Wastewater Discharges from Indoor Cannabis Cultivation

South Coast Regional Cannabis Cultivation Regulatory Unit
Santa Ana Regional Water Quality Control Board
South Coast Regional Cannabis Cultivation Regulatory Unit

- South Coast Policy Region covers large parts of San Diego, Riverside, San Bernardino, Orange, Los Angeles, and Ventura counties
- Unit represents Santa Ana, Los Angeles, and San Diego Regional Boards for compliance and enforcement
Legislative Background

- California voters approved Proposition 64, the Adult Use of Marijuana Act (AUMA), in November 2016.

- Under Proposition 64, adults 21 years of age or older can legally grow, possess, and use cannabis for non-medicinal purposes, with certain restrictions.
Cannabis Cultivation Policy (by City)

Note: Cultivation is not allowed in unincorporated (unshaded) areas.

- **Red**: Commercial Cannabis Cultivation Prohibited
- **Yellow**: Commercial Cannabis Cultivation Allowed-Medical Only
- **Green**: Commercial Cannabis Cultivation Permitted
- **Red**: Region 8 Boundary
- **Light Blue**: Region 4 Boundary
- **Purple**: Region 9 Boundary
- **Light Gray**: Los Angeles/San Diego

Data Sources:
State Water Board
Cannabis Cultivation Policy
and General Order

- WQ 2017-0023-DWQ
- Establishes requirements for the diversion of water and discharge of wastewater associated with cannabis cultivation activities
- Cannabis cultivators can obtain coverage under the Cannabis Policy General Order by applying for Waste Discharge Requirements (WDR)
- Indoor cultivation sites are eligible for a Conditional Waiver of WDRs
Requirements for Conditional Waiver for Indoor Cultivation

- All wastewater generated at a cultivation site is considered industrial wastewater.

- General Order, Finding 14:

  “Commercial cannabis cultivation activities that occur within a structure with a permanent roof, a permanent relatively impermeable floor (e.g., concrete or asphalt paved), and that discharge all industrial wastewaters generated to a community sewer system consistent with the sewer system requirements, are classified as conditionally exempt.”
Cannabis General Order
Exemptions- Indoor Cultivation

- Industrial wastewater discharge options:
  - Community sewer system
  - On-site wastewater treatment system, such as septic tank and leach field, or to land (must obtain separate regulatory authorization)
  - Collection tank regularly collected by an authorized waste hauler who disposes of the wastewater to a community sewer system.
Indoor cultivation using hydroponic system
This is not indoor cultivation!
Indoor Cultivation Processes

- Water Conditioning of Municipal Water Prior to Irrigation
  - Reverse Osmosis, pH adjustments, Nutrients
Indoor Cultivation Processes

- Hydroponics or Potted Soil
Indoor Cultivation Virtual Tour
Indoor Cultivation
POTW Concerns

• A hypothetical cultivation facility with a carefully managing nutrient load and water use, using high quality source water and mixing in reclaimed water from dehumidifiers, could have effluent to sewer with TDS ~1250 mg/L
• Reusing a portion of this waste stream (e.g. reverse osmosis) could result in brine waste at TDS ~4000 mg/L
• Sampling results by POTWs in Palm Desert have shown TDS results of ~2000 mg/L and nitrate of ~340 mg/L are common in effluent from indoor grows
• POTWs operating close to TDS/N effluent limits may be unable/unwilling to accept discharge from cultivations
• Challenges include predicting waste chemistry, volumes, and timing of inputs to WWTPs.
• Uncertainties with waste water composition (what do we test for?)
• Pretreatment? (either on-site or at POTW facility)
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My question to you:

Are your agencies ready and willing to accept industrial wastewaters from indoor cultivation sites?