

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

**STATE WATER RESOURCES
CONTROL BOARD**



**CALIFORNIA INTEGRATED WASTE
MANAGEMENT BOARD**



Joint Public Workshop Concepts for a Statewide Waiver of Waste Discharge Requirements for the Regulation of Composting Facilities

**Cal/EPA Building
Byron Sher Auditorium
August 17, 2009**

STATEWIDE GROUNDWATER QUALITY INDICATORS

GEOTRACKER GAMA

LOCAL INFORMATION

CITY
UNINCORPORATED

COUNTY
YOLO - [VIEW WATER REPORTS](#)

GROUNDWATER BASIN
SACRAMENTO VALLEY - YOLO (5-21.67)

ZOOM IN TO SEE BORING LOGS

LEGEND

- SQUARE ICONS REPRESENT ONE OR MORE CDPH WELLS
- CIRCLE ICONS REPRESENT OTHER WATER SUPPLIES
- ▲ TRIANGLE ICONS REPRESENT ENVIRONMENTAL MONITORING WELLS
- ICONS WITH A CIRCLE AROUND THEM SIGNIFY A CLUSTER OF WELLS
- ⊖ ICONS WITH A DOTTED LINE AROUND THEM SIGNIFY AN APPROX LOCATION

Map Satellite Hybrid Terrain

POWERED BY Google

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SHOW ADVANCED QUERY OPTIONS WATER DEPTH QUERY

MAP SIZE: 640x480 32574 MATCHING WELLS (12.37% ABOVE DRINKING WATER STANDARD)

[DATASETS - ADDITIONAL INFORMATION](#)

■ Water Supply Wells (CDPH) ● Water Supply Wells (Other) ▲ Environmental Monitoring (Wells)

SHOW ME Wells With Results OF Nitrate as NO₃ - (MCL = 45 MG/L) IN THE PAST ALL YEARS

Nitrate as indicator of human impacts

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SHOW ADVANCED QUERY OPTIONS WATER DEPTH QUERY MAP SIZE: 20591 MATCHING WELLS (19.55% ABOVE DRINKING WATER STANDARD)

640x480

DATASETS - [ADDITIONAL INFORMATION](#)

■ Water Supply Wells (CDPH) ● Water Supply Wells (Other) ▲ Environmental Monitoring (Wells)

