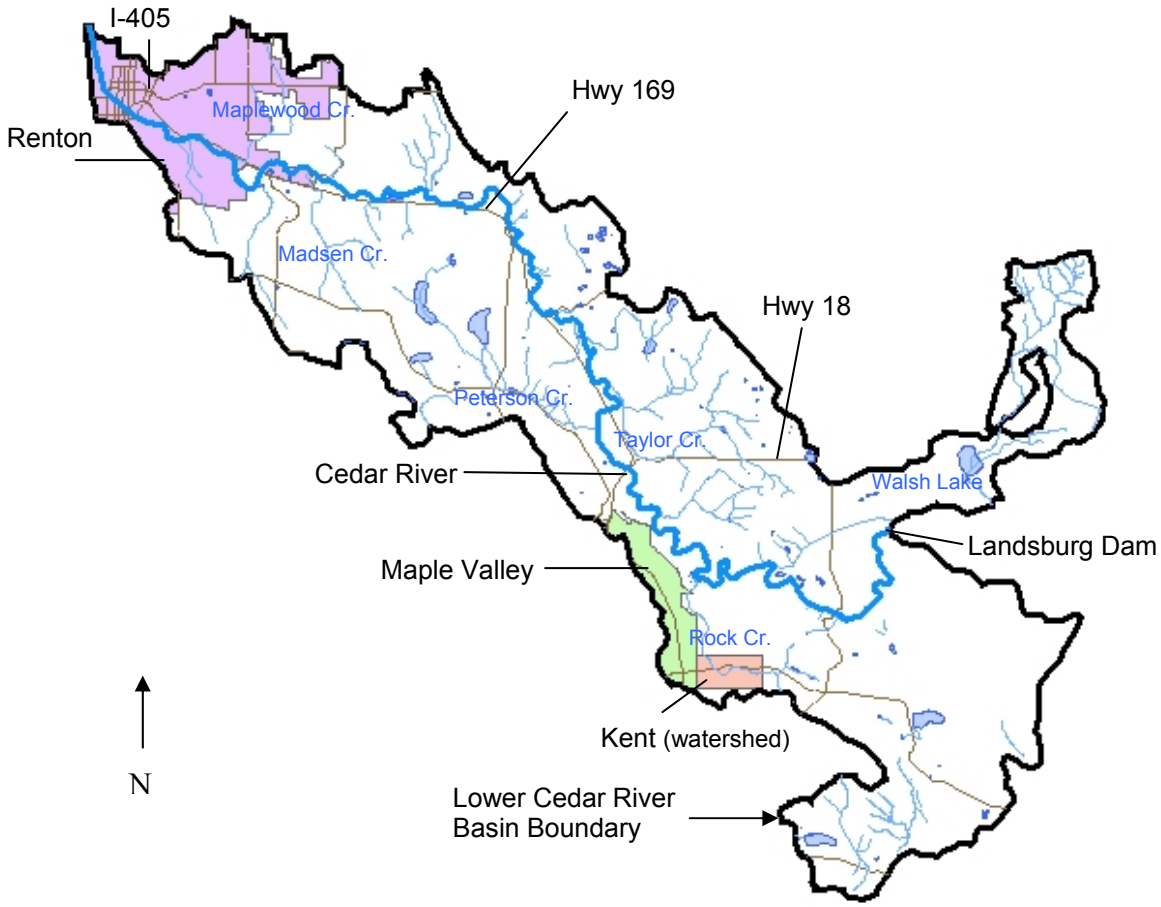
Survey Number_____

Restoration and Enhancement Opportunities for the Lower Cedar River

A Public Opinion Survey



The Lower Cedar River stretches approximately 21 miles, from the Landsburg Dam to its Lake Washington outlet at Renton. This survey addresses restoration and management options for the Lower Cedar River and does not address the Seattle-owned watershed lands above the Landsburg Dam.

Dear Survey Participant:

Many people believe a focused restoration effort on the Lower Cedar River to be a worthy goal. When we asked members of the Cedar River Council and others concerned with the river what it meant to have a "restored" Cedar River, we heard a variety of responses. Some saw a restored Cedar River as having improved habitat and pattern of water flow (hydrologic characteristics) for the benefit of a variety of wildlife species. Others focused on the ability of the river to contribute to the production of salmonids (sockeye, chinook, or other species). Still others focused on the role the river and its watershed play in providing recreational opportunities and in supporting a rural or semi-rural lifestyle. Many other ideas also emerged from these discussions.

Your responses to the questions on the following pages will contribute to better understanding of what the best actions are for managing the Lower Cedar River and its resources. We will be passing along the summarized results to King County and other public entities. If you would also like a copy of the summarized results of our study you can so indicate at the end of the survey.

