



Great Salt Lake Advisory Council

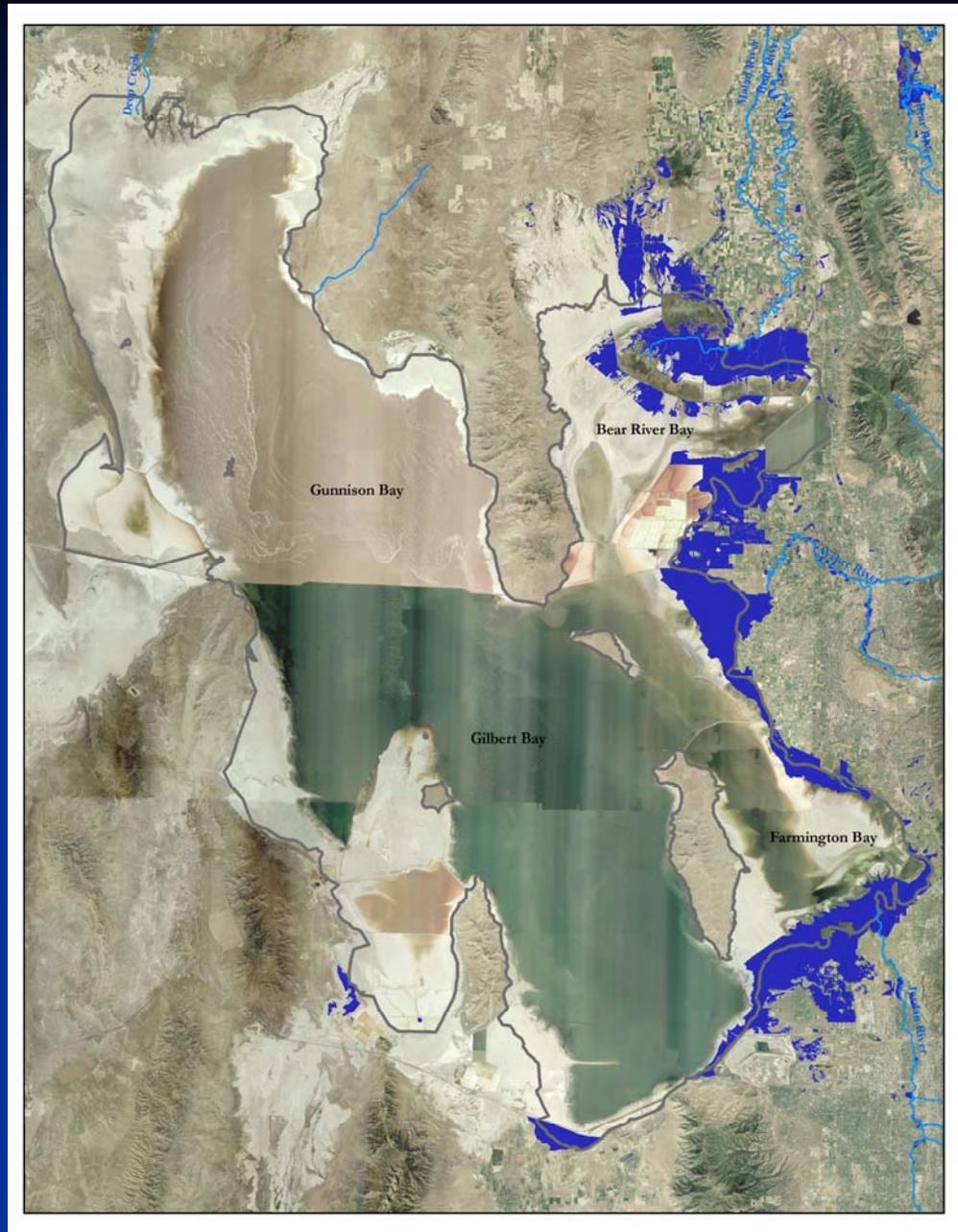
photo - Charles Uibel - greatsaltlakephotos.com