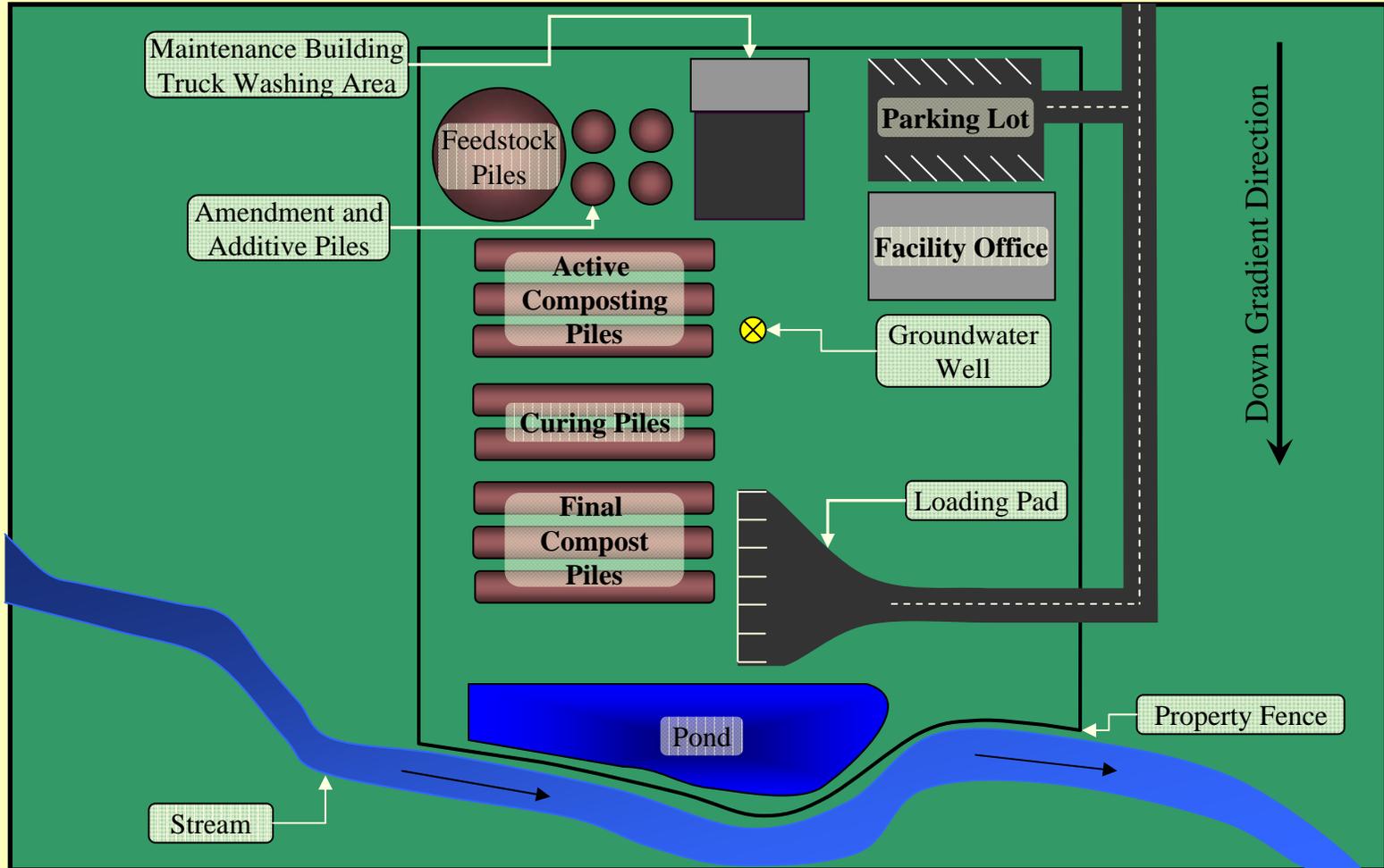
SHOW ME OF IN THE PAST

Salinity as indicator of human impacts

LAND USES AND WATER SUPPLY



FACTORS THAT INFLUENCE POTENTIAL TO IMPACT WATER QUALITY

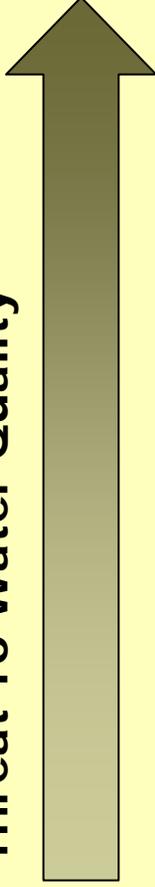


FACTORS THAT INFLUENCE POTENTIAL TO IMPACT WATER QUALITY

- Materials On Site
- Site Conditions
- Water Quality Protection Measures

FACTORS THAT INFLUENCE POTENTIAL TO IMPACT WATER QUALITY: MATERIALS ON SITE

Threat To Water Quality



Untreated Animal (Manure/Body Parts) &
Human Waste

Mixed Solid Waste (including plastic)

