

Drought could hit Navajos hard

By CYNDY COLE

Sun Staff Reporter

Thursday, November 01, 2007

As the Southwest warms, sand dunes on the Navajo Nation are poised to move, causing problems for residents.

For every 1.8 degrees temperatures climb -- and some researchers predict temperatures will increase by 11 degrees by the end of the century -- about two inches of water will evaporate, according to forecasts by Margaret Hiza Redsteer, of the U.S. Geological Survey in Flagstaff.

With some parts of the Navajo Nation receiving just five to seven inches of precipitation yearly now, this spells death for the plants that stabilize sand dunes and provide grazing land for sheep and cattle.

And when the plants die, Hiza Redsteer said, the dunes become mobile, consuming whatever lies in their way.

Speaking at a conference on climate change and the Colorado Plateau, Hiza Redsteer flashes to a picture of a hogan mostly buried in sand.

A lot of the land commonly vegetated now is sand below, she said.

Dune areas include land northwest of Chinle, southeast of Lees Ferry and near Coalmine Mesa, northeast of Flagstaff.

Fewer storms, more intense storms and more severe drought are expected on the Navajo Nation and around the Southwest, Hiza Redsteer said.

Snowfall on the Navajo Nation has declined from 1930 to 2005, her data shows.

Moisture in Tuba City has declined from 1906 to 2006, except for a data gap in the 1970s and '80s. Temperatures in April, May and June have recently been above average for 12 years out of 17.

"This is something that we need to deal with if we're going to learn how to survive in the Southwest," Hiza Redsteer said.

One difficulty, she said, is keeping accurate weather data for decades on tribal lands.

"It is, I think, part of the reason why native people are behind the curve in climate

change research," Hiza Redsteer said.

Ranching is a \$20 million industry on the Navajo Nation, University of Arizona researcher Rachel Novak found.

And since the Navajo Nation established grazing allotments, cattle and sheep stay in the same area, drought or not, Hiza Redsteer said.

This means ranchers import hay when the range is barren.

And with the hay has come a far-spreading weed -- a thistle that loves to establish itself in unstable sand dunes and recently disturbed land, she said.

"So we have new things in this ecosystem, that we didn't have in the past, that change the way drought is going to impact us," Hiza Redsteer said.

Cyndy Cole can be reached at 913-8607 or at ccole@azdailysun.com.