Lake Tahoe Watershed Action Plan (LATWAP)

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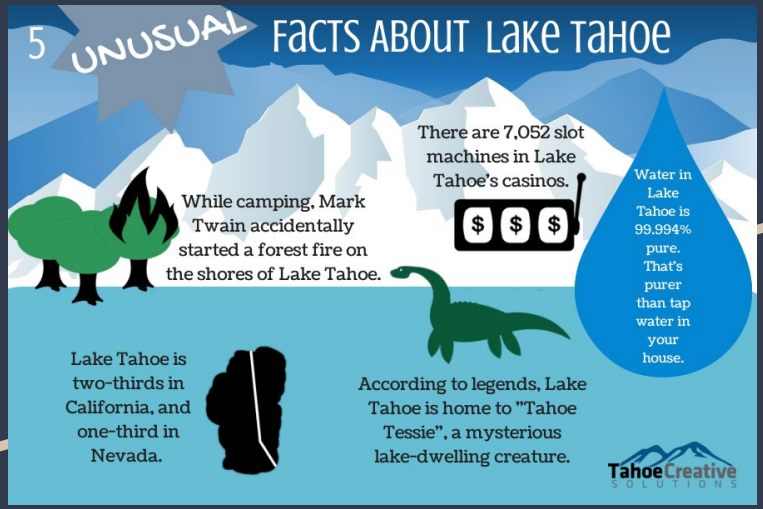
Mission Statement

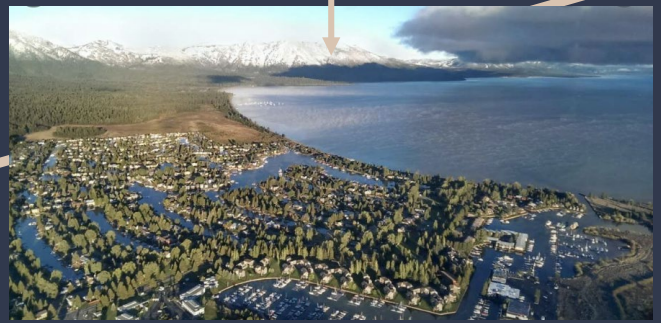
The goal of the Lake Tahoe Watershed Action Plan is to understand the impacts of water quality, climate change, and non-native species on the watershed. As well as, implementing plans, policies, and programs related to these issues by 2030.

Background



- Formed about two million years ago
- Washoe Tribe - “Da ow a ga”
- 75% of the watershed consists of national forest land
- 501 square miles
- 1,645 feet deep
- Second deepest lake in the U.S.
- Spans two states: California & Nevada
- Designated Outstanding National Resource Water under the Clean Water Act

History



1860's - Area discovered leading to logging and mining

1900's - Rapid development of resorts, homes, urban infrastructure

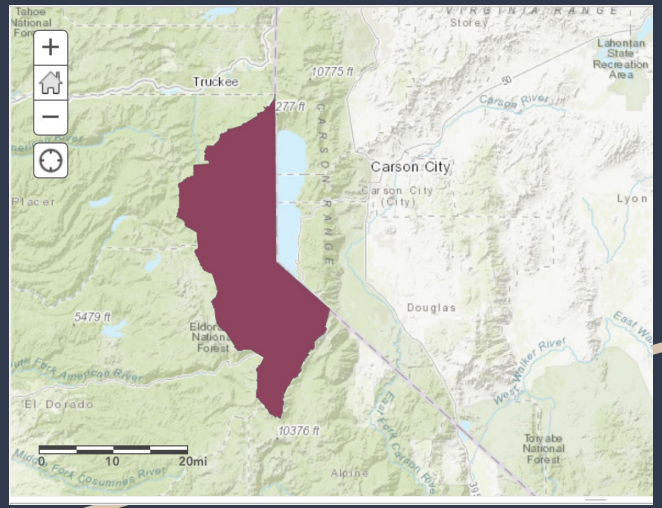
1950's - recognition of human caused effects in the watershed

1970's - Steps taken to reduce and prevent nutrients influx

1980's - Recognized as Outstanding National Resource Water

Present - Attracts people to enjoy natural beauty and recreation the watershed has to offer

Policies/Mandates in Place



Watershed Improvement Program (WIP) Administrative Boundaries

Outstanding National Resource Water → "water quality must be maintained and protected and only temporary and short term changes may be permitted"

Regional Board

- Sets water quality standards
- Issues permits
- Implements:
  - Clean water act
  - Portions of California Water Code
  - Laws related to control of solid waste and toxic and hazardous wastes

Water quality improvement programs:

- Lake Tahoe Total Maximum Daily Load
- Environmental Improvement Program
- Nearshore Protection

Problem 1: Loss of Water Clarity

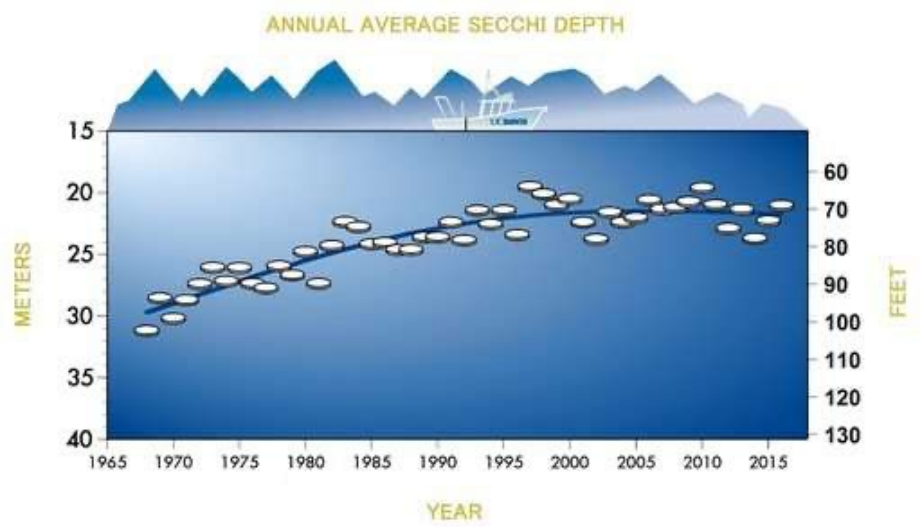
Causes:

- Pollution
- Algal growth
- Sediment Erosion
- Eutrophication
- Cultural Eutrophication

Goals:

- Decrease impervious surfaces
- Create natural buffer zones
- Regulate the amount of nutrients in watershed

Lake Tahoe Secchi Depth Over Time



- Secchi depth measures water clarity
  - Lower the secchi depth visibility →
    - Higher algae concentration
    - Less water clarity

Problem 2: Impact of Climate Change

Causes:

- Humans
- Greenhouse Gas (GHG) Emissions
- Cyclic variability,
- Volcanic eruptions
- Solar output

Goals:

- Plan for future climate change impacts
- Enforcing stricter regulations for the lake
- Limit the amount of human pressures on the lake (limiting the amount of people who can visit the lake)

Problem 3: Impact of Non-Native Species

Causes:

- Human activities
- Traveling
- Ships carrying aquatic organisms on propellers or ballast water

Goals:

- Enforce boat inspections to check for illegal species being near or on the boat
- Checking foreign and local visitors for their purpose for being on the lake
- To decrease the amount of invasive species being introduced into the lake

Summary of Recommendations

- Ensure proper boat inspections
- Prepare for future climate change implications and consequences
- Reduce the impacts of climate change
- Improve secchi depth to decrease algae production to improve water clarity
- Decrease anthropogenic effects that affect water clarity

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Any Questions?