

Converting CER Soil Ratings to CPI Soil Ratings

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Minnesota has a lot of good heavy productive soil.
Right now we are in a period of time where the demand far exceeds
the supply of land for sale.

- Why consider converting to a CPI based soil rating system?
- Today we often see farmland advertised and marketed with the CPI soil rating listed as part of the marketing effort.

What is a **CPI** soil rating?

CPI stands for **Crop Productivity Index**

It is a numerical rating from 0 to 100, with 100 being the heaviest-or most productive soil.

Where do these CPI soil rating numbers come from?

- They are based on the USDA soil surveys done in Minnesota.
- The USDA and the most County Soil Conservation Services conducted this comprehensive survey.
- Each soil type was tested, graded, and mapped out by a team of soil scientists.

- The University of Minnesota worked with each county to utilize this original soil survey.
- Soils were assigned a CER (Crop Equivalency Rating).
- These CER Soil ratings were utilized and recorded on CRV's and supported by the University of Minnesota until about 2009.
- The technology has changed and CPI Soil ratings were found to more accurate.

What is the differences between the two soil rating systems?

• CER Ratings

- Assumes a moderate level of management.
- Growing degree days used
- Average rainfall used
- Production costs were factored in
- Chemical/physical soil properties not used
- Drainage not considered a factor
- Same soil CER will vary by county the

CPI Ratings

- Assumes a moderate level of management.
 - Growing degree days not used
 - Average rainfall not used
 - Production costs not considered
 - Chemical/physical soil properties used
 - Soil drainage is factored in
 - Same CPI soil type is the same throughout state
-
- **The CPI Soil Rating more accurately reflects the actual productivity of soils and is based largely on the each soil types actual ability to produce a crop.**

BREAK

Stearns County CPI to ABC Soil Ratings Conversion and Implementation

- In mid 2012 assessment we started the CPI conversion process for the 2013 assessment.
- About 1/3 of the land in the county was converted for the 2013 assessment.
- The goal is to complete the entire county for the 2014 assessment.

How staff converts from CER to CPI soil ratings

- Each parcel has a GIS overlay with the soil types.
- Each soil type is mapped.
- These revisions are entered into the valuation schedule and valuation system

