 1251 (2010). [*Clean Water Act*].

⁴⁹⁸ *Ibid.* § 1342.

⁴⁹⁹ *Ibid.* § 1342 (b).

⁵⁰⁰ *Ibid.* § 1342 (d) (2) (b).

EPA.⁵⁰¹ When a state revises or adopts a new standard it must submit its decision to the EPA for approval. Specific uses must be assigned for navigable waters involved in the process and the state must determine the water quality criteria related to these uses.⁵⁰²

The CWA is a strict set of rules with the purpose of limiting the discharge of pollutants into navigable waters. It is designed to maintain the integrity of waters and to facilitate the protection and propagation of fish, shellfish and wildlife existing in these waters.⁵⁰³ An NPDES permit is necessary to account for the addition of any pollutant to navigable waters from any point source.⁵⁰⁴ Addition is defined as any artificial movement of water from one body of water to another. The CWA does not explicitly define the term addition, but Courts have given it a broad definition.⁵⁰⁵ Also, the term pollutant can be defined broadly under federal legislation to include almost everything from biological material to any kind of waste discharged into the water.⁵⁰⁶

In applying the permit program, each state is required to take a wide environmental approach and must consider the protection of waters as a priority, while also looking at the economical and social impact of the project.⁵⁰⁷ North Dakota, like

⁵⁰¹ *Ibid.* § 1313.

⁵⁰² *Ibid.* § 1313 (c) (2) (a).

⁵⁰³ *Ibid.* § 1251.

⁵⁰⁴ *Ibid.* § 1362 (12) (a).

⁵⁰⁵ *Roland C. Dubois and Restore v. United States Department of Agriculture, et al.*, 102 F.3d 1273 at 1299 (1st Cir. 1996).

⁵⁰⁶ *Clean Water Act, supra* note 497, § 1362 (6). The term “pollutant” means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. For a similar definition see also, *EPA Administered Permit Programs, The National Pollutant Discharge Elimination System*, 40 C.F.R. § 122.2 (b) (2010). [*EPA Permit Programs*].

⁵⁰⁷ Joseph M. Flanders, “A Controversial Resolution to North Dakota’s Devils Lake Dilemma” (2006) 82 N. Dak. L. Rev. 997, at 1013

most states, has its own permit program.⁵⁰⁸ Under its own statute, North Dakota requires compliance with the CWA requirements and the Health Department is designated as the water pollution control agency with all the powers provided by the Federal Water Pollution Control Act.⁵⁰⁹ This means that the Department can lawfully issue, deny, modify and revoke a permit. The Department can also hold public hearings before making a final decision regarding the issuance and the conditions governing a permit to receive comments about the permit process.⁵¹⁰

3.2. People to Save the Sheyenne River, 2005

In *People to Save the Sheyenne River v. North Dakota Department of Health*, the dispute concerned the compliance of North Dakota authorities with the state discharge permit program. Manitoba complained that NDDH failed to consider the issue of phosphorus loading in downstream waters, failed to do a satisfactory anti-degradation assessment and failed to accurately evaluate the risk of biota transfer. Considering that the NDDH had extensive discretionary power in its decision-making process, the North Dakota Supreme Court used an “arbitrary, capricious, or unreasonable” standard to evaluate the NDDH decision to issue the NDPDES permit.

Manitoba argued that the NDDH did not make a complete evaluation of the effects of water discharge on the Sheyenne River’s phosphorous standard.⁵¹¹ All fresh waters in North Dakota have a phosphorous standard, which is set by NDDH at 0.1

⁵⁰⁸ *Control, Prevention, and Abatement of Pollution of Surface Waters*, N.D. Cent. Code, § 61-28-04 (2010). [*Control of Pollution*].

⁵⁰⁹ *Ibid.* § 61-28-04 (12)

⁵¹⁰ *People to Save Sheyenne River, 2005*, *supra* note 453 at 324.

⁵¹¹ *Ibid.* at 329.

milligrams per litre.⁵¹² The Sheyenne River frequently exceeded this limit even prior of the outlet construction.⁵¹³ Therefore, there were serious concerns about the condition of water in the river and the possible degradation of quality with the outlet operating. In addition, the permit seemed to violate the CWA guidelines, which require an improvement of water standards.

The NDDH exclusively considered the possible consequences of excess phosphorous in downstream waters within domestic jurisdiction and pointed out that the phosphorous loading would not affect any valuable use of the Sheyenne River.⁵¹⁴ Doing so, the NDDH limited its evaluation of the effect of the outlet operation on waters in North Dakota and forgot about the bigger impact on the Red River basin. In addition, the permit did not consider phosphorous as a pollutant and their principal effect, eutrophication, was not considered to be a real problem when the permit was issued. Eutrophication results in the formation of algae blooms due to the collection of nitrogen and phosphorous. Studies indicate a low quantity of nitrogen is contained in Sheyenne River,⁵¹⁵ resulting in a low risk of eutrophication. However, this phenomenon will not end its effects at the border and there is a concrete risk that it will irreparably affect all downstream waters, especially Lake Winnipeg.

The Court, like the NDDH, evaluated the matter by mainly referencing the Corps EIS study, which determined that phosphorus loading was not an impediment to the

⁵¹² *Standards of Quality for Waters of the State*, North Dakota Admin. Code, § 33-16-02.1-09 Table 1 (2008). [*Standards of Quality*].

⁵¹³ EIS, *supra* note 448 at 5-83.

⁵¹⁴ *People to Save the Sheyenne River, 2005*, *supra* note 453 at 329.

⁵¹⁵ *Ibid.*

construction of the outlet.⁵¹⁶ The Court considered that receiving waters did not possess enough nitrogen to increase eutrophication.⁵¹⁷ In doing so, however, the judges did not apply the applicable rules under North Dakota law. There is a specific phosphorous standard for Sheyenne River waters. In addition, the Court evaluated consequences on immediate downstream waters without considering the effects that phosphorous loading could have in Manitoba.

Manitoba also complained that the permit did not accord with anti-degradation regulation as required by North Dakota law.⁵¹⁸ In Manitoba's opinion, the NDDH did not properly evaluate downstream degradation and did not consider less degrading alternatives. In addition, the NDDH did not demonstrate important economical and social development to justify activities causing water degradation, as required by law.⁵¹⁹ Under the CWA anti-degradation policy, states are required to maintain the uses of any water body and to implement water quality criteria in order to prevent any decrease to the water quality level.⁵²⁰ For example, if it is possible to fish in a river, a state must take action in order to prevent the discharge of any pollutant that will represent a risk to the survival of aquatic species and in particular those allowing further fishing.

The Court held that adding phosphorous would not alter any beneficial use of downstream waters and that an anti-degradation review was not essential in order to issue the permit.⁵²¹ Additionally, in the Court's opinion, the NDDH did an appropriate evaluation of less degrading or non-degrading alternatives and the prevention of future

⁵¹⁶ *Ibid.* at 330.

⁵¹⁷ *Ibid.*

⁵¹⁸ *Ibid.*

⁵¹⁹ *Ibid.*

⁵²⁰ *Establishment of Water Quality Standards*, 40 C.F.R., § 131.12 (2010).

⁵²¹ *People to Save the Sheyenne River, 2005*, *supra* note 453 at 331.

damages caused by rising water. There were substantial economical and social benefits supporting the NDDH's assessment of anti-degradation issues and the decision to give permission to operate the outlet.⁵²²

Manitoba also disagreed with the NDDH's consideration of the risk of invasive species transfer and the appropriate technology necessary to control this phenomenon.⁵²³ The Clean Water Act considers invasive species as a pollutant and, in Manitoba's opinion, the NDDH did not evaluate this matter correctly before issuing the permit.⁵²⁴ The permit program requires the use of the best available technology and does not set a numeric standard regarding biota transfer.⁵²⁵ Manitoba argued that it was not necessary to prove a risk before taking action, but the NDDH responded that they did not consider biological materials as a pollutant and that no study showed a clear risk of damage.⁵²⁶ Therefore, the permit was issued considering the absence of a specific concern regarding biota transfer and the Health Department concluded that the use of a mesh screen was enough to minimize the risk of transferring adult fishes.⁵²⁷

The Court did not answer the question of whether invasive species are pollutants. The judges relied, once again, on the Corps' EIS and decided that the NDDH's decision was correct. They cited the fact that the study did not show any biota able to create significant damage downstream. In addition, the Court said that any species living in Devils Lake would be found in other bodies of water, transferred through natural vectors

⁵²² *Ibid.*

⁵²³ *Ibid.*

⁵²⁴ *Appellant's Brief*, *supra* note 464 at 15.

⁵²⁵ *Clean Water Act*, *supra* note 497, § 1331 (b) (2).

⁵²⁶ *Appellant's Brief*, *supra* note 464 at 14-19

⁵²⁷ *People to Save the Sheyenne River, 2005*, *supra* note 453 at 332.

such as wind or other animals or even through recreational boats or trailers.⁵²⁸ In the Court's opinion, the normal, natural risk of species transfer can be compared to the one arising from a project like an outlet, which is able to move a large quantity of water in a very short time.

Nevertheless, the Court's approach does not seem to be really coherent. Possible transfer of biota due to recreational uses cannot be equated to the risk arising from the continuous and permanent transfer of waters caused by the project.⁵²⁹ Furthermore, the Court did not apply the applicable law like they did when evaluating the other issues. The CWA clearly requires the use of the best available technology. North Dakota law seems also to be clear regarding this requirement.⁵³⁰ The Court looked at the Corps' EIS and directed its attention to the evaluation of the risk of invasive species transfer, but it did not adequately consider the technology the Corps required to prevent this phenomenon, specifically a sand filter able to minimize the risk of biota transfer.

3.3. People to Save the Sheyenne River, 2008

In May 2006, the Water Commission asked the NDDH to modify three conditions of the permit:

1. Raise the sulphate limit at Bremen, in the Sheyenne River, from 300 milligrams per litre to 450 milligrams per litre, or alternatively, to increase the sulphate limit by 15 percent;
2. To operate the outlet for a longer period;

⁵²⁸ *Ibid.*

⁵²⁹ *Appellant's Brief*, *supra* note 464, at 24-25.

⁵³⁰ *Standards of Quality*, *supra* note 512, § 33-16-02.1-02 (2) (2001). "All known and reasonable methods to control and prevent pollution of the waters of this state are required."

3. To remove or revise the 100 milligrams per litre limit for total suspended solids (TSS).⁵³¹

In August 2006, the NDDH modified the permit by incorporating the Water Commission's requests. Manitoba challenged this decision and the dispute came once again in front of the North Dakota Supreme Court.

Manitoba argued that increasing the sulphate limitation without a proper anti-degradation review was against North Dakota regulations,⁵³² particularly that the possible degradation of downstream waters was a reason to complete a detailed anti-degradation review.⁵³³ In addition, Manitoba argued that increasing the sulphate limitation and modifying at the same time the extension of the operating period would increase the total annual loading by more than the 15 percent above the provision of the initial permit.⁵³⁴ The modification of the permit without conducting an anti-degradation review, which is required under North Dakota law, should be considered unlawful.⁵³⁵ From the opponents' point of view, the possible increase of sulphate loading throughout the year requires an appropriate review to evaluate the potential consequences on the downstream environment. The NDDH replied with the same arguments used in front of the Supreme Court of North Dakota two years earlier. In the Health Department's opinion, the anti-degradation review was not necessary because no beneficial use would have been affected by the permit modification. The belief was that increasing the sulphate limit to 450 milligrams per litre would not have deleterious effects on downstream waters.

