Technical Development of the Western States One Stop Shop for Rural Traveler Information

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Montana State University

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Disclaimer

The opinions, findings and conclusions expressed in this presentation are those of the authors and not necessarily those of the Western States Rural Transportation Consortium, the California Department of Transportation, or Montana State University.

Acknowledgements

- *Caltrans D2*
- *Caltrans DRI*
- *WSRTC*
- *FHWA – Clarus*
- *WTI UTC*

Abstract

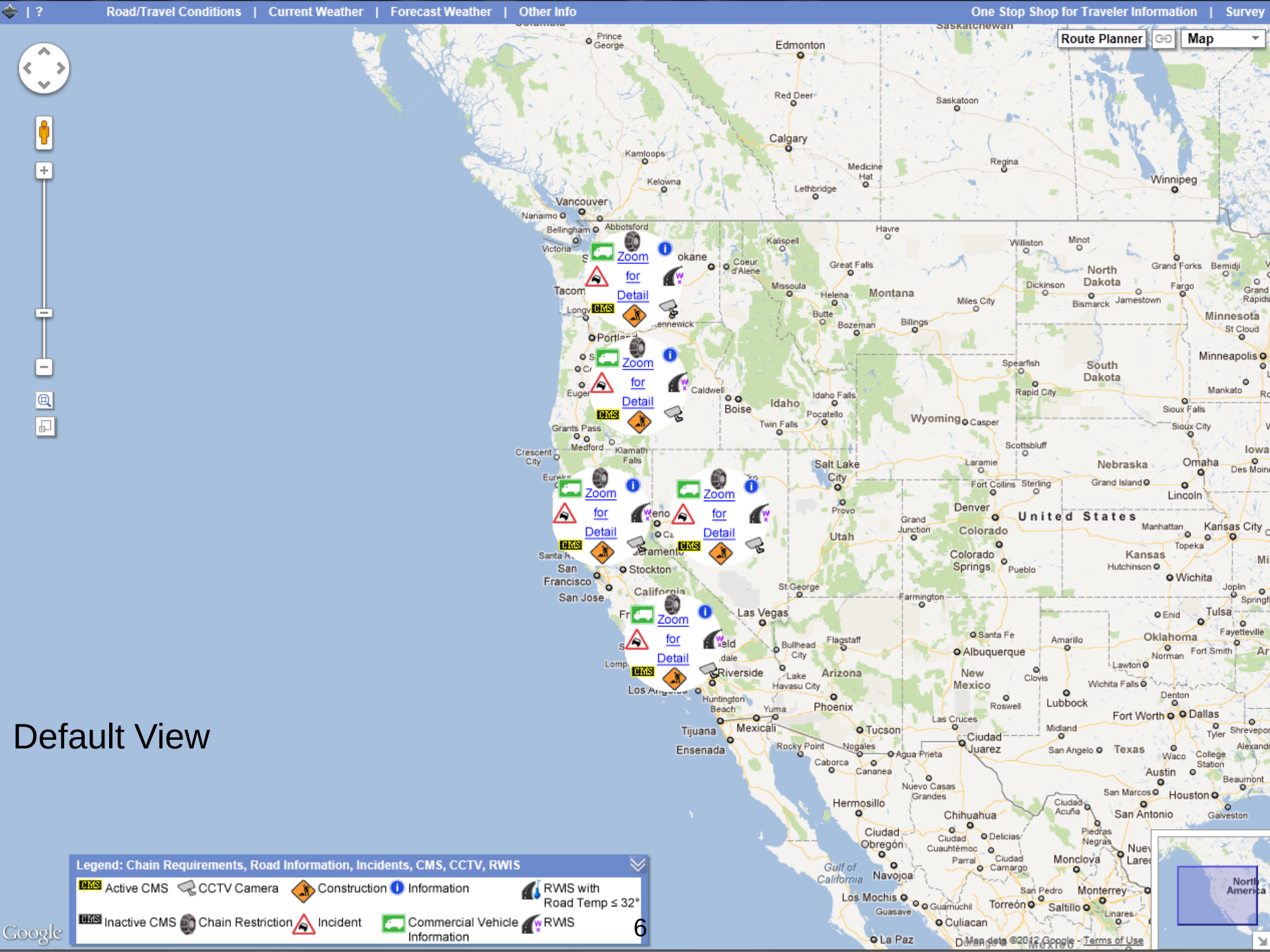
The One-Stop-Shop (OSS) web application provides travelers with comprehensive, real-time data that can be used in planning their trips. OSS presents routing functionality, camera images, weather information, elevation profiles, rest areas, points of interest and more, in a consistent, easily accessible and intuitive interface that allows travelers to plan both in-state trips and trips that cross state borders. OSS currently covers California, Oregon, Washington and Nevada.

OSS was developed using a "best effort" approach to bring in data from four states and ten organizations, providing over 25 separate layers. States were not required to change their feeds for use in OSS, although they were encouraged to make data accessible online that otherwise was not available. Managing the import and presentation of this data via an intuitive interface presented various technical challenges to the project team, and the prospect of future expansion to additional western states was taken into account when developing the system.

In this presentation we will discuss the architecture of the One-Stop-Shop, including implementation details on both the client-side and server-side.

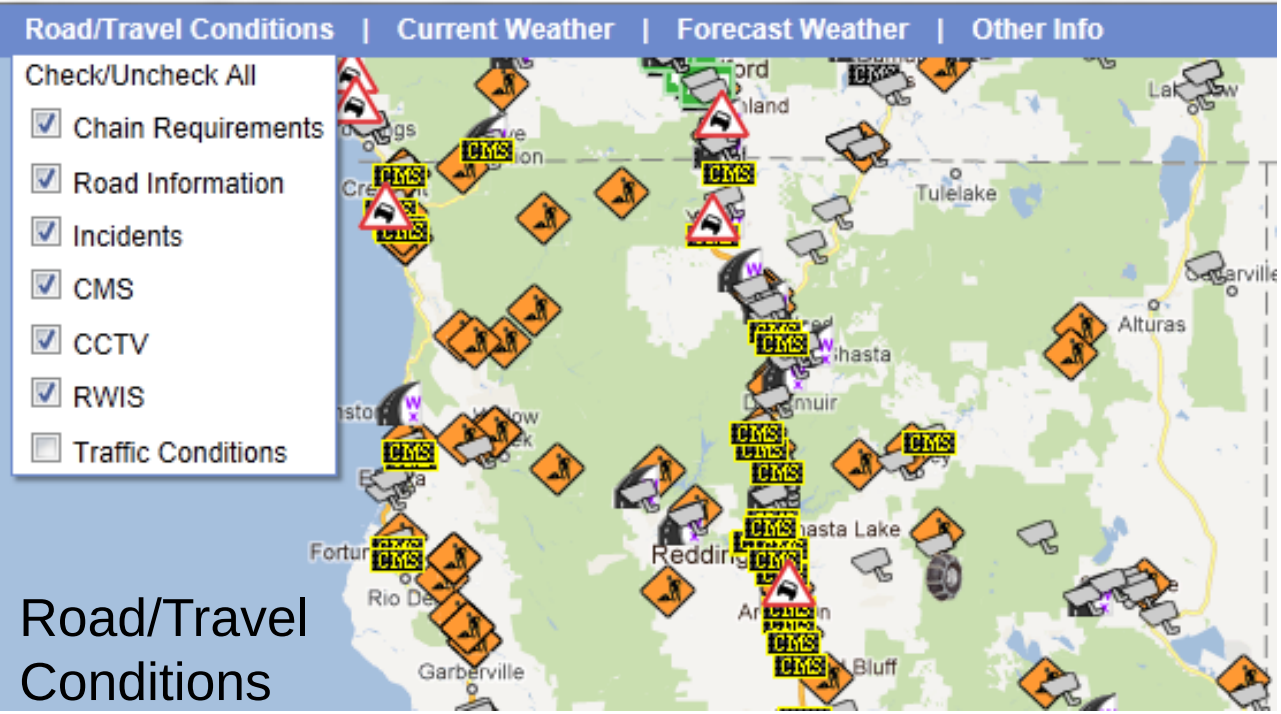
What is OSS?

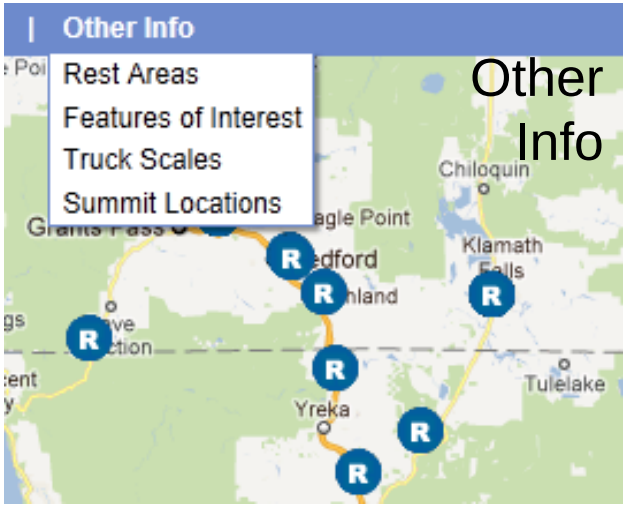
A Pictorial Overview …

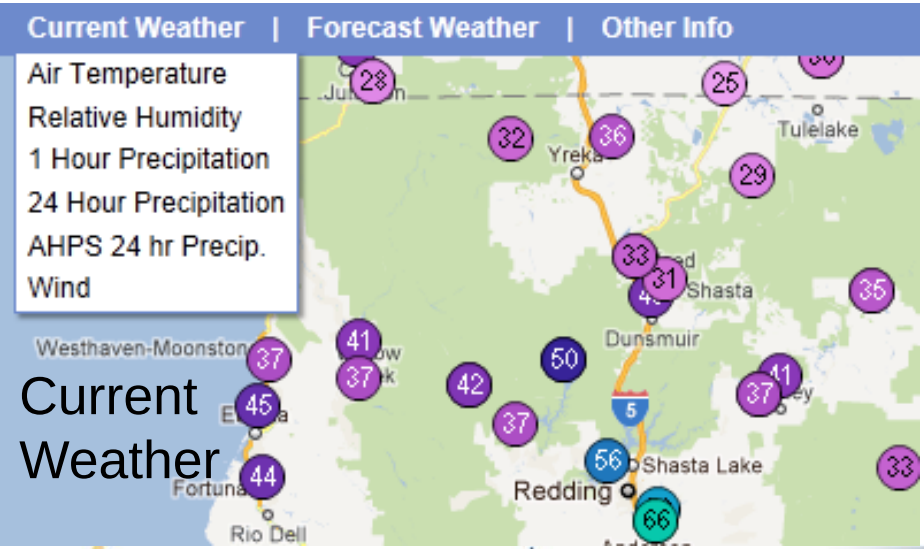


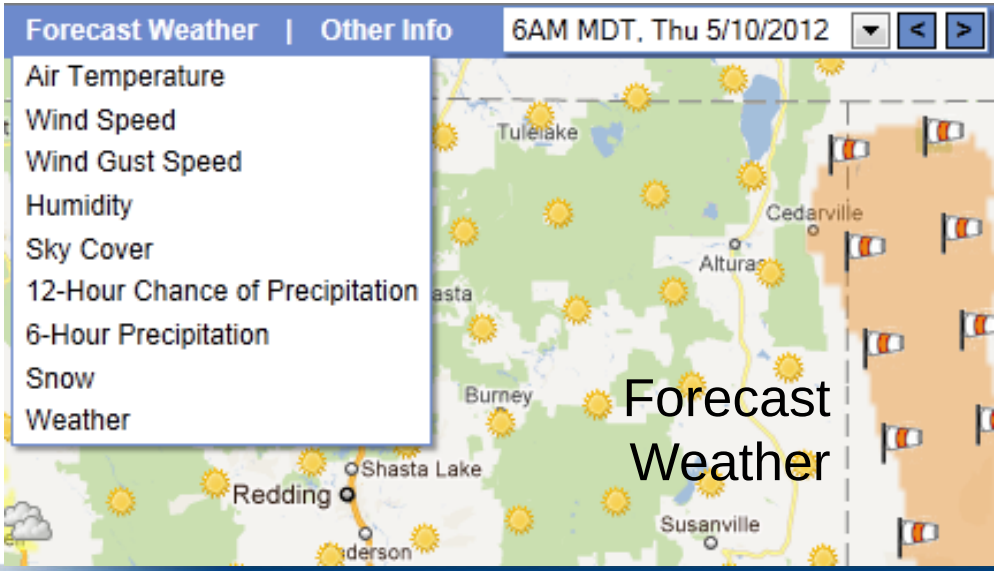
Default View

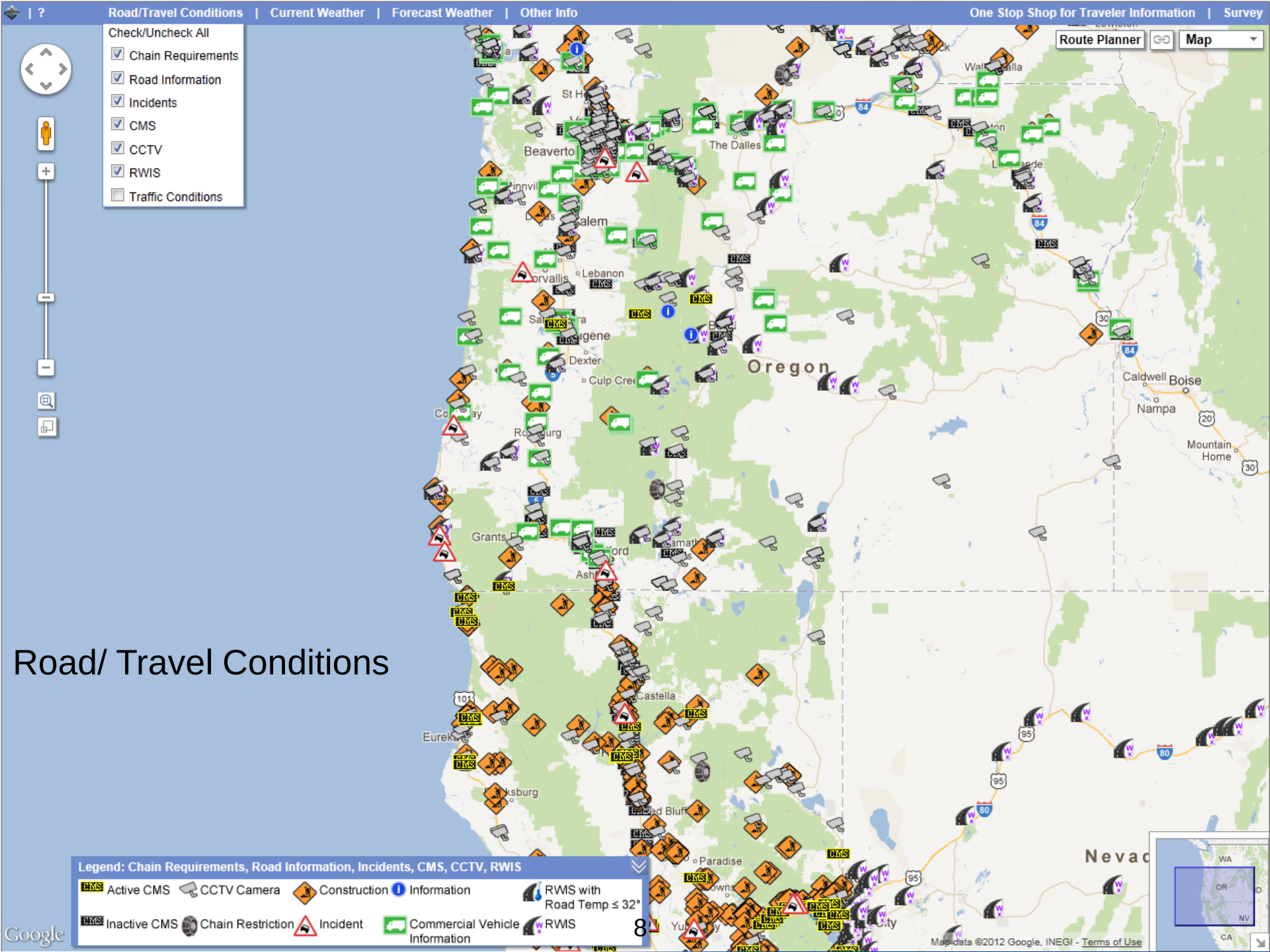
The Layers


Road/Travel Conditions | Current Weather | Forecast Weather | Other Info
Check/Uncheck All
Chain Requirements
Road Information
Incidents
CMS
CCTV
RWIS
Traffic Conditions
Road/Travel Conditions

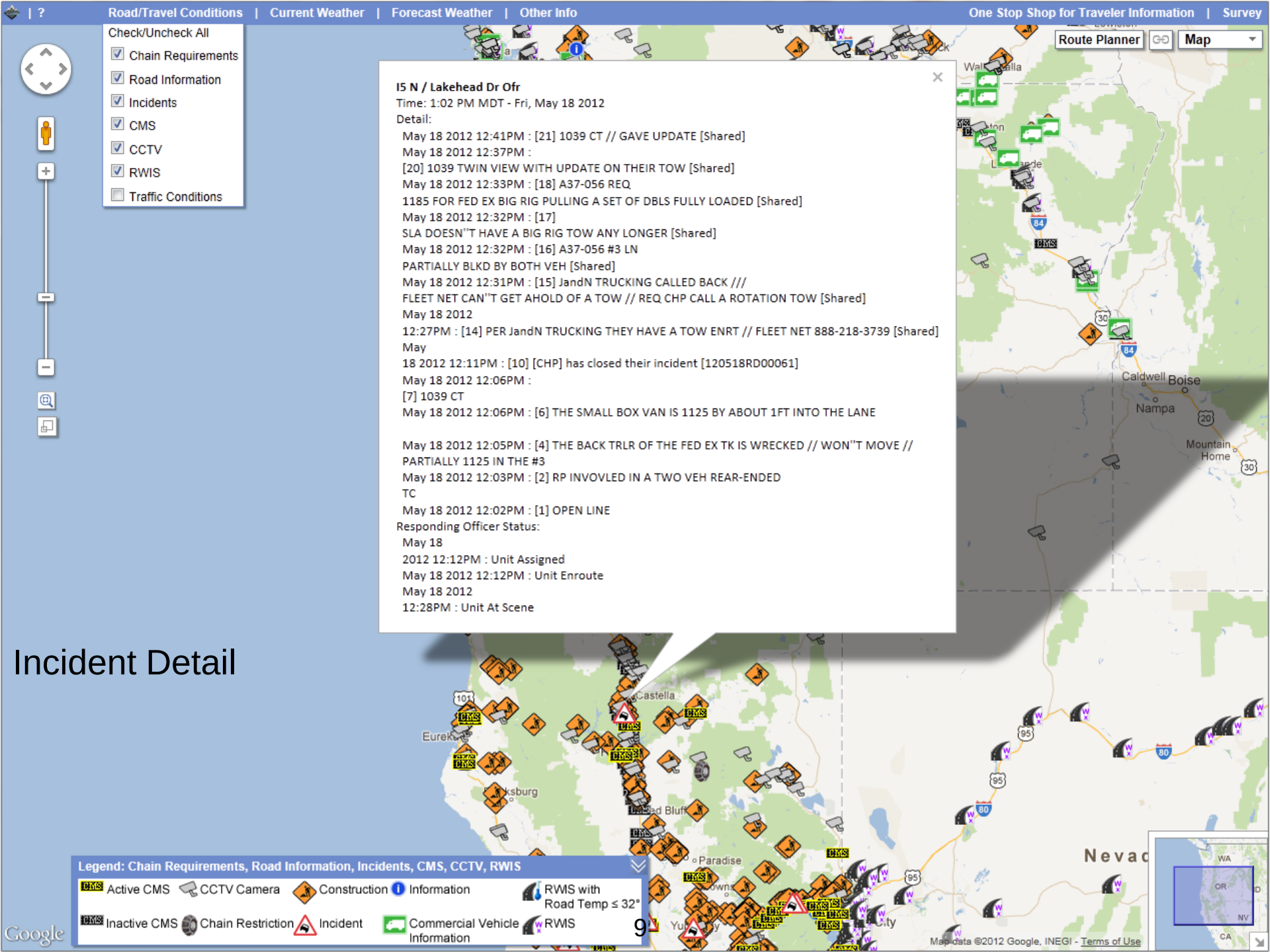

Other Info
Rest Areas
Features of Interest
Truck Scales
Summit Locations
Other Info


Current Weather | Forecast Weather | Other Info
Air Temperature
Relative Humidity
1 Hour Precipitation
24 Hour Precipitation
AHPS 24 hr Precip.
Wind
Current Weather

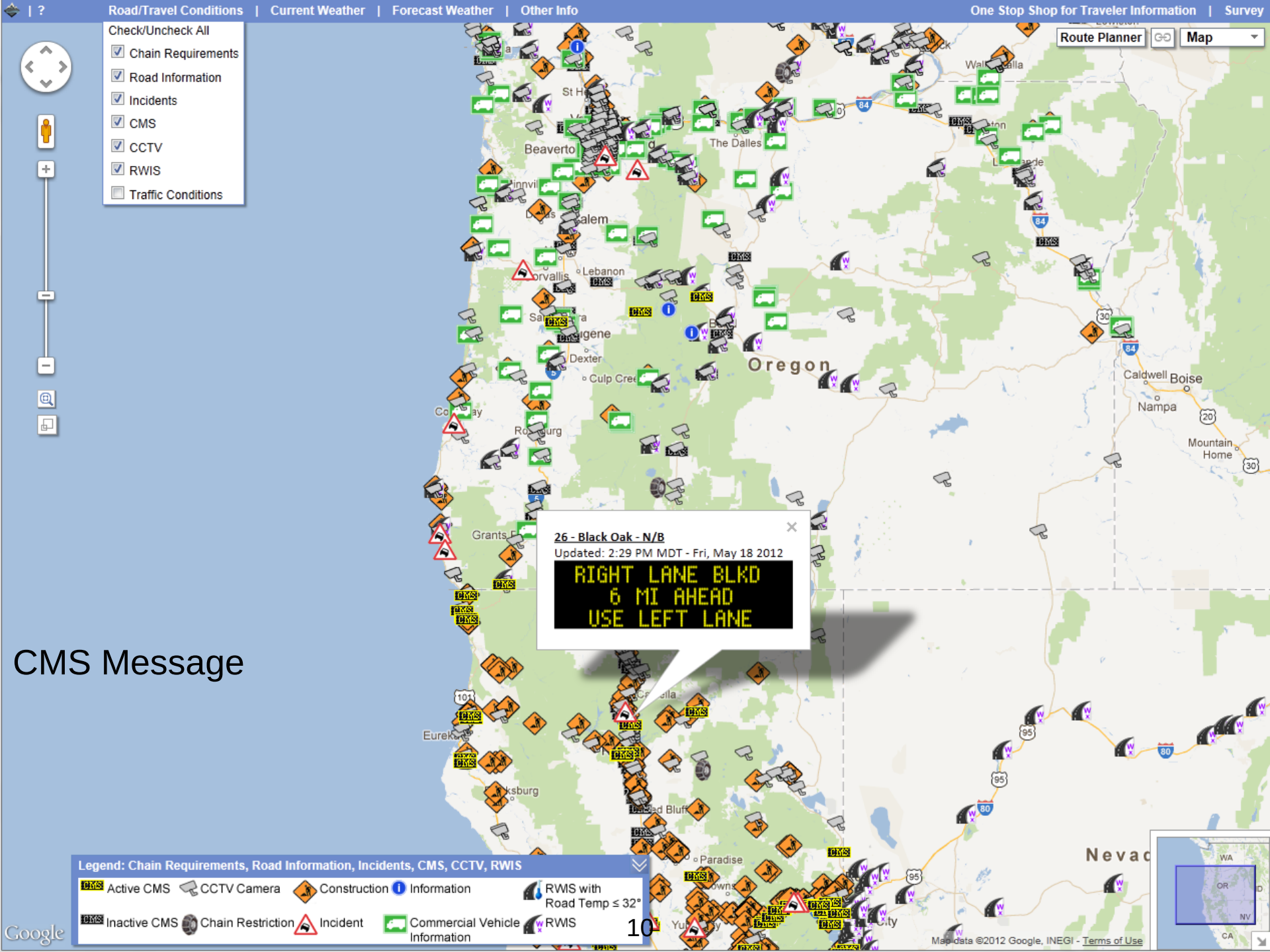

Forecast Weather | Other Info
6AM MDT, Thu 5/10/2012
Air Temperature
Wind Speed
Wind Gust Speed
Humidity
Sky Cover
12-Hour Chance of Precipitation
6-Hour Precipitation
Snow
Weather
Forecast Weather



Road/ Travel Conditions



Incident Detail


Road/Travel Conditions | Current Weather | Forecast Weather | Other Info
One Stop Shop for Traveler Information | Survey
Check/Uncheck All
Chain Requirements
Road Information
Incidents
CMS
CCTV
RWIS
Traffic Conditions
Route Planner
Map
Oregon
Beaverto
The Dalles
Lebanon
Dexter
Caldwell
Boise
Nampa
Mountain Home
26 - Black Oak - N/B
Updated: 2:29 PM MDT - Fri, May 18 2012
RIGHT LANE BLKD
6 MI AHEAD
USE LEFT LANE
Paradise
Legend: Chain Requirements, Road Information, Incidents, CMS, CCTV, RWIS
Active CMS
CCTV Camera
Construction
Information
RWIS with Road Temp ≤ 32°
Inactive CMS
Chain Restriction
Incident
Commercial Vehicle Information
RWIS
Google
Map data ©2012 Google, INEGI - Terms of Use

CMS Message

Check/Uncheck All
- Chain Requirements
- Road Information
- Incidents
- CMS
- CCTV
- RWIS
- Traffic Conditions

Route Planner | Map

Lakehead
2:10 PM MDT - Fri, May 18 2012

CCTV Image

Lakehead-Lakeshore

Salt Creek Inlet

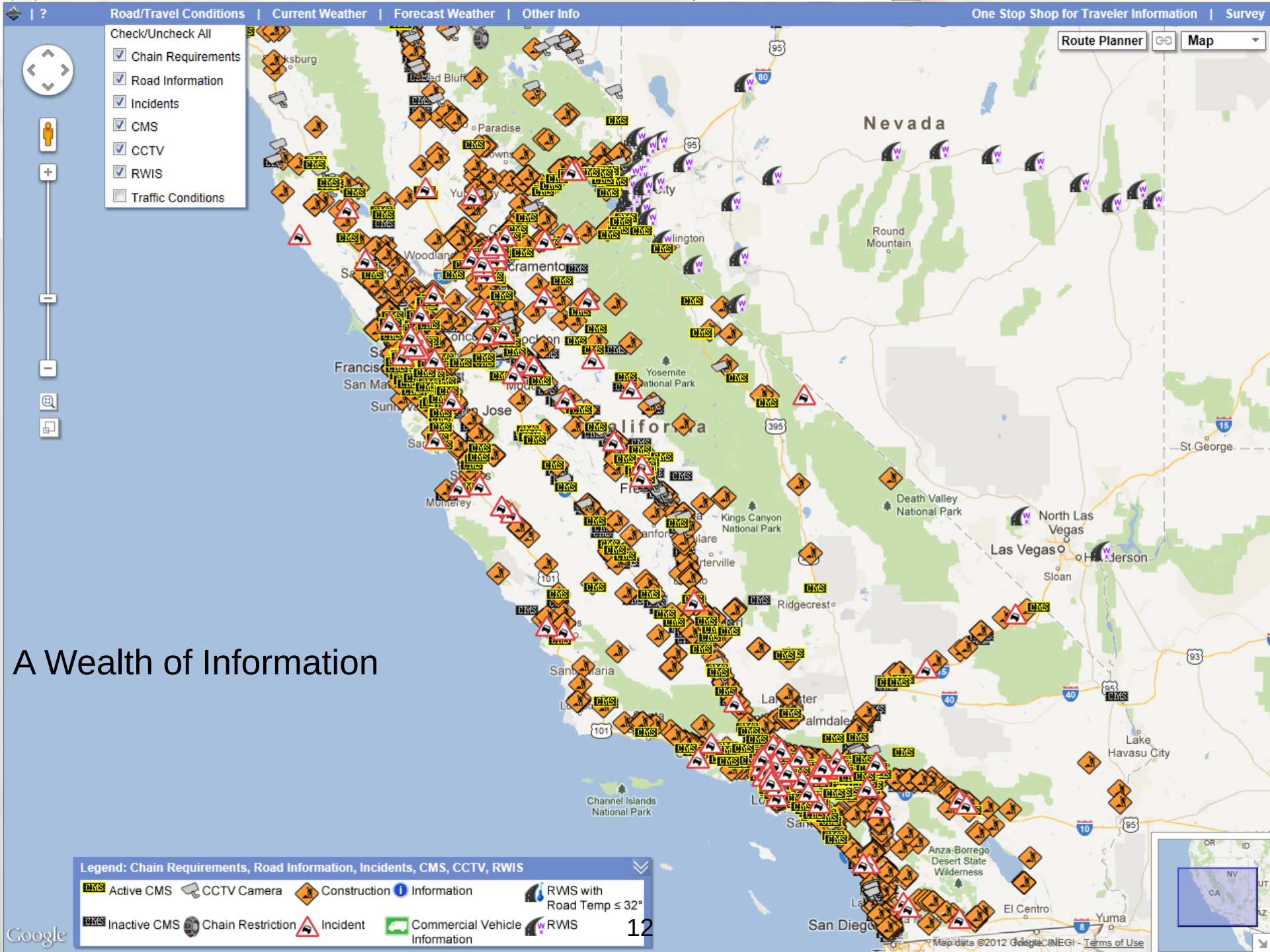
McCloud River Arm

Elmore Bay

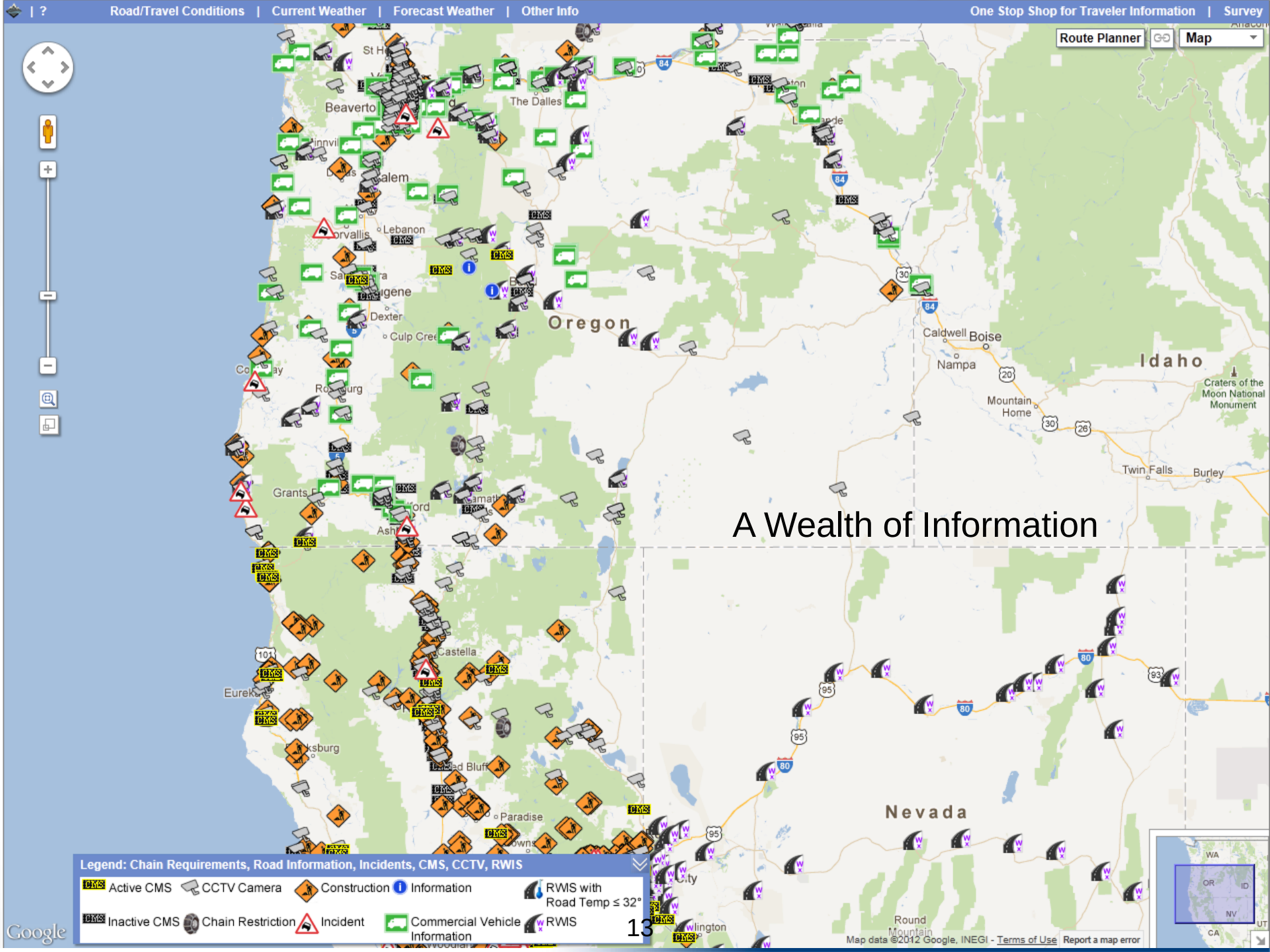
Legend: Chain Requirements, Road Information, Incidents, CMS, CCTV, RWIS

CMS Active CMS | CCTV Camera | Construction | Information | RWIS with Road Temp ≤ 32°
CMS Inactive CMS | Chain Restriction | Incident | Commercial Vehicle Information | RWIS

Shasta Lake



A Wealth of Information


| ?
Road/Travel Conditions | Current Weather | Forecast Weather | Other Info
One Stop Shop for Traveler Information | Survey
Route Planner
Map
A Wealth of Information
Oregon
Idaho
Nevada
Beaverton
Salem
Lebanon
Eugene
Dexter
The Dalles
Boise
Caldwell
Nampa
Mountain Home
Craters of the Moon National Monument
Twin Falls
Burley
Castella
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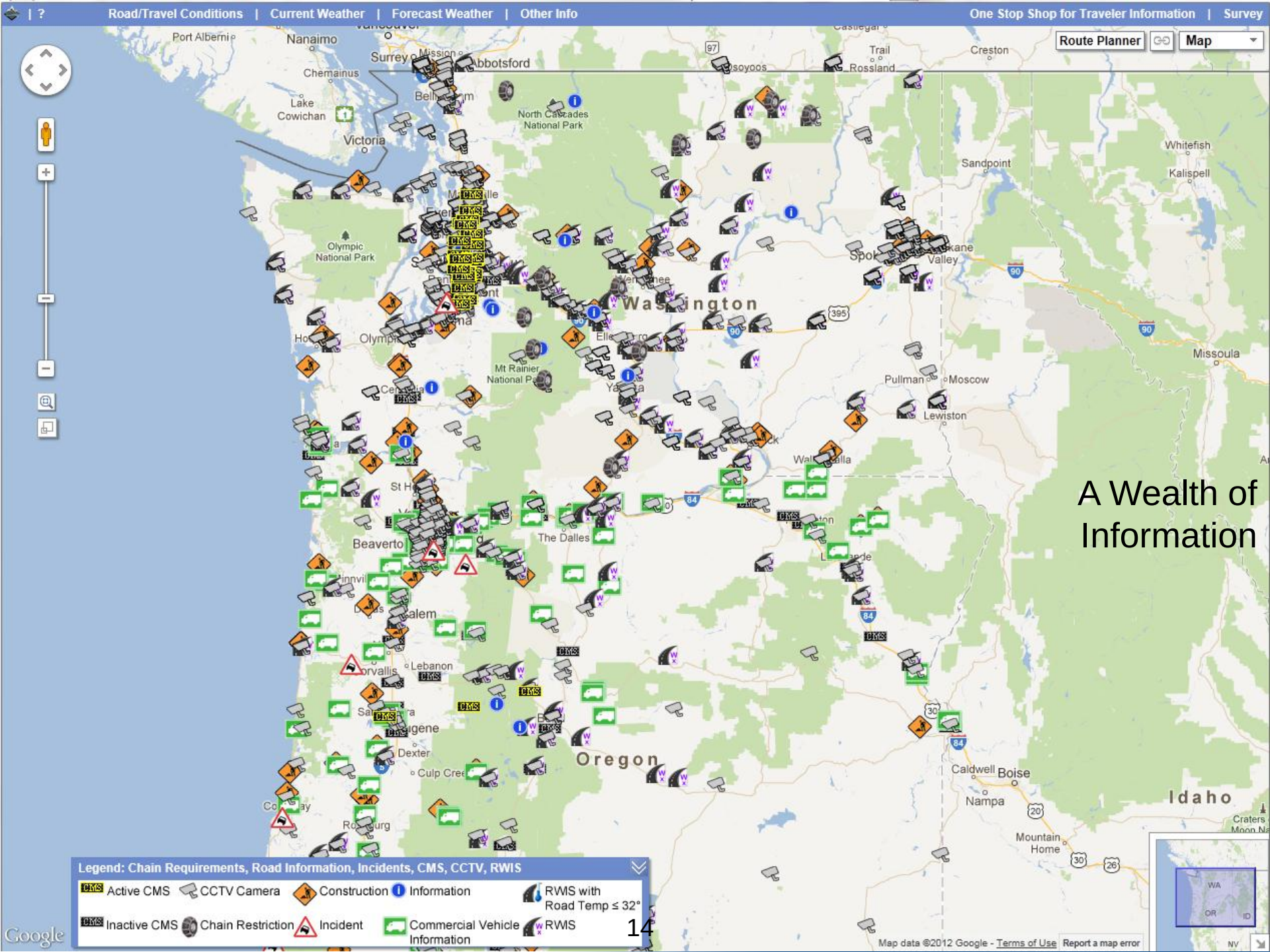
Information
RWIS with Road Temp ≤ 32°
Inactive CMS
Chain Restriction
Incident
Commercial Vehicle Information
RWIS
Google
Map data ©2012 Google, INEGI - Terms of Use
Report a map error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Road/Travel Conditions | Current Weather | Forecast Weather | Other Info
One Stop Shop for Traveler Information | Survey
Route Planner
Map
A Wealth of Information
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Active CMS
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Construction
Information
RWIS with Road Temp ≤ 32°
Inactive CMS
Chain Restriction
Incident
Commercial Vehicle Information
RWIS
Washington
Oregon
Idaho
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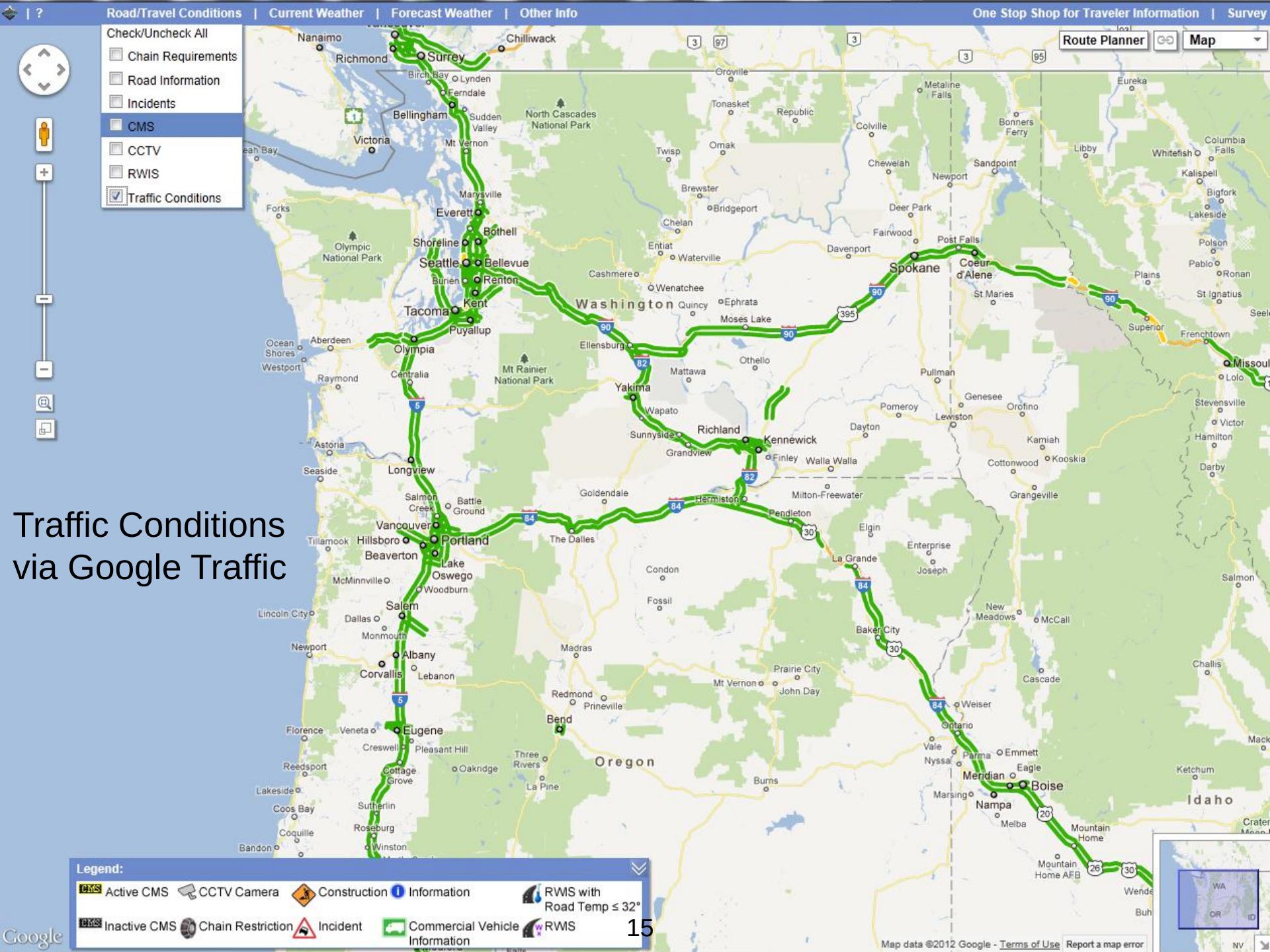
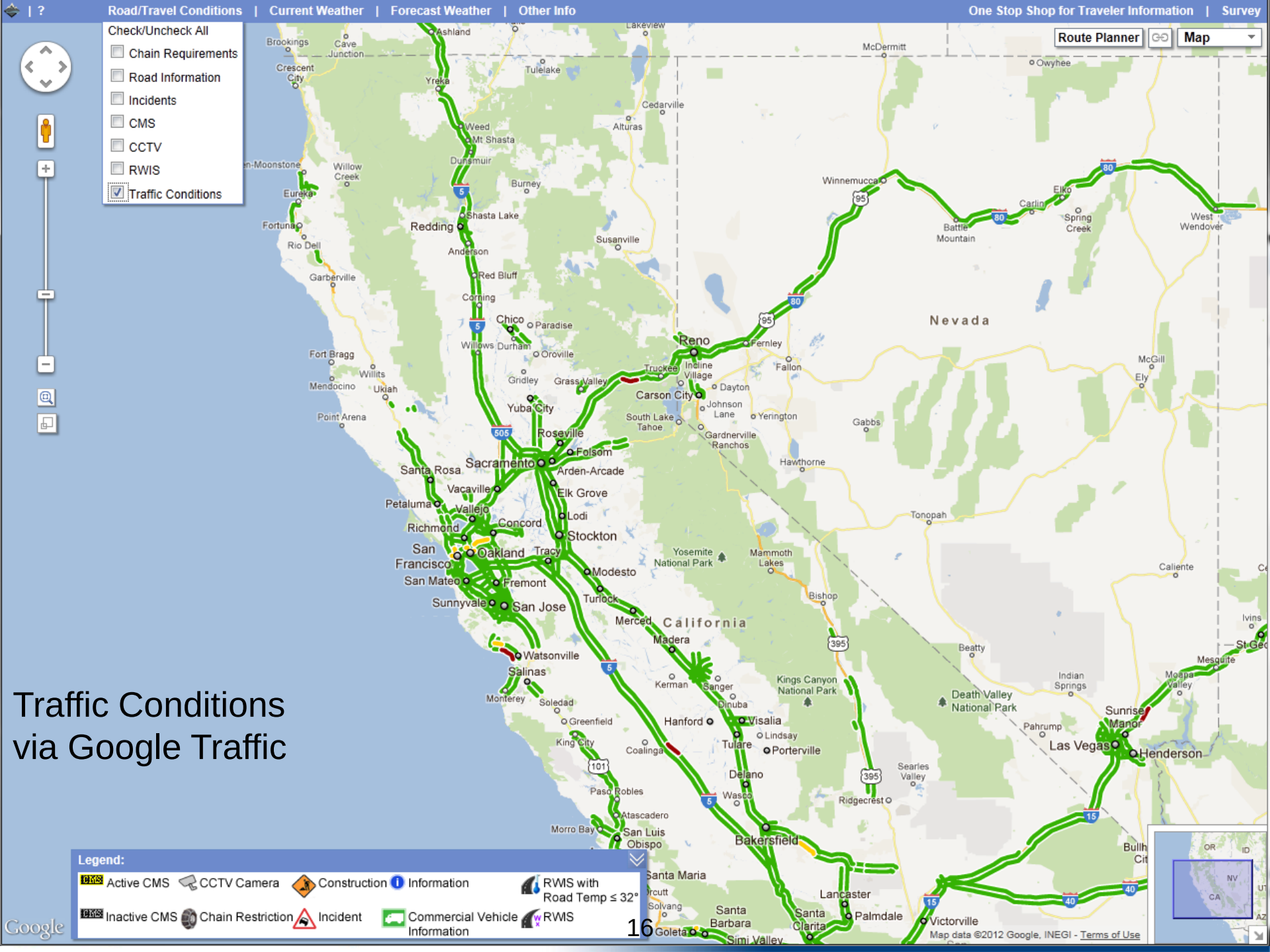
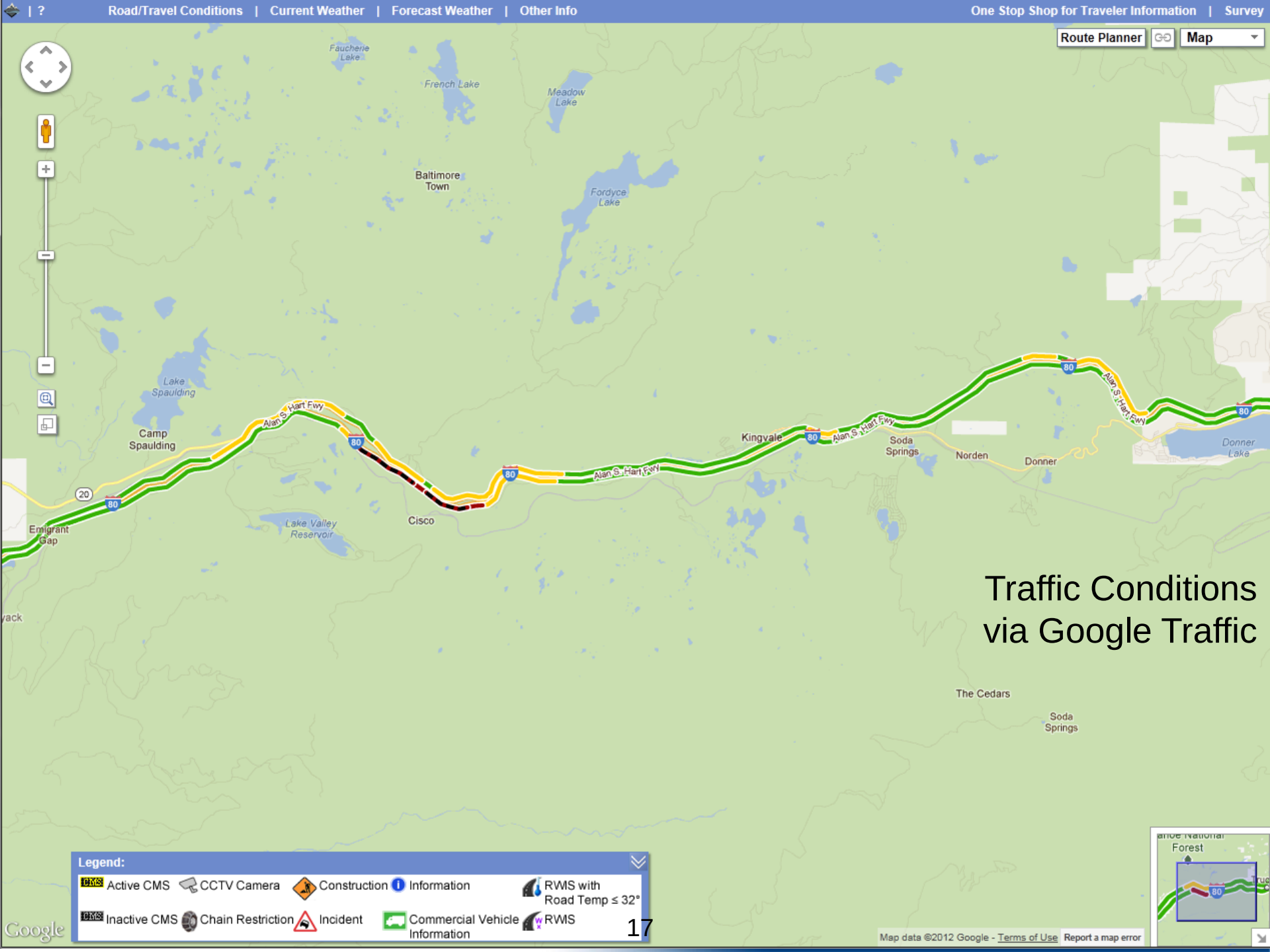
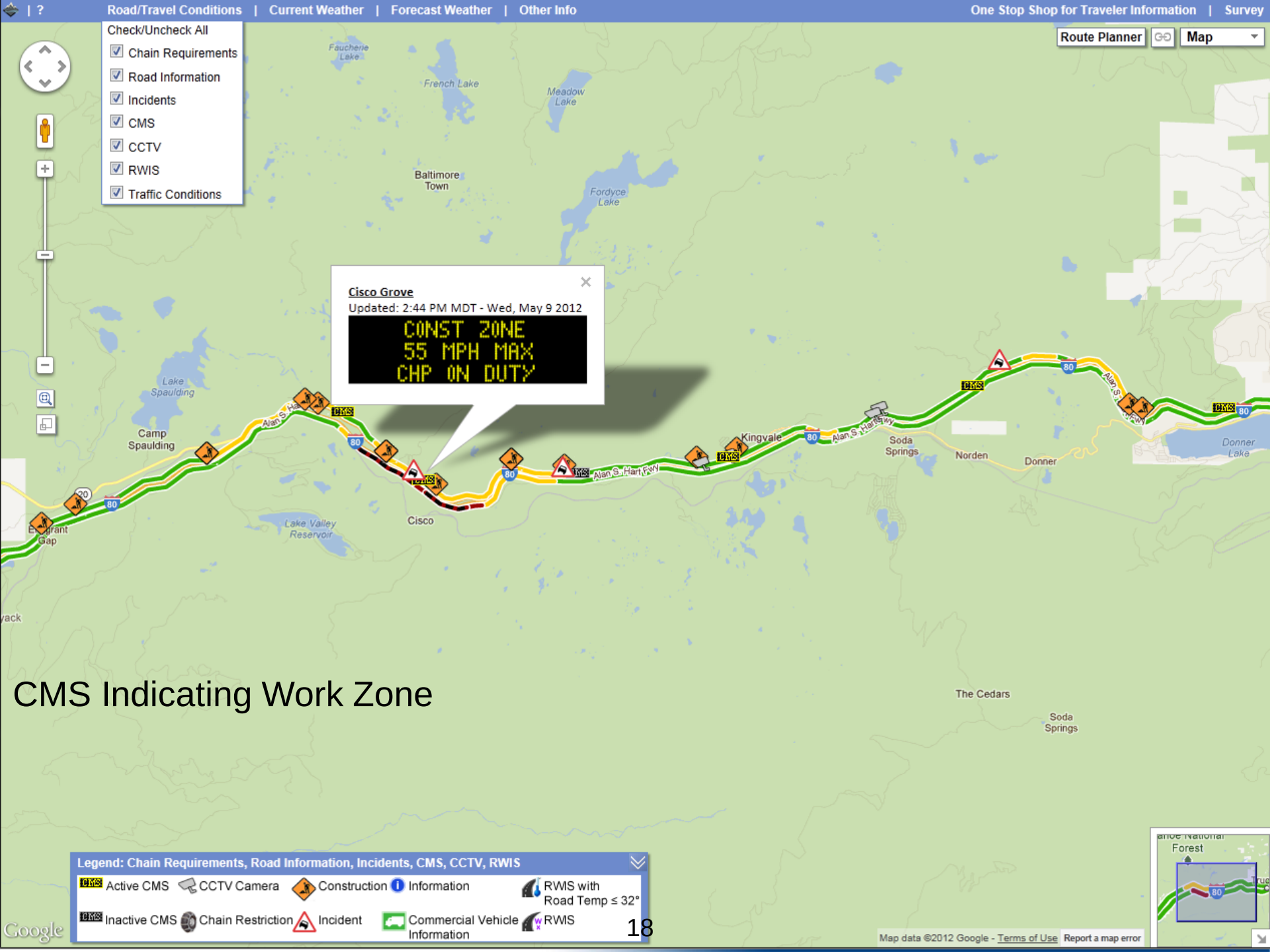
Report a map error
Google


Road/Travel Conditions | Current Weather | Forecast Weather | Other Info
One Stop Shop for Traveler Information | Survey
Check/Uncheck All
Chain Requirements
Road Information
Incidents
CMS
CCTV
RWIS
Traffic Conditions
Route Planner
Map
Traffic Conditions via Google Traffic
Legend:
Active CMS
CCTV Camera
Construction
Information
RWIS with Road Temp ≤ 32°
Inactive CMS
Chain Restriction
Incident
Commercial Vehicle Information
RWIS
Map data ©2012 Google - Terms of Use
Report a map error
Google



Traffic Conditions
via Google Traffic


| ?
Road/Travel Conditions | Current Weather | Forecast Weather | Other Info
One Stop Shop for Traveler Information | Survey
Route Planner
Map
Faucherie Lake
French Lake
Meadow Lake
Baltimore Town
Fordyce Lake
Lake Spaulding
Camp Spaulding
Alan S. Hart Fwy
Emigrant Gap
Lake Valley Reservoir
Cisco
Kingvale
Soda Springs
Norden
Donner
Donner Lake
The Cedars
Soda Springs
Traffic Conditions via Google Traffic
Legend:
Active CMS
CCTV Camera
Construction
Information
RWIS with Road Temp ≤ 32°
Inactive CMS
Chain Restriction
Incident
Commercial Vehicle Information
RWIS
Forest
Google
Map data ©2012 Google - Terms of Use
Report a map error