Thanks in advance for your help with our study!

Sincerely,

Dr. Thomas Leschine
School of Marine Affairs
University of Washington

P.S. All responses are confidential and there are no right or wrong answers. Please note that the survey includes a removable (blue) insert with reference information you may find useful as you go through the questions.

Part I. What should be done, by whom and why?

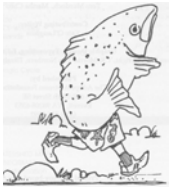
In this section we would like to get a better understanding of your beliefs and preferences regarding potential restoration actions for the lower Cedar.

1. How strongly do you agree or disagree with the following statement: "The overall health of the Lower Cedar River has declined over the past 50 years."

   - ❑ Strongly Agree
   - ❑ Agree
   - ❑ Disagree
   - ❑ Strongly Disagree
   - ❑ No Opinion

2. How big a problem do you consider periodic flooding to be in the lower Cedar River?

   - ❑ Not a problem at all
   - ❑ Somewhat of a problem
   - ❑ A serious problem
   - ❑ A very serious problem
   - ❑ No Opinion



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3. Regardless of whether there has been an overall decline in the health of the Cedar River, and leaving aside the question of flooding, several factors have been identified as **potential concerns for the river's ecological health**. We are interested in your opinion regarding **the most and least important** of the factors listed below, with regard to how much attention you feel public officials should devote to them in restoration and enhancement programs.

In the blanks in the boxes below, please place the letter corresponding to the factor you think should be the most and least important, respectively, for managers to address. ***If you have questions about definitions or concepts please refer to the blue insert.***

Most Important Factor = ___

❑ No Opinion or Not Sure

Least Important Factor = ___

❑ No Opinion or Not Sure

A) **Loss of river channel width and complexity** (such as loss of channel braiding, spawning gravels, and riffles and pools) due to flood control projects (especially levees, riprap, and other bank armoring structures)

B) **Habitat degradation in riparian areas** (such as loss of shading and native vegetation, reductions in woody debris, loss of wetlands, or erosion of stream banks)

C) **Diversion of water** (from the river or its groundwater system) **for drinking supply** (including wells associated with development, the water diversion at Landsburg by Seattle Public Utilities and that from Rock Creek by the City of Kent)

D) **Increased runoff from impervious surfaces** when it rains (due to increased development in the floodplain and surrounding uplands) leading to more frequent high water or flooding during the winter and to excessively low water during dry summer months

E) **Decline of fish in the river**, especially salmon species, including sockeye salmon that supply the bulk of the recreational and tribal fisheries in Lake Washington, and chinook salmon, now listed as "threatened" in Puget Sound

F) **Pollution in the river**, associated with runoff from agricultural or developed areas as well as roads and streets

G) **Other factor not listed** (*please specify and rate in the appropriate box above*)

_____

4. Regardless of the potential problems being faced, many people believe an effective management program needs to have an **overall goal**. We are interested in your opinion regarding what goals for lower Cedar River restoration and enhancement are **most and least important**.

In the blanks in the boxes below, please place the letter corresponding to the goal you feel is most and least important, respectively, as the overall goal of lower Cedar River restoration.

Most Important Goal = ___

❑ No Opinion or Not Sure

Least Important Goal = ___

❑ No Opinion or Not Sure

A) **Increasing harvestable fish numbers** (contributing to Sockeye harvest in Lake Washington)

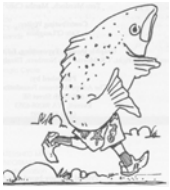
B) **Maintaining fish species diversity** in the Cedar (salmonids and other fish species)

C) **Helping native salmon species** (e.g., chinook and coho; not sockeye, which were introduced to the Cedar River after it was connected to Lake Washington in the first half of the 20th century.)

D) **Improving general ecosystem health** (focusing on the upland zone as well as the aquatic and riparian zones)

E) **Maintaining in-river recreational opportunities** (e.g., boating and rafting)

F) **Other goal not listed** (*please specify and rate in the appropriate box*)_____



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5. Many types of restoration and enhancement actions are available to managers. Even though a mix of management actions is typically used, there may be a tendency to focus on one type more than others. If only **one** management action were to be given primary emphasis, which of the following do you think would be **most and least effective**, respectively, **in its ability to reach the goal of restoration and enhancement of the lower Cedar River**?

   Please indicate by placing the letter corresponding to the management action you think would be the most effective and least effective, respectively, in the blanks in the boxes below.

(See the blue insert for descriptions)

Most Effective Action = ___

❑ No Opinion or Not Sure

Least Effective Action = ___

❑ No Opinion or Not Sure

A) Land Purchase and Protection
B) Passive Restoration
C) Active Restoration
D) Financial Incentive Programs
E) Other management action not listed (*please specify and rate in the appropriate box*)

_____

Please tell us briefly why you made the choices you did.

