LAKE VALLEY FIRE PROTECTION DISTRICT

"Serving the Community Since 1947"
Gareth S. Harris, Fire Chief

March 8, 2012

Lahontan Regional Water Quality Control Board
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150

RE: South Shore Fuels Reduction Waste Discharge Requirements

Dear Lahontan Regional Water Quality Control Board:

Lake Valley Fire Protection District (Fire District) has reviewed the proposed tentative waste discharge requirements for the U.S. Forest Service's South Shore Fuels Reduction Project. Our review of the WDR permit gives us the impression that the Lahontan Regional Water Quality Control Board (Water Board) has chosen to adopt policies and procedures that may increase costs, reduce project efficiency and may set up the conditions that lead to the Angora Fire. Our concern is that excessive environmental regulation may conflict with implementing projects designed to protect human life and property.

Background
After the Angora Fire the governors of California and Nevada formed the California Nevada Tahoe Basin Fire Commission to review the policies and procedures of the Water Board concerning fuels reduction project permitting. Finding 12 of *the Emergency California-Nevada Tahoe Basin Fire Commission Report* (Commission Report) noted that regulations promulgated by the Water Board prevented fuels reduction in the Stream Environment Zone (SEZ). The SEZ burned rapidly and contributed to the devastation of the Angora Fire. Regulations prior to the Angora Fire contributed to the destruction of hundreds of homes in our fire district. Finding 12 of the Fire Commission Report reads:

> *Compared to the permitting process for fuel reduction projects in Nevada, projects in California are subject to an additional layer of permitting requirements by the Lahontan Regional Water Quality Control Board (LRWQCB). This added regulatory layer has resulted in project delay, increased costs for permitting and project implementation, deletion of critical components from projects, and reduced project scope due to its imposed increased costs. There is a need to create greater consistency in permitting requirements in the Tahoe Basin so that priority projects for fuel reduction projects in areas subject to fire hazards will be undertaken according to relative need, rather than relative ease of permitting.*

As a result of the additional layer of permitting requirements imposed by the LRWQCB, land managers and private property owners seeking to mitigate fire hazards in stream environment zones and steep slope areas are reluctant and, in many cases unwilling, to undertake fuel reduction projects in such areas. Further, delays and uncertainties in the LRWQCB permitting process pose difficulties to land managers in holding together funding grants for such projects.

Plainly stated the commissioners found that Water Boards policies and practices were a contributing factor to the Angora Fire and clearly called for change at the Water Board.

Comments on Project Requirements

The U.S. Forest Service has developed Resource Protection Measures that have been studied by Forest Service research scientists and have been proven to adequately protect resources while enabling projects to move forward. *The South Shore Fuels Reduction Waste Discharge Requirements, Attachment F* details the Best Management Practices (BMP's) that are being required by Water Board staff. The Fire District's concern is that:

1) Many of the BMP's required by the Water Board are substantially different from the Resource Protection Measures that have been extensively studied by the U.S. Forest Service, and
2) The Water Board has provided no scientific authority for these changes to the RPM's.

Many of the BMP requirements, such as the prohibition of using surface waters to cool piles actually increase impacts to natural resources. Examples are as follows:

WDR Attachment F:

BMP 4: *Where any of the following BMPs require submittal of additional details, plans, BMPs, mitigation measures, or any other design to Water Board staff, those designs shall be provided to Water Board staff for review and acceptance at least 30 days prior to site activities. In rare cases where timing is critical, the Discharger may request a shorter time period for staff review and acceptance by the Water Board Executive Officer.*

Comment: This section makes it impossible for the professional foresters at the Forest Service to make any field decisions. Every adjustment to a paper plan because of actual field conditions automatically starts a 30 day delay. Not only is this provision unnecessary because the U.S. Forest Service already has a suite of scientifically proven Resource Protection Measures, but it illustrates that the Water Board is not prepared to work in an arena where contractors are on the ground, jobs are at stake and an already short field season is passing. The Fire District believes that 48-72 hours should be more than enough time to schedule a field visit to discuss a BMP. The work must not be

stopped because the Water Board cannot meet in the field when the Forest Service has professionals and Resource Protection Measure available to move projects forward.

BMP 6: *To determine operable dry soil conditions, the Discharger's Soil Scientist shall evaluate soil moisture conditions at the 2 to 10-inch depth, where ruts to a depth of two inches or more for a distance of 25 feet or more will not be exceeded. Operable moisture conditions shall be only as noted in the Soil Moisture Operability Protocol, Table 1. The acceptable operable area is as defined by those characteristics recommended for operable soils in the Table by both the USFS Regional Soil Scientist and Bob Powers (USFS PSW Soil Scientist). Where it is necessary to cross an SEZ with inoperable soil moisture conditions, the Discharger shall submit detailed justification and plans, including monitoring and mitigation measures, to Water Board staff for review and acceptance prior to implementation, pursuant to BMP No. 4, above.*

Comment: This BMP requirement requires a soil scientist to evaluate soils, where any Register Professional Forester in the state of California or forestry technicians under an RPF's supervision may evaluate soil moisture and forces the Forest Service back into a 30 day delay if an SEZ needs to be crossed. First, soil moisture testing is not particularly complex, the Forest Service could provide soil moisture training to their employees and allow them to complete soil testing. Second, the Water Board should decide whether they are going to participate in regulating a field project. If the Water Board is going to be involved, then be available within 48-72 hours of being called. More likely, the Water Board should work with the professional staff of the Forest Service to come up with some reasonable contingency plans. Those contingency plans can keep the contractors moving and allow the Water Board staff some time to get to the field to discuss operations with the professionals at the Forest Service.

