

# *Project* **Baseline**

a global underwater explorers initiative



## **Tahoe Science Conference 2012**

**Lake Tahoe Environmental Quality and Water Clarity**

**Observations, Logs, and Dissemination of Data via:**

**Project Baseline**

A Citizen Science Initiative

[www.projectbaseline.org](http://www.projectbaseline.org)

# *Project* **Baseline**

a global underwater explorers initiative



## **Presenter:**

Martin McClellan - Site Manager, Lake Tahoe

President/Expedition Diver – New Millennium Dive Expeditions - Reno, NV

## **GUE / Project Baseline Representative:**

Todd R. Kincaid, PhD - Science and Conservation Director

Vice President / Science Director – Global Underwater Explorers (GUE)

President / Group Leader / Geologic Modeler – Geohydros, Reno, NV

# Project Baseline - Mission

To empower passionate citizens to observe and record change within the world's aquatic environments in a way that fosters public awareness and supports political action.

Project Baseline: A Conservation Initiative of Global Under Water Explorers (GUE)  
A Non-Profit 501(c)3



# Project **Baseline** – Objectives

- Develop a “long term” catalogue of environmental conditions
- Transform divers into “citizen scientists”
- Influence and support public policy



# Project Baseline – Objectives

Create an awareness that is:

- Consistent
- Defensible
- Publically accessible

Compile meaningful and quality data that creates a measureable baseline over time.

Present in a visually effective and educational manner.



# Project Baseline – Why?

- Humans naturally experience a gradual loss of knowledge about what should comprise a healthy ecosystem.
- This is Generational
- Thus leading each new generation to accept a different environmental standard



# Project Baseline – Why?

## Result:

- A shifting of the “baseline” to accommodate this often degraded environmental ‘norm’.
- Leaves Society with a state of nearly imperceptible change.

## Generational Environmental Amnesia:

*As defined in conservation circles*



# Project Baseline – Why?

To implement a “Global” project that will endeavor to prevent this amnesia by:

Maintaining a scientific approach to observations and data collection

Presenting information understandable to the non-scientific population

Fostering lasting protection for the environment.





# Project Baseline – Lake Tahoe

- The only current baseline is Secchi Disk
- Not completely comprehensible to a non-scientific population.
- The “Nearshore” and “Foreshore” Zones paint a completely different picture.  
Lake zones highly utilized by public



# Project Baseline – Why Tahoe?

Specific examples:

Diving in the late 70's as compared to 2K's  
Emerald Green and Turquoise vs. Greens and Browns

The Ambient Light Effect on the SS Tahoe

A recent experience at Hurricane Bay March 2012



# Project Baseline – Lake Tahoe

Five Sites:

- SS Tahoe
- Glenbrook Bay
- Sand Harbor
- Hurricane Bay
- Bliss State Park/Rubicon Wall

In 2013 will add Fallen Leaf Lake



# Project Baseline – Shared

Presently delivered to the World via Google Earth  
PB is developing a proprietary database and user interface

Featuring unique “Global” Project Baseline sites

Linked to observational data that includes:

- Still Images
- Video
- Blogs/Logs



# Project **Baseline** – Shared

A “Virtual Tour” that shares this observational data utilizing:

- Slideshows
- Interviews
- Site specific video
- Written narratives
- Hydrological Data
- Links to related content



# Project Baseline – Shared

Search

Fly ToFind BusinessesDirections

Fly to e.g., New York, NY

Places

My Places

Link to - Spreadsheet

PB: Gulfstream

PB: Demonstration

Mt. Rose Grand Slam.kmz

SW Rocks, UK

Tarmac

PB: EKM, Portugal

Project Baseline: Wakulla ...

Best of Cousteau

PB: Palm Beach County, FL

PB: Puget Sound

VB: Test

PB: Belgium

PB: Colorado Lakes, USA

PB: Zealand

PB: Cebu, Philippines

PB: Portland, UK

Nevada Wilderness Areas

PB: LaKe Tahoe, USA

Project Baseline: Lake Tah

Project Baseline: charting our past to save the future

PB: Los Angeles, CA

PB: Plymouth Wrecks, UK

PB: The Netherlands

Project Baseline: The Net

Project Baseline: charting our past to save the future

PB: Tyrrhenian Sea

PB: North Adriatic Sea

PB: Lower Keys, FL, USA

PB: Resurrection Bay, AK

Imagery Date: 6/14/2011

LayersEarth Gallery

Image USDA Farm Service Agency

Image U.S. Geological Survey

Image © 2012 DigitalGlobe

lat 39.093175° lon -119.981400° elev 6240 ft

Sand Harbor is one of the most populated of beaches on the Eastern shore of Tahoe. A primary location for SCUBA divers as it's divers cove is famous within the western United States dive community.

Observation Frequency:

Data Available for Sand Harbor - A Nevada State Park

Photos

VideosGeneral Diving Videos of Sand Harbor State Park

LogsEnvironmental Observations Nearshore and Offshore to depths of 500 feet.

Other Data

Related websites:

Project Baseline information:

Project Baseline Website

Global Underwater Explorers Website

New Millennium Dive Expeditions

Previous / Next / Intro

Eye alt 32.36 mi



# Project **Baseline** – **Tahoe Data**

- Began with the documentation of the SS Tahoe
- Spread to four other sites as mentioned
- Presently developing consistent methods of data collection.
- Recording – Began in 2010:
  - Preceding and Present Weather
  - Air and Water Temperature
  - Visibility
  - Animal and Plant Life
  - Native and Invasive



# Project Baseline

Global Underwater Explorers (GUE)

[www.globalunderwaterexplorers.org](http://www.globalunderwaterexplorers.org)



Project Baseline

[www.projectbaseline.org](http://www.projectbaseline.org)



New Millennium Dive Expeditions

[www.nmde.org](http://www.nmde.org)





# Project Baseline – Contacts

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***Thank You***

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