

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



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 comprehendable to a nonscientific 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

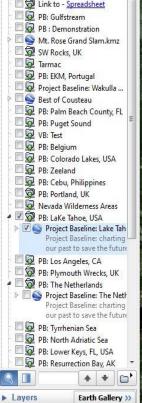
A "Virtual Tour" that shares this observational data utilizing:

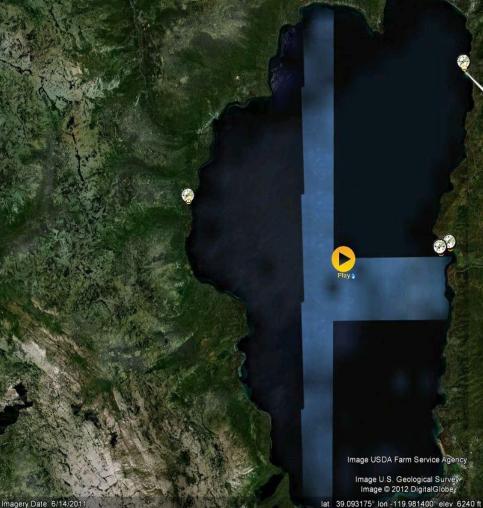
- Slideshows
- Interviews
- Site specific video
- Written narratives
- Hydrological Data
- Links to related content



Project Baseline – Shared

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Data Available for Sand Harbor - A Nevada State Park		
	Photos	
	Videos General Diving Videos of Sand Harbor State Park	
	Logs Environmental Observations Nearshore and Offshore to depths of 500 feet.	
	Other Data	
Related web	sites:	

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



Project Baseline www.projectbaseline.org



New Millennium Dive Expeditions www.nmde.org



Project Baseline – Contacts

Martin McClellan

Lake Tahoe Site Manager, Project Baseline New Millennium Dive Expeditions (NMDE) nmde@att.net

Dr. Todd Kincaid

Director of Science and Conservation, GUE/Project Baseline todd@gue.com

Vanessa Belz

Program Manager, Project Baseline vanessa@gue.com





Thank You

www.projectbaseline.org