



Oregon GNSS Users Group

Umpqua Community College

Roseburg, Oregon

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# Legal Status / OAR Committee

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# OCRS History/Timeline

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- Mar. 2008 - Presentation to ODOT
  - July 2008 - Presentation to OGUG
  - Nov. 2008 - ODOT/OGUG Workshop
  - Jan. 2009 - Presentation to PLSO
  - Apr. 2009 - Created Technical Development Team
  - July 2009 - Developed Test Projections
  - Jan. 2010 - Developed 15 Projections
  - Jan. 2010 - Presentation to PLSO
  - April 2010 - Roll out and Workshop
  - Jan. 2012 - Made official and legal: Revised ORS 93 & 209;  
Place State Plane and OCRS definitions into a new OAR



## Senate Bill 877

Senate Bill 877 (SB 877) was enacted in 2011 to **allow the use of the Oregon Coordinate Reference System (OCRS)** (in addition to using the 2 existing coordinate systems).

- SB 877, Section 7 (1), required the Oregon DOT to **adopt administrative rules to implement** the requirements of SB 877, Section 1. (Move the coordinate systems from ORS to OAR.)
- SB 877, Section 7 (2), required the **Oregon DOT to establish an advisory committee**, as described in ORS 183.333.
- SB877, Section 7 (3), required the **Oregon DOT to appoint the following advisory committee members:**
  - a) Two members representing the Oregon Department of Transportation
  - b) Two members who are county surveyors in Oregon and members of the Oregon Association of County Engineers and Surveyors;
  - c) Two members representing professional surveyors in private practice in Oregon; and
  - d) One member representing the entity reorganized and renamed as the Oregon Geographic Information Council by Executive Order 94-16.
- SB 877, Section 7 (4), requires that **Administrative rules adopted or amended** pursuant to Section 7 must be **approved by a majority of the members of the advisory committee.**



## SB 877 By COMMITTEE ON JUDICIARY

(at the request of Oregon Coordinate Reference System **Technical Development Team**) -- Relating to Oregon Coordinate System for land surveying; and declaring an emergency.

- **2-22(S) Introduction and first reading.** Referred to President's desk.
- 2-25 Referred to Business, Transportation and Economic Development.
- 3-7 Public Hearing held.
- 3-31 Work Session held.
- 4-5 Recommendation: Do pass with amendments. (Printed A-Eng.)
- 4-6 Second reading.
- **4-7 Third reading. Carried by Beyer. Passed.** Ayes, 28; excused, 2--Bates, Girod.
- **4-11(H) First reading.** Referred to the desks of the Co-Speakers.
- 4-14 Referred to Transportation and Economic Development.
- 5-2 Public Hearing and Work Session held.
- 5-6 Recommendation: Do pass with amendments and be printed BEngrossed.
- 5-10 Second reading.
- 5-11 Rules suspended. Carried over to May 12, 2011 Calendar.
- 5-12 Rules suspended. Carried over to May 16, 2011 Calendar.
- **5-16 Third reading. Carried by Bentz. Passed.** Ayes, 57; Nays, 1--Schaufler; Excused, 2--Lindsay, Thompson.
- **5-19(S) Senate concurred in House amendments and repassed bill.** Ayes, 30.
- **5-23 President signed.**
- **5-26(H) Co-Speakers signed.**
- **6-1(S) Governor signed.**
- Chapter 179, 2011 Laws.

### Effective date, June 1, 2011.

Modifies requirements for use of Oregon Coordinate System for land surveying. Directs Department of Transportation to adopt rules implementing Oregon Coordinate System. Declares emergency, effective on passage.



