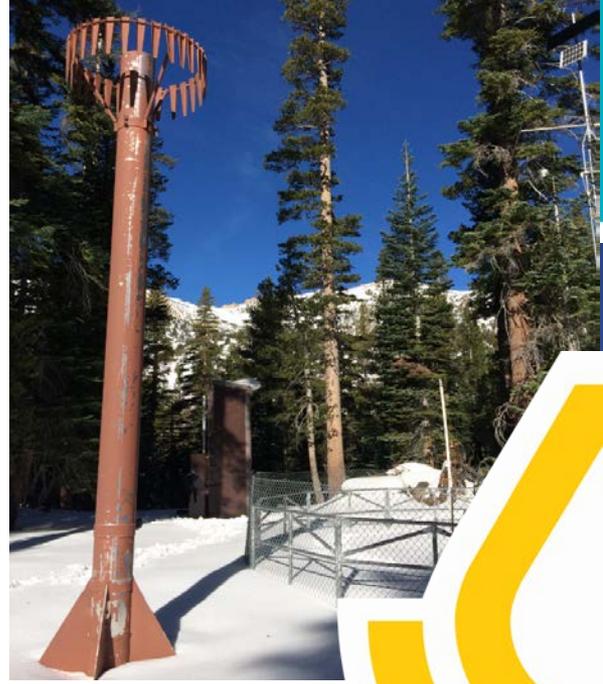
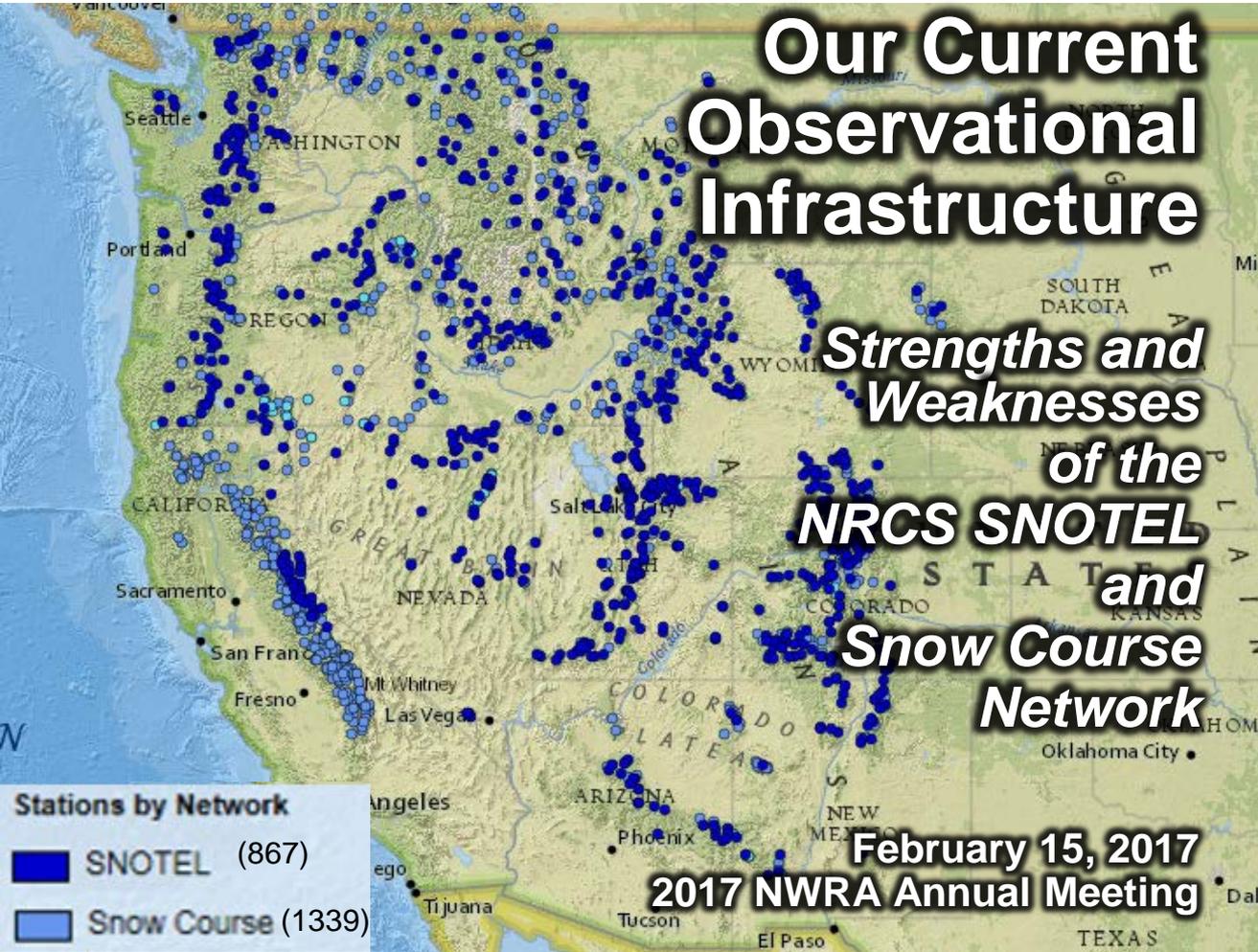




United States Department of Agriculture



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Nevada NRCS Snow Survey

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Natural Resources Conservation Service

