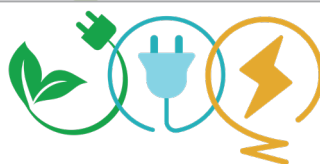




*Pictured:
A large tree
that fell to the
ground off of Iron
Mountain Road*



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**Sussex Rural
Electric Cooperative, Inc.**
A Touchstone Energy® Cooperative

SREC's Member Newsletter

Volume 2, Issue 1

Currents

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Tree Trimming Improves Service For All



By Chris Reese, President & CEO
contactthceo@sussexrec.com

What most people love best about our community is the natural beauty that surrounds us. Sussex Rural Electric Cooperative strives to balance maintaining beautiful surroundings and ensuring a reliable power supply by keeping power lines clear. This is how we are able to provide our members with the most reliable power at the lowest possible cost.

Vegetation Management is the Co-op's largest yearly expense. Trees, shrubs, and brush growing too close to power lines and distribution equipment leads to 70 percent of SREC outages. SREC invests over \$1 million annually into vegetation management, tree trimming, and tree removal.

To "cut back" on potential tree-related problems, SREC operates an aggressive vegetation management program and currently has contracts with multiple tree companies to trim the cooperative

service territory's 700+ miles of lines. Our tree-trimming contractors look for incompatible foliage growing under lines, dead overhanging branches, trees that could grow into lines, and other types of "danger" trees that could pose a hazard to the power lines. Over the last few years, the number of vegetation-related outages has increased.

This increase over the last few years stems from a variety of factors impacting our area. For one, increasing climate threats and more erratic weather patterns have made our region much more susceptible and vulnerable to weather events in recent years. We've seen stronger and more frequent storms in our area and have had to reckon with their aftereffects. Some organizations like the Environmental

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Protection Agency have speculated that weather is becoming more extreme due to a shifting climate. These powerful storms have weakened many trees, making them more prone to being knocked down and risking contact

with overhead power lines.

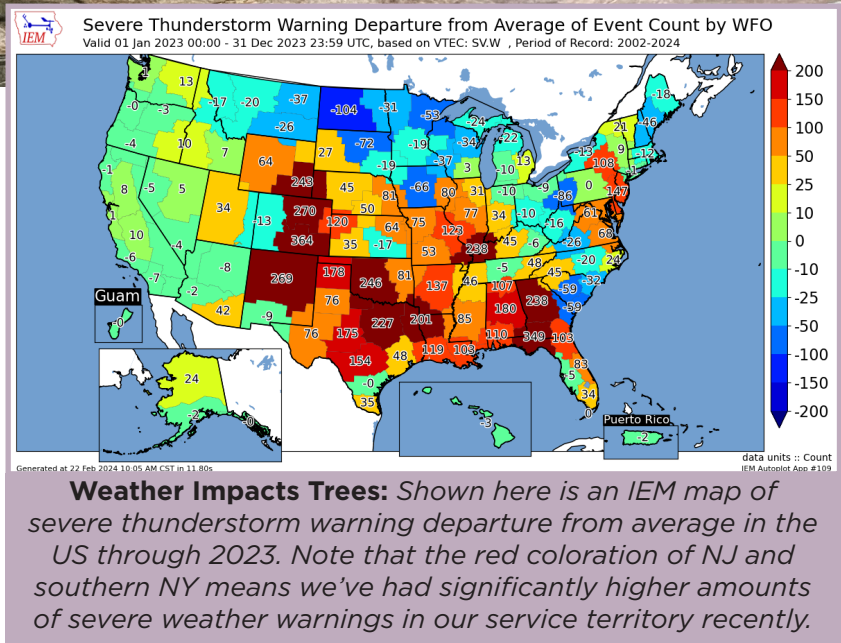
The emerald ash borer has almost eradicated the entire population of the ash species in the area. Combined with multiple other environmental factors, there have been many whole and partial tree failures within and outside of the right of way. Ash trees are more susceptible to breaking apart once the borer has killed the tree. The quick mortality of trees that contain the ash borer also brings other animals that cause damage to the tree looking for the borer for food. Once ash trees in wetlands, poorly drained areas, and areas with substantial amounts of runoff die, they quickly

The Emerald Ash Borer



The emerald ash borer is native to Asia. They lay their eggs in the cracks of ash trees, which are abundant in our area. Once hatched, their larvae burrow through the wood and create distinctive, curvy patterns until they emerge from the tree as adults. Infestations weaken and kill affected trees.