Jodi Gardberg, Great Salt Lake Watershed Coordinator
Utah Department of Environmental Quality/Division of Water Quality

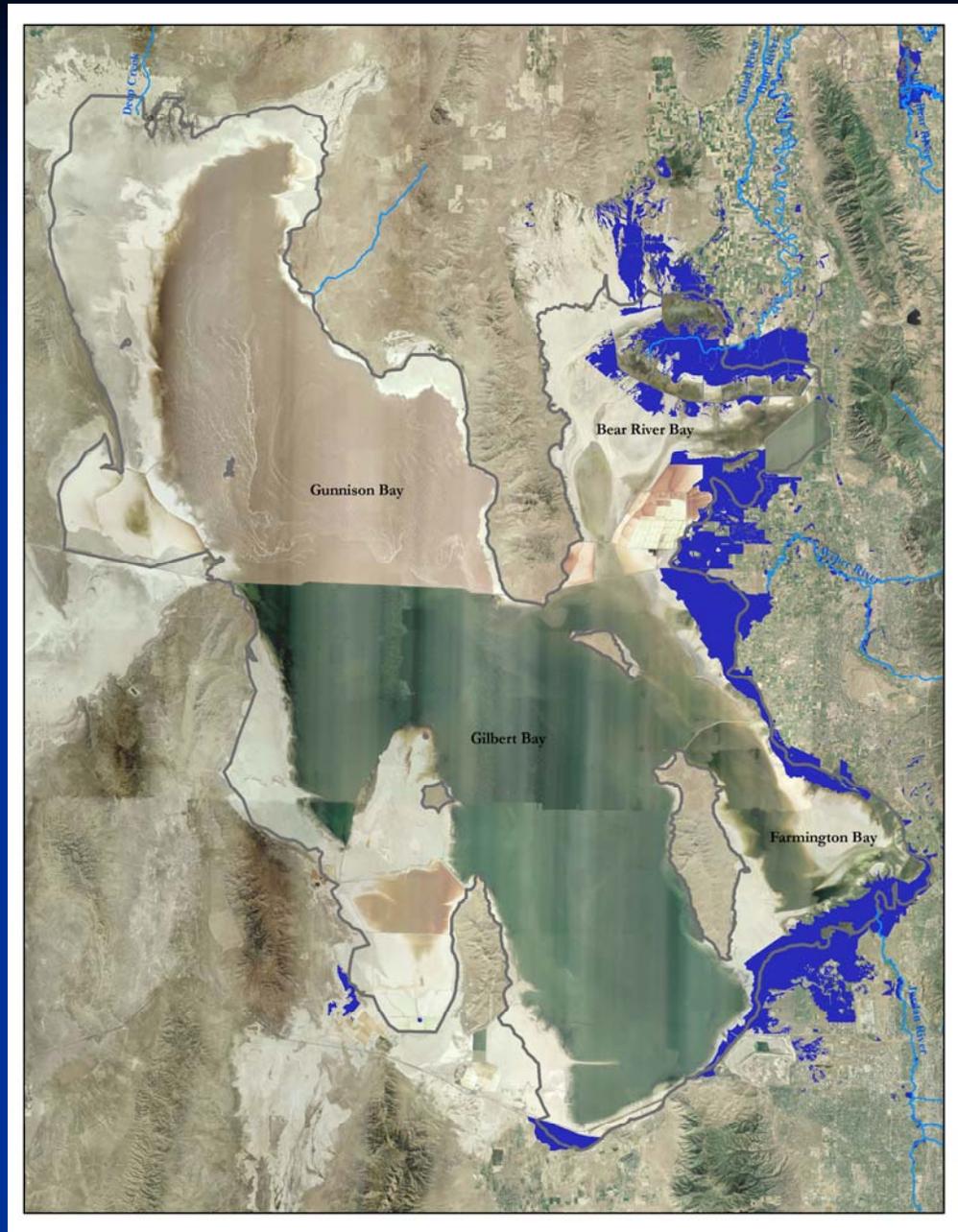
Great Salt Lake Facts

- ❑ Fourth largest terminal lake in the world
- ❑ Typically 3 to 5 times saltier than the ocean
- ❑ Supports between 2 and 5 million shorebirds and is part of the Western Hemisphere Shorebird Reserve Network
- ❑ 80% (427,000 acres) of Utah's Wetlands reside along Great Salt Lake