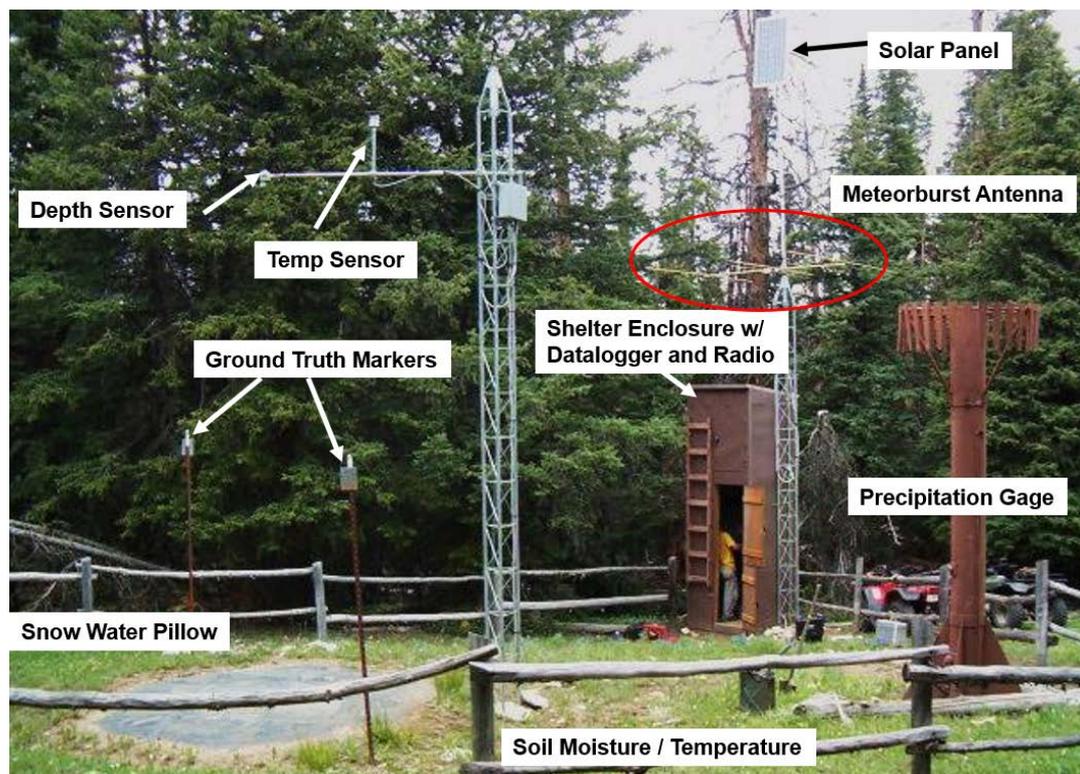
www.nv.nrcs.usda.gov/snow

Objective: Installed to forecast seasonal streamflow

Snow Courses *snow tube transect*

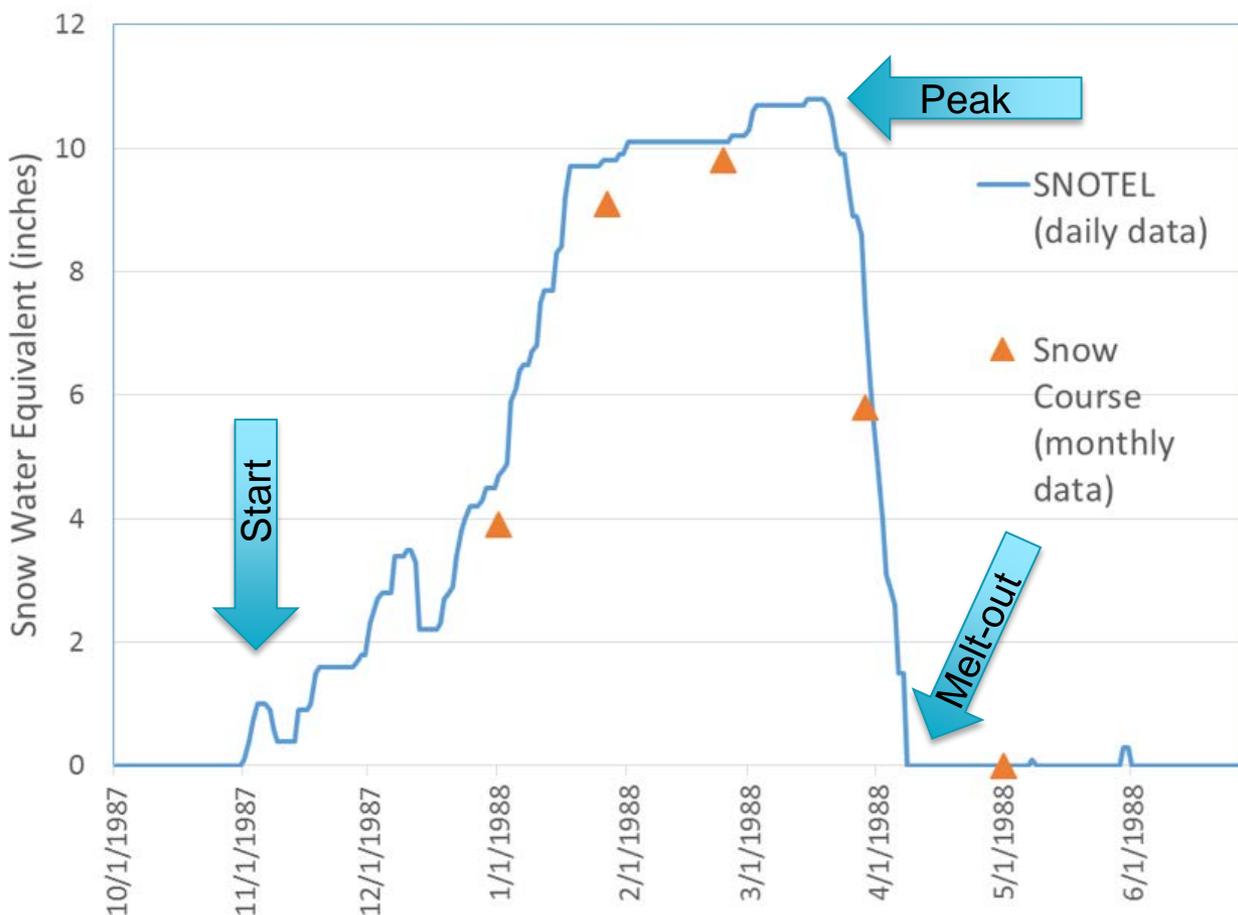


SNOTEL Stations *automated weather station with snow pillow*