Learn more at www.sussexrec.com/pests

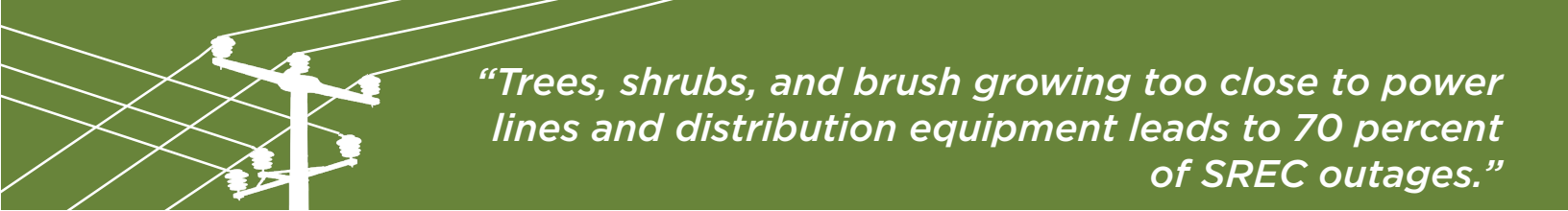


start to decompose at the base which leads to whole tree failures. For an example of the impact this has had on the lifespan of local ash tree populations, outages caused by ash trees doubled from 2022 to 2023.

In 2023, SREC increased its investment in vegetation management by approximately 30%. In the coming year(s) SREC will have to increase vegetation management and invest in widening cross-country rights-of-way with extensive ground-to-sky clearing and shorten its trimming cycle. In 2023, SREC hired a permanent, on-staff arborist, in order to address the ever-increasing number of hazard trees.

Using industry best practices, SREC's vegetation management team determines which vegetation needs pruning or removal to keep the electric lines free of vegetation interference. We take into account both vegetation growth during a three-to-four-year cycle, as well as vegetation that constitutes a hazard to the lines. The National Electric Safety Code (NESC) requires 10 feet of line clearance. However, that is a minimum standard and does not mean that only 10 feet of material will be trimmed.

While it may not always be convenient to have trees on your property trimmed by our contractors, please be understanding of the fact that Sussex Rural Electric Cooperative has a responsibility to ensure safe and reliable electricity to our members by keeping our power



“Trees, shrubs, and brush growing too close to power lines and distribution equipment leads to 70 percent of SREC outages.”



lines free from interference. We hire professional vegetation management companies to assist with clearing trees and vegetation away from electric power lines. One tree can end up affecting the power quality for hundreds of your

neighbors by causing power blinks or outages.

Our distribution lines and poles are often located within a public right-of-way along a road or highway. If a tree located on a property along such public right-of-way grows into our lines, we are legally permitted to prune or remove the tree causing the obstruction. This is true regardless of whether we possess an easement across the property.

When our tree contractors are trimming branches near our lines or removing trees to access equipment for maintenance, the wood is cut