⁵³¹ *People to Save the Shenyenne River*, 2008, *supra* note 486 at 751.

⁵³² *Ibid.* at 753.

⁵³³ *Ibid.* at 754.

⁵³⁴ *Ibid.*

⁵³⁵ *Standards of Quality*, *supra* note 512, § 33-16-02.1 (Appendix IV).

Sulphate standards are only intended to protect drinking water uses, and the permit modification would not harm these uses.⁵³⁶ In addition, the sulphate level in the Sheyenne River was often above the limit of 300 milligrams per litre stated in the initial permit, which prevented the operation of the outlet for long periods.⁵³⁷

The Court referred to the studies submitted by the NDDH and upheld the decision not to conduct an anti-degradation review as correct. The judges also considered that the modified permit limit would not be greater than 15 percent for any parameter of concern.⁵³⁸ Moreover, the Court found the criteria applied by the NDDH for the evaluation of the sulphate concentration in the Sheyenne River water was correct. Under the law, the Health Department has a wide discretion in interpreting the anti-degradation procedure.⁵³⁹ In the Court's opinion, the NDDH correctly applied the rules in light of the concrete case. They presented various complexities in technical areas, which did not trigger the requirements for an anti-degradation review.⁵⁴⁰

Manitoba also argued that the permit modification did not meet a "cause", as required by law.⁵⁴¹ The North Dakota regulation, incorporating federal rules, required a cause for the modification of a permit. The Director must have received new information or it was necessary to correct a technical mistake.⁵⁴² Manitoba claimed that the NDDH

⁵³⁶ *People to Save the Sheyenne River, 2008*, supra note 486, at 755.

⁵³⁷ *Ibid.*

⁵³⁸ *Ibid.*

⁵³⁹ *Standards of Quality*, supra note 512, § 33-16-02.1 (Appendix IV). "The characteristic of the receiving water body is relevant in regulating a parameter of concern". In this case the NDDH did not applied mass loading criteria, as Manitoba required, because they are usually applied to water bodies as lakes, which have a hydraulic residence time. Instead, the NDDH evaluated sulphate addition to water bodies with an established drinking water use in terms of concentration.

⁵⁴⁰ *People to Save the Sheyenne River, 2008*, supra note 486 at 755.

⁵⁴¹ *North Dakota Pollutant Discharge Elimination System*, North Dakota Admin Code, § 33-16-01-25 (2) (2001).

⁵⁴² *EPA Permits Program*, supra note 506, § 122.62 (a).

did not receive any new information. NDDH explained that the sulphate reading at the two checkpoints on the Sheyenne River were not operating when the original permit was issued, and several tests issued shortly after the outlet began operation indicated that the normal sulphate level in the river was above the limitations set in the initial permit.⁵⁴³ The information available before 2005 was limited, but the measurement done later showed that the real level of sulphates at the discharge point was higher and more variable than previously believed. In NDDH's opinion, this was considered new information.⁵⁴⁴

The Court concluded that the NDDH's decision to treat the new readings as new information was correct because this information was not available when the initial permit was issued.⁵⁴⁵ In addition, the judges considered how knowledge of these results when the initial permit was issued would have justified different permit conditions.⁵⁴⁶ In its analysis, the Court cited decisions of agencies to modify a permit that were not considered arbitrary and capricious, even if the information was not new. In these cases, information was available when the original permit was issued, but the high degree of technical expertise required allowed changing the consideration.⁵⁴⁷

Manitoba's complaints were also directed to the NDDH's decision to remove the TSS limit and to extend the period of outlet operation on the basis that there was a lack of information to correctly assess the permit. The NDDH did not rely on a "technical

⁵⁴³ *People to Save the Sheyenne River*, 2008, *supra* note 486 at 756.

⁵⁴⁴ *Ibid.* at 757.

⁵⁴⁵ *Ibid.*

⁵⁴⁶ *Ibid.*

⁵⁴⁷ *Calcasieu League for Environmental Action Now v. Herbert W. Thompson*, 661 So. 2d 143 at 148-150 (La Ct. App. 1995). See also *Marsh et al. v. Oregon Natural Resources Council, et al.*, 490 U.S. 360 at 372-385 (1989).

mistake” to support its decision to modify the permit.⁵⁴⁸ Instead, the NDDH replied that at the time the permit was issued there were no TSS stream standards for waters in North Dakota and that the TSS limit was set according with engineering practices. The Water Commission asked, and the NDDH agreed, to replace the numeric TSS limit with a best management practice. This practice still required examining the water and the implementation and maintenance of the system in order to minimize any harmful effect in the Sheyenne River.⁵⁴⁹ In addition, the Health Department affirmed that the modification was necessary to correct “errors in calculation or mistaken interpretations of law made in determining permit conditions”.⁵⁵⁰

The Court turned its attention to the record submitted by the NDDH and pointed out that the Water Commission did not show evidence that TSS standards were unavailable at the time of the initial permit issuance. Neither facts nor the law supported the decision to undertake a different method to monitor TSS in the Sheyenne River. Regarding the “technical mistake”, there was no proof that an “error in mathematical calculations, computer errors, clerical mistakes, and the like” had been committed in issuing the permit, hence rejecting the justification to change the TSS standard.⁵⁵¹ As the Court stated, the only reason behind the decision to modify the permit was that the NDDH found that the best management practices was a more appropriate standard. This conclusion was not supported with convincing legal arguments or technical facts.⁵⁵² In relation to the decision to extend the operation period, the NDDH claimed that the permit

⁵⁴⁸ *People to Save the Sheyenne River*, 2008, *supra* note 486, at 757.

⁵⁴⁹ *Ibid.* at 758.

⁵⁵⁰ *EPA Permits Program*, *supra* note 506, § 122.62 (a) (15).

⁵⁵¹ *People to Save the Sheyenne River*, 2008, *supra* note 486 at 758-759.

⁵⁵² *Ibid.* at 759.

needed to be modified in order to improve flood-control. The Court decided that the NDDH had no reason to modify the permit because there was no evidence of new information or of the existence of an error.⁵⁵³

The Court took the same approach as the 2005 case, particularly concerning the sulphate limit increase and the anti-degradation review requirement. Instead of applying the pertinent regulation in the field, the Court decided to evaluate the matter by considering the technical reports showing that harmful effects downstream were not likely to occur. The attention of the Court was directed primarily to the effects on waters in the United States and it did not consider possible consequences on the other side of the border. Both cases demonstrate the limits of domestic jurisdiction in the resolution of transboundary issues. The application of national rules is confined to a state's borders. The decision of the Supreme Court of North Dakota to direct its attention toward the effects of the diversion solely in the United States can be understood. Every court is automatically oriented to pay more attention to the effects of the decision in its own jurisdiction, rather than looking at others. In addition, the application of international law can be difficult for a court that is not familiar with those rules. Therefore, it is important to find different legal regimes with different instruments and different ways to enforce them in order to solve the Devils Lake controversy and every other dispute rising along the border between Canada and the United States.

⁵⁵³ *Ibid.* at 759.

4. The Role of International Law

4.1. The Garrison Diversion Project

The Devils Lake Outlet controversy applied the important precedent of the Garrison Diversion Project. In 1974, the U.S. Department of the Interior submitted a Final Environmental Impact Statement for a very ambitious project. The aim of this project was to move water from the Missouri River to the semi-arid areas of north-central North Dakota in order to irrigate 250,000 acres of farmland.⁵⁵⁴ The idea was to use the huge, artificial basin created with the construction of the Garrison Dam, Lake Sakakawea, and divert part of this water to areas largely situated in the watersheds of the Souris and the Red River, which are both part of the Hudson Bay drainage basin.⁵⁵⁵

This project raised several concerns because it involved inter-basin water transfer and connected two completely different ecosystems together. Opponents of the Garrison Diversion argued that this project would cause extremely serious environmental consequences. In particular, Canada focused on the possibility of increased flooding due to the additional volume of water. In addition, there was a concrete risk of increasing the salinity of the Souris River, which would have devastating consequences both for both municipal and agricultural uses of the water and risk of increasing the phenomenon of eutrophication in Lake Winnipeg.⁵⁵⁶

⁵⁵⁴ Sanford E. Gaines, “The International Law Aspect of the Garrison Diversion Project” (1974) 4 *Envtl. L. Rep.* 50085 at 50085.

⁵⁵⁵ Sheryl A. Rosenberg, “A Canadian Perspective on the Devils Lake Outlet: Towards an Environmental Assessment Model for Transboundary Disputes” (2000) 76 *N.D. L. Rev.* 817 at 823.

⁵⁵⁶ Gaines, *supra* note 554 at 50087.

In its complaint, Canada referred, in particular, to Article IV of the 1909 Boundary Waters Treaty, which states that parties agree to not pollute on either side waters flowing across the boundary that would cause “injury of health or propriety on the other”.⁵⁵⁷ Another concern taken into serious consideration by both parties was the serious threat of invasive species transfer from the Missouri River to the Hudson Bay basin. This would cause irreversible damage to Canadian waters.⁵⁵⁸ Therefore, in 1975 the U.S. and Canada referred the question to the I.J.C. in order to evaluate the effects of the Garrison Diversion on Canadian waters. The IJC was also asked to make recommendations to ensure that the provisions of Article IV were honoured.⁵⁵⁹

In 1977, the IJC issued its report on the Garrison Diversion and recommended against the project. The IJC considered the risk of irreversible damage caused by foreign biota to be concrete and remarked that it was impossible to completely rely upon the proposed measures to minimize and control the effects.⁵⁶⁰ The IJC adopted a precautionary approach on the matter. For the project to proceed, the two governments would have to agree on proven methods that “would eliminate the risk of biota and disease transfer or that those issues were no longer of concern”.⁵⁶¹

North Dakota never gave up the dream to use the water of Missouri River for irrigation purposes. In 1986, the North Dakota Government adopted a text called the Garrison Diversion Unit Reformulation Act. It was a compromise among several interests involved and took into account the previous IJC’s work on the potential problems

⁵⁵⁷ International Joint Commission, *Report to the Governments of Canada and the United States on Transboundary Implication of the Garrison Diversion Unit*, (1977) at 1-2, online: International Joint Commission <<http://ijc.org/php/publications/pdf/ID582.pdf>>.

⁵⁵⁸ *Ibid.* at 54.

⁵⁵⁹ *Ibid.* at 2.

⁵⁶⁰ *Ibid.* at 102-119.

