

TURNING TAHOE BLACK ?

Tahoe's only noncommercial underground environmental newsletter dedicated to urban actions to achieve predevelopment lake clarity

TAHOE PIPE CLUB

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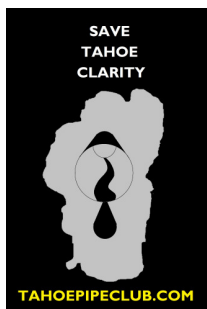
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Contact Tahoe Pipe Club:

Comments regarding the content of this newsletter may be directed to the editor, Tyler Durden. Anonymous submissions for future publication in *Turning Tahoe Black ?* are encouraged on any topic related to Tahoe Pipe Club goals.

Tahoe Pipe Club

P.O. Box 18346
South Lake Tahoe, CA 96150



Web: Tahoepipeclub.com

Environmental Fraud, how the Lake Tahoe environmental organizations have mishandled the management of lake clarity

Overview - A fraud is being committed upon everyone that cares about Lake Tahoe and is being perpetrated by those entrusted with improving lake clarity. According to Dr. Jassby in 1999, "it is not enough to institute erosion control measures that target total suspended sediment discharge if the relevant-sized particles continue to get through unhampered. Indeed, the larger, less important particles are the most likely to be removed by watershed management practices, and the resulting improvements to the lake may be far less than anticipated." He was right and lake clarity funding is still spent on the same flood control projects and ineffective watershed management practices today. The so called erosion control projects are prioritized in regions with flooding problems or aged infrastructure and are not intended to, nor do they improve the clarity of Lake Tahoe. These projects construct road gutters, storm drain systems, new asphalt, settling vaults and filters targeting coarse sediment. As justification to use lake clarity funds, the public was told that these erosion control and BMP retrofit projects would clean the water which they do not, and these public relations campaigns were the genesis of the hoax which persists still today.

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2012 Lake Tahoe Clarity Measurements

Time	Observer	depth	average	average	average
		(ft)	(ft)	(ft)	(m)
1/8/12 12:45 PM	1	70.58	71.5	72.8	22.2
		72.33			
1/8/12 12:55 PM	2	72.75	74.1		
		75.50			

Tahoe Pipe Club Goals:

1. Advocate for the effective use of water quality funds for actions which directly benefit the quality of water in Lake Tahoe
2. Identify locations where storm water pollution discharges into Lake Tahoe and its tributaries
3. Support efforts which eliminate the transportation of pollutants to Lake Tahoe
4. Change the Lake Tahoe urban water quality industry from its current failed conveyance based approach to an infiltration based approach
5. Halt unnecessary river realignment.
6. To become more informed regarding Lake Tahoe storm water actions including their benefits and costs
7. Real time publication of all lake clarity secchi measurements

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Clarity Projects Report Card

For a project to earn an A in urban restoration, it must be primarily an urban restoration project. In hydrologic connectivity a project must discharge directly into Lake Tahoe to earn an A, directly into a perennial stream or indirectly into Lake Tahoe to earn a B, directly into a ephemeral stream or indirectly into a perennial stream to earn a C, and indirectly into an ephemeral stream to earn a D. For a project to earn an A in volume reduction, it must eliminate the urban runoff volume for frequent storm events. In conveyance, any project that does not increase conveyance measures such as gutters and storm drain pipes will earn an A. To earn an A in source control, the project must not include ineffective source control measures like new asphalt, filters, or sweeping in the name of water quality. Grading cost efficiency is more subjective and is measured relative to sustainable and affordable techniques depending on the size of the water quality impact on Lake Tahoe. Finally, an overall effectiveness rating is included for each project summarizing the lake clarity benefit from the project. Many of the projects in this report card are final, but for other projects this is only a midterm report card so there is still time to improve the effectiveness of the project relative to Lake Clarity. **Continued page 4**

Project Name	Term	Urban Restoration	Hydrologic Connectivity	Volume Reduction	Conveyance	Source Control	Cost Efficiency	Overall Effectiveness
Al Tahoe 1	Final	A	A	F	F	F	F	Failed to benefit lake clarity
Al Tahoe 2	Mid Term	A	A	F	F	F	F	Will Fail to benefit lake clarity
El Dorado 89 Luther Pass to Meyers	Final	A	C	F	F	F	F	Failed to benefit lake clarity
Kings Beach Commercial Core	Mid Term	A	A	F	F	F	F	Will Fail to benefit lake clarity
Montgomery Estates	Final	A	C	A	A	A	B	Will benefit lake clarity
Nevada Beach Parking BMPs	Final	A	F	A	A	F	F	Failed to benefit lake clarity
Upper Truckee River Restoration Mid	Final	F	F	F	F	F	F	Failed to benefit lake clarity
SR 207 Upper Kingsbury and Lower I	Final	A	C	F	F	F	F	Failed to benefit lake clarity