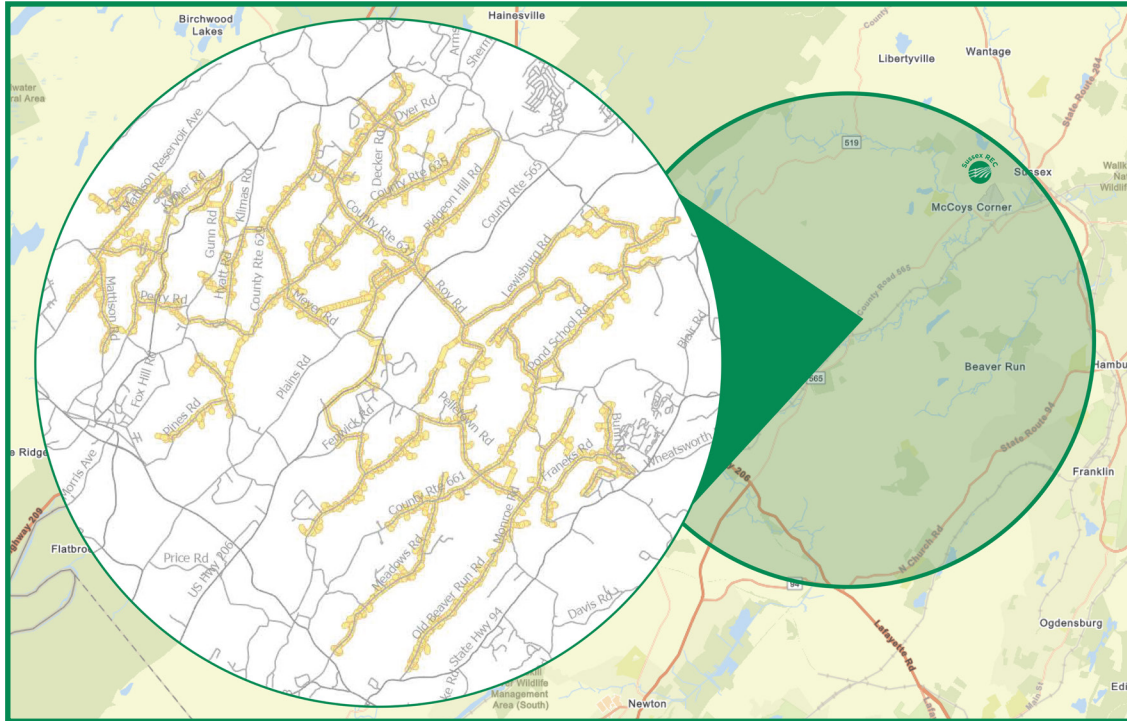
into manageable pieces and left neatly piled on the property. After a tree is pruned or removed, small tree limbs and branches are run through a chipper and hauled away. Wood that is too large for the chipper is cut into manageable lengths and left on the property, near the base of the tree. Disposal or use of all such wood is the property owner’s responsibility.



Trees or limbs that fall due to natural causes (weather, dead/dying, disease) or need trimming during a storm, however, are the member’s responsibility for removal and wood/debris will be left at the site without additional cutting/stacking.

Please note that your service drop, or the line that runs from the utility pole to your home, is your personal connection to the power grid and SREC does not trim for clearance around these

>> Continued on pg. 4



 **Sussex Rural
Electric Cooperative**

2024 Tree Trimming Map

Tree crews contracted by Sussex Rural Electric Cooperative will be conducting routine trimming of these areas in 2024. Our 2024 trimming will take place primarily in the Frankford, Lafayette, and southern Wantage areas within our territory.

Proactive maintenance like this helps us avoid tree-related outages before they happen.

lines. SREC will only trim a service drop if limbs are touching and deflecting the line between your home and the utility pole. Because these are energized lines, we highly recommend using a licensed and insured tree trimming service to perform the work.

As you know, Sussex Rural Electric is a not-for-profit cooperative, and that means we strive to keep our costs in check in order to keep our rates affordable. This extends to our approach to vegetation management. If trees grow too close to power lines, the potential for expensive repairs also increases. Effective tree trimming and other vegetation management efforts keep costs down for everyone.

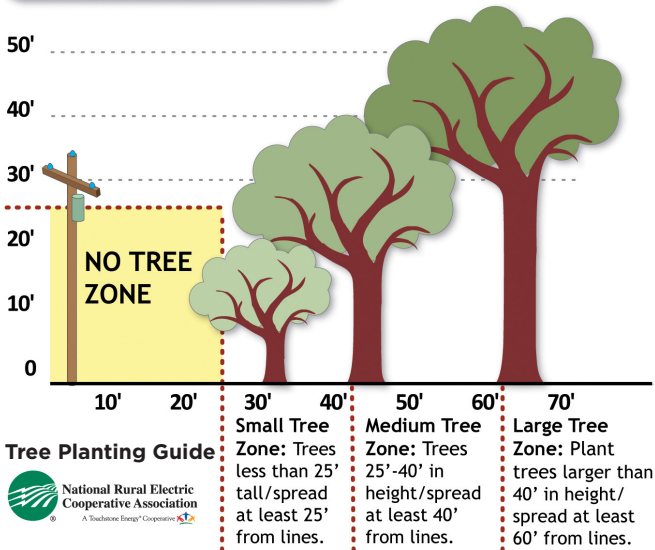
If you have a question regarding trees, please email trees@sussexrec.com. Please include the location of the trees in question, and, if possible, include pictures of the trees. This will help our vegetation management team answer your inquiry more quickly. 🌱



Visit www.sussexrec.com/trees for more information on our vegetation management program.