⁵⁶¹ *Ibid.* at 121.

associated with diverting water from the Missouri River basin to the Hudson Bay basin.⁵⁶² The Reformulation Act once again suggested the possibility of building a new dam to divert water from the artificial basin to arid areas of North Dakota. However, the project needed the approval of the Secretary of State and the Administrator of the Environmental Protection Agency. These two bodies had to explore possible violations of the 1909 Boundary Waters Treaty.⁵⁶³

In 2000, the Reformulation Act was amended by the Dakota Water Resources Act, a document with the same aim as the previous one but with several important differences.⁵⁶⁴ In particular, the Water Resources Act made it easier to build a new diversion project. The Act acknowledged the possibility of transferring water from the Missouri River into the Hudson Bay Basin provided certain conditions were met, including compliance with the 1909 Boundary Waters Treaty.⁵⁶⁵ However, the Act did not authorize a study to stabilize Devils Lake levels through an inlet draining water from the Missouri River drainage basin into the lake.⁵⁶⁶

The possibility that the Devils Lake outlet was just the precursor of a more ambitious project raised serious concerns in Canada. Canada and Manitoba based their opposition to the project “on the costly, unpredictable, irreversible and catastrophic economic and environmental damage which can occur from inter-basin diversions of

⁵⁶² Manitoba Water Stewardship, *Potential Transboundary Water Projects*, online: Government of Manitoba <http://www.gov.mb.ca/waterstewardship/water_info/transboundary/potential.html>.

⁵⁶³ Rosenberg, *supra* note 555 at 828-829.

⁵⁶⁴ Dakota Water Resources Act of 2000, Pub. L. 106-554, 114 Stat. 2763 at 2763A-281.

⁵⁶⁵ *Ibid.* at 2763A-282.

⁵⁶⁶ *Ibid.* at 2763A-289-290. However, this study is authorized under the Energy and Water Development Appropriations Act of 1993, Pub. L. 102-377, 106 Stat. 1315, at 1332 (1992).

water”.⁵⁶⁷ Canada pointed out the devastating environmental and economic effects caused in the Great Lakes by invasive species like zebra mussels, sea lampreys, and Whirling disease, and included evidence that these invasive species were now found in the Missouri River system. In Canada’s opinion, both the Garrison Diversion and the Devils Lake Outlet projects would violate the 1909 Boundary Waters Treaty by polluting and causing damage to Canadian waters.⁵⁶⁸

4.2. The Relevance of the Boundary Waters Treaty

One of the conditions for the Secretary of State to approve the Corps’ project was that the project would not violate the 1909 Boundary Waters Treaty. For this reason, opponents of the project invoked the duty not to pollute, as stated in Article IV, and they asked to refer the matter to the IJC for a review but the U.S. Federal Government refused to give its consent.⁵⁶⁹ Instead, the United States preferred diplomatic negotiations with Canada in order to solve the dispute without involving the International Joint Commission. On the other side, Canada refrained from unilaterally referring the matter to the IJC, probably because they were afraid to break 100 years of practice.

The lack of an explicit definition of pollution under the Treaty made it difficult to correctly assess the terms of the controversy. General practice of the IJC shows that phosphates are considered pollution due to the high risk of eutrophication. In fact, North Dakota stopped the operation of the outlet several times because of the high level of

⁵⁶⁷ Government of Canada, *Garrison Diversion and the Devils Lake Outlet: The Canadian Position*, online: Embassy of Canada in Washington
<http://www.canadainternational.gc.ca/washington/bilat_can/garrison.aspx?lang=eng>.

⁵⁶⁸ *Ibid.*

⁵⁶⁹ Flanders, *supra* note 507 at 1019.

phosphate transfer into the Sheyenne River.⁵⁷⁰ In Canada's opinion, invasive species ought to be also considered a pollutant due to the detrimental and irreversible effects the introduction of non-native species can have in water bodies.⁵⁷¹ Canada supported its concerns by affirming that the introduction of zebra mussels into the Great Lakes has affected the water quality and caused considerable economic loss.⁵⁷² According to the purpose of the Treaty and considering previous cases, there is an evident violation of the provisions of the BWT in the case of Devils Lake due to the risk of invasive biota that could generate "injury of health and propriety" on the other side of the border.

It appears that North Dakota authorities did not properly evaluate the risk of invasive biota and did not consider it a real matter of concern. They minimized the risk by arguing that species can move naturally from one body of water to another.⁵⁷³ In addition, North Dakota seemed reluctant to think about biological organisms as pollutants, even though this view differs from the Clean Water Act, which considers biological material as pollutants.

The problem of pollution in international law is very complicated. The most important international agreements do not uniformly define what a pollutant is. Several dissimilar definitions have been used. In the Boundary Waters Treaty there is no definition at all. However, the U.N. Convention on the Law of the Non-Navigational Uses of International Watercourses seems to include invasive species in the definition of pollutant. Under Article 21 of the Convention, pollutant is considered anything that could

⁵⁷⁰ Bart Kempf, "Draining Devils Lake: The International Lawmaking Problems Created by the Devils Lake Outlet" (2007) 19 Geo. Int'l L. Rev. 239 at 255.

⁵⁷¹ Rosenberg, *supra* note 550 at 845.

⁵⁷² Government of Canada, *Garrison Diversion and the Devils Lake Outlet: The Canadian Position*, *supra* note 567.

⁵⁷³ *People to Save the Sheyenne River*, 2005, *supra* note 453 at 324.

alter the quality of downstream waters.⁵⁷⁴ Article 22 directly deals with the introduction of alien species. It states: “Watercourse States shall take all measures necessary to prevent the introduction of species, alien or new, into an international watercourse which may have effects detrimental to the ecosystem of the watercourse resulting in significant harm to the other watercourse States”.⁵⁷⁵ Therefore, under the Convention guidelines, even if invasive species are not considered a pollutant, each state shall take measures in order to prevent any harm resulting from their introduction in downstream waters. Although the Convention has not yet entered into force, it represents an important instrument and is able to affect the conduct of states in the field. It includes recognized principles that should be followed by the international community and codifies generally accepted customary law.⁵⁷⁶

A major problem is the lack of direct enforceability of the Treaty.⁵⁷⁷ Only the IJC can directly enforce the Treaty through its arbitrary function. Manitoba could not claim for the Treaty to be respected by the North Dakota Supreme Court. In other words, the Court is under no obligation to apply the rules contained in the international agreements to which the United States is a party. It seems to be difficult for the U.S. Federal Government to force a state to comply with international law. Theoretically, the Federal Government has the capacity to sue a state in Federal Court and get a decision obligating the state to respect international law obligations.⁵⁷⁸ Although there are some precedents

⁵⁷⁴ *Convention, supra* note 119, Article 21. “For the purpose of this article, “pollution of an international watercourse” means any detrimental alteration in the composition or quality of the waters of an international watercourse which results directly or indirectly from human conduct”

⁵⁷⁵ *Ibid.* Article 22.

⁵⁷⁶ For the role of the Convention, see Chapter II Part 4.3, above.

⁵⁷⁷ Daniel K. DeWitt, “Great Words Needed for the Great Lakes: Reasons to Rewrite the Boundary Waters Treaty of 1909” (1993) 69 Ind. L.J. 299 at 323.

⁵⁷⁸ Knox, “Environment”, *supra* note 476 at 135.

supporting this opinion,⁵⁷⁹ the Federal Government has not used this power for a long time, highlighting a clear wish not to begin dangerous debates over power division.

The IJC is able to directly enforce the Treaty through its quasi-judicial function, but this does not find application in the Devils Lake dispute. The Commission has final authority “to approve uses, obstruction and diversion of boundary waters” that could have effects on water quantities on the other side of the border.⁵⁸⁰ In this case, the parties would have an obligation to refer the matter to the Commission for its final approval. Nevertheless, none of the waterways involved in the controversy, namely Devils Lake, the Sheyenne River and the Red River, constitute boundary waters under the Treaty.⁵⁸¹ Although the Red River crosses the border between the United States and Canada, the definition of boundary waters in the Treaty excludes this river.⁵⁸² Hence, there is no obligation for the United States to obtain the approval of the IJC for the Devils Lake outlet project.

Most of the problems arising in cases like Devils Lake could be solved by giving self-execution to the Treaty. In this way all actors involved in the controversies would be able to ask any court to enforce provisions contained in the Treaty and non-federal actors could be sued and forced to comply with international obligations.⁵⁸³ The Treaty contains very specific obligations and the IJC has a rich body of practice that would help courts

⁵⁷⁹ *Sanitary District of Chicago v. United States*, 226 U.S. 405 at 425-426 (1925)

⁵⁸⁰ *Boundary Waters Treaty*, *supra* note 389, Articles III and IV.

⁵⁸¹ Hollis, “Disaggregating Devils Lake”, *supra* note 432 at 37.

⁵⁸² *Boundary Waters Treaty*, *supra* note 392, Preliminary Article. “Boundary waters are defined as the waters from main shore to main shore of the lakes and rivers and connecting waterways, or the portions thereof, along which the international boundary between the United States and the Dominion of Canada passes, including all bays, arms, and inlets thereof, but not including tributary waters which in their natural channels would flow into such lakes, rivers, and waterways, or waters flowing from such lakes, rivers, and waterways, or the waters of rivers flowing across the boundary.”

⁵⁸³ Knox, “Environment”, *supra* note 476 at 138.

called to apply these rules. However, what really seems to be missed is political will. While Canada would probably be more willing, the United States considers that no international treaty should be self-executing.⁵⁸⁴

The effectiveness of the Treaty could be improved by assigning non-federal actors, like provinces in Canada, the capacity to claim international law remedies from international institutions. These actors usually suffer the most intense consequences and have fewer legal remedies to defend their rights. The active involvement of these actors in the international law process would also reinforce the role of the IJC in the resolution of disputes between the United States and Canada, a role that has been blunted by the behaviours of two federal governments reluctant to refer new disputes to the IJC.⁵⁸⁵

In the last decade the diplomatic relationship between the two countries has deteriorated. A long and fruitful cooperation on transboundary matters has turned into a strictly unilateral approach by both sides and this limits the role of international bodies.⁵⁸⁶ Devils Lake is a clear example where the use of diplomacy, rather than international law instruments, is the favourite tool to solve bilateral controversies. Nevertheless, in this case the solution appears to be unsatisfactory for many of the actors involved, including the Province of Manitoba, and it demonstrates the very different power positions occupied by the United States and Canada.⁵⁸⁷

⁵⁸⁴ Curtis A. Bradley, "Breard, Our Dualism Constitution, and the International Conception" (1999) 51 *Stan. L. Rev.* 529 at 541.

⁵⁸⁵ Austen L. Parrish & Shi-Ling Hsu, "Embracing Reciprocity: Revisiting Domestic Legal Solutions to Canada's Transboundary Pollution Problems" in *Responsibility of Individuals, States and International Organizations* (Ottawa: Canadian Council on International Law, 2007) 73 at 75.

⁵⁸⁶ *Ibid.* at 76.

⁵⁸⁷ Hollis, "Disaggregating Devils Lake", *supra* note 432 at 45.

