CHOICES FOR OUR LAND AND WATER



A Survey of Kennebunk, Sanford and Wells Residents Sponsored by the Wells National Estuarine Research Reserve and Clark University

LAND AND WATER IN SOUTHERN MAINE

What happens on land in Maine affects its rivers and streams. **The area where land meets the water is called riparian land.** Riparian land within **300 feet** of the water is considered most important by scientists.



Natural Riparian Land

Partially Cleared Riparian Land

Natural riparian land in southern Maine is forested, with trees and low-level plants. This land provides a number of services. For example, riparian land:

- Filters out pollutants before they reach the water
- Prevents erosion and collapse of river banks
- Prevents flooding of homes and property by absorbing flood waters
- Improves habitat for fish, birds and other wildlife
- Provides natural scenery for residents and visitors.

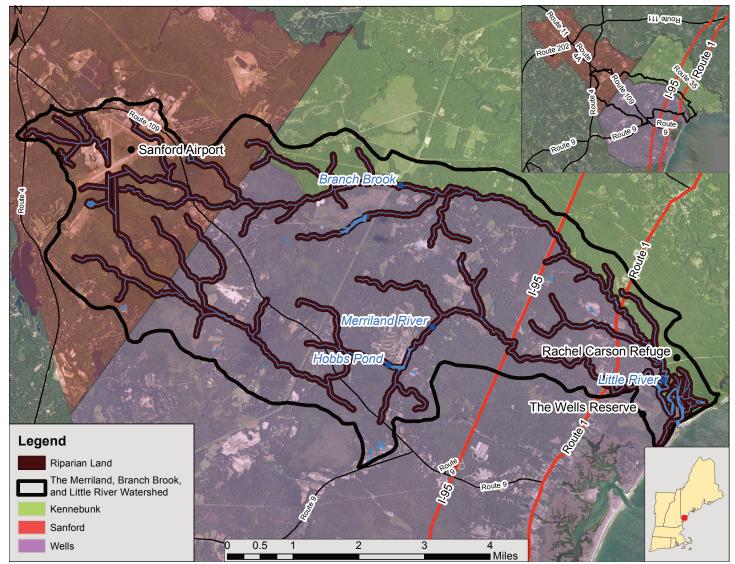
When this land is cleared or developed, many of these services decline.

This survey asks for your opinions about how riparian land is managed in areas surrounding the Merriland, Branch Brook, and Little Rivers in your area.

Your answers will help public officials and nonprofit organizations decide how to manage this land.

RIPARIAN LAND IN KENNEBUNK, SANFORD AND WELLS

The map below shows the area addressed by this survey. This includes all land that drains into the **Merriland, Branch Brook**, and **Little Rivers** within Kennebunk, Sanford and Wells.

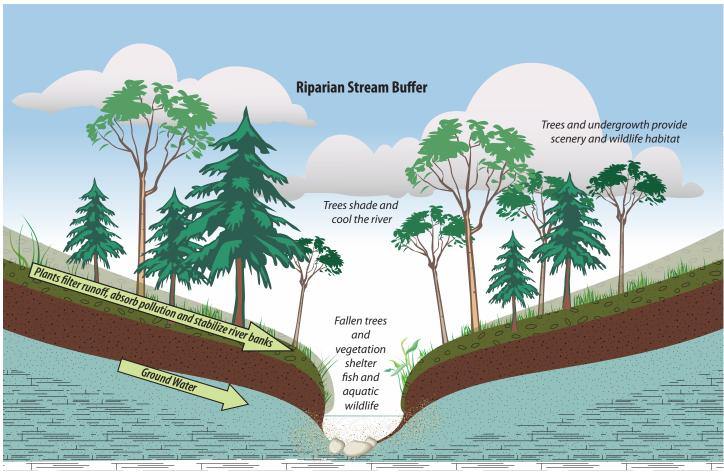


The Merriland, Branch Brook, and Little River (MBLR) Watershed

Across this area there are about **4,700 acres** of land within 300 feet of a river or stream. This area is shown as Riparian Land on the map. **4,300 acres** of this riparian land are covered by trees and natural vegetation. The remaining 400 acres have been developed or cleared.