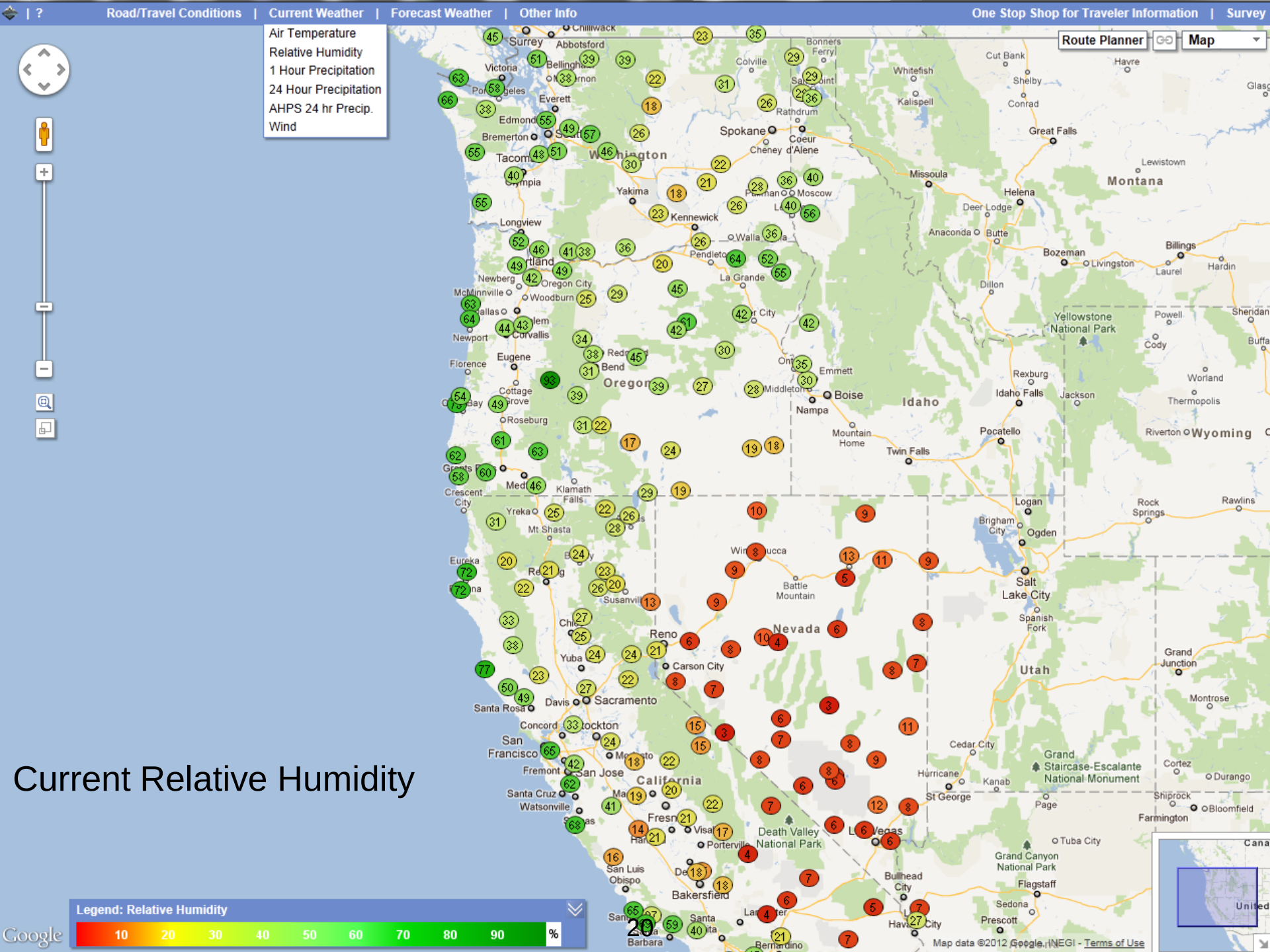
CMS Indicating Work Zone

Air Temperature
Relative Humidity
1 Hour Precipitation
24 Hour Precipitation
AHPS 24 hr Precip.
Wind

Route Planner | Map

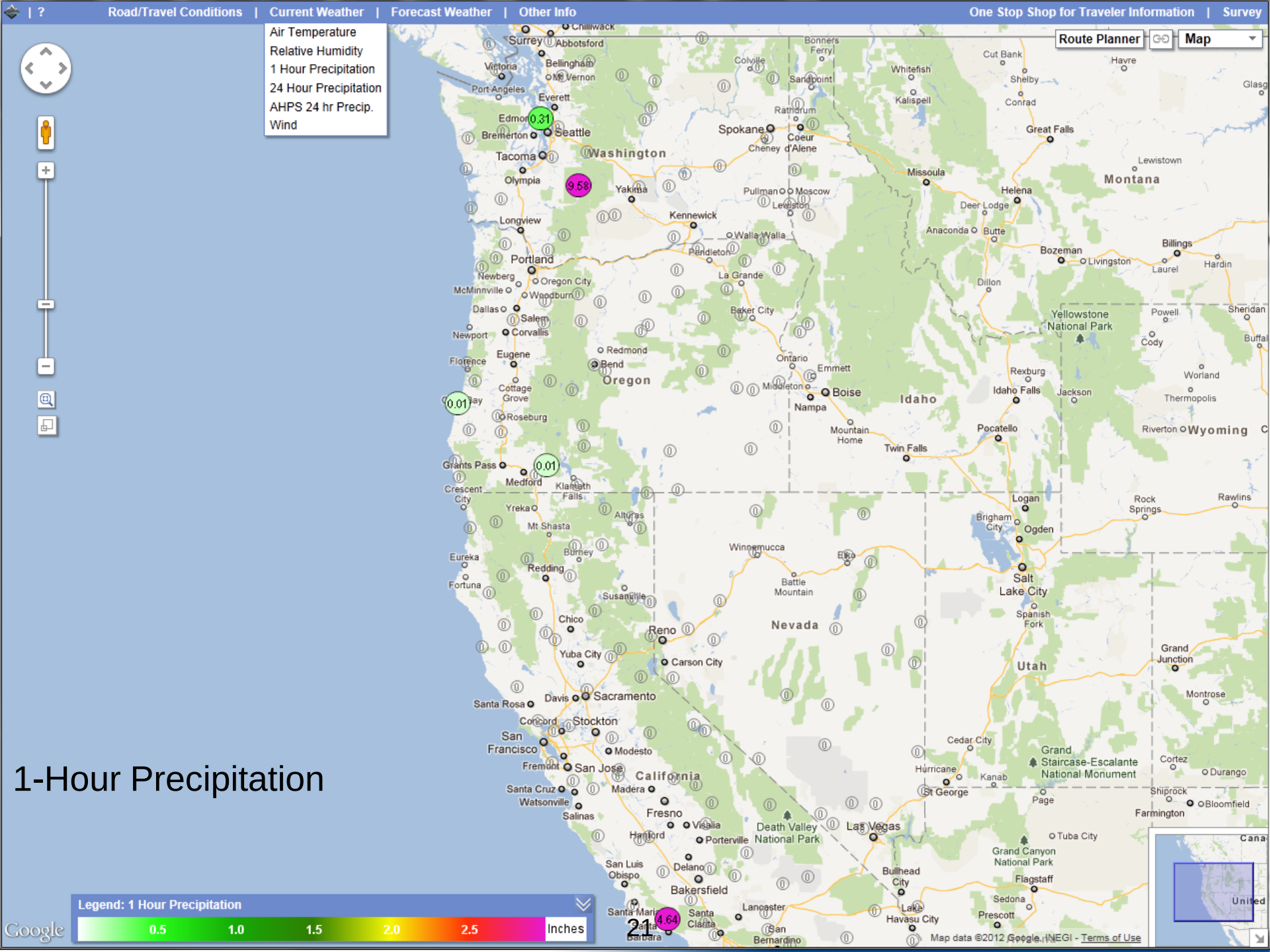
Current Air Temperature

Legend: Air Temperature
30 40 50 60 70 80 90 100 110 °F

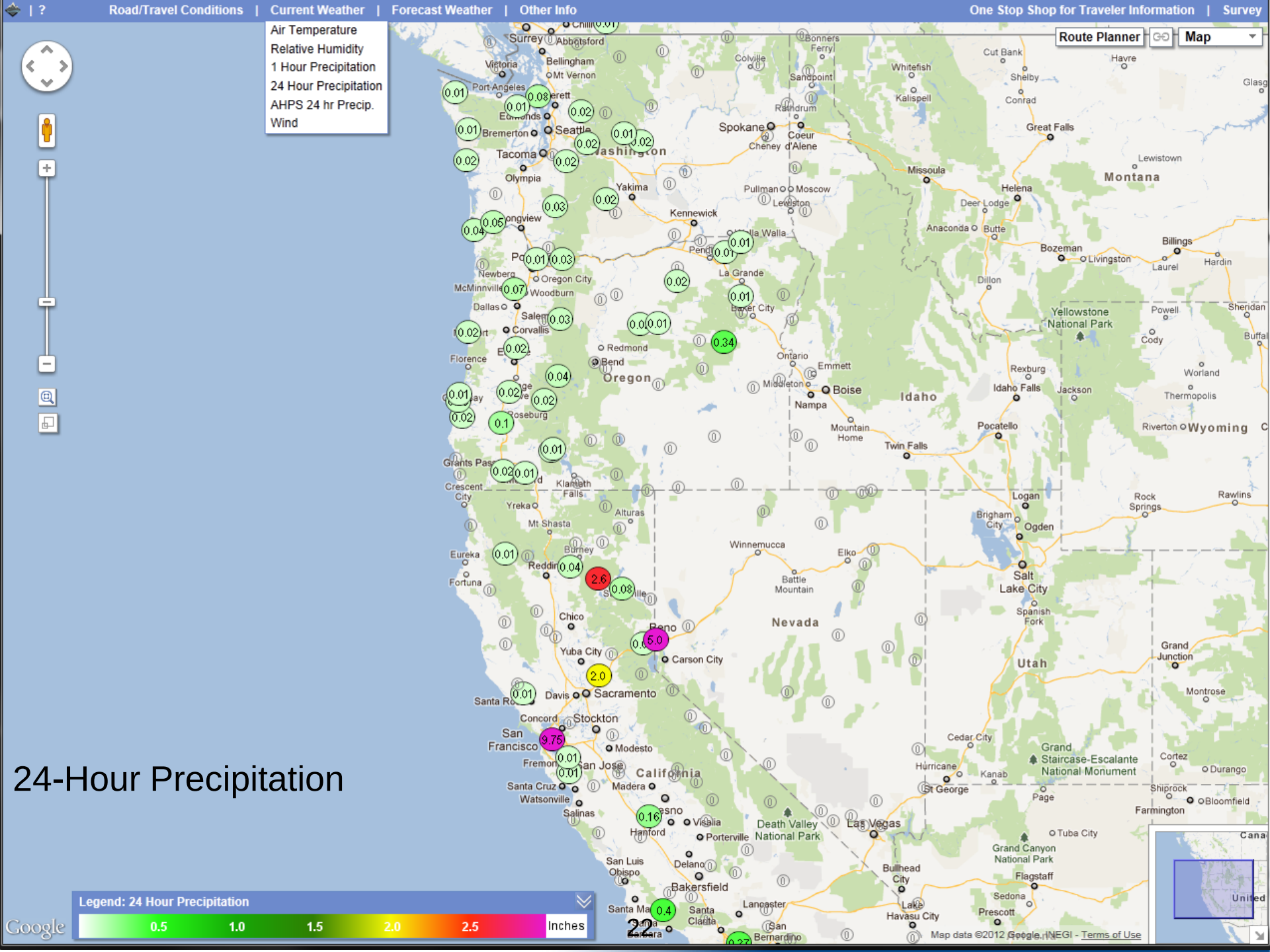

| ?
Road/Travel Conditions
Current Weather
Forecast Weather
Other Info
One Stop Shop for Traveler Information
Survey
Air Temperature
Relative Humidity
1 Hour Precipitation
24 Hour Precipitation
AHPS 24 hr Precip.
Wind
Route Planner
Map
Current Relative Humidity
Legend: Relative Humidity
10 20 30 40 50 60 70 80 90 %
Google
Map data ©2012 Google, INEGI - Terms of Use

Air Temperature
Relative Humidity
1 Hour Precipitation
24 Hour Precipitation
AHPS 24 hr Precip.
Wind

Route Planner | Map



1-Hour Precipitation


| ?
Road/Travel Conditions | Current Weather | Forecast Weather | Other Info
One Stop Shop for Traveler Information | Survey
Air Temperature
Relative Humidity
1 Hour Precipitation
24 Hour Precipitation
AHPS 24 hr Precip.
Wind
Route Planner
Map
24-Hour Precipitation
Legend: 24 Hour Precipitation
0.5 1.0 1.5 2.0 2.5 Inches
Google
Map data ©2012 Google, INEGI - Terms of Use
Oregon
Nevada
California
Idaho
Montana
Utah
Wyoming
Washington
Seattle
Portland
Spokane
Boise
Reno
Sacramento
San Francisco
Las Vegas
Salt Lake City

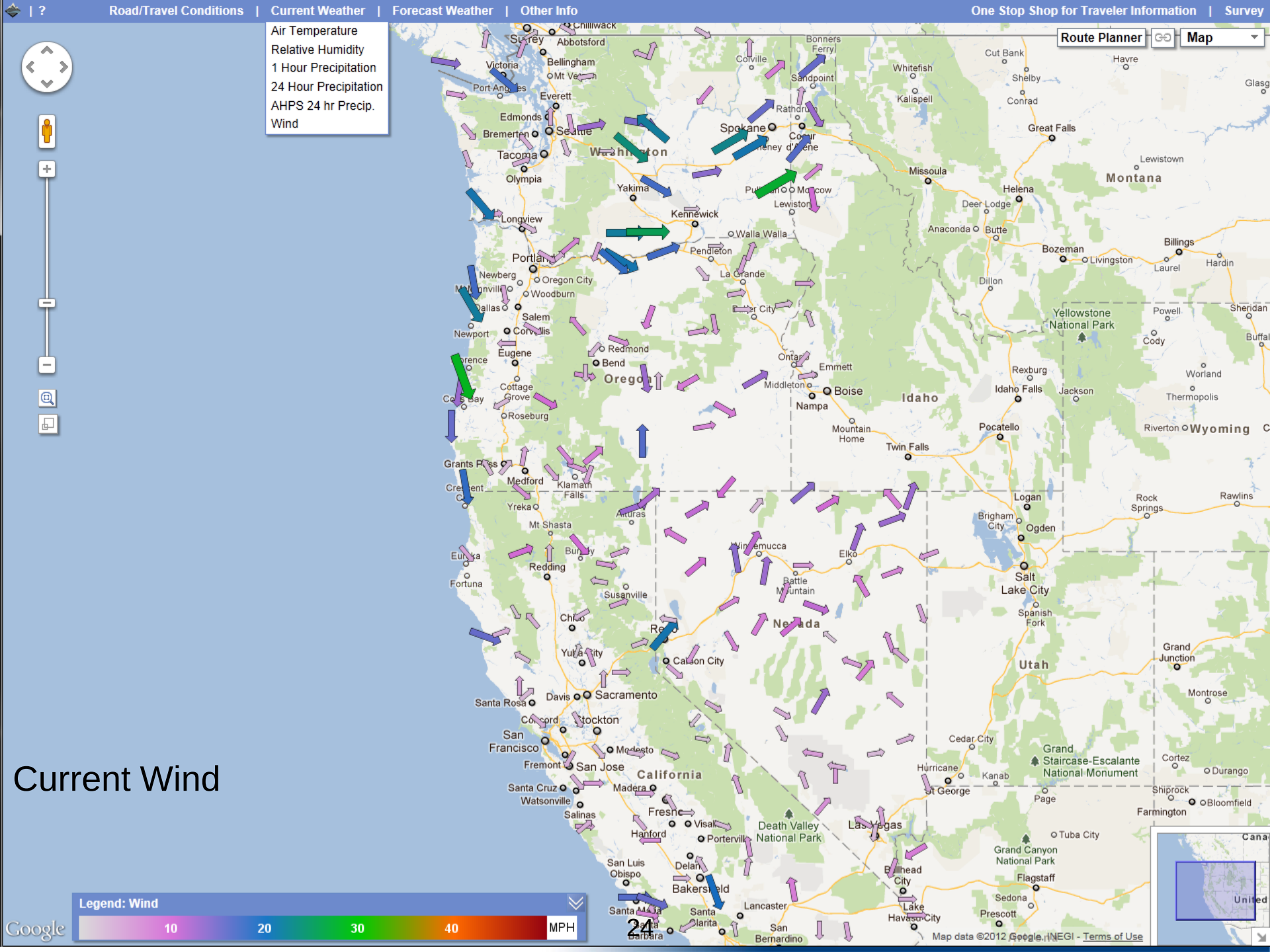
Air Temperature
Relative Humidity
1 Hour Precipitation
24 Hour Precipitation
AHPS 24 hr Precip.
Wind

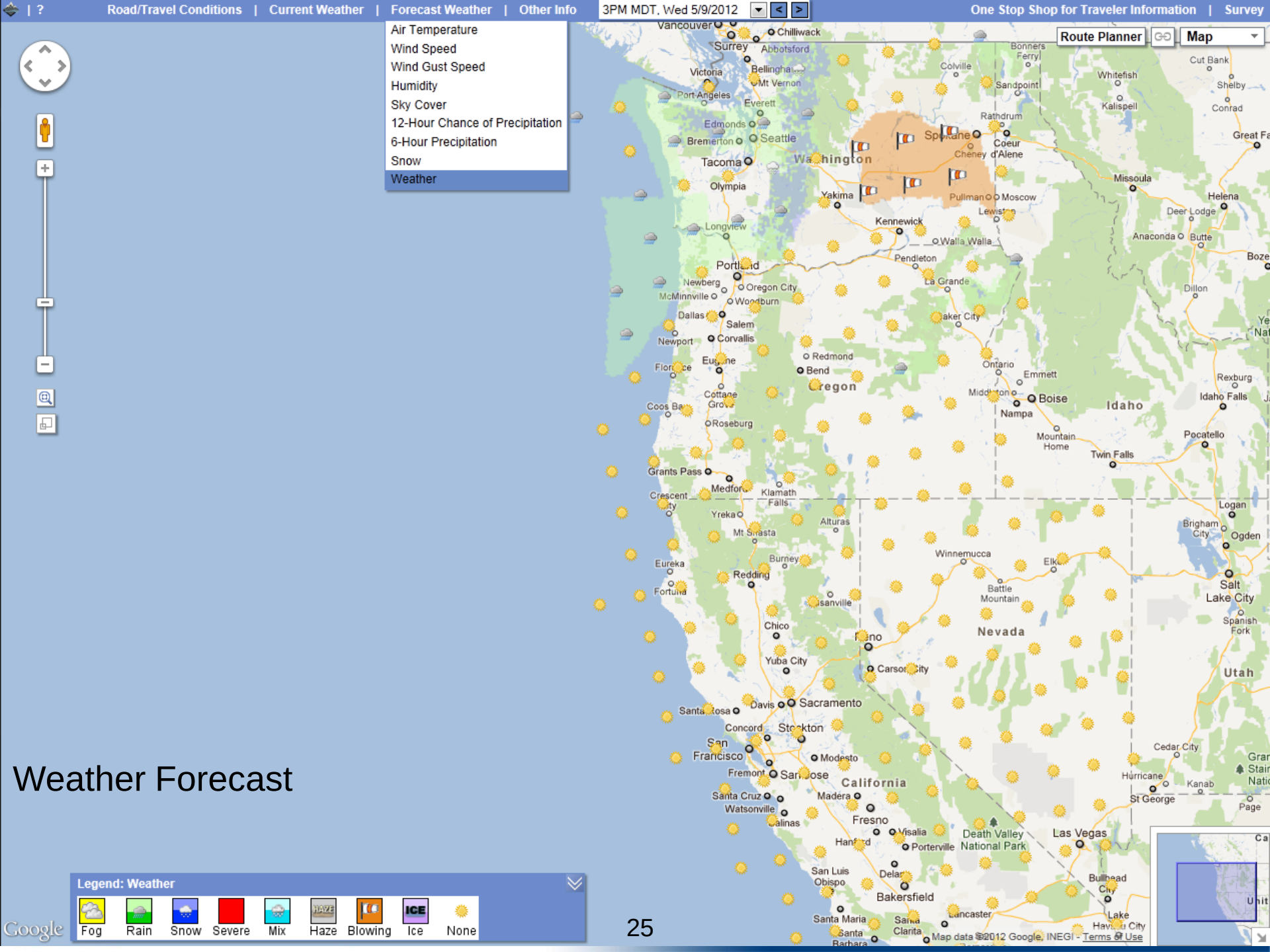
Route Planner | Map

AHPS 24-Hour Precipitation

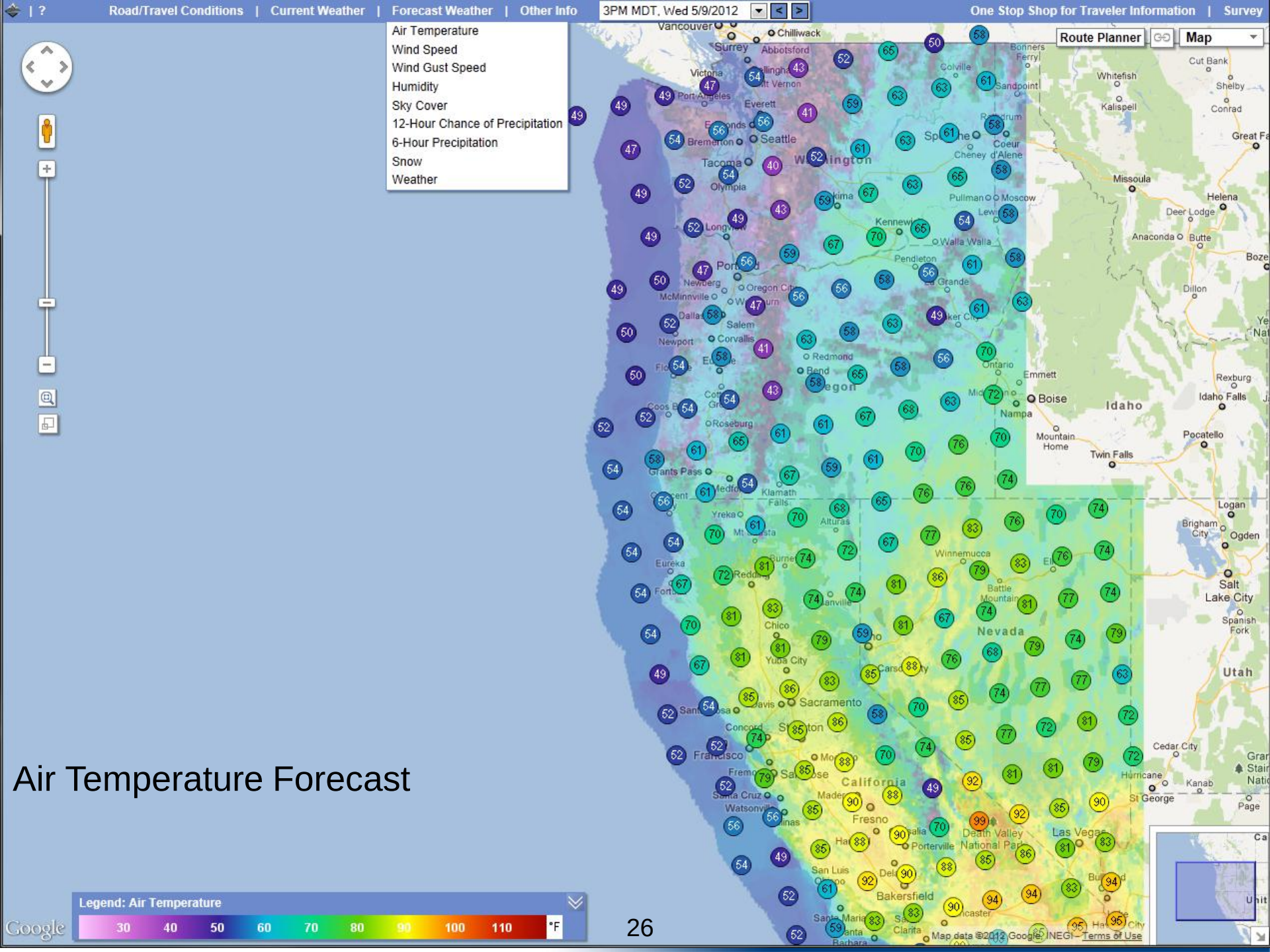
Legend: AHPS 24 hr Precip. -- Period Ending 6:00 AM MDT - Wed, May 9 2012

0.5 1.0 1.5 2.0 2.5 Inches

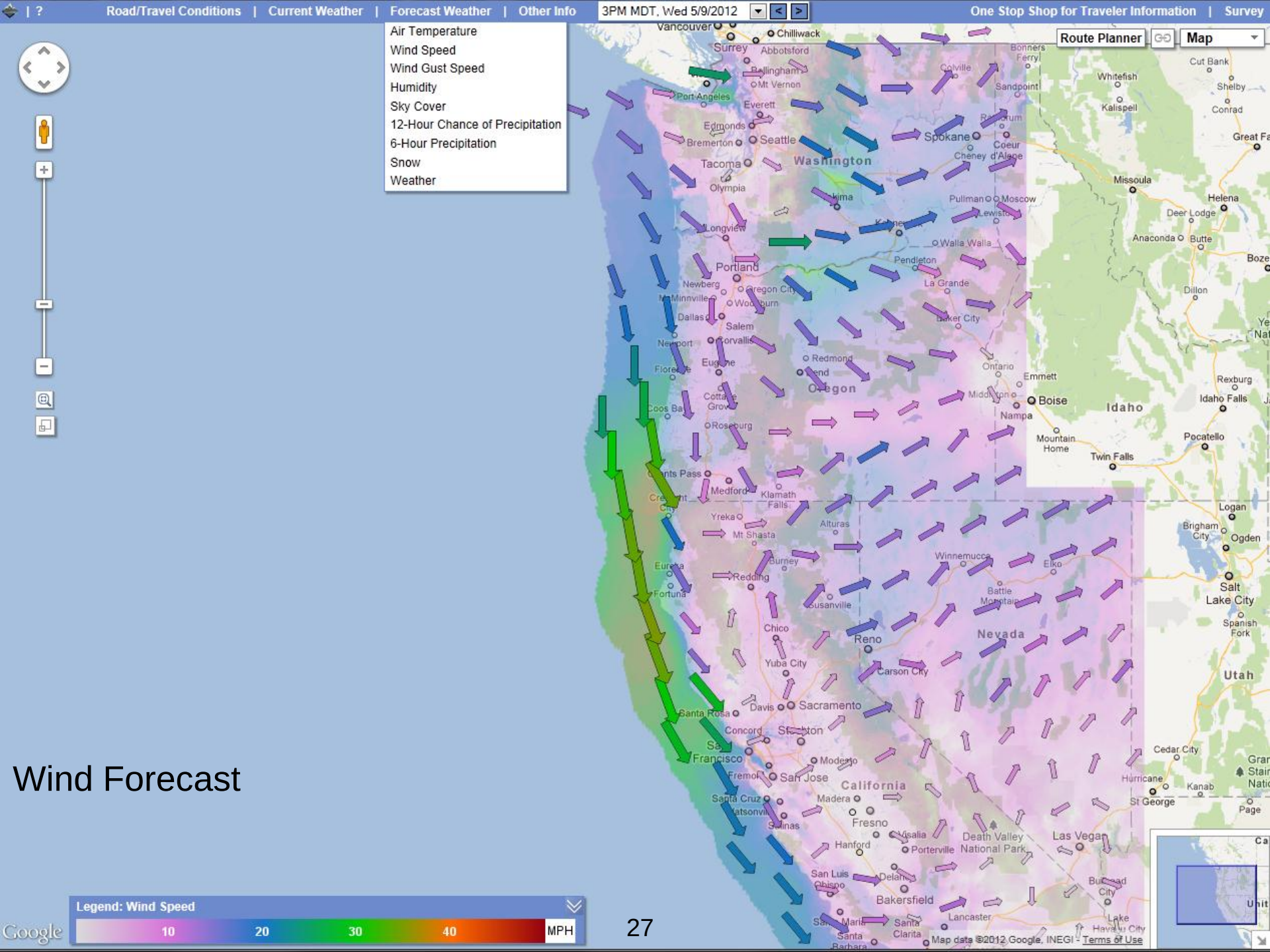

| ?
Road/Travel Conditions | Current Weather | Forecast Weather | Other Info
One Stop Shop for Traveler Information | Survey
Air Temperature
Relative Humidity
1 Hour Precipitation
24 Hour Precipitation
AHPS 24 hr Precip.
Wind
Route Planner
Map
Current Wind
Legend: Wind
10
20
30
40
MPH
Google
24
Map data ©2012 Google, INEGI - Terms of Use



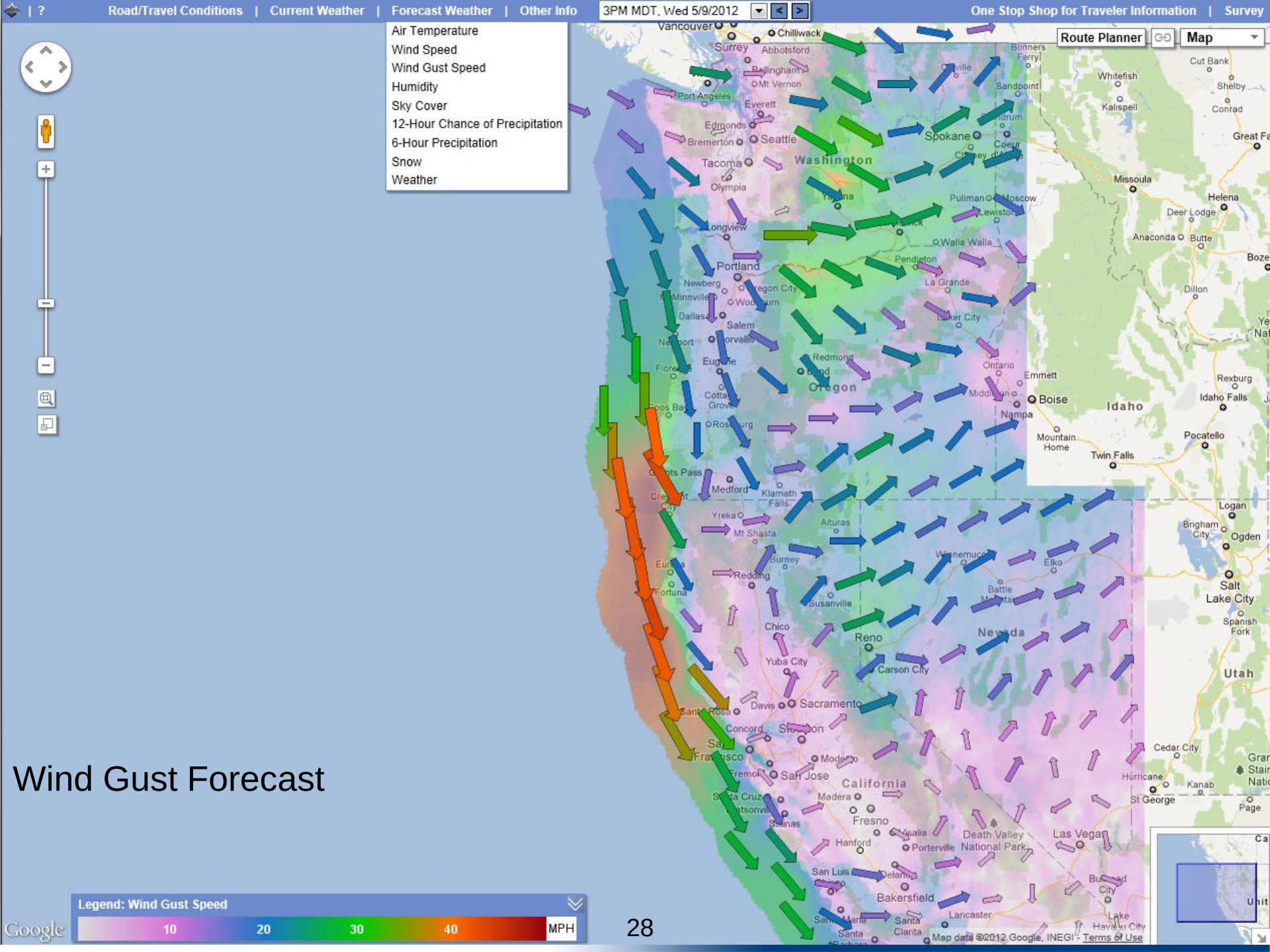
Weather Forecast



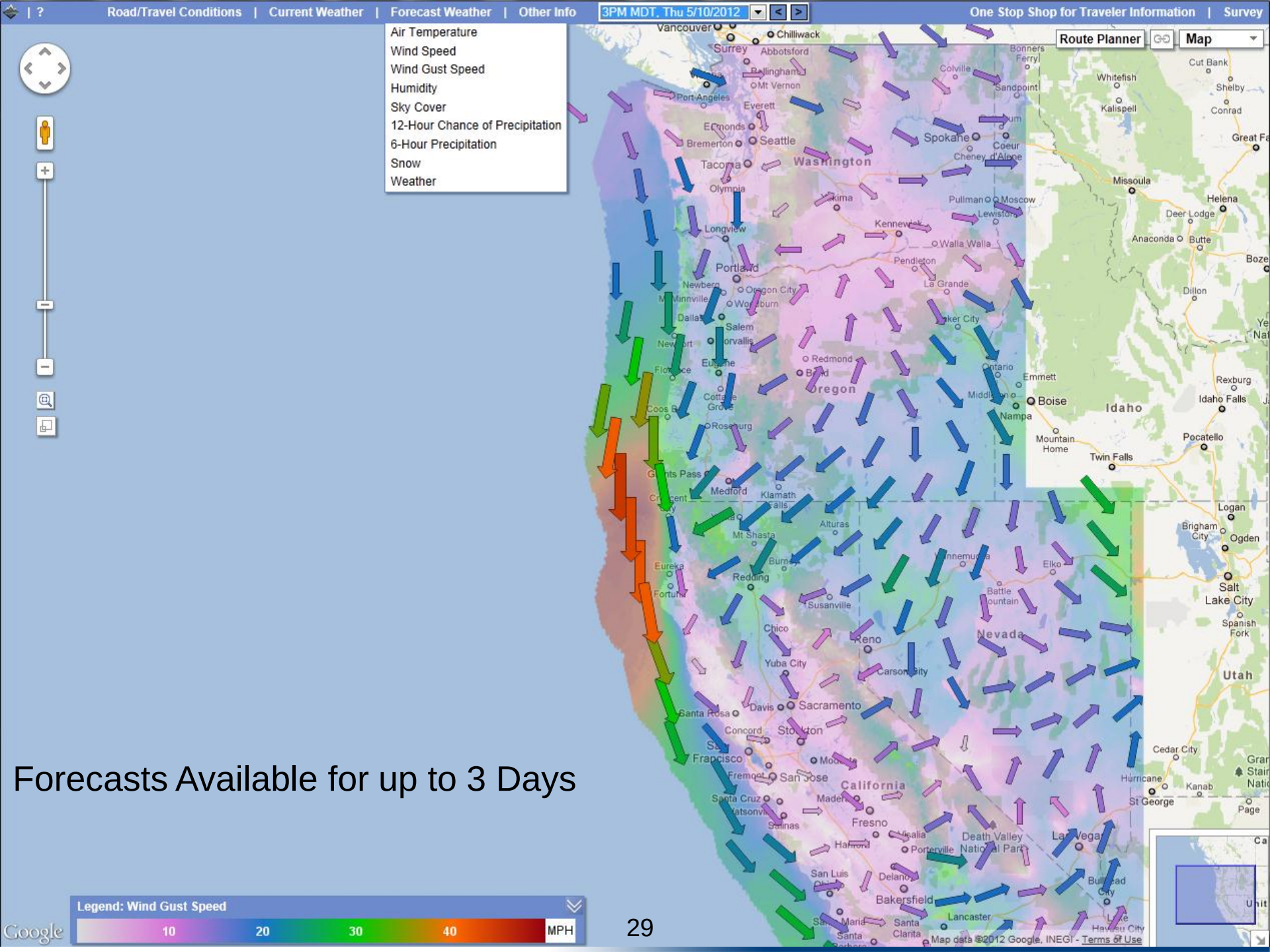
Air Temperature Forecast



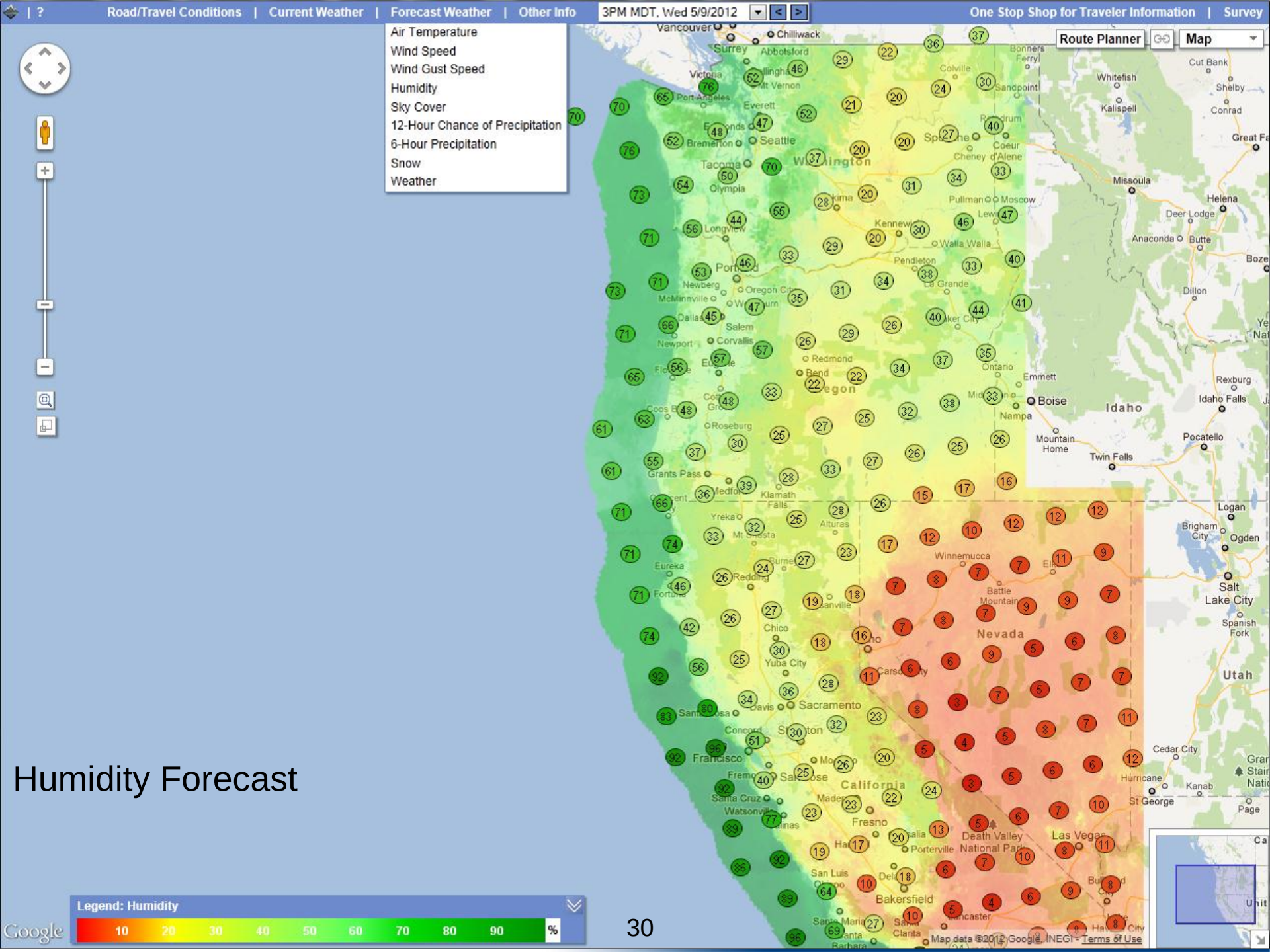
Wind Forecast



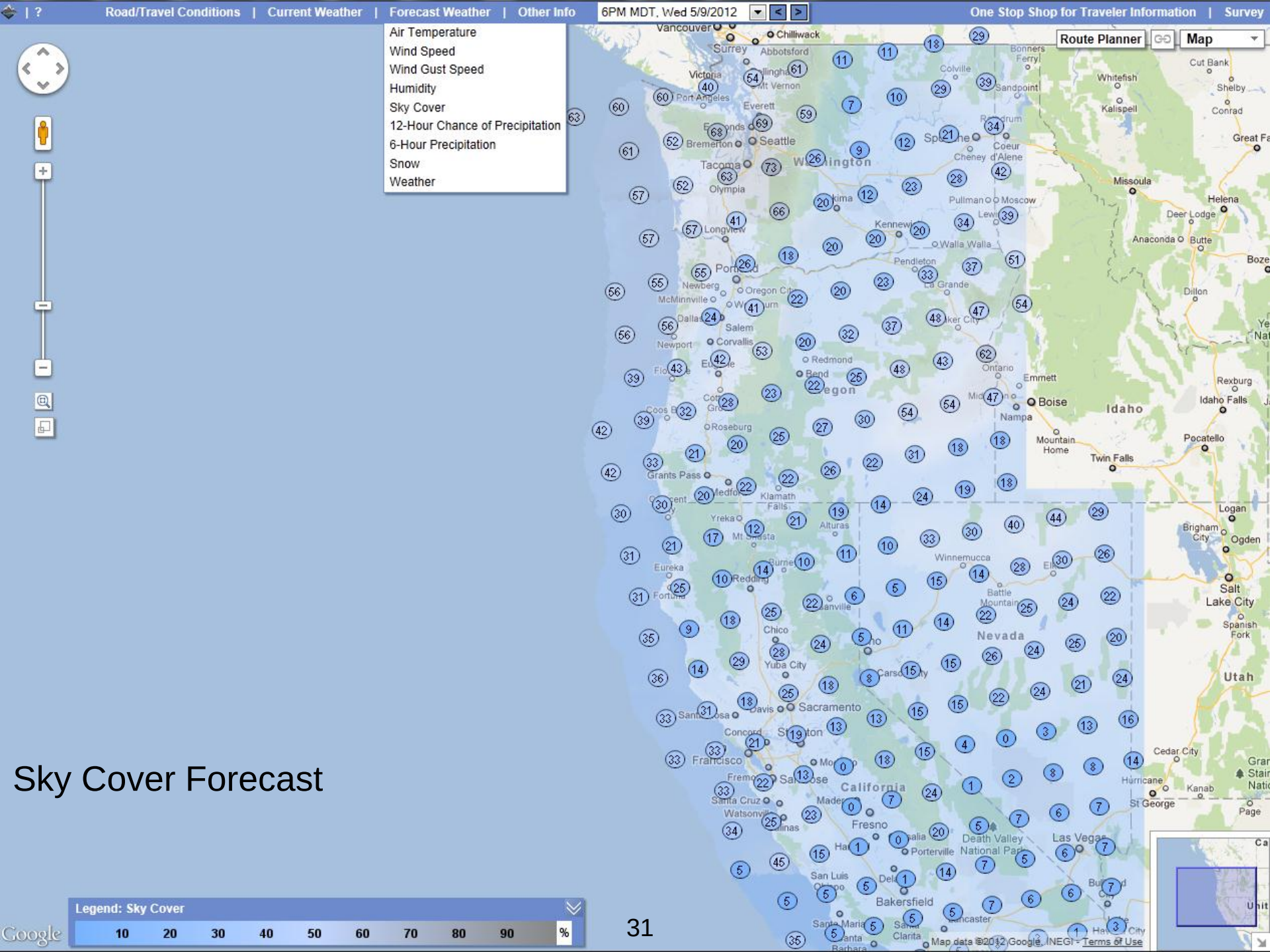
Wind Gust Forecast



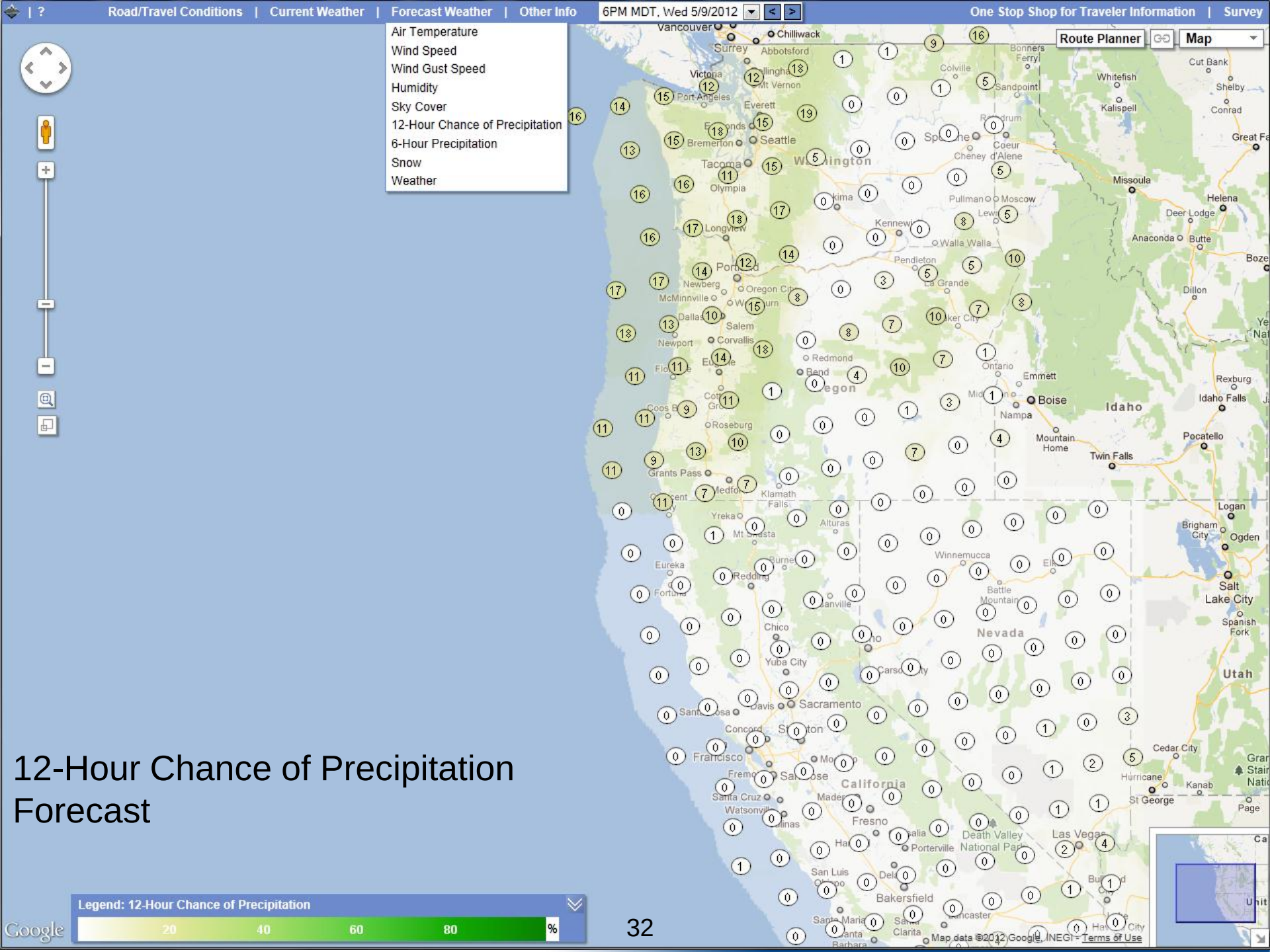
Forecasts Available for up to 3 Days



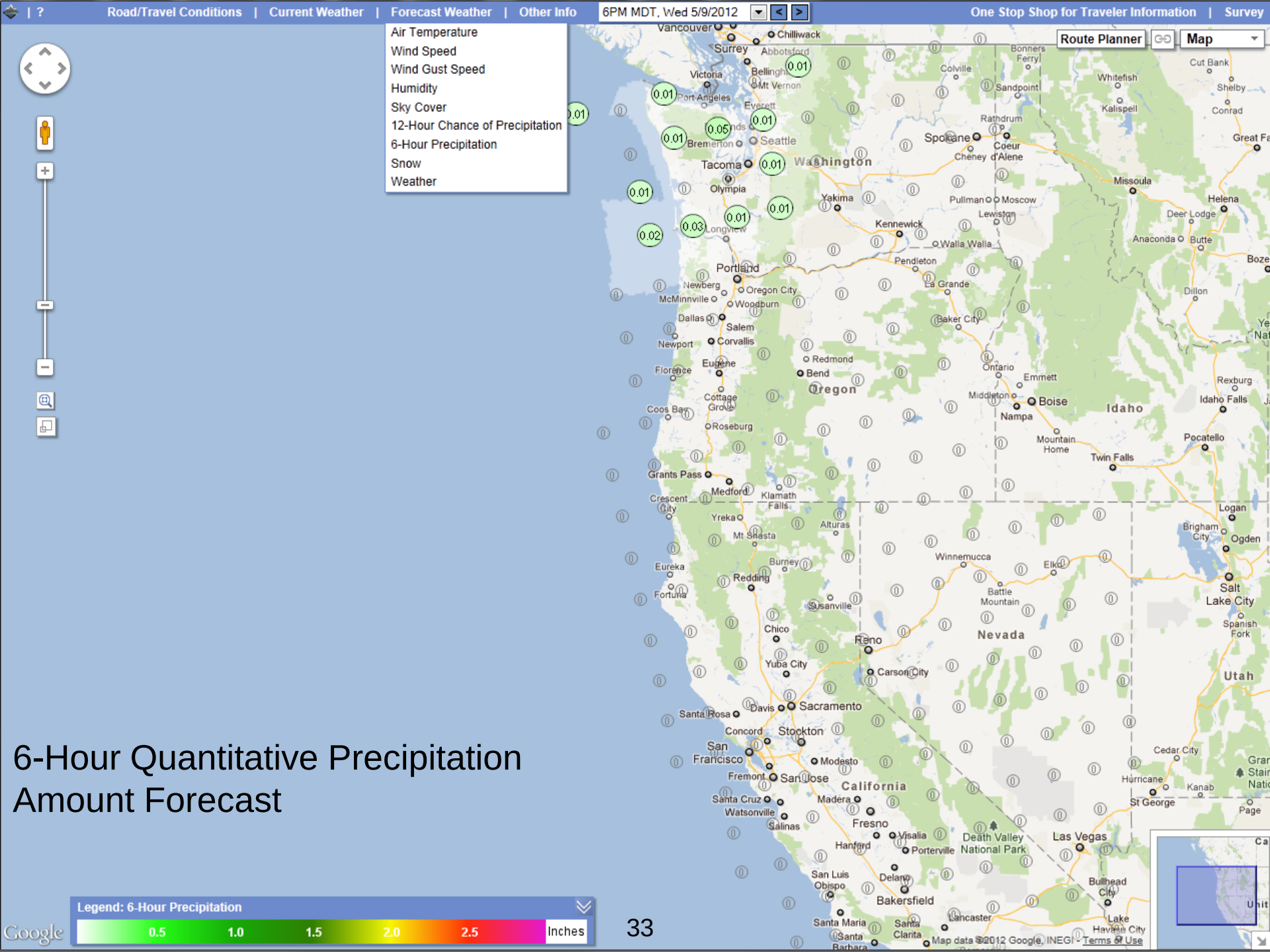
Humidity Forecast



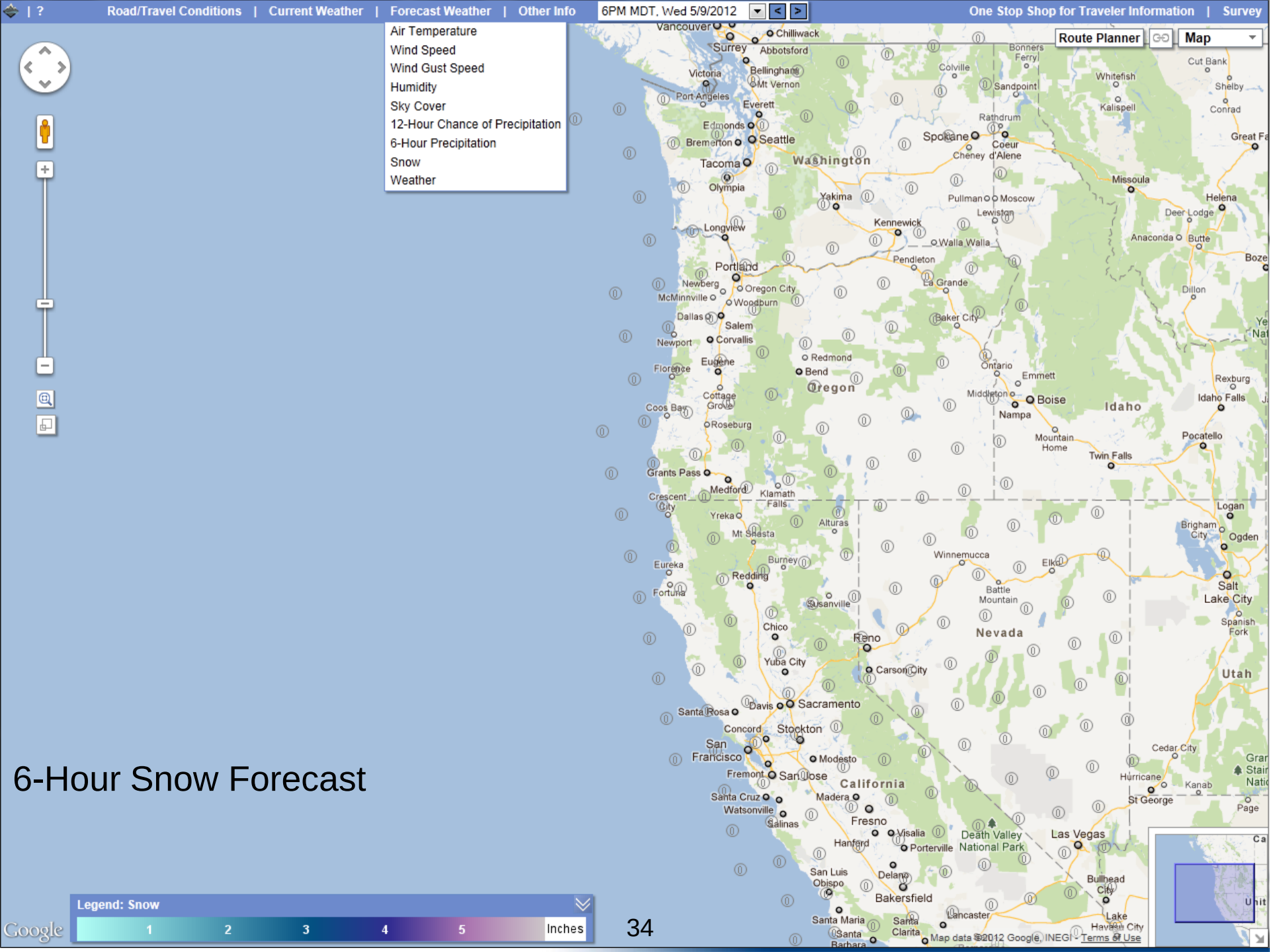
Sky Cover Forecast



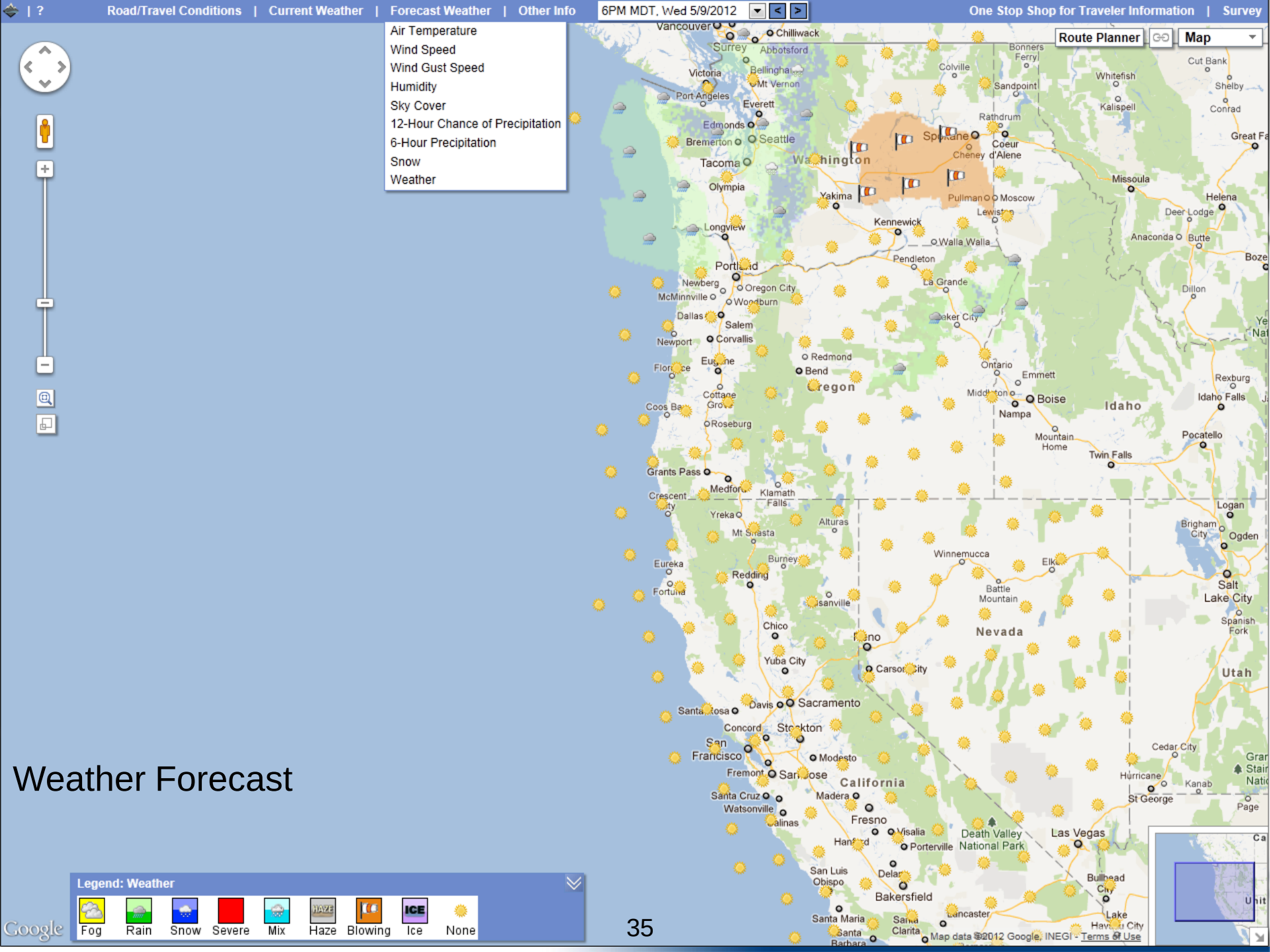
12-Hour Chance of Precipitation Forecast