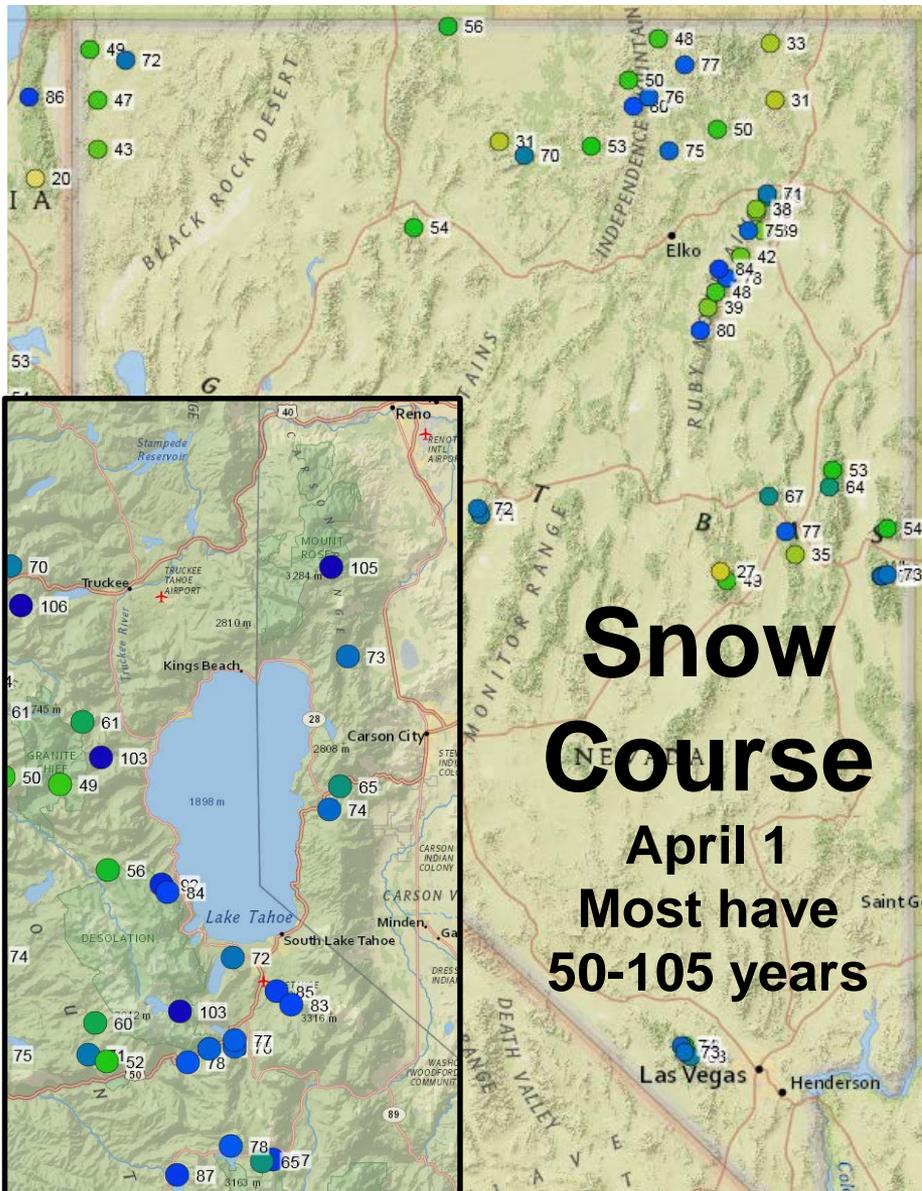


Strength: SNOTEL reports hourly instead of monthly. Daily data is QC'd weekly

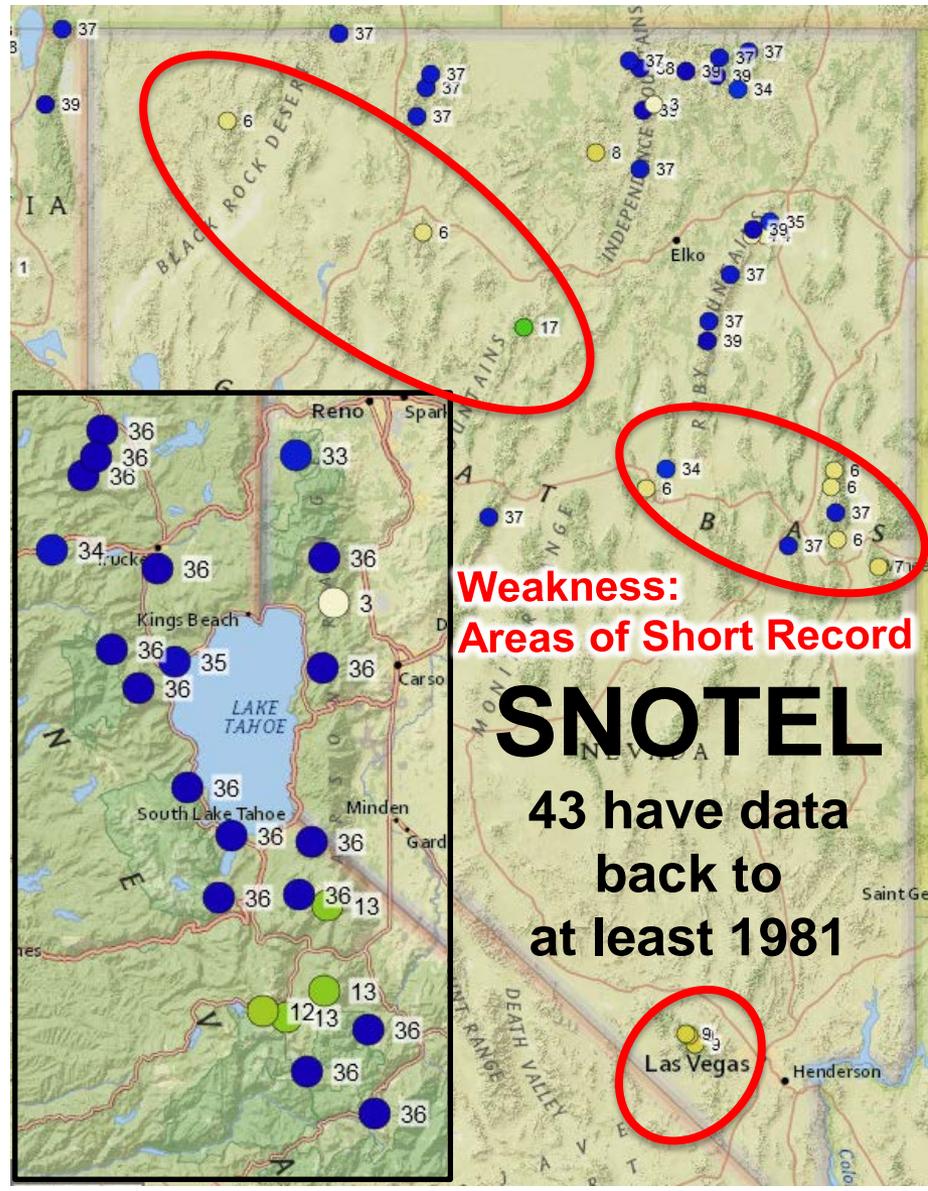
Marlette Lake, Nevada - Snow Water - 1988



