

**Chapter 7. ENDANGERED AND THREATENED SPECIES**

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## CHAPTER 7. THREATENED AND ENDANGERED SPECIES

The Nebraska Game & Parks Commission notified the Twin Platte Natural Resources District in a letter dated August 10, 1992 that the Commission had identified the existence and/or the potential existence of threatened species that may be affected by ground water levels. The letter is on file in the District's offices.

The Nebraska Game & Parks Commission believes that general protection of ground water quantity and quality has many benefits including protecting the habitats of threatened species listed in this plan.

The Twin Platte Natural Resources District acknowledges that any ground water management activities proposed in this plan may have some impact, positive or negative, on threatened species listed in this plan, but is not advised at this time of any such impact occurring.

The Nebraska Game & Parks Commission has provided information to the District of known locations identified by Nebraska Game & Parks Commission where it is possible that endangered and threatened species could be impacted by ground water withdrawals and descriptions of potential habitats for such species. Letter is on file in the District's offices.

### 7.1 Threatened Fish

Table 7-1, prepared from information provided to the Twin Platte Natural Resources District by the Nebraska Game & Parks Commission, lists the streams in the District occupied by fish which Nebraska Game & Parks Commission has identified as state threatened fish.

**Table 7-1**

<u>Stream</u>	<u>County</u>	<u>Species</u>
Sand Creek	Keith	Northern Redbelly Dace
Cedar Creek	Keith	Northern Redbelly Dace Finescale Dace
Whitehorse Creek Tributary South Fork	Lincoln	Northern Redbelly Dace

The Twin Platte Natural Resources District has on file slides provided to the District by the Nebraska Game & Parks Commission to aid in the identification of the threatened fish listed in Table 7-1.

The Nebraska Game & Parks Commission reports that the threatened fish found in the Twin Platte Natural Resources District cannot tolerate increased turbidity. The

Commission reports that small reductions in flows in these streams could have a significant impact due to these streams being characterized by low flows and reduction in flows could directly impact these fish through loss of habitat or indirectly impact these fish through increased turbidity resulting from concentrating suspended material.

## **7.2. Threatened Plants**

The Nebraska Game & Parks Commission reports that potential habitat for the western prairie-fringed orchid, a federal and state threatened plant, may occur within the Twin Platte Natural Resources District. The Commission reports that potential orchid habitat would require further investigation to determine the presence of the plant.

The Nebraska Game & Parks Commission reports that the western prairie-fringed orchid is an inhabitant of native tallgrass wet meadows and mesic tallgrass prairies. The Commission reports that typical habitats are moderate to high quality meadows and prairies which have not been subjected to large scale disturbance such as plowing, extreme overgrazing, or heavy herbicide use. The Commission reports that potential habitats may have a history of light disturbance such as haying and/or grazing. The Commission reports that the western prairie-fringed orchid initiates growth in late spring with flowering occurring in late June to early July and that in some years, only vegetative growth occurs with no flowering.

The Twin Platte Natural Resources District has on file a booklet provided by the Nebraska Game & Parks Commission titled "NEBRASKA'S Threatened and Endangered Species Western Prairie Fringed Orchid" for assistance in identification of the western prairie-fringed orchid and its habitat.

The Nebraska Game & Parks Commission reports that reduction in ground water levels could significantly impact the hydrology of local habitats occupied by the orchid. The Commission reports that examples of ground water use that could impact the western prairie-fringed orchid and its habitat are the number of wells within an area, the proximity of a well to the habitat, and the timing and quantities of ground water withdrawals. The Commission reports that an example of a direct impact would be a new well installation and examples of indirect impacts may be reduced water availability or increasing the concentration of suspended particles, pesticides, of herbicides.

## **7.3 Management**

The Twin Platte Natural Resources District acknowledges that the Nebraska Statutes authorize the District to modify this plan in the future should specific adverse effects on threatened species, listed in this plan, from changing ground water levels, be identified and that such modifications should include actions within control or management areas consistent with the Nebraska Ground Water Management and Protection Act that could be taken by the District to reduce adverse effects on species by maintaining a ground water level that will help sustain these species.