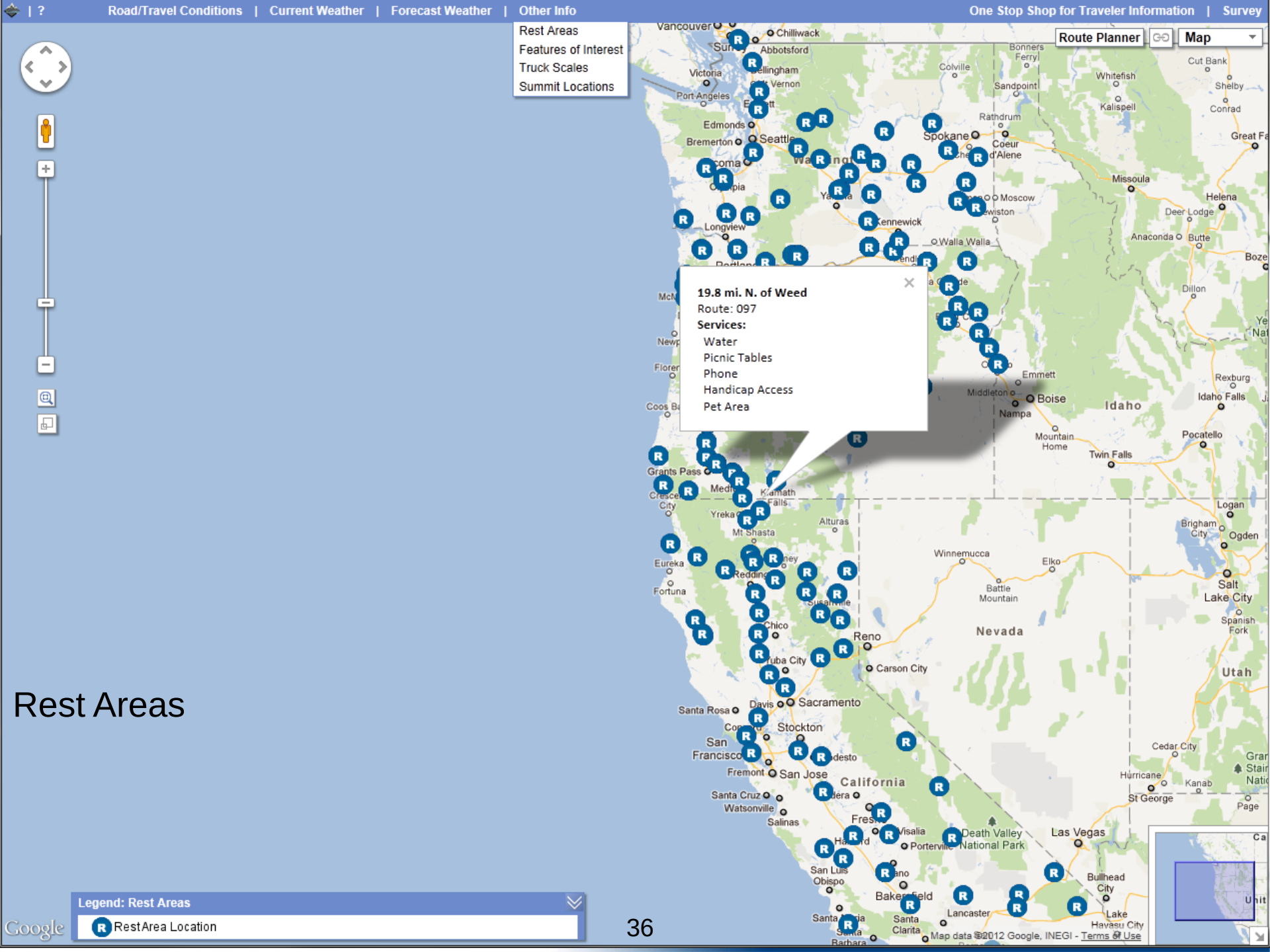
6-Hour Quantitative Precipitation Amount Forecast



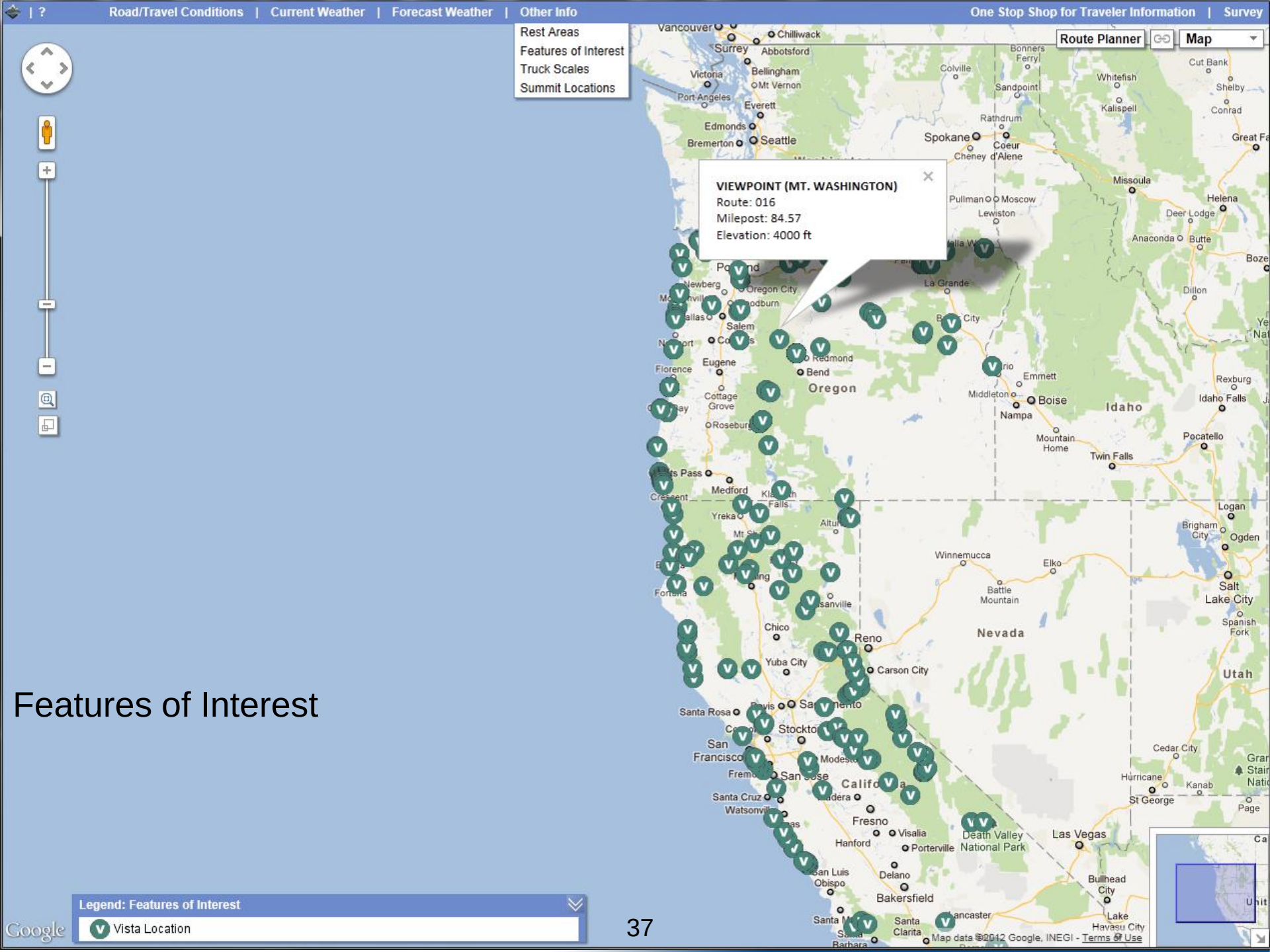
6-Hour Snow Forecast



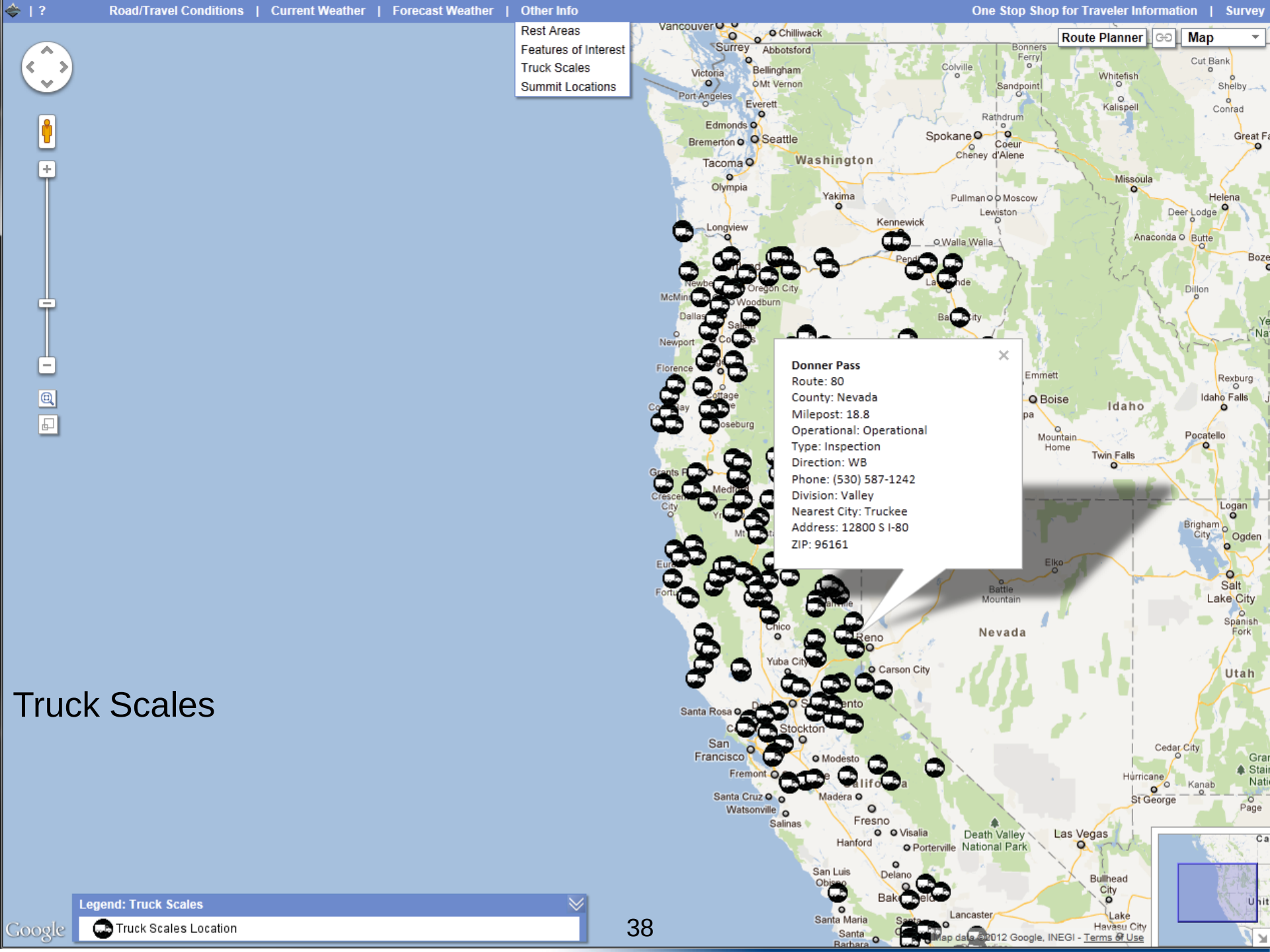
Weather Forecast


| ?
Road/Travel Conditions | Current Weather | Forecast Weather | Other Info
One Stop Shop for Traveler Information | Survey
Rest Areas
Features of Interest
Truck Scales
Summit Locations
Route Planner
Map
19.8 mi. N. of Weed
Route: 097
Services:
Water
Picnic Tables
Phone
Handicap Access
Pet Area
Legend: Rest Areas
Rest Area Location
Google
Map data ©2012 Google, INEGI - Terms of Use

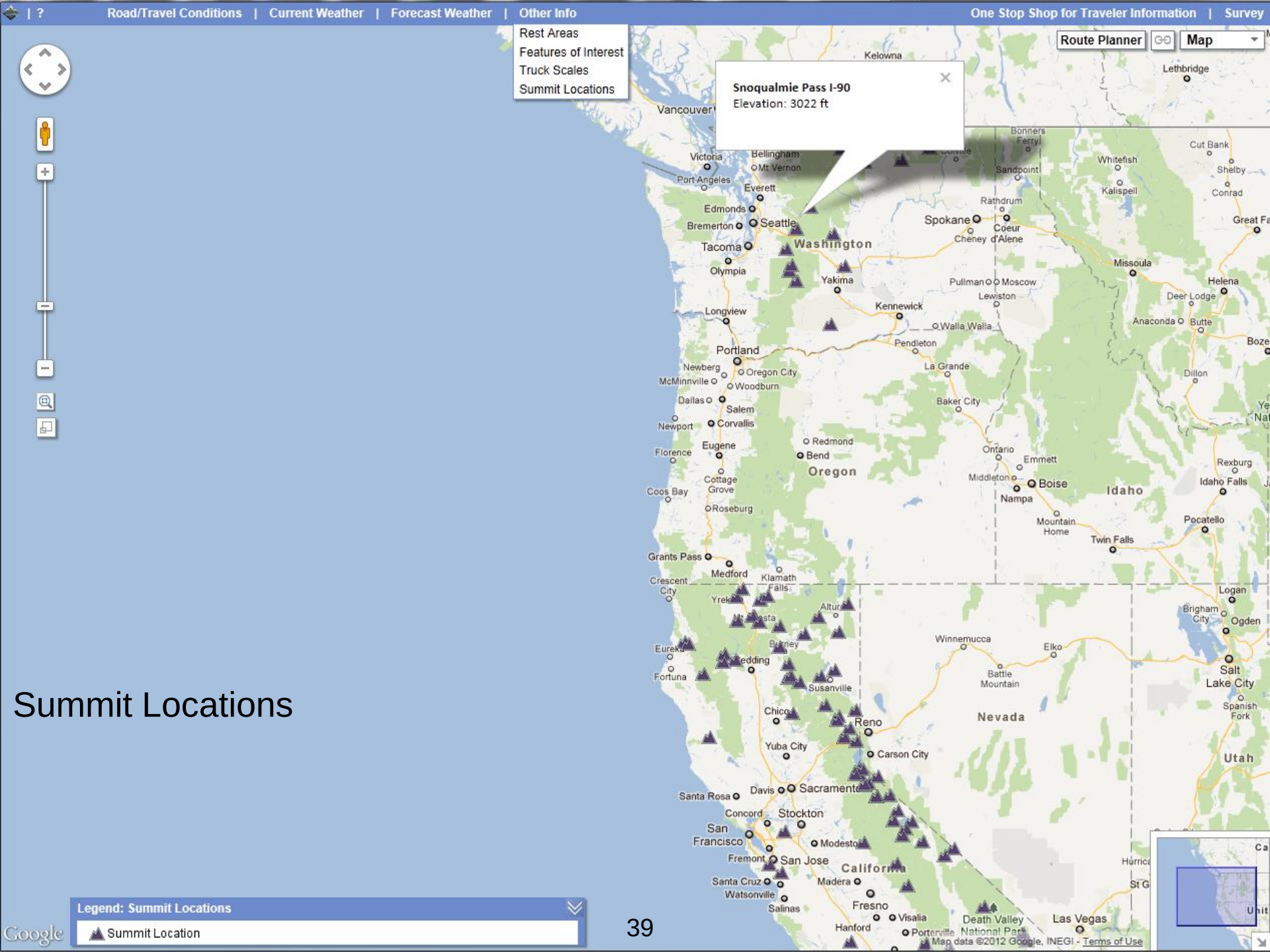
Rest Areas



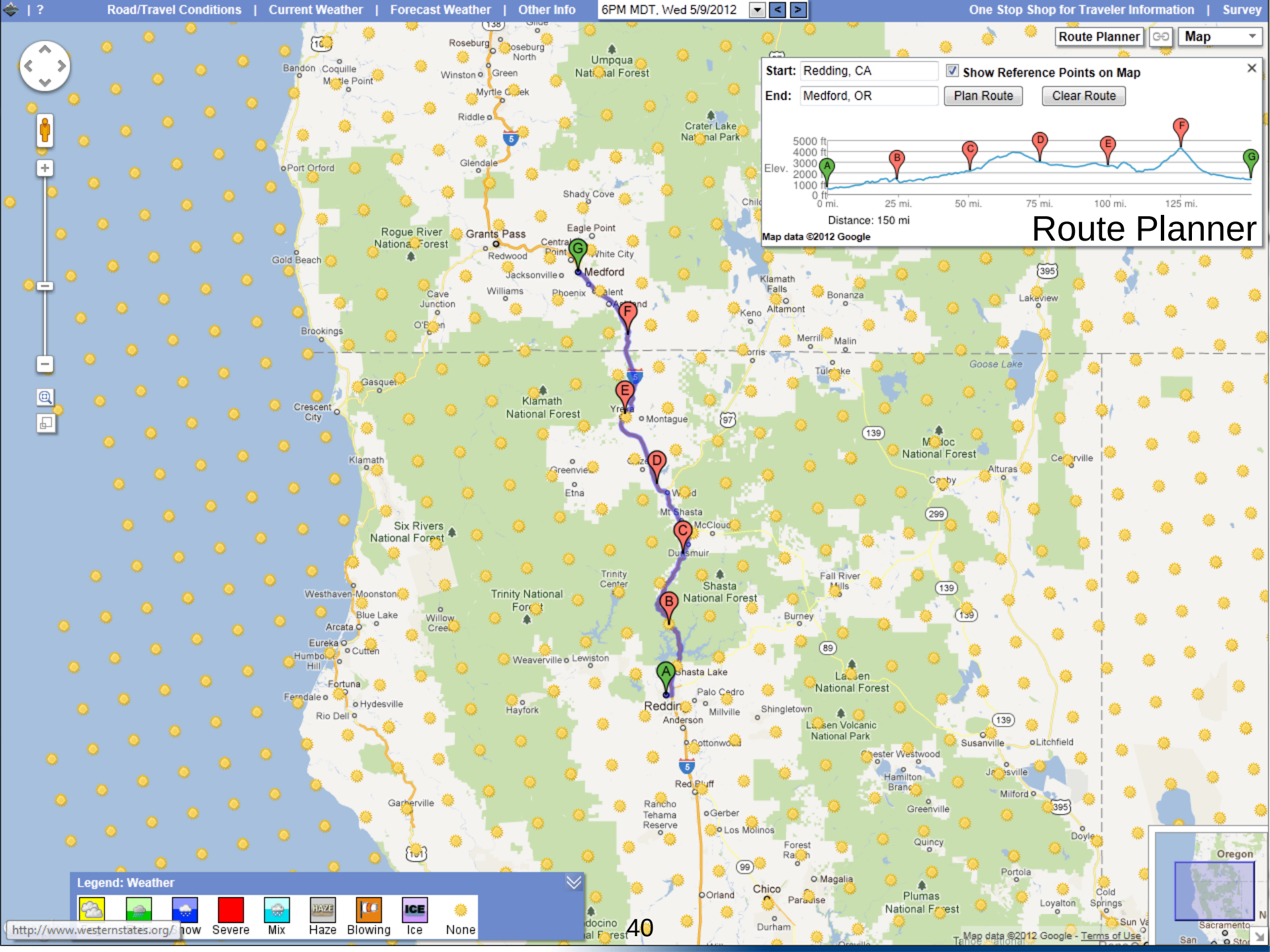
Features of Interest



Truck Scales



Summit Locations


Road/Travel Conditions | Current Weather | Forecast Weather | Other Info
6PM MDT, Wed 5/9/2012
One Stop Shop for Traveler Information | Survey
Route Planner
Map
Start: Redding, CA
Show Reference Points on Map
End: Medford, OR
Plan Route
Clear Route
Elev.
5000 ft
4000 ft
3000 ft
2000 ft
1000 ft
0 ft
0 mi.
25 mi.
50 mi.
75 mi.
100 mi.
125 mi.
Distance: 150 mi
Map data ©2012 Google
Route Planner
Legend: Weather
Severe
Mix
Haze
Blowing
Ice
None
Map data ©2012 Google - Terms of Use
http://www.westernstates.org/

Check/Uncheck All
- [ ] Chain Requirements
- [x] Road Information
- [ ] Incidents
- [ ] CMS
- [x] CCTV
- [ ] RWIS
- [ ] Traffic Conditions

Siskiyou I-5 NB at Exit 1

Siskiyou I-5 NB at Exit 1
Updated: May 09 2012 2:20 PM Looking North

Elevation 3530 TripCheck.com Milepost 1.00

Route Planner | Map

Start: Redding, CA Show Reference Points on Map
End: Medford, OR Plan Route Clear Route

Distance: 150 mi

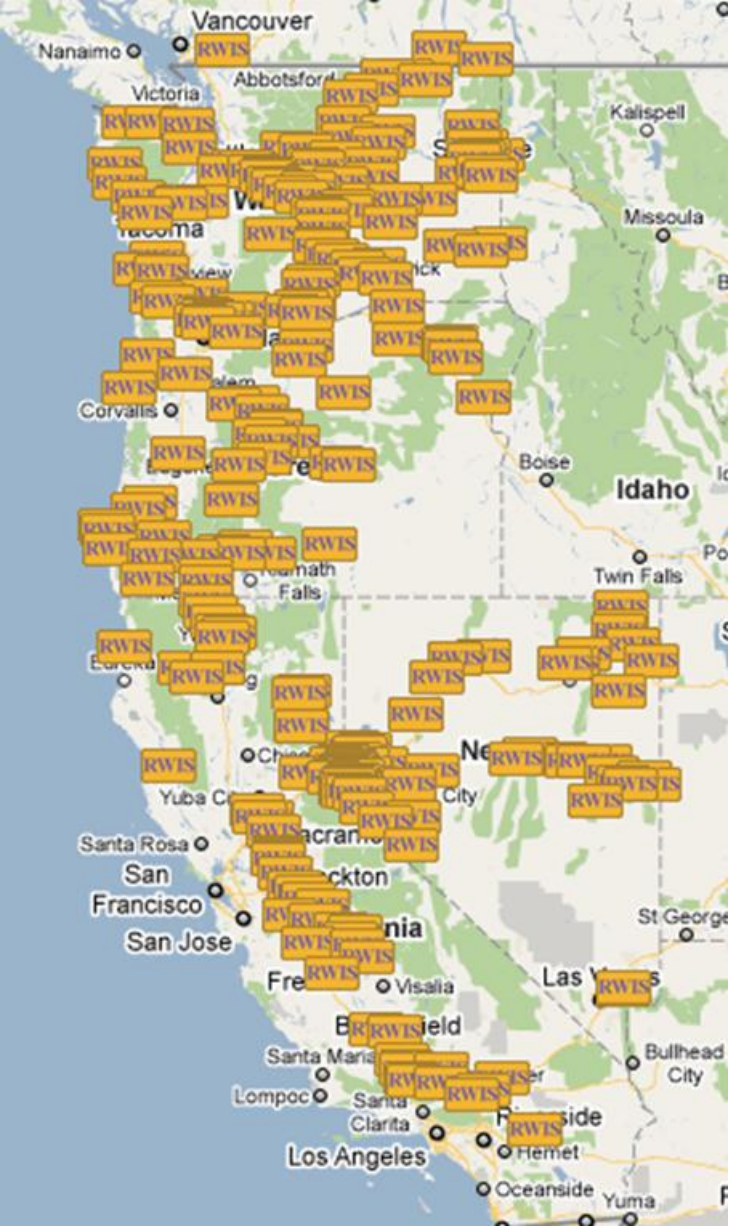
Map data ©2012 Google

Route Planner

Legend: Road Information, CCTV

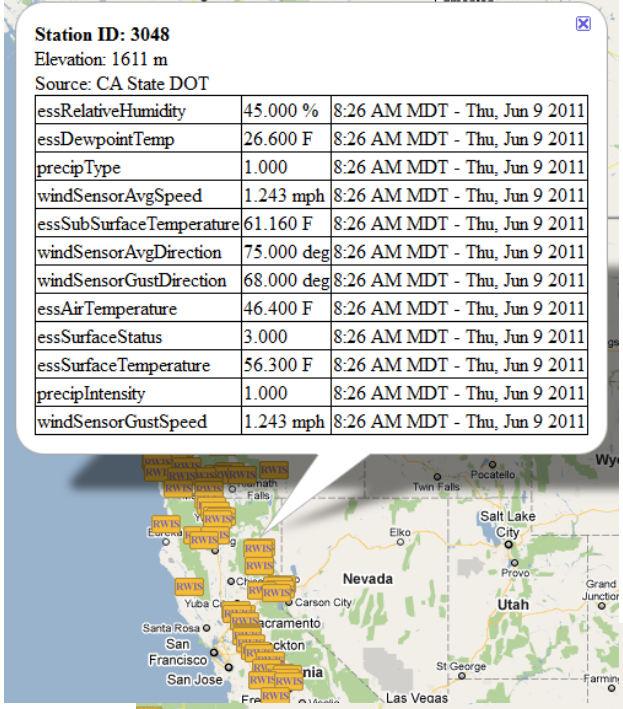
CMS Active CMS | CCTV Camera | Construction | Information | RWIS with Road Temp ≤ 32°
CMS Inactive CMS | Chain Restriction | Incident | Commercial Vehicle Information | RWIS

Clarus OSS (OSS 1.5)



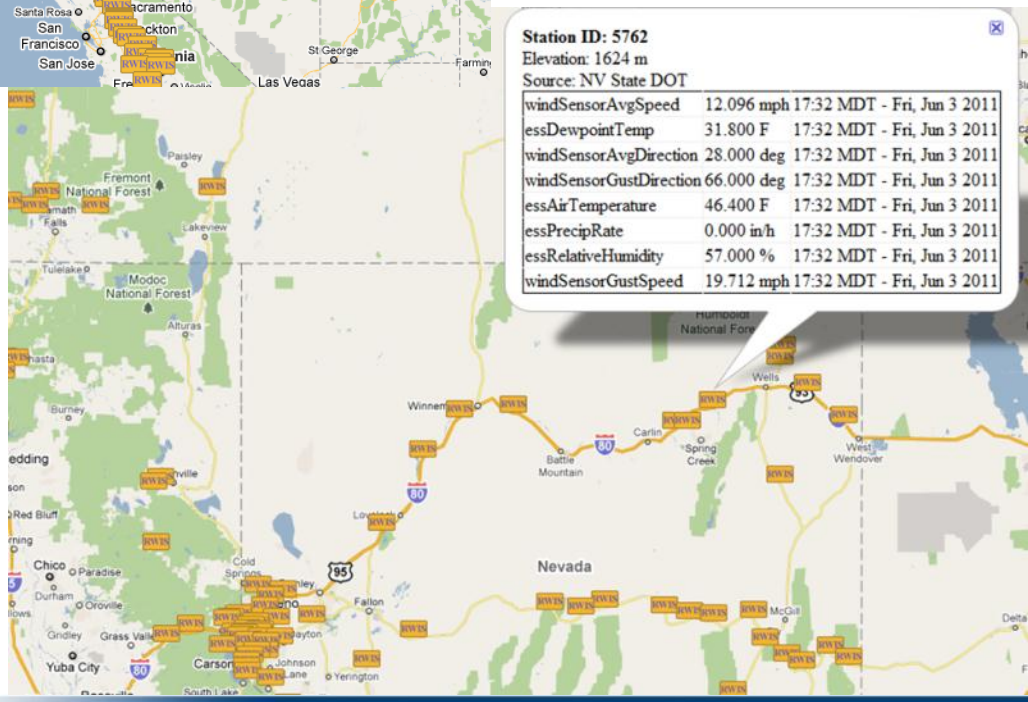
Station ID: 3048
Elevation: 1611 m
Source: CA State DOT

essRelativeHumidity	45.000 %	8:26 AM MDT - Thu, Jun 9 2011
essDewpointTemp	26.600 F	8:26 AM MDT - Thu, Jun 9 2011
precipType	1.000	8:26 AM MDT - Thu, Jun 9 2011
windSensorAvgSpeed	1.243 mph	8:26 AM MDT - Thu, Jun 9 2011
essSubSurfaceTemperature	61.160 F	8:26 AM MDT - Thu, Jun 9 2011
windSensorAvgDirection	75.000 deg	8:26 AM MDT - Thu, Jun 9 2011
windSensorGustDirection	68.000 deg	8:26 AM MDT - Thu, Jun 9 2011
essAirTemperature	46.400 F	8:26 AM MDT - Thu, Jun 9 2011
essSurfaceStatus	3.000	8:26 AM MDT - Thu, Jun 9 2011
essSurfaceTemperature	56.300 F	8:26 AM MDT - Thu, Jun 9 2011
precipIntensity	1.000	8:26 AM MDT - Thu, Jun 9 2011
windSensorGustSpeed	1.243 mph	8:26 AM MDT - Thu, Jun 9 2011

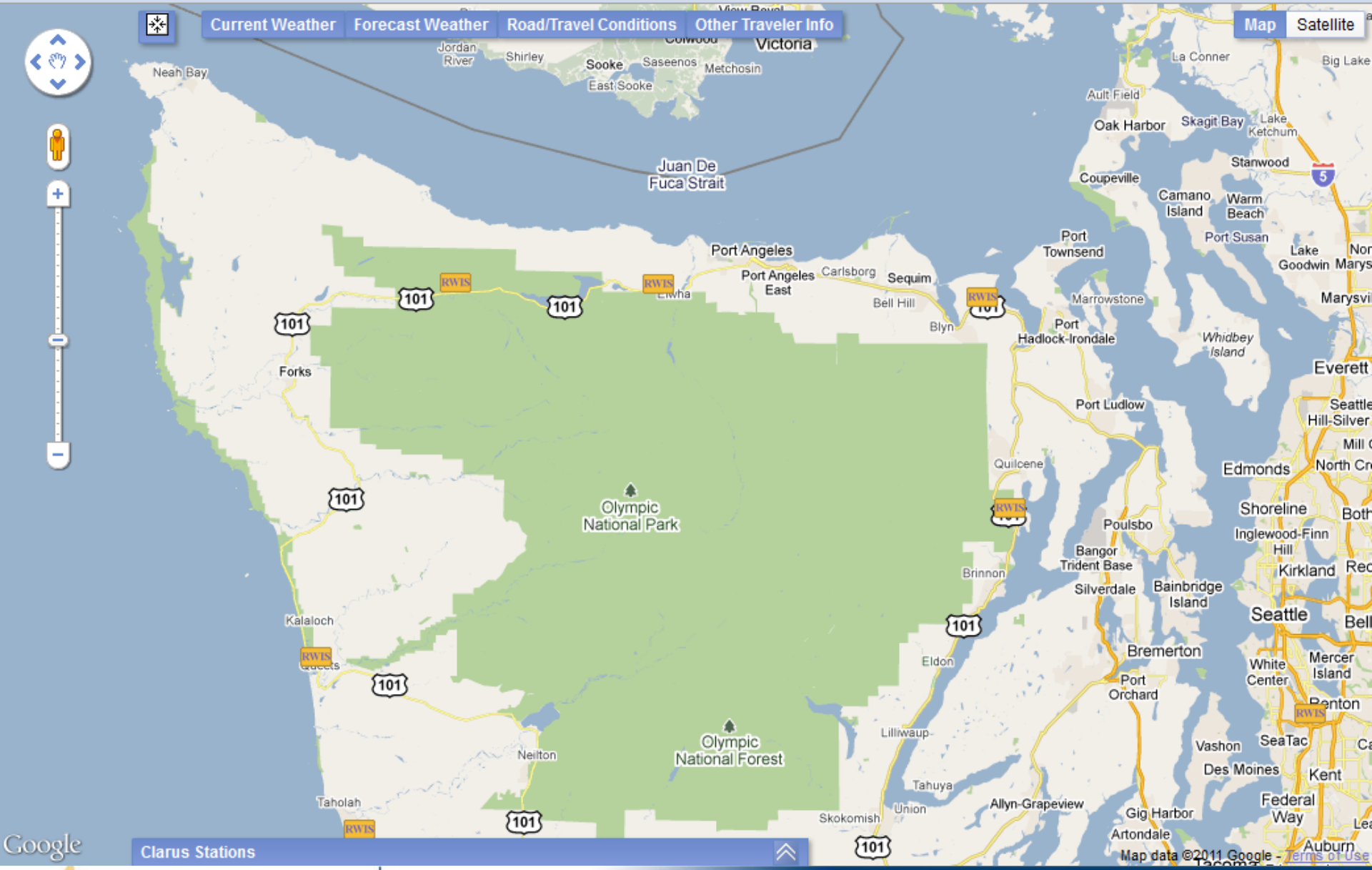


Station ID: 5762
Elevation: 1624 m
Source: NV State DOT

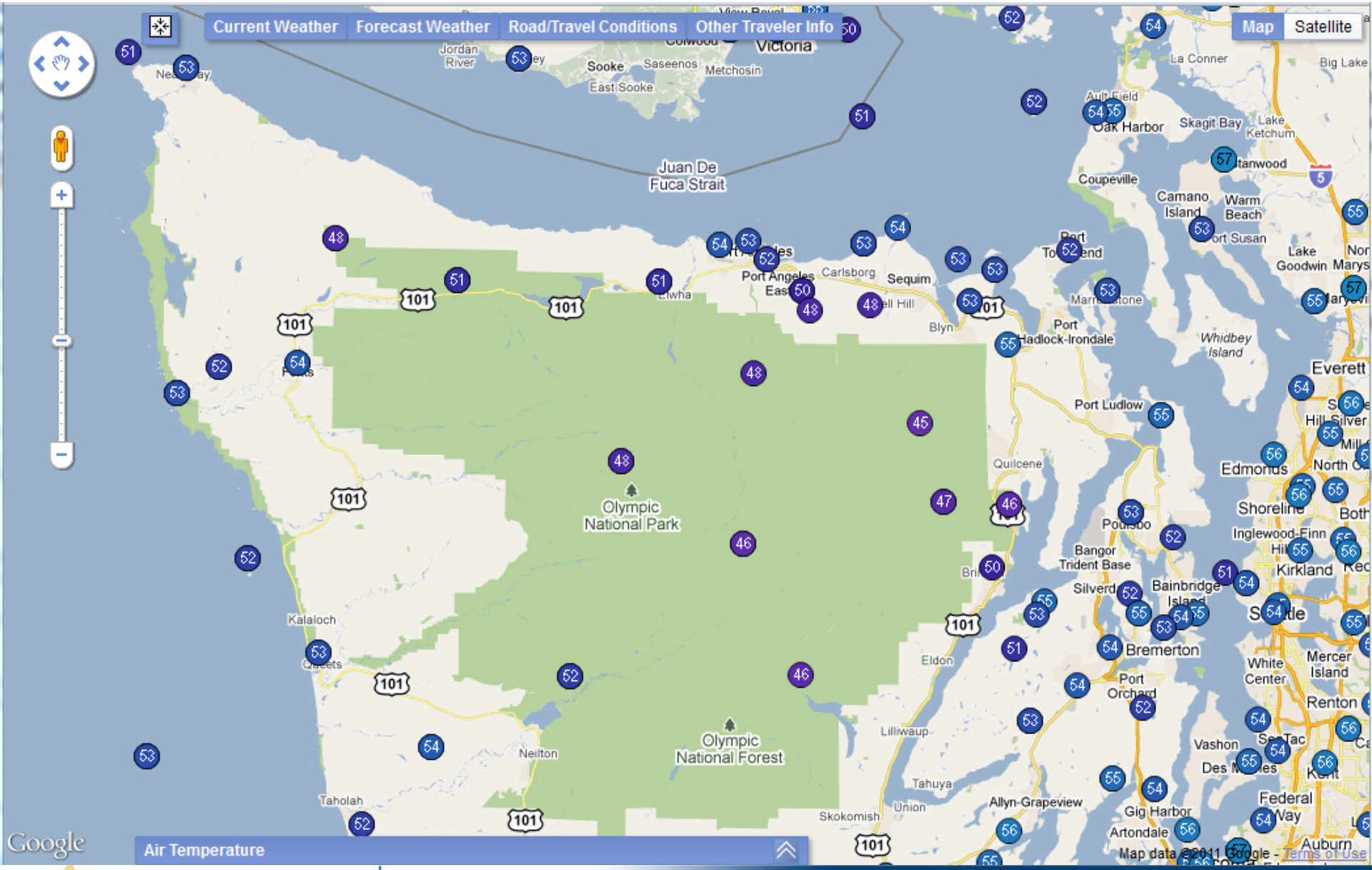
windSensorAvgSpeed	12.096 mph	17:32 MDT - Fri, Jun 3 2011
essDewpointTemp	31.800 F	17:32 MDT - Fri, Jun 3 2011
windSensorAvgDirection	28.000 deg	17:32 MDT - Fri, Jun 3 2011
windSensorGustDirection	66.000 deg	17:32 MDT - Fri, Jun 3 2011
essAirTemperature	46.400 F	17:32 MDT - Fri, Jun 3 2011
essPrecipRate	0.000 in/h	17:32 MDT - Fri, Jun 3 2011
essRelativeHumidity	57.000 %	17:32 MDT - Fri, Jun 3 2011
windSensorGustSpeed	19.712 mph	17:32 MDT - Fri, Jun 3 2011

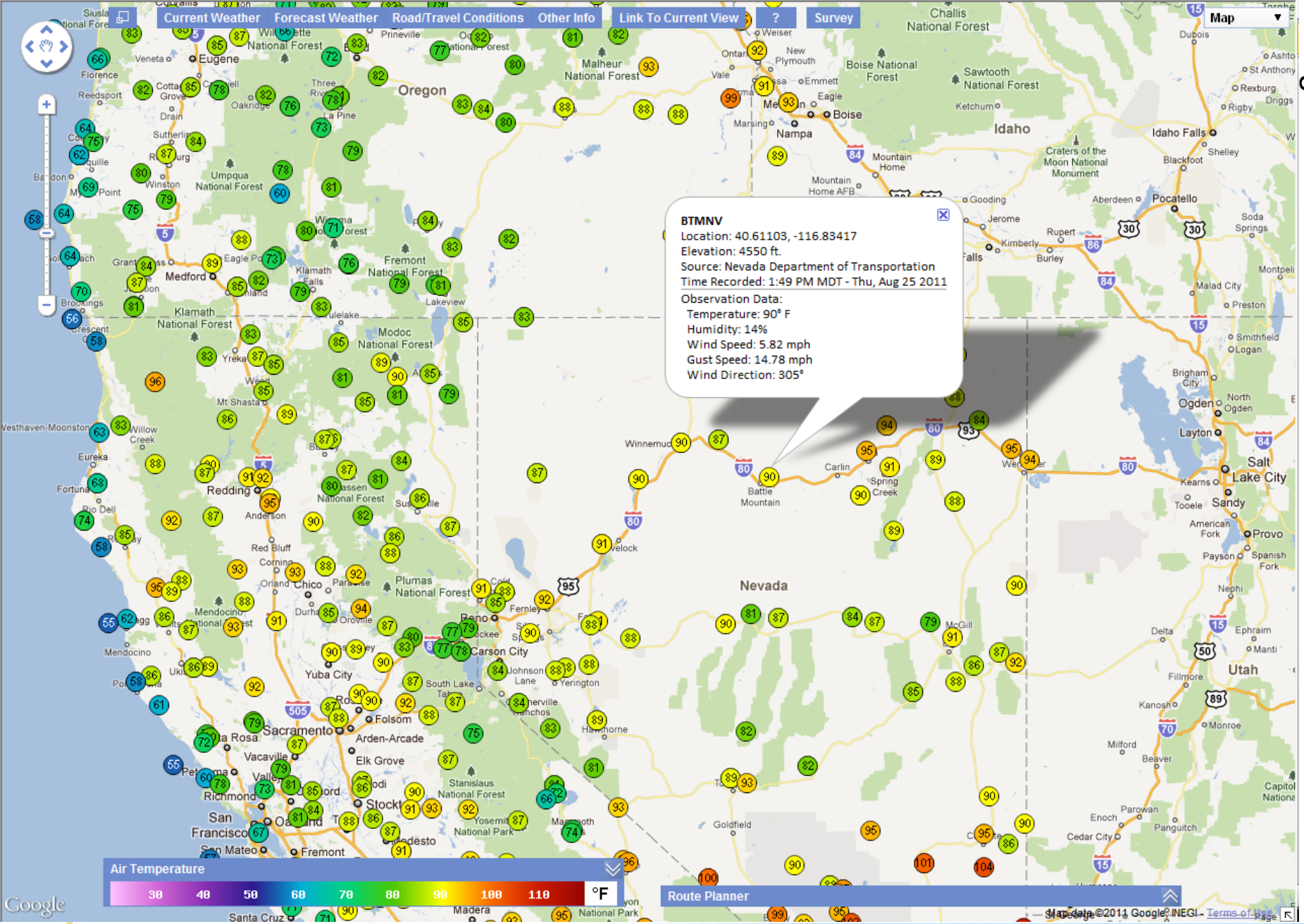


RWIS Sites

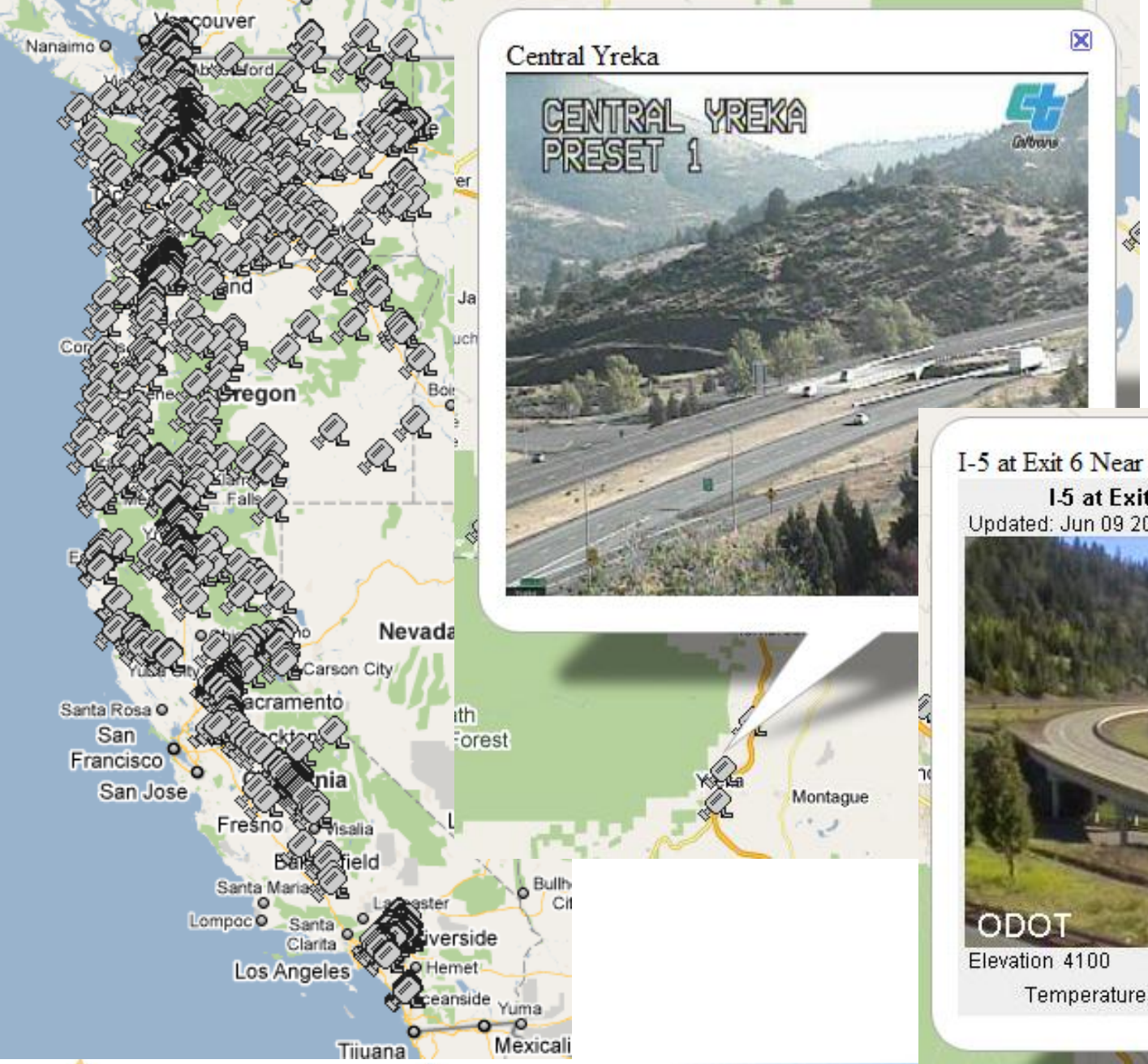

Current Weather
Forecast Weather
Road/Travel Conditions
Other Traveler Info
Map
Satellite
Victoria
Juan De Fuca Strait
Port Angeles
Port Angeles East
Carlsborg
Sequim
Bell Hill
Blyn
Port Townsend
Marrowstone
Port Hadlock-Irondale
Whidbey Island
Everett
Port Ludlow
Quilcene
Edmonds
Shoreline
Inglewood-Finn Hill
Kirkland
Poulsbo
Bangor Trident Base
Silverdale
Bainbridge Island
Seattle
Bremerton
Port Orchard
Eldon
Brinnon
Olympic National Park
Olympic National Forest
Forks
Kalaloch
Neilton
Taholah
Lilliwaup
Tahuya
Union
Skokomish
Allyn-Grapeview
Gig Harbor
Artondale
Vashon
Des Moines
SeaTac
Kent
Federal Way
Auburn
Tacoma
White Center
Mercer Island
Renton
Oak Harbor
Skagit Bay
Coupeville
Camano Island
Warm Beach
Port Susan
Stanwood
Lake Goodwin
Marysville
Ault Field
La Conner
Big Lake
Lake Ketchum
Neah Bay
Jordan River
Shirley
Sooke
Saseenos
Metchosin
East Sooke
RWIS
101
5
Clarus Stations
Google
Map data ©2011 Google - Terms of Use

Other Weather Sensor Sites



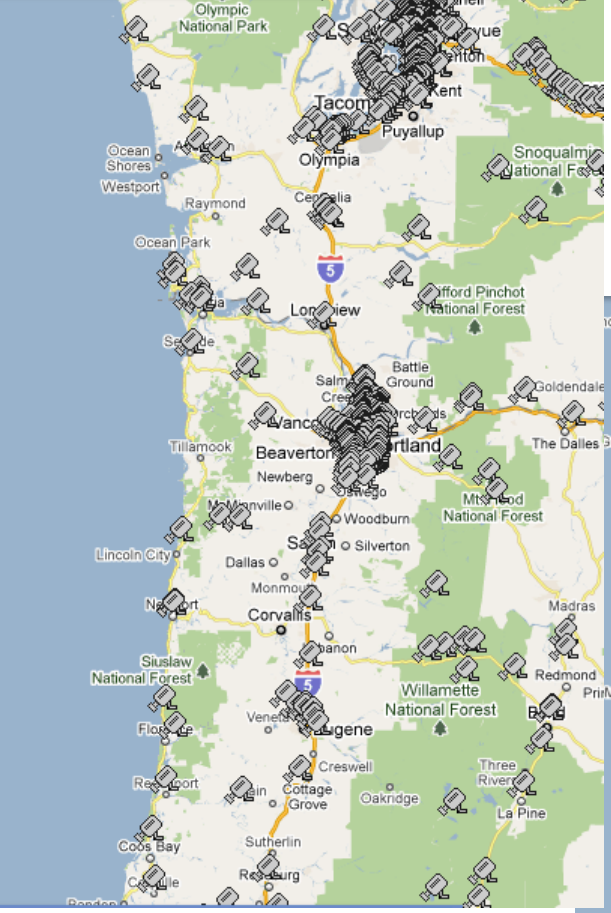


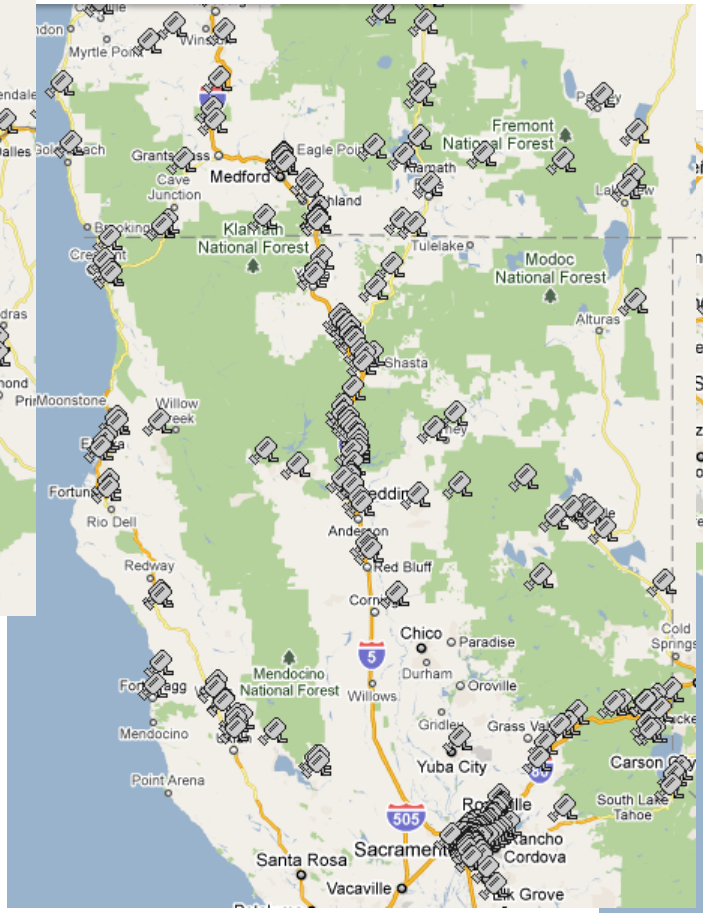
Integrated Weather Information

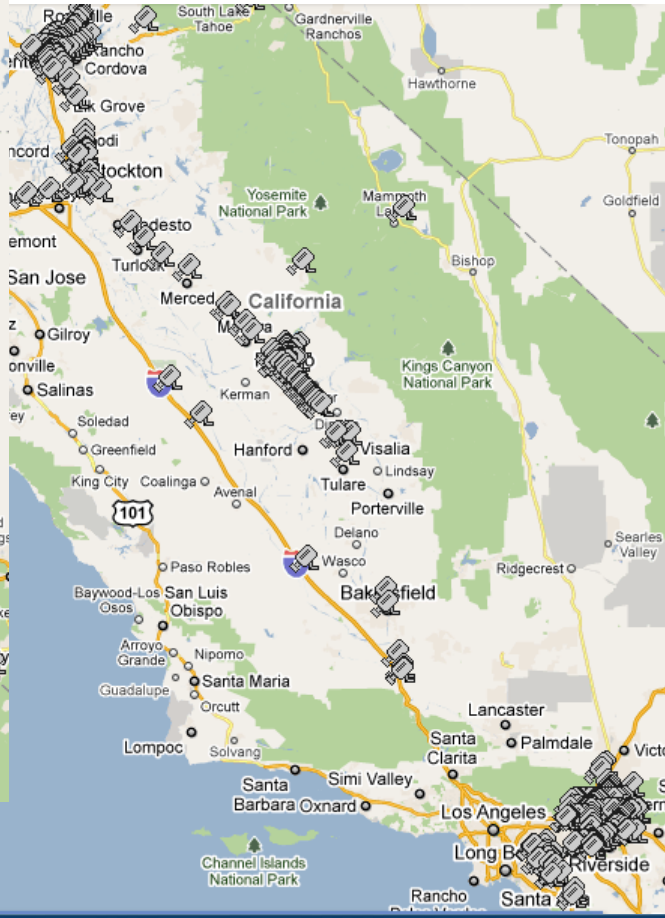

Central Yreka
CENTRAL YREKA
PRESET 1
I-5 at Exit 6 Near Siskiyou Summit
I-5 at Exit 6 Near Siskiyou Summit
Updated: Jun 09 2011 8:05 AM
Looking North
ODOT
Elevation 4100
TripCheck.com
Milepost 5.00
Temperature 51.1F
Wind E
MPH 2
Vancouver
Nanaimo
Oregon
Nevada
Carson City
Santa Rosa
San Francisco
San Jose
Fresno
Montague
Los Angeles
Tijuana