Strength: Period of Record



Snow Course
 April 1
 Most have
 50-105 years



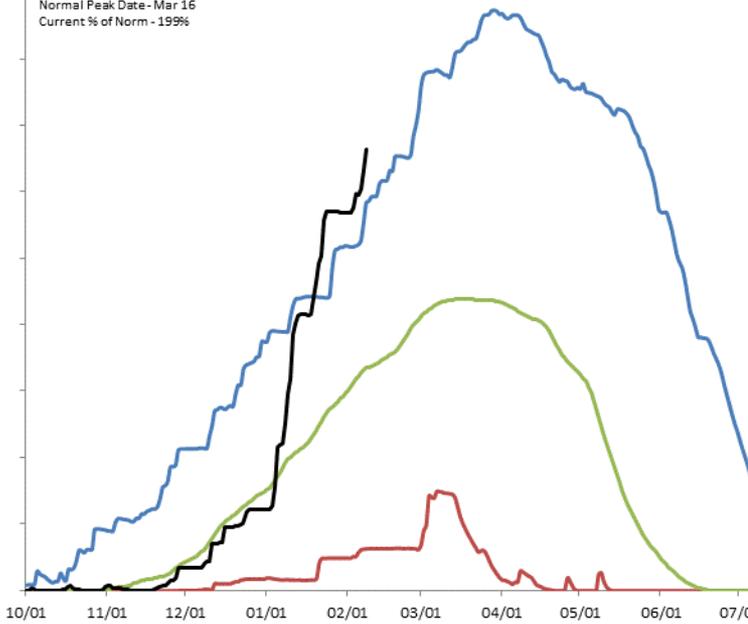
Weakness:
 Areas of Short Record

SNOTEL
 43 have data
 back to
 at least 1981

Las Vegas

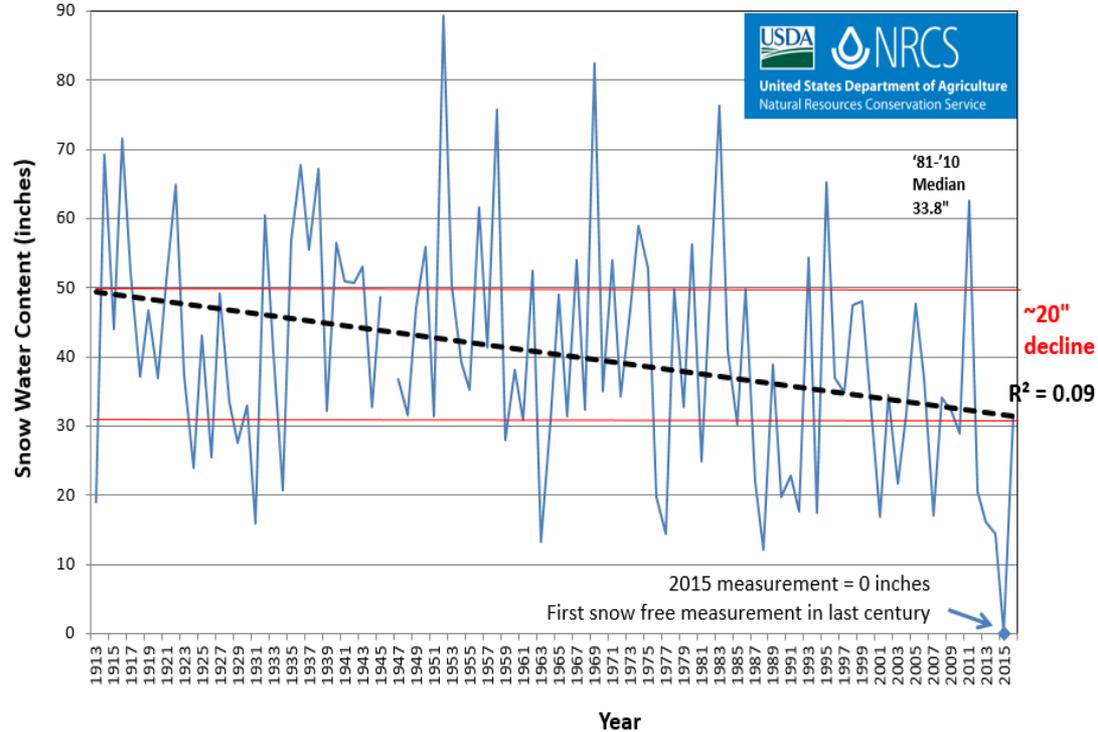
Index of Snow Water Equivalent

Created: February 08, 2017
 # of sites - 9
 Normal Peak SWE - 21.933 in
 Normal Peak Date - Mar 16
 Current % of Norm - 199%



