

Whose Water is it? Edited by Bernadette McDonald and Douglas Jehl.

Instructors information

Diane E. Wille

The chapters in this book are short. Each chapter will take approximately 15 minutes for the students to read. A short summary of each chapter, questions about each chapter and a green assignment for my FYS are below. The authors of the chapters at times repeat the issues concerning the water crisis, however, very little space is given to solutions. The FYS assignment is designed to focus the students' attention on what they can do to assist the environment.

Summary

The forward by Paul Simon and the Introduction by Douglas Jehl provide the rationale for why water has become and will continue to be an important issue for the United States and for the world.

First section: Ownership

This section covers an important question about who owns and should control water, who has the rights to its use, and who should be able to limit the use of water by others.

Bottling a Birthright by Robert Glennon

This chapter analyzes the effects of market ownership of water in the form of a water bottling plant and the cost of this ownership. The history of water law in the United States is also reviewed. The author provides suggestions for how these laws can be changed, in order to better use and conserve water.

The World's Water: A Human Right or a Corporate Good? By Maude Barlow

The author provides examples of the privatization of water and the ramifications for local communities and environment due to this privatization.

Three Rivers by Marq De Villiers

This section describes China's massive civil engineering project to divert water from the south to the north. The reasons for this effort (a lowering of water table along with increased demands for water in the north) as well as the possible ramifications are described.

Second section: Scarcity (Note: This section appears repetitive to me.)

The reasons for the scarcity of fresh water are described in this section along with specific examples of how fresh water has been compromised in various locations around the world.

Working for Water by Margaret Catley-Carlson (The first half of this article is repeating earlier sections of the book).

The multiple links between poverty and scarcity of fresh water are discussed; how poverty leads to scarcity of water and how scarcity of water leads to poverty. How these connection can be broken are also discussed.

The Effect of Emerging Water Shortages on the World's Food by Lester R. Brown

This section provides information about the connection between water shortage and food production. The effect of agriculture/over pumping ground and aquifer water in different areas of the world are discussed. The water demands created by cities and the competition between cities and agriculture are also discussed.

Mountain Wise and Water Smart by Hans Schreier

The complex role of mountains as a freshwater resource is discussed. Mountain glacial runoff and streams and rivers originating in mountains provide a large amount of the water used in agriculture. Global warming is rapidly reducing mountain glaciers - this in turn will impact agriculture that is reliant on this source of water. The impacts of tourism on mountain water resources are also discussed.

Conflict

This section reviews the conflicts that have and will emerge due to water. These are conflicts between countries, individuals with different water needs and the environment.

Water Wars and Other Tales of Hydromythology by Aaron T. Wolf

Multiple countries share water sources and the potential for conflict is strong. The historical and present day water pressures and future water conflicts in the Middle East are reviewed. In the last 50 years countries have had over 1800 interactions about water. Only a few of these interactions ended without agreements on water usage and cooperation between countries. It is when the interaction comes down to individuals and not countries that hostilities emerge. The future hot spots for international water conflicts are discussed.

From the Forest to the Faucet by Mike Dombeck (The reason for the placement of this chapter in the conflict section is not clear)

The role that forests play in creating and maintaining freshwater supplies are discussed and examples of negative effects of deforestation on water quality are provided. The positive impact of reforestation is also discussed. Conflict centers upon the need for adequate forest cleansing and pressure to use the land for building or agriculture.

Accommodation Turns to Conflict: Lessons from the Colorado by David J. Hayes

Historical water usage laws and agreements for the Colorado River are summarized along with the growing pressures for the water from this river.

Prospects

This section is based on the premiss that the water crisis will not solve itself and that technology for finding more water is probably not a viable solution. Agriculture is the greatest user of water and it is within this field that water conservation techniques may have the biggest impact.

Mountain Water: Lifeblood of the Prairies by David Schindler

The prairies of Canada experience periodic droughts. Due to the pressures of human migration and water usage and global warming future droughts will be extreme. Ways in which the drought can be lessened are discussed.

(Note: This chapter provides only a very short section on how to prevent drought. The majority is a repetition of earlier information about the negative impact of humans on the availability of water.)

A Child's Reminder by David Suzuki with Amanda McConnell

The cycle of water from the sea to fresh water through evaporation, rain and the forests are reviewed. The centrality of water for all species is emphasized. The primary voice of this section is that we all have a responsibility to water and that prevention of water pollution and shortages are the responsibility of all. The three R's of conservation are discussed: reduce, reuse and recycle.

A Soft Path: Conservation, Efficiency and Easing Conflicts over Water by Peter H. Gleick

This section attempts to answer the question - Can we avoid similar disasters associated with our need for oil with our need for water? There is no endless supply of water resources. Water use in the United States has decreased due to efficient technology and conservation.

(Note: This chapter also repeats information from previous chapters before discussing solutions to water problems.)

Alchemy or Salvation? Desalting the Sea by Douglas Jehl

A growing number of communities along the United States coast are turning to the ocean for their fresh water supply. The reason for this is two-fold cost of desalination has decreased and the demand for fresh water has increased. This chapter provides arguments for and against going to this extreme to supply freshwater.

Afterword by Bernadette McDonald

This section summarizes the reasons for the water crisis (overuse, pollution, bad stewardship of

the environment and climate change) and the major debates surrounding water (public vs. private control, need vs. right).

Questions: These questions have been included in the First Year Seminar book. Instructors may want to use these questions to determine the information that the students have acquired from the material and also to stimulate small group discussions. If using the questions for the small group discussion students should come to class with the questions answered and be prepared to discuss their answers with the group.