CCTV Images

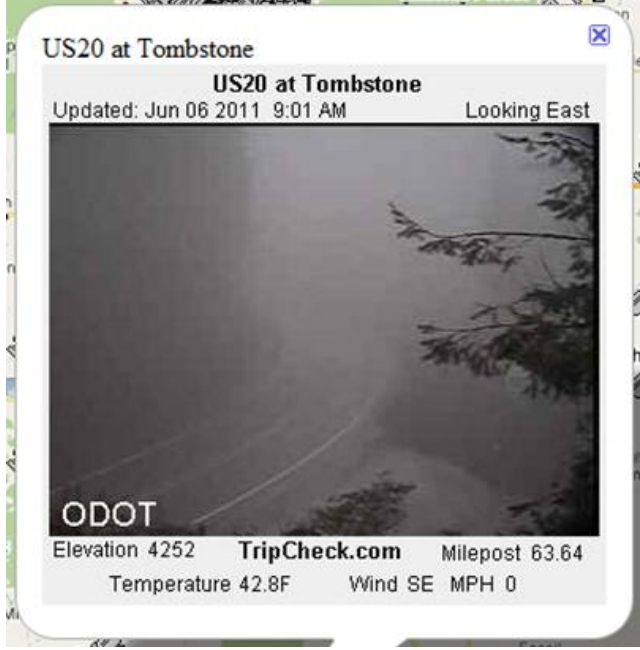
Route Coverage:
Los Angeles to Seattle



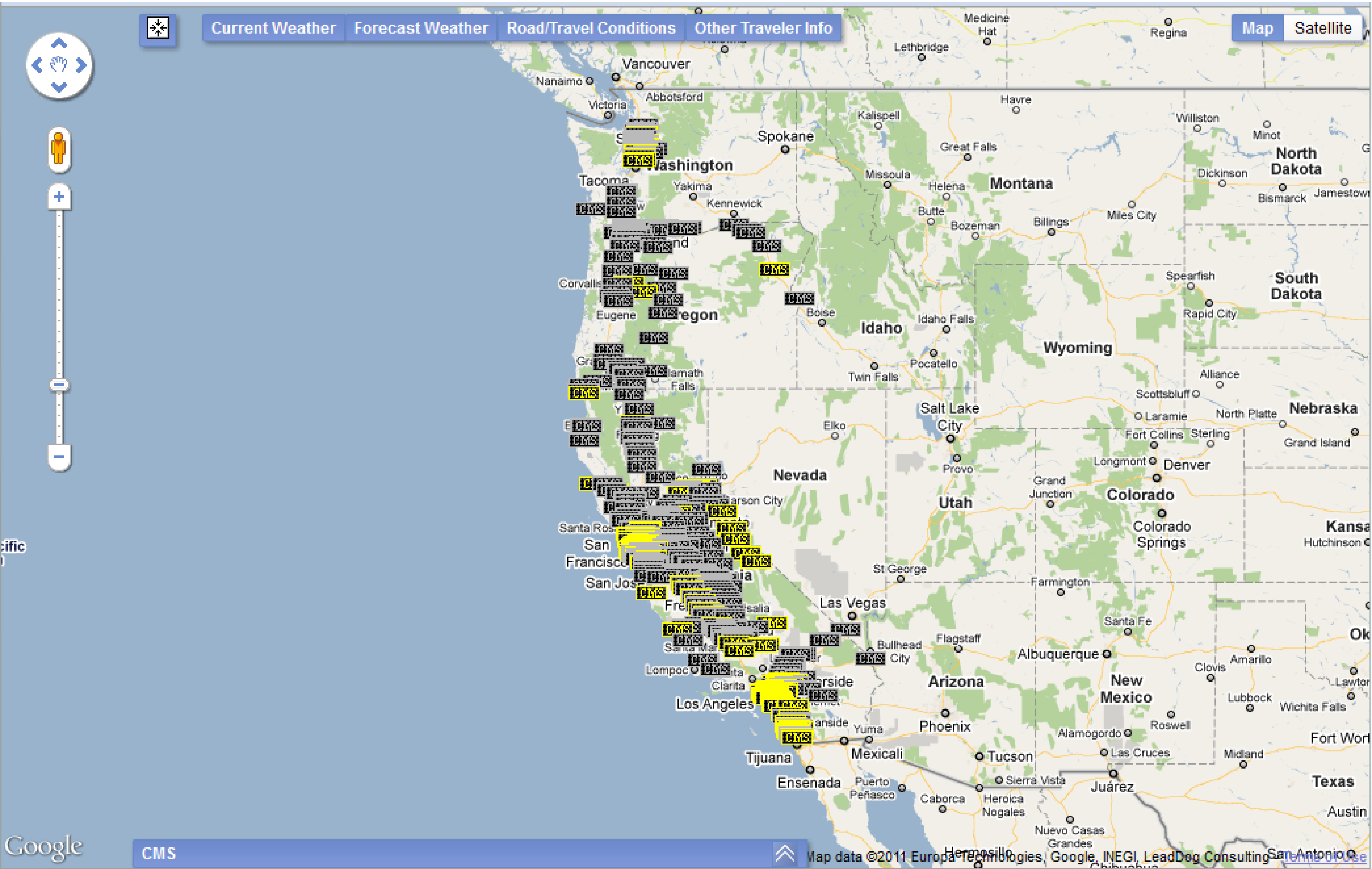




CCTV Images convey a lot of information …

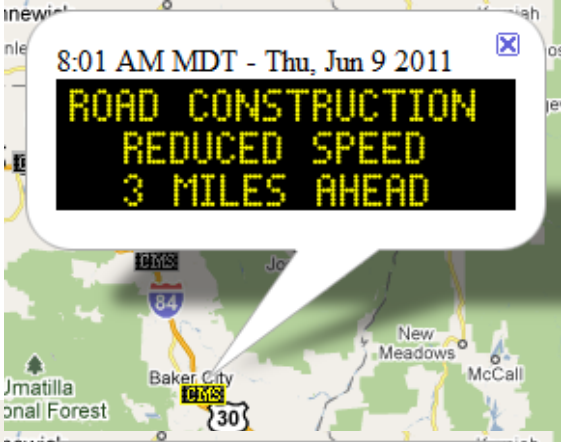


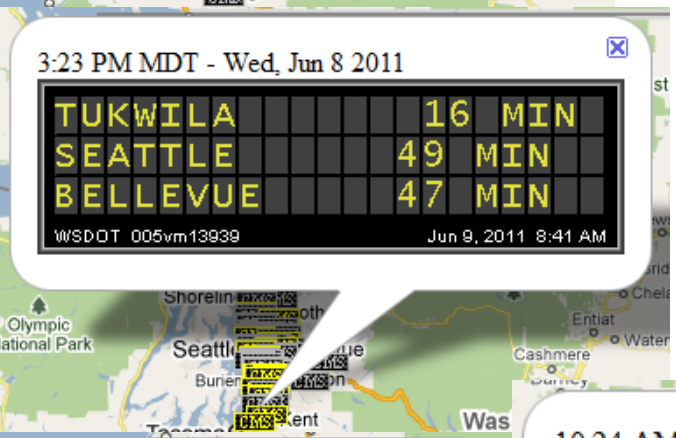
CMS


Current Weather
Forecast Weather
Road/Travel Conditions
Other Traveler Info
Map
Satellite
Vancouver
Spokane
Washington
Tacoma
Yakima
Kennewick
Montana
Idaho
Boise
Wyoming
Nevada
Utah
Salt Lake City
Colorado
Denver
North Dakota
South Dakota
Nebraska
Arizona
New Mexico
Phoenix
Tucson
Albuquerque
Las Vegas
San Francisco
San Jose
Los Angeles
Tijuana
Ensenada
Mexicali
Texas
CMS
Map data ©2011 Europa Technologies, Google, INEGI, LeadDog Consulting

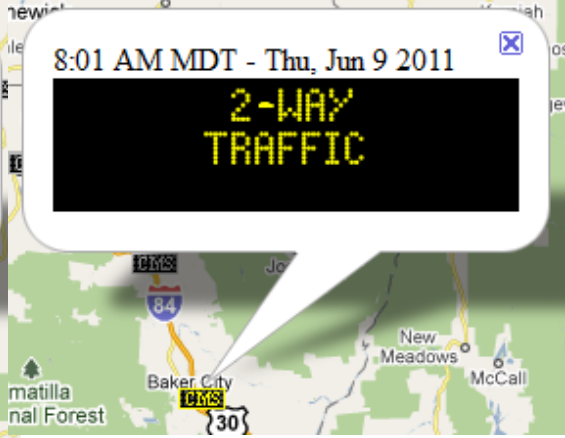

8:01 AM MDT - Thu, Jun 9 2011
SNOW ZONE

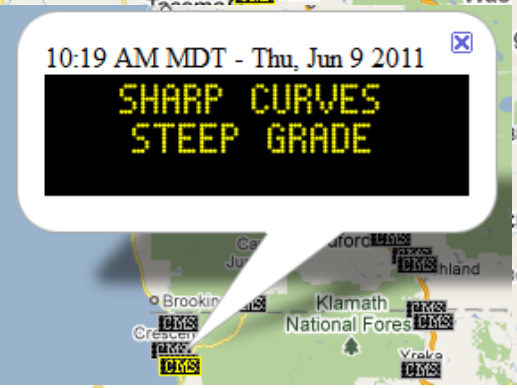

10:24 AM MDT - Thu, Jun 9 2011
CAUTION ROADWORK
3 MILES AHEAD
NO SHOULDER

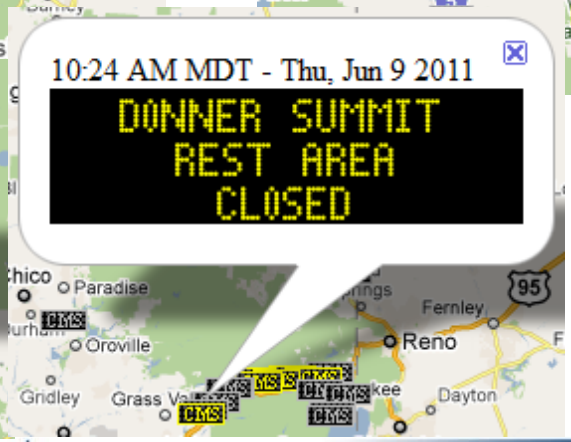

8:01 AM MDT - Thu, Jun 9 2011
ROAD CONSTRUCTION
REDUCED SPEED
3 MILES AHEAD


3:23 PM MDT - Wed, Jun 8 2011
TUKWILA 16 MIN
SEATTLE 49 MIN
BELLEVUE 47 MIN
WSDOT 005vm13939
Jun 9, 2011 8:41 AM

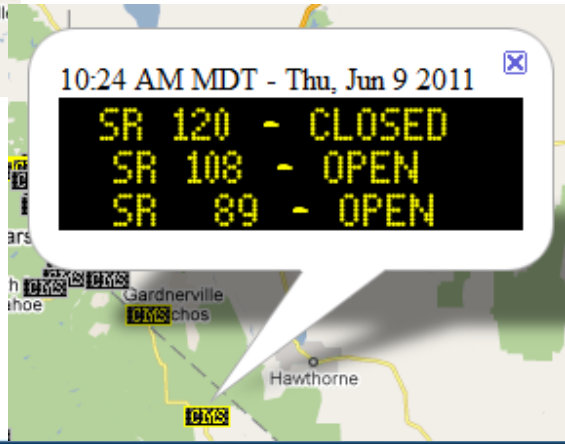

8:01 AM MDT - Thu, Jun 9 2011
CARRY
CHAINS


8:01 AM MDT - Thu, Jun 9 2011
2-WAY
TRAFFIC

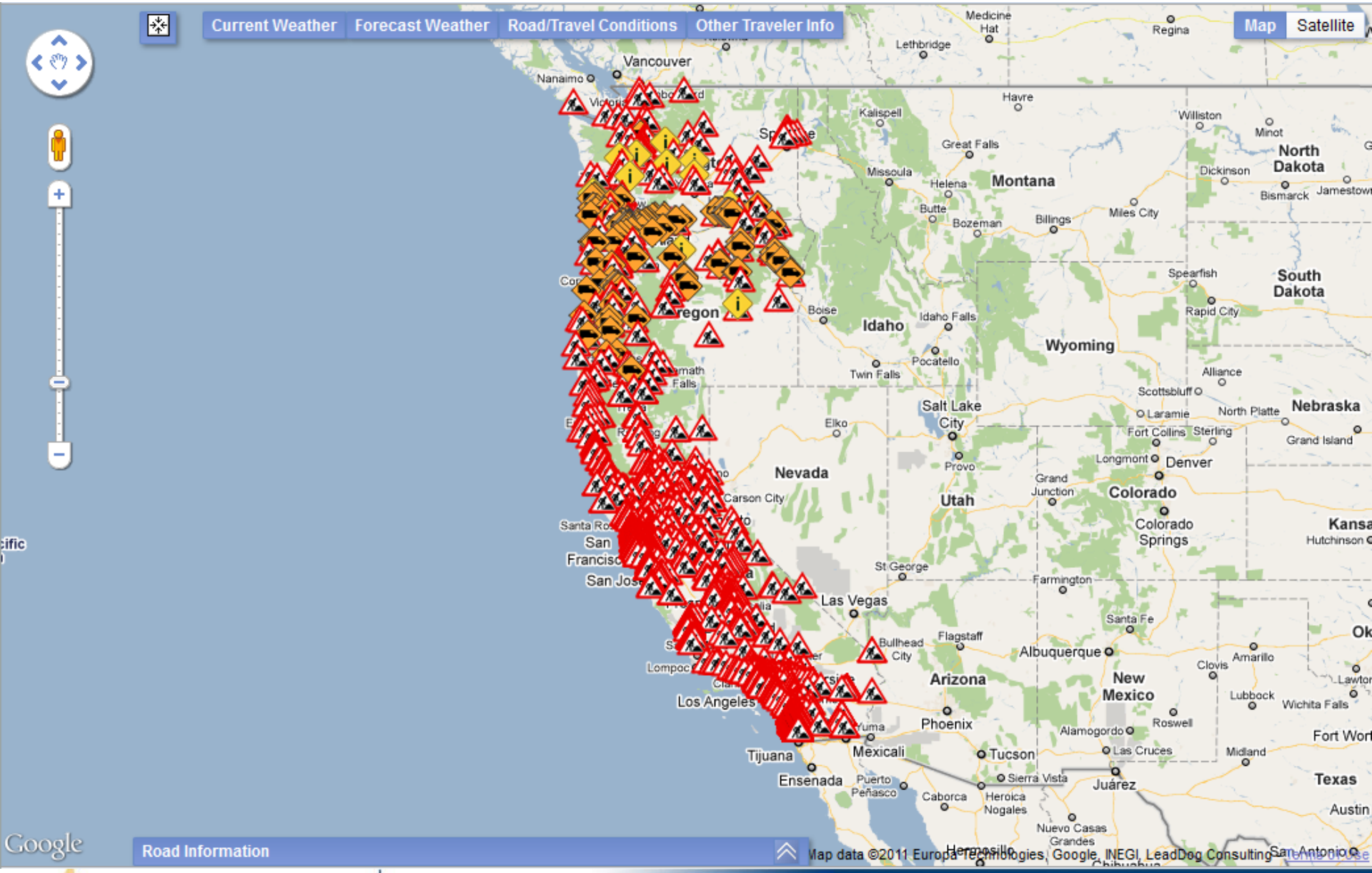

10:19 AM MDT - Thu, Jun 9 2011
SHARP CURVES
STEEP GRADE


10:24 AM MDT - Thu, Jun 9 2011
DONNER SUMMIT
REST AREA
CLOSED

CMS


10:24 AM MDT - Thu, Jun 9 2011
SR 120 - CLOSED
SR 108 - OPEN
SR 89 - OPEN

“Road Information”



HATCHERY CREEK RD
Updated: 5:17 PM MDT - Mon, Jun 6 2011
Type: Construction
Route: 002
Milepost: 91.00
Description: On US 2, west of Leavenworth in Tumwater Canyon Wednesday and Thursday ONLY from 7 a.m. to 4 p.m., on Wednesday and 7 a.m. to noon , on Thursday, expect up to 20 minute delays with single lane flagger controlled traffic while WSDOT Geotech Engineers measure the slope for the steel netting that will be hung when these slopes are stabilized later this summer.

Advice:

UMPQUA
Updated: 8:05 AM MDT - Thu, Jun 9 2011
Type: Maintenance Work
Route: ORE38
Milepost: 18
Severity: Estimated delay under 20 minutes
Description: Traffic control with flaggers for brush cutting crew.

Advice:

Junction w/Route 395 to End of Pavement
Updated: 8:01 AM MDT - Thu, Jun 9 2011
Type: Highway Construction
Route: 270
Milepost: 0
Description: Estimated delay: 20

Advice:

None
Updated: 8:42 AM MDT - Thu, Jun 9 2011
Type: Lane Closure
Route: 090
Milepost: 111.00
Description: Lane Closure for maintenance work on I-90 west bound between milepost 111 to milepost 110 beginning at 7:40 AM on June 09, 2011 until 3:11 AM.

Advice:

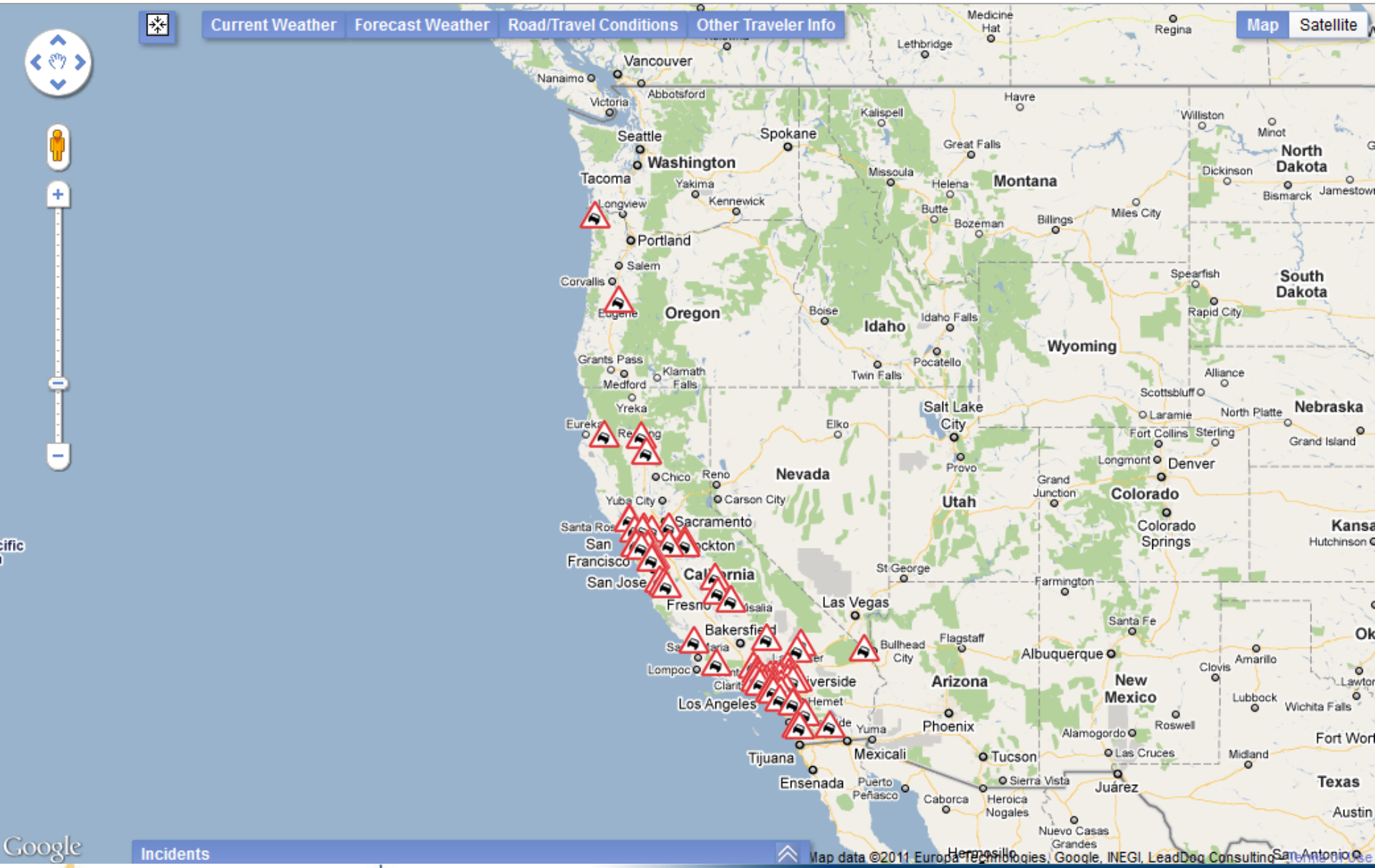
Road Information

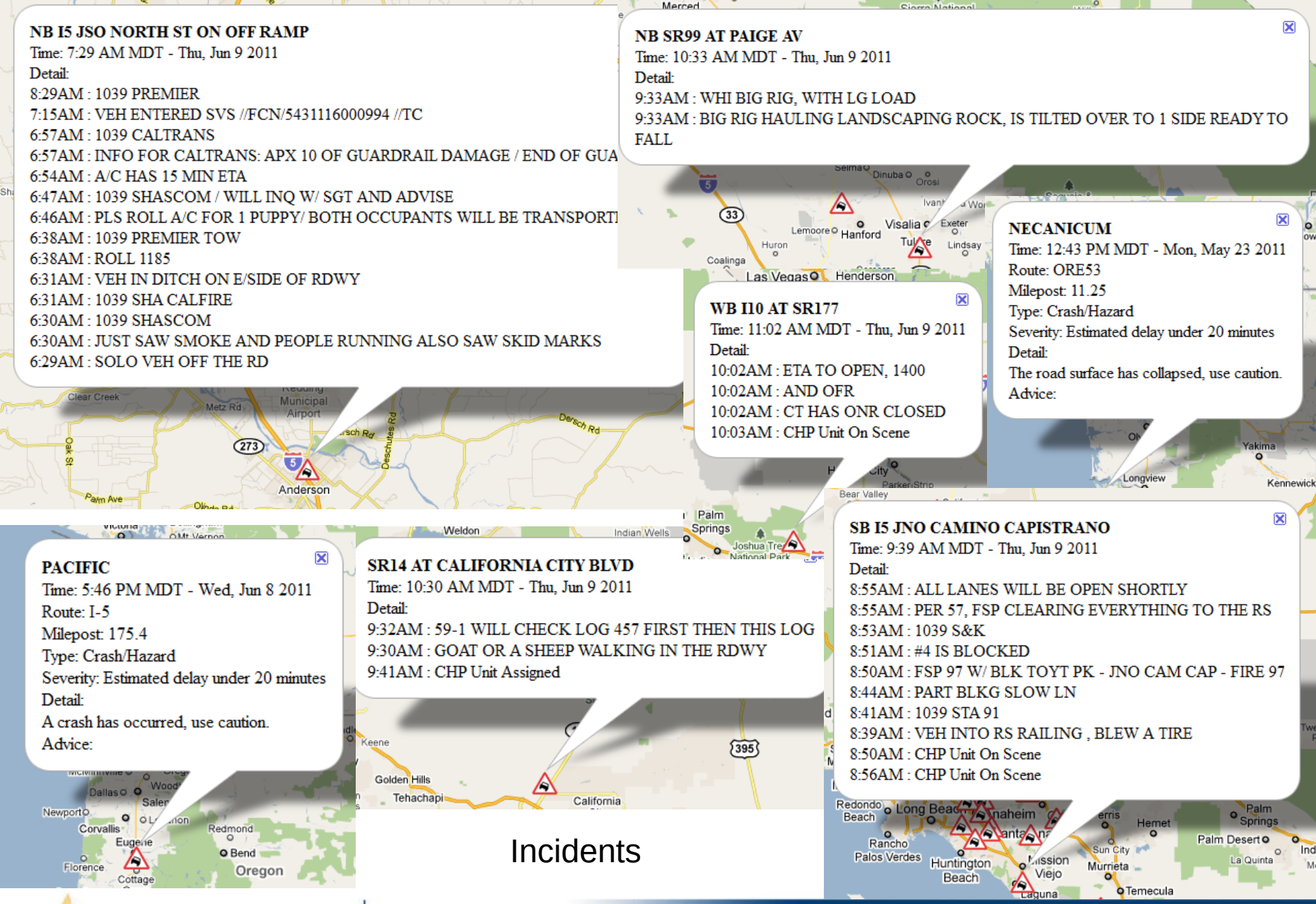
PACIFIC
Updated: 8:00 PM MDT - Wed, Jun 8 2011
Type: Commercial Vehicle Information
Route: I-5
Milepost: 0
Severity: Informational only
Description: Effective May 24, 2011, this section of I-5 will be restricted to 16 feet 00 in. in width between the hours of 7:00 AM & 7:00 PM (DAYTIME). Estimated date of completion is June 30, 2011.

Advice:

THE DALLES-CALIFORNIA
Updated: 11:46 AM MDT - Tue, Jun 7 2011
Type: Information
Route: US97
Milepost: 68.9
Severity: Informational only
Description: Cow Canyon Rest Area closed for construction 3/7/11 through 6/25/11.

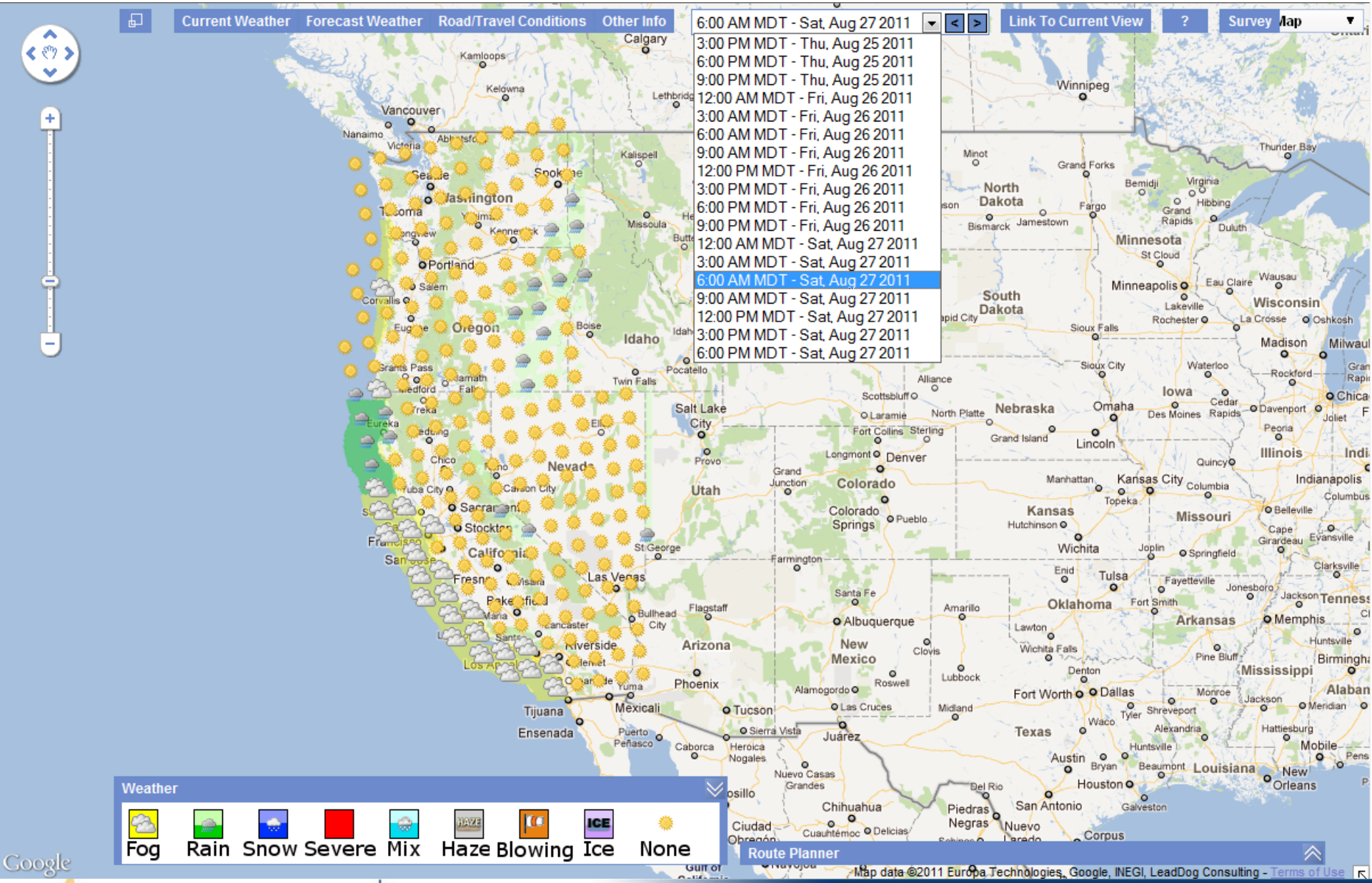
Advice:


Current Weather
Forecast Weather
Road/Travel Conditions
Other Traveler Info
Map
Satellite
Incidents
Google
Map data ©2011 Europa Technologies, Google, INEGI, LeadDog Consulting
Vancouver
Seattle
Spokane
Washington
Portland
Oregon
Idaho
Montana
Wyoming
Nevada
Utah
Colorado
Arizona
New Mexico
California
Sacramento
San Francisco
San Jose
Las Vegas
Phoenix
Albuquerque
Los Angeles
Tijuana
Ensenada
Mexicali
Tucson
Juárez
Salt Lake City
Denver
North Dakota
South Dakota
Nebraska
Texas

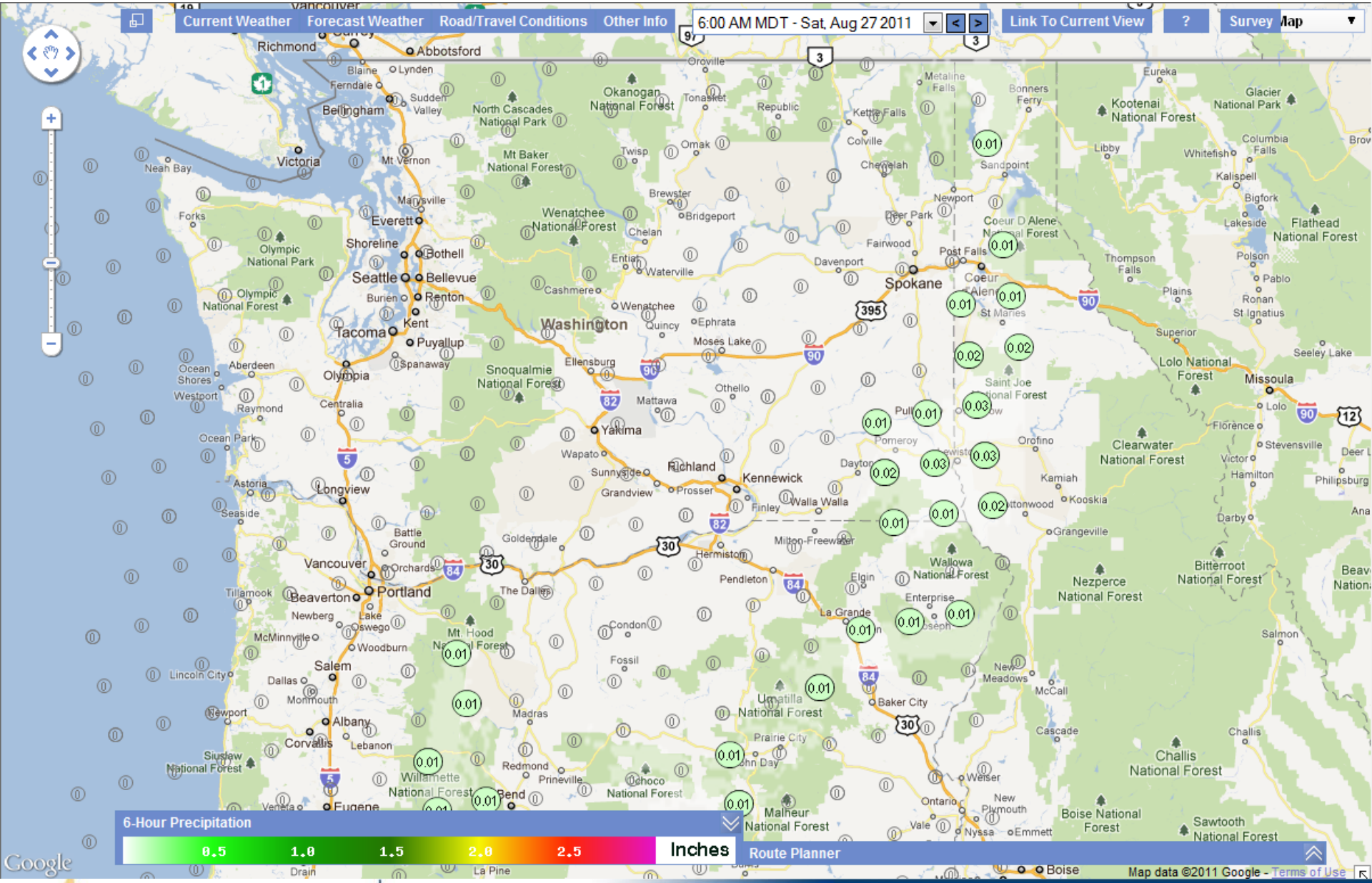

NB I5 JSO NORTH ST ON OFF RAMP
Time: 7:29 AM MDT - Thu, Jun 9 2011
Detail:
8:29AM : 1039 PREMIER
7:15AM : VEH ENTERED SVS //FCN/5431116000994 //TC
6:57AM : 1039 CALTRANS
6:57AM : INFO FOR CALTRANS: APX 10 OF GUARDRAIL DAMAGE / END OF GUA
6:54AM : A/C HAS 15 MIN ETA
6:47AM : 1039 SHASCOM / WILL INQ W/ SGT AND ADVISE
6:46AM : PLS ROLL A/C FOR 1 PUPPY/ BOTH OCCUPANTS WILL BE TRANSPORTI
6:38AM : 1039 PREMIER TOW
6:38AM : ROLL 1185
6:31AM : VEH IN DITCH ON E/SIDE OF RDWY
6:31AM : 1039 SHA CALFIRE
6:30AM : 1039 SHASCOM
6:30AM : JUST SAW SMOKE AND PEOPLE RUNNING ALSO SAW SKID MARKS
6:29AM : SOLO VEH OFF THE RD
NB SR99 AT PAIGE AV
Time: 10:33 AM MDT - Thu, Jun 9 2011
Detail:
9:33AM : WHI BIG RIG, WITH LG LOAD
9:33AM : BIG RIG HAULING LANDSCAPING ROCK, IS TILTED OVER TO 1 SIDE READY TO FALL
WB I10 AT SR177
Time: 11:02 AM MDT - Thu, Jun 9 2011
Detail:
10:02AM : ETA TO OPEN, 1400
10:02AM : AND OFR
10:02AM : CT HAS ONR CLOSED
10:03AM : CHP Unit On Scene
NECANICUM
Time: 12:43 PM MDT - Mon, May 23 2011
Route: ORE53
Milepost: 11.25
Type: Crash/Hazard
Severity: Estimated delay under 20 minutes
Detail:
The road surface has collapsed, use caution.
Advice:
PACIFIC
Time: 5:46 PM MDT - Wed, Jun 8 2011
Route: I-5
Milepost: 175.4
Type: Crash/Hazard
Severity: Estimated delay under 20 minutes
Detail:
A crash has occurred, use caution.
Advice:
SR14 AT CALIFORNIA CITY BLVD
Time: 10:30 AM MDT - Thu, Jun 9 2011
Detail:
9:32AM : 59-1 WILL CHECK LOG 457 FIRST THEN THIS LOG
9:30AM : GOAT OR A SHEEP WALKING IN THE RDWY
9:41AM : CHP Unit Assigned
SB I5 JNO CAMINO CAPISTRANO
Time: 9:39 AM MDT - Thu, Jun 9 2011
Detail:
8:55AM : ALL LANES WILL BE OPEN SHORTLY
8:55AM : PER 57, FSP CLEARING EVERYTHING TO THE RS
8:53AM : 1039 S&K
8:51AM : #4 IS BLOCKED
8:50AM : FSP 97 W/ BLK TOYT PK - JNO CAM CAP - FIRE 97
8:44AM : PART BLKG SLOW LN
8:41AM : 1039 STA 91
8:39AM : VEH INTO RS RAILING , BLEW A TIRE
8:50AM : CHP Unit On Scene
8:56AM : CHP Unit On Scene