Great Salt Lake Receives Water from:

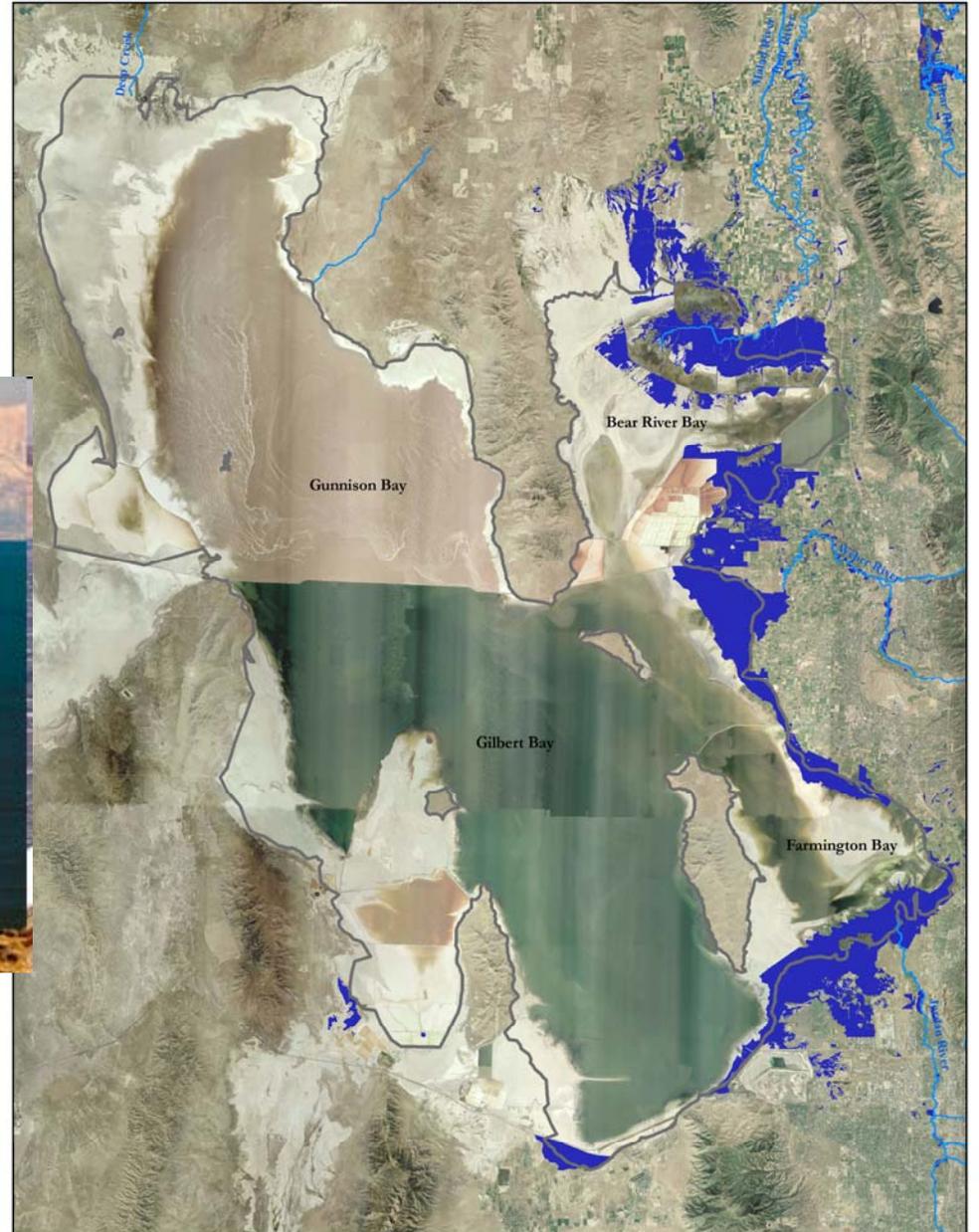
- ❑ Major Rivers (Bear, Weber, Ogden and Jordan) and numerous small creeks and streams – 66%
- ❑ Direct Precipitation – 31%
- ❑ Groundwater – 3%