Biosolids

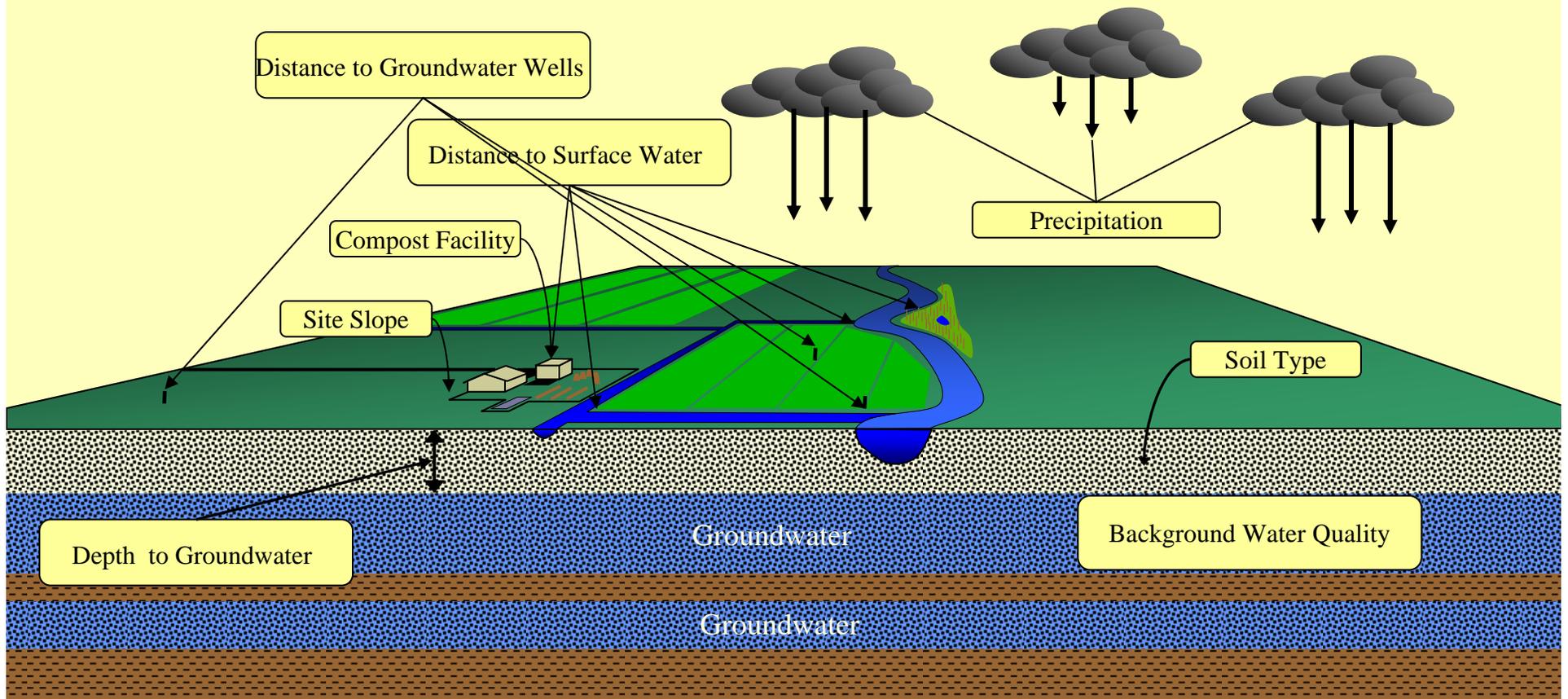
Food Waste
(Plant Only)

