

On Monday, January 11, 2010, Sean Ziniker and Randy Dana, GIS analysts for Jefferson County and DLCD, respectively, met telephonically to discuss how to describe the Jefferson County portion of the boundary for the Metolius Area of Critical State Concern (ACSC) in such a way as to align it with Jefferson County tax lot boundaries, thereby facilitating the determination of whether a given tax lot is affected by the ACSC.

The original representation of the ACSC boundaries was created based on electronic representations of natural and surveying features. The western boundary and the boundary between Areas 1 and 2 are derived from Natural Resource Conservation Service's Watershed Boundary Dataset (WBD). All other boundaries are derived from the government corners dataset (GCD), maintained by the Bureau of Land Management, which form the basis for township, range, section, and government ownership boundaries. The data sets used in the review were the WBD, the GCD, and Jefferson County tax lots and sections (JeffCoTax and JeffCoSec, respectively). While these data sets and the Jefferson County tax lot data set often represent the same feature, they may not be aligned. For example, the western boundary of Jefferson County follows the crest of the Cascade Range, but it does not exactly align with the boundary where watersheds draining east from the Cascades crest meet those draining west. Also, while many Jefferson County tax lot boundaries follow section lines, Jefferson County's representation of those section lines differs from the representation maintained by BLM.

Ziniker and Dana arranged to view the same data sets using identical software to determine how the DLCD ACSC boundary could be modified to ease the determination of a particular parcel's relation to the ACSC. This document puts forth the results of their review.

#### I. Western Boundary.

**Proposal:** The western boundary shall be described as the western boundary of Jefferson County, extending from the southwest corner of the county north to the southwest corner of the Warm Springs Indian Reservation. Its representation will be derived from JeffCoTax.

**Discussion:** Of the data sets used in the review, only JeffCoTax represents the western boundary of Jefferson County. The WBD data set, in representing the boundary where watersheds draining east from the Cascades crest meet those draining west, is closely aligned to the JeffCoTax county boundary, but represents a natural rather than an administrative boundary. A strict interpretation of the intent of the ACSC might argue for using the WBD line, but answering land use questions may be easier using the JeffCoTax line. The county boundary is not represented in JeffCoSec.

#### II. Northern Boundary.

**Proposal:** The northern boundary shall be described as the boundary between the Warm Springs Indian Reservation (WSIR) privately held lands, extending from the southwest corner of the WSIR to the northeast corner of the Fly Creek Subdivision (Jefferson County Document Number 2008-3150). Where this boundary lies on the Metolius River and Lake Billy Chinook, it will follow tax lot boundaries approximating the center line of the water bodies. Its representation will be derived from JeffCoTax.