Railroad Causeway



photo - Charles Uibel - greatsaltlakephotos.com



North Arm – Gunnison Bay



North Arm – Gunnison Bay



photo – Wayne Wurtsbaugh - USU

Bear River Bay



Bear River Bay



Wayne Wurtsbaugh

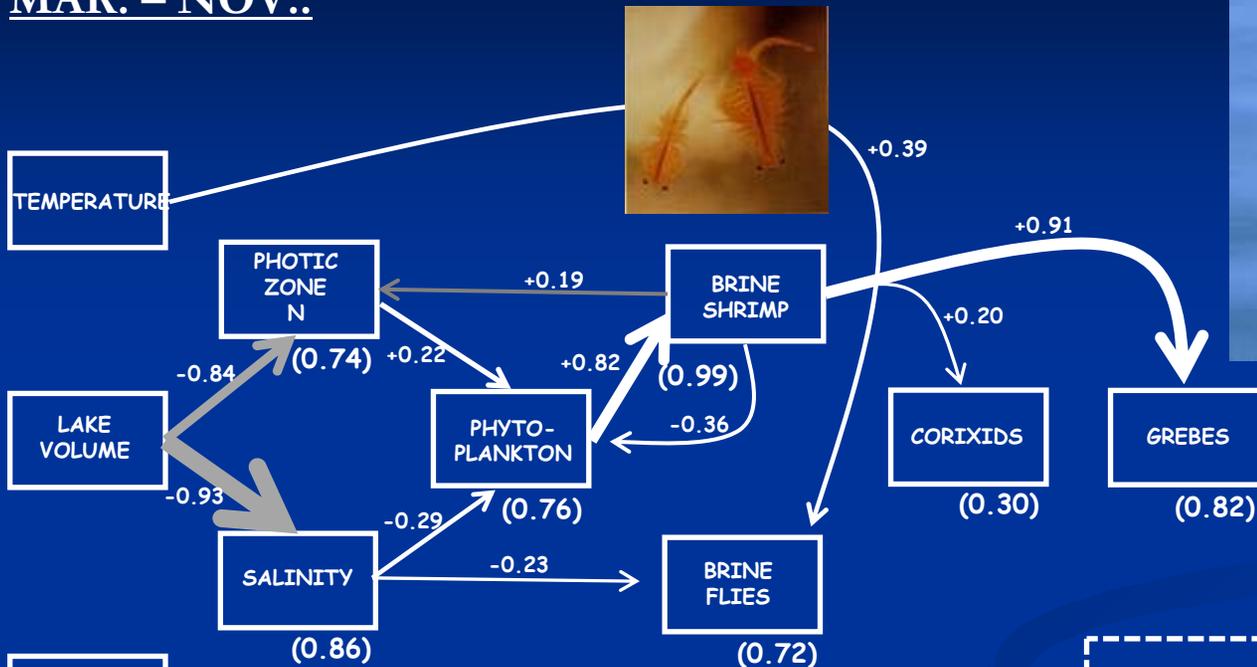
photo – Wayne Wurtsbaugh - USU

South Arm - Gilbert Bay



Gilbert Bay Food Web

MAR. – NOV.:

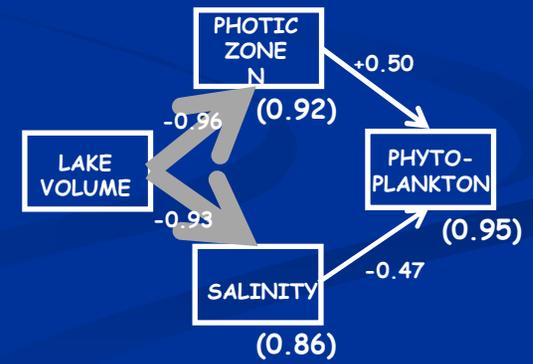


WATERSHED INFLOWS ?

