Minnesota Now (MPR) | Minnesota Now Pull Huttner on statewide weather and the rare geomagnetic storm 01GAPJCB81EEVBE7EYK3QRCDW8

CATHY WURZER: Remember when it was stinking hot back in June and July? Not so much here in August. Joining us right now with what's happening in our weather world is MPR's Chief Meteorologist Paul Huttner. Hey, Paul. Welcome back.

PAUL HUTTNER: Hey, Cathy. Thank you. What a lovely day.

CATHY WURZER: It is lovely. Here I was thinking it was going to rain and then we were going to be stuck with-- when I say, stuck with, we do need the rain. But I thought we were going to be underneath umbrellas here for the next few days. But today actually turned out pretty nice.

PAUL HUTTNER: Yeah. There are a few showers, as you mentioned a couple of minutes ago, right now mainly from around Grantsburg and Siren, Wisconsin up toward Hayward, Spooner. They're drifting southeast, but I don't think those will clip the Twin Cities today. But our rain chances will increase, especially tomorrow.

We're going to see still scattered but more numerous showers and thunderstorms around central and southern Minnesota. And even on Friday, many areas could pick up a half an inch to an inch of rain by the time this wraps up early Saturday. Sunday looks like the beautiful day this weekend-- mostly sunny with a high around 80.

CATHY WURZER: Say, I noticed something-- northern Minnesota has gotten some significant rains this year. And there was an interesting story in the *Star Tribune* about how climate change is affecting precipitation trends up north and what that means for some lakes on the range-- some of these mining lakes are close to overflowing.

PAUL HUTTNER: Yeah. And you know what? I think Rainy Lake and the flooding up there this spring is a signal for Minnesota. Because climate is changing our precipitation patterns in Minnesota. Here's the big picture if you think of it this way-- Minnesota is trending wetter overall with climate change.

We're warmer. There's more water vapor in the air. And that increases precipitation in general. Statewide if you look at numbers from the Minnesota DNR Climate Working Group, Minnesota is about three degrees warmer and 3 and 1/2 inches of rainfall wetter each year since 1895. And most of that trend has accelerated in the past few decades-- the top 10 warmest and wettest years all have occurred since 1998.

We're also getting those heavier rain events-- those extreme rainfalls, 3 inches-plus that are increasing. And winter precipitation is up 15% in Duluth, for example, in just the last 30-year normal update. So that's happened in just the last 10 to 30 years. And here's the irony, Cathy-- a lot of that is more snow up north.

Because even though winters are warmer, it's still cold enough for snow and that extra water vapor cranks out those deeper snowpacks. So when you get a situation like we had this spring up north-- and this happened on the North Shore too, as I know you're familiar-- deeper snowpack, rapid spring warm-up, and then you put heavier spring and summer rainfall on top of that, you can get these flash flood surge events that are really beyond what was planned for or modeled for when some of these lakes were developed in the past 50 years.

And it's just common sense to say, we're going to have extreme precipitation and runoff events that can overwhelm these mining lakes and, really, other lakes in northern Minnesota. So that's why the concern is there for potentially catastrophic events as our climate continues to shift into high gear with this rainfall and snowfall.

CATHY WURZER: And some of those mine pit lakes are pretty deep. So to think about that is astounding, really.

PAUL HUTTNER: Yeah, it's remarkable.

CATHY WURZER: I am curious-- let's move on and talk about the crop report, because we have had recent rains. Then, I'm hoping that's helped the crops.

PAUL HUTTNER: It has according to the report this week. These come out on Monday, and they assess rainfall and conditions across the state. And the line that caught my eye, row crops looking better after recent rains, from this week's Minnesota crop report.

There were a couple swaths of 2 to 4 inches of rain in the last week-- one from the southwest Twin Cities. I had a little over 2 inches here at the weather lab in the southwest metro. And then go west on highway 212 all the way out through Olivia, toward Granite Falls, 2 to 4 inches.

Another area southern Minnesota along I-90, 2 to 4 inches plus. And then there were lots of areas that got an inch or so. So those areas that had been real dry got some very critical much needed rainfall at this time of year. And looking ahead, the models with this system this week saying widespread maybe half an inch to 1 inch rains, maybe locally 2 inches up north. So yes, it's been dry this summer in many places. But the crops are getting by in most areas-- over 60% of corn and soybeans are in good to excellent condition.

CATHY WURZER: Which is good news. Well, Sven Sungard and I were talking about the Northern Lights this morning on *Morning Edition.* And I, of course, admitted have spent years chasing Northern Lights. I have never seen them in Minnesota. What the heck? So it looks like we have a chance tonight. Is that right?

PAUL HUTTNER: Yeah, we do. And you're right-- Northern Lights are hard to forecast and hard to predict. But NOAA's space weather center, which, by the way, I would love to work there someday-- that sounds like a really cool place.

CATHY WURZER: Right?

PAUL HUTTNER: They have they track these bursts-- solar storms, these coronal mass ejections from the sun as they head toward Earth. And they call this one actually a cannibal CME. That means two of these things and one of them catches up to the other one and kind of devours it, but turns it into a bigger storm potentially.

And the best chance is tonight overnight. Now, we're going to have clouds and a lot in central and northern Minnesota, but southern Minnesota partly cloudy. So I think we'll see some breaks. So any time tonight, it could happen. We could see Northern Lights and they're saying this could be as far south as Iowa, potentially.

But you're right-- it's it's hard to see, especially if you're near city lights. So if you can get into a dark place in the country, that's the best way to see them, Cathy. I haven't seen them in a long time. I remember a time in the late-'80s, early-'90s when they were just vivid on a winter night. It was the most incredible thing I've ever seen.

CATHY WURZER: You saw them in Minnesota?

PAUL HUTTNER: Yeah, I did. It was actually from some of our old friends at WCCO. There was a house party where we were playing some music and we all went outside and just stood there. It was phenomenal.

CATHY WURZER: Wow. What a great memory. All right, Paul Huttner, I appreciate it. Thank you so much.

PAUL HUTTNER: Thanks, Cathy. Have a great day.

CATHY WURZER: You too. Paul Huttner, of course, our Chief Meteorologist here at MPR News. You can listen to Paul and Tom Crann later this afternoon on *All Things Considered.* Also, check out The Updraft Blog at mprnews.org for fresh weather information.

And Paul Huttner does the *Climate Cast*-- some excellent news and science around climate change. Check that out wherever you get your podcasts.

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