BMP 13d: *If operating within SEZs, CTL equipment must travel only over areas that have been scattered with limbs and tree tops to prevent rutting or compaction of underlying soils and minimize damage to native SEZ vegetation. The CTL Forwarder shall remove this slash bed when backing out of a completed unit; sufficient slash shall be left to provide adequate ground cover, as defined in BMP No. 21b. Where sufficient slash is unavailable to adequately control erosion, waterbreaks, per BMP No. 11, shall be hand-created on CTL trails.*

Comment: The Forest Service completed a detailed study of mechanical operations in SEZ soils at Heavenly Creek. The study found "statistical analysis also determined that there was no significant difference between post-project data collected within visible equipment tracks, whether operated on a slash mat or not." Water Board staff should provide credible scientific reasons for requiring operations only on slash mats. In the absence of any scientific reason, then the Forest Service should follow their best available science. Additionally, there is no water quality reason to remove all slash from an SEZ, the Forest Service should use professional judgment and clean-up slash mats to the extent feasible.

BMP 26: *A 50-foot buffer for hand piling and pile burning shall be flagged and maintained along Class I or II (perennial or intermittent watercourses or springs) watercourses, lakes, and special aquatic features. Piling and burning shall be permitted up to 10 feet from the edge of Class III or IV (ephemeral) watercourses where slopes are less than 15%.*

Comment: The Water Board should provide credible science that shows that the professionals at the Forest Service cannot identify piling and burning opportunities within 50 feet of any creek class. Many such creeks have areas which provide opportunities to pile while also minimizing rollout or having ash directly wash into a creek. The Forest Service should also have an opportunity to create swales to catch rollout or prevent ash movement if they should decide that piling is necessary. It is just physically impossible to remove hazardous fuel completely out of a watercourse. This fuel is what lead to the extraordinary fire behavior at the Angora Fire and why initial attack failed.

BMP 27: *Fire shall be allowed to creep between piles and into these buffers, except where sensitive plants, fens, and the noxious weeds whitetop and cheatgrass are present. Flame lengths shall be controlled to less than two feet in height.*

Comment: This BMP should be removed. The U.S. Forest Service has staff that is currently qualified to prescribe how pile burning operations will be conducted. The Water Board should also produce evidence that limiting flame length to two feet in a prescribed fire scenario has any effect on water quality.

BMP 29: *Each pile shall be allowed to be re-piled once after the initial ignition of the pile, as long as it is still burning. Adding extra fuel may create a hotter fire, potentially resulting in more damage to the soils. Where re-piling occurs, the locations of all sites where re-piling has occurred must be documented on the Implementation Checklist. Where effectiveness monitoring, as required in the MRP (WDR Attachment C), indicates hydrophobic soils were created beneath the burn piles, the burn area shall be raked to a depth of six inches to break up the hydrophobic soils, native organic matter shall be amended into the soils, and the area shall be covered as described in BMP No. 21b. If the effectiveness monitoring of the burn piles that were re-piled during burning indicates that impacts had occurred on greater than 20% but less than 50% of these piles, the Discharger shall notify the Water Board and provide a monitoring and mitigation plan. If 50% or more of the piles subject to the original effectiveness monitoring effort indicate impacts, all remaining (unmonitored) burn piles in SEZs shall be monitored, and mitigated wherever additional impacts are observed. Mitigation measures shall include an adaptive management strategy for all future burn pile creation in SEZs.*

Comment: The BMP should be removed. The Water Board is prescribing practices with no scientific backing. Adding fuel to a fire does not increase the heat of the fire or increase soil damage, it may add to the period of time that the fire is burning, but even that is not a given. Adding fuel to a pile may increase the duration of heat, but again this is not the determining factor for soil impact. Large piles with heavy fuels burned over large portions of the landscape have been shown to have negative effects on soil quality.

But even in this extreme scenario the effects are transient. All pile burning operations include consolidating piles and chunking the piles to ensure that there is good consumption. Additionally feeder piles are frequently used in the Tahoe Basin and have been used in the Tahoe Basin for nearly 20 years. No organization has ever pointed to any soil damage or negative environmental effect from chunking piles. Additionally, feeder piles are frequently used to reduce the environmental impact of pile burning. A small pile can be ignited and then fed fuel over time rather than lighting a large pile with heavy material that could cause soil damage. The use of feeder piles also limits the spatial distribution and impact of pile burning because a single pile is burned rather than multiple piles across the landscape.