DEEP BRINE LAYER ?



DEC. – FEB.:



GARY E. BELOVSKY
 Director, Environmental Research Center
 University of Notre Dame

Farmington Bay



Davis County-Antelope Island Causeway

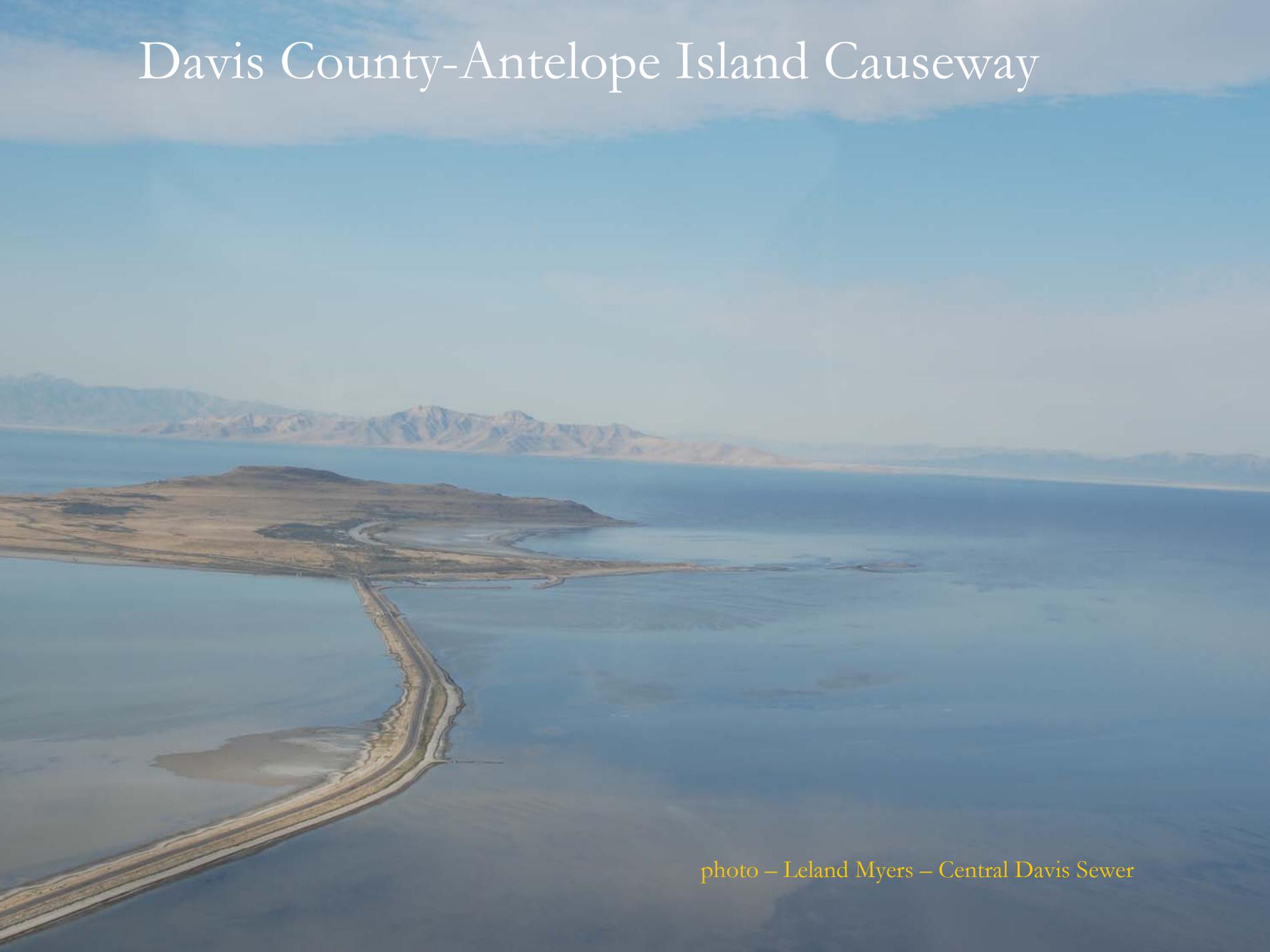
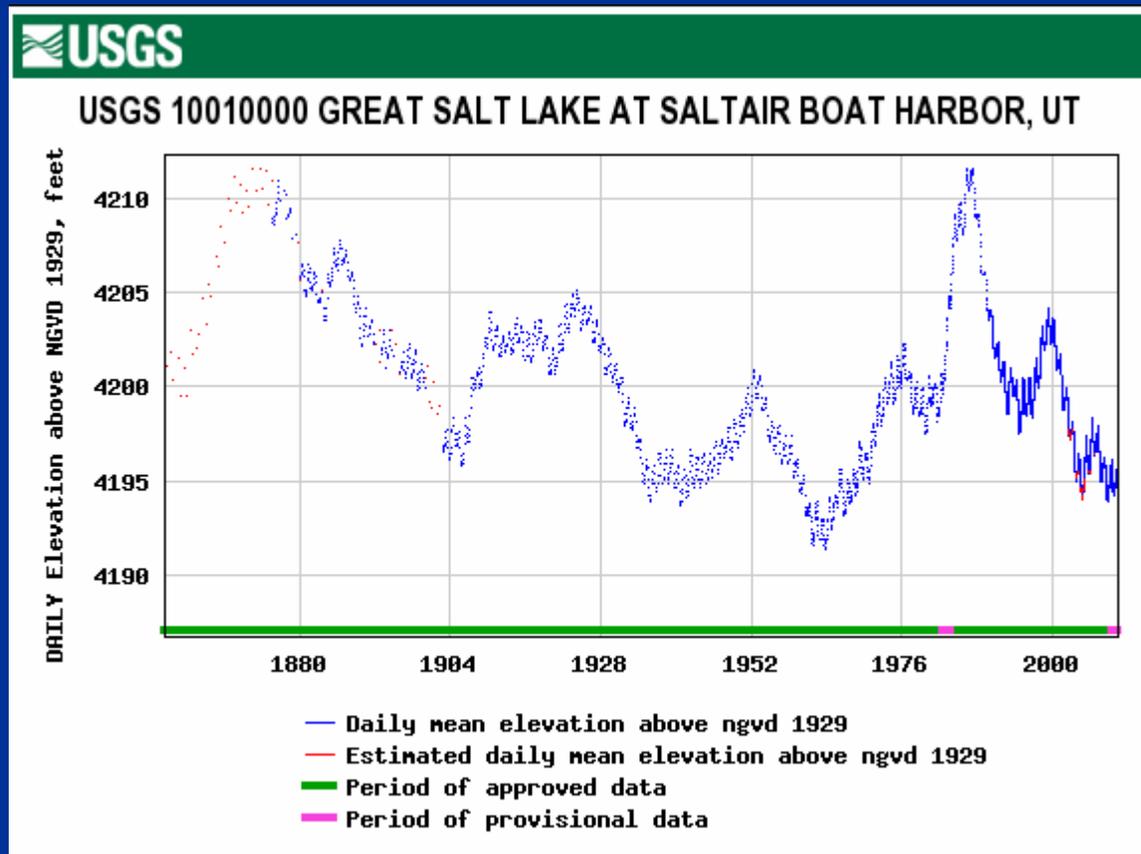