4.3. A New International Approach

Devils Lake and its outlet became an irritating case for diplomats in both Canada and in the United States. Unfortunately, this controversy might set a precedent for other disputes along the border.⁵⁸⁸ Domestic jurisdiction was little help in solving the legal issue of the outlet construction. National boundaries do not stop pollution and a unilateral approach does not improve standards of environmental sustainability. In environmental protection, no nation can only look at its own business or postpone essential actions due to other economic interests. Devils Lake reduced cooperation between the United States and Canada on transboundary issues. Both countries raised several concerns regarding international institutions and international law instruments, which was seen as a threat to their national interests.⁵⁸⁹ However, in a global economy only the application of globally accepted rules can have a tangible effect on environmental issues.

The international community has tried to respond to the heightened demand for certainty in the use of international rivers through codification. In the 1990s, after twenty years of work of the International Law Commission, the U.N. General Assembly adopted the 1997 U.N. Convention on the Law of the Non-Navigational Uses of International Watercourses. It codified principles of international customary law and required a broader and more cooperative approach on environmental issues. In particular, the Convention definitively recognized equitable and reasonable utilization and the no-harm rule as the main principles in the field. It required countries to not limit their attention to only the portion of a river flowing within their national borders, but demanding active

⁵⁸⁸ Austen L. Parrish & Shi-Ling Hsu, "Litigating Canada-U.S. Transboundary Harm", *supra* note 446. The authors describe other two disputes. The first one is the Trail Smelter in British Columbia and the second one is the long dispute over the Canadian export of softwood lumber.

⁵⁸⁹ *Ibid.* at 20-22.

participation in the joint management of watercourses and the respect for the rights of the other riparians.

The Convention would be a useful tool in the resolution of controversies like Devils Lake. All international instruments in the field generally incorporate a guideline principle, equitable and reasonable utilization, leaving all the others orbiting around it. The consequence is often a separate application of the distinct rules, looking individually to the prevention of transboundary pollution and to the reasons a country has to implement some activities and the possible benefits resulting from these activities. This circumstance can allow harmful projects to be carried on and makes it difficult to prevent degradation of the environment. On the other hand, the Convention adopts an integrated approach that involves a balance between the prohibition to cause significant harm and the right to an equitable use of a shared watercourse. The most direct consequence of this approach is a compromise among all different and conflicting interests that usually lead to a dispute concerning an international watercourse. In the case of Devils Lake outlet, for example, the need to prevent additional damage due to the flooding in the lake's area contrasts with the will of Manitoban authorities to protect waters in the province. Through the integrated application of both the equitable and reasonable approach and the no-harm rule, it would be possible to better achieve a satisfactory balance of those interests and to enhance the cooperation between the United States and Canada.

One of the biggest problems in the controversy arising around Devils Lake is the lack of an independent investigation able to advise on a reasonable compromise. The fact finding procedure contained in Article 33 of the Convention can be used to avoid long

term disputes.⁵⁹⁰ It would provide parties with incontrovertible information and would help in determining to what extent the diversion of Devils Lake water is reasonable compared to the possible damages affecting Canadian waters. The fact-finding Commission would have access to all necessary information and would be allowed to inspect the outlet and related facilities.⁵⁹¹ Unlike the IJC, where the United States and Canada have conventionally requested its advisory opinion jointly, the fact finding procedure in the Convention can be activated at the request of any of the parties. Therefore, each country would be able to get an independent point of view on the matter without affecting the delicate diplomatic balance created within the BWT.

In addition, the provisions concerning transboundary pollution contained in the Convention are less vague than those in the BWT. Even though the definition of what can be considered pollution is very general; it encompasses “any detrimental alteration in the composition or quality of the waters of an international watercourse.”⁵⁹² The consequence of this approach is that the alteration in water quality caused downstream by the operation of the Devils Lake outlet would be considered as the result of pollution. Furthermore, this is explicitly a qualified obligation requiring significant harm to be caused to another state,⁵⁹³ which makes its application less suitable to different interpretations. Lastly, Article 22 of the Convention contains a specific prohibition to introduce alien or new species into international watercourses, which is one of the biggest concerns Canada and

⁵⁹⁰ Convention, *supra* note 119, Article 33(3). “Subject to the operation of paragraph 10, if after six months from the time the request for negotiations referred to in paragraph 2, the parties concerned have not been able to settle their dispute through negotiation or any other means referred to in paragraph 2, the dispute shall be submitted, at the request of any of the parties to the dispute, to impartial fact-finding in accordance with paragraph 4 to 9, unless the parties otherwise agree.”

⁵⁹¹ *Ibid.* Article 33(7).

⁵⁹² *Ibid.* Article 21(1).

⁵⁹³ *Ibid.* Article 21(2).

Manitoba have about the operation of Devils Lake outlet. Although the obligation requires a causal relationship between the introduction of the species and the significant harm to the other riparian state, this provision applied to the case here analysed would represent an important guideline to correctly evaluate the effects alien species would have on Canadian waters and to undertake corrective measures in order to prevent alteration in water ecosystems.

In the field of international watercourses, significant political and economic interests are involved and countries are generally reluctant to give up, even partially, their sovereignty over watercourses flowing within their territory. Good relationships with neighbouring countries are the foundation for good diplomacy, as some disputes can cause economic loss and long periods of uncertainty. Therefore, the adoption of agreements that establish legal mechanisms capable of resolving these controversies is fundamental. Yet, over time, every legal instrument loses its ability to work and requires improvements and adaptation to new circumstances.⁵⁹⁴ This is particularly relevant in the field of environmental protection. Treaties are negotiated in light of the current situation but the world changes and increased economic activity continues to threaten the environment. In addition, new scientific knowledge may lead to a better understanding of the effects of human activity on the planet and create the foundation for new legal obligations.⁵⁹⁵

⁵⁹⁴ Hanspeter Neuhold, "The inadequacy of Law-Making by International Treaties: "Soft Law" as an Alternative?" in Rudiger Wolfrum & Volker Roben, eds., *Developments of International law in Treaty Making* (Berlin: Springer, 2005) 39 at 46.

⁵⁹⁵ Gerhard Loibl, "Conferences of Parties and the Modification of Obligations" in M. Craven & M. Fitzmaurice, eds., *Interrogating the Treaty: Essays in the Contemporary Law of Treaties* (Nijmegen: Wolf Legal Publishers, 2005) 103 at 104.

The BWT has regulated boundary issues between the United States and Canada for a century, but in the last decade it seems to have lost part of its effectiveness. In 1909, the political and social situation in North America was completely different than today. Since then the population has increased and economic activity has exploded.⁵⁹⁶ Most importantly, potential threats arising nowadays from water pollution are different than those in the mind of the people who wrote Article IV of the Treaty. Finally, at that time Canada did not have the power to assume international obligations and Great Britain signed the BWT on behalf of Canada.⁵⁹⁷

During the 20th century, the United States has been the most important economic partner for Canada and this circumstance has created a strong trade bond between the two countries.⁵⁹⁸ Many sectors of Canada's economy receive large American investment and Canadian companies also own considerable assets in the United States. There is integration in the two economic systems, but Canada is also economically dependent on its neighbour.⁵⁹⁹ The two countries have experienced different roles and have dissimilar power positions in the international community. The United States has always been a unilateralist on international issues and has rejected the role of almost every international institution. This can also be seen in the United States' relationship with the BWT. The

⁵⁹⁶ Hall, "The Centennial of the Boundary Waters Treaty", *supra* note 398 at 1418.

⁵⁹⁷ *Boundary Waters Treaty*, *supra* note 392, Preamble.

⁵⁹⁸ In 2009, the United States exported to Canada \$204.7 billion and imported from Canada \$224.9 billion. U.S. Census Bureau, Foreign Trade Division, Data Dissemination Branch, *Trade in goods with Canada*, online: U.S. Census Bureau < <http://www.census.gov/foreign-trade/balance/c1220.html>>. The historical record is dated 2008, with \$ 261.1 exports and \$339.4 imports. *Ibid.* In 2009, Canadian exports to the United States represented the 73% of total. Statistics Canada, CANSIM, *Imports, exports and trade balance of goods on a balance-of-payments basis, by country or country grouping*, online: Statistics Canada <<http://www40.statcan.gc.ca/l01/cst01/gblec02a-eng.htm>>

⁵⁹⁹ Marlene Jennings, "Proceedings of the Canada-United States Law Institute Conference on Understanding Each Other Across the Largest Undefended Border in History" (2005) 31 Can-U.S. L.J. 385 at 385.

IJC is sometimes considered a threat to their sovereignty rights, even though it has always acted impartially and has shown independence from national interests and political pressures.⁶⁰⁰

In the Devils Lake controversy, the U.S. Federal Government gave the power to decide the compliance of the federal outlet with the BWT to Secretary Powell and rejected any role for the IJC in evaluating the project. In the opinion of some observers, the United States decided their position on the matter, imposed it on Canada and left the northern neighbour no choice. Even in the negotiations held in August 2005, Canada had no opportunity to obtain tangible results.⁶⁰¹

A solution for the issues explained above is needed in order to face the environmental challenges of the new century. The IJC and its body of decisions could represent a model to start from, considering the importance that Article IX of the Treaty had in the past. The Commission's advisory pronouncements on many transboundary issues have helped the development of rules governing shared watercourses and a greater use of the Commission in its advisory role should be encouraged.⁶⁰² However, the difficulties encountered in *Devils Lake* and other transboundary disputes suggests that the Treaty is probably out of step with the most recent developments of international environmental law. In addition, concerns about sovereignty and the failure to submit important matters to the IJC have undermined the role of the Commission on transboundary issues.⁶⁰³

⁶⁰⁰ Legault, *supra* note 397 at 50.

⁶⁰¹ Hollis, "Disaggregating Devils Lake", *supra* note 432 at 46, citing John Ibbitson, *Canada Must Swallow Its Devils Lake Mistakes*, *Globe & Mail*, 11 Aug. 2005, at A15.

⁶⁰² Legault, *supra* note 397 at 55.

⁶⁰³ Kornfeld, *supra* note 418 at 1697.

There is undoubtedly a need to revise some of the provisions contained in the Treaty in order to make it more efficient for modern environmental challenges. The United States and Canada should consider reviewing and perhaps amending the Treaty⁶⁰⁴ to improve some of its mechanisms, especially those regarding the IJC and its involvement in dispute resolution. A conference held with the purpose of implementing the Treaty must also actively involve non-federal actors, like boundary provinces and states. The participation of these bodies is not new to the resolution of transboundary problems, and the two countries employed it recently in the attempt to prevent bulk water removal from the Great Lakes.⁶⁰⁵ Certainly, this is a better way to understand the interests and concerns of all the parties involved, as local authorities have better knowledge of the territory.

The United States and Canada should consider giving non-federal actors the right to claim the intervention of the IJC on matters that affect them directly, at least in its advisory and investigative function. This would give a new and more incisive role to the Commission and provide these actors with a new legal instrument to defend their rights at the same time. In several spheres of international law, the participation of non-state actors is recognized and even considered a fundamental part of the legal regime. The North American Free Trade Agreement is an example of involving private actors.⁶⁰⁶ Chapter 11 of the Agreement deals with investments and enforces a duty for each party to accord

⁶⁰⁴ Since the Boundary Waters Treaty has just two parties, the amendment process would be less complicated than for multilateral agreements.