_____

_____

_____

6. Environmental restoration and enhancement programs can be very dependent on public support. Looking again at this same list of potential management actions, which do you think would be the most likely to **gain public support from all watershed residents**? (i.e., which do you think would be most popular with your neighbors or others living in the Cedar Basin?)

Most Likely to Gain Support= ___ ❑ No Opinion or Not Sure	(See the blue insert for descriptions) A) Land Purchase and Protection B) Passive Restoration C) Active Restoration D) Financial Incentive Programs E) Other management action not listed (please specify and rate in the appropriate box) _____
Least Likely to Gain Support = ___ ❑ No Opinion or Not Sure	

7. What in your opinion is the **most desirable level of government to make decisions** regarding restoration on the lower Cedar River? (*Please choose only one*)

   - ❑ Local Jurisdiction (cities for projects within their jurisdictions, county for unincorporated areas)
   - ❑ County
   - ❑ State
   - ❑ Federal
   - ❑ Multi-government/Citizen Panels
   - ❑ Other (*please specify*) _____
   - ❑ Not Sure/No Opinion

8. Recognizing that government funding for restoration or enhancement projects ultimately comes from taxpayers, **what level of government should fund restoration projects** on the lower Cedar River? (*Please check all that apply*)

   - ❑ Local Jurisdiction (cities for projects within their jurisdictions, county for unincorporated areas)
   - ❑ County
   - ❑ State
   - ❑ Federal
   - ❑ Multi-governmental combination
   - ❑ Other (*please specify*) _____
   - ❑ Funding should not come from government sources
   - ❑ Not Sure/No Opinion

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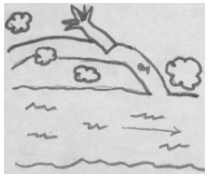
Part II. Relative Emphasis and Intensity of Management Actions

This section of the survey provides you with the opportunity to direct the way expenditures are made for restoration and enhancement, as if you were in charge.

The table shows potential management actions for the lower Cedar River, and their expected costs and benefits. They are not actual projects but are representative of projects that have been planned or implemented. Each column describes a level of activity that could realistically be done for an expenditure of approximately half a million dollars ($0.5 million). *Please take a minute to look over this table.*

Potential Management Plans that Could be Accomplished for $0.5 Million

(See insert for further description)	**Plan A** **Land Purchase & Protection** 	**Plan B** **Passive Restoration** 	**Plan C** **Active Restoration** 
Description of Action	Purchase ~2.5 acres along the river; remove invasive species and replant with natives as necessary	Dike removal and bank stabilization for ~2000 linear feet with setback levees to protect adjacent properties.	~2700 linear feet of historic side channels reconnected to mainstem via excavation; ~1 acre of wetland restoration; ~10-20 woody debris clusters strategically placed along side channels and at river edge.
Costs:	$0.5 million	$0.5 million	$0.5 million
	Maintenance costs of acquired land; Removal of land from tax base	Increased braiding of stream may hinder boaters; Monitoring to ensure flood risk not increased	Existing quality habitat is converted to other habitat types; projects aimed at one species may detract from others
Benefits:	Preserves existing habitat for a variety of wildlife; riparian vegetation serves as food, shade, cover for fish, and as a source of woody debris; increased regional recreation benefits; possible increased surrounding land value	Reduced flood height and velocity in project vicinity; increase in aquatic wildlife habitat through flooding of old river channels; reduced flood damage to salmon redds (better salmon survival); possible reduced downstream flood risk.	Restore hydraulic connections (i.e., allow more frequent flooding of riparian habitat); directly create salmon spawning and rearing habitat (potential increase in numbers of salmon).

As you go through the next four questions, you will find that you have opportunities to decide on how funds are spent. The purpose of these questions is to determine the mix of management actions and spending priorities that you would most favor if you were in charge.

9. If you had $0.5 million in restoration funds to spend and you had to spend it all on one of the three actions from the table on the facing page, which would you spend it on? *(Please check only one.)*

[For your information, $0.5 million is between one third and one half of the total funds ($1-1.5 million) typically spent for lower Cedar River restoration and enhancement activities in any one year].

- ❑ Land Purchase and Protection
- ❑ Passive Restoration
- ❑ Active Restoration
- ❑ I prefer to spend the money in another way (*Please describe*)

  _____

10. If you had an additional $1 million to spend ($1.5 million total—in other words, all of the money available in a typical year) would you spend it on the same activity as you chose in Question 9 or something different? *(Please check only one.)*

- ❑ Same activity
- ❑ Different activity
- ❑ I would prefer not to spend the money in this way (*please describe your alternative and go to Question 13*)

  _____

11. If you chose “different activity” in Question 10, what activity would you spend it on? *(Please check only one.)*

- ❑ Land Purchase and Protection
- ❑ Passive Restoration
- ❑ Active Restoration
- ❑ Other_____

Please Turn the Page

12. Recognizing that currently about $1-1.5 million per year is being spent on restoration and enhancement on the lower Cedar River, is this the right amount?