Period of Record allows for context of extreme events

Ward Creek #2 Snow Course, Lake Tahoe Basin, 7100ft
 April 1 Snow Water Content for Years 1913-2016



Weakness: Snow course measurements may miss early peaks

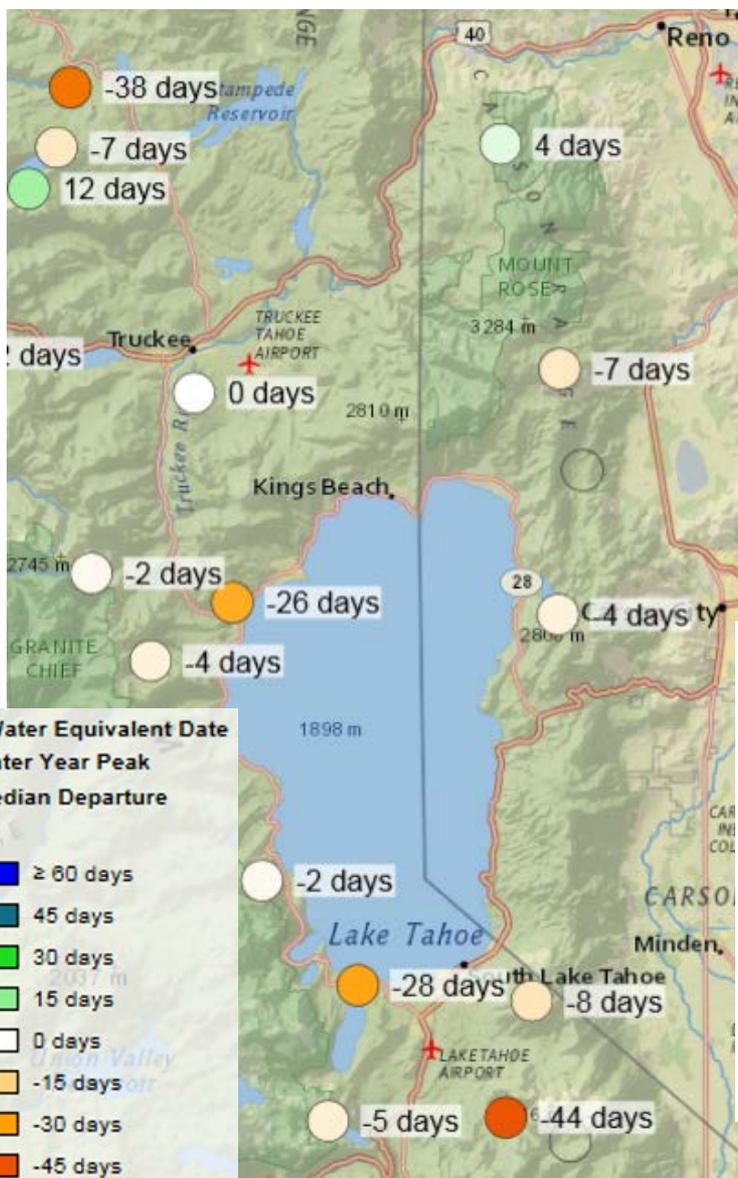
Snow Courses measured each month
(NV and Eastern Sierra)

Feb 1 = 49

Mar 1 = 61

Apr 1 = 69

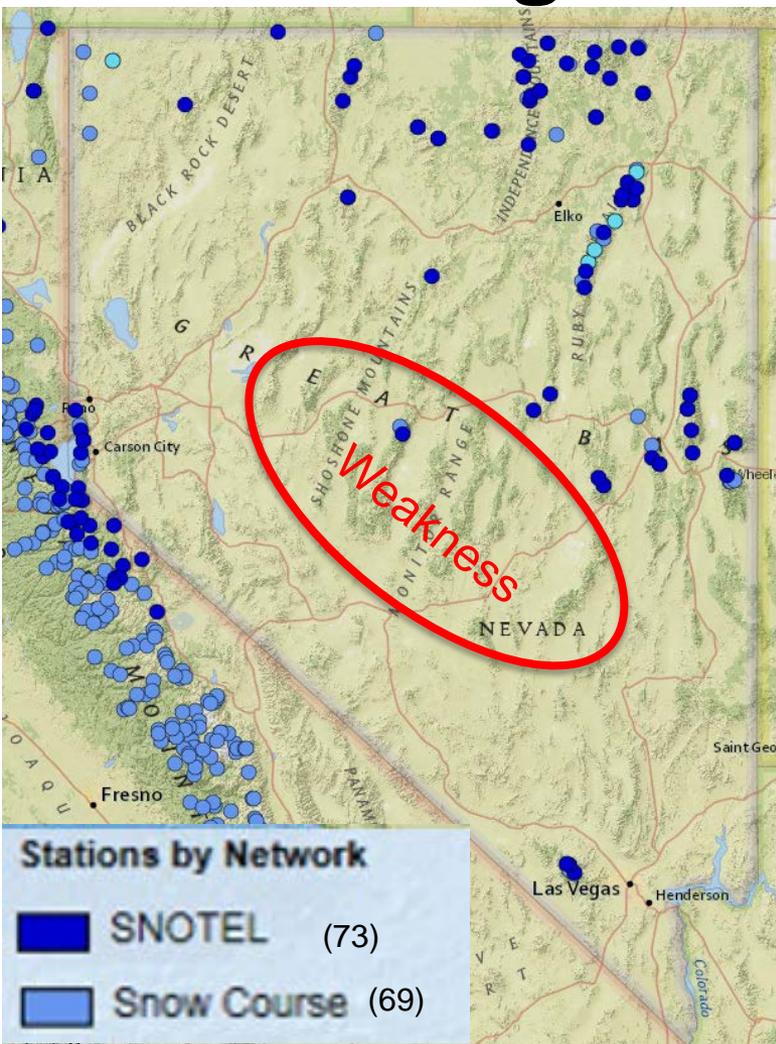
2016 was an near normal snow year,
yet some lower SNOTELs peaked 1
month or more early