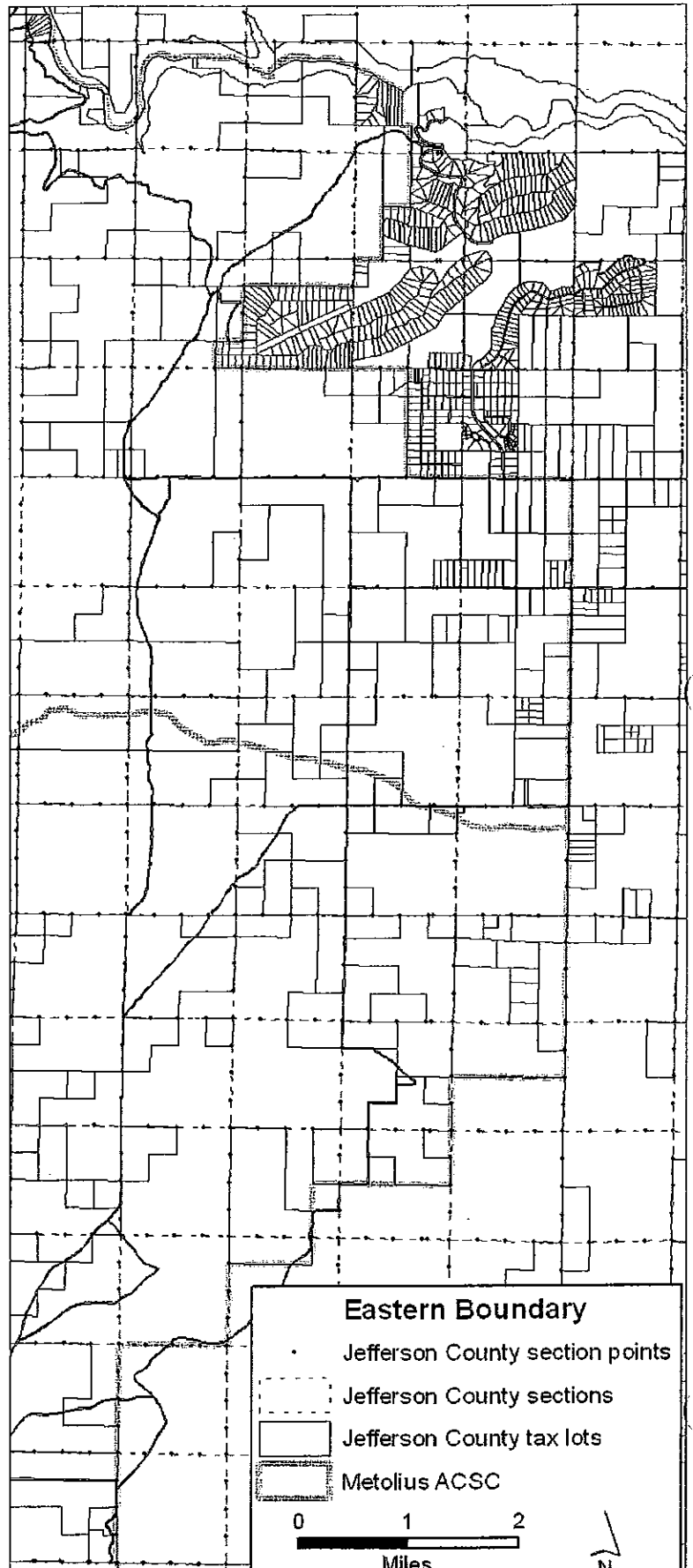
Discussion: It is recommended that representation of the boundary be derived from JeffCoTax because JeffCoSec does not extend into Lake Billy Chinook, and even in areas where JeffCoTax and JeffCoSec are aligned, they are not coincident.

Figure 2 the boundary

### III. Eastern Boundary.

Proposal: The eastern boundary shall be described as a line connecting points defined by reference to specific features in JeffCoTax or JeffCoSec. For most of its length, from the point of intersection of the Warm Springs Indian Reservation and the northeast corner of the Fly Creek Subdivision, south to the SW corner of section 33 at the Deschutes County border, the ACSC boundary lies on the boundary between features. In the few instances where it cuts across tax lot parcels, the bisecting lines may be clearly defined by points in JeffCoTax or JeffCoSec.

Discussion: The eastern boundary of the ACSC was initially drawn on a map of showing parcels and sections, tracing certain boundaries of these features. The electronic version was created by comparing by eye the hand-drawn line to electronic versions of parcels and sections and creating an electronic version of the hand-drawn line by following lines or connecting points in the GCD. In one place, at the northern end of the eastern boundary, the hand-drawn boundary did not coincide with any GCD features, so the ACSC boundary placement was guided by, but not tied to, parcel boundaries. Figure 2, Eastern Boundary, shows the close relationship of the ACSC boundary to section lines and points.



Except for the northeastern corner, the ACSC boundary may be described as connecting specific section points. The following text and figures describe and show how this might look. The examples proceed from south to north.

Figure 3, T13S-R11E, shows the southernmost portion of the eastern boundary of the ACSC in Jefferson County. The line may be described as starting at the SW corner of section 33, thence north to the NW corner of section 28, thence east to the NE corner of section 28, thence north to SW corner of the NW quarter-quarter of the NW quarter of section 22, thence east to the SW corner of the NE quarter-quarter of the NE quarter of section 22, thence north to the SW corner of the SE quarter-quarter of the NE quarter of section 15, thence east to the SE corner of the NE quarter of section 14, thence north to the SW corner of the NW quarter of section 11, thence east to the SE corner of the NE quarter of section 11, thence north to the NW corner of section 2, where all referenced sections are in T13S-R11E.

