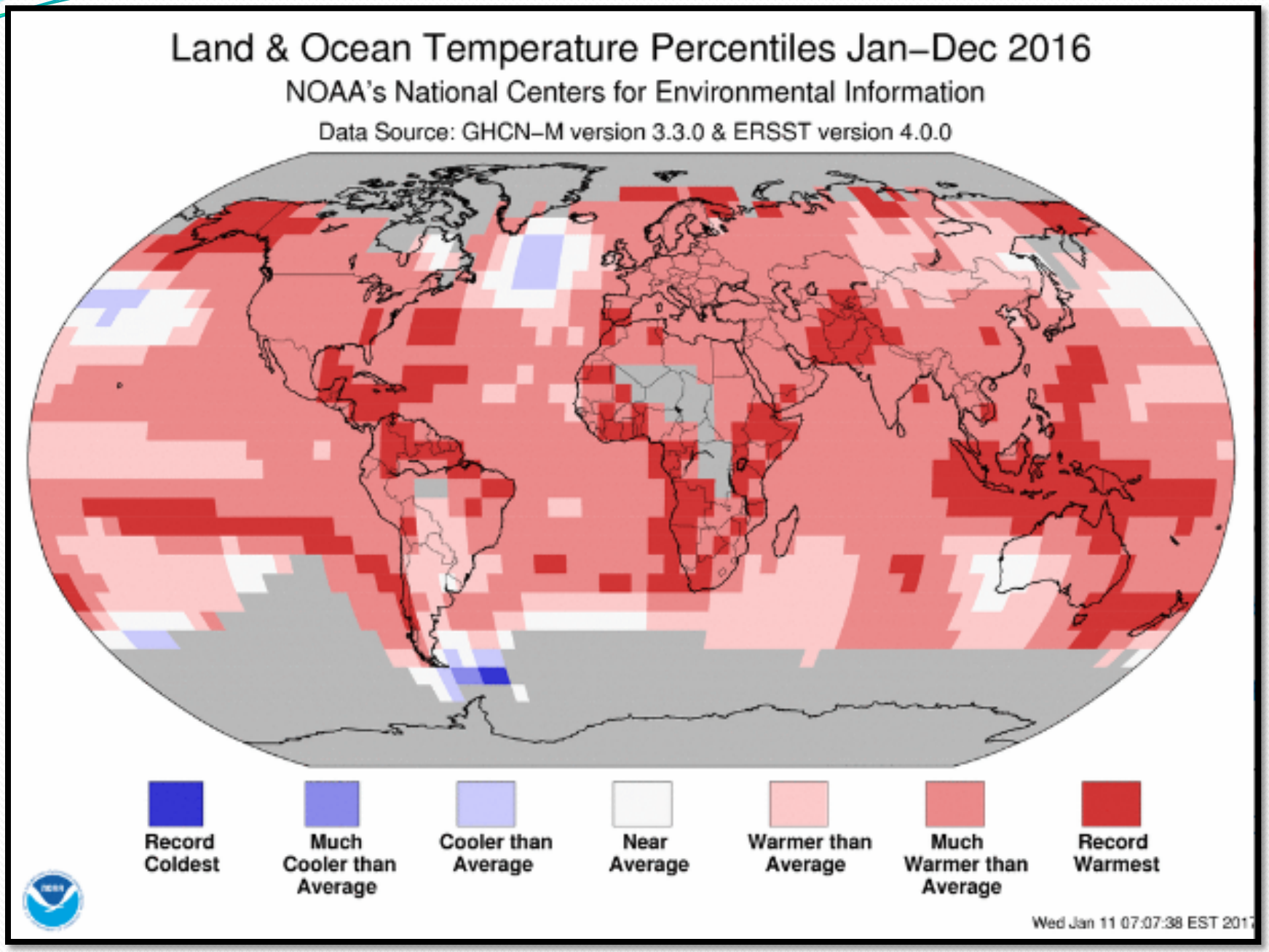
Damage and Disruption to Water Infrastructure