photo – Leland Myers – Central Davis Sewer

Lake Elevation

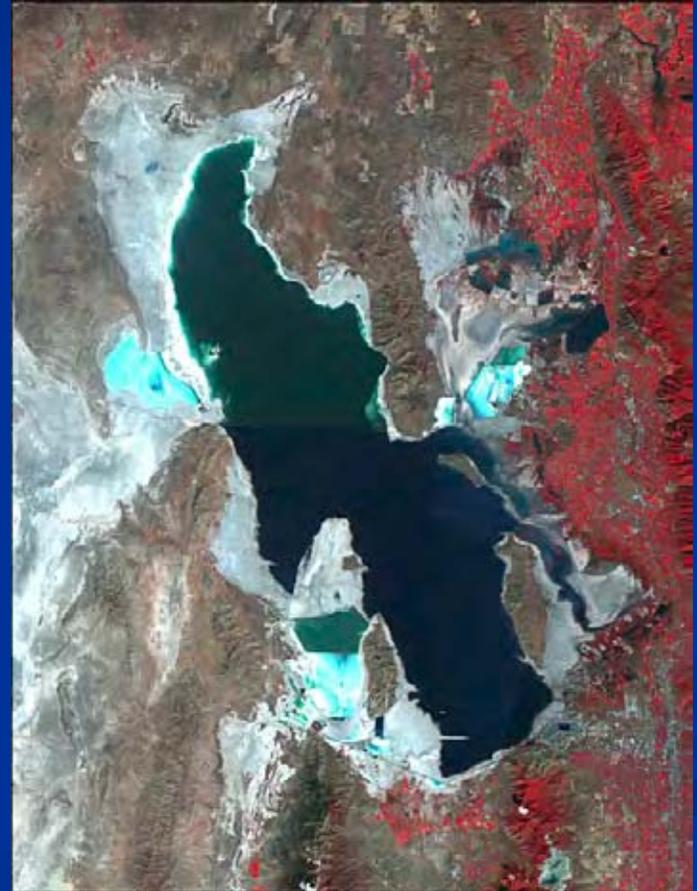
- High – 1986/1987 at 4211.85 feet
- Low – 1963 at 4191.35 feet
- July 21, 2010 at 4195 feet