WHAT RIPARIAN LAND DOES

The figure below illustrates some of the main natural services provided by riparian land, such as absorbing pollution, improving wildlife habitat and providing natural scenery.



Natural Services of Riparian Land

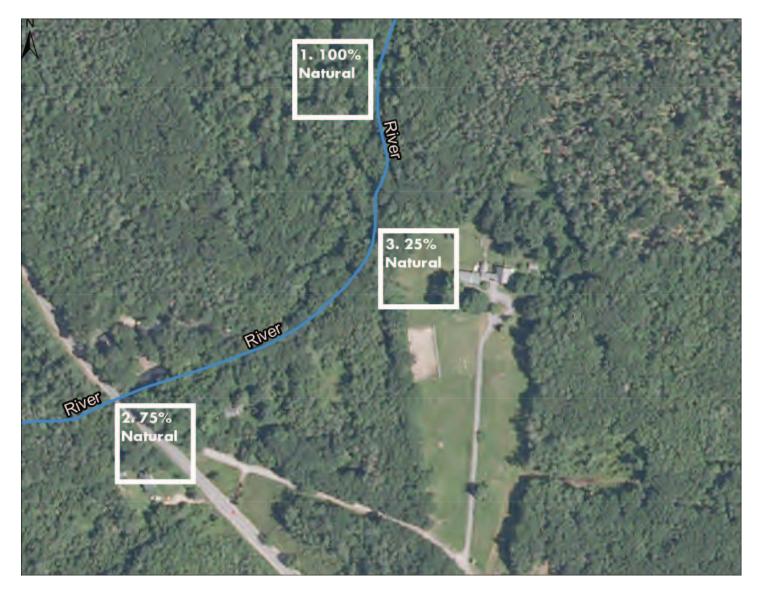
Development in Kennebunk, Sanford, and Wells is removing trees and vegetation on more riparian land each year. This is affecting scenery, river ecosystems, fish, and water quality. Because of this, some people have called for additional restrictions on clearing and development of this land. At the same time, other people do not want the development rights of private landowners to be further restricted.

HOW DEVELOPMENT IS AFFECTING RIPARIAN LAND

Development and clearing is already restricted on riparian land in Maine, but some occurs anyway. Development and clearing often happens when people want to expand lawns, improve their view of the river, or add a dock.

Riparian land development is occurring at a rate of about **5%** every **10 years**. Already, nearly 10% of riparian land has been developed.

The image below shows the difference between natural and developed riparian land. In square 1, **100%** of riparian land is covered by natural vegetation. In squares 2 and 3, approximately **75%** and **25%** of the land, respectively, is covered by natural vegetation. The rest has been developed or cleared.



PROTECTION RIPARIAN LAND

Public and private agencies in Maine are considering options to protect natural riparian land in Kennebunk, Sanford and Wells. These include:

- **Purchase and protection** of undeveloped riparian land by land trusts, environmental organizations or government agencies.
- **Restoration** of riparian land that has already been developed or cleared. These activities are supported by public and private organizations.
- **Increased restrictions on development** near rivers. Development and clearing is now restricted within a minimum distance of 100 feet from rivers and 25 feet from streams. The size of this restricted area could be increased.
- **Increased enforcement of existing restrictions.** Sometimes development on riparian land occurs in ways that violate state and local regulations. Enforcement of existing regulations could be enhanced, for example by allowing more inspections.

All of the options to protect natural riparian land require tradeoffs. For example, some options are costly, and others can restrict how people use private land.

Question 1. When considering options to protect natural riparian land, how important to you is each of the following? Check one box for each.

		Not at All Important		Moderately Important		Very Important
a.	Government respects the right of private landowners to use and develop their land	1.	2.	3.	4.	5.
b.	Water quality is protected in lakes, rivers and streams	1.	2.	3.	4.	5.
C.	The local environment is protected	1.	2.	3.	4.	5.
d.	Taxes and fees paid by my household do not increase	1.	2.	3.	4.	5.
e.	Existing regulations are enforced fairly and effectively	1.	2.	3.	4.	5.
f.	Existing uses of private land are grandfathered, so that they are not subject to new restrictions	1.	2.	3.	4.	5.