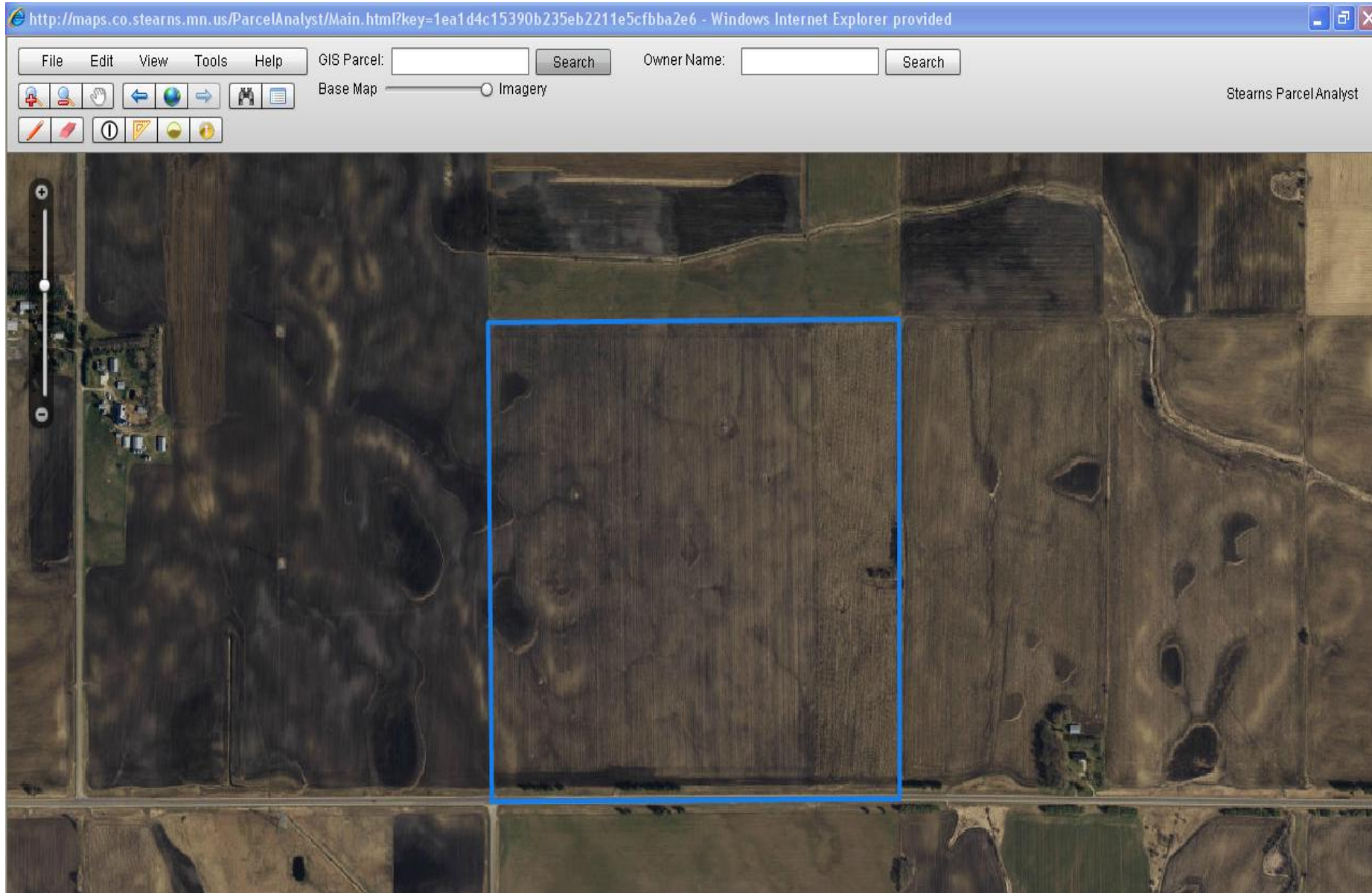
How it works in Stearns County

- We utilize a nine grade soil breakdown schedule.
- A soils are the heaviest
 - A1, A2, & A3-subgroups
- B soils more moderate
 - B1, B2, & B3-subgroups
- C soils lighter
 - C1, C2, & C3-subgroups

Here is how Stearns County soils were bracketed.

- CPI soil rating 96----100===**A1** soil
- CPI soil rating 90-----95===**A2** soil
- CPI soil rating 85-----90===**A3** soil
- CPI soil rating 80-----84===**B1** soil
- CPI soil rating 75-----79===**B2** soil
- CPI soil rating 70-----74===**B3** soil
- CPI soil rating 60-----69===**C1** soil
- CPI soil rating 50-----59===**C2** soil
- CPI soil rating 0-----49===**C3** soil

An open 160 acres tract



Property Address

Legal Description 160.00A. SE4

Soil Information

Soil Symbol	Soil Name	GIS Acres	Productivity Index
446B	Normania loam, 3 to 5 percent slopes	76.971	94
582	Roliss loam	7.160	92
36	Flom loam	37.229	92
421B	Ves loam, 2 to 6 percent slopes	8.850	90
236	Vallers loam	23.444	90
114	Glencoe loam	5.007	86
544	Cathro muck	1.961	15
		<hr/>	
		160.626	91.428

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These would be compiled as: 153.66 rounded to 153 acres of A2 soil and 5.007 Rounded to 5 acres of A3 soil and 2 acres in and under road.

A 40 acre tract not 100% tillable

http://maps.co.stearns.mn.us/ParcelAnalyst/Main.html - Windows Internet Explorer provided by County of Stearns

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Base Map Imagery

Stearns Parcel Analyst

The image displays an aerial photograph of a rural area, likely in Stearns County, Minnesota. The land is divided into several large, rectangular parcels, some of which are outlined in white. The terrain is a mix of brown and green, suggesting a combination of tilled fields and wooded areas. A scale bar in the bottom left corner indicates a distance of 200 meters (approximately 656 feet) and 500 feet. A location marker labeled "St. Rosa" is visible on the left side of the map. The map is viewed through a web browser interface, with various navigation and search tools visible at the top.



Soil Report



Parcel Information

No parcels used in query

Soil Information

Soil Symbol	Soil Name	GIS Acres	Productivity Index
36	Flora loam	0.061	92
32B	Nebish sandy loam, 2 to 8 percent slopes	24.133	83
32C	Nebish sandy loam, 8 to 15 percent slopes	2.794	69
406C	Dorset sandy loam, 8 to 15 percent slopes	4.268	44
32E	Nebish sandy loam, 15 to 25 percent slopes	4.818	28
		<hr/>	<hr/>
		36.078	69.970

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This data is provided on an "AS-IS" basis, without warranty of any type, expressed or implied, including but not limited to any warranty as to their performance, merchantability, or fitness for any particular purpose.

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This would be broken down as: 24 acres B1 soil- 3 acres C1 soil-9 acres C3 soil

What does this mean for landowners in Stearns County

- Soils will be graded more uniformly
- Soils will be graded like they are being marketed
- Estimated market values and Green acres values will be more uniform and accurate.
- This data will also be made available to the public, so it can be utilized in purchasing or selling farmland and may even become a factor in rental prices.

Thank you

- Questions??????