General

1. Where does the water you use come from?
2. Is access to clean water a right or a need? How do the words (need or right) impact laws about water, privatization of water and usage of water?
3. The United States has four percent of the population and eight percent of the fresh water. Why is water an important issue for the United States?

First section: Ownership

4. Based on your reading of this section who do you think owns water: Provide a rationale for your answer.
5. Who has the right to control water? Why?
6. If water is a fundamental right, what does this mean in terms of government and laws?

Bottling a Birthright by Robert Glennon

7. Are there any instances where a private company should have control over water? Why or why not?
8. What problems have emerged due to the existing water laws in the United States?
9. What are the ramifications of Herbert Hoover's statement, "True conservation of water is not the prevention of its use. Every drop of water that runs to the sea without yielding its full commercial returns to the nation is an economic waste."?

The World's Water: A Human Right or a Corporate Good? By Maude Barlow

10. What are the economic, legal and environmental effects of the privatization of water?
11. How much do you actually pay for water?

Three Rivers by Marq De Villiers

12. What are some of the roadblocks to China's civil engineering project to bring water from the south to the north?

Second section: Scarcity

13. What are the main reasons for the scarcity of freshwater?

Working for Water by Margaret Catley-Carlson

14. How does poverty create the scarcity of water and how does the scarcity of water create poverty?

15. What are some examples of how to remedy the scarcity of water?

16. What changes can you make to decrease your demand on fresh water.

The Effect of Emerging Water Shortages on the World's Food by Lester R. Brown

17. What is the link between water shortage and food production? Provide examples.

18. How do cities and farmers compete for water?

Mountain Wise and Water Smart by Hans Schreier

19. What are the effects of mountains on fresh water.

20. What are some examples of the impact that tourism has on fresh water supplies.

21. What are the short and long term effects of the melting of the glaciers.

Conflict

Water Wars and Other Tales of Hydromythology by Aaron T. Wolf

22. What is a hydromyth?

23. Why has there been an increase in the potential for international water conflicts?

24. What factors promote successful resolution and decrease the potential for water conflicts?

From the Forest to the Faucet by Mike Dombeck

25. Explain the role of forest in the quality and quantity of fresh water available?

Accommodation Turns to Conflict: Lessons from the Colorado by David J. Hayes

26. List the different groups who have the right to use water from the Colorado River.
27. How did the early agreements for water usage on the Colorado River shape the problems faced today?
28. When the early settlers created their water agreements what factors did they not take into consideration?

Prospects

29. List possible solutions for the water crisis.
30. List the changes that you can make in your water usage to conserve.
31. How do different methods of irrigation influence the usage of water?

Mountain Water: Lifeblood of the Prairies by David Schindler

32. What factors are involved in creating the drought on the Canadian prairie?
33. What role do the mountains play in the dispersement of water?
34. The prairies have experienced drought in the past. What impact will humans have on the current/future droughts and how will they have this effect?
35. What steps can be taken to reduce the likelihood of drought?

A Child's Reminder by David Suzuki with Amanda McConnell

36. How can industries become environmentally sound?

A Soft Path: Conservation, Efficiency and Easing Conflicts over Water by Peter H. Gleick

37. Why are we in the United States using less water today than in the past?
38. What are some expensive ways to solve our water problems? Why are the expensive ways to solve our water problems not always the best?
39. What are some efficient and inexpensive ways to solve our water problems?
40. What is the soft water path and why is it difficult to implement?

41. What are the easiest and cheapest ways that you can cut down on water usage in your home?

Alchemy or Salvation? Desalting the Sea by Douglas Jehl

42. Why are more coastal communities turning to desalination as a means to supply fresh water?

43. What are some major problems with relying on the ocean for fresh water?

44. What is grey water? How can we most effectively use grey water?

45. Are there ways for you to use grey water in your home?

Afterword by Bernadette McDonald

46. If we accept United Nations Secretary-General Kofi Annan's statement "A path to prosperity that ravages the environment and leaves a majority of humankind behind in squalor will soon prove to be a dead end road for everyone". What global changes are necessary to avoid this dead end? What changes must occur within the United States at the federal and local level? What changes must be made in our homes?

Terms to know

Aquifer

Riparian zones

Grey water

First Year Seminar Common Experience Activity

Each of these assignment should be typed, double spaced, 2 pages maximum.

Assignment 1. In the past what changes have you made in your life style to assist the environment? List 5 of these changes and describe how easy or difficult it was to make these changes.

In class: Each student should present their most innovative change to the class. (These examples will assist the student with the next assignment).

Assignment 2 (this should be due about one week later). What 5 new changes are you going to make in your life style to assist the environment. These may be long term or short term changes. One of these changes you will have to be able to start this semester.

Assignment 3. Pick one of the 5 changes you want to make to your lifestyle. During the next month implement this change. After the month is over assess how well you were able to implement this change. What impact did this change have on the environment?

To get the students thinking about changes I have come up with 5 changes I have made and 5 changes I want to make.

For example, in my own life the 5 changes I have made include buying practical gifts or recycling gifts by shopping at antique stores and flea markets. I recycle newspaper, bottles, plastics and cardboard. I installed skylights in my kitchen and bathroom. I eat very little meat or seafood. I walk to my exercise class on Sundays.

New changes: When I buy a new car in 10 years I want to get at least 50 mpg. I want to start using grey water in my house. I will install two rain barrels to store water for my gardens. I want to recycle more plastic and cardboard boxes. I will start reading the newspaper electronically rather than in paper format.