TRADEOFFS PROTECTING RIPARIAN LAND

The following pages will allow you to vote for or against different options that might be used to protect natural riparian land in Kennebunk, Sanford and Wells. Your answers will help public officials and nonprofit organizations understand the tradeoffs that are most acceptable to you.

Each question will ask you to compare different future scenarios, each with different effects on:



Natural Riparian Land (how much of it remains in natural condition)



River Ecology (the ecological condition of local rivers)



Recreational Fish (the number of recreational fish living in area rivers)



Safe Swimming (the percentage of days that area beaches are safe to swim)



Development Setback (the width of riparian area in which development is restricted)



Enforcement (whether existing enforcement and land inspections are increased)



Cost to your household each year (taxes and fees to pay for new programs)

Without any action, natural conditions will decline. If sufficient actions are taken to protect the natural condition of riparian land, these conditions will stay the same or improve.

Question 2. In general, do you support greater use of development setbacks and land inspections to limit future development on riparian land?

1. Yes 2. No 3. I'm not sure

Question 3. In general, do you support voluntary partnerships between government and private landowners to restore natural riparian land?



COMPARING PROTECTION OPTIONS

The upcoming questions will ask you to compare different ways of protecting riparian land in Kennebunk, Sanford and Wells, and vote for the ones you prefer. You may also vote to reject the proposed programs and retain the status quo. Effects of each option will be described by the following effects, as estimated by scientists:

Effect	What it Means
Natural Riparian Land	The amount of riparian land covered by natural vegetation. Currently about 91% of the land is in natural condition. With no action 85% of riparian land in the area (4000 acres) will remain in natural condition in 5-10 years.
River Ecology	Average ecological condition of area rivers, measured by the diversity of small organisms (dragonflies, mayflies, etc.) that live there. A score of 100% is the best possible condition in the area. A score of 0% means nothing lives in the water. With no action, the ecological condition in area rivers will be 55% in 5-10 years. The score today is about 60%.
Recreational Fish	The number of recreational fish in area rivers, measured by scientific sampling of brook trout. A score of 100% would mean that area rivers contain the maximum number of trout possible (30 trout per 1000 sq. feet). Today there are about 19 trout per 1000 sq. feet. With no action, scientists predict there will be an average of 17 trout per 1000 sq. feet (55% of the most possible) in 5-10 years.
S afe Swimming	The percentage of days in which government tests show that area beaches (Laudholm, Drakes Island, Crescent Surf, and Parson) are safe for swimming. 100% means that all tests show water safe for swimming. With no action, scientists predict 85% of tests will show water safe for swimming in 5-10 years.
Development Setback	The minimum width of the riparian area where development is restricted. Cur- rently development and clearing is restricted within a minimum distance of 100 feet from rivers and 25 feet from streams . This distance is larger in some areas and for some types of development. Existing (legal) development would be grandfathered if setbacks change.
Enforcement	Whether enforcement is increased to prevent illegal development or clearing on riparian land. This could include inspections on private land if violations are suspected. Currently, inspections can only occur when a violation has been reported or as part of permitting.
S Cost to your Household per Year	How much the policy will cost your household in unavoidable annual taxes and fees. These are guaranteed to only be spent on the protection option that is indicated.

YOU WILL BE ASKED TO VOTE

After considering the current situation and possible protection effects and methods, which do you prefer? You will be given choices and asked to vote for the option you prefer by checking the appropriate box. **Questions will look similar to the sample below.**

SAMPLE QUESTION:

Method or Effect of Protection	In 5-10 years under the Current Situation	In 5-10 years under Option A	In 5-10 years under Option B
Riparian Land Condition	85%	87%	95%
	4000 out of 4700 riparian	4100 out of 4700 riparian	4500 out of 4700 riparian
	acres covered by natural	acres covered by natural	acres covered by natural
	vegetation	vegetation	vegetation
River Ecology	55% of best possible (100%) ecological condition	85% of best possible (100%) ecological condition	85% of best possible (100%) ecological condition
Recreational Fish	55%	75%	55%
	17 out of 30 possible fish	23 out of 30 possible fish	17 out of 30 possible fish
	per 1000 sq. feet	per 1000 sq. feet	per 1000 sq. feet
Safe Swimming	85%	95%	85%
	of beach tests meet safe	of beach tests meet safe	of beach tests meet safe
	swimming guidelines	swimming guidelines	swimming guidelines
Development Setback	100 feet	150 feet	100 feet
	required between	required between	required between
	development and rivers;	development and rivers;	development and rivers;
	25 feet for streams	75 feet for streams	25 feet for streams
Enforcement	No Change	No Change	Increased
	in enforcement and	in enforcement and	enforcement and
	inspections	inspections	inspections
			Inspections
S	\$0	\$45	\$5
Cost to your Household per	Increase in Annual Taxes	Increase in Annual Taxes	Increase in Annual Taxes
Year	or Fees	or Fees	or Fees
	Increase in Annual Taxes	\$45 Increase in Annual Taxes	\$5 Increase in Annual Taxes

AS YOU VOTE, REMEMBER THESE IMPORTANT DETAILS

- There are 3 voting questions, each on a different page. <u>Do not add up or compare options</u> from different pages. Only choose among options on that page.
- There are different ways to protect and restore the condition of riparian land. Costs and effects depend on many factors. Policies that affect a larger area will not always have larger effects or cost more.
- Review each question carefully. The results of this survey will be given to town planners in Kennebunk, Sanford, and Wells to help determine future actions.
- <u>Costs to your household would range from \$0 to \$60 per year</u>, depending on the option. Assume that all funds are legally guaranteed to be used for the described programs.
- The "Current Situation" shows future condition in 5-10 years with no change in current policies.
- The map on page 2 has an area marked "Riparian Land" where most changes would occur.
- When voting, assume that the option receiving the most votes will be enacted.
- All plans include a combination of activities such as restoration and additional protection of riparian land.

QUESTION 4

OPTION A and **OPTION B** are possible protection options for the area surrounding the Merriland, Branch Brook, and Little River. The current situation is the status quo with **NO NEW PROTECTION**.

Given a choice between the three, how would you vote?

Method or Effect of Protection	In 5-10 years under the Current Situation	In 5-10 years under Option A	In 5-10 years under Option B
Riparian Land Condition	85%	87%	95%
	4000 out of 4700 riparian	4100 out of 4700 riparian	4500 out of 4700 riparian
	acres covered by natural	acres covered by natural	acres covered by natural
	vegetation	vegetation	vegetation
River Ecology	55% of best possible (100%) ecological condition	85% of best possible (100%) ecological condition	85% of best possible (100%) ecological condition
Recreational Fish	55%	75%	55%
	17 out of 30 possible fish	23 out of 30 possible fish	17 out of 30 possible fish
	per 1000 sq. feet	per 1000 sq. feet	per 1000 sq. feet
S afe Swimming	85% of beach tests meet safe swimming guidelines	95% of beach tests meet safe swimming guidelines	85% of beach tests meet safe swimming guidelines
Development Setback	100 feet	150 feet	100 feet
	required between	required between	required between
	development and rivers;	development and rivers;	development and rivers;
	25 feet for streams	75 feet for streams	25 feet for streams
Enforcement	No Change	No Change	Increased
	in enforcement and	in enforcement and	enforcement and
	inspections	inspections	inspections
\$	\$0	\$45	\$5
Cost to your Household per	Increase in Annual Taxes	Increase in Annual Taxes	Increase in Annual Taxes
Year	or Fees	or Fees	or Fees
HOW WOULD YOU VOTE? (CHOOSE ONLY ONE) I vote for	NO NEW PROTECTION	l vote for OPTION A	l vote for OPTION B

As you consider the following question please remember

Questions 5 and 6 each present a new set of options for the Merriland, Branch Brook, and Little River Watersheds.

- These options use different methods or affect different areas.
- Each question is a separate vote. Questions 5 and 6 <u>cannot</u> be directly compared to each other or to Question 4.
- Do not add up protection effects, methods or costs across different questions.
- Costs and effects depend on many factors. Protecting a larger area does not necessarily mean that all effects will improve or that costs will be higher.



QUESTION 5

OPTION A and **OPTION B** are possible protection options for the area surrounding the Merriland, Branch Brook, and Little River. The current situation is the status quo with **NO NEW PROTECTION**.