Incidents

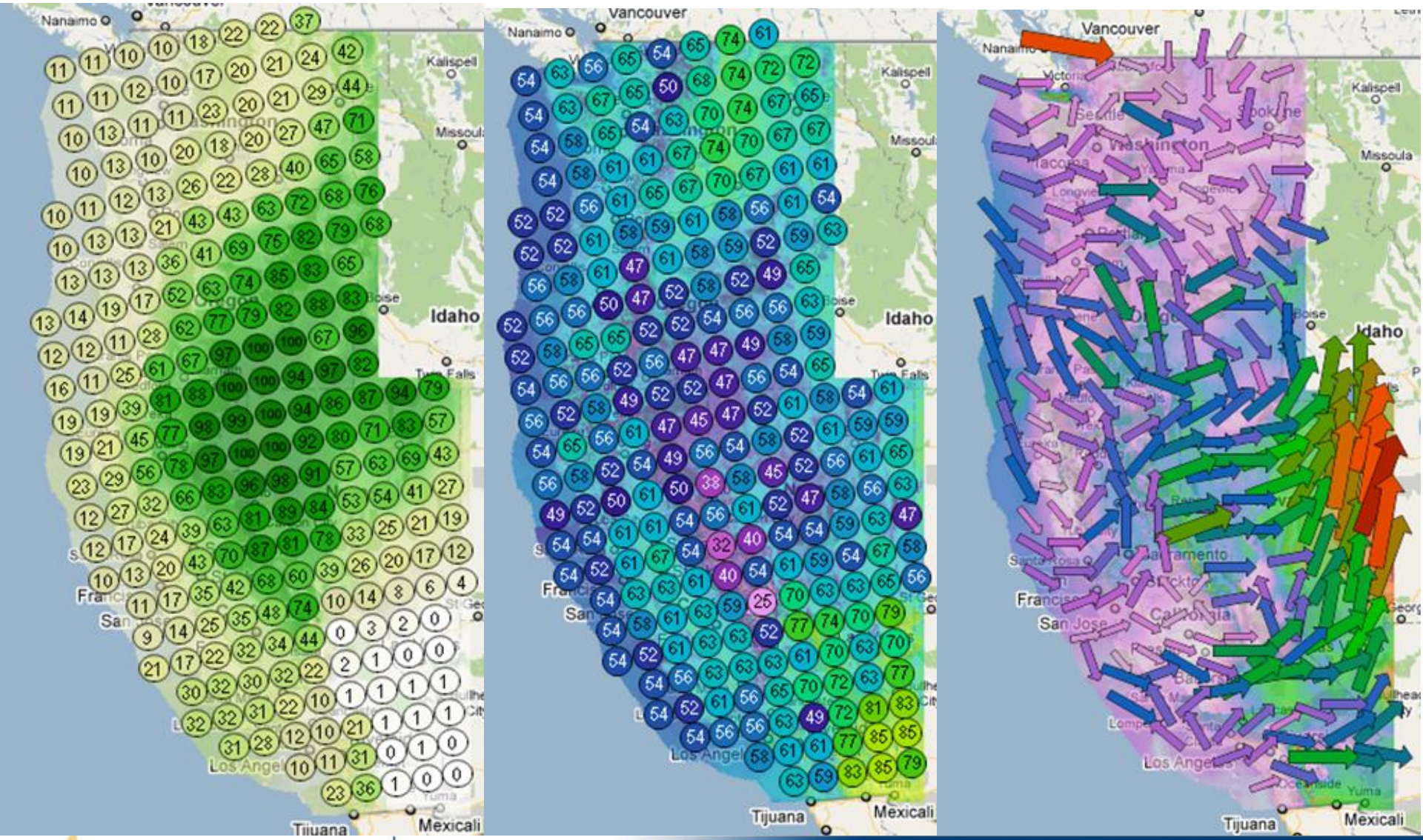
Weather Forecasts



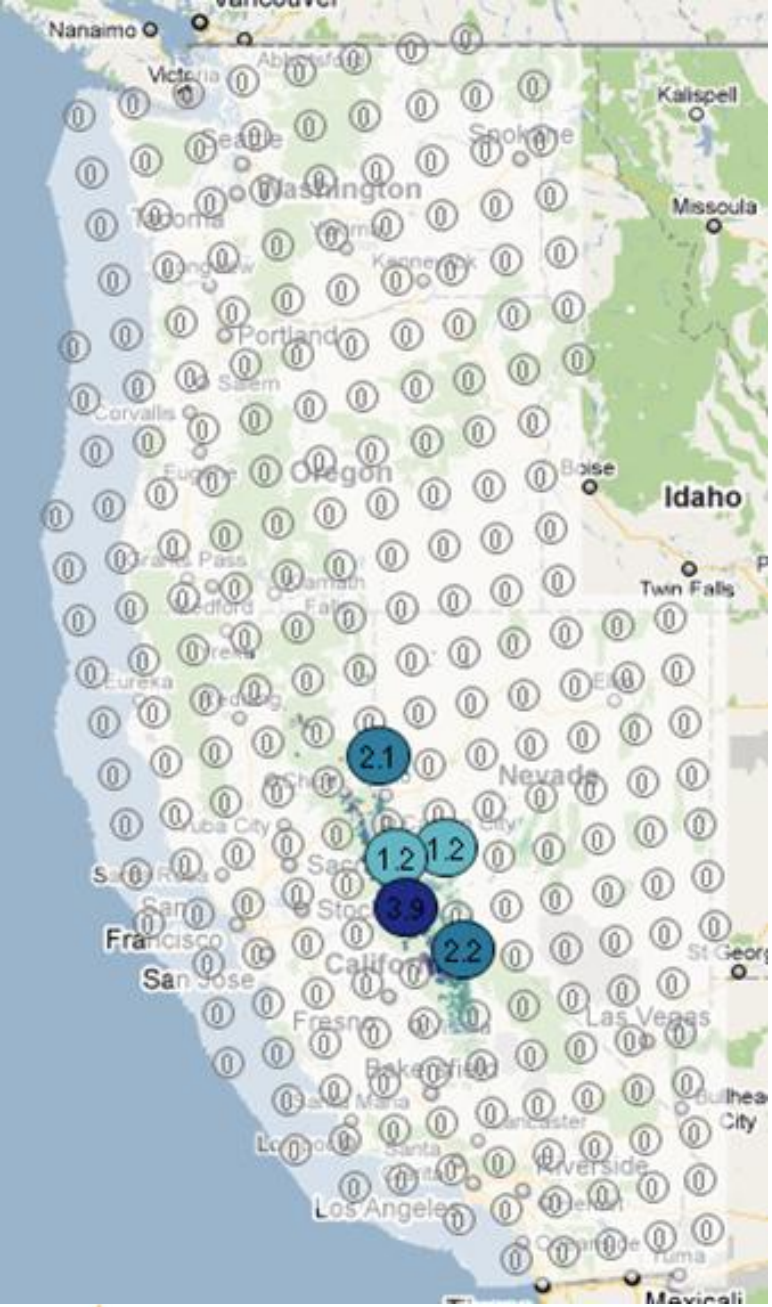
Precipitation Forecast

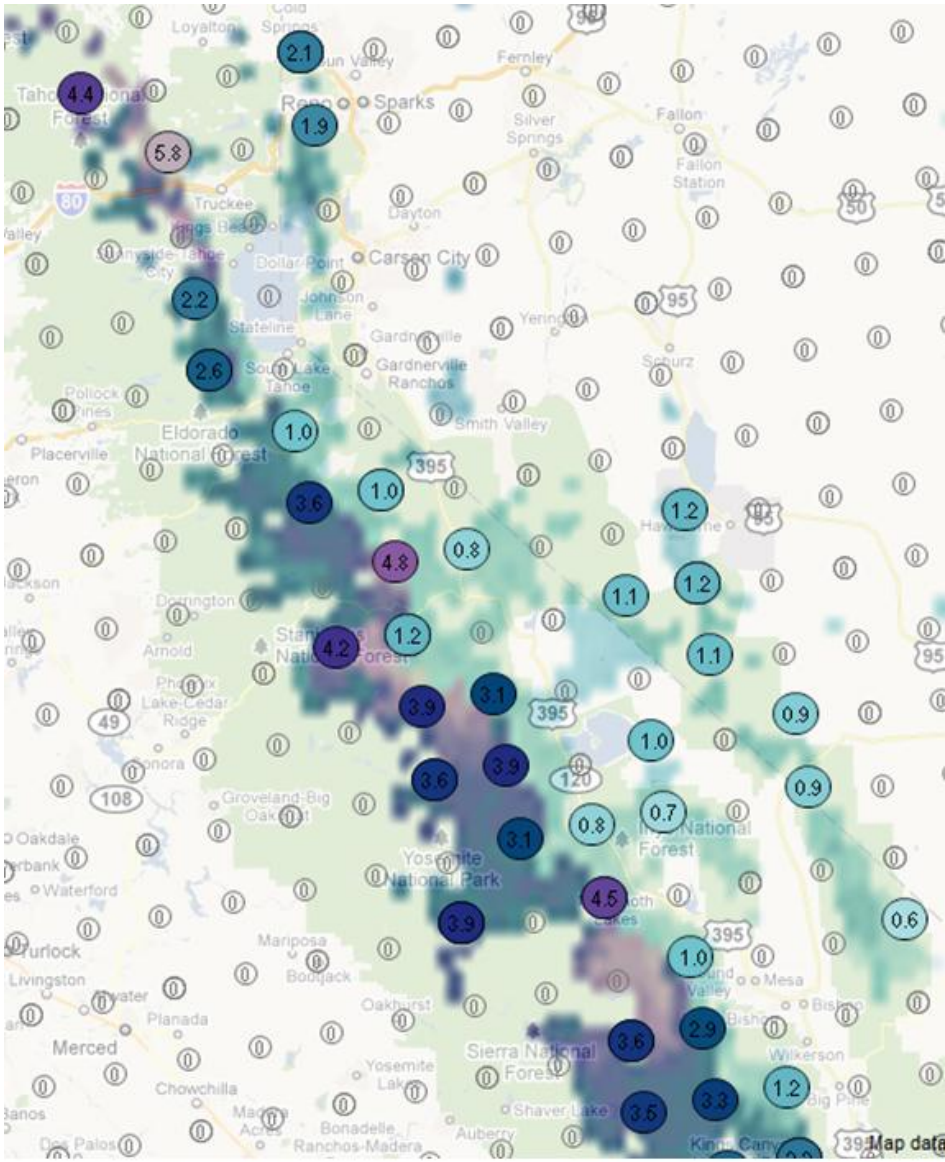


Information at a Glance

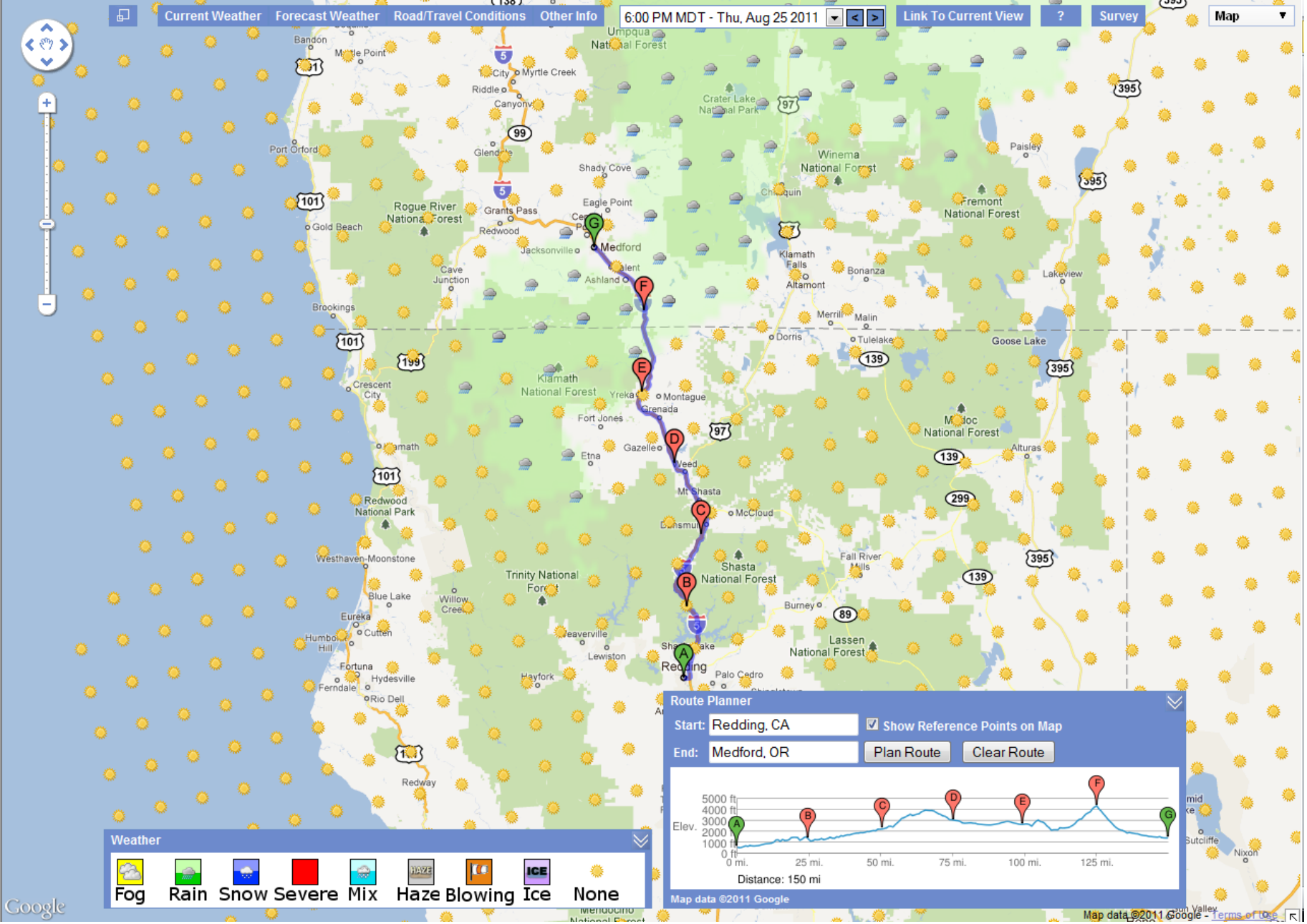


Further Detail Upon Zoom

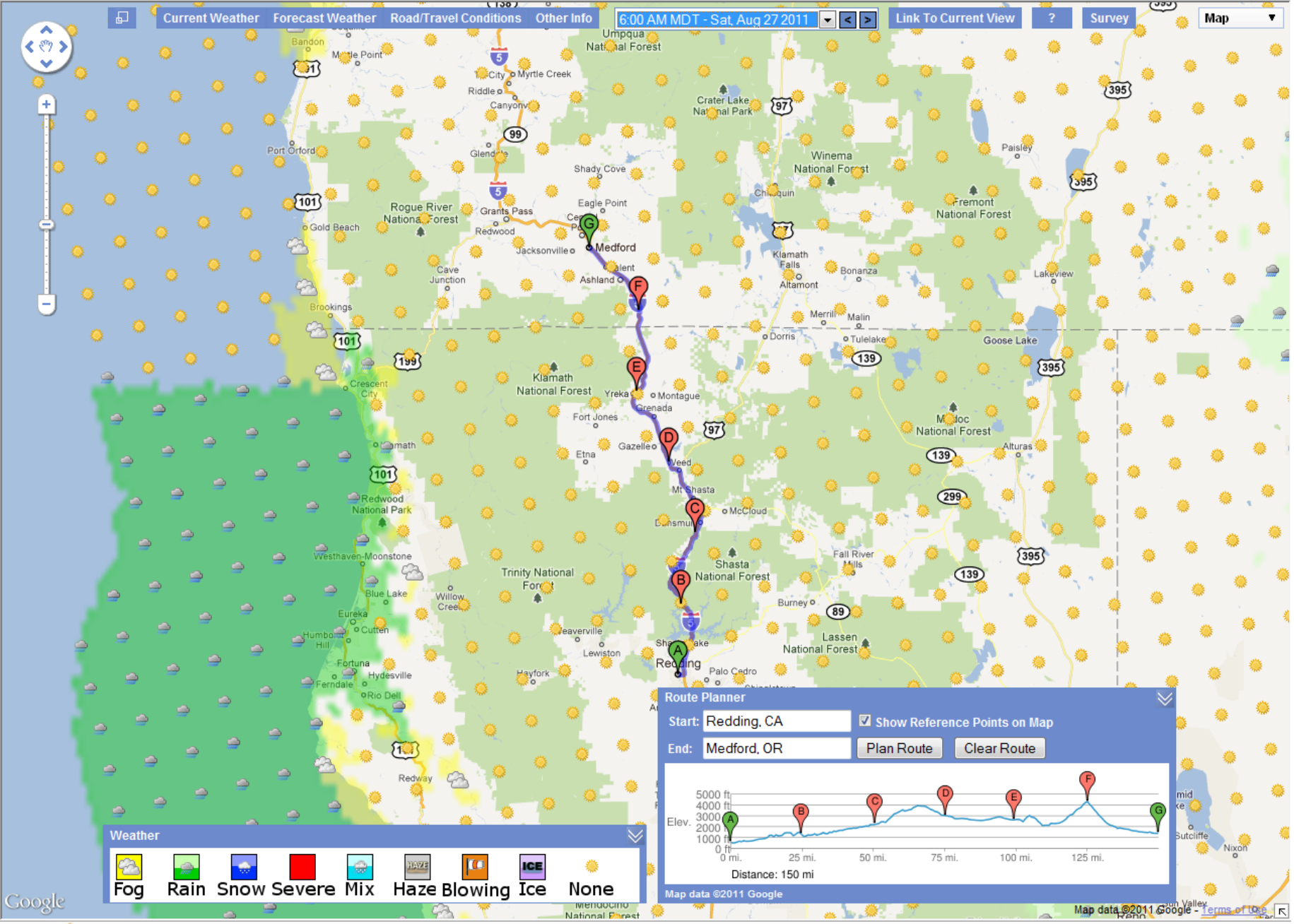


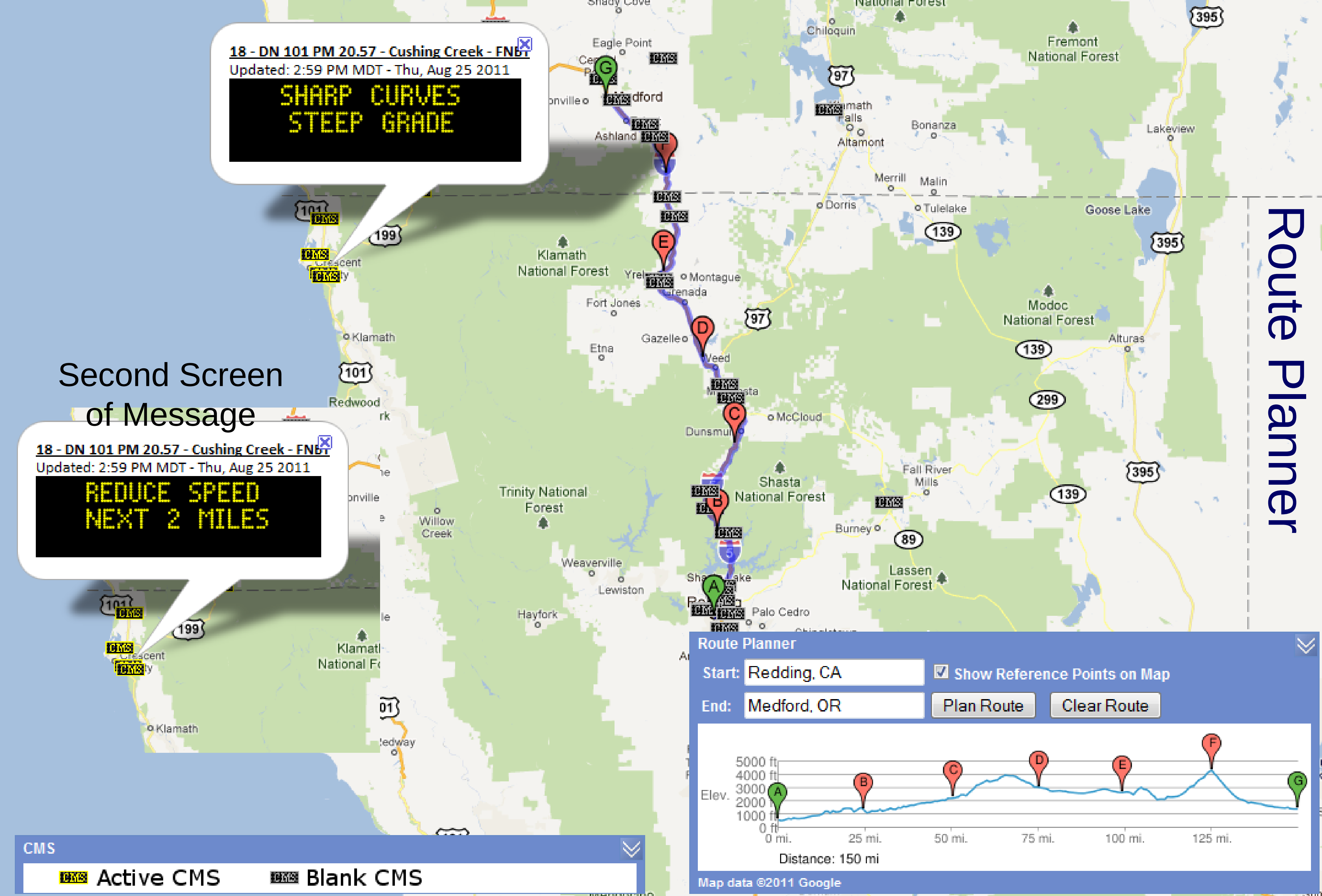


Route Planner

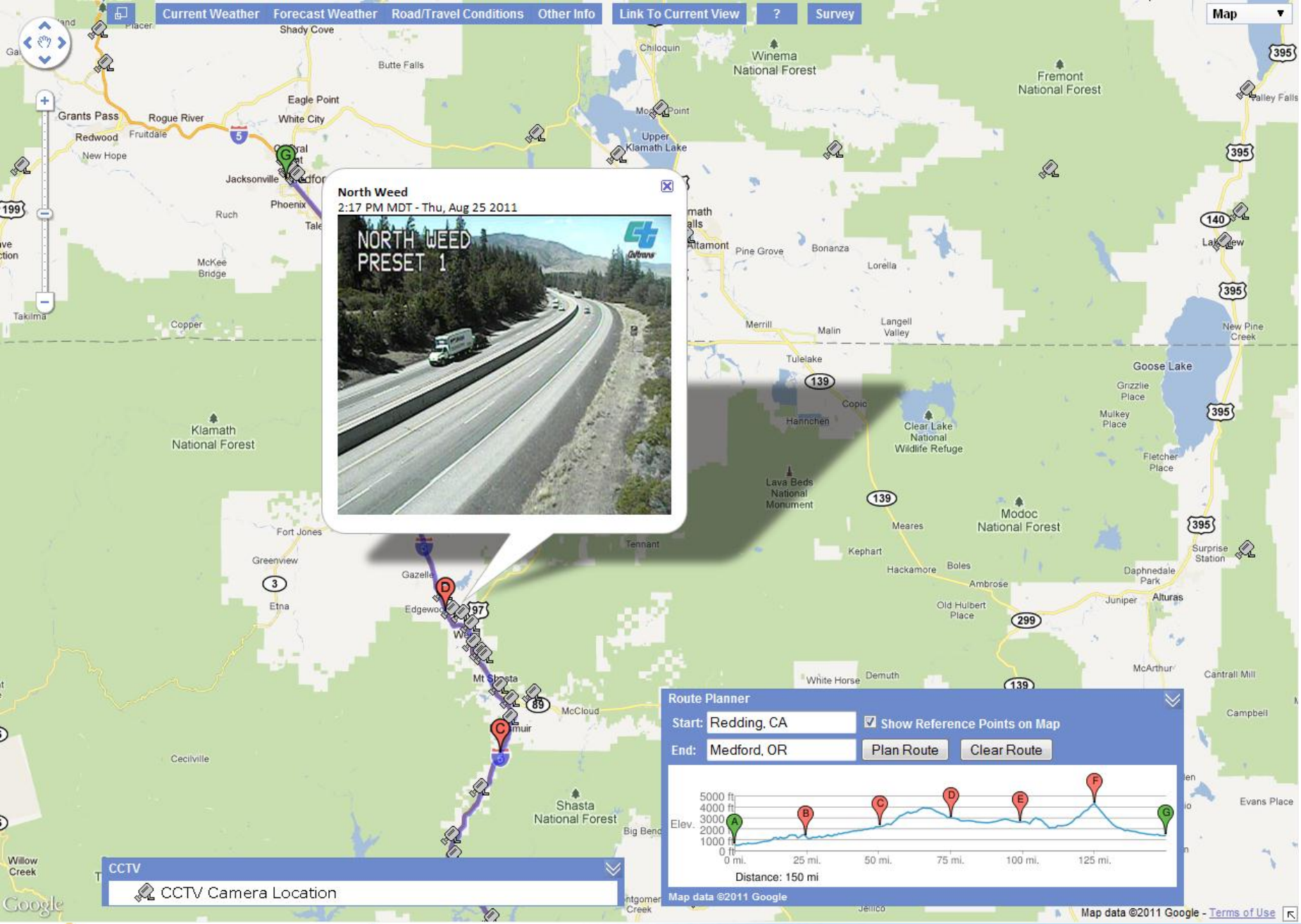


Route Planner

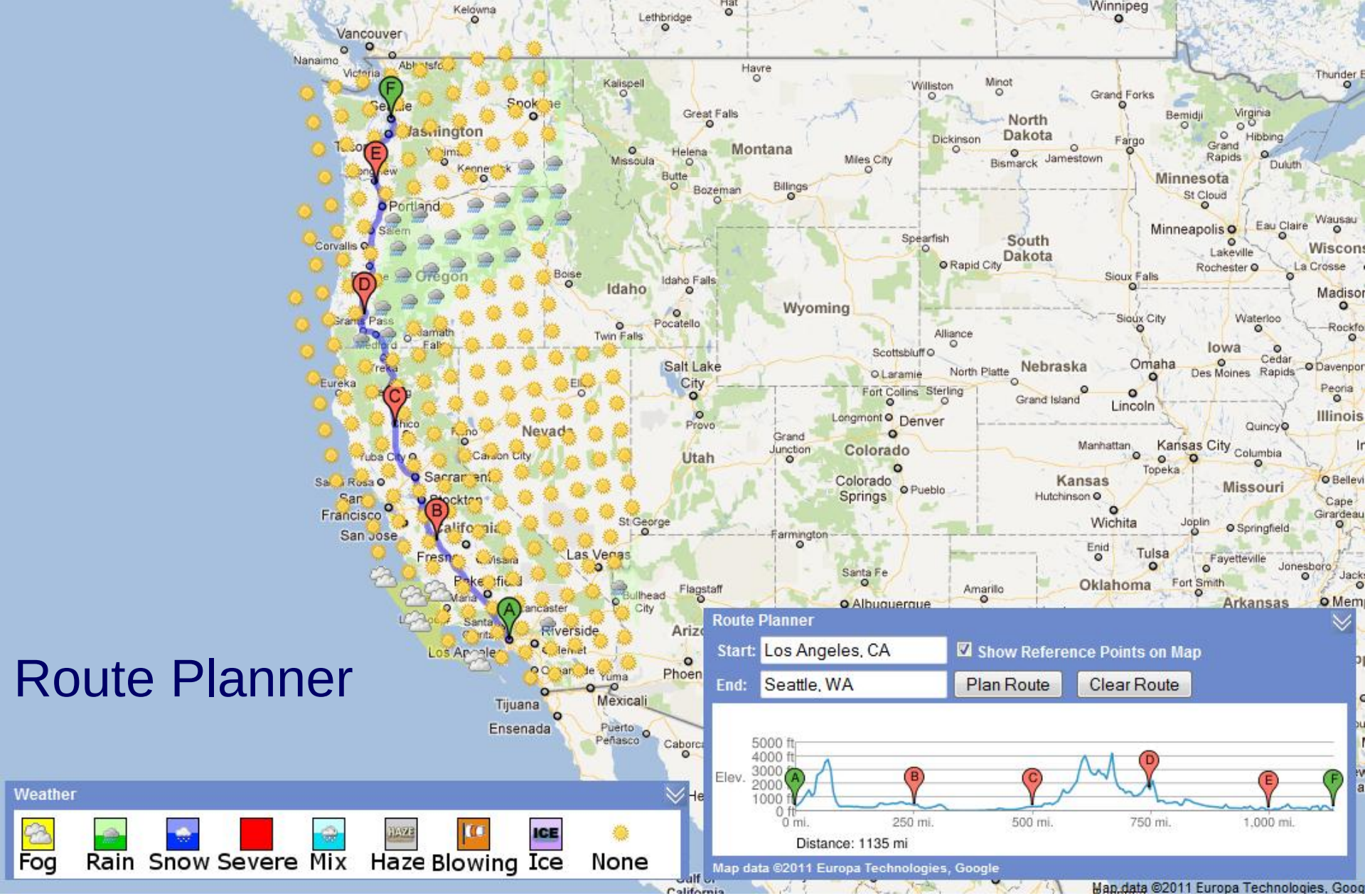



Route Planner
Second Screen of Message
18 - DN 101 PM 20.57 - Cushing Creek - FNBT
Updated: 2:59 PM MDT - Thu, Aug 25 2011
SHARP CURVES
STEEP GRADE
18 - DN 101 PM 20.57 - Cushing Creek - FNBT
Updated: 2:59 PM MDT - Thu, Aug 25 2011
REDUCE SPEED
NEXT 2 MILES
CMS
Active CMS
Blank CMS
Route Planner
Start: Redding, CA
End: Medford, OR
Show Reference Points on Map
Plan Route
Clear Route
Elev.
5000 ft
4000 ft
3000 ft
2000 ft
1000 ft
0 ft
0 mi.
25 mi.
50 mi.
75 mi.
100 mi.
125 mi.
Distance: 150 mi
Map data ©2011 Google

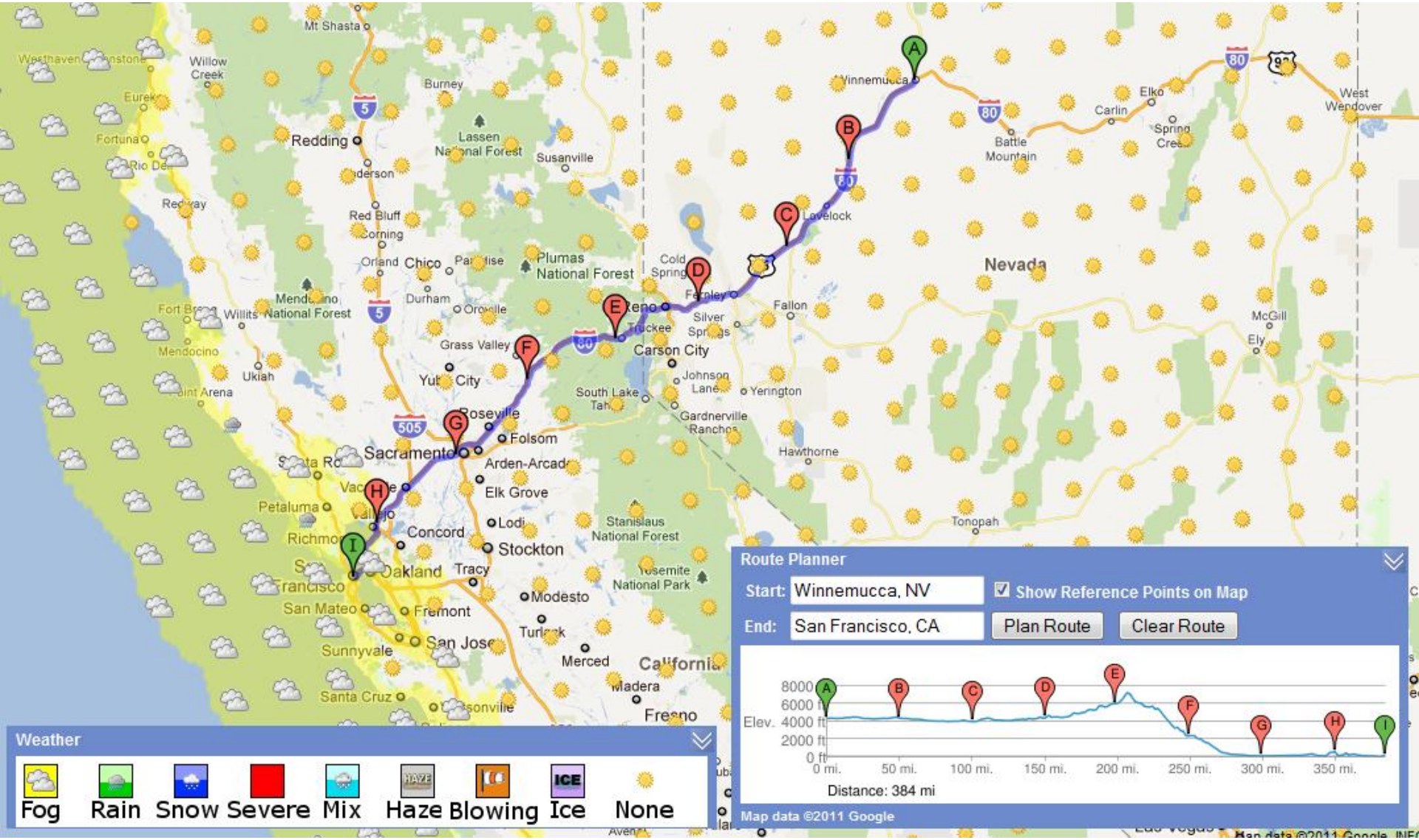
Route Planner



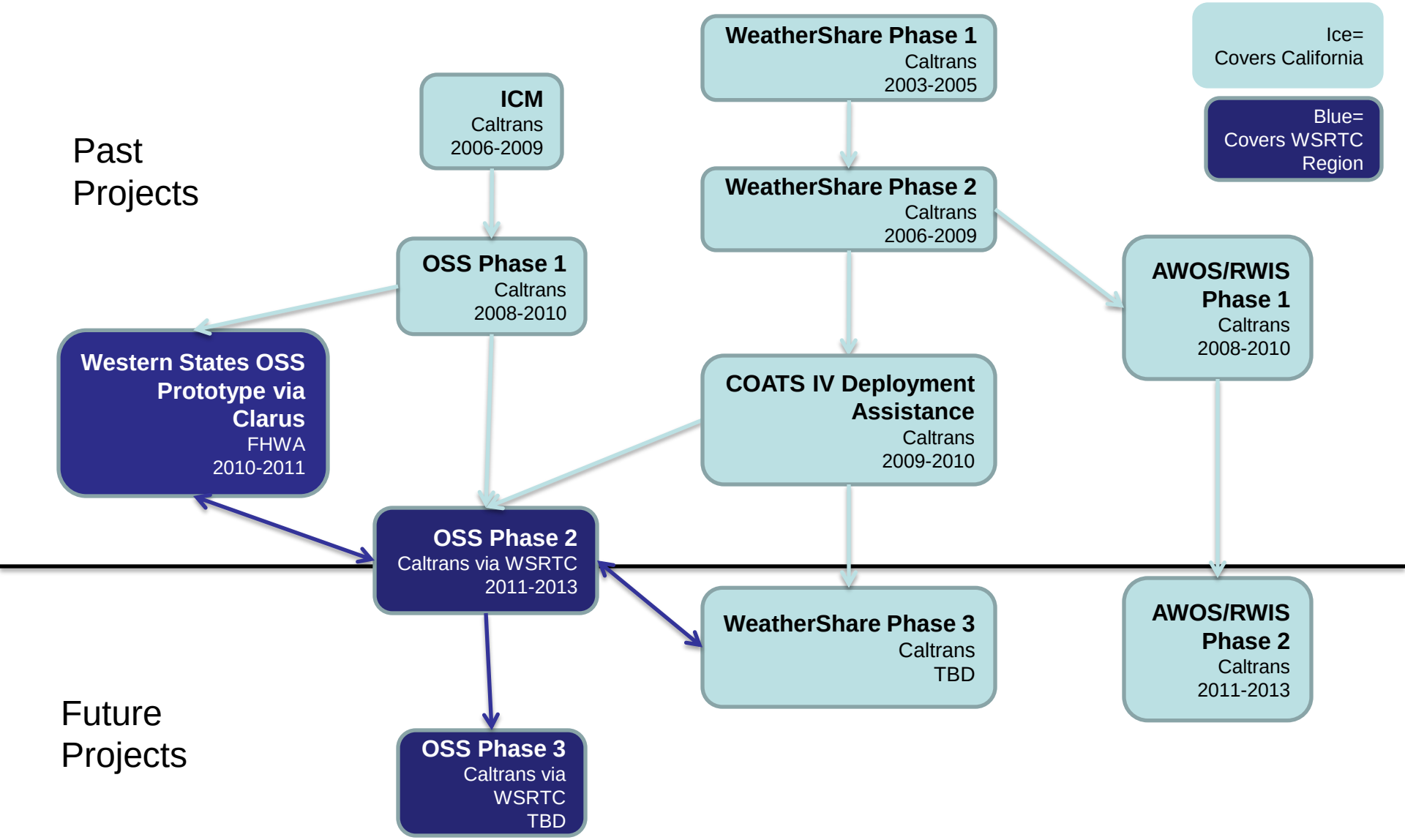
Route Planner



Route Planner



Closely related web-based efforts

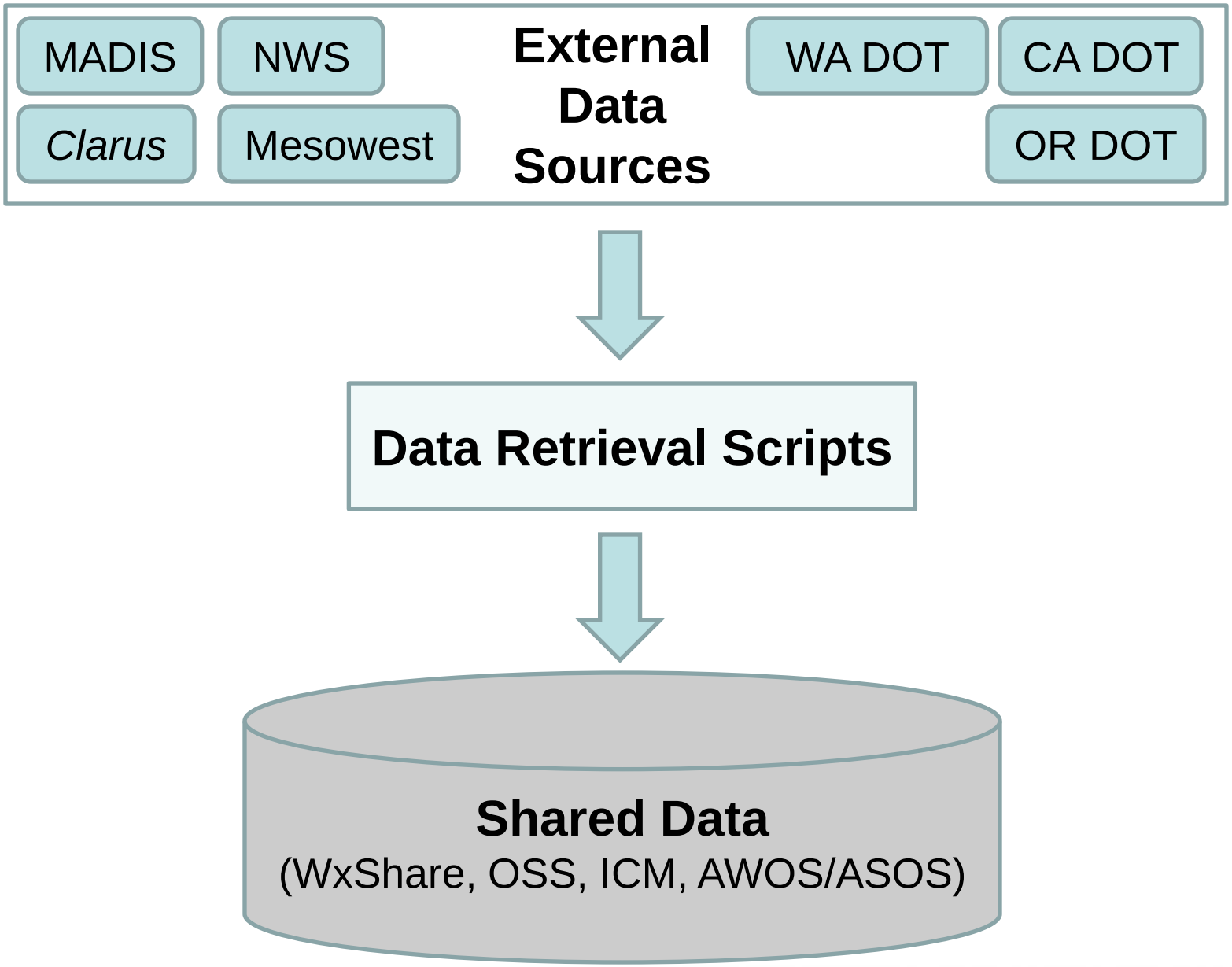


Western States OSS Phase 2

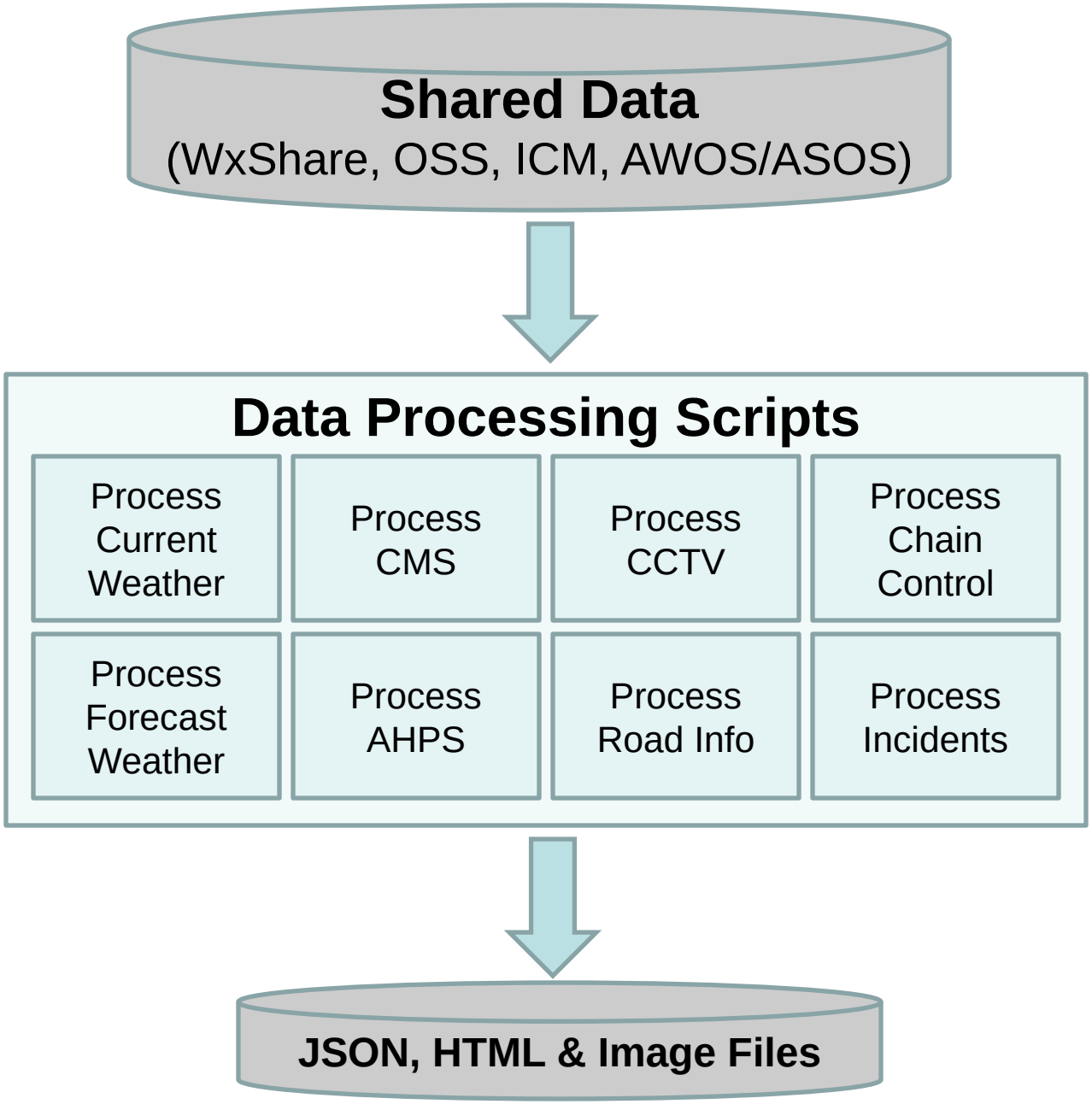
- Caltrans ($150,000) and WTI ($50,000) funded via WSRTC
- Started in late 2011.
- Prepare the system for wider use.

Architecture

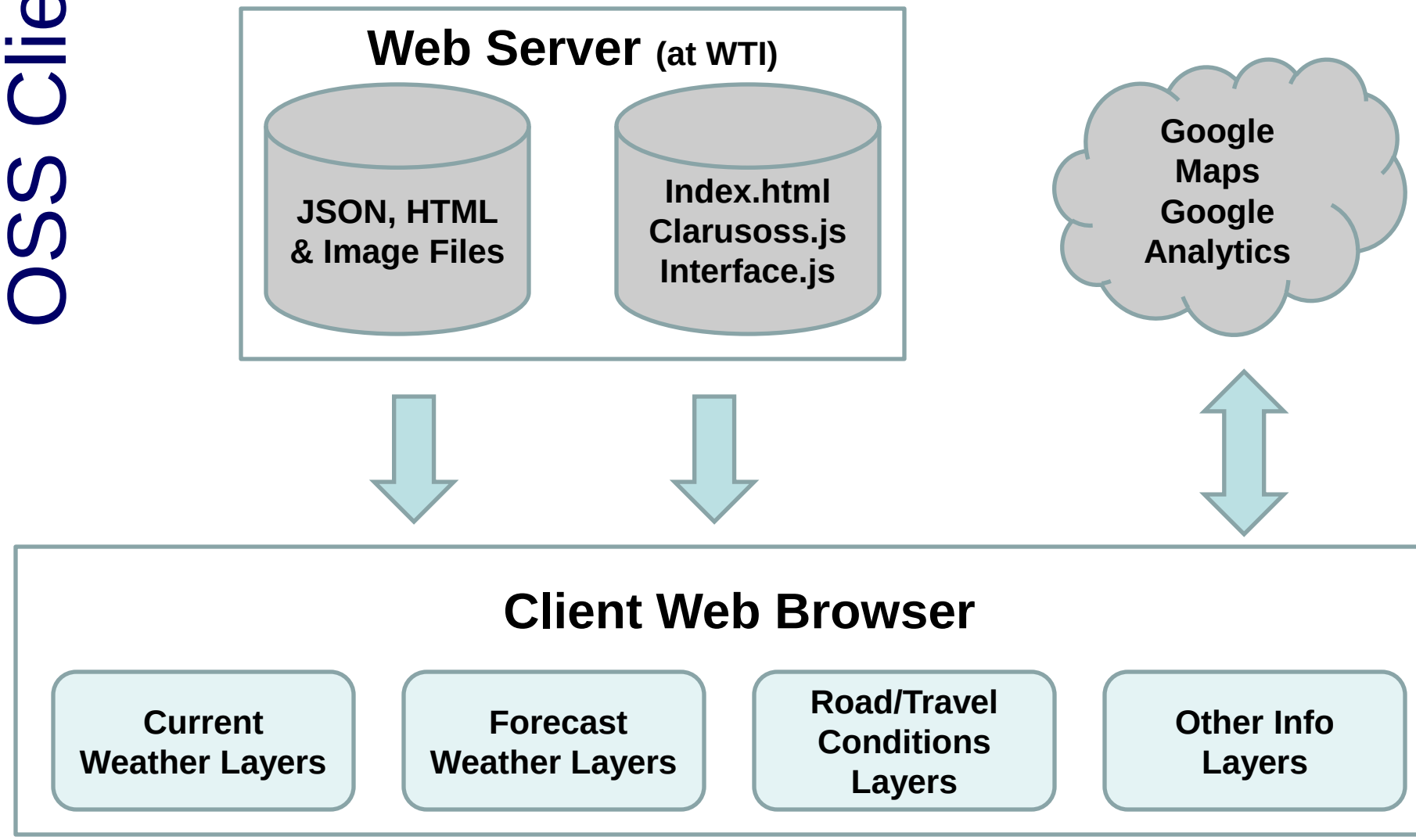
Data Retrieval



OSS Server Side



OSS Client


Web Server (at WTI)
JSON, HTML & Image Files
Index.html
Clarusoss.js
Interface.js
Google Maps
Google Analytics
Client Web Browser
Current Weather Layers
Forecast Weather Layers
Road/Travel Conditions Layers
Other Info Layers

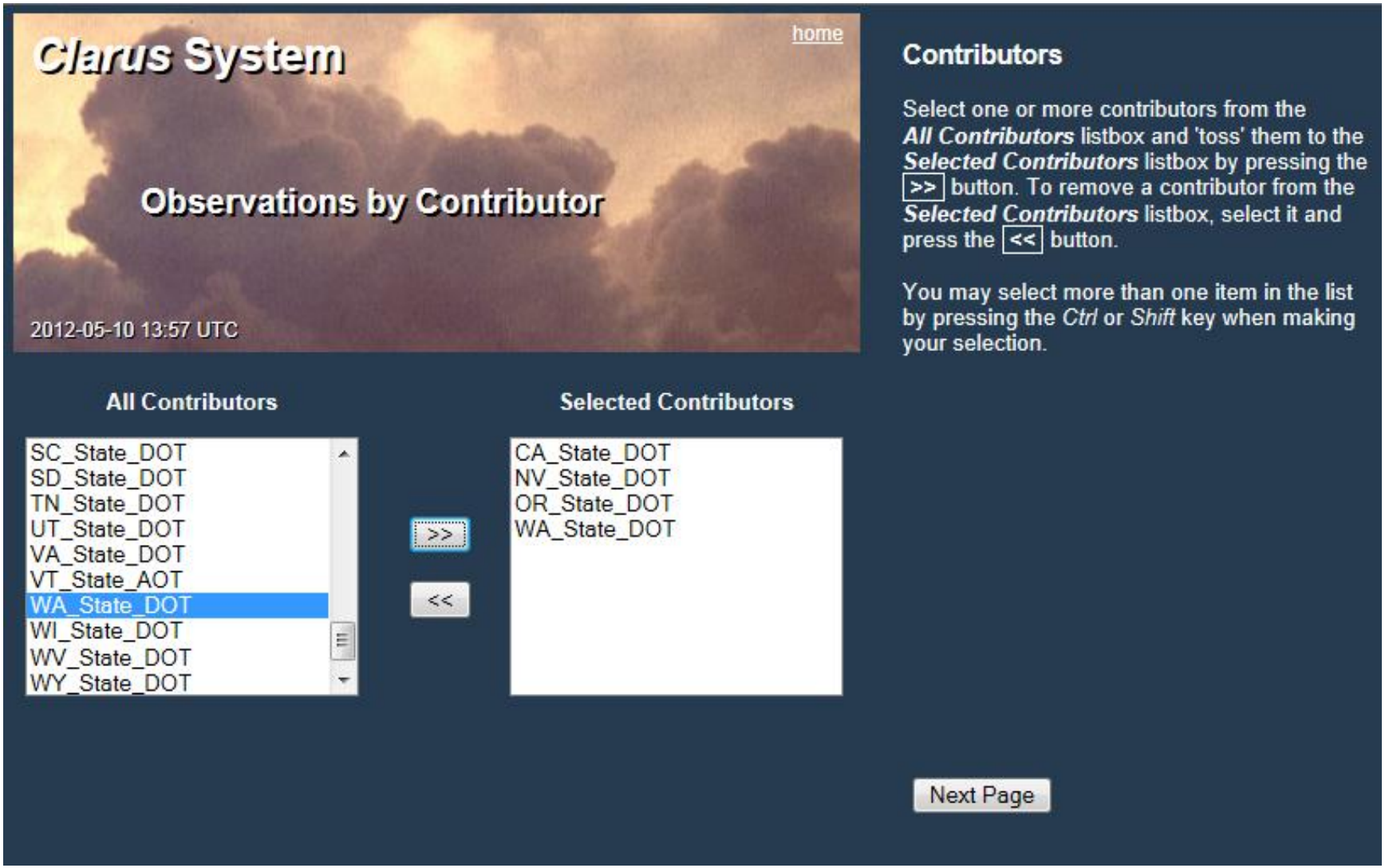
Data Sources

Data Sources Utilized

Source	Dataset	Known Coverage/ Availability
Clarus	ESS Sensor Data (RWIS)	CA, OR, NV, WA
MADIS and Mesowest	Other Weather Sensor Data	CA, OR, NV, WA
NOAA - NWS	National Digital Forecast Database (NDFD)	CA, OR, NV, WA
NOAA - NWS	Weather Warnings, Alerts, Advisories, Special Weather Statements	CA, OR, NV, WA
Google	Elevation Data, Route Data, Traffic Conditions	CA, OR, NV, WA
State DOTs	CCTV Images	CA, OR, WA
State DOTs	CMS Messages	CA, OR, WA
State DOTs	Chain Requirements	CA, OR, WA
State DOTs	Incidents	CA, OR
State DOTs	Road Information (Construction, Commercial Vehicle Information)	CA, OR, WA
State DOTs	Features of Interest	CA
State DOTs	Summit Locations	CA, WA
State DOTs	Rest Areas	CA, OR, WA
State DOTs	Truck Scales	CA, OR

Data Acquisition

Clarus ESS Data



http://www.clarus-system.com/

Observations	Size (bytes)
20120510_1345.csv	328,358
20120510_1330.csv	242,807
20120510_1315.csv	240,006
20120510_1300.csv	228,937
20120510_1245.csv	326,944
20120510_1230.csv	240,284
20120510_1215.csv	232,965
20120510_1200.csv	211,799
20120510_1145.csv	315,909
20120510_1130.csv	240,331
20120510_1115.csv	397,623
20120510_1100.csv	274,226
20120510_1045.csv	167,704
20120510_1030.csv	271,825
20120510_1015.csv	282,144
20120510_1000.csv	262,104
20120510_0945.csv	166,436
20120510_0930.csv	283,654
20120510_0915.csv	398,561
20120510_0900.csv	224,464
20120510_0845.csv	434,184
20120510_0830.csv	281,347

Our Retrieval Script

```
#!/bin/bash

#NOTE: if using this template to add a new data source, plea
se update the list of sources in
#\\wtisrv\Project Data\4W3347 FHWA Clarus BAA One Stop Shop\
Design\SystemsDesignNotes\Clarus OSS implementation notes.do
cx

DATASOURCE=clarus

LOGFILE=/home/websitedata/logs/$DATASOURCE.log
DOWNLOADDIR=/home/websitedata/data/$DATASOURCE/current/

DATEHOUR=`date -u +"%Y%m%d_%H"`
MINUTE=$(( 10#`date -u +"%M"` / 15 ))
case $MINUTE in
    0)
        MINUTE="00"
        ;;
    1)
        MINUTE="15"
        ;;
    2)
        MINUTE="30"
        ;;
    3)
        MINUTE="45"
        ;;
esac
URL="http://www.clarus-system.com/SubShowObs.jsp?subId= [redacted]
[redacted] &file=$DATEHOUR$MINUTE.csv"

wget --output-document="$DOWNLOADDIR$DATEHOUR$MINUTE.csv" $U
RL >$LOGFILE 2>&1

MAXFILES=7
NUMFILES=$(ls -1 $DOWNLOADDIR | wc -l)
if [[ $NUMFILES > $MAXFILES ]]; then
    cd $DOWNLOADDIR >$LOGFILE 2>&1
    rm -f $(ls -1t $DOWNLOADDIR | tail -n $(( $NUMFILES-$MAX
FILES )) ) >$LOGFILE 2>&1
fi
```

Clarus ESS Data in CSV format:

```
ObsTypeID,ObsTypeName,ClarusSensorID,ClarusSensorIndex,ClarusStationID,ClarusSiteID,Category,ClarusContribID,Contributor,StationCode,Timestamp,Latitude,Longitude,Elevation,Observation,Units,EnglishValue,EnglishUnits,ConfValue,Complete,Manual,Sensor_Range,Climate_Range,Step,Like_Instrument,Persistence,IQR_Spatial,Barnes_Spatial,Dew_Point,Sea_Level_Pressure,Precip_Accum

5733,essAirTemperature,79250,0,5754,5280,P,31,NV_State_DOT,D1003,2012-05-04 17:38:00,36.321237,-115.619626,2504,5.667,C,42.200,F,1.000,P,-,P,P,P,/,P,-,-,/,/,/,/

554,essAtmosphericPressure,92765,0,6212,5738,P,9,CA_State_DOT,365004,2012-05-04 18:50:11,37.374623,-120.683395,43,1016.300,mbar,30.011,inHg,0.913,P,-,P,N,P,/,P,P,-,/,P,/

51139,essPavementTemperature,80076,1,5795,5311,P,31,NV_State_DOT,D340,2012-05-04 18:22:00,39.06962,-114.172025,1710,30.778,C,87.400,F,1.000,P,-,P,P,P,P,P,-,P,/,/,/,/

511313,essSurfaceFreezePoint,80425,1,5812,5328,P,31,NV_State_DOT,NV15,2012-05-04 18:45:00,39.117414,-119.845509,1815,-17.778,C,0.000,F,1.000,P,-,P,/,P,/,/,/,/,/,/,/,/
```

NOAA MADIS

National Oceanic and Atmospheric Administration | Earth Systems Research Laboratory

Meteorological Assimilation Data Ingest System

DOC | NOAA | NOAA Research | ESRL | GSD | MADIS HOME

The demands for finer scale meteorological services have increasingly required higher resolution observations to initialize and evaluate weather and climate models, applications, and products. In response to these demands, the National Oceanic and Atmospheric Administration (NOAA) Research (Oceanic and Atmospheric Research (OAR)) Earth System Research Laboratory (ESRL) Global Systems Division (GSD) developed the Meteorological Assimilation Data Ingest System (MADIS) to collect, integrate, quality control (QC), and distribute observations from NOAA and non-NOAA organizations. MADIS leverages partnerships with international agencies; federal, state, and local agencies (e.g. state Departments of Transportation); universities; volunteer networks; and the private sector (e.g. airlines, railroads) to integrate observations from their stations with those of NOAA to provide a finer density, higher frequency observational database for use by the greater meteorological community. MADIS observational products and services were first provided to the public in July of 2001.

MADIS runs operationally in real-time in the National Weather Service (NWS) with a distributed architecture consisting of ingest and distribution services at the Telecommunications Operations Center (TOC) with processing performed at the National Centers for Environmental Prediction (NCEP) Central Operations (NCO). MADIS also runs quasi-operationally in a research test environment at ESRL/GSD, where new advances are developed and tested prior to being put into operations. The ESRL/GSD system also has an archive of saved real-time data, and serves as the backup to the operational system.

http://madis.noaa.gov/

The MADIS dataset and the associated download is huge:

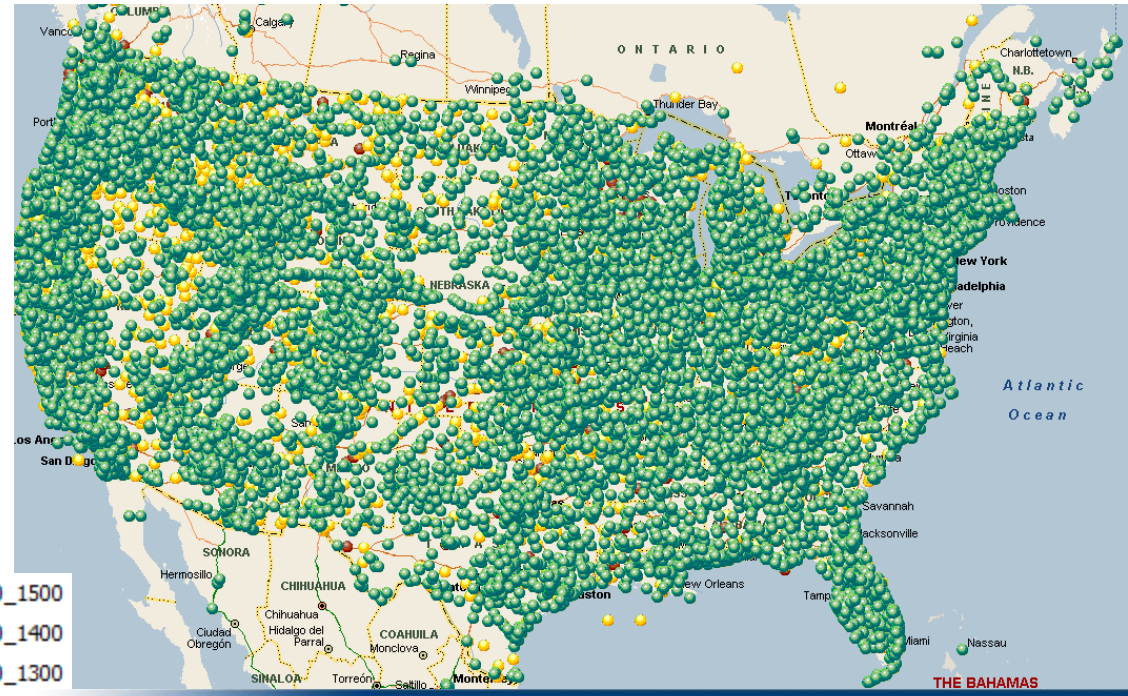
Download

```
12,367,688 20120510_1300.gz
12,567,392 20120510_1400.gz
 7,105,194 20120510_1500.gz
```

Un-Compress

```
140,367,980 20120510_1300
142,149,836 20120510_1400
 81,553,820 20120510_1500
```

This only shows the mesonet subset. We also download the maritime, netcdf and sao datasets. At present we only download and use the most recent file for each. We download every 15 minutes.



Fields are then extracted for our area of interest:

- The data subsets are stored in netcdf format.
- The MADIS sfcdump utility is used to extract the data we are interested in.

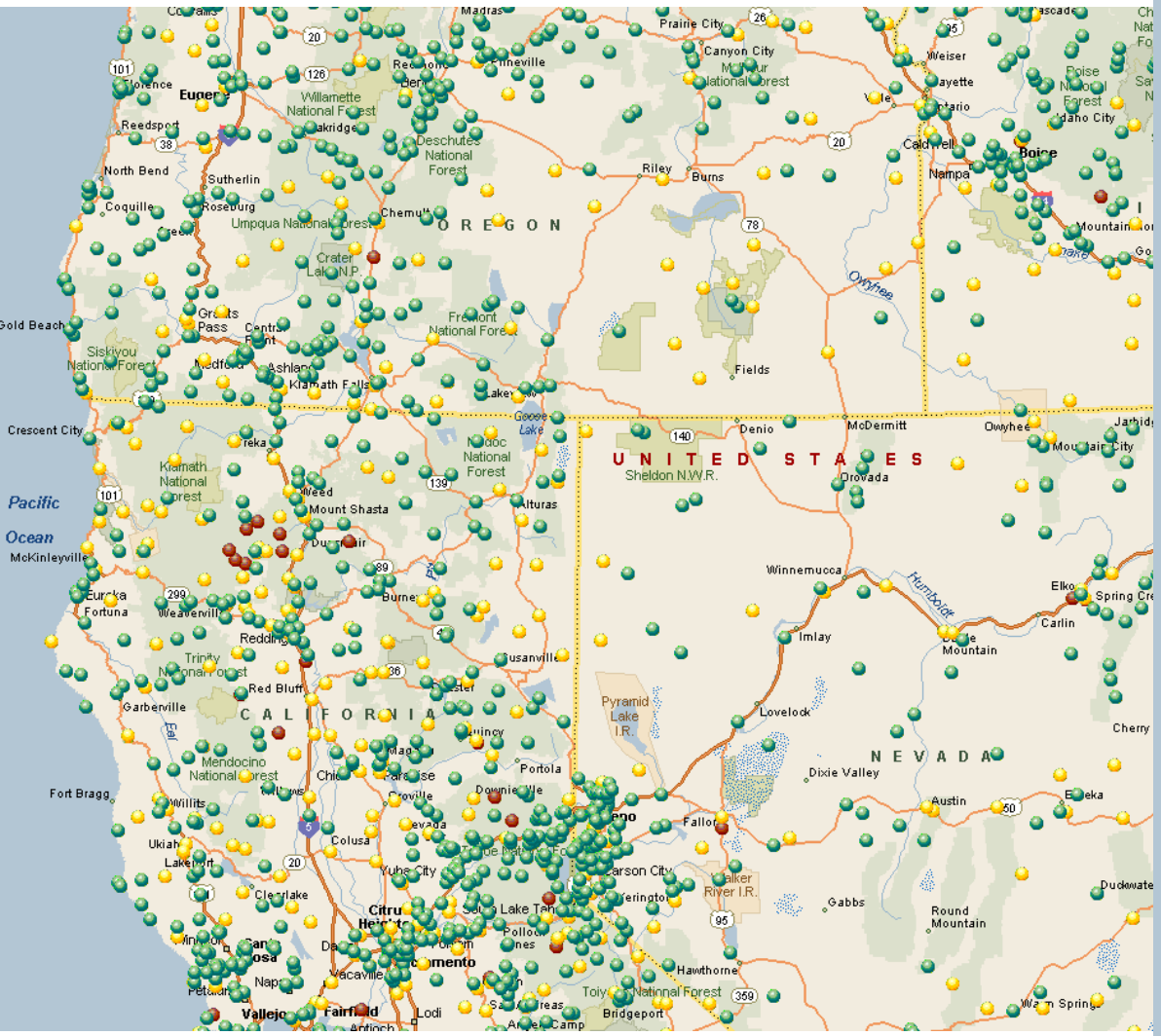
```
                Time Window (use 0,0,0 for default)        FIXED LENGTH SECTION
                -----------
-60               Number of minutes relative to nominal time at which to start window
0               Number of minutes relative to nominal time at which to end window
3               0 - return all records within the file containing nominal time
                1 - return one record per fixed station, closest to nominal time
                2 - return one record per fixed station, closest to start of window
                3 - return one record per fixed station, closest to end of window
                4 - return all records within *window*


                Domain Filter                                  FIXED LENGTH SECTION
                -------------
1               0 - don't filter
                1 - return stations within latitude/longitude corners
                2 - return stations within specified Polar Stereographic grid
                3 - return stations within specified Lambert Conformal Conic grid

                Latitude/Longitude Corners (lines skipped if not Domain Filter 1)
                --------------------------
32.56            SW corner latitude (north)
-125             SW corner longitude (east)
49               NE corner latitude (north)
-114             NE corner longitude (east)


                Variables (1 per line, until end of file)   VARIABLE LENGTH SECTION
                --------- (see doc/sfc_variable_list.txt)
TD
RH
P
T
DD
FF
PCP1H
PCP24H
PCPRATE
FUELM
FUELT
DDGUST
FFGUST
STALOC
```

	Station	Elev(m)	Lat(N)	Lon(E)	Grid I	Grid J	ObTime	Provider	T	QCD	QCA	QCR
V-T	AT282	79.00	48.08557	-122.9244	0.000	0.000	20120510_1527	APRSWXNET	280.927765	S	59	0
V-T	AT315	1323.00	42.06880	-121.4683	0.000	0.000	20120510_1526	APRSWXNET	276.483337	S	59	0
V-T	AT510	137.90	47.75980	-122.3405	0.000	0.000	20120510_1529	APRSWXNET	280.372223	S	59	0
V-T	AT582	110.00	47.24786	-122.4880	0.000	0.000	20120510_1529	APRSWXNET	280.372223	S	59	0
V-T	AT620	1093.00	44.19341	-120.8249	0.000	0.000	20120510_1522	APRSWXNET	275.927765	S	59	0
V-T	AT622	750.00	46.73000	-117.1690	0.000	0.000	20120510_1534	APRSWXNET	277.594452	S	59	0
V-T	AT638	62.00	45.52432	-122.3751	0.000	0.000	20120510_1521	APRSWXNET	278.149994	S	59	0
V-T	AT643	1942.00	34.35984	-117.6459	0.000	0.000	20120510_1530	APRSWXNET	292.594452	S	59	0
V-T	AT889	1110.00	48.87450	-118.9642	0.000	0.000	20120510_1527	APRSWXNET	276.483337	S	59	0
V-T	AT894	85.00	45.56413	-122.8405	0.000	0.000	20120510_1527	APRSWXNET	280.372223	S	59	0

	Station	Elev(m)	Lat(N)	Lon(E)	Grid I	Grid J	ObTime	Provider	STALOC			
V-STALOC	ODT63	38.10	45.34213	-122.6349	0.000	0.000	20120510_1532	MesoWest	Canemah (OR 99E MP 14)	OR	US	ODOT
V-STALOC	ODT65	36.60	44.62280	-124.0573	0.000	0.000	20120510_1531	MesoWest	Yaquina Bridge Wind Alert 2 (US	OR	US	ODOT
V-STALOC	ODT70	1456.90	42.35260	-121.9826	0.000	0.000	20120510_1531	MesoWest	Doak Mountain (OR 140 MP 53.8)	OR	US	ODOT
V-STALOC	ODT71	1264.90	42.44413	-121.8681	0.000	0.000	20120510_1530	MesoWest	Modoc Point (US 97 MP 257.9)	OR	US	ODOT
V-STALOC	ODT72	7.60	43.98460	-124.0455	0.000	0.000	20120510_1530	MesoWest	Cushman (OR 126 MP 3)	OR	US	ODOT
V-STALOC	ODT80	779.70	44.54953	-117.4215	0.000	0.000	20120510_1530	MesoWest	Plano Road (I-84 MP 330.7)	OR	US	ODOT
V-STALOC	ODT81	679.70	44.26718	-117.1949	0.000	0.000	20120510_1530	MesoWest	Rye Valley(I-84 MP 340.4)	OR	US	ODOT
V-STALOC	KQLX	495.00	45.44000	-119.6900	0.000	0.000	20120510_1530	MesoWest	Lexington Airport AWOS	OR	US	PDTWFO
V-STALOC	MWQAI	271.30	45.71800	-120.1840	0.000	0.000	20120510_1529	MesoWest	Arlington Airport	OR	US	PDTWFO
V-STALOC	MWQCR	1360.00	43.43000	-121.7000	0.000	0.000	20120510_1532	MesoWest	Crescent	OR	US	PDTWFO
V-STALOC	MWQGV	253.90	46.25300	-119.8940	0.000	0.000	20120510_1530	MesoWest	Grandview	WA	US	PDTWFO
V-STALOC	MWQIA	127.10	46.43900	-119.0090	0.000	0.000	20120510_1532	MesoWest	Eltopia	WA	US	PDTWFO
V-STALOC	MWQUM	57.90	45.91644	-119.3340	0.000	0.000	20120510_1530	MesoWest	Umatilla	OR	US	PDTWFO
V-STALOC	CTANT	329.20	40.88480	-122.3826	0.000	0.000	20120510_1515	MesoWest	Antlers	CA	US	CALTRANS
V-STALOC	CTBBS	1202.40	41.35470	-122.3527	0.000	0.000	20120510_1520	MesoWest	Black Butte Summit	CA	US	CALTRANS
V-STALOC	CTBSN	825.10	40.65450	-122.7545	0.000	0.000	20120510_1505	MesoWest	Buckhorn Sandhouse	CA	US	CALTRANS
V-STALOC	CTOMS	869.90	40.73930	-122.9804	0.000	0.000	20120510_1520	MesoWest	Oregon Mountain Summit	CA	US	CALTRANS
V-STALOC	FLCO3	128.00	44.87750	-123.4608	0.000	0.000	20120510_1530	MesoWest	Falls City	OR	US	PDXWFO
V-STALOC	RRWO3	9.10	45.54000	-122.2800	0.000	0.000	20120510_1535	MesoWest	Rooster Rock	OR	US	PDXWFO
V-STALOC	SWTZ1	1959.90	48.36736	-116.6448	0.000	0.000	20120510_1500	MesoWest	Lakeview	ID	US	
V-STALOC	SWTZ2	1952.20	48.37936	-116.6336	0.000	0.000	20120510_1500	MesoWest	Great Escape	ID	US	
V-STALOC	CSHW1	231.60	47.42390	-123.2197	0.000	0.000	20120510_1500	MesoWest	Cushman Dam	WA	US	

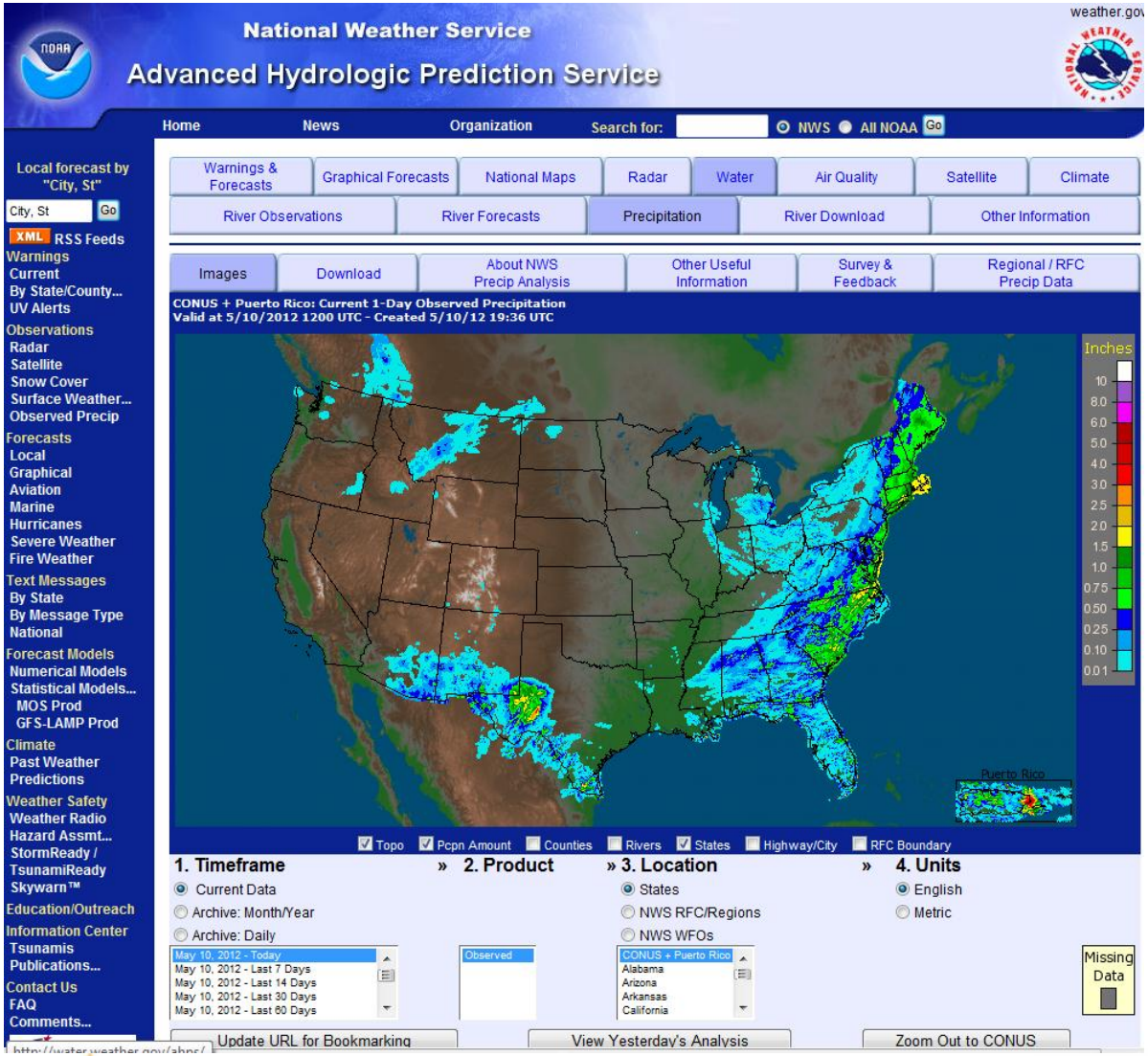
	Station	Elev(m)	Lat(N)	Lon(E)	Grid I	Grid J	ObTime	Provider	T	QCD	QCA	QCR
V-FFGUST	MWQIA	127.10	46.43900	-119.0090	0.000	0.000	20120510_1532	MesoWest	3.601111	S	19	0
V-FFGUST	MWQUM	57.90	45.91644	-119.3340	0.000	0.000	20120510_1530	MesoWest	4.115556	C	3	0
V-FFGUST	CTANT	329.20	40.88480	-122.3826	0.000	0.000	20120510_1515	MesoWest	9.723000	S	19	0
V-FFGUST	CTBBS	1202.40	41.35470	-122.3527	0.000	0.000	20120510_1520	MesoWest	10.834200	S	19	0
V-FFGUST	CTBSN	825.10	40.65450	-122.7545	0.000	0.000	20120510_1505	MesoWest	1.389000	S	19	0
V-FFGUST	CTOMS	869.90	40.73930	-122.9804	0.000	0.000	20120510_1520	MesoWest	0.555600	S	19	0
V-FFGUST	RRWO3	9.10	45.54000	-122.2800	0.000	0.000	20120510_1535	MesoWest	0.000000	S	19	0
V-FFGUST	SWTZ1	1959.90	48.36736	-116.6448	0.000	0.000	20120510_1500	MesoWest	9.388611	S	19	0

MADIS Coverage




```
3,814,547 sfcdumpWSRTC20120510_1300.txt
3,822,741 sfcdumpWSRTC20120510_1400.txt
2,971,567 sfcdumpWSRTC20120510_1500.txt
```

National Weather Service Advanced Hydrological Prediction Service 24-hour Precipitation Data

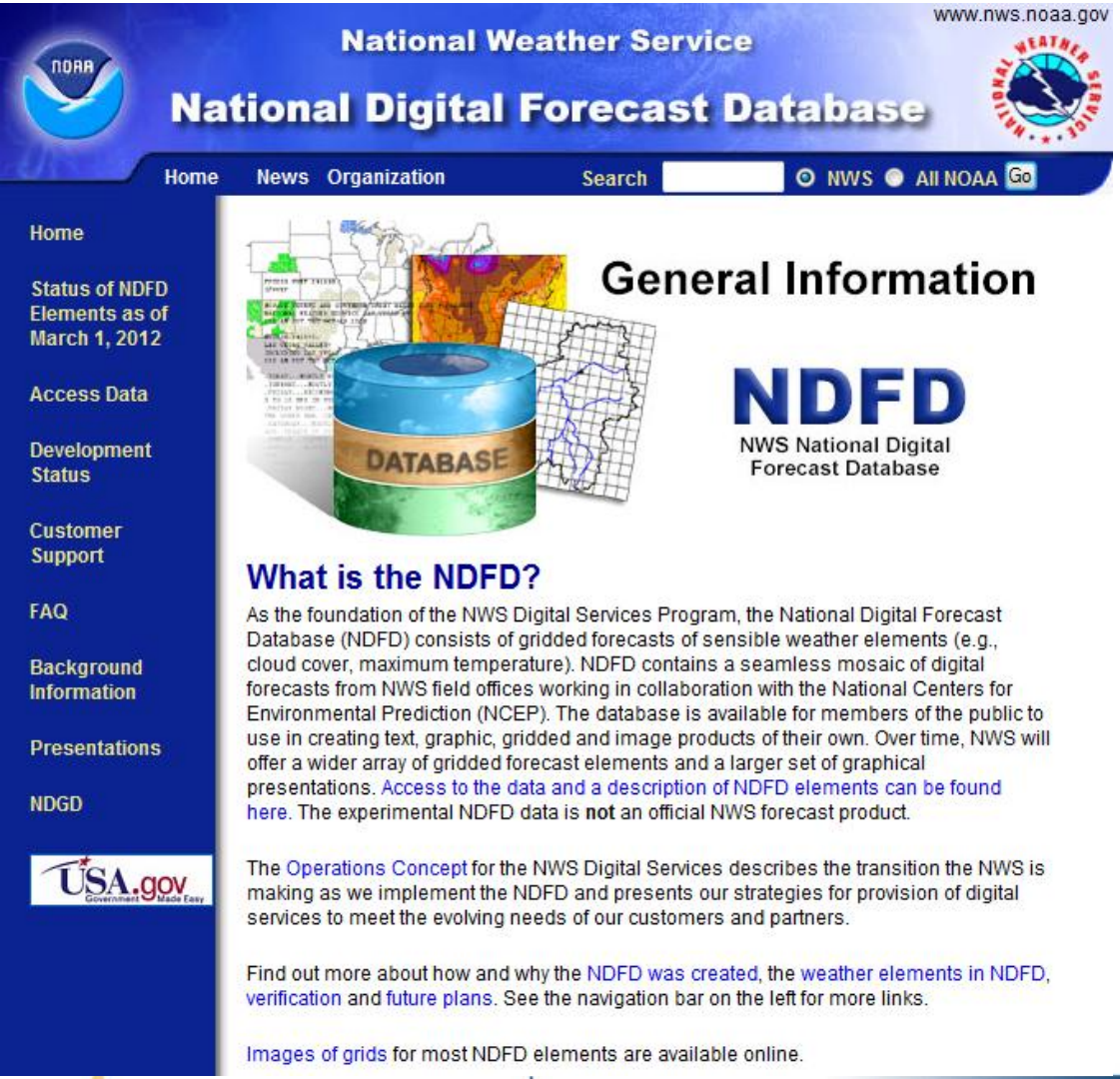


This data set is updated twice per day at 17:45 UTC and 21:45 UTC. A download retrieves the dataset to correspond with posting of these updates.