Oregon Coordinate Reference System –  
***Technical Development Team*** (2011)

- Ken Bays, PLS  
ODOT Lead Geodetic Surveyor
- Mark Armstrong, PLS  
NGS Oregon Advisor
- Shelby Griggs, PLS  
Orbitech, inc.
- Lisa Lee  
Central Oregon Irrigation District
- John Putnam, PLS  
Orion GPS
- Art Benefiel  
Central Oregon Community College
- Mark Riggins, PLS  
Marion County Surveyor
- Marcus Reedy, PLS  
David Evans and Associates
- Jim Griffis, PLS  
David Evans and Associates
- Michael Olsen, Ph.D.  
Oregon State University



## OAR

## DIVISION 5

### OREGON COORDINATE SYSTEMS

734-005-0005

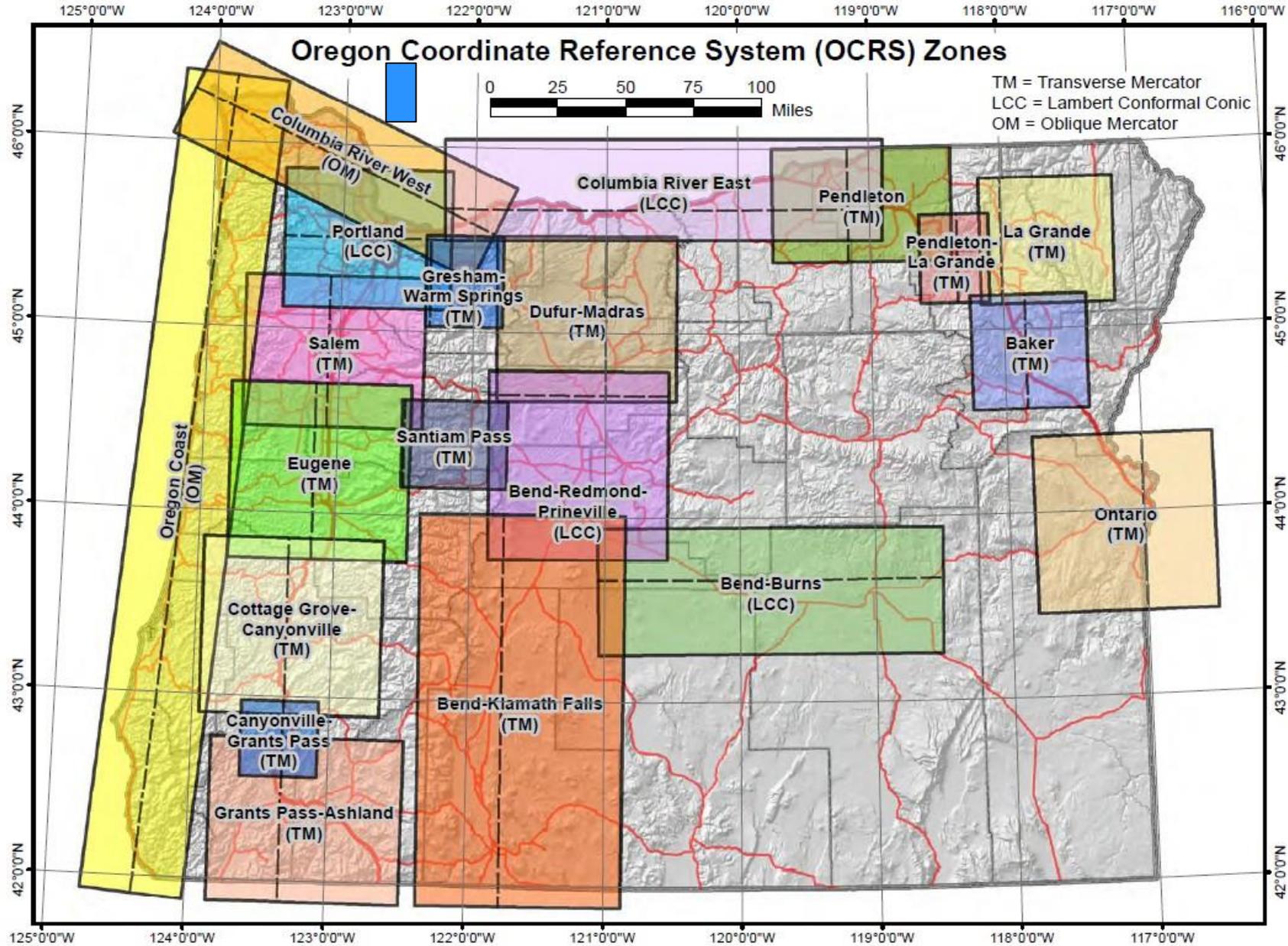
#### Purpose

The purpose of this administrative rule is to **define the Oregon Coordinate System**, consisting of three mapping projection coordinate systems that are authorized for use in the State of Oregon.

