

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

STATE WATER RESOURCES CONTROL BOARD

Changes to the Draft General Waste Discharge Requirements for Composting Operations

INFORMATIONAL MEETINGS

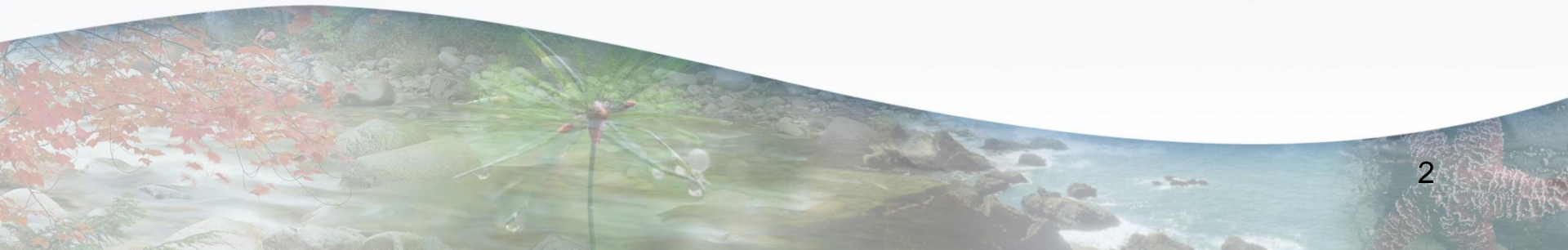
Northern – Cal EPA Building
May 20, 2013

Southern – Region 8 Riverside
May 21, 2013



AGENDA

- Introductions
- Housekeeping
- Background
- Overview of Requirements
- Next Steps
- Questions

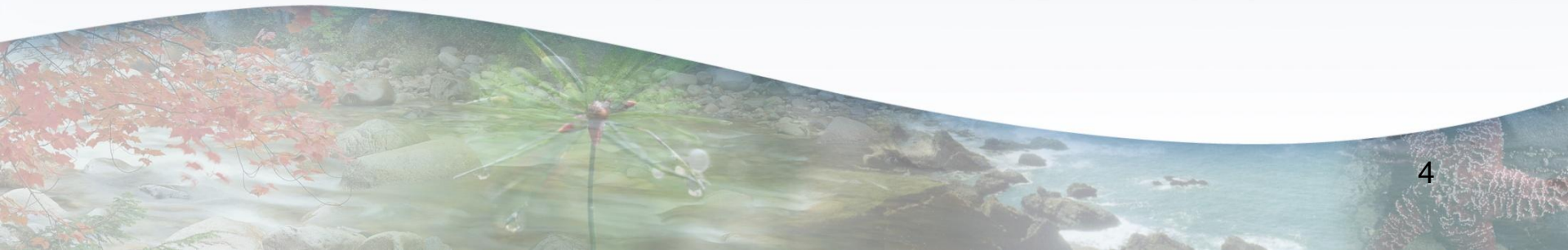


GOALS OF THE COMPOST GENERAL ORDER

- Protect water quality to the same extent as other wastes that pose a similar threat to water quality
- Provide streamlined permitting process if facilities meet certain requirements
- Apply to a broad array of composting facilities
- Harmonize, as feasible, with both:
 - CalRecycle's composting regulations in Title 14, and
 - CalRecycle's waste diversion efforts