NOTE: The NWS now posts 6 updates to this dataset per day. We may update our downloads accordingly.

http://water.weather.gov/precip/

National Weather Service
National Digital Forecast Database



We download forecast data for the following data for up to three days covering all of CONUS (the contiguous US – the lower 48) if available:

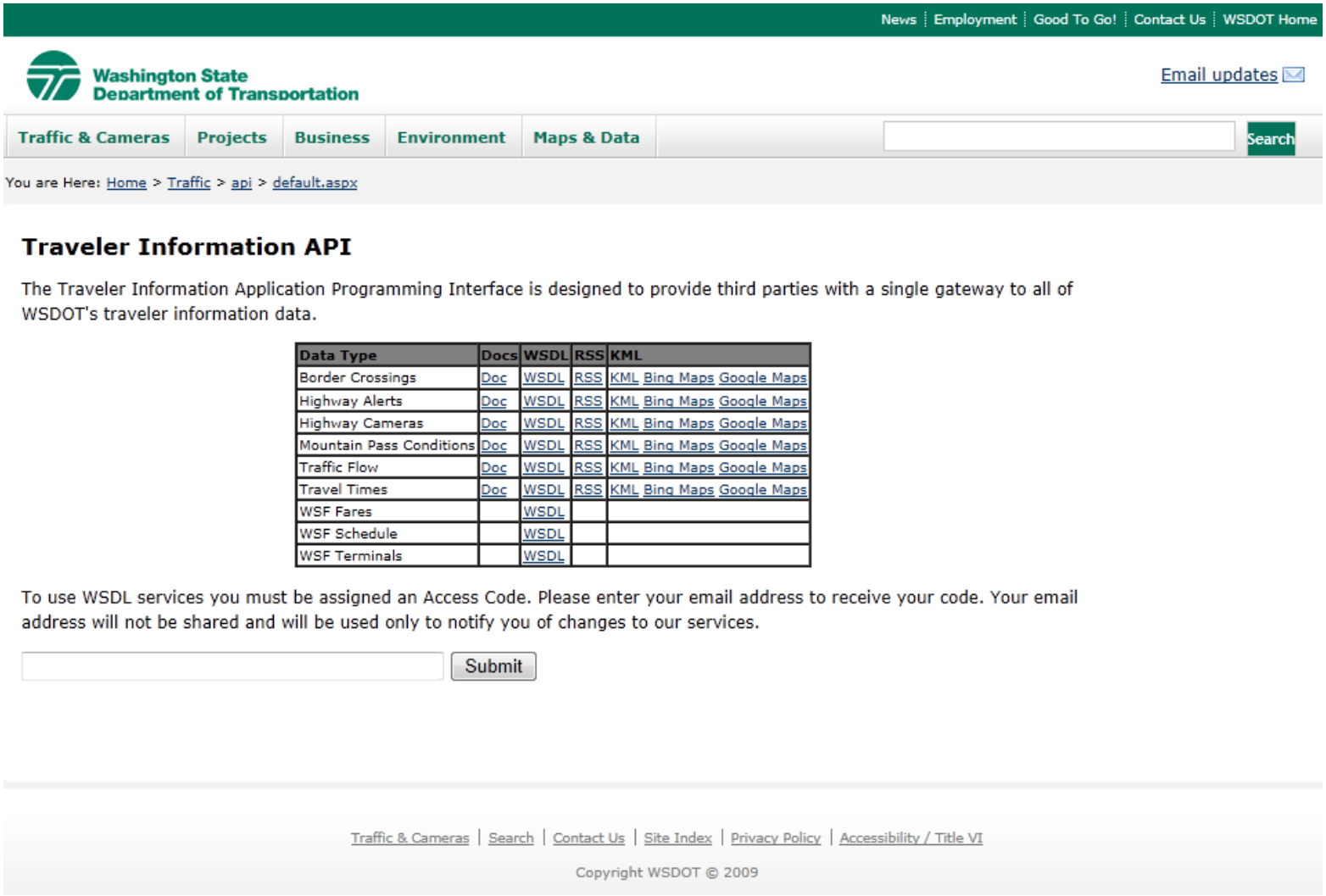
- pop12 (12-hour Probability of Precipitation)
- temp (Temperature)
- wdir (Wind Direction)
- wspd (Wind Speed)
- sky (Sky Cover)
- qpf (Quantitative Precipitation Amount)
- snow (Snow Amount)
- wx (Weather)
- wgust (Wind Gust)
- rhm (Relative Humidity)

http://www.nws.noaa.gov/ndfd/

ODOT TripCheck

http://www.tripcheck.com/

WSDOT Traveler Information API



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You are Here: Home > Traffic > api > default.aspx

Traveler Information API

The Traveler Information Application Programming Interface is designed to provide third parties with a single gateway to all of WSDOT's traveler information data.

Data Type	Docs	WSDL	RSS	KML
Border Crossings	Doc	WSDL	RSS	KML Bing Maps Google Maps
Highway Alerts	Doc	WSDL	RSS	KML Bing Maps Google Maps
Highway Cameras	Doc	WSDL	RSS	KML Bing Maps Google Maps
Mountain Pass Conditions	Doc	WSDL	RSS	KML Bing Maps Google Maps
Traffic Flow	Doc	WSDL	RSS	KML Bing Maps Google Maps
Travel Times	Doc	WSDL	RSS	KML Bing Maps Google Maps
WSF Fares		WSDL		
WSF Schedule		WSDL		
WSF Terminals		WSDL		

To use WSDL services you must be assigned an Access Code. Please enter your email address to receive your code. Your email address will not be shared and will be used only to notify you of changes to our services.

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http://www.wsdot.wa.gov/Traffic/api/default.aspx

MesoWest – University of Utah

http://mesowest.utah.edu/

The MesoWest dataset and the associated download is large:

Download

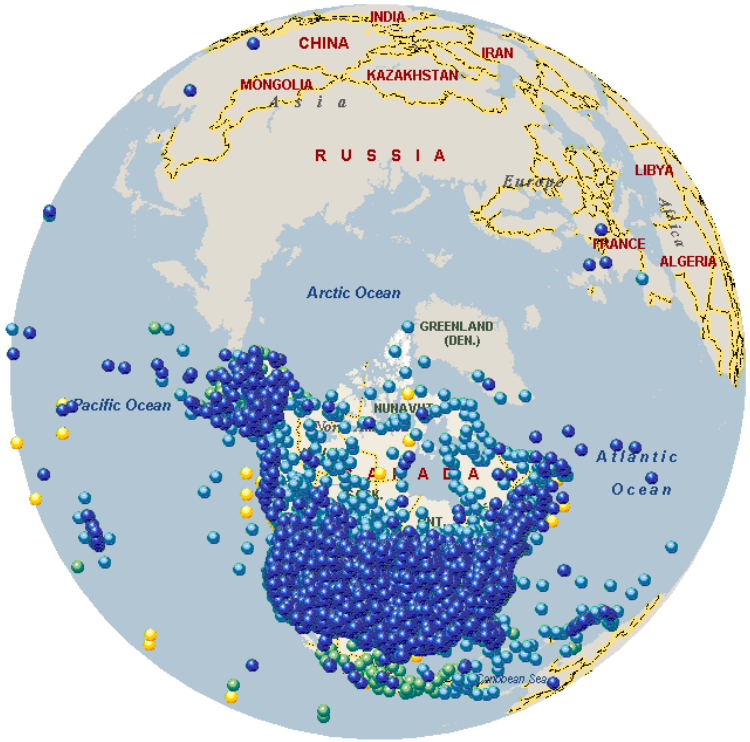
```
523,883 mesowest20100511_1043.dat.gz
556,563 mesowest20100511_1058.dat.gz
585,019 mesowest20100511_1113.dat.gz
727,573 mesowest20100511_1129.dat.gz
525,371 mesowest20100511_1143.dat.gz
```

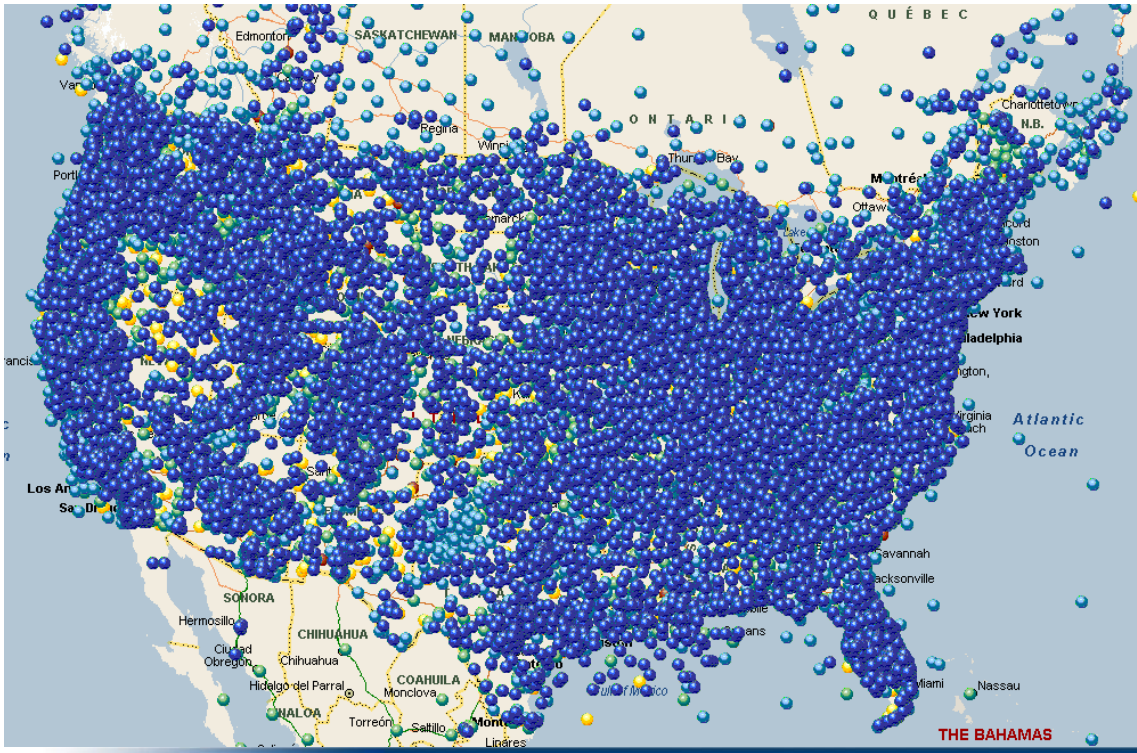
Un-Compress

```
3,031,048 mesowest20100511_1043.dat
3,202,383 mesowest20100511_1058.dat
3,393,510 mesowest20100511_1113.dat
4,453,744 mesowest20100511_1129.dat
2,977,381 mesowest20100511_1143.dat
```

At present we download and use the most recent file. We download every 15 minutes.

- mesowest20100511_1143
- mesowest20100511_1129
- mesowest20100511_1113
- mesowest20100511_1058
- mesowest20100511_1043





mesowest.dat

```
 PARM =  TMPF;RELH;SKNT;GUST;DRCT;QFLG;DWPF;PRES;PMSL;ALTI;P03D;SOLR;WNUM;VSBY;CHC1;CHC2;CHC3;CIG;TLKE;FT;FM;HI6;LO6;PEAK;HI24;LO24;PREC;P01I;P03I;P06I;
P24I;P05I;P10I;P15I;SNOW;PACM;SACM;WEQS;P30I;PWVP;TSOI;MSOI;STEN;TSRD;EVAP;TRD1;TRD2;TRD3;TRD4;TFZ1;TFZ2;TFZ3;TFZ4;RSS1;RSS2;RSS3;RSS4


WOOM8,47.99,-114.06,2949,55,20120511/1717,,,4.34,,2,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
WOOM8,47.99,-114.06,2949,55,20120511/1719,,,,101.3,2,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
CTAND,41.79080,-122.58850,2963,59,20120511/1600,54.14,46,2.7,8.64,10,2,33.82,,,,,,0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,51.62,51.62,,,,,,,,,,
CTANT,40.8848,-122.3826,1080,59,20120511/1600,66.74,23,4.32,8.1,0,2,27.76,,,,,,0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,80.6,76.46,,,,,,,,,,
CTBBS,41.3547,-122.3527,3945,59,20120511/1605,51.8,31,10.26,16.74,310,2,22.14,,,,,,0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,66.74,,66.74,58.28,65.12,,,,,,,,,
CTBOG,40.58570,-121.08830,5659,59,20120511/1600,49.64,36,4.86,8.1,280,1,23.79,,,,,,41,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,69.26,,76.64,78.62,,,,,,,,,,
CTBSN,40.6545,-122.7545,2707,59,20120511/1605,51.8,52,3.24,4.86,265,2,34.74,,,,,,0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,74.48,,78.62,78.8,,,,,,,,,,
CTDUN,41.2100,-122.2747,2500,59,20120511/1650,63.14,21,3.24,9.18,325,2,22.57,,,,,,0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,69.08,,158.36,76.64,80.96,,,,,,,,,
CTFPE,40.39,-120.79,4695,59,20120511/1655,56.48,21,2.16,5.94,100,2,17.03,,,,,,0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,65.3,,92.66,85.82,,,,,,,,,,
CTFYP,40.3603,-120.8653,5701,59,20120511/1555,47.66,23,3.78,6.48,75,2,11.71,,,,,,0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,66.02,,74.66,72.14,61.34,,,,,,,,,
CTHAT,40.85216,-121.76199,4366,59,20120511/1655,50.9,33,0.54,5.4,275,1,22.83,,,,,,41,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,75.02,77,,,,,,,,,,
CTHLT,41.99260,-122.6088,3188,59,20120511/1555,56.12,37,3.78,5.94,175,2,30.21,,,,,,0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,67.46,,66.92,67.46,,,,,,,,,,
CTHRN,41.9103,-122.5678,2280,59,20120511/1600,55.4,50,2.16,5.4,95,2,37.07,,,,,,0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,70.16,,72.5,69.98,,,,,,,,,,
CTOMS,40.7393,-122.9804,2854,59,20120511/1605,57.2,42,1.08,2.7,240,2,34.32,,,,,,0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,71.96,,74.66,75.56,,,,,,,,,,
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ARCAD,27.22000,-81.83800,72,60,20120511/1645,86.18,49.64,9.06,,107,2,65.12,,,,,834,,,,,,,,,,,,,,,,,,,,,,,,,,,,,82.62,,,,,,,,,,,,,,,,
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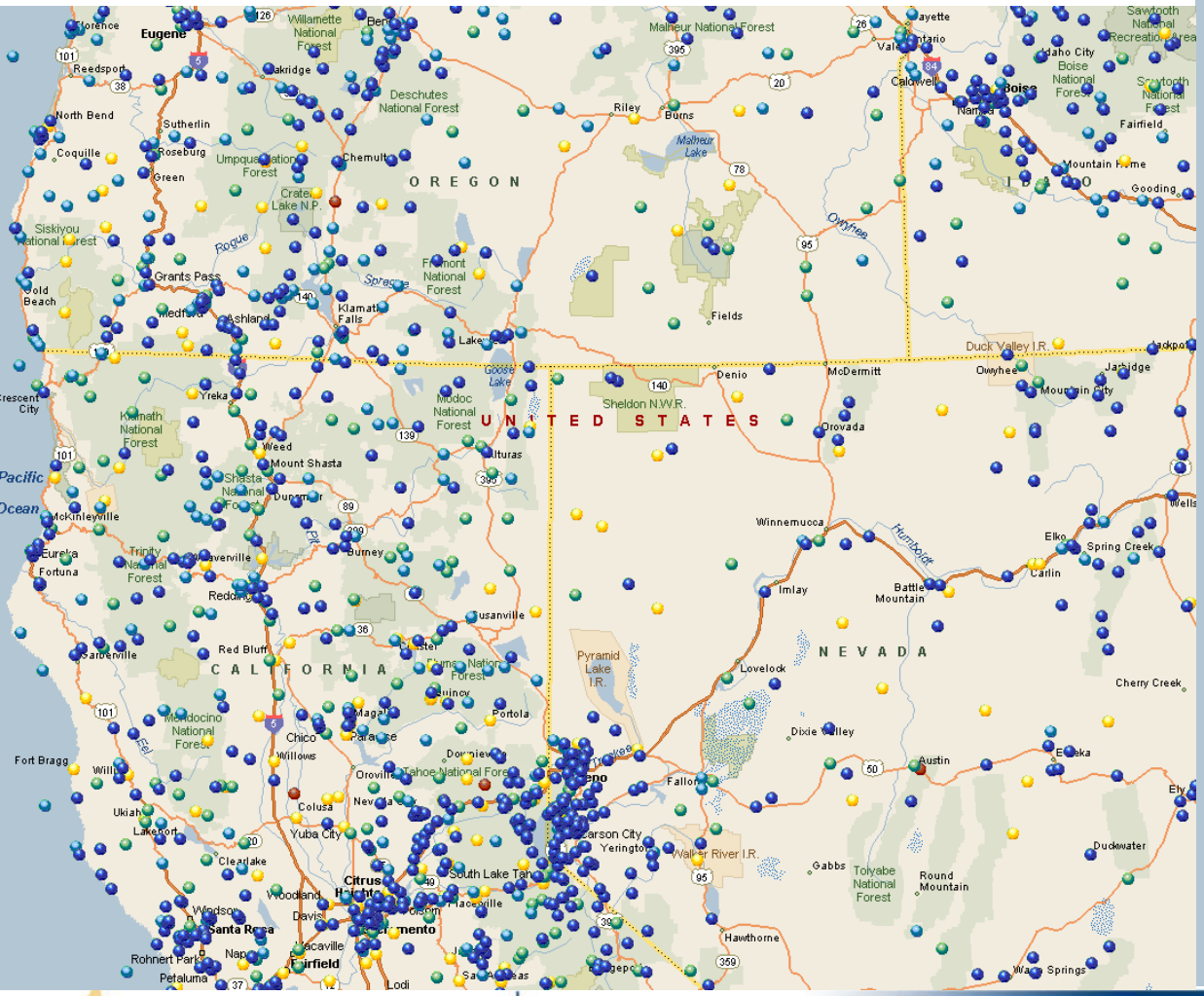
MesoWest Coverage



Caltrans – old sources

- http://www.dot.ca.gov/research/its/data/cms/cmsStatusD[01-12].txt
- http://www.dot.ca.gov/dist3/departments/traffic/cameras/
- http://www.dot.ca.gov/dist2/chainup/docs/exportSummary.txt(d2)
- http://www.dot.ca.gov/travel/dist_02/lcs/lane_closures_d2.txt
- http://www.dot.ca.gov/hq/maint/ra/Statewide.htm
- Various CCTV URLS

Cameras

Description

The Closed Circuit Television (CCTV) files provided below describe the location and status of each Caltrans' CCTV located on the State Highway Network.

File formats include CSV, JSON, TXT and XML. Each file format contains the same data set. These files are available for integration into your application and are available via the HTTP protocol. There is no charge for the use of this data.

Conditions of Use

Please read the Conditions Of Use before using these data sets.

Data Format and File Layout

Data is available in four file formats that contain the same information to allow easy integration into your application. Included below are the file format layouts:

- CSV - Comma Separated Values
- JSON - JavaScript Object Notation
- TXT - Text file with delimeter value of "|" or 0xFF
- XML - Extensible Markup Language

Data Description

Data in each of these file formats are defined in the following documents:

- Field description - Describes field number, field name, description, type, nominal value, example value and which file format field is used
- District Reporting Matrix - Describes which Districts are reporting data in each field
- District Map and County Chart - Shows the relationship of Districts to counties
- Route Chart - Lists the state highway routes
- Postmile Prefix / Route Suffix / Alignment Charts - Decodes the values reported in the Postmile Prefix, Route Suffix and Alignment fields

Data Validation

An XML schema document is provided to validate the data in the XML file:

- XML Schema

File Locations

Data sets are broken up by Caltrans Districts. A map of the Caltrans Districts can be found here. Files are updated on an as needed basis.

- **CSV Format**

District	File Last Updated	File URL
1	Friday, 04-May-2012 23:55:45 PDT	http://www.dot.ca.gov/cwwp2/data/d1/cctv/cctvStatusD01.csv
2	Friday, 11-May-2012 14:27:05 PDT	http://www.dot.ca.gov/cwwp2/data/d2/cctv/cctvStatusD02.csv
3	Monday, 16-Apr-2012 23:24:49 PDT	http://www.dot.ca.gov/cwwp2/data/d3/cctv/cctvStatusD03.csv
4	Friday, 27-Apr-2012 18:46:41 PDT	http://www.dot.ca.gov/cwwp2/data/d4/cctv/cctvStatusD04.csv
5	Friday, 27-Apr-2012 18:47:36 PDT	http://www.dot.ca.gov/cwwp2/data/d5/cctv/cctvStatusD05.csv
6	Monday, 16-Apr-2012 23:25:24 PDT	http://www.dot.ca.gov/cwwp2/data/d6/cctv/cctvStatusD06.csv
7	Friday, 27-Apr-2012 18:56:25 PDT	http://www.dot.ca.gov/cwwp2/data/d7/cctv/cctvStatusD07.csv
8	Monday, 16-Apr-2012 23:25:50 PDT	http://www.dot.ca.gov/cwwp2/data/d8/cctv/cctvStatusD08.csv

Caltrans : New Source – CWWP2

Changeable Message Signs

Description

The Changeable Message Sign (CMS) files provided below describe the location and status of each Caltrans' CMS located on the State Highway Network.

File formats include CSV, JSON, TXT and XML. Each file format contains the same data set. These files are available for integration into your application and are available via the HTTP protocol. There is no charge for the use of this data.

Conditions of Use

Please read the Conditions Of Use before using these data sets.

Data Format and File Layout

Data is available in four file formats that contain the same information to allow easy integration into your application. Included below are the file format layouts:

- CSV - Comma Separated Values
- JSON - JavaScript Object Notation
- TXT - Text file with delimeter value of "|" or 0xFF
- XML - Extensible Markup Language

Data Description

Data in each of these file formats are defined in the following documents:

- Field description - Describes field number, field name, description, type, nominal value, example value and which file format field is used
- District Reporting Matrix - Describes which Districts are reporting data in each field
- District Map and County Chart - Shows the relationship of Districts to counties
- Route Chart - Lists the state highway routes
- Postmile Prefix / Route Suffix / Alignment Charts - Decodes the values reported in the Postmile Prefix, Route Suffix and Alignment fields

Data Validation

An XML schema document is provided to validate the data in the XML file:

- XML Schema

File Locations

Data sets are broken up by Caltrans Districts. A map of the Caltrans Districts can be found here.

- **CSV Format**

District	File Update Frequency	File URL
1	once a minute	http://www.dot.ca.gov/cwwp2/data/d1/cms/cmsStatusD01.csv
2	once a minute	http://www.dot.ca.gov/cwwp2/data/d2/cms/cmsStatusD02.csv
3	once a minute	http://www.dot.ca.gov/cwwp2/data/d3/cms/cmsStatusD03.csv
4	once a minute	http://www.dot.ca.gov/cwwp2/data/d4/cms/cmsStatusD04.csv
5	once a minute	http://www.dot.ca.gov/cwwp2/data/d5/cms/cmsStatusD05.csv
6	once a minute	http://www.dot.ca.gov/cwwp2/data/d6/cms/cmsStatusD06.csv
7	once a minute	http://www.dot.ca.gov/cwwp2/data/d7/cms/cmsStatusD07.csv
8	once a minute	http://www.dot.ca.gov/cwwp2/data/d8/cms/cmsStatusD08.csv
9	once a minute	http://www.dot.ca.gov/cwwp2/data/d9/cms/cmsStatusD09.csv
10	once a minute	http://www.dot.ca.gov/cwwp2/data/d10/cms/cmsStatusD10.csv
11	once a minute	http://www.dot.ca.gov/cwwp2/data/d11/cms/cmsStatusD11.csv
12	once a minute	http://www.dot.ca.gov/cwwp2/data/d12/cms/cmsStatusD12.csv

- **JSON Format**

District	File Update Frequency	File URL
1	once a minute	http://www.dot.ca.gov/cwwp2/data/d1/cms/cmsStatusD01.json

Caltrans – new source – CWWP2

```
index,recordDate,recordTime,district,locationName,nearbyPlace,longitude,latitude,elevation,direction,county,route,routeSuffix,postmilePrefix,postmile,alignment,milepost,inservice,imageDescription,streamingVi
deoURL,currentImageUpdateFrequency,currentImageURL,referenceImageUpdateFrequency,referenceImage1UpdateAgoURL,referenceImage2UpdatesAgoURL,referenceImage3UpdatesAgoURL,referenceImage4UpdatesAgoURL,referenceIm
age5UpdatesAgoURL,referenceImage6UpdatesAgoURL,referenceImage7UpdatesAgoURL,referenceImage8UpdatesAgoURL,referenceImage9UpdatesAgoURL,referenceImage10UpdatesAgoURL,referenceImage11UpdatesAgoURL,referenceImag
e12UpdatesAgoURL
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ix/m1p70n-4.jpg,http://www.dot.ca.gov/dist1/d1tmc/hwypix/m1p70n-5.jpg,http://www.dot.ca.gov/dist1/d1tmc/hwypix/m1p70n-6.jpg,http://www.dot.ca.gov/dist1/d1tmc/hwypix/m1p70n-7.jpg,http://www.dot.ca.gov/dist1/d
1tmc/hwypix/m1p70n-8.jpg,http://www.dot.ca.gov/dist1/d1tmc/hwypix/m1p70n-9.jpg,http://www.dot.ca.gov/dist1/d1tmc/hwypix/m1p70n-10.jpg,http://www.dot.ca.gov/dist1/d1tmc/hwypix/m1p70n-11.jpg,http://www.dot.ca.
gov/dist1/d1tmc/hwypix/m1p70n-12.jpg
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w.dot.ca.gov/dist1/d1tmc/hwypix/m20p1-1.jpg,http://www.dot.ca.gov/dist1/d1tmc/hwypix/m20p1-2.jpg,http://www.dot.ca.gov/dist1/d1tmc/hwypix/m20p1-3.jpg,http://www.dot.ca.gov/dist1/d1tmc/hwypix/m20p1-4.jpg,http
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/m20p1-12.jpg
2-2,2012-05-04,16:55:41,1,"SR-20 : At SR-1","Fort Bragg",-123.807816,39.4201,95,East,Mendocino,SR-20,,R,0.01,,0.01,true,East,"Not Reported",15,http://www.dot.ca.gov/dist1/d1tmc/hwypix/m20p1.jpg,60,http://www
.dot.ca.gov/dist1/d1tmc/hwypix/m20p1-1.jpg,http://www.dot.ca.gov/dist1/d1tmc/hwypix/m20p1-2.jpg,http://www.dot.ca.gov/dist1/d1tmc/hwypix/m20p1-3.jpg,http://www.dot.ca.gov/dist1/d1tmc/hwypix/m20p1-4.jpg,http:
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1,2012-05-11,14:32:00,1,"1 - Men 101 PM 31.6 - N of 101/20 Calpella - FSBT","Redwood Valley",-123.210905,39.249675,761,South,Mendocino,US-101,,R,31.55,,555.9,true,2012-05-06,06:24:16,"One Page",0,"Single Str
oke","SLOW OR MOVE","OVER FOR WORKERS","IT'S THE LAW","Single Stroke",,,
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 OR MOVE","OVER FOR WORKERS","IT'S THE LAW","Single Stroke",,,
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ONTH","SHARE THE ROAD","Single Stroke",,,
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VE","OVER FOR WORKERS","IT'S THE LAW","Single Stroke",,,
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10,2012-05-11,14:32:00,1,"10 - Lak 20 PM 30.45 - W of Jct 53 - FEBT","Clearlake Oaks",-122.630779,39.012704,1587,East,Lake,SR-20,,,30.65,,74.61,true,2012-04-26,17:26:17,Blank,0,"Single Stroke",,,,"Single Str
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11,2012-05-11,14:32:00,1,"11 - Lak 20 PM 31.94 - E of Jct 53 - FWBT","Clearlake Oaks",-122.604277,39.01233,1745,West,Lake,SR-20,,,32.23,,76.22,true,2012-03-19,08:00:26,Blank,0,"Single Stroke",,,,"Single Stro
ke",,,
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13,2012-05-11,14:32:00,1,"13 - Hum 101 PM 55.96 - S of Jct 36 - FNBT",Fortuna,-124.150183,40.525289,78,North,Humboldt,US-101,,,55.98,,683.34,true,2012-05-11,06:04:44,"One Page",0,"Single Stroke","MAY IS","BI
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CHP

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    <LogType>"TADV - Traffic Advisory"</LogType>
    <Location>"NB I215 JNO S IOWA AV"</Location>
    <Area>"Inland Communications Center"</Area>
    <ThomasBrothers>"646 5C"</ThomasBrothers>
    <TBXY>"6232796:2317915"</TBXY>
  - <LogDetails>
      - <details>
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    </LogDetails>
</Log>
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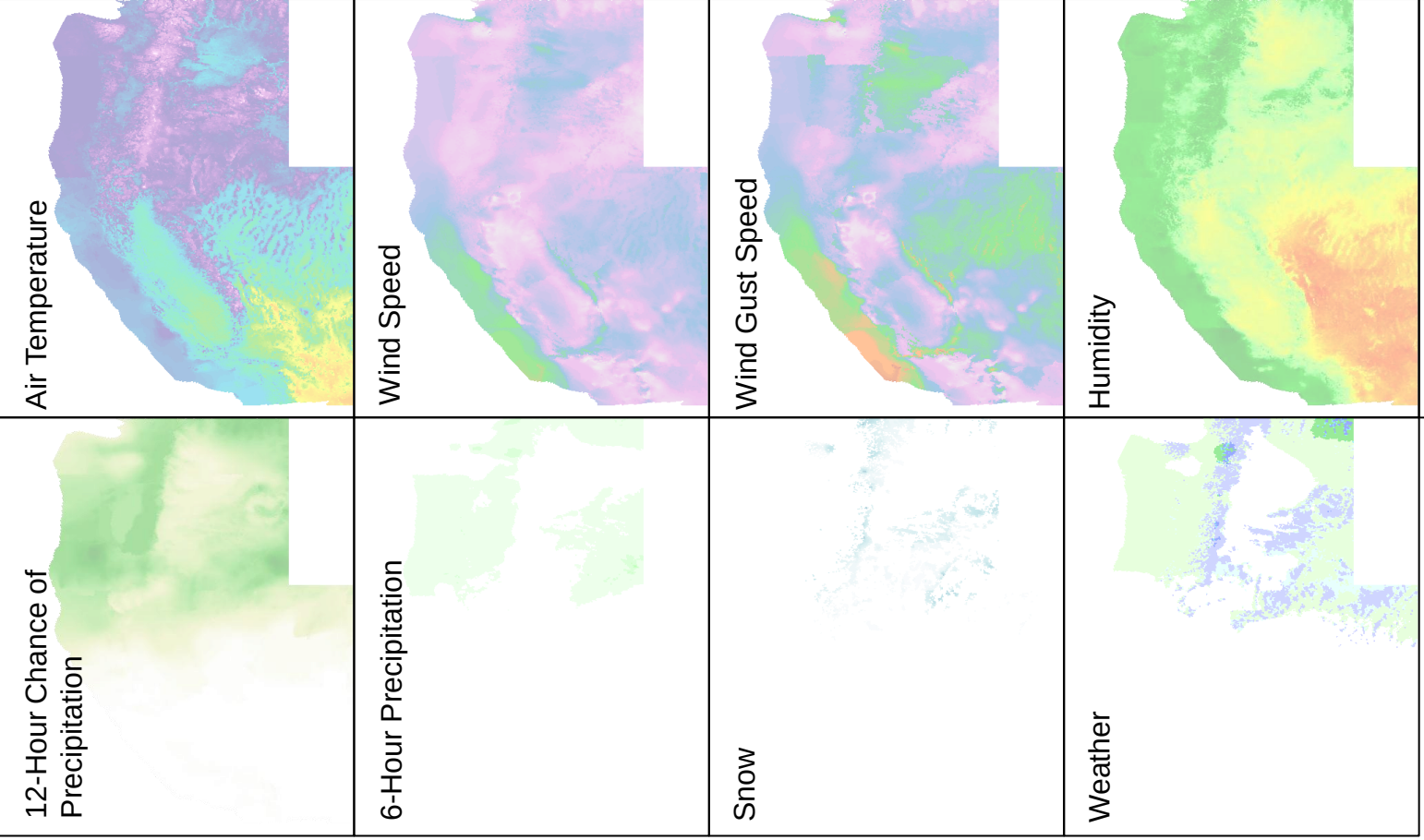
http://media.chp.ca.gov/sa_XML/sa.XML

Other Relatively Static Data

- Rest Areas
- Features of Interest
- Truck Scales
- Summit Locations

Data Preparation



Weather forecast rasters are generated from NDFD data and used as overlays on the map.

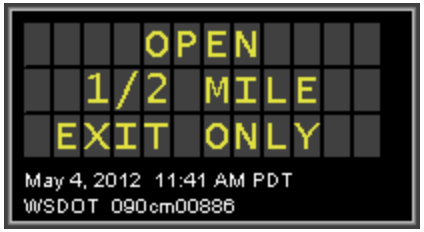
JSON files are generated from NDFD data and used to position markers on the map.

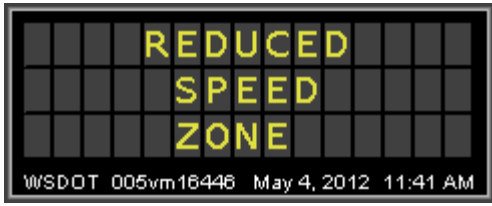
temp.json

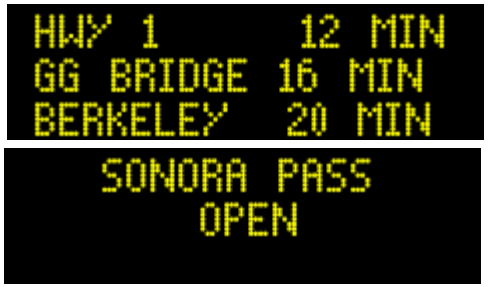
(temperature data)


```
[[
{"name":"851130","lat":37.500855,"lon":-124.032572,"value":"54","value2":"0"},
{"name":"852730","lat":38.196344,"lon":-124.22478,"value":"52","value2":"0"},
{"name":"854330","lat":38.889521,"lon":-124.419509,"value":"52","value2":"0"},
{"name":"855930","lat":39.580275,"lon":-124.616809,"value":"54","value2":"0"},
{"name":"857530","lat":40.268494,"lon":-124.81673,"value":"54","value2":"0"},
{"name":"859130","lat":40.954071,"lon":-125.019324,"value":"52","value2":"0"},
{"name":"860730","lat":41.636897,"lon":-125.224644,"value":"52","value2":"0"},
{"name":"862330","lat":42.316865,"lon":-125.432745,"value":"47","value2":"0"},
{"name":"863930","lat":42.993871,"lon":-125.643681,"value":"49","value2":"0"},
{"name":"1440130","lat":35.549137,"lon":-122.607355,"value":"56","value2":"0"},
{"name":"1441730","lat":36.25147,"lon":-122.786996,"value":"54","value2":"0"},
{"name":"1443330","lat":36.951812,"lon":-122.968956,"value":"54","value2":"0"},
{"name":"1444930","lat":37.650049,"lon":-123.15328,"value":"52","value2":"0"},
{"name":"1446530","lat":38.34607,"lon":-123.340014,"value":"52","value2":"0"},
{"name":"1448130","lat":39.03976,"lon":-123.529205,"value":"47","value2":"0"},
{"name":"1449730","lat":39.73101,"lon":-123.720901,"value":"52","value2":"0"},
{"name":"1451330","lat":40.419709,"lon":-123.91515,"value":"58","value2":"0"},
{"name":"1452930","lat":41.105748,"lon":-124.112005,"value":"49","value2":"0"},
{"name":"1454530","lat":41.789018,"lon":-124.311516,"value":"52","value2":"0"},
{"name":"1456130","lat":42.469414,"lon":-124.513737,"value":"50","value2":"0"},
{"name":"1457730","lat":43.14683,"lon":-124.718722,"value":"50","value2":"0"},
{"name":"1459330","lat":43.821162,"lon":-124.926528,"value":"49","value2":"0"},
...
]]
```

CMS





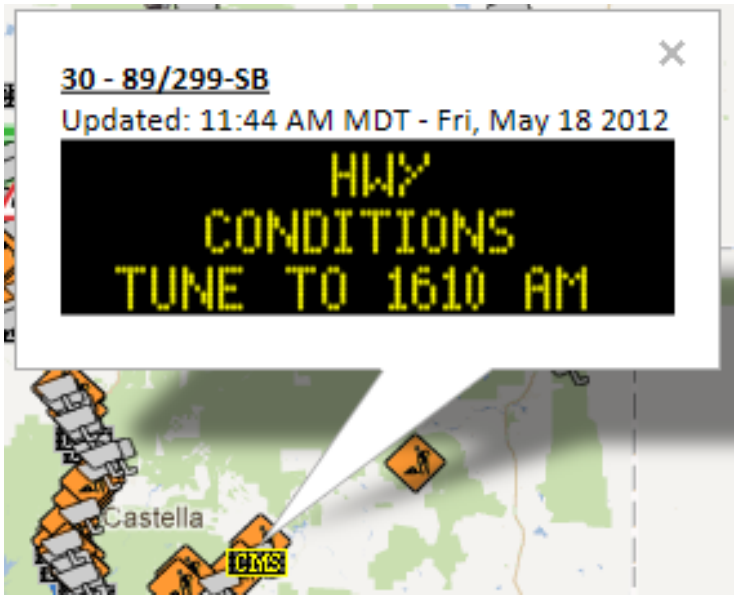


Images are generated for California and Oregon and downloaded for Washington.

HTML is generated to include location, timestamp, and image:

CMS

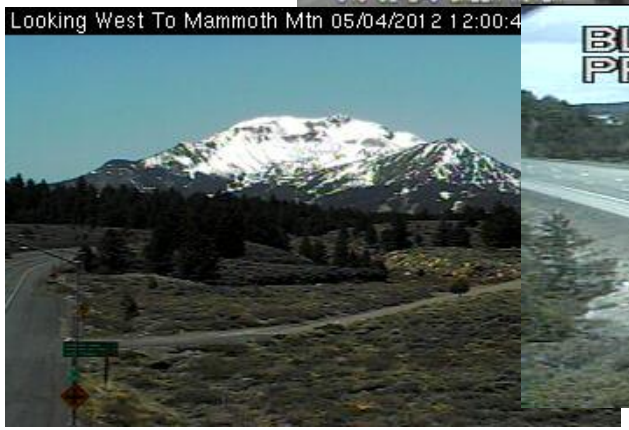
```
<u>
<b>NB @ S 216th St</b>
</u><br/>
Updated: 201205181754 UTC
<br/>
<img src="data/Fixed/cms_images/ca_cms_images/D02-30.gif"/>
```



JSON files are generated from CMS data and used to position markers on the map including position relative to other field elements:


```
[[
{"name":"ca_D068", "lat":35.365471, "lon":-
119.350354, "value":"cms_blank", "zindex":0},
…
{"name":"ca_D069", "lat":35.415025, "lon":-
119.419823, "value":"cms", "zindex":60},
…
{"name":"005vm16446", "lat":47.59331842, "lon":-122.320678, "value":"cms", "zindex":60},
{"name":"ca_D062", "lat":35.004478, "lon":-118.951298, "value":"cms", "zindex":60},
{"name":"ca_D063", "lat":35.170266, "lon":-119.119907, "value":"cms_blank", "zindex":0},
{"name":"ca_D111120662", "lat":33.028662, "lon":-117.078319, "value":"cms_blank", "zindex":0},
{"name":"ca_D061", "lat":34.96794, "lon":-118.939197, "value":"cms_blank", "zindex":0},
{"name":"ca_D066", "lat":35.267447, "lon":-119.289894, "value":"cms_blank", "zindex":0},
{"name":"ca_D067", "lat":35.318673, "lon":-119.252527, "value":"cms_blank", "zindex":0},
{"name":"ca_D064", "lat":35.32017, "lon":-119.287498, "value":"cms_blank", "zindex":0},
{"name":"ca_D065", "lat":35.267174, "lon":-119.185075, "value":"cms_blank", "zindex":0},
…
]]
```

CCTV



Images are downloaded for California, Oregon and Washington. We linked to WSDOT images at one point when connectivity challenges arose.

User Interface


0 mph


1 mph


5 mph


10 mph

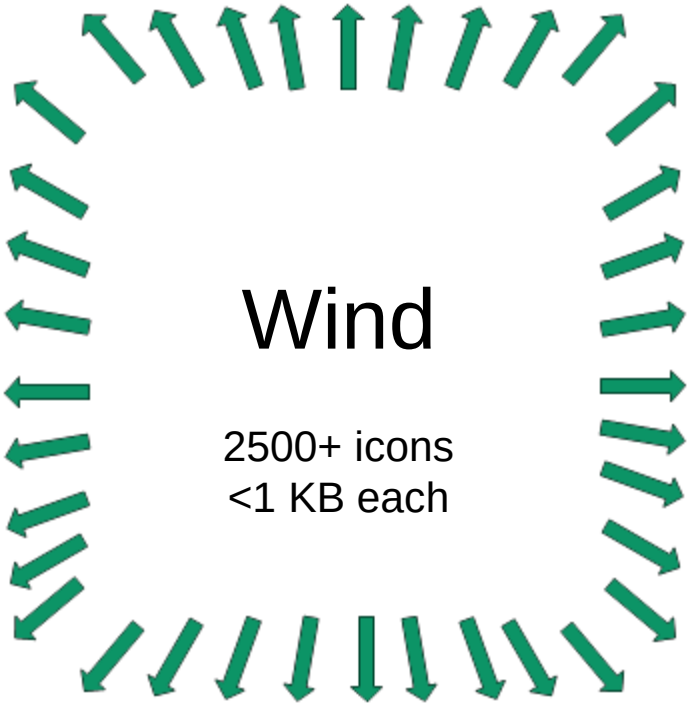

15 mph


20 mph


25 mph


30 mph

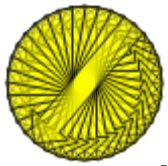

35 mph

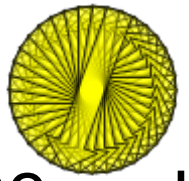

Wind
2500+ icons
<1 KB each

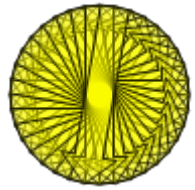

40 mph

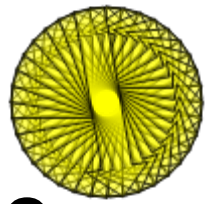

45 mph

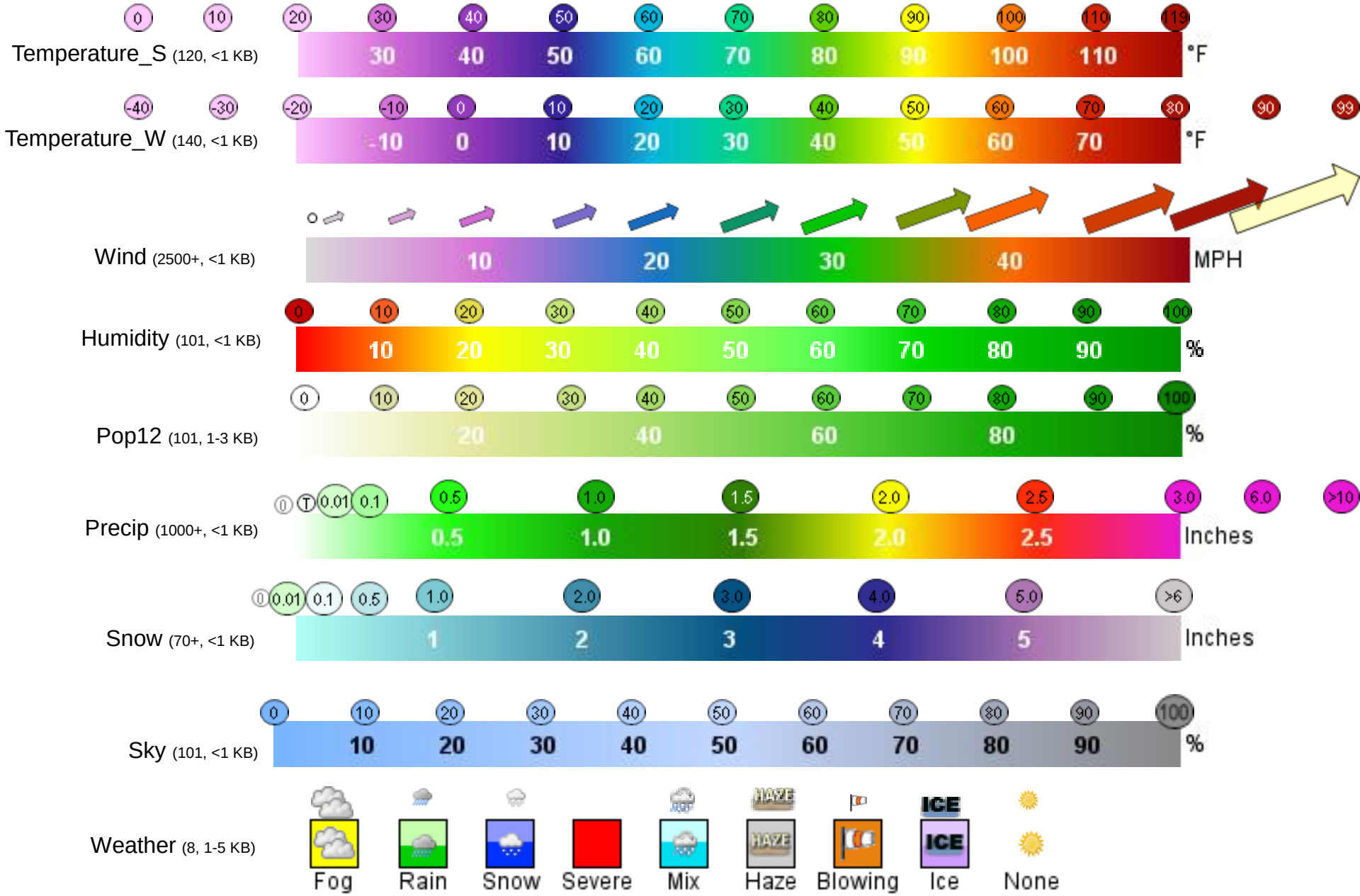

50 mph


55 mph


60 mph

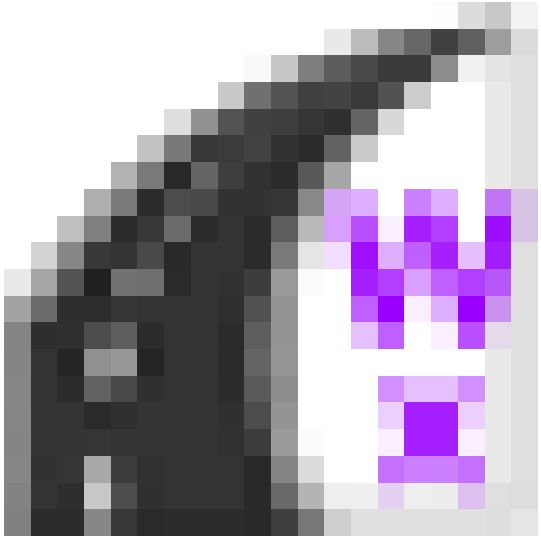

65 mph


70 mph

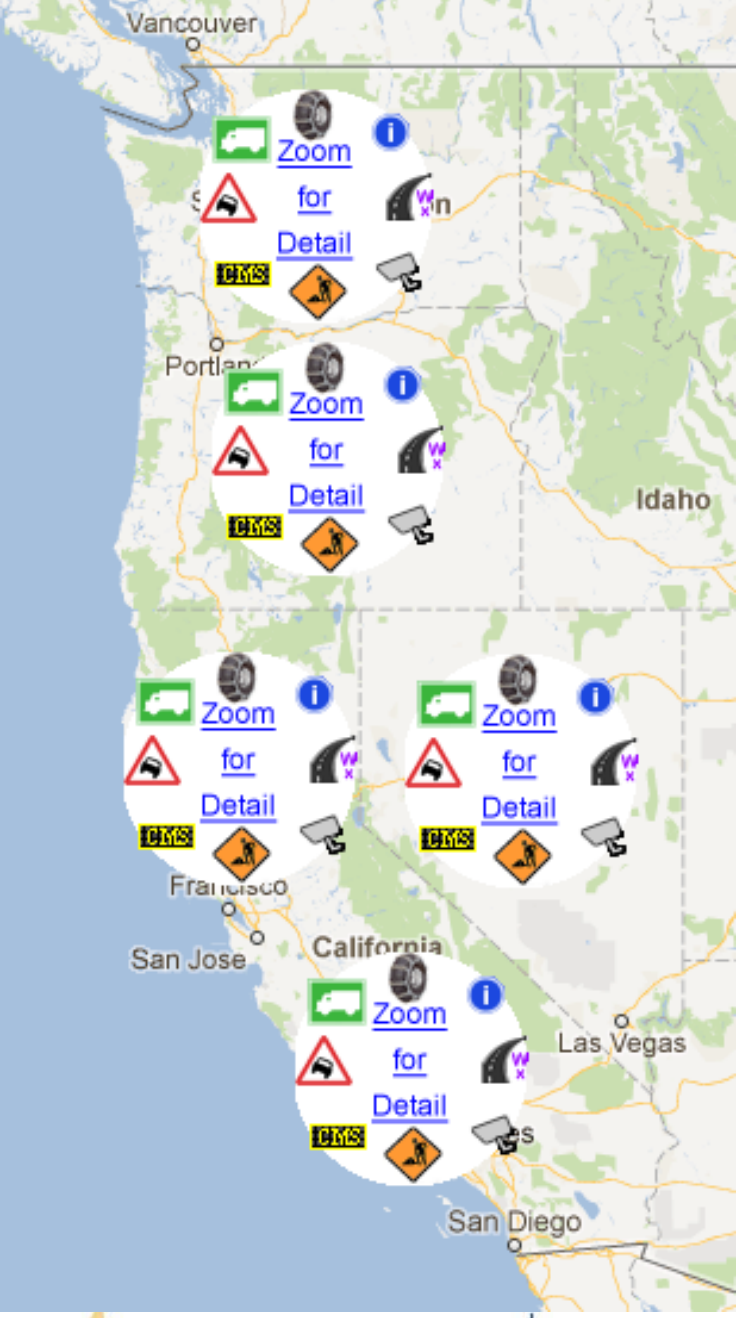

Temperature_S (120, <1 KB)
0 10 20 30 40 50 60 70 80 90 100 110 119
30 40 50 60 70 80 90 100 110
°F
Temperature_W (140, <1 KB)
-40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 99
-10 0 10 20 30 40 50 60 70
°F
Wind (2500+, <1 KB)
10 20 30 40
MPH
Humidity (101, <1 KB)
0 10 20 30 40 50 60 70 80 90 100
10 20 30 40 50 60 70 80 90
%
Pop12 (101, 1-3 KB)
0 10 20 30 40 50 60 70 80 90 100
20 40 60 80
%
Precip (1000+, <1 KB)
0 T 0.01 0.1 0.5 1.0 1.5 2.0 2.5 3.0 6.0 >10
0.5 1.0 1.5 2.0 2.5
Inches
Snow (70+, <1 KB)
0 0.01 0.1 0.5 1.0 2.0 3.0 4.0 5.0 >6
1 2 3 4 5
Inches
Sky (101, <1 KB)
0 10 20 30 40 50 60 70 80 90 100
10 20 30 40 50 60 70 80 90
%
Weather (8, 1-5 KB)
Fog
Rain
Snow
Severe
Mix
Haze
Blowing
Ice
None