⁶⁰⁵ Peter Bowal, "Canadian Water, Constitution, Policy, and Trade" (2006) Mich. St. L. Rev. 1141, at 1156-1159. In particular, the author describes two agreements signed in 2005, the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement and the Great Lakes-St. Lawrence River Basin Water Resources Compact.

⁶⁰⁶ *North American Free Trade Agreement Between the Government of Canada, the Government of Mexico and the Government of the United States*, 17 December 1992, 32 I.L.M. 289. [NAFTA].

investors and investments of investors of another party “treatment no less favourable than that it accords, in like circumstances, to its own investors”.⁶⁰⁷ This provision, called National Treatment, is followed by the Most-Favoured-Nation Treatment, which grants investors of a party the same treatment of investors of any other party or of a non-party.⁶⁰⁸ In order to implement those provisions, the Agreement provides investors, both private and public, with the ability to submit a claim that a party has breached its obligations to arbitration.⁶⁰⁹

The European Convention on Human Rights⁶¹⁰ is another notable example of a legal regime where private actors can challenge a state in front of a transnational body, with the purpose of enforcing international regulations. Under the Convention, the European Court “may receive petitions...from any person, non-governmental organization or group of individuals claiming to be victim of a violation by one of the High Contracting Parties”.⁶¹¹ The Court cannot force parties to change their legislation, but can afford compensation to the injured part. Its decisions are binding and set guidelines for the future, which forces the parties to make appropriate changes to their legal systems.

These models are too extreme to be fully applied to environmental issues, but they show that the active participation of non-state actors is acceptable in international law. However, giving private actors the capacity to resort to an international court on environmental matters could create problems. A hypothetical interest may be claimed by anyone and the number of cases could be difficult to manage. In addition, countries are

⁶⁰⁷ *Ibid.* Article 1102.

⁶⁰⁸ *Ibid.* Article 1103.

⁶⁰⁹ *Ibid.* Articles 1116 and 1117.

⁶¹⁰ *Convention for the Protection of Human Rights and Fundamental Freedoms*, 4 November 1950, 213 U.N.T.S. 221.

⁶¹¹ *Ibid.* Article 25.

reluctant to accept potential opposition from groups of individuals claiming environmental concerns. Nevertheless, a greater and more active participation of non-federal actors, which in the case of the BWT means Canadian provinces and American states, would encourage those actors to behave more responsibly when it comes to transboundary waters and pollution and would give them also more direct responsibilities under international law. This might help prevent controversies like Devils Lake from growing excessively with consequences for the diplomatic relationships between the two countries.

Not every commentator agrees that increasing public participation will “open the floodgates” and create an uncontrollable number of appeals to the Commission.⁶¹² The Commission for Environmental Cooperation (CEC), created under the North American Agreement on Environmental Cooperation (NAAEC),⁶¹³ a side agreement of NAFTA, is a frequently cited example. The NAAEC contains a citizen petition process, which allows any non-governmental organization or person residing in any of the three countries to submit that one of the parties is failing to effectively enforce its environmental legislation to the Secretariat.⁶¹⁴ The Council can require the Secretariat provide a factual record, which would contain all the information relevant for an evaluation of the submission.⁶¹⁵ At the end of the process, the Council may, by a two-thirds vote, make the final factual record publicly available.⁶¹⁶ However, these records are not binding and the only way to

⁶¹² Wright, *supra* note 421 at 1628.

⁶¹³ *North American Agreement on Environmental Cooperation*, United States, Canada, Mexico, 14 September 1993, 32 I.L.M. 1480. [NAAEC].

⁶¹⁴ *Ibid.* Article 14.

⁶¹⁵ *Ibid.* Article 15.

⁶¹⁶ *Ibid.*

force a state to comply with its environmental legislation is through a state's claim against another party under the dispute resolution provisions.⁶¹⁷

Including a public submission process in the Treaty appears theoretically possible. While a submission under the NAAEC deals with all of the parties' environmental laws, a similar regime under the Treaty will probably have fewer submissions due to its narrower scope.⁶¹⁸ However, the CEC and the IJC have a completely different composition and this has political consequences that cannot be underestimated. The Council is comprised of the environment ministers of the member states,⁶¹⁹ but the IJC is composed of Commissioners that are independent and act in the interest of both countries. There is different political control over the two bodies and their decisions. The United States and Canada might negatively see that a body they do not directly control could evaluate their projects following the complaint of a private citizen. In particular, if complaints can be filed by people living in another country, the national sovereignty rights limitation is even wider.

Improvement of the functionality of the BWT can be realized through the quasi-judicial function of the IJC, which approves uses, obstructions or diversions of boundary waters, rivers flowing from boundary waters, or waters flowing across the border, in case these projects will raise the natural level of waters in the upstream country.⁶²⁰ Although the Red River crosses the border between the United States and Canada, the definition of boundary water in the Treaty prevents the IJC from evaluating the Devils Lake outlet

⁶¹⁷ Jack I. Garvey, "A New Evolution for Fast-Tracking Trade Agreements: Managing Environmental and Labor Standards through Extraterritorial regulation" (2000) 5 UCLA J. Int'l L. & Fro. Aff. 1, at 14-15.

⁶¹⁸ Wright, *supra* note 421 at 1628.

⁶¹⁹ NAAEC, *supra* note 613, Article 9.

⁶²⁰ Boundary Waters Treaty, *supra* note 392, Articles III and IV.

project. Requiring the IJC's approval for all projects involving diversions affecting transboundary waters could be the definitive step to attribute a greater role in the development of environmental law in the 21st century to the Commission. Nowadays, the environmental consequences of projects involving inter-basin transfer of waters are known and require more effective and immediate action. Protracted negotiations rarely find a solution and most of the time they take too long. Behaviours threatening the environment are more frequent every day and actions must be taken to prevent damages, rather than merely fixing harmful consequences.

Unfortunately, the solution to the Devils Lake problem cannot be found in the legal system. Existing legal mechanisms can be developed and new ones can be created, but the last word belongs to politics. Canada has lost enthusiasm for international institutions and the United States has always considered international law to be interfering in their interests. In this scenario, it is highly improbable that the two federal governments would agree to modify a bilateral agreement to give more power to an international body like the IJC. Nevertheless, both domestic jurisdiction and bilateral agreements have proven to be inadequate to face the environmental challenges of the 21st century. The relationship between the two countries on shared watercourses should conform to the guidelines set in the 1997 U.N. Convention. In particular, the cooperative spirit of the Convention should be transferred into the BWT. The Treaty was inspired by the principle of limited territorial sovereignty. This doctrine has a negative connotation and requires states to abstain from certain activities. Instead, the Convention has been built on the community of interests approach, which sees the entire watercourse basin as

a whole that belongs to all riparian states and requires positive action and a generalized responsibility.

In the case of Devils Lake, and in other similar cases, both the United States and Canada should have behaved in a more cooperative way. The controversy shows a unilateral approach from each country. The United States, and North Dakota, wanted to solve their problems in the least expensive and fastest way possible. Canada, at least in the beginning, appealed to its rights contained in the Treaty and asked that the Devils Lake waters not cross the border. Instead, the community of interests' approach would require that Devils Lake and its flooding should be treated as a matter directly affecting both countries. In particular, states must be more responsible for actions that have transboundary consequences. Following the most recent international law developments in the field of international watercourses, Canada would have had the possibility to be more actively involved from the beginning by proposing and participating in alternative solution for the flooding in Devils Lake area. International legal instruments should require Canadian authorities to consider an issue like Devils Lake as a problem that directly involves them, since a possible natural overflow of the lake would have devastating effects on the Red River Basin.

The management of transboundary waters in North America requires a more modern approach, particularly concerning environmental issues. After 100 years the Treaty is considered by many to be out of step with modern international environmental agreements.⁶²¹ The solutions proposed in this paper might be a first step towards the modernization of the Treaty. Nevertheless, bilateral action and a renewed trust in the IJC

⁶²¹ Wright, *supra* note 421 at 1609. See also Hall, "The Centennial of the Boundary Waters Treaty", *supra* note 398 at 1419.

are the starting point. In particular, this author considers a more active participation of non-federal actors in the management of international watercourses to be vital. Nonetheless, both parties must accept the important role of international law and impartial international institutions if they want to successfully manage their shared watercourses for the next 100 years.

CONCLUSION

The management of shared fresh water resources represents one of the main challenges in the 21st century. Doctrine and states' practice created an extensive body of principles and rules, which became the basis of the law of the non-navigational uses of international watercourses. Nevertheless, expanded human activity and increased demand for water has required more cooperation among states and it has also created new controversies. Numerous agreements have been signed to manage international water basins and international law bodies have tried to identify general guidelines which codify and develop principles applicable in the field. The 1997 U.N. Convention absorbed the new doctrinal theories and modern principles of international law and asked riparians for a communitarian approach to water resources.

This thesis has examined the development of the theoretical basis in the field. In the beginning of the 20th century, states tried to apply extreme theories that ensured protection of national interests, like absolute territorial sovereignty and absolute territorial integrity. However, the theory of limited territorial sovereignty, which requires a state to use the portion of the watercourse within its territory paying attention not to cause considerable prejudice to the interests of the other riparian countries, is widely accepted now. This research has also shown the development of theories conceptualizing the river as a bond forming a common organism composed by all riparian states, acting together to achieve a common profit. Borders should not represent an obstacle to cooperation and this idea has been also acknowledged in by the International Court of Justice in the 1997 case concerning the Gabčicovo-Nagymaros Project.

A more cooperative spirit is the basis of the 1997 U.N. Convention. This thesis has analyzed the Convention from its preparatory works to the adoption. The process of codification of general principles into articles has been undertaken, exploring the activity of the International Law Commission, the different positions of states and the compromises that led to the definitive text. The purpose has been to give a detailed overview of the relevant principles in the field, in order to better understand possible applications to concrete cases and controversies. The problems concerning the entry into force of the Convention and the concerns arising within the international community have been analyzed, but this work advocates the Convention and its ability to actively influence riparian states in the decision process concerning the watercourses they share. In particular, the acceptance in the Convention of the principle of equitable and reasonable utilization and the general prohibition to cause significant harm set important guidelines in the improvement of existing agreements and in the development of new treaties concerning international watercourses. Nevertheless, the Convention still lacks the legal tools to implement the achievement of sustainable water use and to ensure fresh water access to individuals is required.

This thesis has also looked at the Canadian situation in relation to transboundary waters. The 1909 Boundary Waters Treaty and the International Joint Commission has been created to prevent disputes regarding the use of boundary waters and to settle controversies between Canada and the United States. Over the past century, the instruments contained in the Treaty have lost effectiveness, in particular the provisions concerning the prohibition on transboundary pollution. The Treaty is out of step with current developments in environmental law and lacks the specific tools to allow public

participation and access to justice. This situation has had a negative impact in the management of cases involving pollution or invasive species threats.