Lake Elevation



1999



2009

Great Salt Lake Wetlands



The Nature Conservancy's Shoreland Preserve

Uses - Brine Shrimp

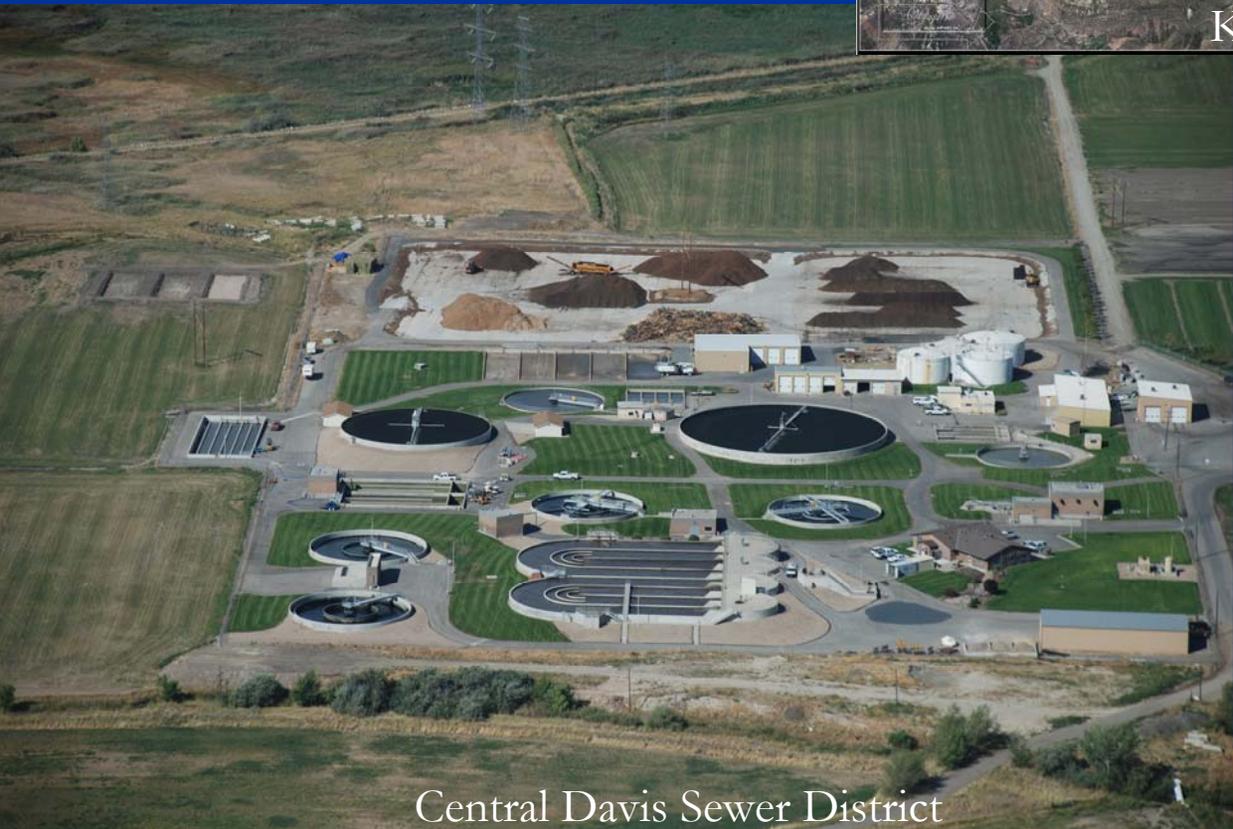


(Al Hartmann/ The Salt Lake Tribune)

Uses - Mineral Extraction



Uses - Dischargers



Central Davis Sewer District



Uses – Shorebirds, waterbirds and waterfowl



Waterfowl

- 60,000 Tundra Swans
- 1,000,000 Pintail
- 100,000 Gadwall
- 80,000 Cinnamon Teal
- 500,000 Mallard
- 60,000 Ruddy Ducks
- 600,000 Green-winged Teal
- 50,000 Canada Geese
- 150,000 Redhead
- 50,000 Canvasback
- 100,000 Shoveler

Shorebirds and Waterbirds

- 500,000 **Wilson's Phalaropes** / World's largest staging concentration
- 10,000 **Snowy Plovers** / World's largest assemblage
- 7,500 **White-faced Ibis** / World's largest breeding population
- 160,000 **California Gulls** / World's largest breeding population
- 250,000 **American Avocets** / Largest concentration in the Pacific Flyway
- 65,000 **Black-necked Stilts** / Largest concentration in the Pacific Flyway
- 18,000 **White Pelicans** / One of the largest colonies in North America
- 400,000 **Eared Grebes** / 2nd largest staging population in North America
- 30,000 **Marbled Godwits** / Only staging site in U.S.
- 500 **Bald Eagles** / 1 of Top 10 winter populations in U.S.
- 11 Pairs **Peregrine Falcon** / Endangered species



Uses - Land Use Development



Uses - Duck Clubs



photo - Jeff Richards

Uses - Recreation and Tourism



State Agencies with responsibilities on Great Salt Lake:

- Department of Natural Resources:
 - Division of Forestry Fire and State Lands
 - Division of Wildlife Resources
 - Division of Parks and Recreation
 - Division of Water Rights
 - Division of Oil, Gas and Mining
 - Division of Water Resources
 - Utah Geological Survey



State Agencies with responsibilities on Great Salt Lake:

- Department of Environmental Quality:
 - Division of Water Quality
 - Division of Solid and Hazardous Waste
 - Division of Environmental Response and Remediation
 - Division of Air Quality



Federal Agencies with responsibilities on Great Salt Lake:

- US Fish and Wildlife Service
- Environmental Protection Agency
- Department of Defense
- US Army Corps of Engineers
- US Geological Survey



GREAT SALT LAKE:
the fourth largest
terminal, saline lake
in the world



GREAT SALT LAKE
(4,400 km²)

CAN WE PRESERVE THIS UNIQUE ECOSYSTEM?



photo - Charles Uibel - greatsaltlakephotos.com