

The Greenway Education Program is supported in part by:



King County

Department of
Natural Resources and Parks
Wastewater Treatment Division



WASHINGTON STATE
Recreation and
Conservation Office



**Grousemont
FOUNDATION**



**ROSE
FOUNDATION**
for COMMUNITIES
and the ENVIRONMENT

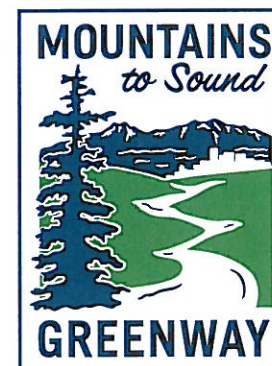
The Puget Sound Stewardship and Mitigation Fund, a grantmaking fund created by the Puget Soundkeeper Alliance and administered by the Rose Foundation for Communities and the Environment.

Moutains to Sound Greenway Trust

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This journal belongs to:

My teacher's name is:

My school is:

My role is:

Show Us What You Know

1. Can you name 4 different uses for forest lands? *4 points*

a. _____

b. _____

c. _____

d. _____

2. Why is it important to protect (conserve) forests? *3 points*

3. Conservationists are people who protect forests. What problems or obstacles might they face? *3 points*

4. Why is it important to develop forests? (For example: building houses, schools, roads, sports fields, etc.) *3 points*

These questions are to see how much you learn over the course of these lessons. Don't worry if you don't know the answers!

Date: _____

5. Developers are people who build houses, roads, schools, sports fields, etc. What problems or obstacles might they face? *3 points*

6. What does mitigate mean? Can you name an example? *4 points*

7. Which of the neighborhoods below is better for the forest? *5 points*

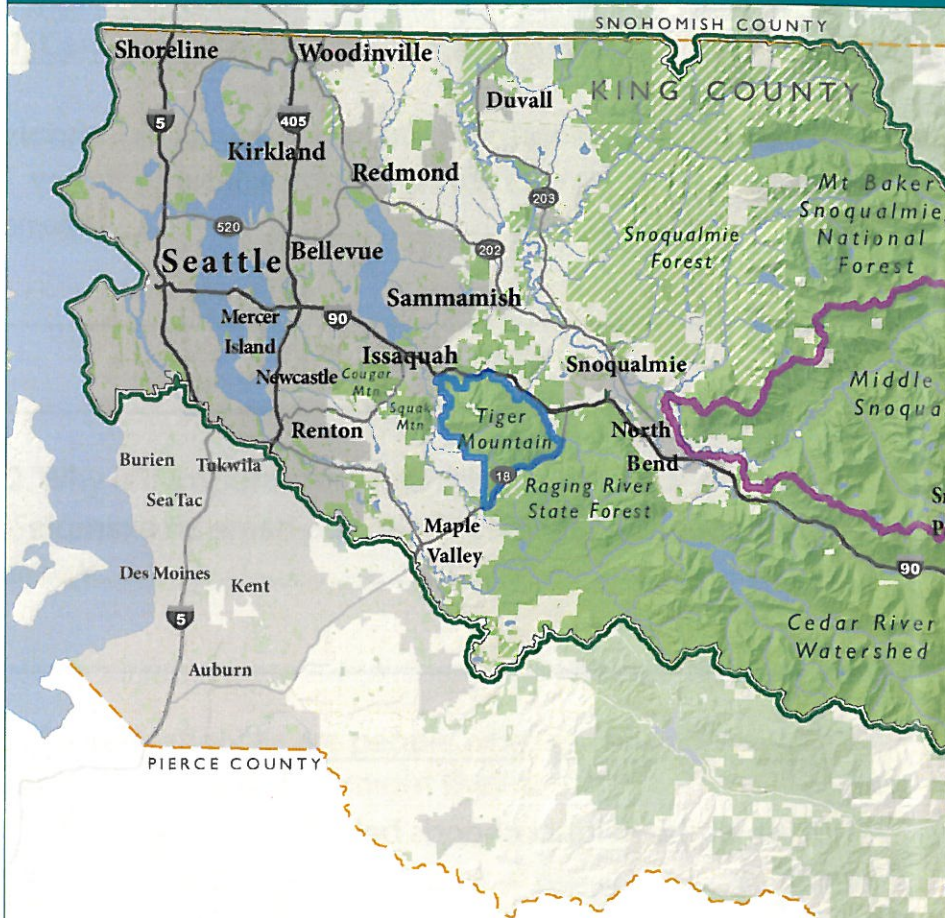
Spread-out Housing



Dense Housing



Where Are We in the Greenway?