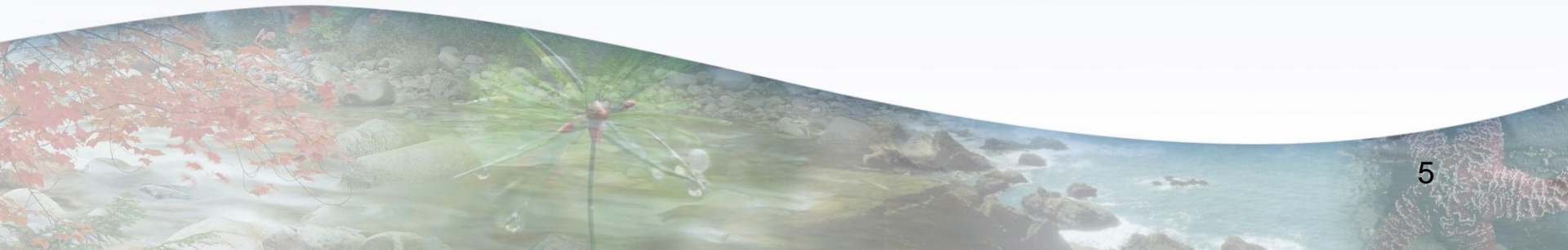


OVERVIEW OF REQUIREMENTS

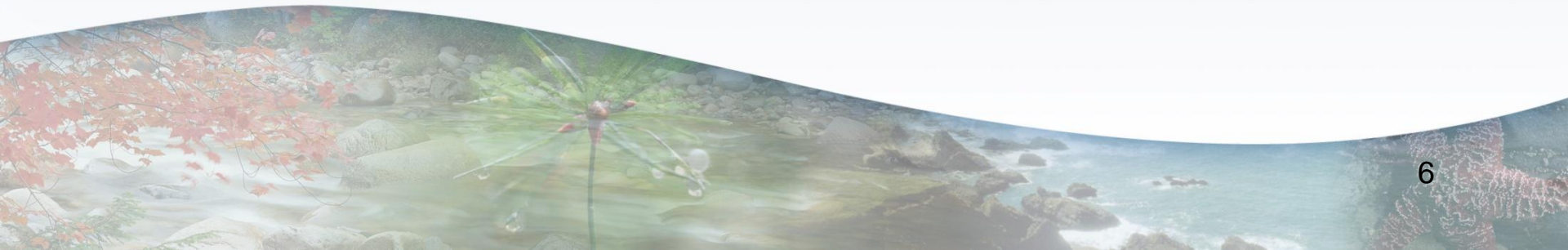


ACTIVITIES THAT ARE NOT COVERED UNDER THIS ORDER

- Agricultural Composting
- Chipping and Grinding Facilities and Operations
- Composting operations with requirements that are covered under existing WDRs
- Lot clearing (grubbing, tree trimming) for fire protection
- Less than 500 cubic yards on site at any given time (all materials, received, processed, and stored)
- Within vessel and fully-enclosed composting (e.g. anaerobic digesters)



COVERED ACTIVITIES – TWO TIERS



TIER I

- Facility Capacity: < 25,000 cubic yards (all materials received, processed, and stored)
- Must meet all siting criteria:
 - Depth to Groundwater based on soil percolation rate
 - Distance to Nearest Surface Water: \geq 100 feet minimum
 - Distance to Nearest Drinking Water Supply Well: \geq 100 feet minimum
- Feedstocks: agricultural material, green material, paper material, vegetative food material, or combination
- Additives/Amendments: < 10% by total weight of fertilizing material, manures, anaerobic digestate from feedstocks not listed above, others as approved by Executive Officer

TIER II

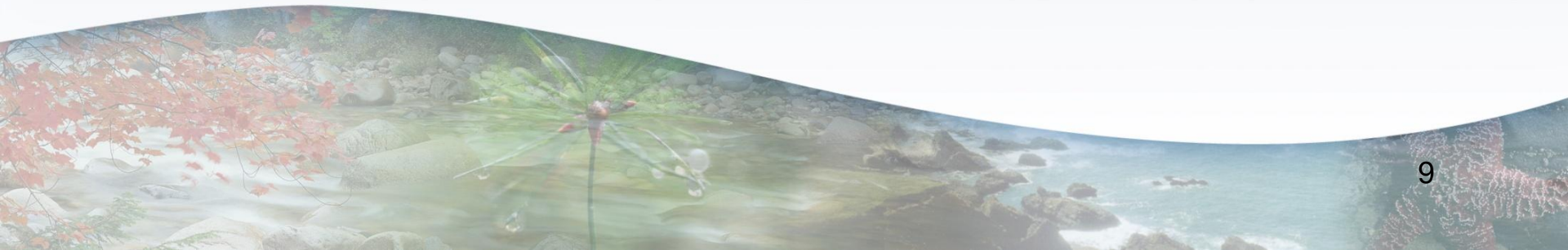
- Facility Capacity: $\geq 25,000$ cubic yards (all materials received, processed, and stored) or $< 25,000$ cubic yards that do not meet all siting criteria
- Feedstocks
 - agricultural material
 - green material
 - paper material
 - vegetative food material
 - solid food materials
 - biosolids (Class EQ, A, and/or B)*
 - Manure*
 - combination of the above
- Additives/Amendments: $< 30\%$ by total weight of materials approved by Executive Officer

*pending review of consistency with other General Orders

DESIGN REQUIREMENTS – ALL TIERS

Surfaces capable of preventing degradation of waters of the state. Designed and constructed to prevent conditions that may cause contamination, pollution, or nuisance:

- Sloped to prevent ponding and impede vertical movement of waste constituents
- Reliably transmit any free liquid laterally
- Control and manage run-on, runoff, and precipitation under a maximum 25-year, 24 hour peak storm event.
- Protect from inundation from surface flows under a maximum probable 25-year, 24 hour peak storm event.
- Working surfaces capable to resisting damage from movement of equipment and weight of material piles



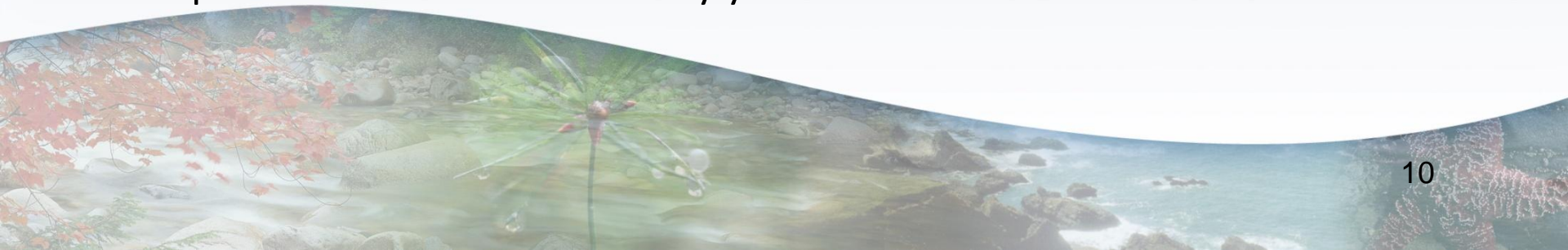
DESIGN REQUIREMENTS – ALL TIERS (continued)

Water Management Options – Submit a *Water Management Plan*

- Discharge process water pollutants under an individual NPDES wastewater discharge permit.
- Detention Pond
 - Contain all precipitation and run-off from a minimum 25-year annual return period.
 - Water in pond must be managed to prevent overtopping or overflow.

Drainage/Conveyance

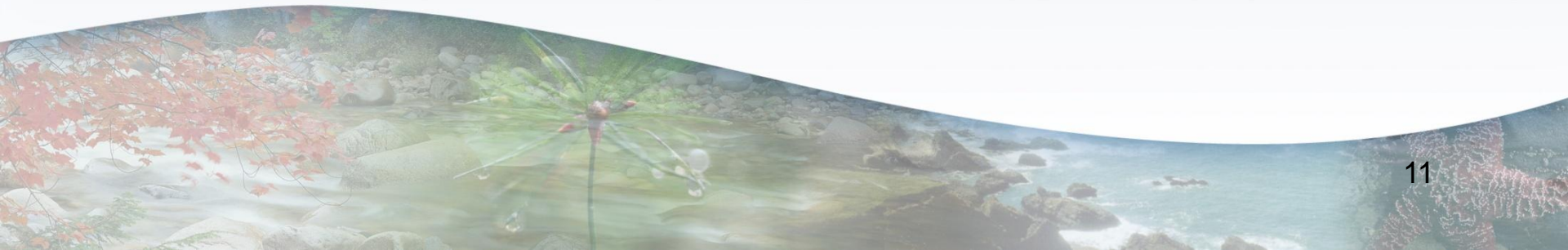
- Ditches sized to convey all precipitation and run-off from a 25-year, 24-hour peak storm event.
- Sloped and maintained to keep liquid flowing.
- Inspected and cleaned out every year.



DESIGN REQUIREMENTS – TIER II ONLY

Pad and Drainage/Conveyance Design

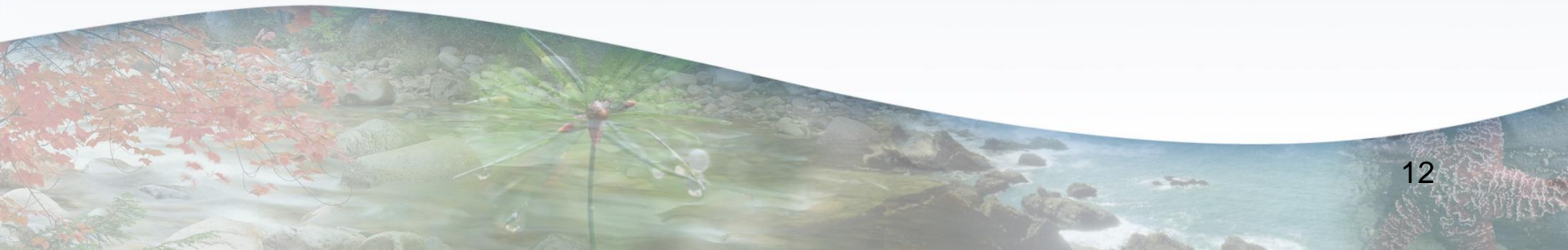
- Hydraulic Conductivity – 1.0×10^{-5} cm/sec
 - Asphalt concrete
 - Portland cement concrete
 - Compacted soils, with minimum thickness of 1 foot
 - Equivalent engineered alternative
- In lieu of hydraulic conductivity, applicant may propose a Groundwater Protection Monitoring Program that must be approved by the Executive Officer.