If you have potentially hazardous trees or branches to report, send in a photo to us at trees@sussexrec.com for us to evaluate.

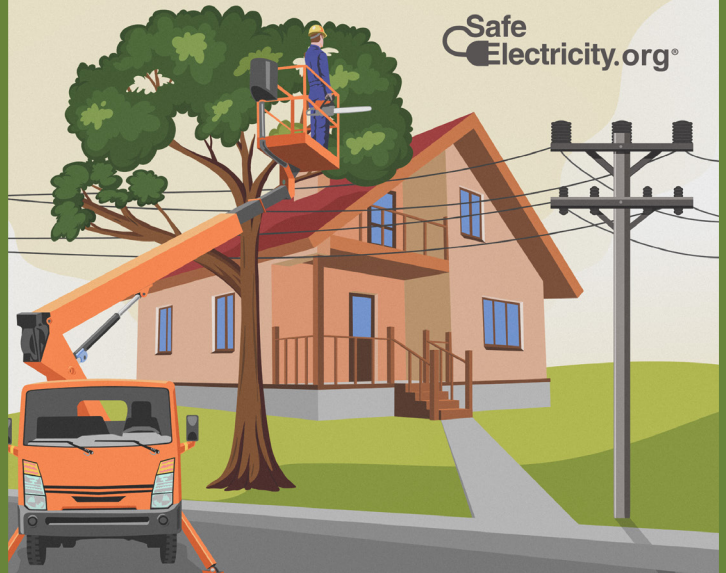
Tree Planting Guide



If you plan to plant a new tree on your property, remember to consider how tall it may grow and how wide its branches may spread! Your trees can end up affecting the flow of power for hundreds of your neighbors if it were to fall and cause an outage. Follow this tree planting guideline to avoid potential power interruptions or fire hazards when your tree is fully grown.

WHY DOES YOUR POWER PROVIDER TRIM TREES?

Safe Electricity.org®



Although most trees do not present a problem, some of them grow into or crowd power lines, poles or other utility equipment and cause service issues. Unruly and overgrown trees can:

- ⚠️ Cause outages.
- 🔥 Create fire hazards.
- 🌳 Break off and land on power lines.
- ⚡ Cause lights to flicker during high winds.
- ❄️ Get weighed down with ice and cause issues.

Proper pruning techniques are used to preserve tree health, although sometimes a tree must be removed. This is a last resort, but it can be necessary if there are:

- 🌳 Fast-growing trees directly under power lines.
- 🌳 Trees that are leaning into lines.
- 🌳 Trees that are declining, cracked or split.

Unobstructed power lines make it easier and safer for utility crews to repair or service lines.



KIDS' CORNER

with Pluggy the Pug

Pluggy is learning about tree trimming and how it's used to keep power flowing. Electric companies trim trees and branches to stop outages before they happen. Can you help Pluggy spot the tree trimming keywords in this word search?

TREES	VEGETATION
TRIMMING	HAZARD
BRANCHES	OUTAGES
WOOD	LANTERNFLY

Z	S	I	J	E	S	I	T	F	J	G	B
L	Y	B	Z	F	E	B	X	C	N	K	R
G	A	U	B	J	E	V	E	I	R	V	A
L	Y	N	Y	G	R	D	M	D	E	O	N
I	W	V	T	Z	T	M	R	G	M	T	C
D	O	O	W	E	I	G	E	A	X	C	H
N	R	J	R	R	R	T	K	T	Z	Y	E
O	G	H	T	R	A	N	C	E	A	A	S
M	H	M	T	T	F	T	F	A	E	L	H
D	E	I	I	Q	C	J	A	L	J	M	H
U	B	O	O	Q	H	K	A	F	Y	M	P
D	N	O	U	T	A	G	E	S	R	T	H



Postal Delays

Sussex Rural Electric Cooperative has been made aware that some of our members are being affected by postal delays. This may cause some members' payment for their bills to "cross" in the mail with the next month's bill – meaning that your previous month's payment was not received by us in time for that month's balance to be cleared. This may cause the next bill to include a "Subject to Disconnect" notice despite payment having been sent to Sussex REC.