Hagan's Meadow

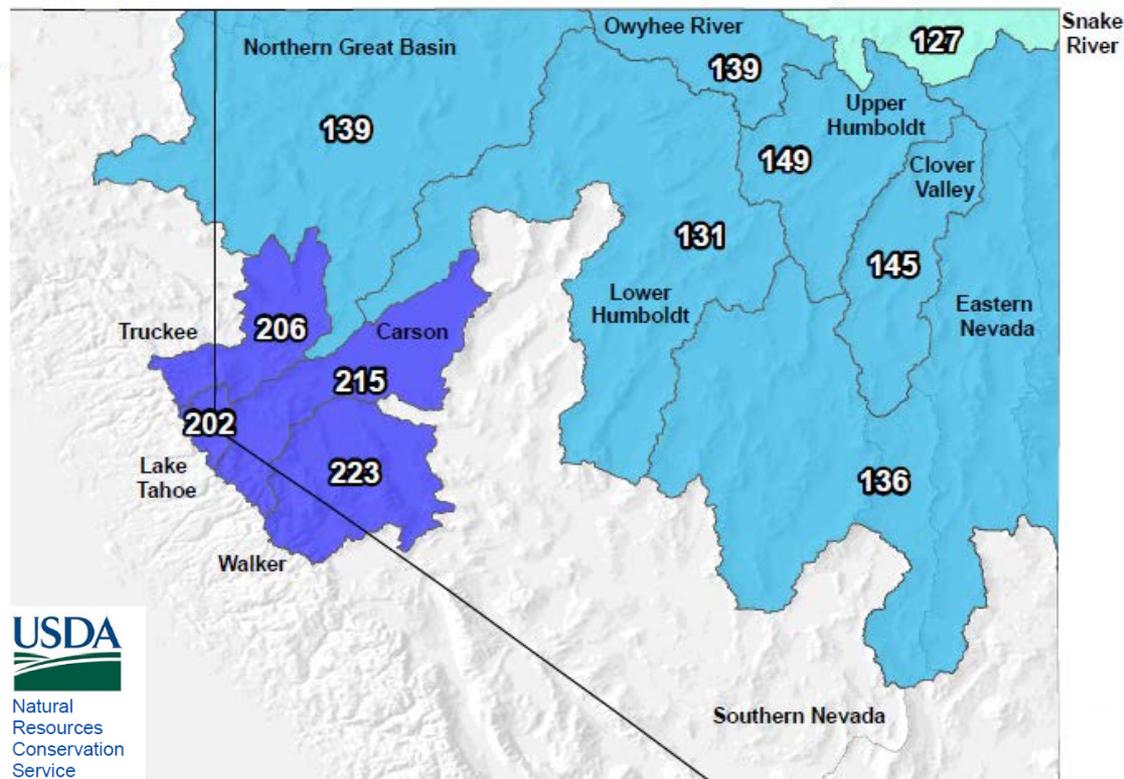
Snow Water Equivalent Date of Water Year Peak for 2016			
Value:	02-08	Anomaly (POR):	-44 days
POR Median:	03-23	NRCS 1981-2010 Median:	
% of POR Median:	75%	% of NRCS 1981-2010 Median:	
POR Average:	03-20	NRCS 1981-2010 Average:	
% of POR Average:	76%	% of NRCS 1981-2010 Average:	
Percentile (POR):	0	# of Observations (POR):	37
Maximum (POR) (year):	05-05 (1983)	Maximum Rank (POR):	38
Minimum (POR) (year):	02-09 (2015)	Minimum Rank (POR):	1

