salton sea

- located on the San Andreas fault in southeastern California
- has a warm desert climate, it's located in a valley and occupies the lower portion of the salton Trough structural ba
- flooding caused the CO. river to break through an irrigation canal + flow freely into the sarted basin for 18 months
- it now looks like a deserted body of water
- the salinity is increasing which decreases biodiversity
- the ecosystem is unstable because fish are dying off
- Environ. - **was home to** 400 species of birds, home to many species of plants. was home to many species of fish
- Economic- recreational activities, bird watching, fishing
- construction of pipelines to bring in more ocean water

LAKE CHAD

LOCATION: AFRICA. Nigeria / chad

CLIMATE: Humid in summer, Dry and windy (dry season after summer). Monsoon season, rain dec. S → N

- Formed by Atlantic Ocean, closed off
- currently dissappearing
  - ↳ drought
  - ↳ overpumping
- desertification
- animals are dying

MEDIATION

- build system from congo river → chari River to replenish
  - ↳ Dams, canals

ENVIRONMENTAL

- biological diversity
- provides water for vegetation
- cools area

ECONOMIC

- petroleum reserve
- Fishing industry
- Farming industry

Colorado River

- The Colorado River is located in the western U.S. and passes through Arizona, Utah, and Colorado.
- Variable climate zones ranging from alpine to desert. Much of it is very arid.
- The river was formed 60-70 million years ago and is the primary western drainage for the Rocky Mountains.
- Upper Basin- high elevations, narrow valleys, short growing season
  Lower Basin- lower elevations, wide basins, long growing season
- Present condition- losing water at a very fast rate due to groundwater pumping, urbanization, and climate change
- Ecosystem change- Colorado River basin fish endangered, invasive species such as trout and plants such as tamarisk have taken over much of the river.
- Importance- supports $1.4 trillion in economic activity & 16 m jobs. 1/2 of US GDP, half of western GDP. Important for farming, drains basins from 7 states, and preserves biodiversity
- Remediation- fish species restoration, adapting to climate change, and removing dams.

1. In Kazakhstan and Uzbekistan. ARAL SEA

2. Tropical desert (Arid, hot weather).

3. Formed 5.5 million years ago due to a drop in sea level and an uplift of the Caucasus mountains.

4. Split into two major lakes. Because of overwithdrawl of water for irrigation, specifically Soviet farming.

5. Water level has dropped drastically (90 %)

6. River delta destruction, heavy pollution, carcinogen exposure, salinization, habitat destruction, destruction of fisheries

7. 1. lots of biodiversity 2. Dilution of harmful pollution 3. climate regulation

8. 1. water source 2. fish industry source 3. irrigation source
Construction of a dam to maintain water levels.
Aral Sea Basin program, funded by the World Bank
Reduction of reliance on cotton farming.

Yangtze River

Location: China

Climate / Geography:
Subtropical, strong wind, humid, low sunshine, Plateau, west to the Geladandong Peak, Starts at Tanggula Mtn.

Formation: began as a set of streams from low mtns merged from erosion, 45 mil. yrs,

Present Conditions/Changes
longest river in Asia,
73% increase in pollution from cities in the last 50 yrs

Changes in Ecosystem: Hydropower developments affect water quality, increase in pollution, erosion due to deforestation

Why it important?:
↳ economic - transportation, fertile soil = agriculture, mining b/c vast mineral deposits
↳ environmental - biodiversity, home to many (112) endemic species, home to endangered

Remediations: Yangtze Dec. on protection & Dev. - master plan to protect river, WWF working to restore wildlife habitats, reduce flood risks, improve local lives

Mono Lake

760,000 years

- It is located between California and Nevada.
- It is in a desert environment, so it gets not much rain.
  - It is cold and dry.
- Formation
  - Mono Lake formed when various tributaries flowed into a basin.
- Mono Lake has very high salinity in a small amount of water today.
- The lake's water levels have decreased over the last 25 years, which encourages a growth in salinity levels.

Environmental Importance

- Home for brine shrimps
- Habitat for many migratory birds
- Acts as a drainage basin and prevents salt dispersion.

Economic Importance

- Tourism
- Could use as nonpotable water.
- Future potential jobs in desalinization

- State and federal governments have provided Los Angeles with millions of dollars to help build water reclamation plants and to finance conservation in SoCal.

- Los Angeles has suffered water shortages and need to find better solutions.