While it may be concerning to see a disconnect notice on your bill when you are normally a good payer, please know that this is not a label of delinquency that will affect your account long term if you continue to pay your bill on time. This is a communication tool that will let you know that something has happened with your payment, and this includes a postal delay affecting when we receive your payment. If you see this disconnect notice but you know you've paid your outstanding balance, feel free to contact us at 973-875-5101 to confirm that payment has been received.

To get around mailing issues, we recommend that members **take advantage of our online payment options!** Online payment provides a greater sense of confidence that your bill has been paid on time, especially if you sign up for auto pay. Auto pay, as well as paperless billing, scheduled payments, and usage and billing data are all available to you through your account at www.srecbillpay.com. To quickly make a payment without an account, our website also offers a quick pay option!

56% of our members took advantage of online payments in 2023, avoiding postal delays and taking power into their own hands to keep their accounts current. 🌱

Electric Grid 101

By Steve Sokolowski, Marketing Associate
ssokolowski@sussexrec.com

Electricity plays a vital part in our daily lives. It can be hard to imagine what life was like for those who lived in our area before Sussex Rural Electric Cooperative was formed in 1937 to bring power to our community. Today, we depend on it for essentials like light, heating, cooling, and refrigeration, for entertainment like gaming or streaming movies or TV shows, and for powering the modern necessities that keep us connected to the rest of the world.

Our access to electricity at the flip of a switch is thanks to the hard work and vision of thousands of people who worked to build the modern electric grid and those who now work behind the scenes to keep it running.

Beginner's Guide to the Electric Grid

The local system that delivers power throughout Sussex REC's service territory is just a small part of a much larger, even more complex system that interconnects homes and businesses throughout the United States. The US electric grid is composed of three main grids: the Eastern Interconnection (which Sussex REC's system is a part of), the Western Interconnection, and the Electric Reliability Council of Texas. These grids operate independently but are interlinked so power can flow through each as needed. Hundreds of independent utilities, many of them co-ops like Sussex REC, own and maintain their own systems within each of these grids.

A major complexity that affects the grid is supply and demand for power. Demand for electricity can vary greatly depending on time of day, outside temperature, and weather. Electric providers must plan for these swings and either produce or purchase enough electricity so it's available exactly when it's needed. Regional transmission organizations help make sure the system stays balanced and can adjust in real time to meet these challenges.

Where Your Power Comes From

The electric grid exists to bring power from its source to the homes and businesses of those who



*Photo by Dennis Gainer,
National Rural Electric Cooperative Association*

will use it. Power plants come in many different shapes and sizes, though they are always the source that the electric grid takes power from to deliver to consumers. Utilities either have deals with or ownership of power plants and secure energy to provide to the people on their lines. That power can come from nuclear energy, fossil fuels like natural gas or coal, or renewable sources like hydropower, solar, or wind.

From the power plant, electricity is stepped up by a "step-up transformer," which increases voltage to help it travel over long distances. It moves through high-voltage transmission lines which are held up by the massive towers you'd see along a major highway. This is the "generation and transmission" phase, which occurs before electricity reaches the distribution system where it will be used (for example, Sussex REC's local system). Along the way, it will typically be stepped down by a transmission substation before it nears its destination.

Power is stepped down again at a distribution substation to lower voltage to safe levels for lower-voltage lines. These distribution power lines are the ones you'd see along local roads, typically strung on wooden poles. Electric distribution lines exist at the top of the pole, sometimes placed over lines for cable, telephone, and internet services. Distribution lines carry electricity to homes, schools, and businesses and step down power one final time through a transformer (either pole-mounted or ground-mounted). This makes sure the electricity is safe to use for each and every one of your everyday tasks.