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The Conspiracy -The conspiracy grew to include regulators and planners as everyone became addicted to the readily available funding for use in restoration and capital works projects that have nothing to do with lake clarity. This group of conspirators is well informed regarding Lake Tahoe's clarity, but perpetuates the ineffective use of clarity funding to satisfy their greedy desire for restoration and infrastructure projects that otherwise have no other source of funding. The collective failure of the clarity program continues but is more transparent to the public as the clarity of Lake Tahoe continues to worsen in spite of decades of effort. The public is asking for accountability after spending billions of dollars and is looking for some measure of success. However the conspirators are unable to provide any meaningful measure so the hoax continues with more sinister and subversive measures. The TMDL and the lake clarity crediting program is based on the same flawed science and same unproven ineffective techniques.

Scientists have measured the secchi depth in Lake Tahoe an average of every 12 days since July 1967 and for the past six years have published the annual state of the lake report. This publication provides an opportunity to accurately inform the public regarding the progress in the lake clarity effort. However, these planners and scientists instead perpetuated the hoax. In 2005 and 2009 the clarity of the lake worsened by over a foot each year, however the reports misrepresented the truth by claiming that the secchi record "built on positive momentum" in 2005 and "held steady" in 2009. In 2006, 2008, and again in 2010 the clarity also declined each year and the scientists blamed the clarity loss on high precipitation, smoke, and climate change/algae for 2006, 2008, and 2010 respectively. Different excuses each year rather than stating the truth, that the lake clarity program is failing to improve clarity because urban pipes are ignored. Of the past six years since the state of the lake report has been published, only in 2007 did the clarity of Lake Tahoe improve and the scientists took this opportunity to report that clarity decline had slowed. Since annual publication of the state of the lake report the lake has lost over 9 feet of clarity and worsened in 5 out of 6 years but reading the annual press releases, one would expect the clarity has been improving. The scientists simply pick a new and different excuse to explain why clarity is worsening each year rather than divulging the truth that the clarity program is failing. The latest report states that "there is every reason to believe that if it were not for the decades of watershed management, development policy and water quality restoration projects, the Lake's transparency would be worse than it is today." This is only a belief simply because there is no science to suggest that watershed management, development policy or restoration has done anything to benefit clarity. However statements like this in a scientific publication intended for the public lead everyone to believe all is well, thereby perpetuating the fraud. **Continued Page 3**

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Featured Storm Drain Outfall Pipe—Pasadena



The featured storm drain outfall pipe for this issue of *Turning Tahoe Black ?* is the Pasadena Pipe located on the south shore. It was also featured for the month of June in the *2012 Storm Drain Outfall Calendar*. This pipe drains portions of the Al Tahoe subdivision into Lake Tahoe. Unfortunately this watershed was retrofitted with ineffective conveyance BMPs in 2010 which included new gutters, a storm drain system and a filter. Visit the [tahoepipeclub](#) account on YouTube to view a video of urban runoff entering the lake from this pipe. This project received a failing grade in the Tahoe Pipe Club report card because obviously this watershed needs a redo focusing on eliminating the runoff volume through infiltration using techniques proven to be effective.

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The TMDL IS Flawed and Everyone Knows It- One would expect in the Lake Tahoe basin that the clean water act would be effectively enforced; especially considering that the residence time of pollutants in the lake is 650 years. But the chronic discharge of urban storm water and road runoff is completely ignored by regulators. The only real water quality enforcement in the basin is the overzealous regulation and enforcement of temporary construction practices which have never been shown to be a contributor to lake clarity loss. The TMDL is based on the assumption that the “entire Lake Tahoe basin is comprised of a series of hydrologically connected sub watersheds.” However the majority of sub watersheds in the Lake Tahoe basin are not hydrologically connected to the lake, therefore the TMDL perpetuates water quality actions in regions that do not reach Lake Tahoe. In fact the TMDL will provide legal authority to allow regulators and polluters to subvert the clean water act and allow the chronic urban outfalls to continue to be the primary cause of lake clarity loss. The TMDL is going to be the legal framework for the polluters and regulators to make the claim that watershed management actions such as sweeping, filters, and storm drain systems are cleaning the road runoff. The pollution in the road runoff will be allowed to continue to pollute Lake Tahoe, albeit at a estimated lower level of pollution. The TMDL will encourage polluters to estimate urban runoff credits in regions of the basin which do not reach Lake Tahoe as these areas are easier to work in compared to regions directly adjacent to the lake. The TMDL eliminated effluent standards and will encourage polluters to estimate watershed management benefits using unproven practices such as conveyance structures, sweeping, filters and storm drain systems allowing these urban polluters to continue to degrade lake clarity and will allow the regulators to continue to be negligent in their enforcement of the clean water act. These facts are well known by scientists and engineers, but divulging this to the public would call into question the accuracy of the TMDL and question the justification for working in regions of the basin which do not reach Lake Tahoe, so the hoax continues.