Green Waste
Only

SOME CONSTITUENTS OF CONCERN IN LEACHATE AND RUNOFF AT COMPOSTING FACILITIES

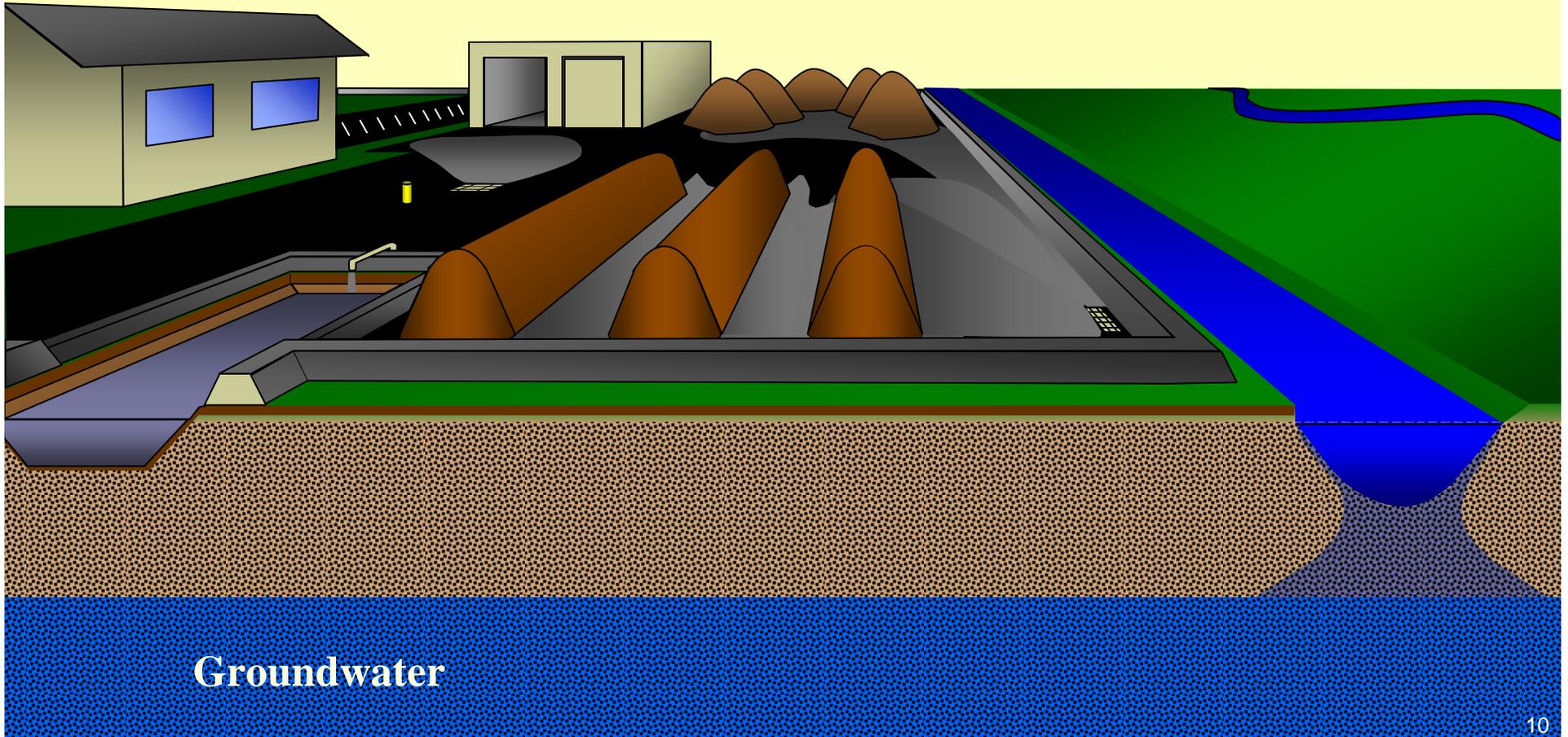
- Salts (TDS, EC)
- Nutrients (Nitrates)
- Pathogens (E. coli)
- Metals (Fe, Cu, Mn, Ni, Zn, Al, As)