Given a choice between the three, how would you vote?

Method or Effect of Protection	In 5-10 years under the Current Situation	In 5-10 years under Option A	In 5-10 years under Option B
Riparian Land Condition	85%	87%	90%
	4000 out of 4700 riparian	4100 out of 4700 riparian	4200 out of 4700 riparian
	acres covered by natural	acres covered by natural	acres covered by natural
	vegetation	vegetation	vegetation
River Ecology	55% of best possible (100%) ecological condition	75% of best possible (100%) ecological condition	75% of best possible (100%) ecological condition
Recreational Fish	55%	65%	65%
	17 out of 30 possible fish	20 out of 30 possible fish	20 out of 30 possible fish
	per 1000 sq. feet	per 1000 sq. feet	per 1000 sq. feet
S afe Swimming	85%	90%	90%
	of beach tests meet safe	of beach tests meet safe	of beach tests meet safe
	swimming guidelines	swimming guidelines	swimming guidelines
Development Setback	100 feet	100 feet	200 feet
	required between	required between	required between
	development and rivers;	development and rivers;	development and rivers;
	25 feet for streams	25 feet for streams	125 feet for streams
Enforcement	No Change	No Change	No Change
	in enforcement and	in enforcement and	in enforcement and
	inspections	inspections	inspections
\$	\$0	\$45	\$30
Cost to your Household per	Increase in Annual Taxes	Increase in Annual Taxes	Increase in Annual Taxes
Year	or Fees	or Fees	or Fees
HOW WOULD YOU VOTE? (CHOOSE ONLY ONE) I vote for	NO NEW PROTECTION	l vote for OPTION A	l vote for OPTION B

QUESTION 6

OPTION A and **OPTION B** are possible protection options for the area surrounding the Merriland, Branch Brook, and Little River. The current situation is the status quo with **NO NEW PROTECTION**.

Given a choice between the three, how would you vote?

Method or Effect of Protection	In 5-10 years under the Current Situation	In 5-10 years under Option A	In 5-10 years under Option B
Riparian Land Condition	85%	87%	87%
	4000 out of 4700 riparian	4100 out of 4700 riparian	4100 out of 4700 riparian
	acres covered by natural	acres covered by natural	acres covered by natural
	vegetation	vegetation	vegetation
River Ecology	55% of best possible (100%) ecological condition	85% of best possible (100%) ecological condition	55% of best possible (100%) ecological condition
Recreational Fish	55%	65%	55%
	17 out of 30 possible fish	20 out of 30 possible fish	17 out of 30 possible fish
	per 1000 sq. feet	per 1000 sq. feet	per 1000 sq. feet
S afe Swimming	85% of beach tests meet safe swimming guidelines	90% of beach tests meet safe swimming guidelines	95% of beach tests meet safe swimming guidelines
Development Setback	100 feet	150 feet	200 feet
	required between	required between	required between
	development and rivers;	development and rivers;	development and rivers;
	25 feet for streams	75 feet for streams	125 feet for streams
Enforcement	No Change	No Change	No Change
	in enforcement and	in enforcement and	in enforcement and
	inspections	inspections	inspections
S	\$0	\$30	\$30
Cost to your Household per	Increase in Annual Taxes	Increase in Annual Taxes	Increase in Annual Taxes
Year	or Fees	or Fees	or Fees
HOW WOULD YOU VOTE? (CHOOSE ONLY ONE) I vote for	NO NEW PROTECTION	l vote for OPTION A	l vote for OPTION B

Question 7. Indicate how strongly you agree or disagree with the following statements. Check one box for each.

		Strongly Disagree		Neutral		Strongly Agree
a.	This survey provided enough information for me to make informed choices.	1.	2.	3.	4.	5.
b.	l feel confident about my answers.	1.	2.	3.	4.	5.
C.	Information in the survey was easy to understand.	1.	2.	3.	4.	5.
d.	Information in the survey was fair and balanced.	1.	2.	3.	4.	5.
e.	Questions were easy to answer.	1.	2.	3.	4.	5.
f.	I would vote in the same way on a public vote or referendum.	1.	2.	3.	4.	5.
g.	I believe that there are too many government restrictions on the use and development of private land.	1.	2.	3.	4.	5.
h.	I believe that there are too few government restrictions on the use and development of private land.	1.	2.	3.	4.	5.
i.	Scientific predictions of future conditions are always highly uncertain.	1 .	2.	3.	4.	5.

