

### V. FELTON PRAIRIE STEWARDSHIP PLAN

The following observations led to the development and funding of the Felton Prairie Stewardship Plan and guided the actions recommended for each parcel in the following pages:

- Aggregate, especially concrete grade, is a rare commodity in the Red River Valley and is needed to maintain economic development and prosperity.
- Native prairie has been largely destroyed in the state of Minnesota and what little is left must be preserved for biodiversity, research, and natural heritage appreciation.
- The presence of state and federally listed endangered and threatened species requires state permitting and mitigation for any mortality or alteration of habitat.
- The calcareous fens are protected and regulated at the state level and any impacts to them require, at a minimum, the development of a fen management plan and mitigation.

Where prairie and aggregate resources coincide, conflict arises. An overlay of biological resources and aggregate in Figure 33 indicates where these conflicts are greatest. The same is true of aggregate below the water table in recharge zones of the calcareous fens. The stewardship committee developed the overlay in Figure 33 for the study area and analyzed it below.

#### A. Prairie – Aggregate Conflict

The areas identified in Figure 31 are the same used in the Aggregate Resource Evaluation (MN DNR, 2000). The committee focused on Area 1 because this is the area of significant aggregate and potentially significant conflict. The vertical gray striping represents good Dakota skipper habitat. Point observations (some of the blue stars) record the sighting of particular species but should not be interpreted as the only occurrences or the exact number of species in the area. Area 1 reveals an aggregate deposit running under Dakota skipper habitat through mesic to dry prairie. The greatest land use conflict between mining and biological resource protection occurs here. The stewardship committee studied this area in great detail and broke it into smaller parcels for planning purposes after recognizing the conflict. Area 3 also illustrates conflict on the western half of the property. Area 2 has little aggregate but is a likely stockpile and aggregate plant location if the county pit is leased to private industry. Area 4 offers the least conflict because there is no significant aggregate other than existing disturbed areas that are not mapped.

#### B. Fen – Aggregate Conflict

Based on the fen study prepared by DNR Division of Waters, a significant disruption of ground water supply to both fens could result from mining below the water table. Because ground water fluctuates seasonally and cyclically through dry and wet years, a groundwater protection buffer of 10' above the high water table level recorded by monitoring wells is recommended. Based on this threshold most of the aggregate resource north of the county pit cannot be mined without impacting the fens and requiring the development of a fen management plan.

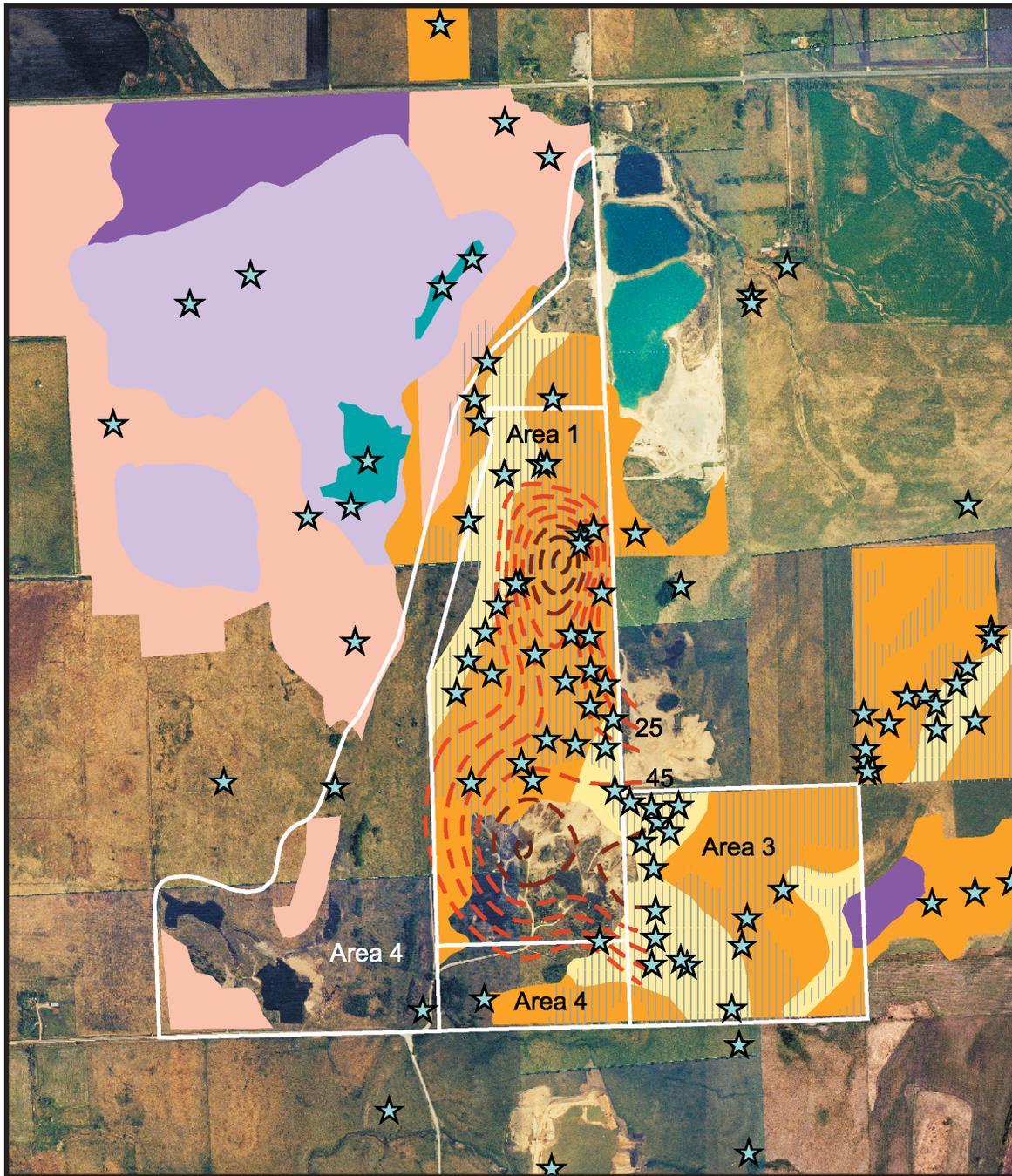


Figure 33: Graphic showing conflicts between aggregate and prairie resources. Area 1 north of the current mine and the corridor to Bicentennial Prairie SNA (Area 3) have good aggregate and support rare species. Mining below the ground water buffer elevation in these areas would also impact both fens. Contours symbolize overburden to aggregate ratio found on Figure 28.