FACTORS THAT INFLUENCE POTENTIAL TO IMPACT WATER QUALITY: SITE CONDITIONS



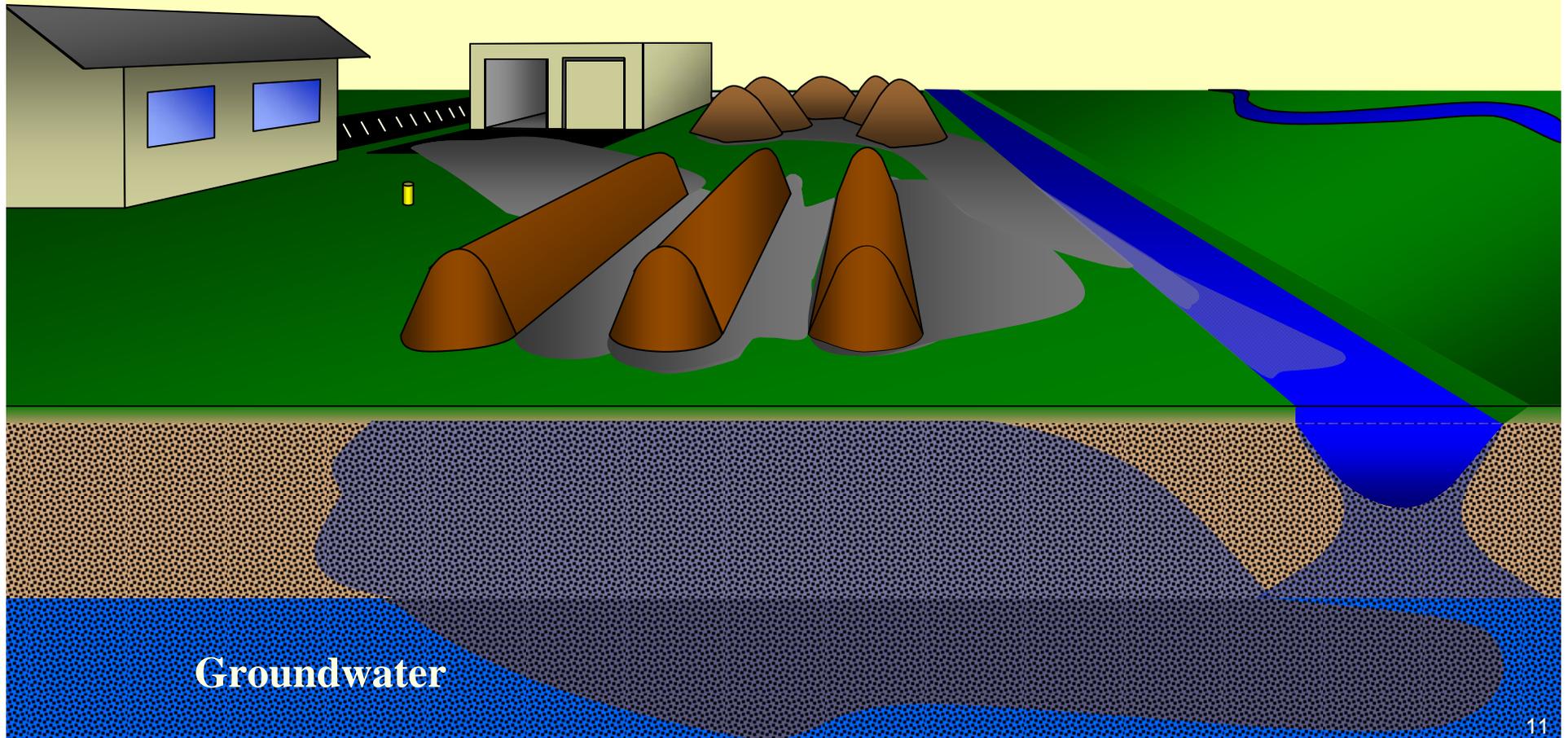
**FACTORS THAT INFLUENCE POTENTIAL TO IMPACT WATER QUALITY:
WATER QUALITY PROTECTION MEASURES
SCENARIO A: MEASURES IN PLACE SO LOWER THREAT**

Composting Facility



**FACTORS THAT INFLUENCE POTENTIAL TO IMPACT WATER QUALITY:
WATER QUALITY PROTECTION MEASURES
SCENARIO Z: NO MEASURES IN PLACE SO GREATER THREAT**