The “Art” of Icons,

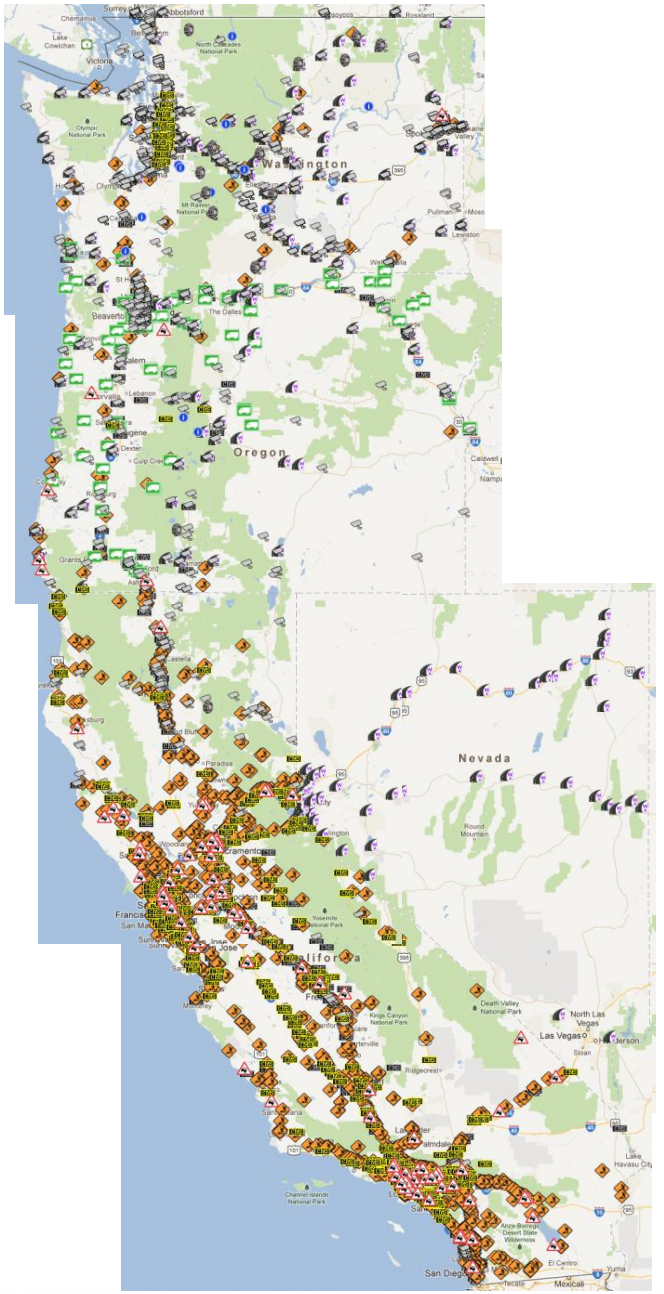
or lack-there-of …

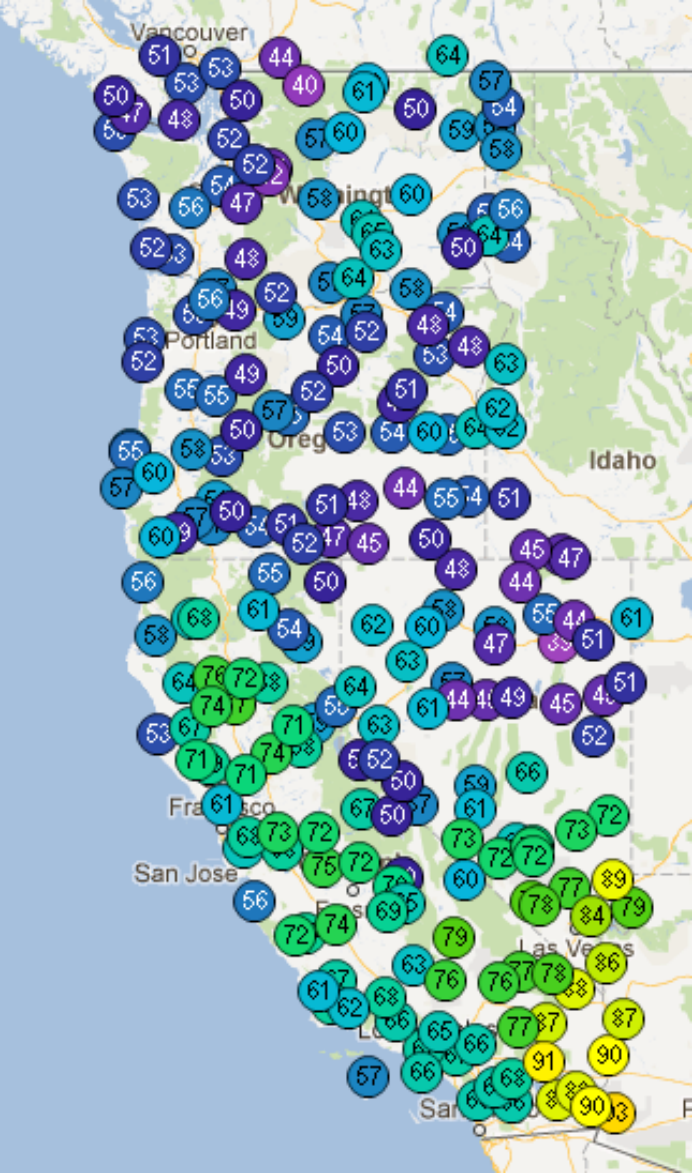


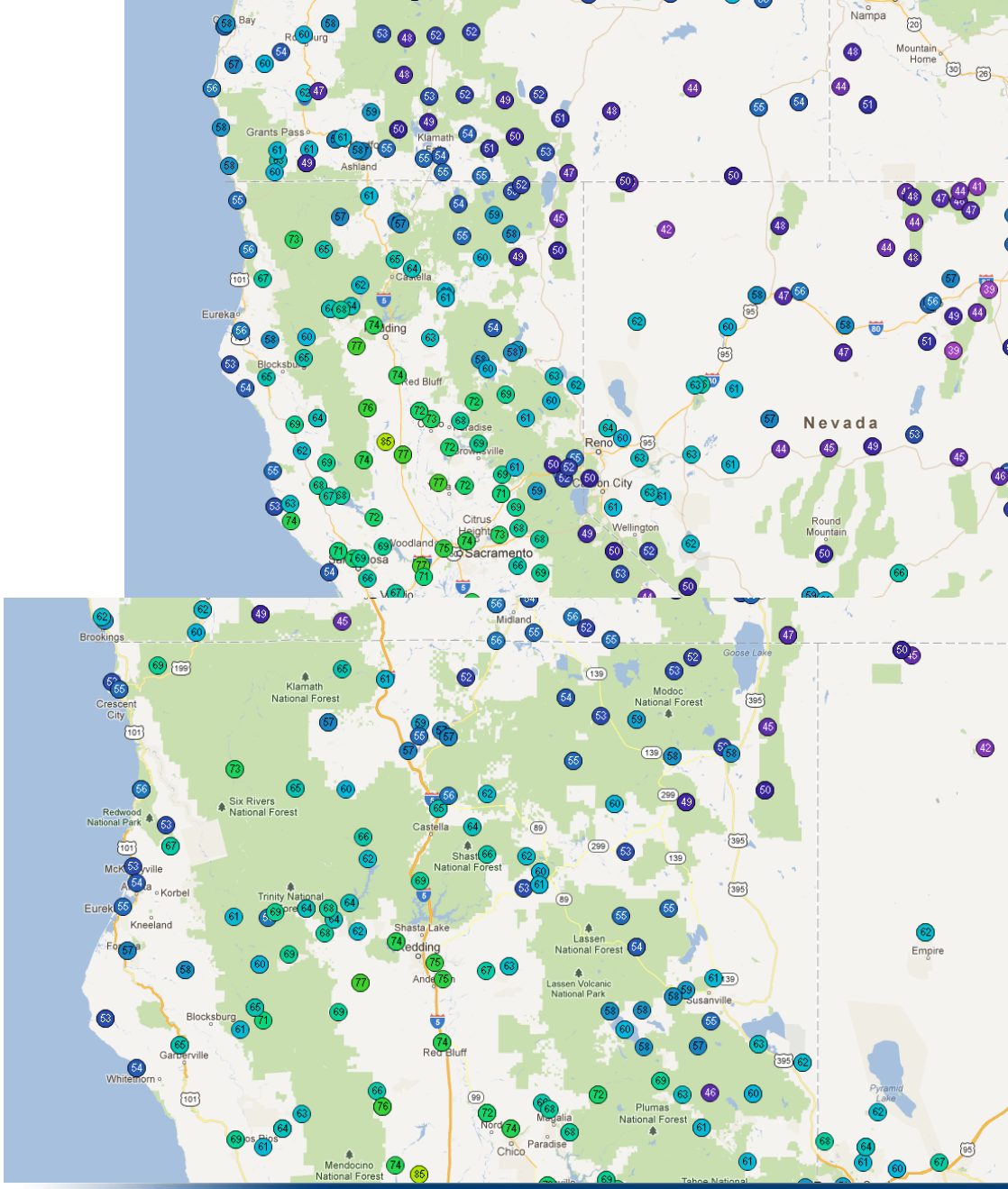
Marker Management



Road/Travel Conditions

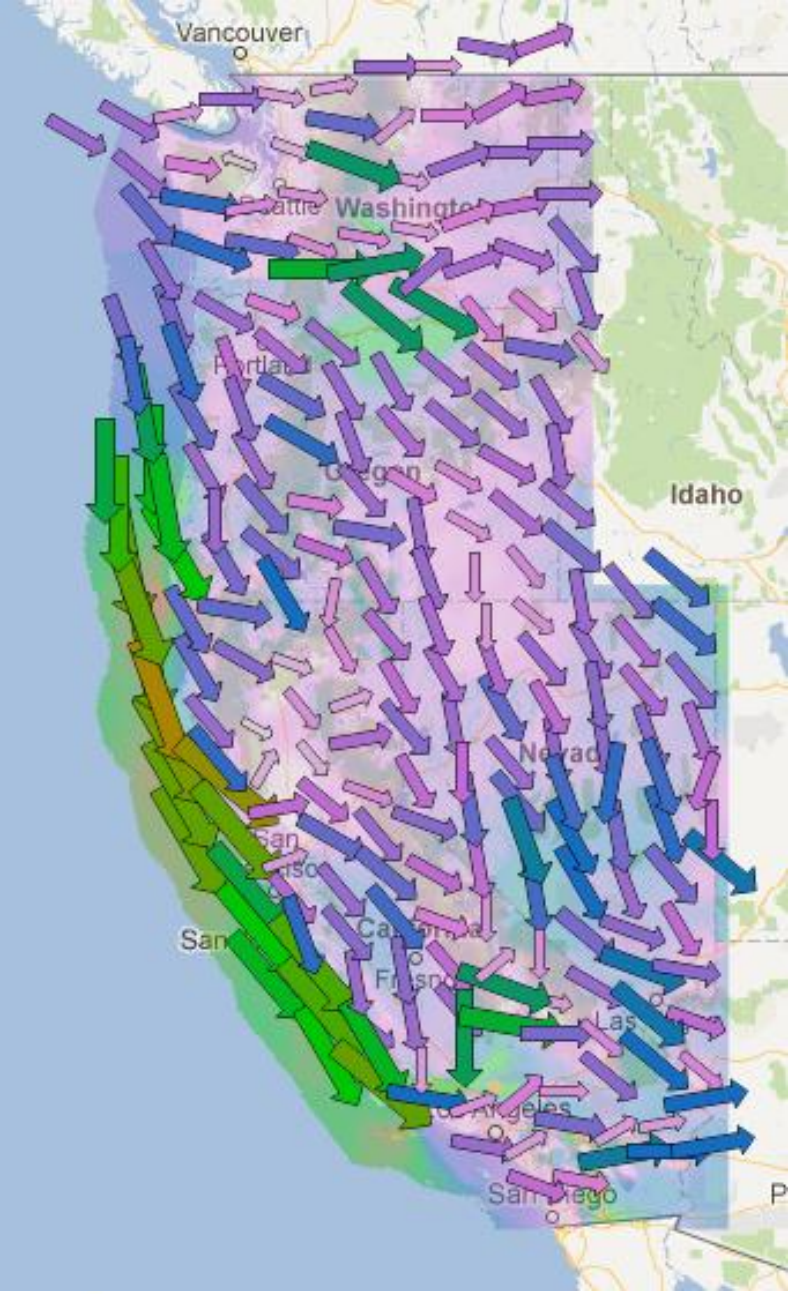


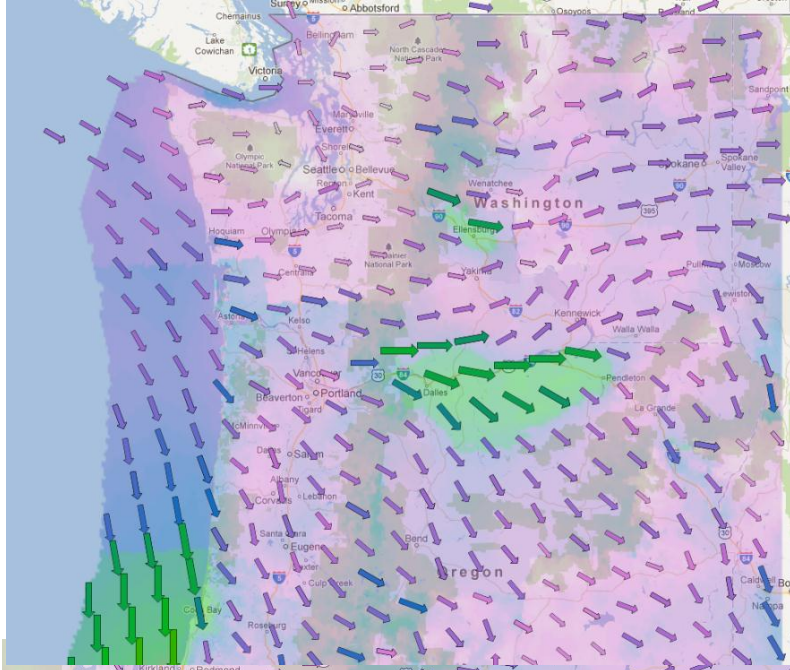


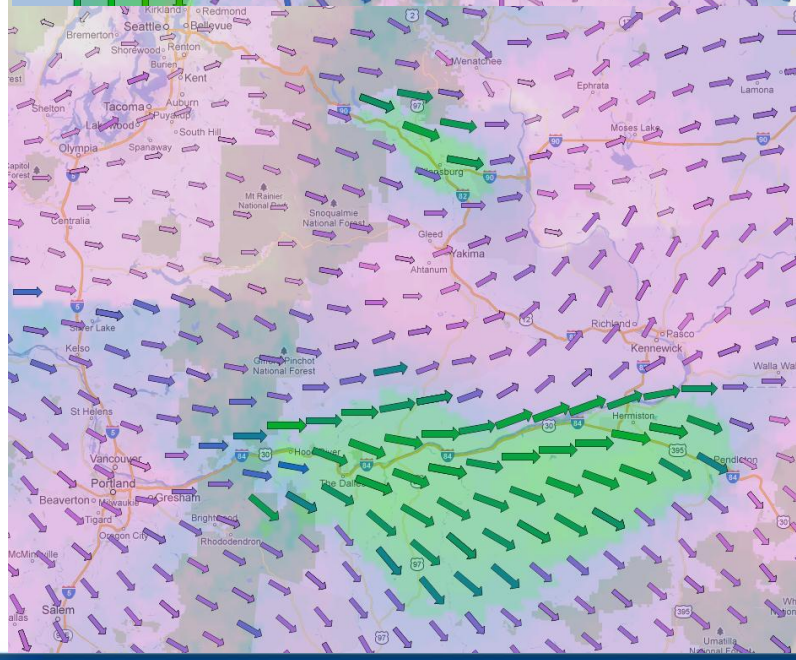


Current Weather

Forecast Weather

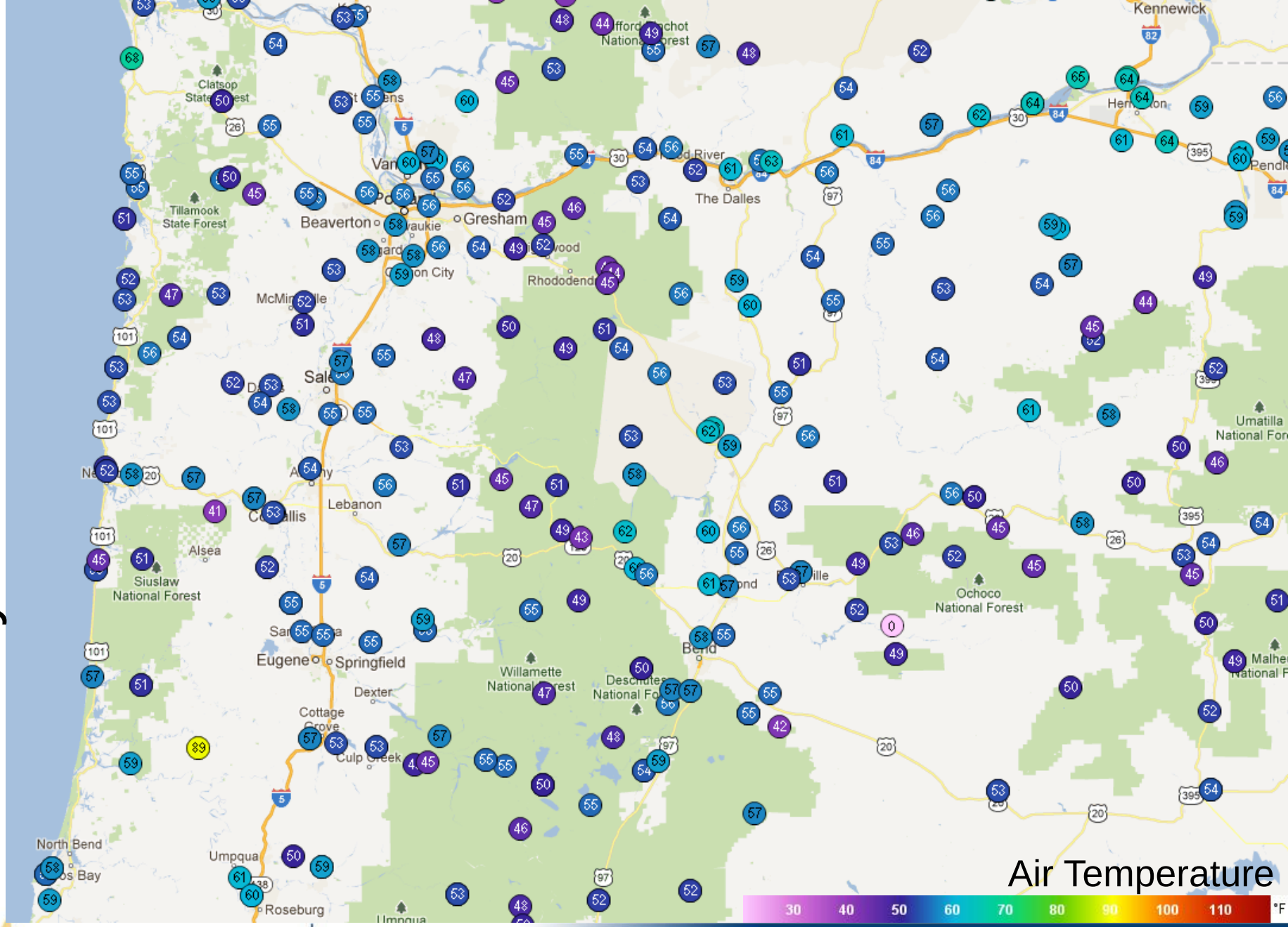


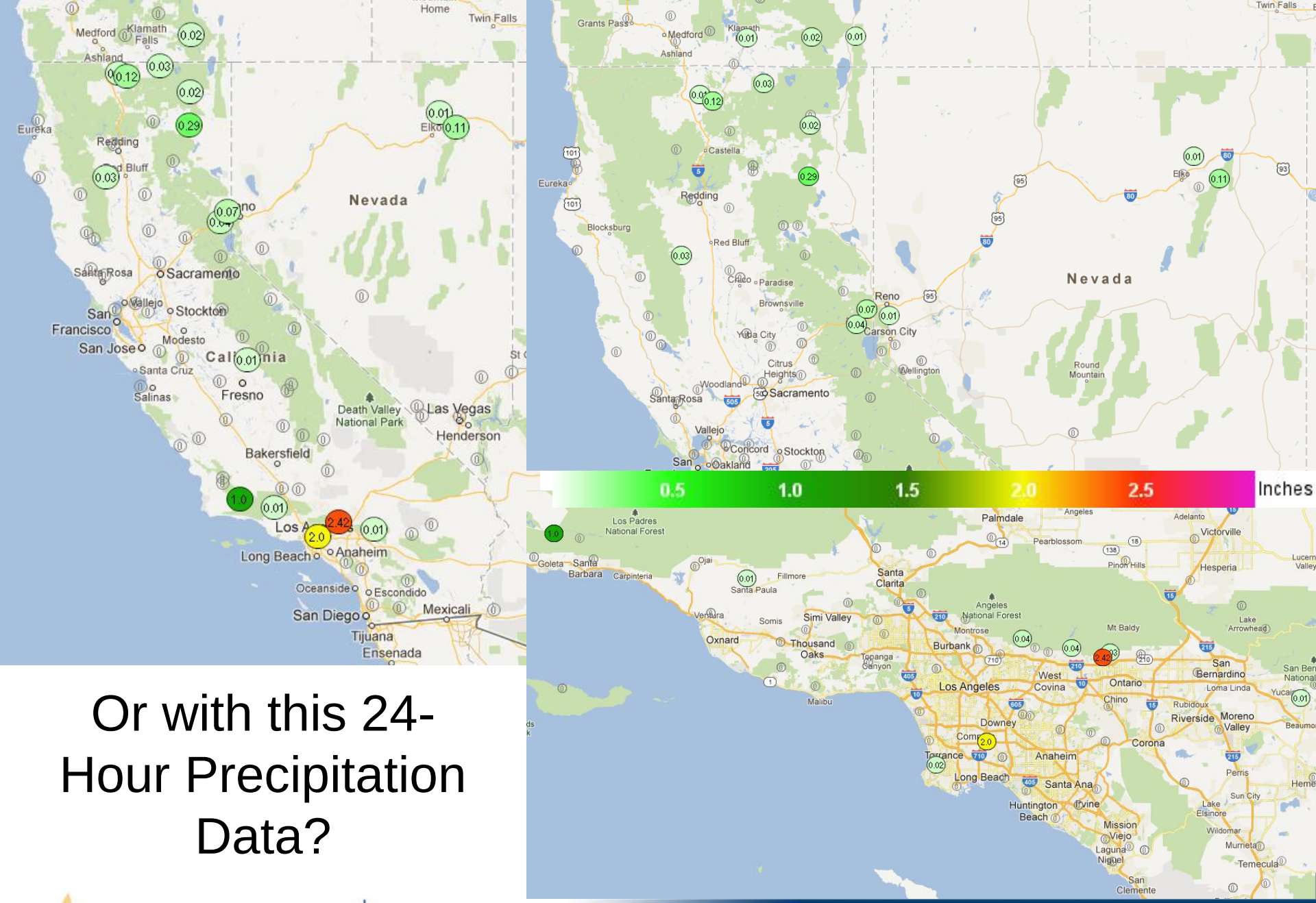




Quality Control

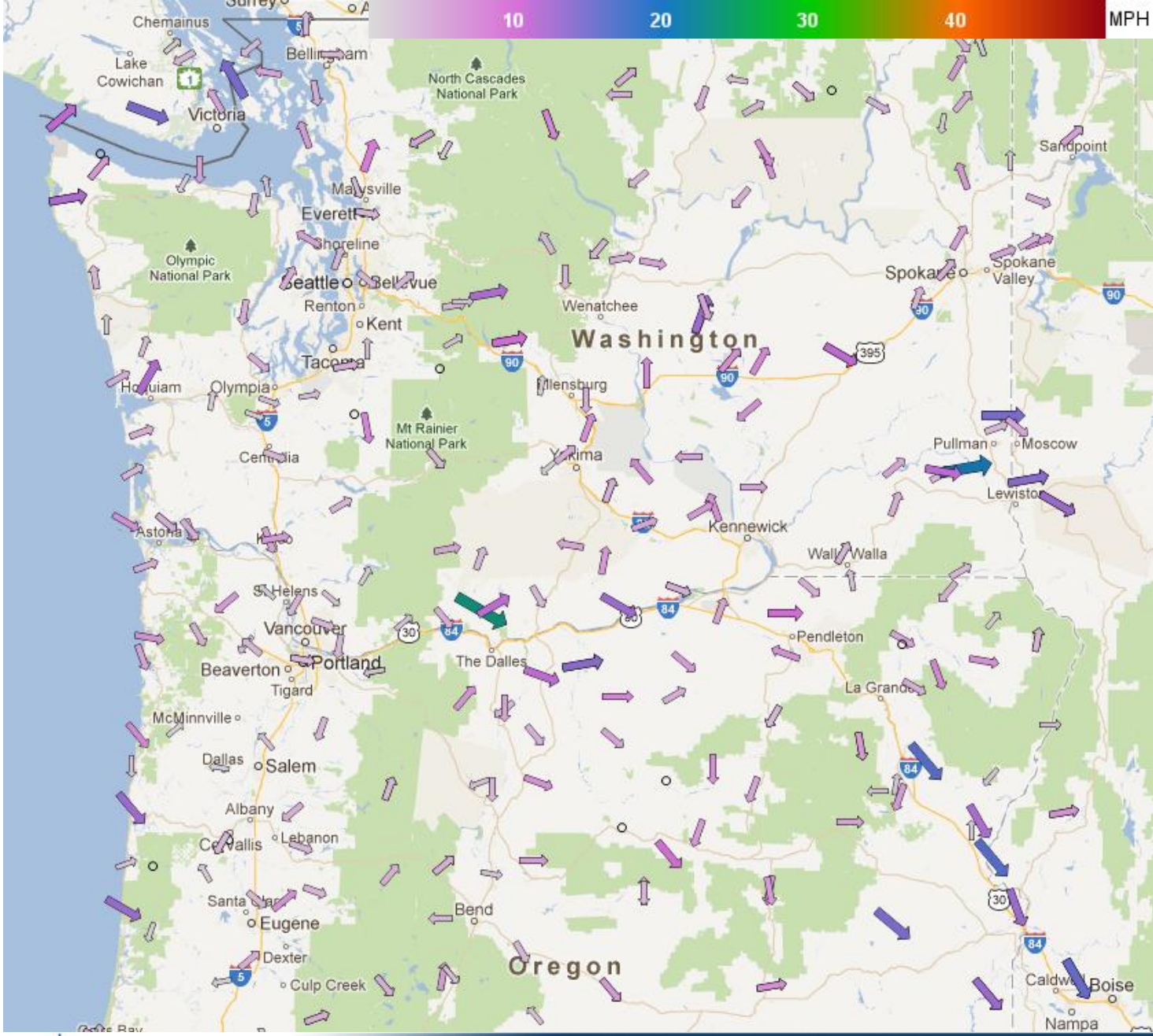
Is there any erroneous data here?



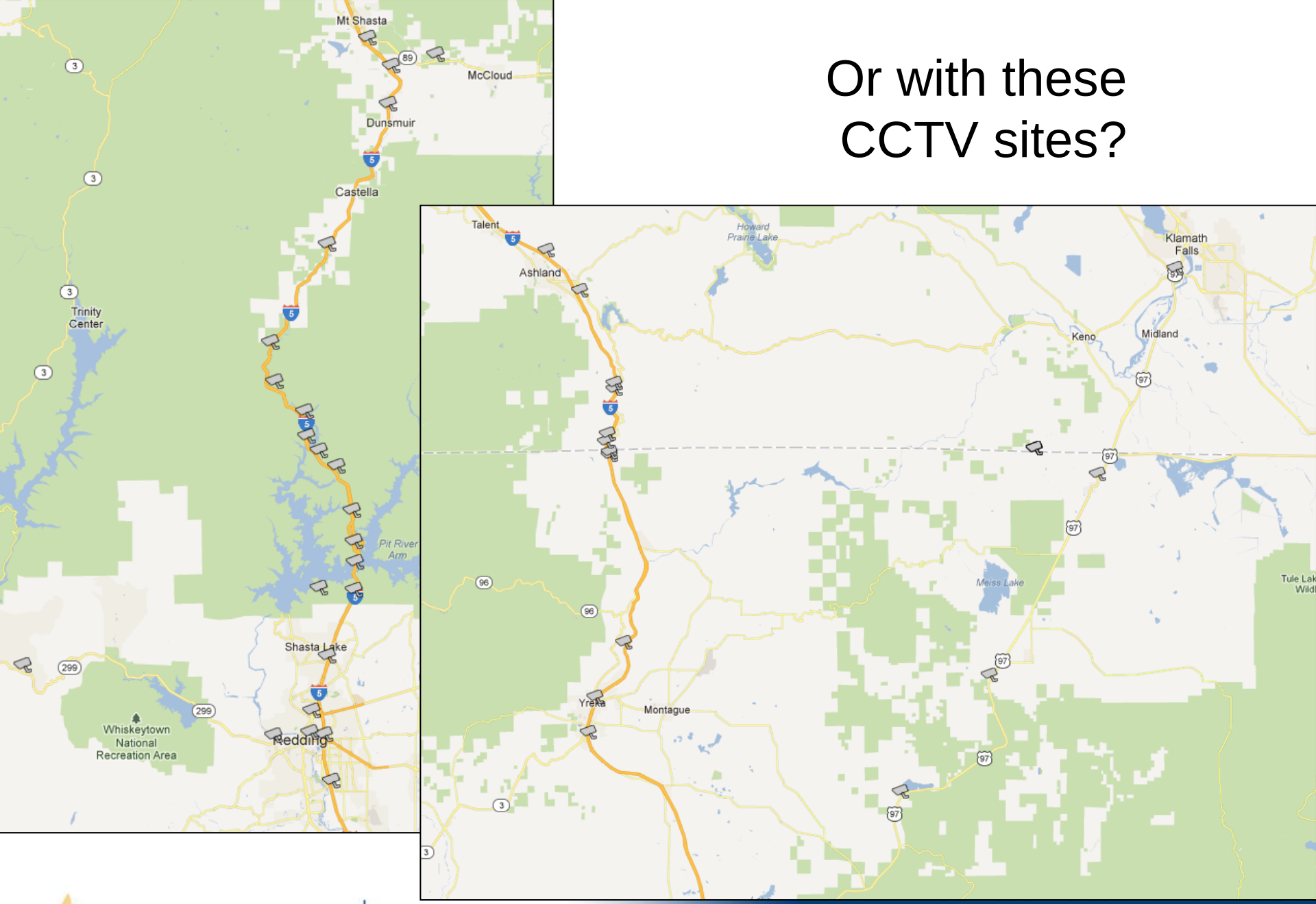


Or with this 24-Hour Precipitation Data?

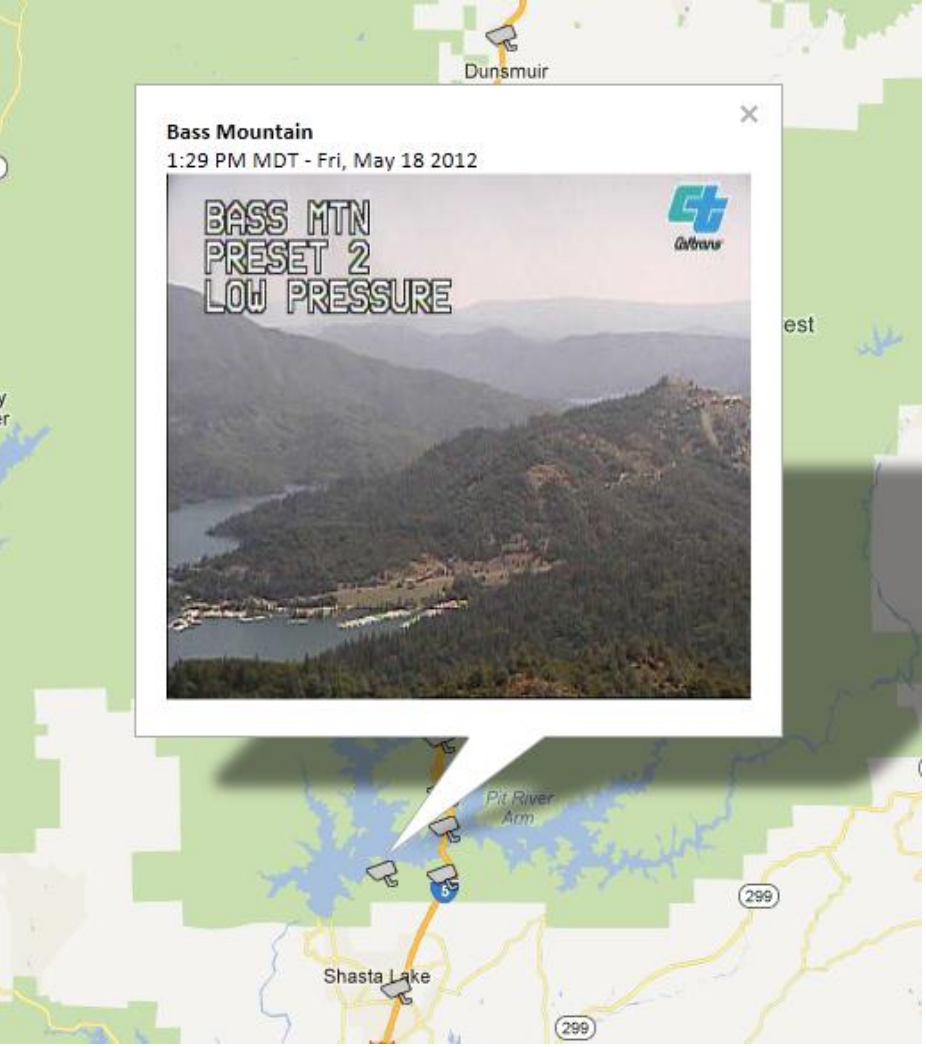
Or with this Wind Data?

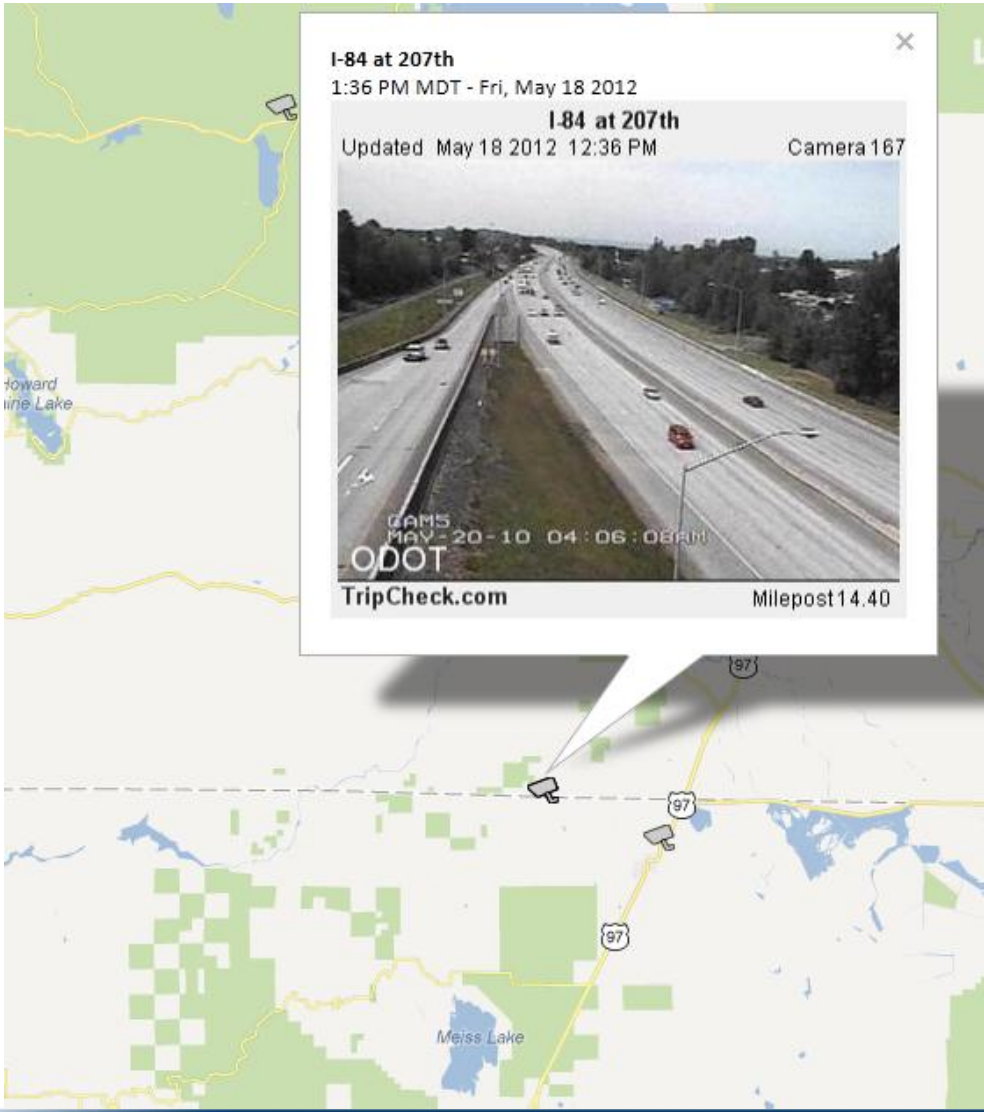


Or with these CCTV sites?

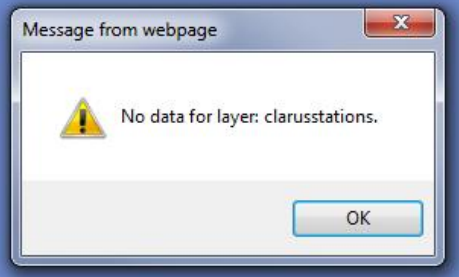


Or with these CCTV sites?





Can you tell now?


Message from webpage
No data for layer: clarusstations.
OK

Quality Control

Can we do better?

- Report a Problem
- Automated Checks
- Use More Data from Providers

Know Your User

or, alternatively

Ignorance is Bliss

Google Analytics

- Accomplished via JavaScript.

- Note that OSS is a one-page website.

Google Analytics

Basic page-level tracking is accomplished via the following HTML and JavaScript:

```
<head>
…
<script async type="text/javascript"
    src="http://www.google-analytics.com/ga.js">
</script>
…
<script
    try {
        if (window.location.hostname === "clarusoss.weathershare.org") {
            window._gaq = [['_setAccount', 'UA-XXXXXXXX-10'],
            ['_trackPageView']];
        } else if (window.location.hostname === "oss.weathershare.org") {
            window._gaq = [['_setAccount', 'UA-XXXXXXXX-11'],
            ['_trackPageView']];
        } else {
            window._gaq = [['_setAccount', 'UA-XXXXXXXX-9'],
            ['_trackPageView']];
        }
    } catch (err) {}
</script>
…
</head>
```

Visits

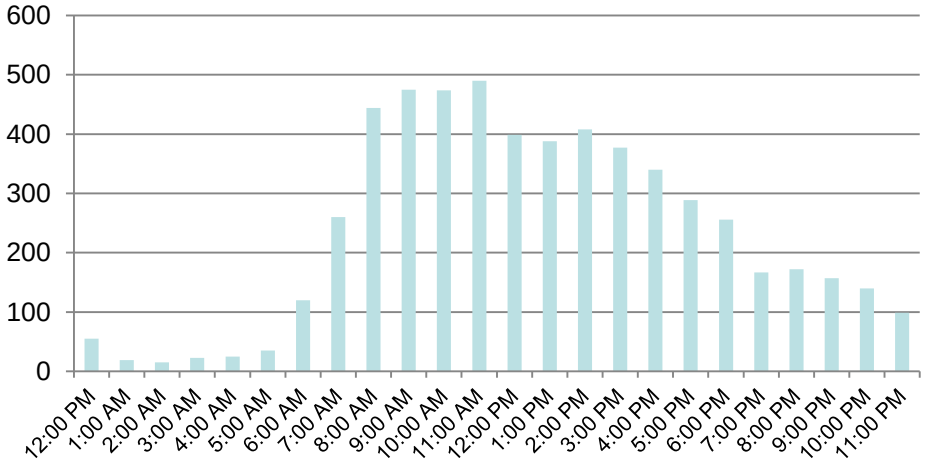
Nov 1, 2011 – April 30, 2012

Median Visits per Day = 22.5

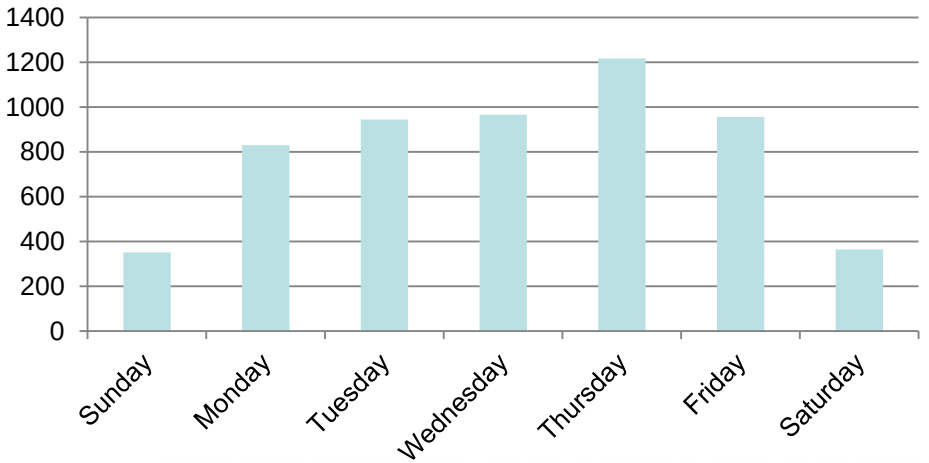
Total Visits = 5627

Day	Visits
1/19/2012	435
1/20/2012	238
2/29/2012	141
1/23/2012	125
3/13/2012	108

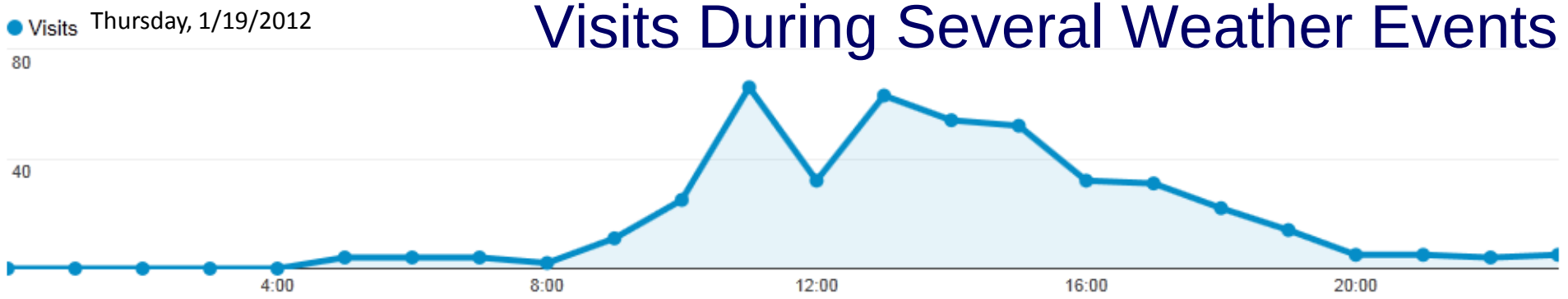
Visits by Time of Day

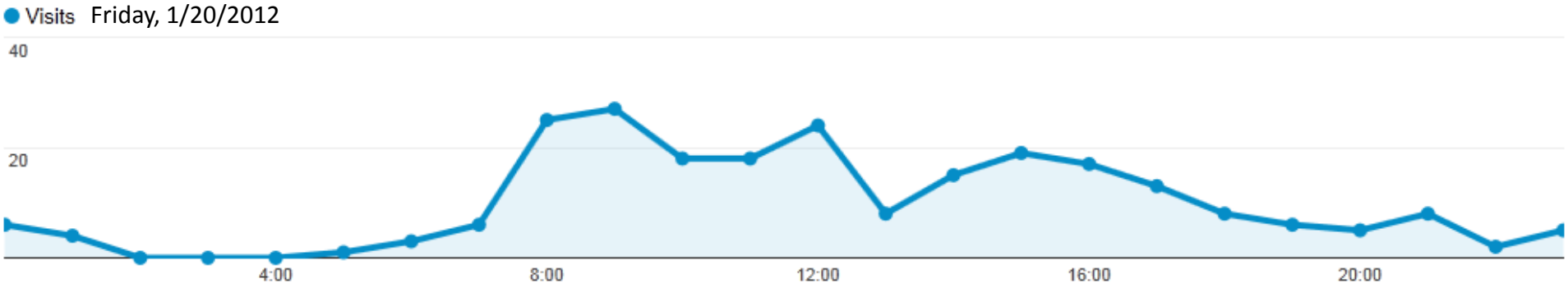


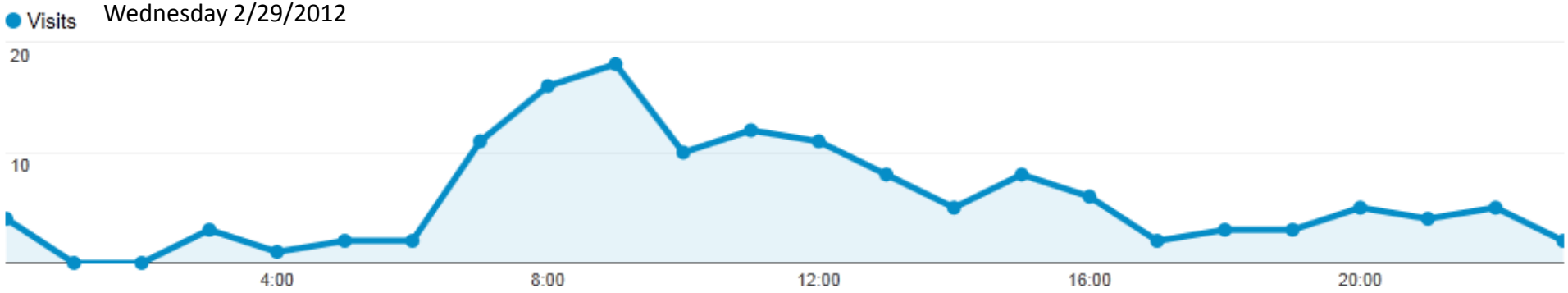
Visits by Day of Week



Visits During Several Weather Events



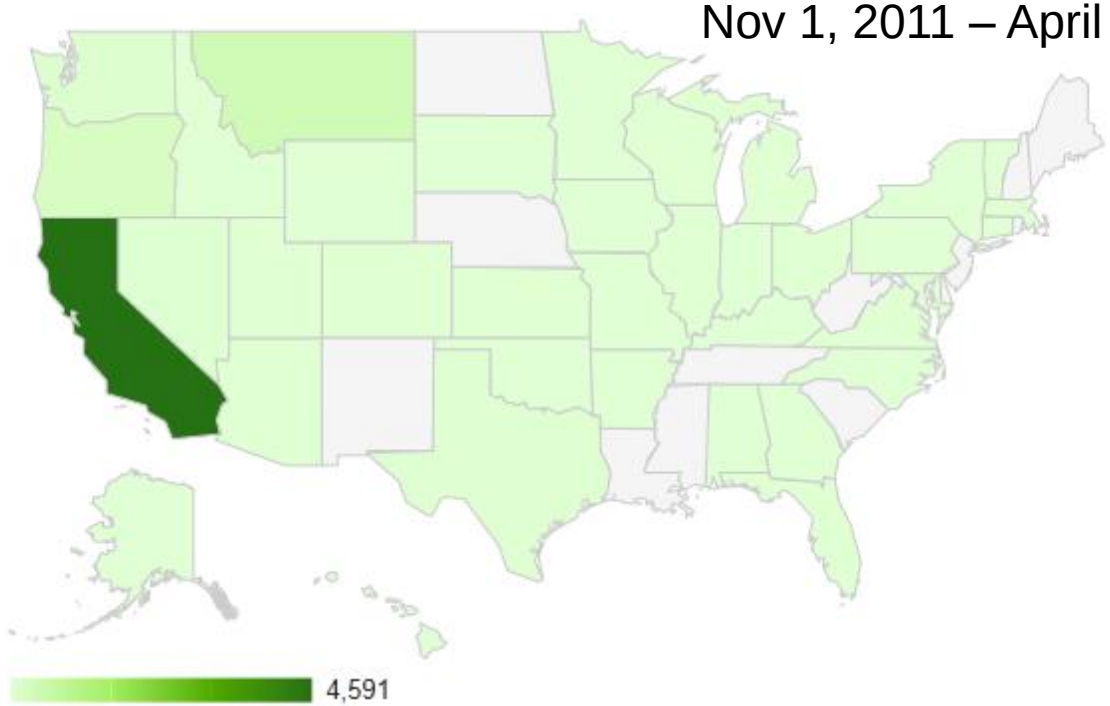


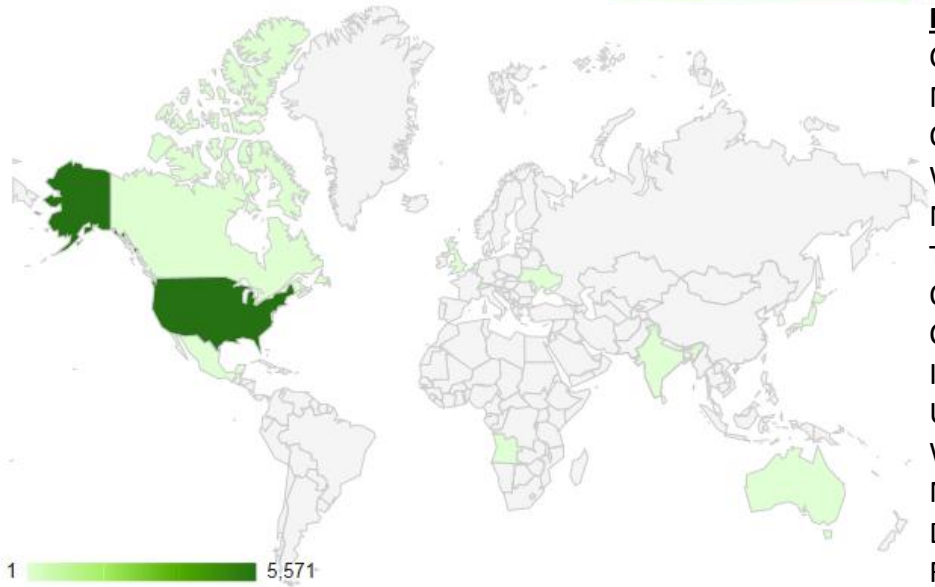


Visitor Locations

Nov 1, 2011 – April 30, 2012

Country/Territory	Visits
United States	5,571
Canada	20
United Kingdom	10
(not set)	8
India	7
Japan	4
Australia	2
Angola	1
Switzerland	1
Mexico	1
Netherlands	1
Ukraine	1





Region	Visits	Region	Visits	Region	Visits
California	4,591	Arizona	8	Connecticut	2
Montana	413	Kansas	8	Georgia	2
Oregon	235	Virginia	8	Kentucky	2
Washington	88	New York	6	Massachusetts	2
Nevada	46	Idaho	5	Pennsylvania	2
Texas	33	Oklahoma	5	(not set)	1
Ohio	13	Wyoming	5	Alaska	1
Colorado	12	Iowa	4	Alabama	1
Illinois	11	Arkansas	3	Hawaii	1
Utah	11	Indiana	3	Maryland	1
Wisconsin	11	Minnesota	3	North Carolina	1
Michigan	10	Missouri	3	South Dakota	1
District of Columbia	9			Vermont	1
Florida	9				

California Visitor Locations

City	Visits
Sacramento	1589
Chico	811
Redding	662
San Francisco	238
Santa Clara	141
San Jose	114
Los Angeles	103
Santa Rosa	75
Carmichael	52
Mount Shasta	49
San Diego	38
Oakland	37
Corning	34
Yreka	30
Truckee	27
Burbank	26
Weaverville	26

City	Visits
Davis	25
Yuba City	25
Susanville	24
Etna	20
Arcata	19
Santa Cruz	17
Rancho Cordova	15
Poway	14
Red Bluff	13
Sunnyvale	13

City	Visits
Eureka	10
Modesto	10
Roseville	10
Salinas	10
Woodland	9
Anderson	8
Lawndale	7
San Luis Obispo	7
Sanger	7
Valley Springs	7
West Sacramento	7
Cupertino	6
Folsom	6
Bakersfield	5
Burney	5
Crescent City	5
El Cajon	5
Livermore	5
Redlands	5
Stanford	5
Stockton	5
Chula Vista	4
Foresthill	4
Kings Beach	4
Lincoln	4
Long Beach	4
Rocklin	4
San Ramon	4
Santa Maria	4
Torrance	4
Weed	4

City	Visits
Anaheim	3
Antelope	3
Citrus Heights	3
Clovis	3
El Dorado Hills	3
Fremont	3
Grass Valley	3
Lake Forest	3
Mountain View	3
Oroville	3
Palo Alto	3
Pleasant Hill	3
Shingle Springs	3
Tulelake	3
Vallejo	3
Walnut Creek	3
Williams	3
Atascadero	2
Cerritos	2
Clayton	2
Clearlake	2
Colfax	2
Colusa	2
Dublin	2
Fresno	2
Hesperia	2
Mariposa	2
Menlo Park	2
Milpitas	2
Monterey	2
North Highlands	2
Oceanside	2
Palm Springs	2
Pasadena	2
Pismo Beach	2
Pleasanton	2
Porterville	2
Rohnert Park	2
San Bernardino	2
San Carlos	2
Santa Ana	2
Santa Clarita	2
Santa Monica	2
South San Francisco	2
Victorville	2
Willows	2

City	Visits
Alameda	1
Alhambra	1
Alturas	1
American Canyon	1
Berkeley	1
Bishop	1
Borrego Springs	1
Concord	1
Costa Mesa	1
Diamond Springs	1
Downey	1
El Centro	1
Elk Grove	1
Encinitas	1
Encino	1
Fair Oaks	1
Fullerton	1
Garden Grove	1
Glendale	1
Grover Beach	1
Hayward	1
Irvine	1
La Mesa	1
La Puente	1
Lakeport	1
Lancaster	1
Lathrop	1
Livingston	1
Lodi	1
Los Altos	1
Moreno Valley	1
Morgan Hill	1
Napa	1
North Hills	1
Oakley	1
Ontario	1
Orange	1
Palmdale	1
Paso Robles	1
Placerville	1
Playa Del Rey	1
Pomona	1
Quincy	1
Rancho Santa Margarita	1
Rescue	1
Reseda	1
Ripon	1
Riverside	1
San Clemente	1
San Dimas	1
San Leandro	1
San Mateo	1
San Rafael	1
Sheep Ranch	1
Sherman Oaks	1
Vacaville	1
Venice	1
Visalia	1
Willits	1
Woodland Hills	1
Yosemite National Park	1

City	Visits
Portland	62
Medford	36
Ashland	27
Salem	16
Aurora	11
Coos Bay	10
Eugene	9
Grants Pass	9
Klamath Falls	9
Corvallis	6
Bend	5
Hood River	4
Roseburg	4
Bandon	3
Hillsboro	3
Newberg	3
Silverton	3
West Linn	3
Cave Junction	2
Glendale	2
Oregon City	2
Astoria	1
Brookings	1
Clackamas	1
Creswell	1
Myrtle Creek	1
Newport	1

Oregon Visitor Locations

Washington Visitor Locations

City	Visits
Seattle	27
Olympia	11
Bellevue	6
Leavenworth	6
Richland	5
Chehalis	4
Kalama	3
Bellingham	2
Bremerton	2
Kennewick	2
Mountlake Terrace	2
Renton	2
Vancouver	2
Anacortes	1
Auburn	1
Dupont	1
Everett	1
Federal Way	1
Gig Harbor	1
Graham	1
Keyport	1
Lynnwood	1
Maple Valley	1
Sequim	1
Tacoma	1
Walla Walla	1
Yakima	1

Nov 1, 2011
–
April 30, 2012

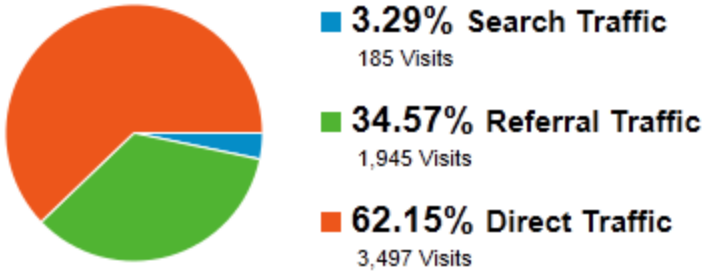
Nevada Visitor Locations

City	Visits
Reno	38
Las Vegas	4
Incline Village	2
Carson City	1
Henderson	1

How are people finding OSS?