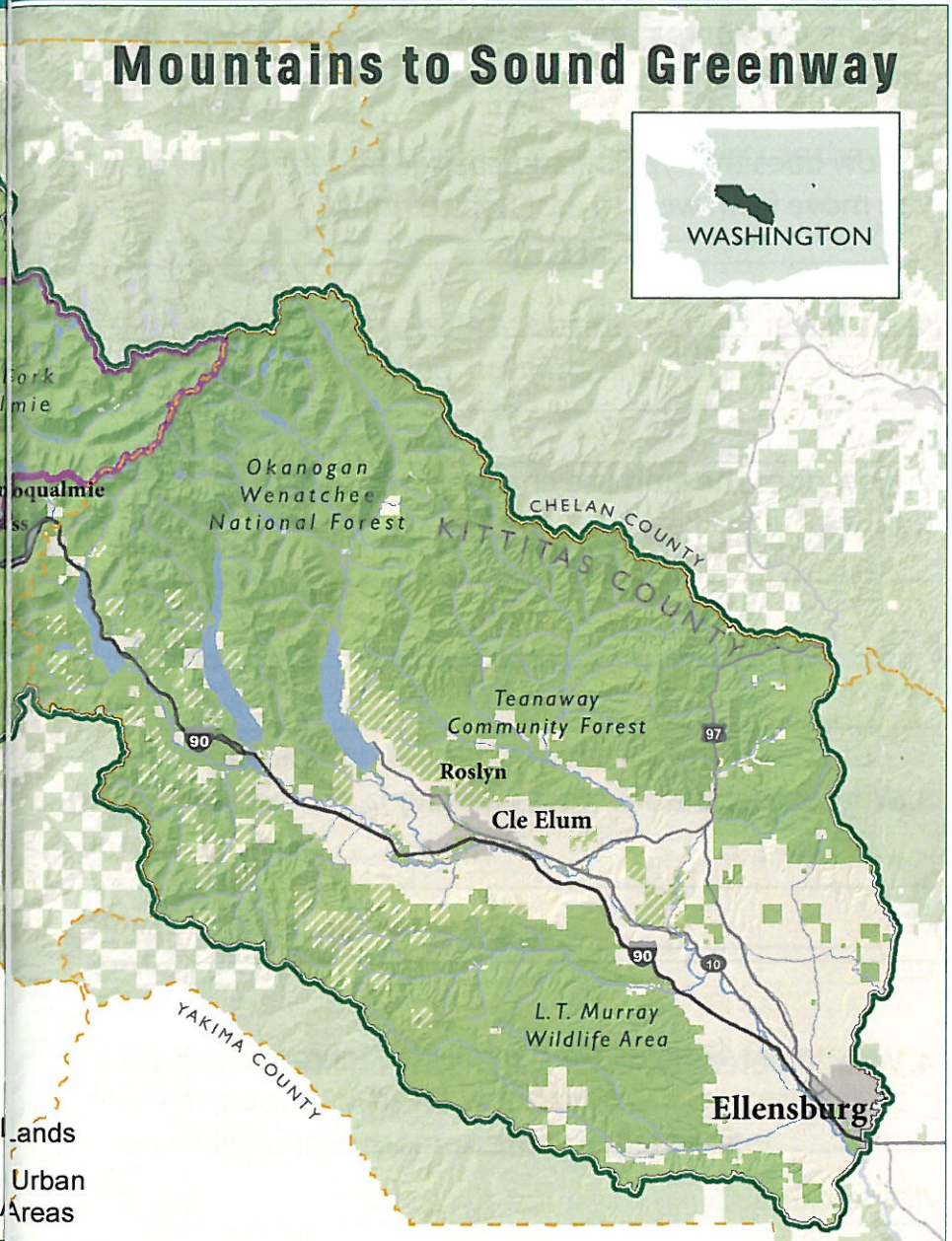


*Tiger Mountain State Park is 13,745 acres

- | | | |
|--------------------------------------|-----------------------------------|-----------------------------|
| Mountains to Sound Greenway Boundary | Public Lands | Rural Private Lands |
| County Boundaries | Conserved Private Farms & Forests | Cities & Urban Growth Areas |

- 1) Find your school and Tiger Mountain on the map.
- 2) Find the Middle Fork (the place you saw in the video)

Mountains to Sound Greenway



Map Questions

Use the map on pages 3-4 to answer the following questions.

1. How does the type of land change as you move from west to east (left to right)?

2. How does the land use change from west to east (left to right)? (Use the key)

3. Where are the cities? (Use the key)

4. What different types of water can you find?

Show Your Opinions!

Read the following statements and mark on the continuum with a X if you agree or disagree.

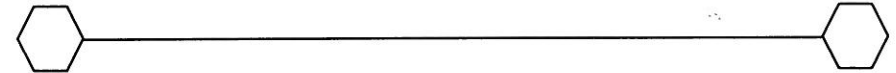
1. It is important for people to conserve forests as they are.