The deficiencies of the Treaty are particularly evident in the controversy between the two states regarding Devils Lake and its outlet. The final part of this work analyzed this case involving a closed basin of water in North Dakota. In the last decade, water levels have grown and local authorities decided to build an artificial outlet in order to divert excess water. This decision created concerns among people living in Manitoba who worried about the quality of their water, since the outlet connects the lake with the rest of the Red River Basin. The application of national rules failed to solve the dispute, demonstrating the limits of domestic jurisdiction in the resolution of transboundary issues. This thesis has shown the reasons why the Treaty and the IJC were not helpful. Therefore, suggestions regarding the improvement of the Treaty and its functionality have been presented.

This author considers that the relationship between the two countries on shared watercourses should embrace the cooperative spirit contained in the 1997 U.N. Convention. Many different interests are involved, concerning in particular environment and economy. The balance among them can be achieved through a greater and more active participation of Canadian provinces and American states and giving a renewed and more significant role to the IJC.

BIBLIOGRAPHY

LEGISLATION

United States of America

Control, Prevention, and Abatement of Pollution of Surface Waters, N.D. Cent. Code, § 61-28-04 (2010).

Dakota Water Resources Act of 2000, Pub. L. 106-554, 114 Stat. 2763 at 2763A-281.

Energy and Water Development Appropriations Act of 1993, Pub. L. 102-377, 106 Stat. 1315 (1992).

EPA Administered Permit Programs, The National Pollutant Discharge Elimination System, 40 C.F.R. § 122 (2010).

Federal Water Pollution Control Act, 33 U.S.C.S. § 1251 (2010).

North Dakota Pollutant Discharge Elimination System, N. D. Admin Code, § 33-16-01 (2001).

Standards of Quality for Waters of the State, N. D. Admin. Code, § 33-16-02.1 (2001).

Establishment of Water Quality Standards, 40 C.F.R., § 131 (2010).

INTERNATIONAL MATERIALS

International Treaties and Conventions

Act of the Congress of Vienna, signed between Austria, France, Great Britain, Portugal, Prussia, Russia and Sweden, 9 June 1815, The Consolidated Treaty Series, vol. 64, 1815, at 453.

Convention and Statute on the Regime of Navigable Waterways of International Concern, 20 April 1921, British Treaty Series, No. 28 (1923), at 151.

Convention Between Mexico and the United States for the equitable Division of the Waters of the Rio Grande for Irrigation Purposes, signed at Washington, 21 May 1906, The Consolidated Treaty Series, vol. 201, 1906, at 225.

Convention for the Protection of Human Rights and Fundamental Freedoms, 4 November 1950, 213 U.N.T.S. 221.

Convention on the Law of the Non-Navigational Uses of International Watercourses, GA Res. 51/229, Annex, UNGAOR, 51st Sess., UN Doc. A/RES/51/229 (1997).

Declaration of Montevideo concerning the Industrial and Agricultural Use of International Rivers, 24 December 1933, UN Doc. A/5409, Annex I.

North American Agreement on Environmental Cooperation, United States, Canada, Mexico, 14 September 1993, 32 I.L.M. 1480.

North American Free Trade Agreement Between the Government of Canada, the Government of Mexico and the Government of the United States, 17 December 1992, 32 I.L.M. 289.

Treaty between the United States and Great Britain Relating to Boundary Waters Between the United States and Canada, United States and United Kingdom, 11 January 1909, 36 U.S. Stat. 2448.

Treaty concerning the Construction and Operation of the Gabčíkovo-Nagymaros System of Locks, 32 ILC 1247 (1993).

Treat of Peace signed in Versailles, 28 June 1919, The Consolidated Treaty Series, vol. 225, 1919, at 188.

Other international materials

United Nations

- Resolutions

Convention on the Law of the Non-Navigational Uses of International Watercourses, GA Res. 51/206, UNGAOR, 51st Sess., UN Doc. A/RES/51/206 (1997).

Draft Articles on the Law of the Non-Navigational Uses of International Watercourses, GA Res. 49/52, UNGAOR, 49th Sess., Supp. No. 49, UN Doc. A/RES/49/52 (1995).

Progressive Development and Codification of the Rules of International Law Relating to International Watercourses, GA Res. 2669 (XXV), UNGAOR, 25th Sess., Supp. No. 28, UN Doc. A/8028 (1971) at 127.

- Reports

International Law Commission, Report on the Forty-Sixth Session, UNGAOR, 47th Sess., U.N Doc. A/CN.4/464/Add.1 (1995).

Report of the International Law Commission on the work of its fiftieth session, UNGAOR, 53rd Sess., Supp. No. 10, UN Doc. A/53/10 (1998).

Report of the Sixth Committee, UNGAOR, 49th Sess., UN Doc. A/49/738 (1994).

Report of the Sixth Committee convening as the Working Group of the Whole, UNGAOR, 51st Sess., UN Doc. A/51/869 (1997).

- Meetings

UNGAOR, 49th Sess., 41st Mtg., UN Doc. A/C.6/49/SR.41 (1994).

UNGAOR, 51st Sess., 24th Mtg., UN Doc. A/C.6/51/SR.24 (1997).

UNGAOR, 51st Sess., 62nd Mtg., UN Doc. A/C.6/51/SR.62 (1997).

UNGAOR, 51st Sess., 62nd Mtg., UN Doc. A/C.6/51/SR.62/Add.1 (1997).

UNGAOR, 51st Sess., 99th Mtg., UN Doc. A/51/PV.99 (1997).

- Other documents

“Survey of International Law in Relation to the Work of Codification of the International Law Commission (Memorandum submitted by the Secretary-General)” (UN Doc. A/GN.4/1/Rev.1) (New York: UN, 1949).

International Joint Commission

International Joint Commission, *Final Report on the Pollution of Boundary Waters Reference* (Washington: Government Printing Office, 1918), online: IJC Publications <<http://ijc.org/php/publications/pdf/ID33.pdf>>.

International Joint Commission, *Impacts of a Proposed Coal Mine in the Flathead River Basin* (IJC, 1988), online: IJC Publications <<http://ijc.org/php/publications/pdf/ID590.pdf>>.

International Joint Commission, *Pollution of Lake Erie, Lake Ontario and the International Section of the St. Lawrence River* (Ottawa: Information Canada, 1971), online: IJC Publications <<http://ijc.org/php/publications/pdf/ID364.pdf>>.

International Joint Commission, *Report on the Pollution of Boundary Waters* (Washington-Ottawa: IJC, 1951), online: IJC Publications <<http://ijc.org/php/publications/pdf/ID244.pdf>>.

International Joint Commission, *Report on the Pollution of the Red River* (IJC, 1968), online: IJC Publications <<http://ijc.org/php/publications/pdf/ID335.pdf>>.

International Joint Commission, *Report on Water Quality in the Poplar River Basin* (IJC, 1981), online: IJC Publications <<http://ijc.org/php/publications/pdf/ID588.pdf>>.

International Joint Commission, *Status Report on the Activities of the International Red River Board* (15 Apr. 2004), online: IJC Publications <<http://ijc.org/php/publications/pdf/ID1551.pdf>>.

International Joint Commission, *Report to the Governments of Canada and the United States on Transboundary Implication of the Garrison Diversion Unit*, (1977), online: International Joint Commission <<http://ijc.org/php/publications/pdf/ID582.pdf>>.

International Law Association

International Law Association, “Report of the Fifty-Second Conference held at Helsinki” (1966) 52 Int’l L. Ass’n Rep. Conf. 484.

International Law Commission

Evensen, Jens, “Second Report on the Law of the Non-Navigational Uses of International Watercourses” (UN Doc. A/CN.4/381) in *Yearbook of International Law Commission 1984*, vol.2, part 1(New York: UN, 1986) at 101-127 (A/CN.4/SER.A/1984/Add.1).

“Legal Problems Relating to the Utilization and Use of International Rivers, Report by the Secretary General” (UN Doc. A/5409) in *Yearbook of the International Law Commission 1974*, vol. 2, part 2 (New York: UN, 1976) at 33-264 (UNDOC A/CN.4/SER.A/1974/Add.1).

McCaffrey, Stephen, “Second Report on the Law of the Non-Navigational Uses of International Watercourses” (UN Doc. A/CN.4/399 and Add.1 and 2) in *Yearbook of the International Law Commission 1986*, vol. 2, part 1 (New York: UN, 1987) at 87-144 (UNDOC. A/CN.4/SER.A/1986/Add.1).

McCaffrey, Stephen, “Seventh Report on the law of the non-navigational uses of international watercourses” (UN Doc. A/CN.4/436) in *Yearbook of the International Law Commission 1991*, vol. 2, part 1 (New York and Geneva: UN, 1994) at 45-69 (UNDOC. A/CN.4/SER.A/199 I/Add. 1).

“Report of the International Law Commission on the work of its Thirty-Second session” (UN Doc. A/35/10) in *Yearbook of International Law Commission 1980*, vol. 2, part 2 (New York, UN, 1980) at 5-174 (UNDOC A/CN.4/SER.A/1980/Add.1).

“Report of the International Law Commission on the work of its Fortieth session” (UN Doc. A/43/10) in *Yearbook of the International Law Commission 1988*, vol. 2, part 2 (New York: UN, 1990) at 1-114 (UNDOC A/CN.4/SER.A/1988/Add.1).

“Report of the International Law Commission on the work of its Forty-Third session” (UN Doc. A/46/10) in *Yearbook of International law Commission 1991*, vol. 2, part 2 (New York and Geneva: UN, 1994) at 1-134 (UNDOC A/CN.4/SER.A/1991/Add.1).

“Report of the International Law Commission on the work of its Forty-Sixth Session” (UN Doc. A/49/10) in *Yearbook of the International Law Commission 1994*, vol. 2, part 2 (New York and Geneva: UN, 1997) at 88-135 (UNDOC A/CN.4/SER.A/1994/Add.1).

Rosenstock, Robert, “Second Report on the law of the non-navigational uses of international watercourses” (Un Doc. A/CN.4/462) in *Yearbook of the International Law Commission 1994*, vol. 2, part 1 (New York and Geneva: UN, 2001) at 116-128 (UNDOC A/CN.4/SER.A/1994/Add.1).

Schewebel, Stephen, “Second Report on the Law of the Non-Navigational Uses of International Watercourses” (UN Doc. A/CN.4/332 and Add.1) in *Yearbook of International Law Commission 1980*, vol. 2, part 1 (New York: UN, 1982) 159 (UNDOC. A/CN.4/SER.A/1980/Add.1).

“Statute of the International Law Commission” (New York: UN, 1982) (UN Doc. A/CN.4/4/Rev.2).

JURISPRUDENCE

United States

Appellant’s Brief, People to Save the Sheyenne River, Inc. et al. v. North Dakota Department of Health et al., 697 N.W.2d 319 (N. Dak. Sup. Ct. 2005) (Sup. Ct. Nos. 20040376 and 20040377).

Calcasieu League for Environmental Action Now v. Herbert W. Thompson, 661 So. 2d 143 (La Ct. App. 1995).

Connecticut v. Massachusetts, 282 U.S. 660 (1931).

Marsh et al. v. Oregon Natural Resources Council, et al., 490 U.S. 360 (1989).

Nebraska v. Wyoming, 325 U.S. 589 (1945).

New Jersey v. New York, 283 U.S. 336 (1931).