734-005-0010

#### Oregon Coordinate Systems

- (1) The **Oregon State Plane Coordinate System of 1927** consists of two zones of mapping projections defined by the National Geodetic Survey of the National Ocean Service, one for the Oregon North Zone and one for the Oregon South Zone.
- (2) The **Oregon State Plane Coordinate System of 1983** consists of two zones of mapping projections defined by the National Geodetic Survey of the National Ocean Service, one for the Oregon North Zone and one for the Oregon South Zone.
- (3) The **Oregon Coordinate Reference System** consists of multiple zones developed by an Oregon Department of Transportation committee of private and public land surveying, geographic information system, and academic professionals to define a system of low distortion mapping projections wherein distances computed between points on the grid plane will represent the distances measured between the same points on the ground within published zone tolerances.





# OAR OCRS Advisory Committee

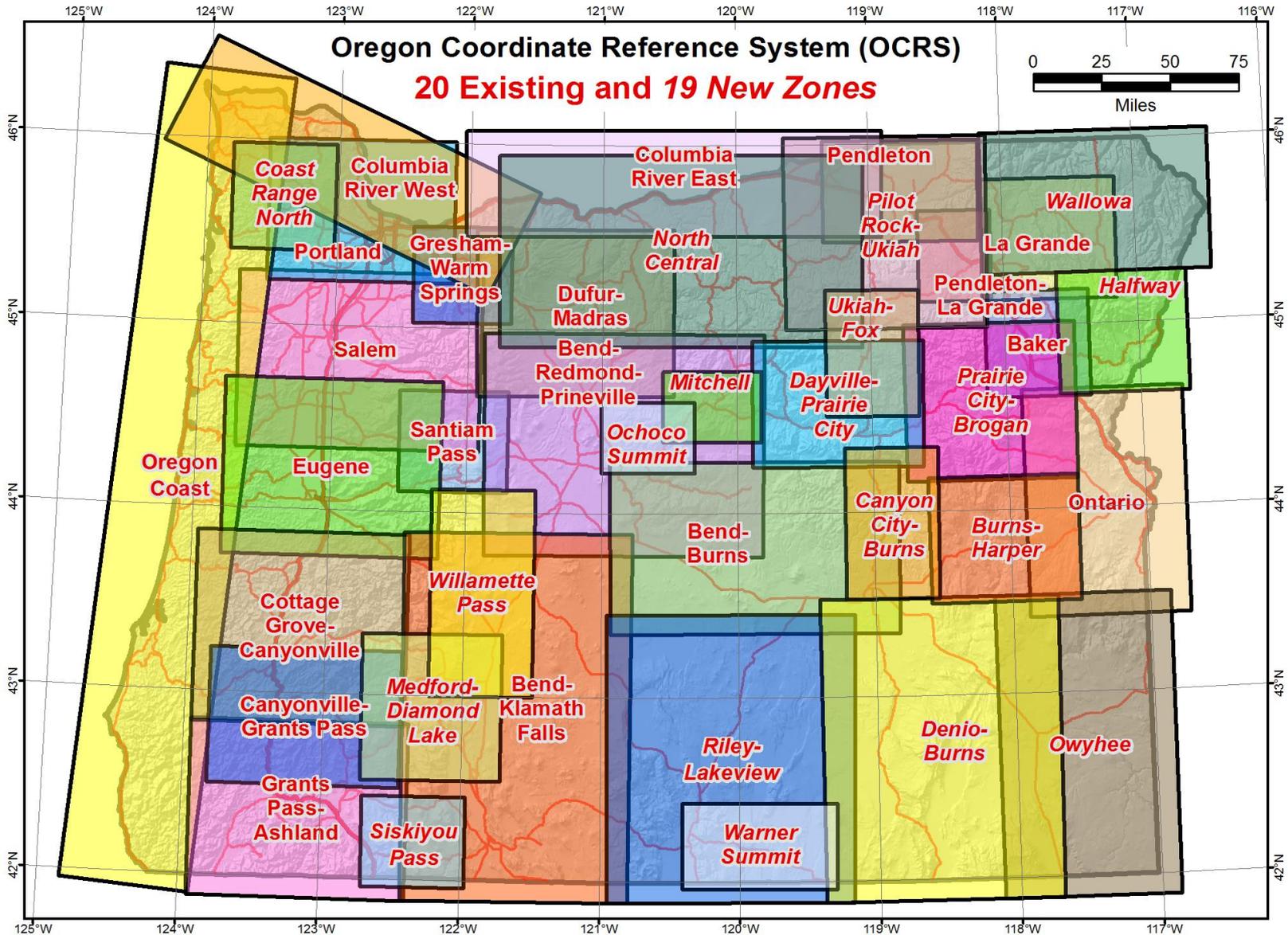
required by Senate Bill 877 to administer  
OAR 734-Division 5: Oregon Coordinate Systems