Figure 3

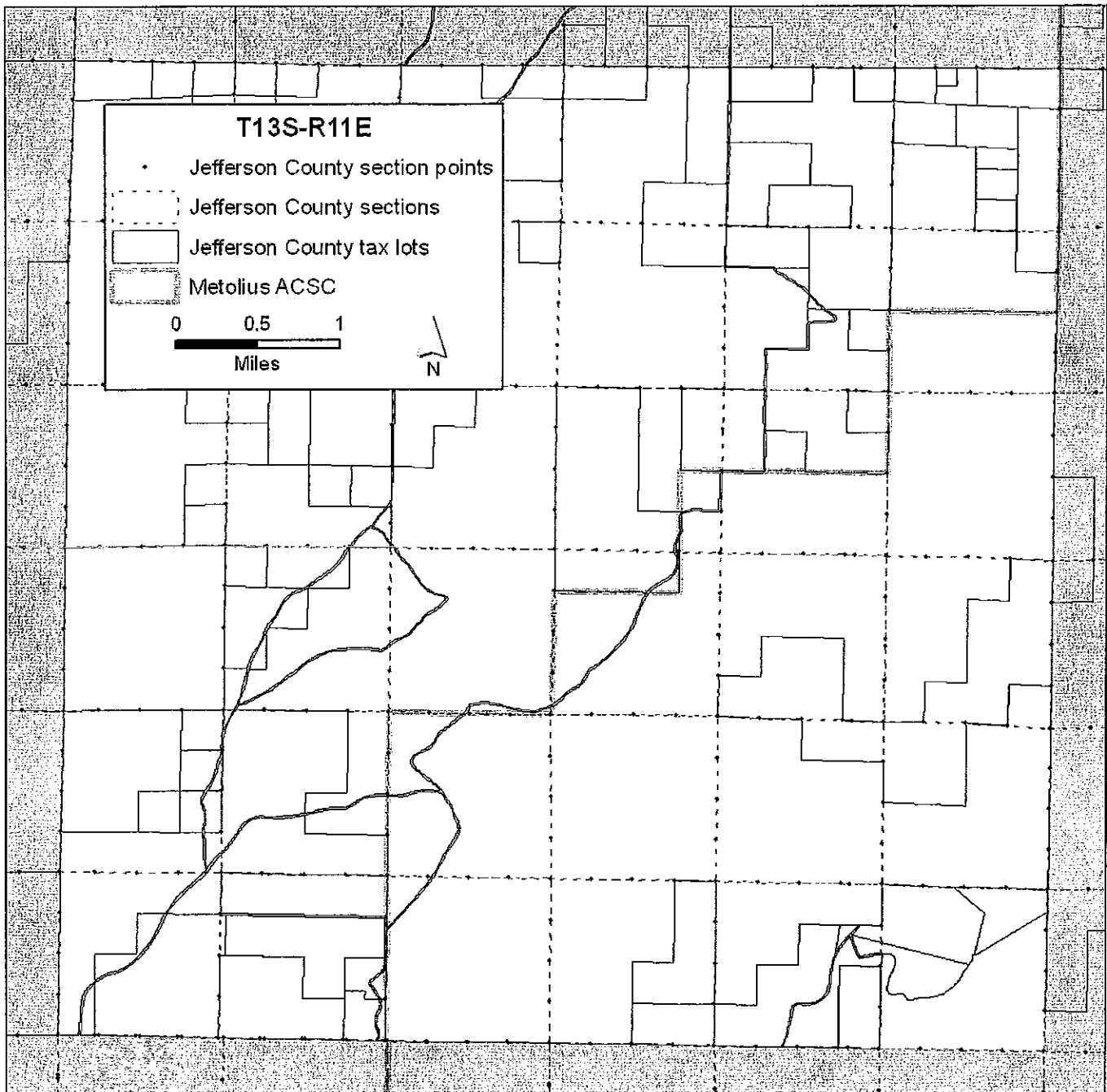


Figure 4, T12S-R11E, shows the central portion of the eastern boundary of the ACSC in Jefferson County. The line may be described as starting at the SE corner of section 36, thence north to the NE corner of section 13, thence west to the SW corner of the SE quarter section 14, thence north to NE corner of the NW quarter of section 14, thence west to the SW corner of the SE quarter-quarter of the SE quarter of section 4, thence north to the NW corner of the SE quarter-quarter of the SE quarter of section 4, thence east to the NE corner of the SE quarter-quarter of the SE quarter of section 4, thence north to the SE corner of the NE quarter-quarter of the NE quarter of section 4, thence east to the SE corner of the NE quarter-quarter of the NE quarter of section 3, thence north to the NE corner of section 3, where all referenced sections are in T12S-R11E.