Strength: Coverage of Network



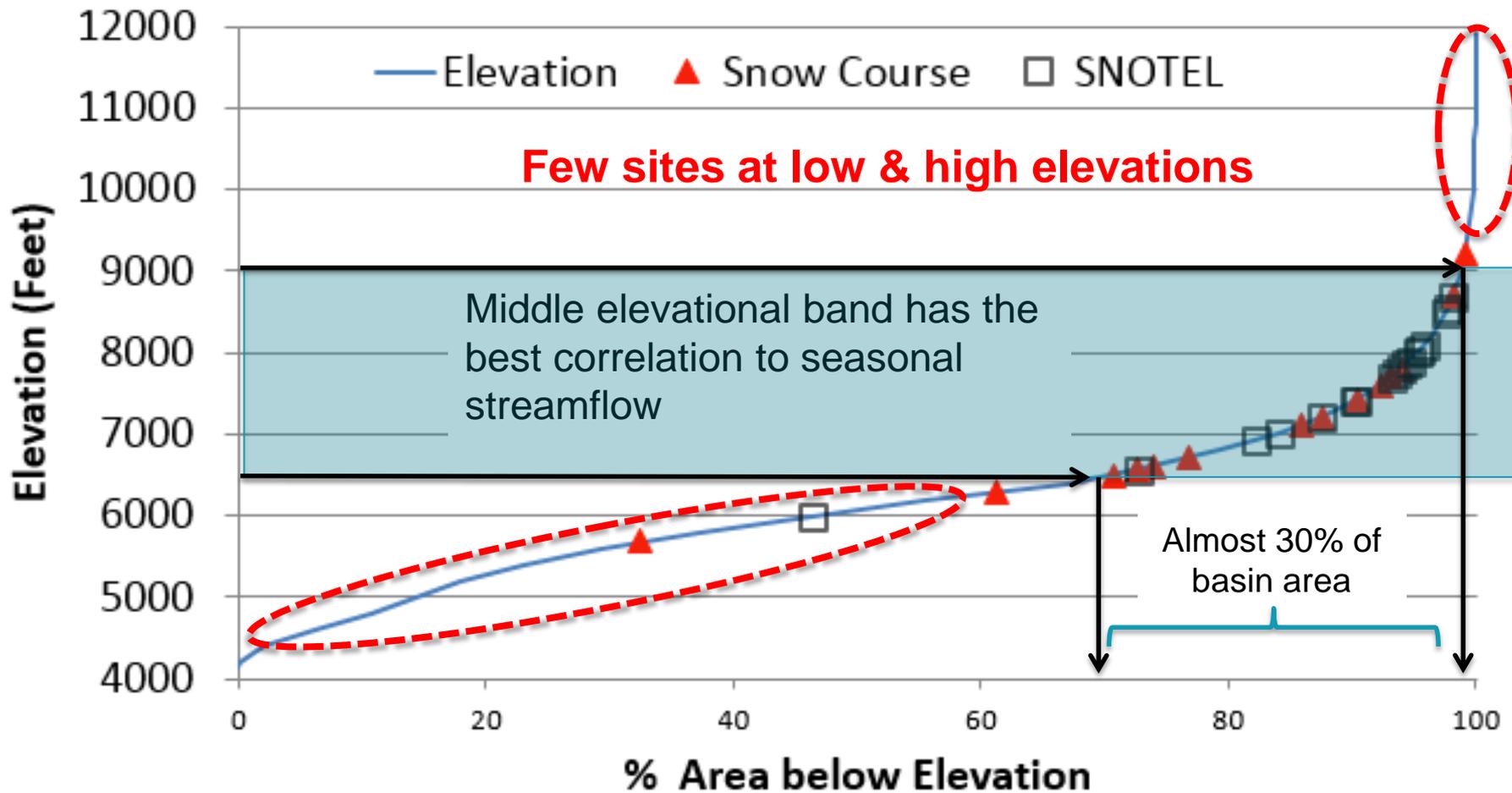
Feb 13, 2017

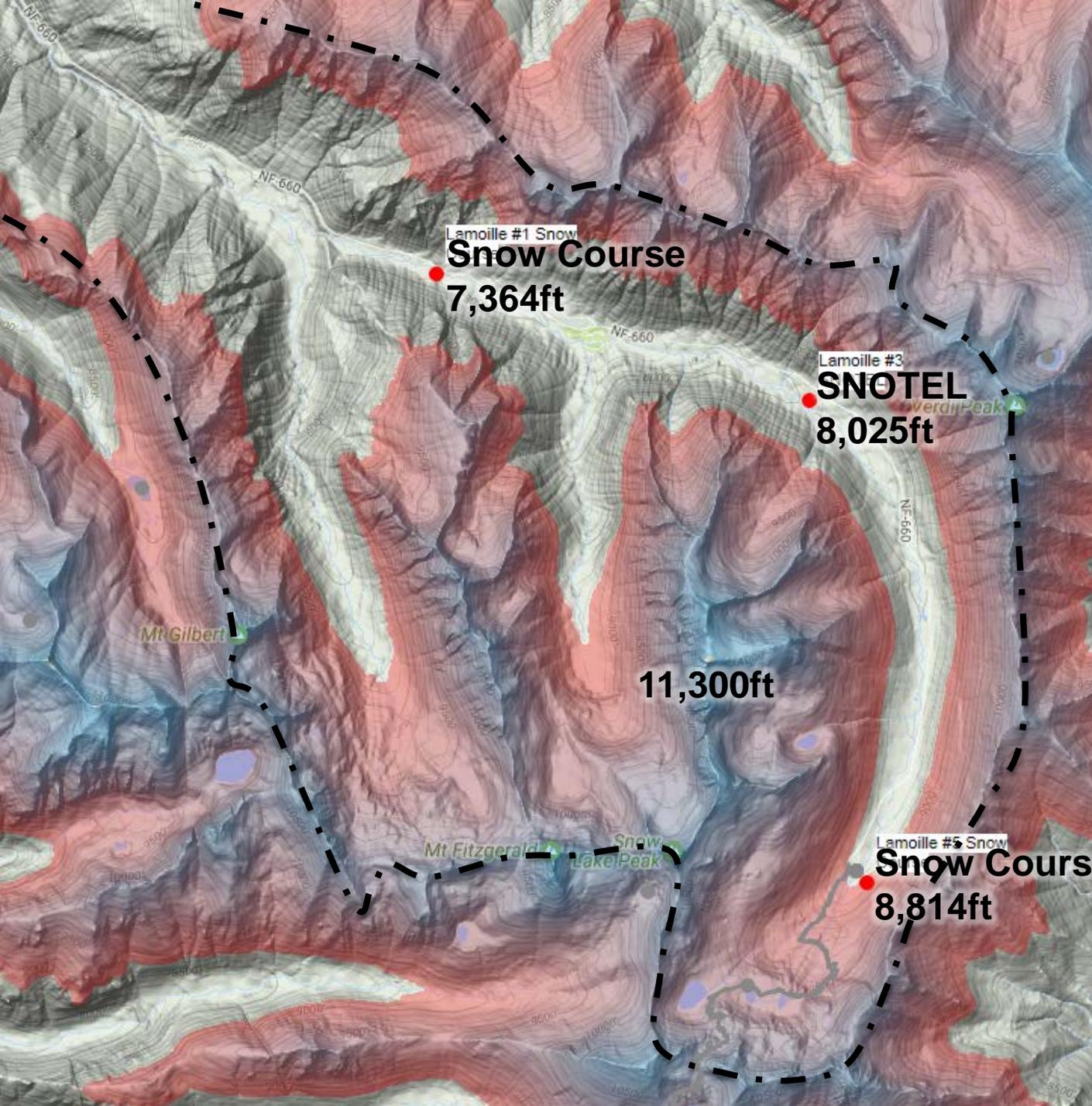
Nevada/California SNOTEL Current Snow Water Equivalent (SWE) % of Normal



Weakness: Point coverage not blanket coverage.