- ❑ Not enough is being spent
- ❑ About the right amount is being spent
- ❑ Too much is being spent
- ❑ Not sure about the right amount

13. For whatever monies you are willing to spend, what percent would you allocate to each of the three actions?

_____% Land Purchase and Protection

_____% Passive Restoration

_____% Active Restoration

_____% Other Activity (*Please specify*) _____

❑ Not Sure

14. **Financial incentive programs** can also play a role in restoration (please see the blue insert for a description). How much should financial incentive programs be relied upon for restoration and enhancement projects on private lands as compared to reliance on publicly funded projects? *(Please check only one)*

Financial incentive programs should be relied upon:

- ❑ **Much less** than public restoration and enhancement projects
- ❑ **Somewhat less** than public restoration and enhancement projects
- ❑ **Equally** in comparison to public restoration and enhancement projects
- ❑ **More** than public restoration and enhancement projects
- ❑ **Much more** than public restoration and enhancement projects
- ❑ Not Sure

Part III. Final Questions

The following are demographic questions that will help us understand the way people respond to this survey.

15. Do you live within the lower Cedar River Basin (see map on cover)? If so, how long have you lived there?

    - ❑ No, I live near _____ (city)
    - ❑ Yes, for _____ years
    - ❑ Don't know

16. Have you participated in river-based activities on the Cedar River within the past year? If yes, which ones? (*Please check all that apply*)

    - ❑ No
    - ❑ Yes (*Please check all that apply below*)

        - ❑ Boating or Rafting
        - ❑ Hiking or Biking Along the River (e.g., Cedar River Trail)
        - ❑ Swimming
        - ❑ Wildlife Viewing
        - ❑ Other (*please write in*) _____

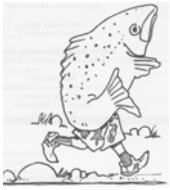
17. Have you attended a Cedar River Council Meeting or a WRIA 8 Steering Committee Meeting within the past three years?

    - ❑ No
    - ❑ Yes

18. Have you ever been, or are you currently, a member (or alternate) of the Cedar River Council, the WRIA 8 Steering Committee, or one of their advisory committees? If yes, what category best describes your role?

    - ❑ No
    - ❑ Yes (Please check all that apply below)

        - ❑ Citizen participant
        - ❑ Technical expert participant, working for government
        - ❑ Consultant or research technical expert participant
        - ❑ Political participant
        - ❑ Other type of participant _____



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19. Do you own property near the Cedar River or one of its tributaries? If so what category best describes the property?

    - ❑ No
    - ❑ Yes, approx. _____ acres (Please check all that apply below)

        - ❑ Primary residence
        - ❑ Part-time residence (e.g., vacation home)
        - ❑ Rental
        - ❑ No habitable structures
        - ❑ Unimproved lot
        - ❑ Other _____

20. What gender are you?

    - ❑ Female
    - ❑ Male

21. How old are you?

    - ❑ 18-29
    - ❑ 30-39
    - ❑ 40-49
    - ❑ 50-59
    - ❑ 60-69
    - ❑ 70-79
    - ❑ 80 or above

22. What is the highest education level you have completed? (please check one)

    - ❑ Elementary School
    - ❑ High School
    - ❑ Associates Degree
    - ❑ Bachelor's Degree
    - ❑ Advanced Degree (e.g., PhD, Master's, Law, Business)

23. What was your household income in 2002?

    - ❑ <$15,000
    - ❑ $15,000-29,999
    - ❑ $30,000-59,999
    - ❑ $60,000-$89,999
    - ❑ $90,000-119,999
    - ❑ >$120,000

You have now completed the survey!

Do you want to be sent information on our study results? Once we have processed your completed survey this page will be separated from the rest. Your response to this question will not compromise your confidentiality.

- ❑ No
- ❑ Yes, please notify me when I can view the results on the internet
- ❑ Yes, please send me a paper copy

If you would prefer to be notified by e-mail, please leave us your e-mail address:

_____

Thank You

for completing the survey!

Please return your completed survey in the enclosed envelope or send to:

Melissa Montgomery
School of Marine Affairs
University of Washington
3707 Brooklyn Ave. N.E.
Seattle, Washington 98105-6715

Please do not detach this page. We will detach it when we process your survey. Thanks. Survey Number _____