Carrie Bohan, DEC

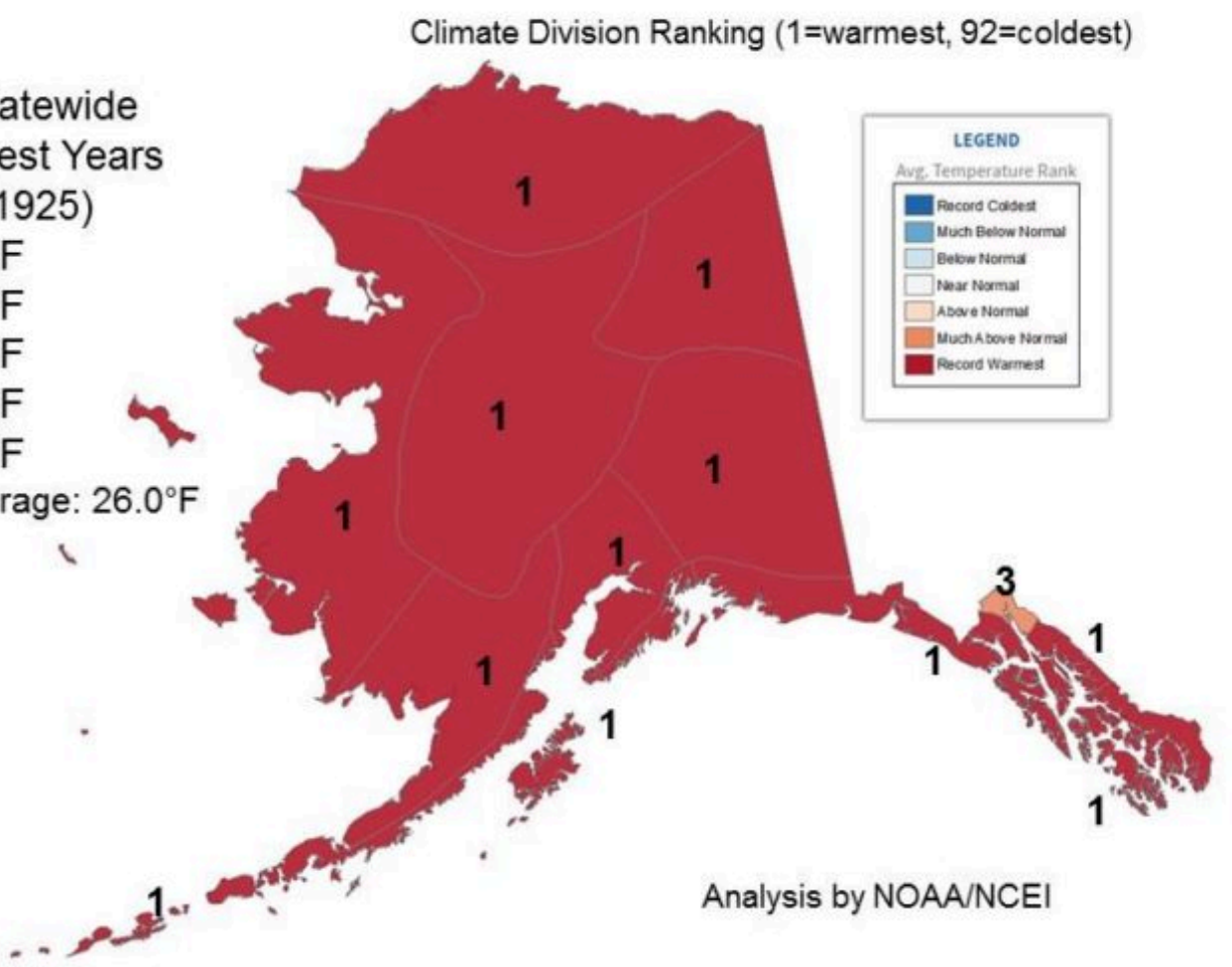

Land & Ocean Temperature Percentiles Jan–Dec 2016
NOAA's National Centers for Environmental Information
Data Source: GHCN–M version 3.3.0 & ERSST version 4.0.0
Record Coldest
Much Cooler than Average
Cooler than Average
Near Average
Warmer than Average
Much Warmer than Average
Record Warmest
Wed Jan 11 07:07:38 EST 2017

