

Beetle influencing development plans

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Salt Creek tiger beetle

Beneath the frozen salt and mud flats north of Lincoln, the Salt Creek tiger beetle waits in larval stage for summer, when it will jump out of its tiny burrow and seize its prey with its mouth. When it's not feeding, the beetle may be looking for a mate — just like it has for thousands of years.

Obviously, the Salt Creek tiger beetle is not aware that the U.S. Fish and Wildlife Service granted it protection under the Endangered Species Act in October and considers it to be among the rarest insects in the nation. [More tiger beetle](#)

Only about 150 tiger beetles are known to be left, and they are in a few salt marshes in Lancaster County, according to the federal agency. A decade ago, the population numbered slightly above 600.

The bugs probably don't know that, nor are they aware that developers and attorneys are possibly losing sleep over them because the endangered species listing could change plans for shopping centers, factories and houses in the area where the tiger beetle hunts, eats and mates during its two-year life cycle.

But the developers, attorneys and other interested in growth north of Interstate 80 are looking to the federal Fish and Wildlife Service for information they need to avoid harming the tiger beetle and face stiff penalties under the Endangered Species Act.

Part of the protection process includes designating critical habitat, which means finding areas, namely saline wetlands, the agency believes is needed to sustain the tiger beetle population. No one knows how much land, if any, will be needed to help the population bounce back from the brink of extinction — or what the effects of the listing will be.

“That’s the million-dollar question,” said Mike DeKalb of the Lincoln-Lancaster County Planning Department. “It’s hard to make decisions without any facts.”

DeKalb recently briefed the Lower Platte South Natural Resources District Board about possible effects on landowners and projects, but said his department is in a holding pattern until the feds comes out with the critical habitat designation. That could take at least six months.

Meanwhile, DeKalb tells developers to consult with the federal agency first about potential effects on tiger beetle habitat before going to the planning department. Once the agency’s critical habitat designation comes out, he said, it will be incorporated into the Comprehensive Plan, a road map for development in Lincoln and Lancaster County.

Doug Nagel, whose family owns land between 27th and 40th streets north of Lincoln, said he believes the listing will drive down property values, especially near saline wetlands. He also said designation of a large area as critical habitat could hurt Lincoln’s economy.

“It’s kind of scary when the Endangered Species Act comes down like this,” said Nagel.

Even though the ink is barely dry, the listing already has affected a high-voltage power line planned north of the city by the Lincoln Electric System and a private development in a “blighted” area near 56th Street and Interstate 80.

“We were highly encouraged by the U.S. Fish and Wildlife Service to avoid saline wetlands,” said LES spokesman Russ Reno.

The utility has not identified a specific route for the last segment of its North Tier II power line project, he said, but it will follow the federal agency’ advice.

LES Vice President of Engineering Dan Pudenz told the LES board Friday that going through the saline wetlands area would result in a “long, arduous fight.”

Lincoln attorney Mark Hunzeker, who represents a client who wants to build a commercial/industrial development near 56th Street and I-80, consulted with the Nebraska Game and Parks Commission before the federal listing was made.

“At this point we don’t know what the regulations are going to say, but the project is far enough away from the known habitat areas that we don’t anticipate major impacts,” Hunzeker said.

However, he said, Game and Parks biologists were concerned about indirect effects on Salt Creek tiger beetle habitat, including:

* Fresh water runoff diluting the salinity of salt flats along the edges of wetlands and streams; the run-off also could contain contaminants.

* Sedimentation covering such protected saline plant species as saltwort and blocking tiger beetle burrows.

* Pesticides killing tiger beetles or reducing or eliminating their prey.

* Artificial lighting reducing the beetles' ability to find suitable places to mate and lay eggs.

Scientific surveys show the number of Salt Creek tiger population has fallen from six to three since 1991. Those three are found along Little Salt Creek, which flows from North 27th Street and I-80 north into Saunders County.

Saline wetlands are unique because of their salt-tolerant plant and animal life. The only saline wetlands in Nebraska are in what is called the Eastern Saline Wetlands Complex in northern Lancaster and southern Saunders counties. The 2,700-acre area includes saline wetlands, freshwater wetlands and other habitat.

Tom Malmstrom, coordinator of the Saline Wetland Partnership, a group working to preserve wetlands, said the 2,700 acres is protected through ownership or easements. He said Fish and Wildlife Service decisions on critical habitat will be based on scientific evidence.

University of Nebraska-Lincoln entomologist Leon Higley believes the federal agency won't be asking for much land.

“Really, the stuff that is already protected is what is going to be needed,” he added. “This is going to be easy ... because there's not much saline wetlands left.”

From a biological perspective, Higley said, there are two critical habitat areas for the tiger beetle: a protected salt marsh north of I-80 near Arbor Lake and the Jack Sinn Wildlife Management Area near Ceresco. No tiger beetles have been found at the Jack Sinn preserve for about 10 years, but Higley said that area might be ideal for a reintroduction program.

“Obviously, we want to protect what we have ... but the more diverse locations you have, the better off you are,” he said.

Since the late 1880s, more than 90 percent of the saline wetlands have been destroyed or severely degraded through commercial, residential, industrial and agricultural development and transportation projects, according to the Fish and Wildlife Service.

That loss was a key reason for the federal listing. According to the Fish and Wildlife Service, only 122 acres of salt flat and stream-edge mud flats remain, and of those 15 are considered pristine enough for the three remaining populations of tiger beetles.

Lincoln attorney Tom Wilmoth, who held a roundtable discussion earlier this month on the effects of the tiger beetle listing, has come up with what he called a reasonable solution: a regional habitat conservation plan designed to insulate people from liability for inadvertently killing or harming tiger beetles. He said similar plans have been successful elsewhere.

Example: A feedlot operator who had an accidental discharge from a waste lagoon could receive some protection from the Endangered Species Act, if the plan covered such possibilities and he was a plan participant. Cities and counties also could join and receive some protection, if, for example, they approve a development that ends up harming tiger beetles.

“It’s always better to get ahead of these things on the front end before something happens where you are being accused of violating the Endangered Species Act,” Wilmoth said.

Higley believes a regional conservation plan is a good idea because it not only protects the tiger beetle and other species, but it preserves a large and unique habitat area, which in the long run would benefit the city of Lincoln.

Meanwhile, he said it is a good idea for developers and even area farmers, to consult the Fish and Wildlife Service.

“You don’t want to be spraying pesticides upwind of the habitat.”

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Salt Creek Tiger Beetle

The U.S. Fish and Wildlife Service considers the Salt Creek tiger beetle one of the rarest insects in the nation. The three populations known to exist are in salt marsh remnants in Lancaster County. Some beetle facts:

Color — Metallic brown to dark-olive green with a metallic dark green underside

Size — About half an inch long

Name — The predatory insect captures smaller or similar-sized bugs in a “tiger-like” manner with their mouths.

Where — Native to saline wetlands found only in the northern third of Lancaster and the south-central edge of Saunders counties.

The big deal — The Salt Creek tiger beetle is considered a “bio-indicator” species, meaning its presence signals the existence of a healthy saline wetland. The insect also serves as important link in a complex food chain of the saline wetland ecosystem.

Source: U.S. Fish and Wildlife Service

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