Question 8. How many times did you participate in the following during the last year? Please include activities ONLY IN MAINE. For trips longer than one day, count each day separately. Check one box for each.

	The num	nber of times	you did the a	ctivity in the p	oast year
	0	1-5	6-10	11-15	16+
a. Recreational Fishing	1.	2.	3.	4.	5.
b. Boating, canoeing, or kayaking	1.	2.	3.	4.	5.
c. Watching/photographing wildlife	1.	2.	3.	4.	5.
d. Swimming or sunbathing	1.	2.	3.	4.	5.
e. Picnicking	1.	2.	3.	4.	5.
f. Hiking or bicycling	1.	2.	3.	4.	5.

Question 9. Do you own land on a river or stream that might be affected by changes in development setbacks or inspections?

1. Y	es	2. No	3	3. I'm	not sure
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Question 10. How do you feel about the protection of river ecology in your area? Check the box that most closely reflects your values.

- Protection of river ecology is important to me mostly for its own sake, not because of other environmental effects that might result.
 Protection of river ecology is important to me both for its own sake, and because of other environmental effects that might result.
 Protection of river ecology is important to me mostly because of other environmental effects that might result.
 Protection of river ecology is important to me mostly because of other environmental effects that might result.
 Brotection of river ecology is important to me mostly because of other environmental effects.
 - **Protection of river ecology is not important** to me for any reason.
 - 5. Other (please explain):

Question 11. Indicate how strongly you agree or disagree with the following statements. Check one box for each.

		Strongly Disagree		Neutral		Strongly Agree
a.	To maintain a high quality of life in Maine, it is important to balance development with preservation and conservation.	1.	2.	3.	4.	5.
b.	I have heard of the Shoreland Protection Act.	1.	2.	3.	4.	5.
C.	I understand the goals of the Shoreland Protection Act.	1.	2.	3.	4.	5.
d.	There is sound scientific research that supports current zoning regulations on riparian land.	1.	2.	3.	4.	5.
e.	I consider myself a custodian of the land.	1.	2.	3.	4.	5.
f.	Regulations are needed to protect shoreland and clean water in York County.	1.	2.	3.	4.	5.
g.	It is equally important to protect private property rights and clean water.	1 .	2.	3.	4.	5.
h.	The long-term protection of the environment is more important than the right of an individual property owner to develop his/her property.	1.	2.	3.	4.	5.

The following questions ensure that all groups are fairly represented.

All answers are confidential.

12.	What is your gender?1. Male2. Female
13.	What is your age? years
14.	What is the highest level of education you completed?1. Less than High School4. 2-year college degree2. High School/GED5. 4-year college degree3. Some college6. Graduate degree (MS, PhD, etc.)
15.	Do you live in the Merriland, Big Branch and Little River Watershed (see map on page 2)?
16.	How long have you been a Maine resident? years
17.	Are you currently employed?
18.	What category best describes your total household annual income? 1. Less than \$10,000 5. \$60,000 to \$79,999 2. \$10,000 to \$19,999 6. \$80,000 to \$99,999 3. \$20,000 to \$39,999 7. \$100,000 to \$249,999 4. \$40,000 to \$59,999 8. \$250,000 or more
19.	Do you or anyone in your immediate household belong to any of the following? (Check all that apply)

1. Environmental organizations (Laudholm Trust, World Wildlife Fund, etc.)

Outdoor sporting or recreational fishing associations (Ducks Unlimited, Recreational ² Fishing Alliance, etc.)

3. Business-related organizations (chambers of commerce, etc.)

- 20. What is your zip code? _____
- 21. How many people live in your household?

COMMENTS

Please use the space below for any additional comments.

Thank you for participating in this important survey! Please mail it back to us in the postage-paid envelope.

If you have questions about this project, please contact **Dr. Robert J. Johnston** at Clark University (wells_survey@clarku.edu or (508) 751-4609).