Kansas v. Colorado, 206 U.S. 46 (1907).

People to Save the Sheyenne River, Inc. et al., v. North Dakota Department of Health et al. 697 N.W.2d 319 (N. Dak. Sup. Ct. 2005).

People to Save the Sheyenne River, Inc. et al., v. North Dakota Department of Health et al., 744 N.W.2d 748 (N. Dak. Sup. Ct. 2008).

Roland C. Dubois and Restore v. United States Department of Agriculture, et al., 102 F.3d 1273 (1st Cir. 1996).

Sanitary District of Chicago v. United States, 226 U.S. 405 (1925).

The Schooner Exchange v. McFaddon, 11 U.S. 116 (1812).

International

Affaire du lac Lanoux (Spain/France), (1957), 12 U.N.R.I.A.A. 281.

Case concerning the Gabčíkovo-Nagymaros Project (Hungary/Slovakia), [1997] I.C.J. Rep. 7.

Corfu Channel Case, (U.K. v. Albania), [1949] I.C.J. Rep. 5.

Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, [1996] I.C.J. Rep. 226.

Territorial Jurisdiction of the International Commission of the River Oder, [1929] P.C.I.J. (ser. A) No. 23.

The Diversion of Water from the Meuse (Netherlands v Belgium), [1937] P.C.I.J (ser. A/B) No. 70.

Trail Smelter Arbitration (United States/Canada), (1941) 3 U.N.R.I.A.A. 1905.

SECONDARY MATERIAL

Books

Beach, Heather L., *et al.*, *Transboundary Freshwater Dispute Resolution: Theory, Practice and Annotated References* (Tokio: United Nation University Press, 2000).

Berber F.J., *Rivers in International Law* (London: Stevens & Sons Limited, 1959).

Birnie, Patricia W. & Boyle, Alan E., *International Law and the Environment*, 2nd ed. (Oxford: Clarendon Press, 2002).

Bourquain, Knut, *Freshwater Access from a Human Rights Perspective* (Leiden, Boston: Martinus Nijhoff Publishers, 2008).

De Kleijn, Gerda, *The Water Supply of Ancient Rome: City Area, Water and Population* (Amsterdam: J.C. Gieben, Publisher, 2001).

Farnham Henry P., *The Law of Waters and Water Rights* (Rochester: The Lawyers Co-operative Publishing Co., 1904).

Higgins Rosalyn, *Problem and Process, International Law and How We Use It* (Oxford: Clarendon Press, 1994).

Kandel, Robert, *Water from Heaven* (New York: Columbia University Press, 2003).

Kiss, Alexandre & Shelton Dinah, *Guide to International Environmental Law*, 2nd ed. (Leiden: Martinus Nijhoff Publishers, 2007).

Kiss, Alexandre & Shelton, Dinah, *International Environmental Law*, 3rd ed. (New York: Transnational Publishers, Inc., 2004).

Lammers, Johan G., *Pollution of International Watercourses* (The Hague: Martinus Nijhoff Publishers, 1984).

McCaffrey, Stephen C., *The Law of International Watercourses*, 2nd ed. (Oxford: Oxford University Press, 2007).

McIntyre, Owen, *Environmental Protection of International Watercourses under International Law* (Aldershot: Ashgate Publishing Ltd., 2007).

Raines Ward Diane, *Water Wars: Drought, Flood, Folly and the Politics of Thirst* (New York: Riverhead Books, 2002).

Sinclair Mick, *The Thames: A Cultural Story* (New York: Oxford University Press, 2007).

Smith Herbert A., *The Economic Uses of International Rivers* (London: King & Son Ltd, 1931).

Tanzi Attila & Arcari Maurizio, *The United Nations Convention on the Law of International Watercourses: a Framework for Sharing* (The Hague/Boston: Kluwer Law International, 2001).

Teclaff, Ludwik A., *The River Basin in History and Law* (The Hague: Martinus Nijhoff, 1967).

Trout ,Andrew P., *City on the Seine : Paris in the time of Richelieu and Louis XIV*, 1st ed. (New York : St. Martin's Press, 1996).

Essays

Bakker, Karen, “Commons or Commodity? The Debate over Private Sector Involvement in Water Supply” in Bakker, Karen, ed., *Eau Canada, the Future of Canada’s Water* (Vancouver: UBC Press, 2007) 185.

Baxter Richard R., “The Indus Basin” in A. H. Garretson, R. D. Hayton & C. J. Olmstead, eds., *The Law of International Drainage Basins* (New York: Oceana Publications, Inc. Dobbs Ferry, 1967) 443.

Caflich Lucius, “Règles Générales du Droit des Cours d’Eau Internationaux”, in *219 Recueil des Cours (1989 – VII)* (Dodrecht/Boston/London: Martinus Nijhoff Publishers, 1992) 9.

Caflich Lucius, “The Law of International Watercourses and its Sources”, in R. St J. Macdonald ed., *Essays in Honour of Wang Tieya* (Dodrecht/Boston/London: Martinus Nijhoff Publishers, 1993) 115.

Gleick Peter H., “Water in the 21st century” in Peter H Gleick, ed., *Water in Crisis, A Guide to the World’s Fresh Water Resources* (New York-Oxford: Oxford University Press, 1993) 105.

Hollis, Duncan B., “Disaggregating Devils Lake: Can Non-State Actors, Hegemony, or Principal-Agent Theory Explain the Boundary Waters Treaty” in *Responsibility of Individuals, States and International Organizations* (Ottawa: Canadian Council on International Law, 2007) 32.

Johnson Ralph W., "The Columbia Basin" in A. H. Garretson, R. D. Hayton & C. J. Olmstead, eds., *The Law of International Drainage Basins* (New York: Oceana Publications, Inc. Dobbs Ferry, 1967) 167.

Lipper Jerome, "Equitable Utilization" in A. H. Garretson, R. D. Hayton & C. J. Olmstead, eds., *The Law of International Drainage Basins* (New York: Oceana Publications, Inc. Dobbs Ferry, 1967) 15.

Loë, de, Rob & Kreutzwiser, Reid, "Challenging the Status Quo: The Evolution of Water Governance in Canada" in Bakker, Karen, ed., *Eau Canada, the Future of Canada's Water* (Vancouver: UBC Press, 2007) 85.

Loibl, Gerhard, "Conferences of Parties and the Modification of Obligations" in Craven, M. & Fitzmaurice, M., eds., *Interrogating the Treaty: Essays in the Contemporary Law of Treaties* (Nijmegen: Wolf Legal Publishers, 2005) 103.

McCaffrey, Stephen C., "Water, politics, and international law" in Peter H Gleick, ed., *Water in Crisis, A Guide to the World's Fresh Water Resources* (New York-Oxford: Oxford University Press, 1993) 92.

Nash, Linda, "Water quality and health" in Peter H Gleick, ed., *Water in Crisis, A Guide to the World's Fresh Water Resources* (New York-Oxford: Oxford University Press, 1993) 24.

Neuhold, Hanspeter, "The inadequacy of Law-Making by International Treaties: "Soft Law" as an Alternative?" in Wolfrum, Rudiger & Roben Volker, eds., *Developments of International law in Treaty Making* (Berlin: Springer, 2005) 39.

Parrish, Austen L. & Hsu, Shi-Ling, "Embracing Reciprocity: Revisiting Domestic Legal Solutions to Canada's Transboundary Pollution Problems" in *Responsibility of Individuals, States and International Organizations* (Ottawa: Canadian Council on International Law, 2007) 73.

Postel, Sandra, "Forging a Sustainable Water Strategy" in Brown, Lester R, et al. eds., *State of the World: a Worldwatch Institute Report on Progress toward a Sustainable Society* (New York: W.W. Norton & Company, 1996) 40.

Shiklomanov, Igor A., "World fresh water resources" in Peter H Gleick, ed., *Water in Crisis, A Guide to the World's Fresh Water Resources* (New York-Oxford: Oxford University Press, 1993) 13.

Shrubsole, Dan & Draper Dianne, "On Guard for Thee? Water (Ab)uses and Management in Canada" in Bakker, Karen, ed., *Eau Canada, the Future of Canada's Water* (Vancouver: UBC Press, 2007) 37.

Sprague, John, "Great Wet North? Canada's Myth of Water Abundance" in Bakker, Karen, ed., *Eau Canada, the Future of Canada's Water* (Vancouver: UBC Press, 2007) 23.

Tarlock, Dan A., "Water Transfers: A Means to Achieve Sustainable Water Use" in Edith Brown Weiss, Laurence Boisson de Chazournes and Nathalie Bernasconi-Osterwalder, eds., *Fresh Water and International Economic Law* (Oxford -New York : Oxford University Press, 2005) 35.

Articles

Alvarez, Jose E., "Positivism Regained, Nihilism Postponed" (1994) 15 Mich. J. Int'l L. 747.

Baumann, Cynthia, Water Wars: Canada's Upstream Battle to Ban Bulk Water Export, (2001) 10 Minn. J. Global Trade, 109.

Bilder, Richard B., "Controlling Great Lakes Pollution: A Study in United States-Canadian Environmental Cooperation" (1972) 70 Mich. L. Rev. 469.

Bourne, Charles B., "The Primacy of the Principle of Equitable Utilization in the 1997 Watercourses Convention" (1997) 35 Can. Y.B. Int'l L. 215.

Bowal Peter, "Canadian Water: Constitution, Policy, and Trade" (2006) Mich. St. L. Rev., 1141.

Bradley, Curtis A., "Breard, Our Dualism Constitution, and the International Conception" (1999) 51 Stan. L. Rev. 529.

Caflisch, Lucius, "Emerging Rules on International Waterways: the Contribution of the United Nations (1996) 15 Political Geography 273.

Castillo Daudi, Mireya, "La Proteccion y Preservacion de los Curso de Agua Internacionales: el Conventio sobre el Derecho de los Usos de los Cursos de Agua Internacionales para Fines Distintos de la Navigacion de 21 Mayo de 1997" (1999) 15 Anuario de Derecho Internacional 115.

Crook, John R., "United States and Canada Agree on Measures to Address Devils Lake Flooding and Ecological Protection" (2005) 99 A.J.I.L. 909.

Crook, J.R. & McCaffrey, S.C., "The United Nations Starts Work on a Watercourse Convention" (1997) 91 Am. J. Int'l L. 374.

DeWitt, Daniel K., "Great Words Needed for the Great Lakes: Reasons to Rewrite the Boundary Waters Treaty of 1909" (1993) 69 Ind. L.J. 299.

Dupuy, René-Jean, "Humanity and the Environment" (1991) 2 Colo. J. Int'l Env'tl. L. & Pol'y 201.

Fitzmaurice, Malgosia, "Convention on the Law of the Non-Navigational Uses of International Watercourses" (1997) 10 Leiden J Int'l L. 502.

Flanders, Joseph M., "A Controversial Resolution to North Dakota's Devils Lake Dilemma" (2006) 82 N. Dak. L. Rev. 997.

Fuentes, Ximena, "The Criteria for the Equitable Utilization of International Rivers" (1996) 67 British Y.B Int'l L. 337.