BMP 31: *Additional Fire Prescription Plan BMPs to reduce the potential impact to SEZ soils and water quality shall include:*

> *a) SEZs shall be identified and flagged during prescribed burns as described in BMP No. 12.*
> *b) Piles shall be placed in a non-linear pattern in each treatment unit.*
> *c) Maintain a minimum of 10 foot spacing between piles in each treatment unit.*
> *d) Maximum pile size shall not exceed 10-foot diameter by five-foot height.*
> *e) No more than 30% of any SEZ acre shall be occupied by piles.*
> *f) No more than 15% of any SEZ acre shall be piled or burned each year.*
> *g) For broadcast burning activities, ignition shall not be allowed in SEZs but fire would be allowed to back into these areas.*
> *h) Water used to manage controlled burns shall not be drafted from undeveloped surface water sources, wetlands or other special aquatic features. Emergency drafting of water from other waterbodies for out-of-control prescribed burns located far from these hydrants shall not cause impacts to watercourse floodplain, bed, or banks. Access routes to emergency drafting sites shall not result in sloughing of soils into waterbodies, compacting of soils leading to access points, or destruction of riparian vegetation. Any impacts caused to these resources during emergency drafting shall be mitigated to original conditions, including soil stabilization and revegetation where necessary. The Discharger shall provide a report to the Water Board within 30 days of any emergency drafting from waterbodies, including justification and details regarding monitoring and mitigation measures. Monitoring, in addition to inspection for sediment discharge or compaction and damage to riparian vegetation, shall include photographs of the access areas and waterbody bed and bank, taken within three days following control of the emergency. Mitigation measures specified in the report shall include an adaptive management strategy for all future water drafting sites.*

Comment: This BMP should be removed. Starting with subsection b), this BMP re-writes the procedures that have been developed by the U.S. Forest Service after decades of experience with hand thinning and pile burning. The U.S. Forest Service has studied the effects of pile burning and the RPM's described in the Forest Service's FEIS adequately cover pile burning. The Water Board staff should require that staff provide scientific evidence that additional BMP's will better protect resources.

Section g) prevents ignition of broadcast burns within an SEZ. This prohibition is not based on science and ignores common ignition techniques such as the use of Fusees which leave no chemical residues. However, even using drip torches should be allowed as the fire consumes the burn mix. There is no evidence that using a drip torch in an SEZ leaves harmful amounts of burn mix in the SEZ. Additionally this BMP requires a backing fire within an SEZ, again there is no scientific reason to require only backing fire within an SEZ. The U.S. Forest Service and the local government fire crews in the Lake Tahoe Basin are qualified to use multiple ignition sources and firing techniques within SEZ's. The U.S. Forest Service's crews are more than qualified to manage backing, flanking or head fire in an SEZ.

Section h) illustrates why the Water Board should not prescribe BMPs for pile burning operations and should defer to experts at the U.S. Forest Service. Portable pumps can be effectively used to draft surface water and cool piles. This use of small portable pumps prevents piles from getting too hot and prevents scorch of residual trees. The Water Board should not prevent the use of techniques that have been proven to protect natural resources.

Section h) opens fire crews up to citation by the Water Board for drafting from surface water during a fire emergency. Obviously the U.S. Forest Service has a responsibility to light prescribed fires that remain within prescription. It is equally true that the costs of mitigating damages that may be caused by allowing a prescribed fire to burn out of prescription are properly borne by the agency that lit the fire. However, once a fire is called a wildfire and reported to dispatch, it is a wildfire. At that point only an Incident Commander will prescribe where water is obtained. So while there will be a moment of reckoning once the fire is brought back into control, fire suppression operations should only be left to fire professionals and they should attack fire without threat of citation from the Water Board.

Conclusion

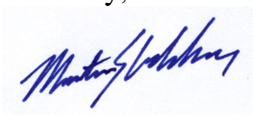
The Fire District is not qualified to evaluate many of the BMP's that have been prescribed by the Water Board concerning roads, landing construction and other activities that are more forest engineering tasks. We are however concerned that extensive regulation and threat of enforcement will slow work and continue to place our citizens at risk of wildfire. The waste discharge requirements as written with their extensive monitoring and additional BMP requirements are in direct conflict with the recommendation of the Commission Report. The Fire District strongly recommends that the Water Board adopt the Resource Protection Measures written by professionals at the U.S. Forest Service.

We are experts in using prescribed fire. We are gravely concerned that many of the BMP's prescribed that deal with pile burning and prescribed fire demonstrate a lack of understanding of prescribed fire operations, tactics and techniques. An example would be prescribing a backing fire in an SEZ where head fire may be better. Another example would be prohibiting the use of feeder piles where the use of feeder piles actually

prevents damage to resources. The Fire District strongly recommends that the Water Board remove BMPs associated with burning as this is best left to the professionals.

Thank you for the opportunity to comment. We look forward to discussing our comments with you at your earliest convenience. I may be reached at 530.577-2447 or by email at goldberg@caltahoefire.net.

Sincerely,



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