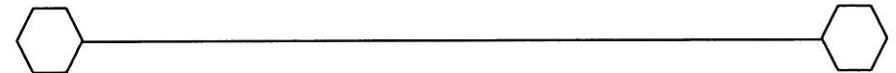
2. It is important for people to be able to use the forests for recreation: hiking, fishing, hunting, and camping.



3. It is important for people to be able to get wood products from forests.



4. It is important for people to harvest some forests to build more homes, shopping malls, schools, playfields, and farms.



5. It is important for people to be able to use forests in different ways such as for wood products, recreations, clean air and water, homes, and wildlife habitat.



Disagree

Agree

Land Use Goals



Wildlife Protection



Conserving forests and other habitats as they are to protect the wildlife that live there.



Low Impact Recreation



Fun human activities that require the use of the environment, but have a small impact on it.



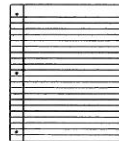
High Impact Recreation



Fun human activities that require the use of the environment, but have a larger impact on it.



Timber Harvesting



Cutting down trees and using the wood to make products for humans.

Land Use Goals



Development



Cutting down trees and changing the landscape to build businesses, houses, schools, and roads.



Air Quality



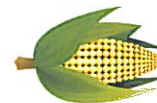
Conserving forests because trees and other plants are very good at filtering and cleaning the air.



Water Quality



Conserving forests because trees and other plants are very good at filtering and cleaning the water.



Agriculture



Cutting down trees and changing the landscape to grow food and/or livestock.

Welcome to the Tiger Mountain forest ecosystem!

This 14,000-acre forest is home to a wide variety of plants and animals.
Please keep this in mind while visiting!

Practice 'Leave No Trace' principles by packing out your trash, leaving what you find where you find it, respecting wildlife, and being considerate of other visitors.



How would you describe the cloud cover?



What is the temperature?

_____ °C / _____ °F
cold / cool / warm / hot



TREES:

- ☐ Western Redcedar
- ☐ Douglas-Fir
- ☐ Western Hemlock
- ☐ Bigleaf Maple
- ☐ Vine Maple
- ☐ Red Alder
- ☐ Cottonwood

FERNS:

- ☐ Sword Fern
- ☐ Licorice Fern
- ☐ Bracken Fern

MOSSES & LICHENS:

- ☐ Moss
- ☐ Lichen

SHRUBS:

- ☐ Osoberry
- ☐ Horsetail
- ☐ Salal
- ☐ Oregon Grape
- ☐ Devil's Club
- ☐ Stinging Nettle
- ☐ Bleeding Heart
- ☐ Red Huckleberry
- ☐ Salmonberry

INVASIVE PLANTS:

- ☐ English Ivy
- ☐ English Holly
- ☐ Stinky Bob
- ☐ Scotch Broom
- ☐ Creeping Buttercup
- ☐ Himalayan Blackberry

Use these pages to record your abiotic and biotic observations.
(Find something not on the list? Record it on page 11-12!)

Date: _____ Time: _____ Season: _____



- | | |
|-------------------------------|---------------------------------|
| <input type="checkbox"/> Rain | <input type="checkbox"/> Stream |
| <input type="checkbox"/> Snow | <input type="checkbox"/> Lake |
| <input type="checkbox"/> Mist | <input type="checkbox"/> Swamp |

- | | |
|-------------------------------|------------------------------------|
| <input type="checkbox"/> Clay | <input type="checkbox"/> Mud |
| <input type="checkbox"/> Loam | <input type="checkbox"/> Gravel |
| <input type="checkbox"/> Sand | <input type="checkbox"/> Big Rocks |



MAMMALS:

- ☐ Douglas' Squirrel
- ☐ Chipmunk
- ☐ Black-Tailed Deer
- ☐ Mouse
- ☐ Black Bear

BIRDS:

- ☐ Crow
- ☐ Raven
- ☐ Woodpecker
- ☐ American Robin
- ☐ Hummingbird
- ☐ Mallard
- ☐ Pacific Wren
- ☐ Osprey
- ☐ Bald Eagle
- ☐ Red-Tailed Hawk

FUNGI:

- ☐ Shelf-Type Fungi
- ☐ Mushroom-Type Fungi
- ☐ Jelly-Type Fungi

INVERTEBRATES:

- ☐ Banana Slug
- ☐ Black Slug (invasive!)
- ☐ Brown Slug (invasive!)
- ☐ Snail
- ☐ Earthworm
- ☐ Yellow-Spotted Millipede
- ☐ Fly
- ☐ Ant
- ☐ Beetle
- ☐ Spider

Notes & Observations

Notes & Observations



Scientists

Your job today is to gather data about the forest and share your findings with the Conservationists or the Developers. You will use this data to support your argument.

Use the tools your Greenway Educator provides to complete the following survey!