DESIGN REQUIREMENTS – TIER II ONLY (continued)

Pond Design

- Meet hydraulic conductivity of 1.0×10^{-6} cm/sec or less
 - 40-mil synthetic geomembrane (60-mil if HDPE) underlain by 1 foot of either compacted clay or GCL over a prepared base
 - Portland cement concrete underlain by 40-mil synthetic geomembrane (60-mil if HDPE)
 - Equivalent engineered alternative
- Must be constructed with a pan lysimeter monitoring device



MONITORING AND REPORTING REQUIREMENTS

Facility Inspections

- Annual winterization survey and maintenance
- Quarterly site inspections

Wastewater Detention Pond Monitoring

- Quarterly inspections of pond construction and capacity
- Annual water sampling

Pond Detection Monitoring of the Pan Lysimeter (Tier II only)

- Monthly checks during wet season
- Initiate response actions if liquid is detected

Annual Monitoring and Maintenance Report

- Working Surface Conditions and Maintenance
- Wastewater Detention Pond Monitoring and Maintenance
- Pond Detection Monitoring (Tier II only)

Water Quality Monitoring Constituents

Field Parameters

- pH, dissolved oxygen, specific conductance, temperature, turbidity

General Parameters

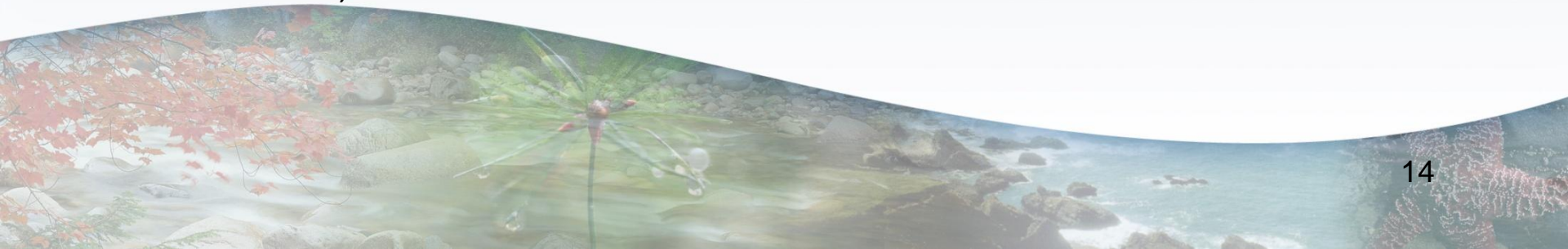
- Ammonia as nitrogen, biochemical oxygen demand (BOD), fecal coliform, nitrite as nitrogen, ortho-phosphate, phosphorus, total dissolved solids (TDS), total Kjeldahl nitrogen (TKN), total organic carbon (TOC)

General Minerals

- Bicarbonate alkalinity, calcium, chloride, magnesium, nitrate as nitrogen, potassium, sodium, sulfate

Dissolved Metals

- Aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium (III), copper, iron, lead manganese, mercury, molybdenum, nickel, selenium, thalium, vanadium, zinc



Next Steps

- Programmatic Environmental Impact Report and General Order
 - CEQA Public Scoping Meeting (July or August 2013)
 - Contractor procurement (~October 2013)
 - Release of Draft EIR and Draft General Order (~June 2014)
 - Final EIR and General Order (~December 2014)
- Board Hearing and Adoption – early 2015
- Reminders:
 - Sign up to receive information on our listserv:
http://www.waterboards.ca.gov/resources/email_subscriptions/swrcb_subscribe.shtml#quality
 - Check “Composting Operations”
 - Visit our webpage:
http://www.waterboards.ca.gov/water_issues/programs/compost/

Contact:

EMAIL QUESTIONS: Composting@waterboards.ca.gov

Stephanie Young, P.E.
Water Resources Control Engineer
(916) 341-5746

Leslie Graves, P.G., CHG
Land Disposal Program Manager
(916) 341-5810