Composting Facility



WATER BOARD AUTHORITIES: STATE LAW

Porter Cologne Water Quality Control Act - Water Code Division 7

- Discharges of waste that could affect waters of the State
 - All surface water and groundwater are waters of the State
 - Regulatory Mechanisms
 - Waste Discharge Requirements (WDRs)
 - Waivers of WDRs
 - Cleanup and Abatement Orders, etc

WATER BOARD AUTHORITIES: FEDERAL LAW

Clean Water Act

Discharges that could affect waters of the United States

- Most surface waters are waters of the U.S.
(Groundwater not waters of the U.S.)
- Regulatory Mechanism: National Pollutant Discharge Elimination System (NPDES) Permits
 - Wastewater
 - Storm water (storm drains considered waters of the U.S.)
- NPDES permits cannot be waived
- Notes: NPDES permit exemption for the practice of agriculture; composting not exempted

WATER BOARD AUTHORITIES: BIOSOLIDS

May be applicable for composting facilities if biosolids (treated sewage sludge) piles are present

- Statewide General Order and Program EIR for biosolids application to land
- No delegated authority for the Federal Biosolids Program: USEPA retains permitting authority for 40 CFR Part 503 (biosolids)
- Certain counties have more restrictive biosolids ordinances

NPDES PERMITS

Permit Types

- Individual
- General

Typical Wastes Regulated

- Wastewater
 - Publicly Owned Treatment Works (POTW)
 - Refinery
 - Other point sources
- Storm Water
 - Municipal
 - Construction (may include certain composting facilities)
 - Industrial (may include certain composting facilities)

NPDES PERMITS FOR COMPOSTING FACILITIES

Industrial: State Water Board's General Industrial Storm Water Permit

- SIC Code 2875: composting, fertilizers, etc.
- Currently 34 composting facilities enrolled in General Permit

Individual Permits

- Adopted by Regional Water Boards for facilities where there is, or could be, a discharge to surface waters.

REQUIREMENTS OF STATE WATER BOARD'S GENERAL INDUSTRIAL STORM WATER PERMIT

- To enroll, must submit a Notice of Intent (NOI), site map
And fee (\$1,000)
- Develop and Implement Storm Water Pollution Prevention
Plan (SWPPP)
 - Identify sources of pollution
 - Identify best management practices (BMPs) to be
implemented to reduce or eliminate pollution from
identified sources
- Develop and Implement Monitoring Plan
 - Storm sampling (2 storms per year)
 - Quarterly visual monitoring
- Annual report and fee required

WHEN IS AN NPDES PERMIT NOT REQUIRED?

Permit exclusion (no need for NPDES permit coverage)
IF NO discharge to waters of the U.S. under any
circumstances

- Cannot have discharge from any source to waters of the U.S. (pond, freeboard, etc.)
- Possible options for NPDES permit exclusion:
 - All potential sources of discharge protected from precipitation (covered, etc.)
 - Site graded, with potential sources of discharge fully bermed.

WATER BOARD AUTHORITIES: STATE LAW AND COMPOSTING

WDRs

- Larger composting facilities have WDRs

Waiver of WDRs

- Green waste composting conditional waiver of WDRs in effect 1994 to 2003
- SB 390 (WC Section 13269) changed ability to waive WDRs:
 - Conditions
 - Monitoring of conditions
 - 5-year review
- New Statewide Waiver of WDRs for composting facilities not requiring an individual WDR
 - Provided flexible framework
 - Address wide variety of composting facilities

ONE TIERED CONCEPT...

- WDRs
- Waiver Categories: Based on site-specific conditions, requirements may be more or less substantive
 - Performance based requirements – need Regional Board review and approval
 - Prescriptive requirements – need little Regional Board review
- De Minimus criteria – No Waiver of WDR needed

DISCUSSION QUESTIONS

- What are the potential water quality impacts from composting facilities?
- What is the effect of different operational practices and feedstocks in addressing potential water quality impacts?
- How can potential water quality impacts be addressed?
- What water quality protection measures are appropriate?