WATER

What types of water sources are in this forest? (Mark next to each option present)

- _____ Lake
- _____ Streams
- _____ Swamp
- _____ Wetlands
- _____ Snow Pack

Why are these water sources important for Conservationists and Developers to know about?



***Look back to pages 9-10 to help you answer the questions below.**

SOIL

What type of soil did you find? (*Circle the answer*)

Loamy Silt Sand Clay

Follow the directions of your Greenway Educator to find the pH of the soil.

Soil pH _____

PLANTS

Thinking about the forest understory and floor, are more of the plants native or invasive?

Native # _____ Invasive # _____

AIR

Lichen is an indicator of clean air.
Is lichen present?

YES _____ NO _____



Go to pages 19-20 to form your argument



Developers

Your job today is to convince the Land Managers to sell you the land so you can build new places (schools, playgrounds, houses, businesses, and roads.)

Use the information the Scientists gave you to answer the following questions. Then use pages 19-20 to develop an argument as to why the forest should be developed.

Priority Land Uses

(Look back at pages 7-8 for descriptions)

Timber Harvesting	Agriculture
High Impact Recreation	Development

Why do we need development?



1. Is the forest near highways for easy access for construction materials?

YES _____

NO _____

2. Are the trees in the forest mostly Douglas-fir, Western Redcedar, and Western Hemlock? *These three trees are great for harvesting.

YES _____

NO _____

3. Is the land level?

YES _____

NO _____

4. Are there lakes, streams, swamps, or wetlands? *If so, trouble!

YES _____

NO _____

5. Are there any endangered or threatened species living in the forest? *If so, trouble!

YES _____

NO _____

6. Measure the circumference of 3 trees. How big are they? *Trees need to be at least 19 inches around to be harvested.

Go to pages 19-20 to form your argument



Conservationists

Your job today is to convince the Land Managers to conserve the land for the ecosystem services it provides as well as for the wildlife that live here.

Use the information the Scientists gave you to answer the following questions. Then use pages 19-20 to develop an argument as to why the forest should be conserved.

Priority Land Uses

(Look back at pages 7-8 for descriptions)

Low Impact Recreation	Water Quality
Air Quality	Wildlife Protection

Why is it important to conserve forests?



1. Do the water sources support salmon migration? How?

2. Is the land large enough to sustain black bear migration routes? *Black bears have a territory of 7,000 acres

YES _____

NO _____

3. Are there roads nearby? *If so, trouble for wildlife!

YES _____

NO _____

5. How do people use this area for low impact recreation?

6. What animal evidence have you seen?

7. Are any of those animals endangered or threatened?

YES _____

NO _____

Go to pages 19-20 to form your argument



Time to Form Your Argument

1. What will you do with the forest?

2. What data supports your argument?

3. How will you mitigate for the trouble spots?

You can use this space to sketch your ideas.

Land Managers' Decision



Time to Discuss!

Conservationists and Developers will now get 5 minutes each to present their case on why the Land Managers should conserve or develop Tiger Mountain.

Remember to use your data to strengthen your argument.

Scientists, your job during this discussion is to be our experts. Conservationists, Developers, and Land Managers will ask you to provide facts during the discussion. If you hear someone report a fact falsely, please politely correct them!

What did the Land Managers decide to do with Tiger Mountain? *(Please circle one of the following)*

DEVELOP

CONSERVE

Reflect on the Decision

You can now step out of your roles to answer the following questions.

1. Before the hike and debate I wanted to conserve/develop (circle one) the forest. After the hike and debate I want to conserve/develop (circle one) the forest.

2. Did you change your mind?

YES _____

NO _____

3. Did you agree or disagree with the argument you had to make as a Conservationist or Developer? Why?

4. Do you agree or disagree with the decision the Land Managers made? Why?

Show Us What You Know... Again!

1. Can you name 4 different uses for forest lands? *4 points*

a. _____

b. _____

c. _____

d. _____

2. Why is it important to protect (conserve) forests? *3 points*

3. Conservationists are people who protect forests. What problems or obstacles might they face? *3 points*

4. Why is it important to develop forests? (For example: building houses, schools, roads, sports fields, etc.) *3 points*

Date: _____

5. Developers are people who build houses, roads, schools, sports fields, etc. What problems or obstacles might they face? *3 points*

6. What does mitigate mean? Can you name an example? *4 points*

7. Which of the neighborhoods below is better for the forest? *5 points*

Spread-out Housing



Dense Housing



Reflect on the Process

Think back to your time on Tiger Mountain and the activity we did there.

1. What went well? What didn't? Please comment.

2. Did you feel like your voice was heard throughout the process? Why or why not?

3. Did your team work well together? Why or why not?

Date: _____

4. What about this activity is like the real world? What is not?

5. Why are discussions like this valuable?