Nov 1, 2011 – April 30, 2012

5,627 people visited this site



	Keyword	Visits	% Visits
1.	oss.weathershare.org	45	24.32%
2.	http://oss.weathershare.org/	29	15.68%
3.	(not provided)	12	6.49%
4.	oss.weathershare	10	5.41%
5.	one stop shop weather	8	4.32%
6.	western states one-stop shop	7	3.78%
7.	weathershare	5	2.70%
8.	oss weather share	4	2.16%
9.	weathershare oss	4	2.16%
10.	http://oss.weathershare.org	3	1.62%

	Source	Visits
1.	dot.ca.gov	1,223
2.	westernstates.org	221
3.	visitmtshasta.com	91
4.	co.shasta.ca.us	75
5.	cawscportal.wr.usgs.gov	48
6.	intranet	45
7.	us.mg203.mail.yahoo.com	43
8.	facebook.com	32
9.	36ohk6dgmcd1n-c.c.yom.mail.yahoo.net	21
10.	onramp.dot.ca.gov	12
11.	10.160.32.18	11
12.	californiaagricultural.com	7

Caltrans D2 Link to OSS

CA.GOV CALIFORNIA DEPARTMENT OF TRANSPORTATION district 2

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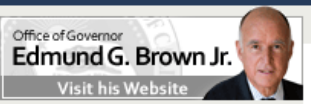


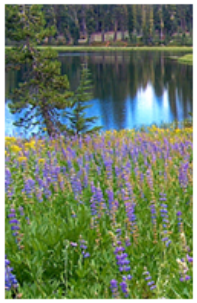
District 2 Office
1657 Riverside Drive
Redding, CA 96001
(530) 225-3426

QUICK LINKS

- District 2 Press Releases
- Caltrans Headquarters
- California Transportation Commission
- Department of Motor Vehicles
- California Highway Patrol
- CalFire
- Lane Closures
- Business, Transportation and Housing

Caltrans > District 2 - Northeastern California

INFORMATION FOR



Travelers | Local Agencies | Business Partners | Projects

- Caltrans Quick Map
- Cycling in District 2
- Winter Driving Info
- Points of Interest & Scenic Highway Information
- Maps & Traffic Cameras
- Highway Conditions & Planned Roadwork
- Rest Area Info

TRAFFIC ALERTS PROVIDED BY CALTRANS DISTRICT 2

For information on current road conditions call the Public Information Office at 530-229-0511, Monday through Friday between 8am and 4:30pm

HIGHLIGHTS & CURRENT INFORMATION - WEDNESDAY, MAY 16, 2012

- Historic Bridge Available for Relocation, Proposals Welcome
- High Tension Cable Barrier System Informational Video
- Move Over Law PSAs
- Fight Distracted Driving
- The American Recovery and Reinvestment Act (ARRA)
- Transportation Concept & Other Reports

Caltrans District 2 Reminds Motorists to Slow Down or

MONTANA STATE UNIVERSITY | College of ENGINEERING

Western Transportation Institute

Caltrans D2 News Release

State of California

NEWS RELEASE

Today's Date: November 9, 2011
District/Division: Redding
Contact: Denise Yergenson or Mel Hutsell
Phone: (530) 225-3260 or 242-3200

FOR IMMEDIATE RELEASE

Winter Driving Tips

REDDING – Two of California's traffic safety partners, the California Highway Patrol (CHP) and Caltrans, are teaming up to drive home an important message to all motorists traveling in the north state this winter: be prepared for upcoming storms. Information on winter driving, chain controls and access to traffic cameras is available on the internet at www.caltrans2.info. Caltrans suggests you visit the website prior to any winter trip for important information on driving conditions and tips on how to be prepared in the case of inclement weather. The CHP has a mobile app you can use on your cell phone to get information about traffic conditions http://m.chp.ca.gov.

"Caltrans and the CHP are encouraging motorists to check their automobiles and make sure they're prepared, prior to the first big storm of the season," said District 2 Director, John Bulinski. "Safety is our number one priority, and that includes the traveling public and our highway workers. Please slow down when necessary so we can all get home safely."

CHP Redding Area Commander, Captain Jerry Flavin, adds, "Often drivers are traveling long distances during the winter months. As a result, many drivers are overly tired and not properly focused on the hazards of winter driving. It's important to get the proper rest and don't drive if you're tired."

It is best to stay off the roads during winter storms, but if you must go out use caution, common sense and be prepared.

Things to Remember

- Winterize your vehicle (check brakes, windshield wipers, antifreeze, tires).
- Always carry chains.
- Reduce speed and use your seatbelt.
- Do not use cruise control in wet, icy or snowy weather.
- Do not pass a vehicle plowing snow unless instructed.
- Be aware of rapidly changing conditions.
- Be prepared for road closures and long delays (bring flashlight, blanket, food, ice scraper, gloves, water, cell phone charger).
- If possible, stay off the road during winter storms.
- Studded snow tires are permitted in California from November 1 until April 30. Studded snow tires are not considered tire traction devices and may not be used in lieu of chains.

Truck Drivers

- Extra-Legal permitted loads are restricted during inclement weather.
- Follow instructions in chain control areas.
- Listen for Highway Advisory Radio (HAR) messages on 1610 AM.
- Remain in the slow lane, avoid passing other big rigs.

See the attached brochure for more information about chains, vehicle winterization, the Caltrans Highway Information Network, and additional ways to get information about road conditions.
Click the following link to go to the brochure online, http://www.dot.ca.gov/hq/roadinfo/wntrdriv.htm.
To access the CHP webpage on winter driving, go to http://www.chp.ca.gov/html/winter_driving.html.

For more information visit www.caltrans2.info or if traveling through Oregon, www.tripcheck.com and for the One Stop Shop for Traveler Information for California, Oregon, Washington and Nevada, visit http://oss.weathershare.org.

This press release is available electronically at www.caltrans2.info.

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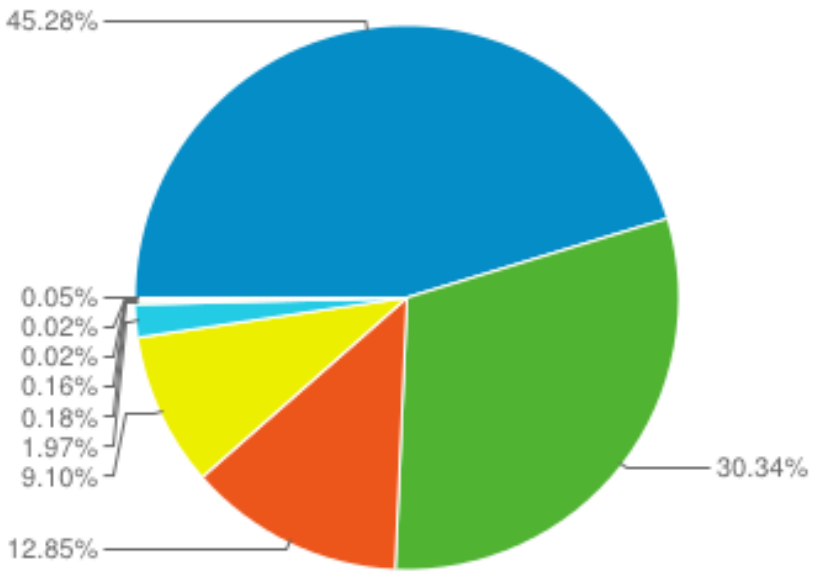
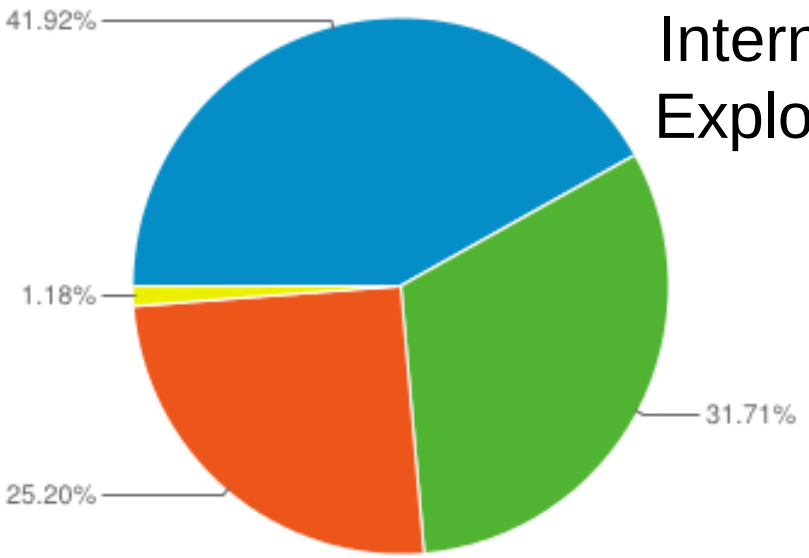
Browser

1.	Internet Explorer	2,548	45.28%
2.	Firefox	1,707	30.34%
3.	Safari	723	12.85%
4.	Chrome	512	9.10%
5.	Android Browser	111	1.97%
6.	Mozilla Compatible Agent	10	0.18%
7.	IE with Chrome Frame	9	0.16%
8.	Opera	3	0.05%
9.	BlackBerry9300	1	0.02%
10.	gt-s5233a	1	0.02%
11.	NetFront	1	0.02%
12.	Opera Mini	1	0.02%



1.	8.0	1,068	41.92%
2.	7.0	808	31.71%
3.	9.0	642	25.20%
4.	6.0	30	1.18%

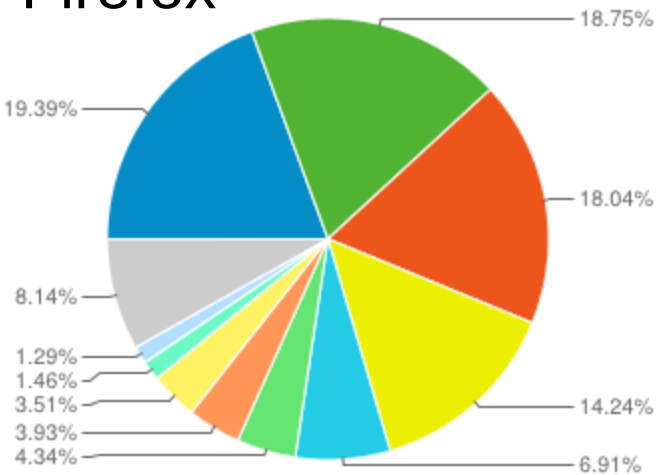


Internet Explorer

Browser Version

Nov 1, 2011 – April 30, 2012

Firefox



1.	11.0	331	19.39%	16.	3.6.28	10	0.59%	31.	13.0	1	0.06%
2.	10.0.2	320	18.75%	17.	3.6.26	6	0.35%	32.	3.0.12	1	0.06%
3.	9.0.1	308	18.04%	18.	4.0	5	0.29%	33.	3.5	1	0.06%
4.	8.0	243	14.24%	19.	6.0	5	0.29%	34.	3.5.2	1	0.06%
5.	10.0.1	118	6.91%	20.	5.0.1	4	0.23%	35.	3.5.9	1	0.06%
6.	7.0	74	4.34%	21.	12.0	3	0.18%	36.	3.6	1	0.06%
7.	10.0	67	3.93%	22.	3.6.13	3	0.18%	37.	3.6.12	1	0.06%
8.	8.0.1	60	3.51%	23.	3.6.8	3	0.18%	38.	3.6.17	1	0.06%
9.	7.0.1	25	1.46%	24.	4.0.1	3	0.18%	39.	3.6.20	1	0.06%
10.	5.0	22	1.29%	25.	3.5.3	2	0.12%	40.	3.6.9	1	0.06%
11.	3.6.15	17	1.00%	26.	3.5.6	2	0.12%				
12.	6.0.2	17	1.00%	27.	3.6.18	2	0.12%				
13.	3.6.25	16	0.94%	28.	3.6.23	2	0.12%				
14.	3.6.24	14	0.82%	29.	9.0	2	0.12%				
15.	3.6.27	12	0.70%	30.	12.0a2	1	0.06%				

Screen Resolution

164 variations!

	Screen Resolution	Visits	Percent	Cumulative
1	1280x1024	848	15.07%	15.07%
2	***1024x768***	***766***	***13.61%***	***28.68%***
3	1680x1050	640	11.37%	40.06%
4	1280x800	516	9.17%	49.23%
5	768x1024	456	8.10%	57.33%
6	1920x1200	406	7.22%	64.55%
7	1440x900	381	6.77%	71.32%
8	1366x768	288	5.12%	76.44%
9	1920x1080	284	5.05%	81.48%
10	1600x900	125	2.22%	83.70%
11	320x480	125	2.22%	85.93%
12	1280x960	64	1.14%	87.06%
13	1600x1200	55	0.98%	88.04%
14	1152x864	51	0.91%	88.95%
15	1024x819	37	0.66%	89.60%
16	1536x864	36	0.64%	90.24%
17	1280x768	30	0.53%	90.78%
18	1280x720	29	0.52%	91.29%
19	1536x960	23	0.41%	91.70%
20	***800x600***	***20***	***0.36%***	***92.06%***
21	1344x840	18	0.32%	92.38%
22	1600x1024	18	0.32%	92.70%
23	1024x640	17	0.30%	93.00%
24	800x1183	16	0.28%	93.28%
25	1600x1000	15	0.27%	93.55%
26	2560x1440	15	0.27%	93.82%
27	1024x600	14	0.25%	94.06%
28	1152x720	14	0.25%	94.31%
29	3360x1050	14	0.25%	94.56%
30	1093x614	12	0.21%	94.78%
31	1400x1050	12	0.21%	94.99%
32	800x1220	11	0.20%	95.18%
33	800x1241	9	0.16%	95.34%
34	1067x600	8	0.14%	95.49%
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36	1152x648	7	0.12%	95.73%
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65	800x450	3	0.05%	97.83%
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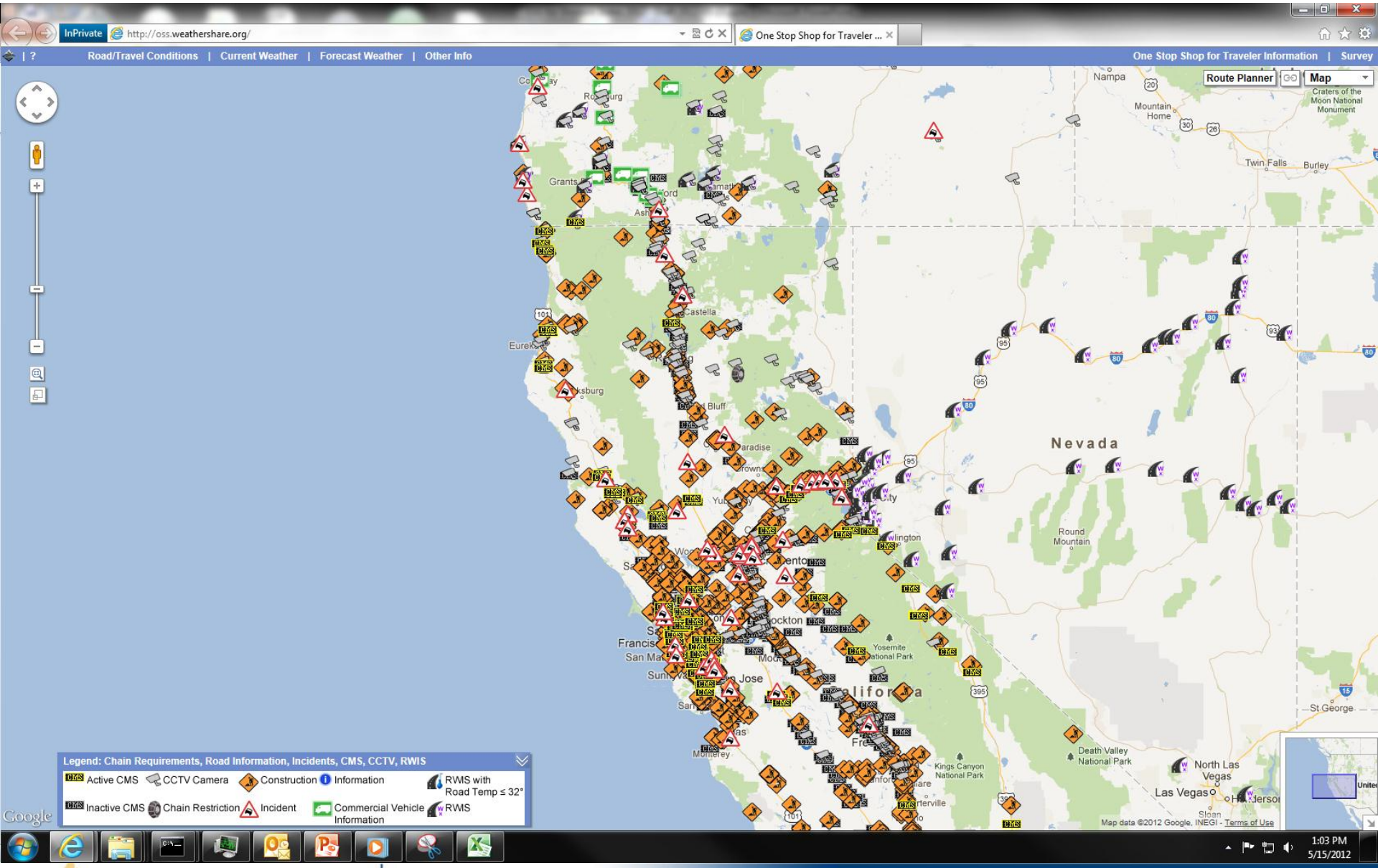
1680 x 1050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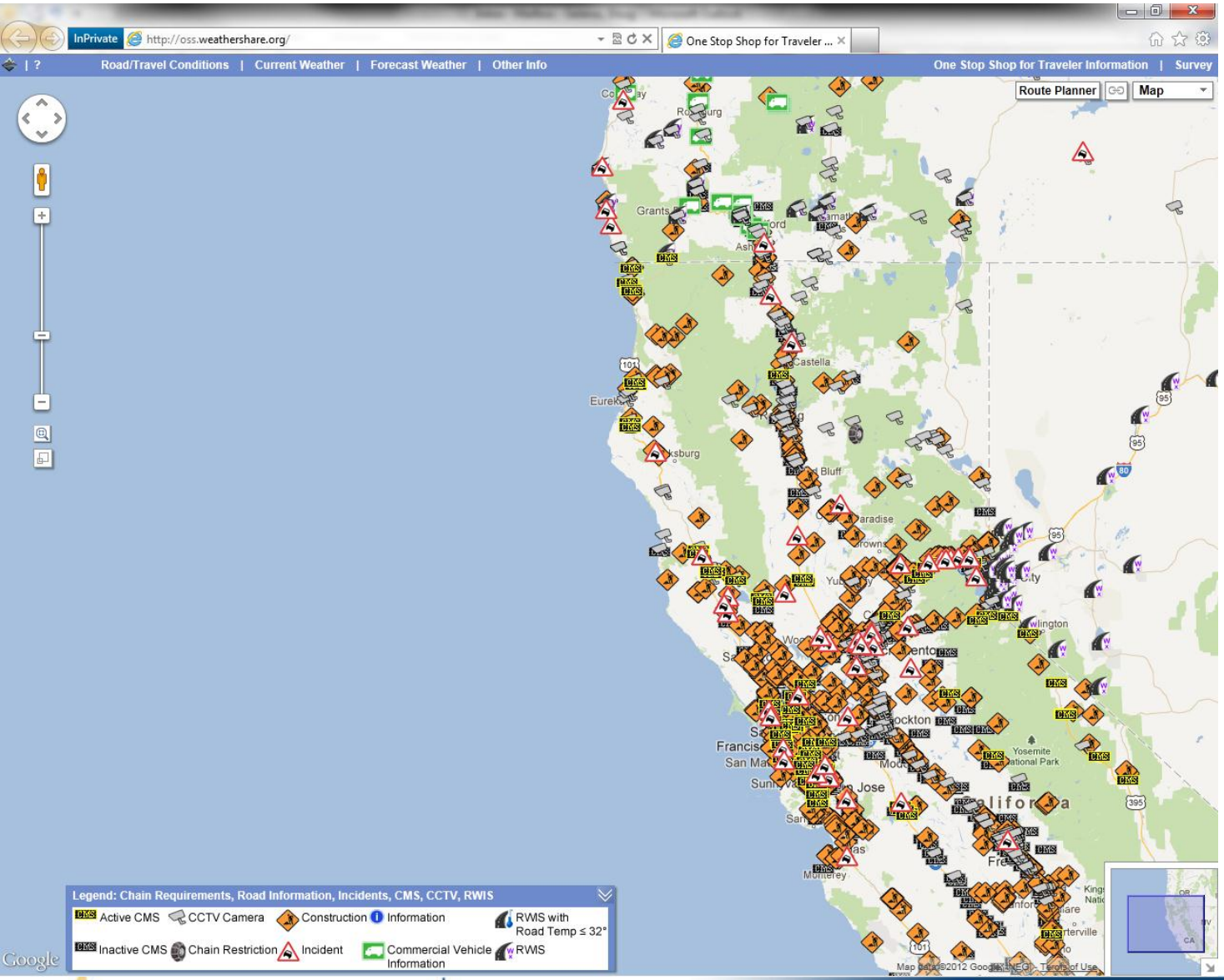
http://oss.weathershare.org/
One Stop Shop for Traveler ...
Road/Travel Conditions | Current Weather | Forecast Weather | Other Info
One Stop Shop for Traveler Information | Survey
Route Planner
Map
Nevada
Legend: Chain Requirements, Road Information, Incidents, CMS, CCTV, RWIS
Active CMS
CCTV Camera
Construction
Information
RWIS with Road Temp ≤ 32°
Inactive CMS
Chain Restriction
Incident
Commercial Vehicle Information
RWIS
Google
Map data ©2012 Google, INEGI - Terms of Use
1:03 PM
5/15/2012

1280 x 1024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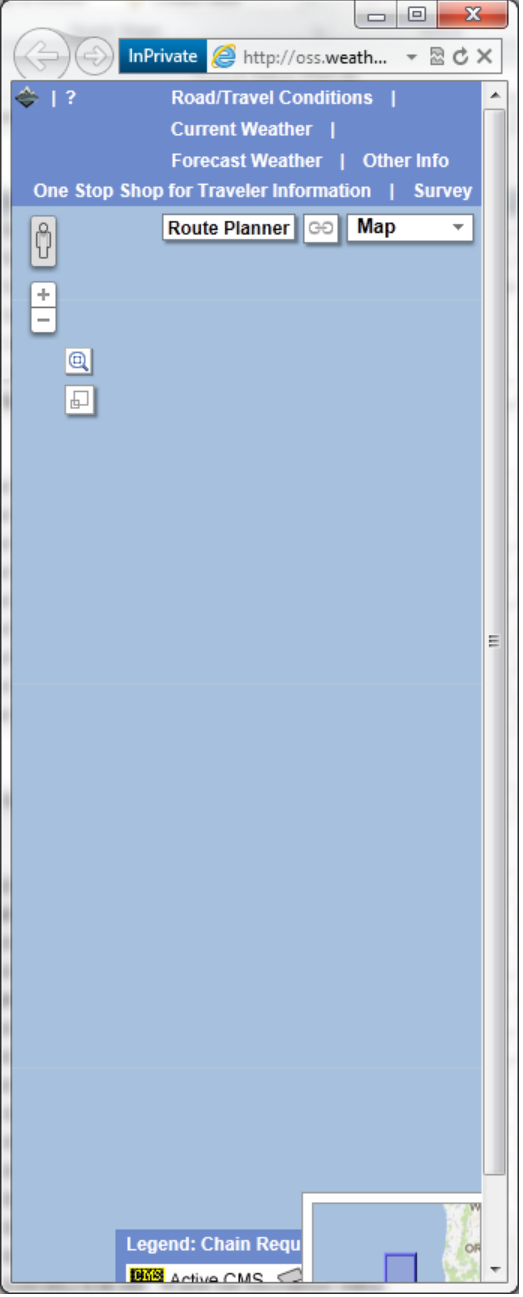
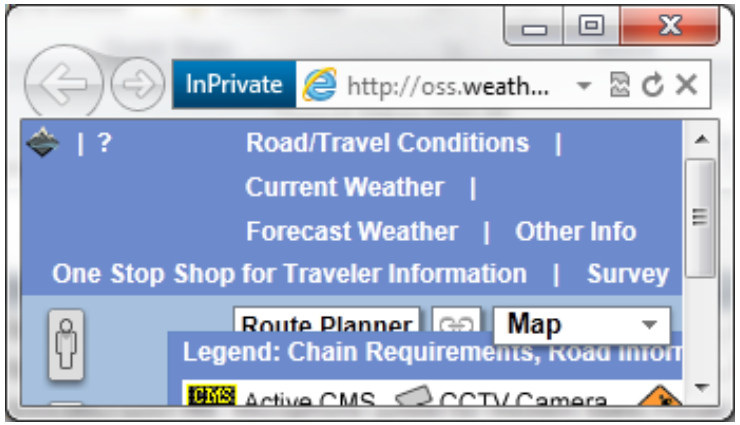
Active CMS
CCTV Camera
Construction
Information
RWS with Road Temp ≤ 32°
Inactive CMS
Chain Restriction
Incident
Commercial Vehicle Information
RWS
Google

Oops or %#@^*! or something else?





1.	Apple iPad	456
2.	Apple iPhone	117
3.	(not set)	27
4.	Motorola DroidX	17
5.	SonyEricsson LT15i Xperia Arc	11
6.	HTC ADR6300 Incredible	10
7.	HTC EVO 4G	8
8.	Motorola Droid X2	8
9.	HTC ADR6400L Thunderbolt 4G	7
10.	Motorola xt875 Droid Bionic	6
11.	Apple iPod Touch	5
12.	Samsung GT-P1000 Galaxy Tab	4
13.	Verizon Droid	4
14.	HTC 001HT Desire HD SoftBank	3
15.	Asus Eee Pad Transformer TF101	2
16.	HTC Inspire	2
17.	Motorola MB860 Atrix	2
18.	Samsung SGH-I997	2
19.	T-Mobile myTouch4G	2
20.	Google Nexus S 4G Samsung Nexus S 4G	1
21.	HTC Desire	1
22.	HTC PC36100 EVO 4G	1
23.	LG Ally	1
24.	LG VM670 Optimus V	1
25.	Motorola Droid 2	1

703 Mobile Visits

Mobile Device Info	Visits
Apple iPad	456
Apple iPhone	117
(not set)	27
Motorola DroidX	17
SonyEricsson LT15i Xperia Arc	11
HTC ADR6300 Incredible	10
HTC EVO 4G	8
Motorola Droid X2	8
HTC ADR6400L Thunderbolt 4G	7
Motorola xt875 Droid Bionic	6
Apple iPod Touch	5
Samsung GT-P1000 Galaxy Tab	4
Verizon Droid	4
HTC 001HT Desire HD SoftBank	3
Asus Eee Pad Transformer TF101	2
HTC Inspire	2
Motorola MB860 Atrix	2
Samsung SGH-I997	2
T-Mobile myTouch4G	2
Google Nexus S 4G Samsung Nexus S 4G	1
HTC Desire	1
HTC PC36100 EVO 4G	1
LG Ally	1
LG VM670 Optimus V	1
Motorola Droid 2	1
RIM BlackBerry 9300 Curve 3G	1
Samsung GT-P7510 Galaxy Tab 10.1	1
Samsung SGH A687	1
Samsung SGH-T959 Vibrant	1

Some general questions:

- Which layers do people use?
- Which markers do they select?
- Which regions are viewed most?
- Which routes are viewed?
- How does weather impact user choices?
- How do user choices relate to user location?
- What works and what doesn't work in regard to the interface?

Event Tracking

Our intent is to log the following:

- Page Loads
- Layer Selection
- Marker Clicks
- Region Viewed
- More …

Event Tracking – 1st Attempt

```
//google analytics tracking
window._gaq.push(['_trackEvent', (initialLoad) ? 'Page Load' :
        'Layer Select', callingDiv.id,
        ClarusOSS.application.getTrackingDescriptor()]);

app.setMarkerClickedEvent(function (name, lat, lon, infoWindowURL) {
        //google analytics tracking
        window._gaq.push(['_trackEvent', 'Marker Click',
                ClarusOSS.application.getLayers(), "Marker Loc: " +
                String(lat) + "," + String(lon)]);
});

openAbout: function () {
        document.getElementById("About").style.display = "block";
        window._gaq.push(['_trackEvent', 'About Box Opened', '']);
}
```

Unfortunately, the chief revelation from our event tracking data is that there are problems with our event tracking implementation …

All Events

Event Category	Total Events
Layer Select	39,237
Page Load	6,713
Marker Click	414

Nov 1, 2011 – April 30, 2012

Marker Click Events

Event Action	Total Events
CCTV	189
AirTemp	48
Incidents	48
CMS	40
RoadInfo	36
Chain	18
Wind	18
summits	7
clarusstations	5
restareas	3

Page Load Events

Event Action	Total Events
Chain	6,549
AirTemp	143
Incidents	6
clarusstations	4
sky	3
CCTV	1
Precip24hr	1
restareas	1
RoadInfo	1
summits	1
wgust	1
Wind	1
wx	1

Layer Select Events

Event Action	Total Events
Incidents	7,085
RoadInfo	7,041
CCTV	7,036
CMS	7,029
clarusstations	6,934
AirTemp	788
wx	695
Chain	490
Wind	322
restareas	254
Precip24hr	178
snow	175
Precip1hr	138
temp	134
wgust	134
pop12	132
wspd	115
AHPS	109
Humidity	94
summits	86
qpf	78
truckscales	58
featuresofinterest	54
sky	48
rhm	30

Event Tracking 1st Attempt Problems

- Rapid Development Cycle
  - Bugs not caught – marker click event not being recorded via Google Analytics.
  - We Omitted some things like Google Traffic Layer, Routing, etc..
- Events and attributes are incomplete and otherwise not defined well.
- Interface Issues
  - Allowing multiple layers to be displayed simultaneously in Road / Travel Conditions but not elsewhere.
  - Default layer displayed upon menu select.
- Google Analytics might not be the best mechanism for this
  - There is no guarantee that all user-defined events will be recorded.
  - We are unsure if we can retrieve all associated detail.
  - We may be better off attempting to roll our own mechanism for this, but we would need to be careful about bandwidth and storage requirements .
- We should define and post a privacy policy.

Example Web Log

153.90.X.X - - [14/May/2012:10:53:18 -0600] "GET / HTTP/1.1" 200 3336 "-" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:18 -0600] "GET /style.css HTTP/1.1" 200 1264 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:18 -0600] "GET /clarusoss.js HTTP/1.1" 200 7817 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:18 -0600] "GET /icons/close.gif HTTP/1.1" 200 140 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:18 -0600] "GET /legendcollapse.png HTTP/1.1" 200 752 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:18 -0600] "GET /keydragzoom_packed.js HTTP/1.1" 200 3787 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:18 -0600] "GET /activity.gif HTTP/1.1" 200 6090 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:18 -0600] "GET /interface.js HTTP/1.1" 200 4901 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"

153.90.X.X - - [14/May/2012:10:53:18 -0600] "GET /WSRTC.png HTTP/1.1" 200 39223 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"

153.90.X.X - - [14/May/2012:10:53:18 -0600] "GET /link.png HTTP/1.1" 200 503 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:18 -0600] "GET /close.png HTTP/1.1" 200 289 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:18 -0600] "GET /data/Legends/RoadTravelConditions.png HTTP/1.1" 200 78485 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:19 -0600] "GET /data/Current/chain/Chain.json HTTP/1.1" 200 264 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:19 -0600] "GET /data/Current/incidents/Incidents.json HTTP/1.1" 200 1492 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:19 -0600] "GET /data/Current/roadinfo/RoadInfo.json HTTP/1.1" 200 29019 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:19 -0600] "GET /data/Fixed/cms/CMS.json HTTP/1.1" 200 13239 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:19 -0600] "GET /data/Fixed/clarusstations/clarusstations.json HTTP/1.1" 200 2953 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:19 -0600] "GET /data/Fixed/cctv/CCTV.json HTTP/1.1" 200 24346 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:19 -0600] "GET /zoom.png HTTP/1.1" 200 287 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"
153.90.X.X - - [14/May/2012:10:53:20 -0600] "GET /icons/RoadInfoAggregate.png HTTP/1.1" 200 59732 "http://oss.weathershare.org/" "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; WOW64; Trident/5.0)"

Log Entry Dissected

```
1. 153.90.X.X
2. -
3. -
4. [14/May/2012:10:53:18 -0600]
5. "GET /WSRTC.png HTTP/1.1" 200 39223
6. "http://oss.weathershare.org/"
7. "Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1;
   WOW64; Trident/5.0)"
```

1. IP Address
2. Client Machine Name (not reported)
3. Client Identity (not report)
4. Date/Time
5. HTTP Request: method (GET), Resource, status (OK), Size
6. Referrer
7. User Agent: Mozilla compatible, IE 9, Windows 7, 32-bit app running on 64-bit processor, Layout engine for IE + version

Deciphered with help from: http://www.useragentstring.com/

Online Survey
via
Survey Monkey

1. How often will/do you visit the One Stop Shop (OSS) website for information?

	Response Percent	Response Count
First time visitor	50.0%	3
Website is open all the time	0.0%	0
Hourly	16.7%	1
Daily	16.7%	1
Weekly	16.7%	1
Monthly	0.0%	0
	Other (please specify)	2

As conditions require
3/14/2012 2:22 PM View Responses

Seasonally, predominantly for winter storm watch
1/20/2012 8:15 AM View Responses

answered question	6
skipped question	2

2. When/why will/do you use (or intend to use) the information? (Check all that are applicable.)

	Response Percent	Response Count
Trip planning	87.5%	7
Under changing conditions only	37.5%	3
During incident conditions (storm/fire etc)	87.5%	7
Daytime hours	62.5%	5
Nighttime hours	50.0%	4
Other (please specify)		3

For work info also
3/14/2012 2:22 PM

On our iPhone while traveling - if we can figure out how to interpret the abbreviations in the Legend. Not much help if we can't figure that out!
1/23/2012 4:41 PM

checking conditions for trucking runs from Northern Sacramento Valley north into Klamath Falls/Tulelake area and south into the San Joaquin Vly
1/17/2012 10:28 PM

answered question	8
skipped question	0

3. Now we would like you to rate the usefulness of the Road/Travel Conditions data on the OSS website that you have used at least once. For each feature that you have not used, please indicate whether you were aware of this feature before taking this survey. (Please make a single selection for each data element.)

	Very Useful	Somewhat Useful	Not Very Useful	Aware of it	Not Aware of it	Response Count
Chain Requirements	**75.0% (6)**	12.5% (1)	0.0% (0)	12.5% (1)	0.0% (0)	8
Road Information	**75.0% (6)**	12.5% (1)	12.5% (1)	0.0% (0)	0.0% (0)	8
Incidents	**75.0% (6)**	12.5% (1)	12.5% (1)	0.0% (0)	0.0% (0)	8
Changeable Message Sign Text	**87.5% (7)**	0.0% (0)	0.0% (0)	12.5% (1)	0.0% (0)	8
CCTV Images	**57.1% (4)**	28.6% (2)	0.0% (0)	14.3% (1)	0.0% (0)	7
RWIS	**42.9% (3)**	28.6% (2)	0.0% (0)	14.3% (1)	14.3% (1)	7
				answered question		8
				skipped question		0

4. Now we would like you to rate the usefulness of Current Weather data on the OSS website that you have used at least once. For each feature that you have not used, please indicate whether you were aware of this feature before taking this survey. (Please make a single selection for each data element.)

	Very Useful	Somewhat Useful	Not Very Useful	Aware of it	Not Aware of it	Response Count
Air Temperature	**75.0% (6)**	0.0% (0)	0.0% (0)	12.5% (1)	12.5% (1)	8
Relative Humidity	**37.5% (3)**	**37.5% (3)**	0.0% (0)	12.5% (1)	12.5% (1)	8
1-Hour Precipitation	**50.0% (4)**	25.0% (2)	0.0% (0)	12.5% (1)	12.5% (1)	8
24-Hour Precipitation	**62.5% (5)**	12.5% (1)	0.0% (0)	12.5% (1)	12.5% (1)	8
AHPS 24-Hour Precipitation	**42.9% (3)**	14.3% (1)	0.0% (0)	28.6% (2)	14.3% (1)	7
Wind	**75.0% (6)**	0.0% (0)	0.0% (0)	12.5% (1)	12.5% (1)	8
					answered question	8
					skipped question	0

5. Please rate the usefulness of Forecast Weather data on the OSS website that you have used at least once. For each feature that you have not used, please indicate whether you were aware of this feature before taking this survey. (Please make a single selection for each data element.)

	Very Useful	Somewhat Useful	Not Very Useful	Aware of it	Not Aware of it	Response Count
Air Temperature	**50.0% (4)**	12.5% (1)	0.0% (0)	12.5% (1)	25.0% (2)	8
Wind Speed	**50.0% (4)**	12.5% (1)	0.0% (0)	12.5% (1)	25.0% (2)	8
Wind Gust Speed	**50.0% (4)**	12.5% (1)	0.0% (0)	12.5% (1)	25.0% (2)	8
Humidity	25.0% (2)	**37.5% (3)**	0.0% (0)	12.5% (1)	25.0% (2)	8
Sky Cover	**37.5% (3)**	12.5% (1)	0.0% (0)	12.5% (1)	**37.5% (3)**	8
12-Hour Chance of Precipitation	**50.0% (4)**	12.5% (1)	0.0% (0)	12.5% (1)	25.0% (2)	8
6-Hour Precipitation	**50.0% (4)**	12.5% (1)	0.0% (0)	12.5% (1)	25.0% (2)	8
Snow	**62.5% (5)**	12.5% (1)	0.0% (0)	12.5% (1)	12.5% (1)	8
Weather	**42.9% (3)**	14.3% (1)	0.0% (0)	14.3% (1)	28.6% (2)	7
				answered question		8
				skipped question		0

6. Please rate the usefulness of the Other Information data on the OSS website that you have used at least once. For each feature that you have not used, please indicate whether you were aware of this feature before taking this survey. (Please make a single selection for each data element.)

	Very Useful	Somewhat Useful	Not Very Useful	Aware of it	Not Aware of it	Response Count
Rest Areas	**50.0% (4)**	25.0% (2)	0.0% (0)	12.5% (1)	12.5% (1)	8
Features of Interest	25.0% (2)	**37.5% (3)**	0.0% (0)	12.5% (1)	25.0% (2)	8
Truck Scales	12.5% (1)	12.5% (1)	12.5% (1)	**37.5% (3)**	25.0% (2)	8
Summit Locations	**37.5% (3)**	**37.5% (3)**	0.0% (0)	12.5% (1)	12.5% (1)	8
					answered question	8
					skipped question	0

7. Now we would like you to rate the usefulness of the features on the website that you have used at least once. For each feature that you have not used, please indicate whether you were aware of this feature before taking this survey (Please make a single selection for each feature.)

	Very Useful	Somewhat Useful	Not Very Useful	Aware of it	Not Aware of it	Response Count
Route Planner	28.6% (2)	14.3% (1)	0.0% (0)	**42.9% (3)**	14.3% (1)	7
Google Map Display & Zoom Function	**57.1% (4)**	0.0% (0)	0.0% (0)	14.3% (1)	28.6% (2)	7
Google Terrain	**42.9% (3)**	14.3% (1)	0.0% (0)	14.3% (1)	28.6% (2)	7
Google Satellite Imagery	**42.9% (3)**	14.3% (1)	0.0% (0)	14.3% (1)	28.6% (2)	7
				answered question		**7**
				skipped question		**1**

8. Based on your experience using the website, please evaluate the site in terms of the following aspects – indicate your level of agreement with these statements.

	Strongly Agree	Somewhat Agree	Neither Agree nor Disagree	Somewhat Disagree	Strongly Disagree	Response Count
The site is well organized and user friendly.	**71.4% (5)**	0.0% (0)	14.3% (1)	0.0% (0)	14.3% (1)	7
The site presents the right amount of information.	**71.4% (5)**	14.3% (1)	0.0% (0)	14.3% (1)	0.0% (0)	7
I would like to see additional information added.	42.9% (3)	0.0% (0)	**57.1% (4)**	0.0% (0)	0.0% (0)	7
I would like to see less information presented.	14.3% (1)	0.0% (0)	28.6% (2)	14.3% (1)	**42.9% (3)**	7
Information should be presented in a different format than the current one.	**28.6% (2)**	0.0% (0)	14.3% (1)	**28.6% (2)**	**28.6% (2)**	7
I find the information presented timely and useful.	**42.9% (3)**	**42.9% (3)**	14.3% (1)	0.0% (0)	0.0% (0)	7
I find the information presented accurate and understandable.	**57.1% (4)**	0.0% (0)	14.3% (1)	28.6% (2)	0.0% (0)	7
				answered question		**7**
				skipped question		**1**

9. What additional information, if any, would you like to have, which is not available currently at this site? (Please specify the type, format, frequency of updating, and accuracy of data, if applicable.)

	Response Count
	3

If this is a statewide effort why is it for instance, that chain controls are not available in the Calif dist 3 area but other districts are?
3/14/2012 2:22 PM

CA 89 chain requirement information missing from Sierraville through Lake Tahoe.
2/29/2012 10:04 AM

When I click on an RWIS icon in Calif, a list of info comes up, but I do not know what all the entries mean. A key or legend would be nice. For instance, what is precipitation type 2 vs type 3. What is "ess"? Estimated? If so, that should be abbreviated "est".
1/17/2012 10:28 PM

answered question	**3**
skipped question	**5**

10. What are the chief benefits of this website to you in the context of your current usage? Please be as specific as possible.

	Response Count
	4

So amazing that this has been created- thanks to all. I love showing it off and sending it to friends and family. It can't be beat for travel planning, and checking on road conditions, accidents, looking at web cam, etc. Beats calling for road conditions.
2/29/2012 11:12 AM

Additional information from what Caltrans Quickmap provides
2/29/2012 10:04 AM

Trip planning during adverse weather conditions.
1/20/2012 8:15 AM

very helpful in helping me to decide when to leave on my run, especially up into Oregon, as that weather changes abruptly at times. The weather data provided (both current and forecast) helps me greatly when traveling on US97. I-5 gets all kinds of informational coverage, but finding info for the other hwys can be very very trying. Also helps to know what to expect in certain trouble prone areas.
1/17/2012 10:28 PM

answered question	4
skipped question	4

11. Please also indicate how this website could be improved to better meet your needs. Consider information content, ease of use of the site, ability to understand what is presented and anything else that could make this site better.

	Response Count
	4

I haven't any at this time
2/29/2012 11:12 AM

CA 89 chain requirement information missing from Sierraville through Lake Tahoe. Because of this, I have to question if other information is being omitted.
2/29/2012 10:04 AM

PLEASE don't use abbreviations on the Legend. Legends are supposed to explain things. CMS, CCTV, RWIS are letter groupings that have no meaning to me. Help us amatures out. Explain yourselves.
1/23/2012 4:41 PM

See question 9
1/17/2012 10:28 PM

answered question	**4**
skipped question	**4**

12. User category:

	Response Percent	Response Count
General public/traveler	**57.1%**	**4**
Transportation professional (ex. DOT)	28.6%	2
Goods movement/commercial trucking	14.3%	1
Law enforcement	0.0%	0
Other (please specify)		1

also work for a county, and we have a link to it for public using our front facing GIS pages
2/29/2012 11:12 AM

answered question	**7**
skipped question	**1**

13. (OPTIONAL) Please enter your contact information (Note: information will be kept private/confidential and will be used for study purposes only).

	Response Percent	Response Count
Name	66.7%	4
Location (state)	100.0%	6
Northern California 2/29/2012 11:12 AM		
Truckee, Nevada County, California 2/29/2012 10:04 AM		
California 1/23/2012 4:41 PM		
Oregon 1/20/2012 8:15 AM		
Redding, CA 1/19/2012 11:27 AM		
N California 1/17/2012 10:28 PM		
Email	66.7%	4
	answered question	**6**
	skipped question	**2**

Direct Comments

Check out NOAA's NWS geographical forecasts at http://graphical.weather.gov/sectors/stoWeek.php. Click the expand' hyperlink located at the upper left corner of the table to get a larger table (more hyperlinks). Then hover the mouse over the table to view updated graphical images by the hour. Complete District 2 coverage would be great to incorporate for CT scheduling at TMC, Dispatch, and Maintenance levels. It's an interesting display approach and something to consider.

May want to be thinking of a way to monitor server performance and when it degrades, cap it at a fixed number of users and put up a server busy notice to all others. I think that would be preferable to a major speed bog down for everyone. Maybe I am just having a fit of wishful thinking.

I think we should have a link added to the www.weathershare.org as well.

I recommend having a date and time stamp placed somewhere on the map to ensure that users are using current information. Remember that each individual data stream or data point has its own time of update and they are all different. You will notice that each data element has a timestamp when you pull it up. It will likely be significantly different from other similar elements (for example the CCTV at Dorris vs. the CCTV at Hatchet Mtn. are 25 minutes different) Users need to pay attention to the timestamp on the particular data they are accessing because it will likely vary. This is a semi-real-time system and as we expand it to more states the time variability will increase. The automatic updates of the user interface should allow the user to alert on something that has obviously changed - like a CMS being turned on and the icon going yellow or an incident happening. You still need to open it and see when the actual event happened.

Had a suggestion from … here in the district to add Postmiles to the site. We do that on our district CCTV elements that we display on the district web site. It may not be a bad idea to do it. The public generally doesn't understand the postmile system (in my opinion it's another one of the ongoing stream of great Caltrans PR blunders - because it would be really helpful for them in reporting accidents, etc.), but transportation users do and it would make the site more valuable to them.

Couple of questions.

I noticed that OSS shows no chain control "tires" on the map, but QuickMap and D3's chain control map show R2 on SR 80 and SR 50. Is there a problem with OSS?

When you turn off some of the choices (RWIS, Cameras, etc.) and then close out the internet, when you return to OSS all the choices are back and you have to turn them off again. Any way to keep them off for the next time?

I wonder if it is worth doing a 5 minute YouTube video on OSS and how to use it. Maybe, have some of the tags tie it to weather, storm chasers, as well as travel.

Really cool site! Very useful!

Investigate the following for chain control data: http://www.dot.ca.gov/chaincontrol/ccdata.txt

Totally cool !

I had this thought which I think would enhance OSS. It would be useful to visually code the chain control symbols based on the chain control level (i.e. light blue symbol for R-1M, blue forl R-1, red for R-2, etc.). That way, you wouldn't even have to zoom in and click on the symbol to see the restrictions and you'd have a better feel for the entire corridor. We could attempt to match the coloring scheme as closely as possible across state lines as well.

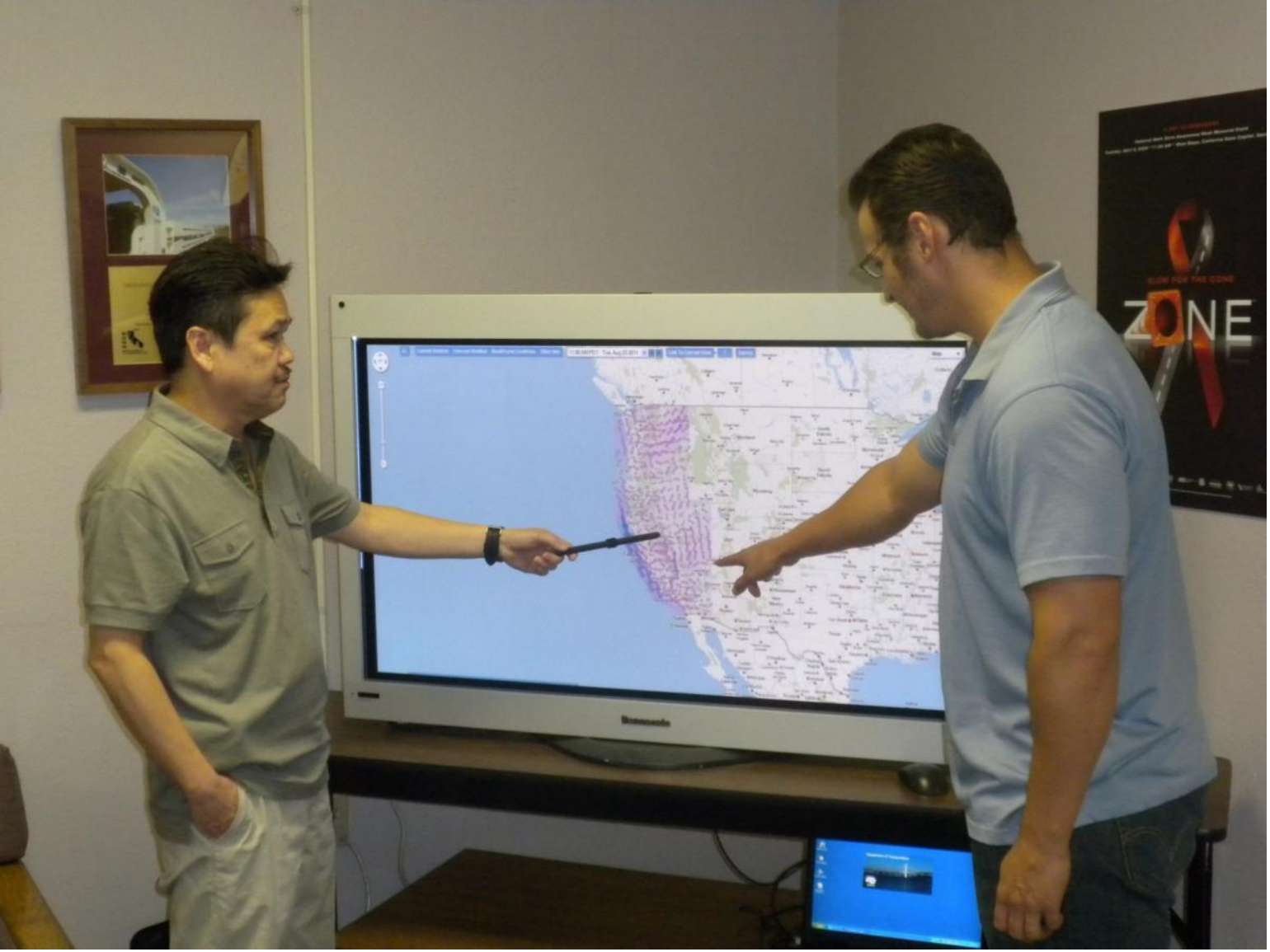
This is fantastic! It will be really useful for planning our trips when we are doing field work or visiting our agencies. Thank you for sharing.

Thank you! Great resource!

Had a CMS phantom occur early afternoon yesterday. The CMS at "Walters Lane S/B - Yreka" was yellow indicating it had a message up. After clicking on the icon the window popped up but showed a blank CMS. Tried this several times over the course of an hour (approximately 13:00 to 14:00). Sign icon went back to black/gray later in the afternoon.
Checked with the TMC before I left for the day at they said they did have the sign on and there was a message about an accident around the time I saw the yellow icon.

I have not noticed this problem before on any of our CMSs.

Thanks - looks cool.



Western States OSS on the big screen in the Caltrans Division of Research and Innovation lobby in Sacramento

Photo by Sean Campbell

Future Items of Interest

- Report a problem and Automated Quality Control Methods
- Better ways to test interface elements: A/B testing?
- Other ways to get the word out – Social Networking?
- Other devices?
- Expansion
- Sustainability
- Other?

Western States OSS

Try it out:

http://oss.weathershare.org/

For further information:

http://www.westernstates.org/Projects/OSS/

Brief Live Demonstration

- If time, network, etc. allow …

Questions?