Humboldt R above Imlay Area-Elevation & Site Distribution





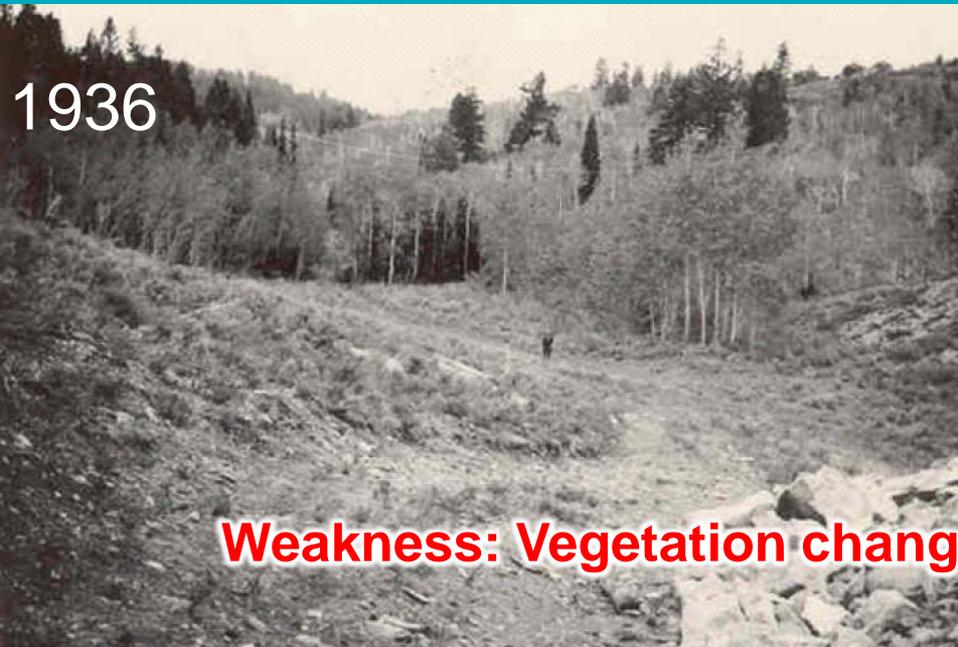
**In some
small basins
much of the
land area can
be above the
highest
stations**

**Lamoille
Canyon
Ruby Mtns, NV**

Weakness: Vegetation changes can weaken historic correlation



**Pre and Post wildfire
Dollarhide SNOTEL, near Sun Valley, Idaho**



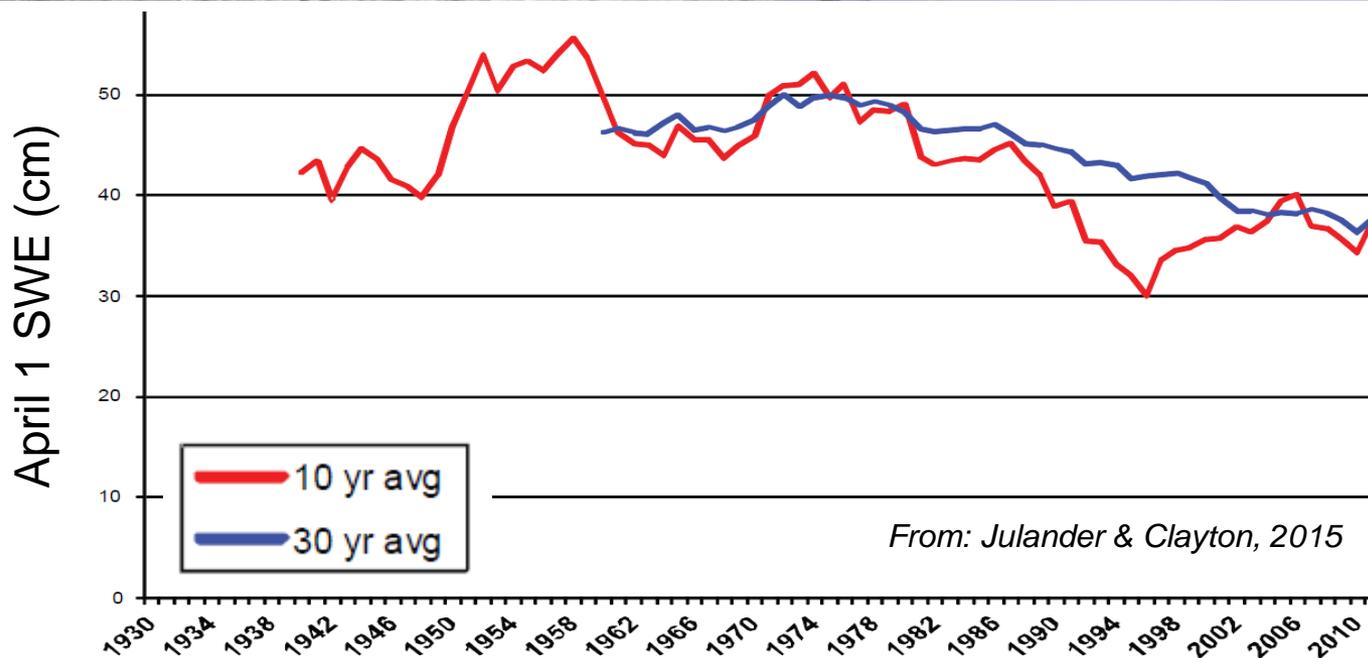
1936



2005

Weakness: Vegetation changes affect historic comparisons

Garden City Snow Course, Utah



Boom or Bust