Gaines, Sanford E., "The International Law Aspect of the Garrison Diversion Project" (1974) 4 Env'tl. L. Rep. 50085.

Garvey, Jack I., "A New Evolution for Fast-Tracking Trade Agreements: Managing Environmental and Labor Standards through Extraterritorial regulation" (2000) 5 UCLA J. Int'l L. & Fro. Aff. 1.

Gray, Herb, "Proceedings of the Canada-United States Law Institute Conference on Understanding Each Other Across the Largest Undefended Border in History" (2005) 31 Can-U.S. L.J. 287.

Hall, Noah D., "The Centennial of the Boundary Waters Treaty: a Century of United States –Canadian Transboundary Water Management (2008) 54 Wayne L. Rev. 1417.

Hall, Noah D., "Toward a New horizontal Federalism: Interstate Water Management in the Great Lakes Region" (2006) 77 U. Colo. L. Rev. 405.

Hall, Noah D., "Transboundary Pollution: Harmonizing International and Domestic Law" (2007) 40 U. Mich. J. L. Reform 681.

Heinmiller, Timothy B., "The Boundary Waters Treaty and Canada-U.S. Relations in Abundance and Scarcity" (2008) 54 Wayne L. Rev. 1499.

Helal, Mohammed S., "Sharing Blue Gold: The 1997 Convention on the Law of the Non-Navigational Uses of International Watercourses Ten Years On" (2007) 18 Colo. J. Int'l Env'tl. L. & Pol'y 337.

Hey, Ellen, "The Watercourse Convention: To What Extent does it Provide a Basis for Regulating Uses of International Watercourses?" (1998) 7 Rev. Eur. Com. & Int'l Env'tl. L. 291.

Hollis, Duncan B., "Why State Consent Still Matters - Non-State Actors, Treaties, and the Changing Sources of International Law" (2005) 23 Berkeley J. Int'l L. 137.

Jennings, Marlene, "Proceedings of the Canada-United States Law Institute Conference on Understanding Each Other Across the Largest Undefended Border in History" (2005) 31 Can-U.S. L.J. 385.

Joyner, Christopher C., "U.N. General Assembly Resolutions and International Law: Rethinking the Contemporary Dynamics of Norm-Creation" (1981) 11 Cal. W. Int'l L. J. 445.

Kempf, Bart, "Draining Devils Lake: The International Lawmaking Problems Created by the Devils Lake Outlet" (2007) 19 Geo. Int'l L. Rev. 239.

Knox, John H., "The Boundary Waters Treaty: ahead of its Time, and Ours" (2008) 54 Wayne L. Rev. 1591.

Knox, John, "Environment: Garrison Dam, Columbia River, the IJC, NGOs" (2004) 30 Can.-U.S. L.J. 129.

Kornfeld, Itzhak E., "Polycentrism and the International Joint Commission" (2008) 54 Wayne L. R. 1695.

Legault, Leonard H., "The Management and Resolution of Cross Border Disputes as Canada/U.S. Enter the 21st Century: the Roles of Law and Diplomacy in Dispute Resolution: the IJC as a possible Model" (2000) 26 Can.-U.S. L.J. 47.

Lemarquand, David, "The International Joint Commission and Changing Canada-United States Boundary Relations" (1993) 33 Nat. Resources J. 59.

MacChesney Brunson, "The Lake Lanoux case" (1959) 53 Am J. Int'l L., 156.

McCaffrey Stephen C. & Sinjela Mpazi, "The 1997 United Nations Convention on International Watercourses" (1998) 92 Am. J. Int'l L., 97.

McCaffrey, Stephen C., "An Overview of the U.N. Convention on the Law of the Non-Navigational Uses of International Watercourses" (2000) 20 J. Land Resources & Environmental L. 57.

McIntyre, Owen, "The Role of Customary Rules and Principles of International Environmental Law in the Protection of Shared International Freshwater Resources" (2006) 46 Nat. Resources J. 157.

Nollkaemper, André, "The Contribution of the International Law Commission to International Water law: does it Reverse the Flight from Substance" (1996) 27 Nethl. Y.B. Int'l L. 39.

Nussbaum, Tobias, "Report on the Working Group to Elaborate a Convention on International Watercourses" (1997) 6 Rev. Eur. Com. & Int'l Envtl. L. 47.

Parrish, Austen L. & Hsu, Shi-Ling, "Litigating Canada-U.S. Transboundary Harm: Environmental Lawmaking and the Threat of Extraterritorial Reciprocity" (2007) 48 Va. J. Int'l L. 1.

Rosenberg, Sheryl A., "A Canadian Perspective on the Devils Lake Outlet: Towards an Environmental Assessment Model for Transboundary Disputes" (2000) 76 N.D. L. Rev. 817.

Salman, Salman M.A., "The United Nations Watercourses Convention Ten Years Later: Why Has its Entry into Force Proven Difficult?" (2007) 32 Water International 1.

Schwabach, Aaron, "The United Nations Convention on the Law of Non-navigational Uses of International Watercourses, Customary International Law and the Interests of Developing Upper Riparians" (1998) 33 Tex. Int'l L. J. 257.

Toope, Stephen J. & Brunnee, Jutta, "Freshwater Regimes: The Mandate of the International Joint Commission" (1998) 15 Ariz. J. Int'l & Comp. L. 273.

Wescoast James L., "Beyond the River Basin: The Changing Geography of International Water Problems and International Watercourse Law" (1992) 3 Colo. J. Int'l Envtl. L. & Pol'y 301.

Whorley, David, "The Devils Lake Outlet and Canada-U.S. Transboundary Water Relations; or, how George C. Gibbons got the Last Laugh" (2008) Hamline L. Rev. 615.

Wright, Robert V., "The Boundary Waters Treaty: A Proposed Public Submission Process to increase Public Participation, Accountability and Access to Justice, (2008) 54 Wayne L. Rev. 1609.

OTHER MATERIALS

Websites

FAO, *Statistics, Water Use*, online: UN-Water
<http://www.unwater.org/statistics_use.html>.

Federal Emergency Management Agency, *Final Programmatic Environmental Assessment Devils Lake Region, North Dakota*, (May 11, 2006), at 1, online: Federal Emergency Management Agency
<http://www.fema.gov/library/file;jsessionid=598F9D6922473775ADD017E18E31A3E8.Worker2Library?type=publishedFile&file=pea_devils_lake.nd.pdf&fileid=f6884e10-592d-11db-8645-000bdba87d5b>.

Government of Canada, *Canada's Statement to the International Joint Commission*, online: Embassy of Canada in Washington
<http://geo.international.gc.ca/can-am/washington/shared_env/statementtoijc-en.asp>.

Government of Canada, *Garrison Diversion and the Devils Lake Outlet: The Canadian Position*, online: Embassy of Canada in Washington
<http://www.canadainternational.gc.ca/washington/bilat_can/garrison.aspx?lang=eng>.

Government of Canada, News Release, No.142, "Joint Canada-U.S. Declaration on the Devils Lake Diversion Project" (5 August 2005), online: Canada News Centre
<<http://news.gc.ca/web/article-eng.do?crtr.sj1D=&mthd=advSrch&crtr.mnthndVl=4&nid=162729&crtr.dpt1D=&crtr.tp1D=&crtr.lc1D=&crtr.yrStrtVl=2004&crtr.kw=devils%2Blake&crtr.dyStrtVl=26&crtr.aud1D=&crtr.mnthStrtVl=2&crtr.yrndVl=2010&crtr.dyndVl=1>>.

Government of North Dakota, News Release, "Hoeven Welcomes Powell Ruling on Devils Lake Outlet" (22 January 2004), online: Government of North Dakota
<<http://www.governor.nd.gov/media/news-releases/2004/01/040122.html>>.

International Law Association, *About us*, online: International Law Association
<http://www.ila-hq.org/en/about_us/index.cfm>.

International Law Association, *Constitution of the Association*, online: International Law Association
<<http://www.ila-hq.org/download.cfm/docid/30692D54-747F-4D66-B9F8E5C08F69F3AF>>.

Manitoba Water Stewardship, *A Limited Survey of Biota in Devils and Stump Lakes, North Dakota, Report No. 2005-03*, online: Government of Manitoba
<http://www.gov.mb.ca/waterstewardship/reports/transboundary/2005-10mb-devilslake_biota_rpt.pdf>.

Manitoba Water Stewardship, *Manitoba's Interests Regarding Transboundary Water Projects, Background*, online: Government of Manitoba
<http://www.gov.mb.ca/waterstewardship/water_info/transboundary/manitoba.html>.

Manitoba Water Stewardship, *Potential Transboundary Water Projects*, online: Government of Manitoba
<http://www.gov.mb.ca/waterstewardship/water_info/transboundary/potential.html>.

Statistics Canada, CANSIM, *Imports, exports and trade balance of goods on a balance-of-payments basis, by country or country grouping*, online: Statistics Canada
<<http://www40.statcan.gc.ca/101/cst01/gblec02a-eng.htm>>.

United Nations, *Treaty Collection – Status of Treaties*, online: United Nations Treaty Collection
<http://treaties.un.org/Pages/ViewDetails.aspx?src=UNTSOnline&tabid=2&mtdsg_no=XXVII-12&chapter=27 &lang=en#Participants>.

United Nations Environment Program, *Statistics*, online: UN-Water
<http://www.unwater.org/statistics_res.html>.

U.S. Army Corps Of Engineers, St. Paul District, *Final Devils Lake, North Dakota Integrated Planning Report and Environmental Impact Statement*, (April 2003), Vol. 1, S-4, online : U.S. Army Corps of Engineers
<http://www.mvp.usace.army.mil/fl_damage_reduct/default.asp?pageid=14&subpageid=83>.

U.S. Census Bureau, Foreign Trade Division, Data Dissemination Branch, *Trade in goods with Canada*, online: U.S. Census Bureau
< <http://www.census.gov/foreign-trade/balance/c1220.html>>.

U.S. Geological Survey, “Elevation of Devils Lake” (14 April 2010), online: North Dakota Water Science Center
<<http://nd.water.usgs.gov/devilslake/data/dlelevation.html>>.

World Health Organization, *Drinking Water and Sanitation*, online: UN-Water
< http://www.unwater.org/statistics_san.html>.

World Water Assessment Programme, *Statistics, Water Use*, online: UN-Water
<http://www.unwater.org/statistics_use.html>.

Newspaper articles

Oleson, Louise, "State approves more money for Devils Lake" *Devils Lake Journal* (02 September 2009), online: Devils Lake Journal
<<http://www.devilslakejournal.com/news/x1886199767/State-approves-more-money-for-Devils-Lake>>.

Rabson, Mia, "Devils Lake outlet pouring sulphate into Red" *Winnipeg Free Press* (23 October 2009), online: Winnipeg Free Press
<<http://www.winnipegfreepress.com/world/devils-lake-outlet-pouring-sulphate-into-red-65736892.html>>.

Staff Writer, "Fargo hosting hearing about Devils Lake" *Winnipeg Free Press* (18 February 2010), online: Winnipeg Free Press <
<http://www.winnipegfreepress.com/local/fargo-hosting-hearing-about-devils-lake-84681157.html>>.