- 2 ODOT members
  - Ron Singh, Chief of Surveys, Chair – **retired**
  - Ken Bays, Lead Geodetic Surveyor – **retiring 4/1/2017**
- 2 OACES members
  - Mark Riggins
  - Jim Elam - **retired**
- 2 Oregon PLS's in private practice
  - John Minor
  - Gary Hickman
- 1 Oregon Geographic Information Council member
  - Brady Callahan

Will meet at least every 5 years

August 9, 2016: Committee approved the 19 new zones

December 15 2016: Oregon Transportation Commission approved amended OAR adding the new zones.





## Your NAD 83-Based State Plane-Legislated Coordinates **Will Not Be Maintained** after 2022!



**What will you and your fellow professionals do? Panic? Ignore the Issue? or Act? Please let us know!**

### What is changing?

**The North American Datum of 1983 (NAD 83)** will be replaced in 2022. The new datum will have a different name.

**The North American Vertical Datum of 1988 (NAVD 88)** will also be replaced in 2022. Its replacement will also have a new name.

Expected horizontal shifts from NAD 83 to the new datum are in the 1-2 meter range. The National Geodetic Survey will provide a coarse, map-grade transformation tool (such as NADCON and GEOCON) to connect NAD 83 with the new datum.

### Who will be affected?

All states and territories will be transitioned to the new datums. Forty-eight states have a state-specific coordinate system law tied to NAD 83. **Your state law will not reflect the National Spatial Reference System after 2022.**

### Who can help?

**The National Geodetic Survey (NGS), the National Society of Professional Surveyors (NSPS) and the American Association for Geodetic Surveying (AAGS)** are here to help your state make these changes in legislation!

**You can help** by understanding your own state's laws and how these changes will impact you.

### Should you change or modify your state law?

NGS, NSPS and AAGS believe it would benefit state surveyors and mapping professionals for laws or regulations to reflect the latest federal geodetic infrastructure, namely **the National Spatial Reference System.**

#### Why should you change or modify your state law?

1. Federal agencies will adopt the new datum, so national products like **Federal Emergency Management Agency (FEMA) flood insurance rate maps** will no longer reference NAD 83, nor NAVD 88. Using the current (most updated) datum will avoid confusion and increase consistency with federal engineering or constructions projects.
2. Federal resources will no longer be used to maintain or correct issues with data on superseded datums. **Instead, NGS will focus on supporting users of the updated National Spatial Reference System (NSRS).**

3. More geospatial data is being collected and shared every day. A consistent and regularly updated NSRS will provide greater efficiency across surveying and mapping sectors.

#### What do you think?

We welcome your feedback! Please provide any feedback you like to one of our committee members, below.

#### NSPS/AAGS/NGS Advisory Committee on National Spatial Reference System Legislation

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**Questions?**