As much energy and financial resources has gone into planning to improve water quality in the Tahoe basin, one would expect that Lake Tahoe would be a national leader. This is not the case as coverage is still used as the primary technique for planning for water quality. This is in spite of the general consensus that coverage is ineffective as a water quality measure. An ASCE publication stated it best by explaining that an “increase in impervious area is a symptom of urbanization, not necessarily the sole cause of receiving water and overall environmental degradation. The issue is not that impervious area exists; rather, the issue is the arrangement of impervious area within a landscape and the potential for directly connected imperious area to modify flow and enhance the transport of contaminants to the receiving stream. Effective watershed management and site-planning strategies take advantage of a broad mixture of structural and nonstructural control methods which are implemented in accordance with sound engineering and scientific guidance and criteria, and which are regularly maintained, monitored and adjusted, as necessary.” Everyone knows that coverage is not an effective water quality tool, but to acknowledge it at this point in the lake clarity program would be to admit to malfunction and having wasted much effort and resources, so the hoax continues.

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Highlighted Infiltration BMP –Highway 50 Basins



A portion of Highway 50 on the South Shore was reconstructed in 2011 including the addition of new bike lanes, a new storm drain system, gutters, sand filters, and infiltration basins and swales. The outfall pipes from this segment of Highway 50 drained directly into Lake Tahoe. The highlighted portion of this project used to drain directly to the El Dorado West Pipe, but now drains to a series of infiltration swales and basins. This portion of the project appears to have constructed adequate infiltration BMPs to eliminate the runoff volume from a portion of the highway that used to drain into Lake Tahoe. Clarity will improve only by infiltrating urban runoff using BMPs like those constructed for this portion of Highway 50.

Clarity Projects Report Card - continued from page 2

While the AI Tahoe and Kings Beach projects earn A's as directly connected urban watersheds, the projects rely on expensive unproven ineffective conveyance based techniques and therefore earned F's in volume reduction, conveyance, source control and cost efficiency. Kingsbury and Luther pass each earned a C for hydrologic connectivity but again are relying on ineffective conveyance techniques earning an F in the remaining classes. Montgomery Estates was the only project that earned passing grades in categories of volume reduction, conveyance, source control earning A's. The Nevada Beach parking Lot BMPs earned A's as it was an urban watershed and reduced runoff volumes, however earned an F for connectivity since pre project did not drain into Lake Tahoe or one of its tributaries. And finally, the Upper Truckee River Projects earned all F's in our clarity report card because it does not address the urban source of pollution which is the primary cause of clarity loss and the only objective worthy of restoration in our efforts to return clarity to predevelopment levels.

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The science behind past and current lake clarity efforts is lacking. The majority of funding has gone to and continues to go to non-urban regions of the basin for actions with no hope of benefiting lake clarity as long as the urban outfall pipes are ignored. The stream realignment and forest health projects will never mitigate the urban water quality problems but admitting to it at this point would derail a program with too much momentum and point out the fraudulent use of lake clarity funds. Even the engineered solutions in the urban watersheds used in the name of lake clarity have failed. New asphalt, revegetation, road gutters, storm drain systems, street sweeping, settling vaults, and filters all lack scientific support for significantly removing the fine particles of concern, yet are still paid for using lake clarity funding. The only water quality bmp with any scientific support to eliminate pollutants of concern is infiltration, but infiltration as a bmp in urban watersheds receives only an insignificant fraction of the lake clarity funding. However in the crediting tools established by the regulators all of the unproven bmps are included in the program and have been compiled in a manner that disfavors infiltration. Curb and gutter can be estimated to provide credits even though every bmp manual recommends curb elimination as a water quality bmp. Street sweeping can be estimated to provide a credit even though the USGS found that "there is little probability that street sweeping, regardless of street-sweeper type, has any measurable effect on the quality of runoff." Credits can be estimated for filters even though the ultra-urban filters used in the Lake Tahoe basin have a pore space of 20 microns. Settling bmps are estimated to provide credits even though the particle of concern has not been shown to settle by gravity in these bmps. The hoax continues with the same watershed management actions as suggested by Dr. Jassby in 1999, however now the watershed management credits are compiled as part of TMDL and its crediting program. Little has changed since the 1990's with the lake clarity industry, there is still a fraud being perpetuated on the public, lake clarity continues to worsen, but only this time everyone knows it and it is called the TMDL.