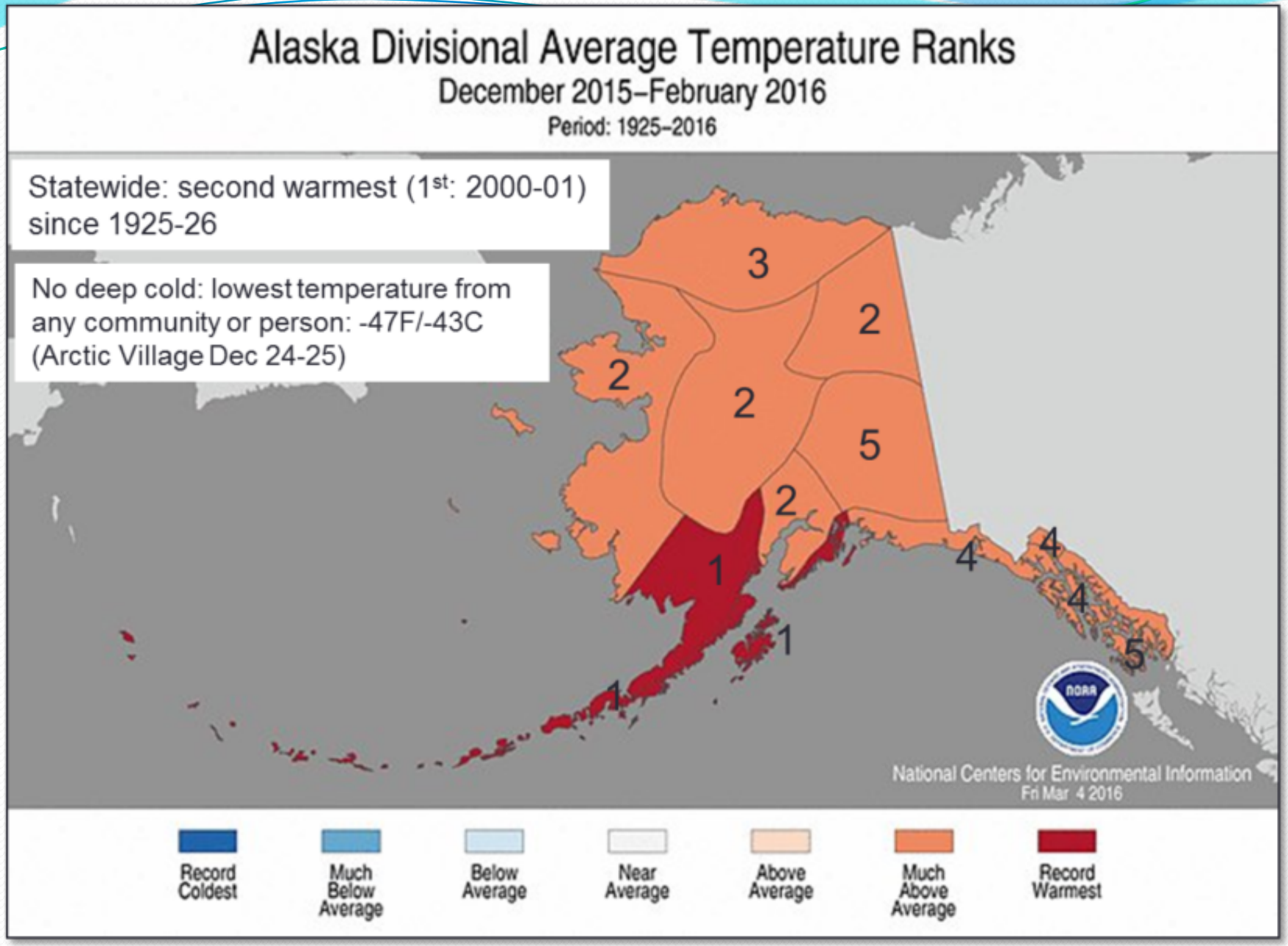
2016: Warmest Year in Alaska

Alaska Statewide
Five Warmest Years
(since 1925)

- 2016 31.9°F
- 2014 30.3°F
- 2015 30.1°F
- 2002 30.1°F
- 1993 29.9°F

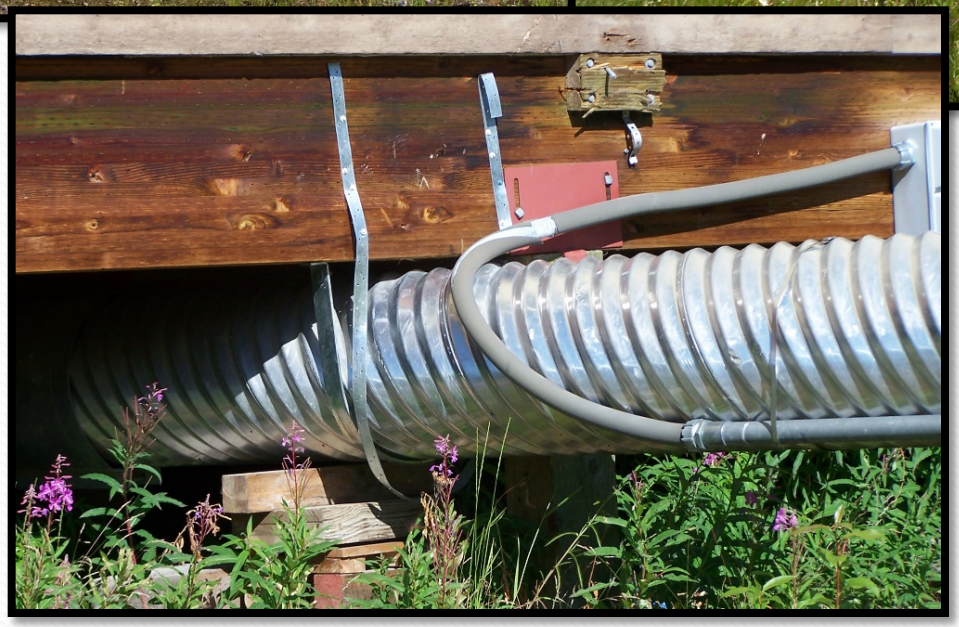
20th century average: 26.0°F




Alaska Divisional Average Temperature Ranks
December 2015–February 2016
Period: 1925–2016
Statewide: second warmest (1st: 2000-01) since 1925-26
No deep cold: lowest temperature from any community or person: -47F/-43C (Arctic Village Dec 24-25)
3
2
2
2
5
2
1
1
1
4
4
4
5
National Centers for Environmental Information
Fri Mar 4 2016
Record Coldest
Much Below Average
Below Average
Near Average
Above Average
Much Above Average
Record Warmest

Impacts of climate change

- Warming
  - Permafrost melting or heaving
  - Reduced source water availability
- Changing weather conditions
  - Increased storm frequencies and intensities
  - Erosion




THERMISTER TUBE

Aerial of Landfill (ADEC 2012)

Eroding Riverbank at Entrance (ADEC 2012)

Waste Spreading to Entrance (ADEC 2012)

Burn Units at Entrance (ADEC 2012)

Eroding Riverbank at Entrance (ADEC 2012)

Eroding Riverbank at Entrance (ADEC 2012)