Ensuring Reliable Power

An important facet of the planning that goes into the electric grid is ensuring reliability for consumers. One way that utilities do this is to make sure that they are receiving power from

HOW ELECTRICITY GETS TO YOU



**Step 1
Generation**
Electricity is generated from various sources.



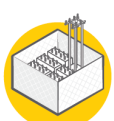
**Step 2
Step-Up Transformer**
Voltage is increased to push the electricity over long distances.



**Step 3
Transmission Power Lines**
Lines carry electricity over long distances.



**Step 4
Transmission Substation**
Voltage is lowered so electricity can travel across the local system.



**Step 5
Distribution Substation**
Voltage is lowered further for safe distribution.



**Step 6
Distribution Power Lines**
Electricity travels across these lines in your community.



**Step 7
Final Stop**
A transformer reduces voltage a final time, and electricity is sent to your home.



multiple sources. This way, if one is for some reason unavailable, they still have access to electricity through another source.

Sussex REC's power comes from a variety of sources, managed through our generation & transmission partner Allegheny Electric Cooperative. Our current power mix is made up of approximately 54% nuclear power from the Susquehanna Steam Electric Station. 9% is hydropower from the Raystown Hydroelectric Plant and the Niagara Power Project. We purchase the rest of our power on the open market from various power sources. Overall, our power mix is approximately 80% carbon free.

Technology also plays a big part in reliability. For example, we use Automatic Metering Infrastructure to receive data over our power lines from our members' meters. This data helps us see usage trends and detect potential service problems. Our SCADA system also allows us the ability to remotely monitor outage situations and, using FLISR software, it can also automatically

perform switching as needed to redirect power to areas affected by an outage while our crews work on making repairs.

And of course, trees are a major part of the equation for any utility that serves an area like ours. Our vegetation management program targets trees that could pose potential threats to the flow of power in our system. You can read more about these efforts in this issue's main article. The costs associated with securing the right type of equipment, software, and manpower needed to manage our electric grid are funded through the System Connection Fee which you'll see on your monthly bill. All of this is critical in making sure power can flow where it's needed reliably and safely. ⚡



For more information on how Sussex REC brings your power to you, check out our animated Watts It About video!



HAVE A BACKUP PLAN FOR MEDICAL DEVICES

If you depend on electric medical equipment (such as an oxygen concentrator or a ventilator), to ensure you receive notice of planned outages in your area you should sign up for Sussex REC's Medical Alert program at www.sussexrec.com/medalert.

Even when enrolled in Medical Alerts, it's best to have a backup plan in case of severe weather events or prolonged outages.

- Have an emergency plan that outlines places you can go in the event of a long-term outage
- Ensure your equipment safely runs on backup power source
- Keep a full charge on battery-powered devices or have extra batteries available
- Consider other equipment you'd need in an outage, like coolers for refrigerated medicine
- Keep a file that includes the device's manufacturer, serial numbers, and photos of your medical device ⚡



Currents
The quarterly newsletter of
Sussex Rural Electric Cooperative
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Website: www.sussexrec.com
Email: currents@sussexrec.com
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Sussex Rural Electric Cooperative, Inc.

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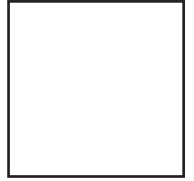
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Take Your Seat at the Table Sign Up For Our Member Advisory Committee

Attention: Sussex Rural Electric Cooperative members! Do you want to learn more about how your Cooperative functions? Do you want to share your feedback on our programs and services? Do you want to make the most in your membership in a community-focused, member-owned cooperative? If all this applies to you, you should sign up for our Member Advisory Committee!

Our Member Advisory Committee, or "MAC," is a long-running committee composed of volunteer members from across Sussex REC's three districts. MAC members perform a great service to Sussex Rural Electric Cooperative by providing us with direct feedback from the member's perspective. MAC members meet with the Co-op's directors and management twice per year. Members of this committee act as sounding boards for changes in service processes and new programs at the Cooperative. In addition, they have the opportunity to learn more about Sussex REC's operations and gain the ability to serve as a source of knowledge on the Co-op to other members in the community.

We are currently looking for interested volunteers to join this committee. Do you think you'd be a good fit? You can apply for the Member Advisory Committee at www.sussexrec.com/mac! 



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