Figure 4

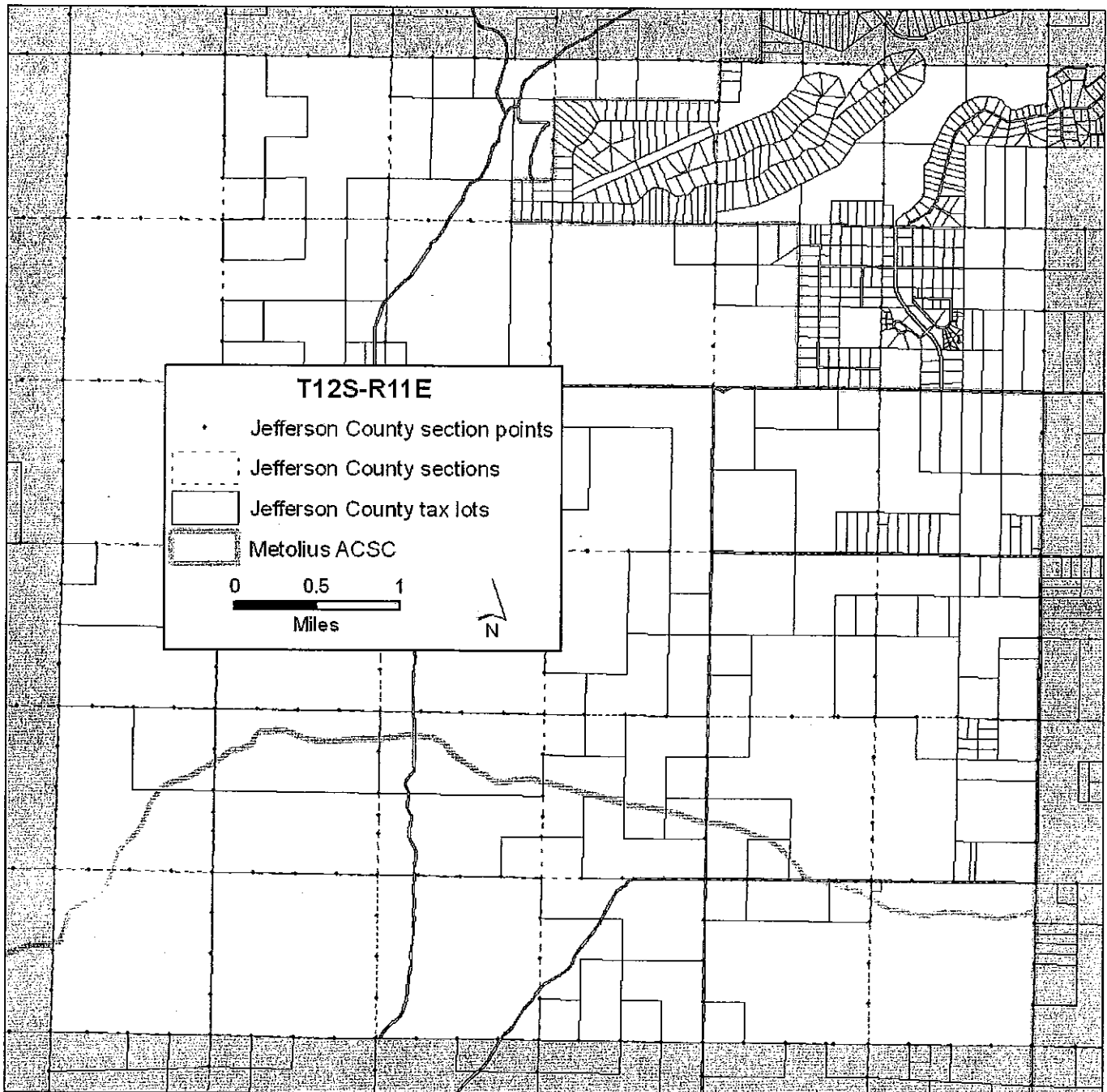


Figure 5

Figure 5, NE Corner of ACSC, shows the northeastern portion of the eastern boundary of the ACSC in Jefferson County. The line may be described as starting at the SW corner of section 35, thence east to the SE corner of the SW quarter-quarter of the SW quarter of section 35, thence north to the SW corner of the SE quarter-quarter of the NW quarter of section 35, thence east to the SE corner of the NW quarter of section 35, thence north to the NW corner of the SE quarter-quarter of the of the SW quarter of section 26, thence west to the southeast corner of the Fly Creek Subdivision, thence north along the eastern boundary of said subdivision to the point of intersection with the Warm Springs Indian Reservation, where all referenced sections are in T11S-R11E.

