

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION**

**TENTATIVE ORDER**

**CALIFORNIA DEPARTMENT OF TRANSPORTATION**

**CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR TIRE SHREDS REUSE IN ROAD CONSTRUCTION PROJECTS**

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Water Board, finds that:

1. **Purpose of Order:** This Order is a renewal of Order No. R2-2006-0007, Waiver of Waste Discharge Requirements (WDRs) for the use of tire shreds in road construction projects. The original waiver from 2000 is supported by studies that indicate that water quality impacts from the use of tire shreds in road construction projects are negligible provided that the tire shreds are properly placed. This Order sets forth such conditions. In addition, tire shred reuse provides a net environmental benefit by reducing waste.
2. **Project Description:** The California Department of Transportation (hereinafter, Caltrans or the Discharger) recycles tires by shredding them for use as road base and fill material. Typically, layers of tire shreds are separated from underlying native soil by geofabric, overlain by engineered soil, and capped by asphalt or concrete. Surface grading and/or drainage structures minimize infiltration of rainwater through the tire shreds.
3. **Water Quality Studies:** Water quality studies indicate that use of tire shreds in road construction projects will not significantly affect water quality. Testing indicates that leaching of metals and organic chemicals from tire rubber and tire belts is negligible. Although laboratory tests indicate that aquatic organisms can be affected by exposure to undiluted porewater from buried tire shred layers, field conditions and the criteria specified within this Order for tire shred placement will prevent biota from such exposure.
4. **Prevention of Water Quality Impacts:** Specific conditions such as tire shred size, metal content, placement, and road draining are necessary to assure that the beneficial uses of waters are not impacted by pollutants leaching from tire shreds.
5. **Report of Waste Discharge:** Section 13260(a) of the California Water Code requires that any person discharging waste or proposing to discharge waste within any region, other than to a community sewer system, that could affect the quality of the waters of the State, shall file a report of waste discharge (ROWD). Caltrans' ROWD dated January 27, 2000, and supporting documentation fulfills this requirement.
6. **Waiver of Waste Discharge Requirements:** Title 27, Division 2, Subdivision 1 of the California Code of Regulations authorizes the Water Board to adopt WDRs to address discharges of solid waste that may potentially impact waters of the State. Section 13269 of the Water Code authorizes the Water Board to waive WDRs for a specific discharge or for

a specific type of discharge where such a waiver is consistent with any applicable water quality control plan and is in the public interest. Such a waiver is conditional: it may be terminated for any type of discharge at any time; it does not authorize any discharge that is otherwise prohibited or regulated; it does not preclude the need for permits that may be required by other governmental agencies; and it does not preclude the Water Board from taking enforcement actions for violations of the terms and conditions set forth in this waiver or for any discharges that cause or threaten to cause violations of provisions of the Basin Plan or that create or threaten to create a condition of pollution or nuisance.

7. **Public Interest for Waiver:** It is in the public interest for the Water Board to waive the issuance of WDRs for discharges of tire shreds, provided that the Discharger meets and complies with all conditions and requirements of this waiver.
8. **California Environmental Quality Act:** This amendment is exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15301, Title 14 of the California Code of Regulations. In the event that site-specific or project-specific tire shred placements result in potential water quality impacts unforeseen at this time, supplemental environmental assessment may be required under CEQA by State or local governmental agencies.
9. **Conditions of Waiver:** WDRs for the discharge of tire shreds to land for use on road construction projects are hereby waived provided that the following conditions are met:
  - a. Tire shreds shall have a maximum of 25 percent (by weight) passing 1½ inch sieve, and a maximum of 1 percent passing No.4 (4.75 mm) sieve. To the extent practicable, particulate tire rubber and particulate belt materials shall be removed from material stock prior to placement.
  - b. Belt material protruding from tire shreds shall protrude no more than 1 inch from the cut edge of the tire shreds on 75 percent of the pieces and no more than 2 inches on 100 percent of the pieces.
  - c. Tire shreds shall have less than 1 percent (by weight) of metal fragments that are not at least partially encased in rubber.
  - d. Tire shreds shall be free of contaminants such as oil, grease, gasoline, diesel fuel, wood, wood chips or other fibrous organic matter or materials that could create a fire hazard.
  - e. The tire shreds shall be free of remains of tires that have been subjected to a fire.
  - f. To avoid a biochemical fire hazard, tire shreds shall not be placed in direct contact with soil containing organic matter.
  - g. The use of drainage features that could provide free access to air shall be avoided.

- h. Tire shreds shall not be placed in a single layer greater than 10 feet thick. However, the cumulative thickness of tire shred layers may be greater than 10 feet thick provided that layers of non-organic material separate tire shred layers.
  - i. Tire shreds shall not be placed in contact with groundwater and must be separated from the highest anticipated groundwater level by at least 5 feet.
  - j. Tire shreds shall be contained beneath a cap constructed of asphalt, concrete, or compacted earth. Infiltration of water into the tire shreds shall be minimized by grading the cap surface to promote runoff. The integrity of the cap shall be maintained so that tire shreds cannot be mobilized or exposed.
  - k. Tire shreds shall not be placed within or below unlined surface water channels, including drainage ditches. Tire shreds shall be placed no closer than 5 feet from surface waters, including drainage ditches.
  - l. Tire shreds shall not be placed in contact with soil with a pH less than 6 or greater than 8.5.
  - m. Tire shreds shall not be placed in soil or groundwater in which pollutants or chemicals are present that may increase leaching of compounds from tire shreds or affect the stability of tire shreds.
  - n. The discharge of any waste other than tire shreds as specified in Condition 1 above is prohibited. A record shall be maintained of all areas where tire shreds are utilized for road construction. The record shall include a map specifying the lateral and vertical placement of the tire shreds, and an estimate of the total volume. The record should also include a detailed project description and schematic, and documentation that the conditions of the waiver above are met. The record shall be made available to Water Board staff within 30 days of request by the Executive Officer.
  - p. Should visual observations, field sampling and analysis, or additional water quality studies indicate that tire shreds are releasing chemicals at concentrations that impact waters of the State, or have the potential to release chemicals at concentrations which impact waters of the State, the Discharger shall notify the Water Board within 30 days.
  - q. Any proposed change to conditions specified will require written approval from the Executive Officer.
10. **Authority:** This Order does not preempt or supersede the authority of federal or State agencies, or municipalities or other local agencies to prohibit, restrict, or control discharges of tire shreds subject to their jurisdiction.
11. **Term of Waiver:** This waiver will expire in five years of adoption of this Order pursuant to Section 13269 of the California Water Code. Should the Discharger seek renewal of the waiver after the five-year period, the Discharger shall submit a formal request to the

Executive Officer. This waiver supersedes the conditional waiver issued pursuant to Order No R2-2006-0007, which expired on January 11, 2011.

12. **Notice and Meeting:** The Water Board has notified the discharger and interested agencies and persons of its intent to waive waste discharger requirements, and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations. The Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

**IT IS HEREBY ORDERED** pursuant to 13269 of the California Water Code that waste discharge requirements are conditionally waived for the period described in finding 11 provided all conditions in finding 9 are met.

I, Bruce H. Wolfe, Executive Officer, do hereby certify the foregoing is full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on

Bruce H. Wolfe  
Executive Officer