



# Regional Evaluation of Potential Nutrient Discharge Reduction by Water Recycling

Recycled Water Committee Meeting  
September 17, 2019



**BACWA**  
BAY AREA  
CLEAN WATER  
AGENCIES

## Outline

- Project Overview
- Scoping and Evaluation Plan
- Next Steps





01

# Project Overview

# 2<sup>nd</sup> Watershed Permit



San Francisco Bay Regional Water Quality Control Board

**ORDER No. R2-2019-0017**  
**NPDES No. CA0038873**

## **WASTE DISCHARGE REQUIREMENTS FOR NUTRIENTS FROM MUNICIPAL WASTEWATER DISCHARGES TO SAN FRANCISCO BAY**

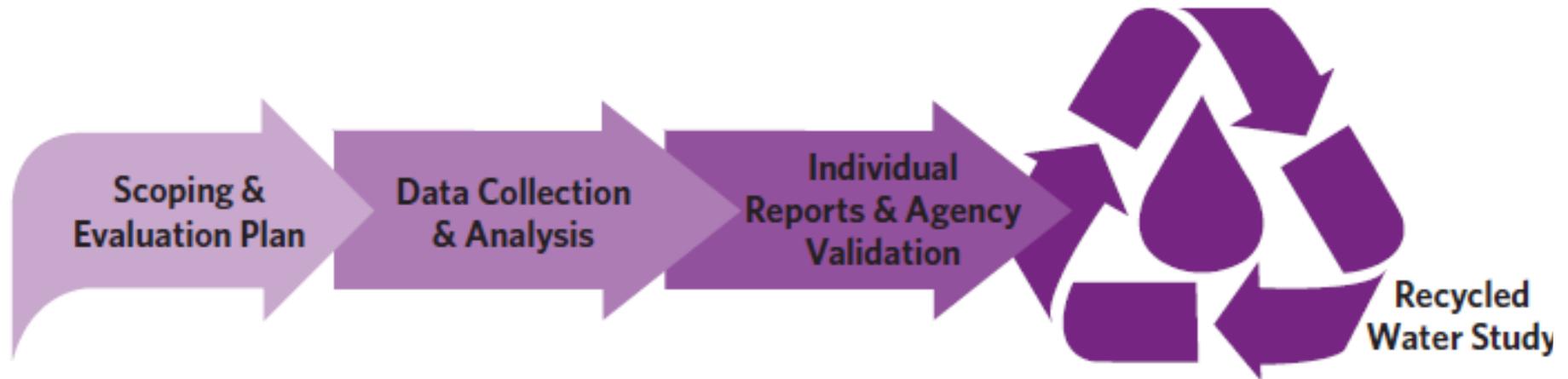
The following dischargers are subject to waste discharge requirements (WDRs) set forth in this Order, for the purpose of regulating nutrient discharges to San Francisco Bay<sup>1</sup> and its contiguous bay segments:

**Table 1. Discharger Information**

<b>Discharger</b>	<b>Facility Name</b>	<b>Facility Address</b>	<b>Minor/ Major</b>
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**May 8, 2019**

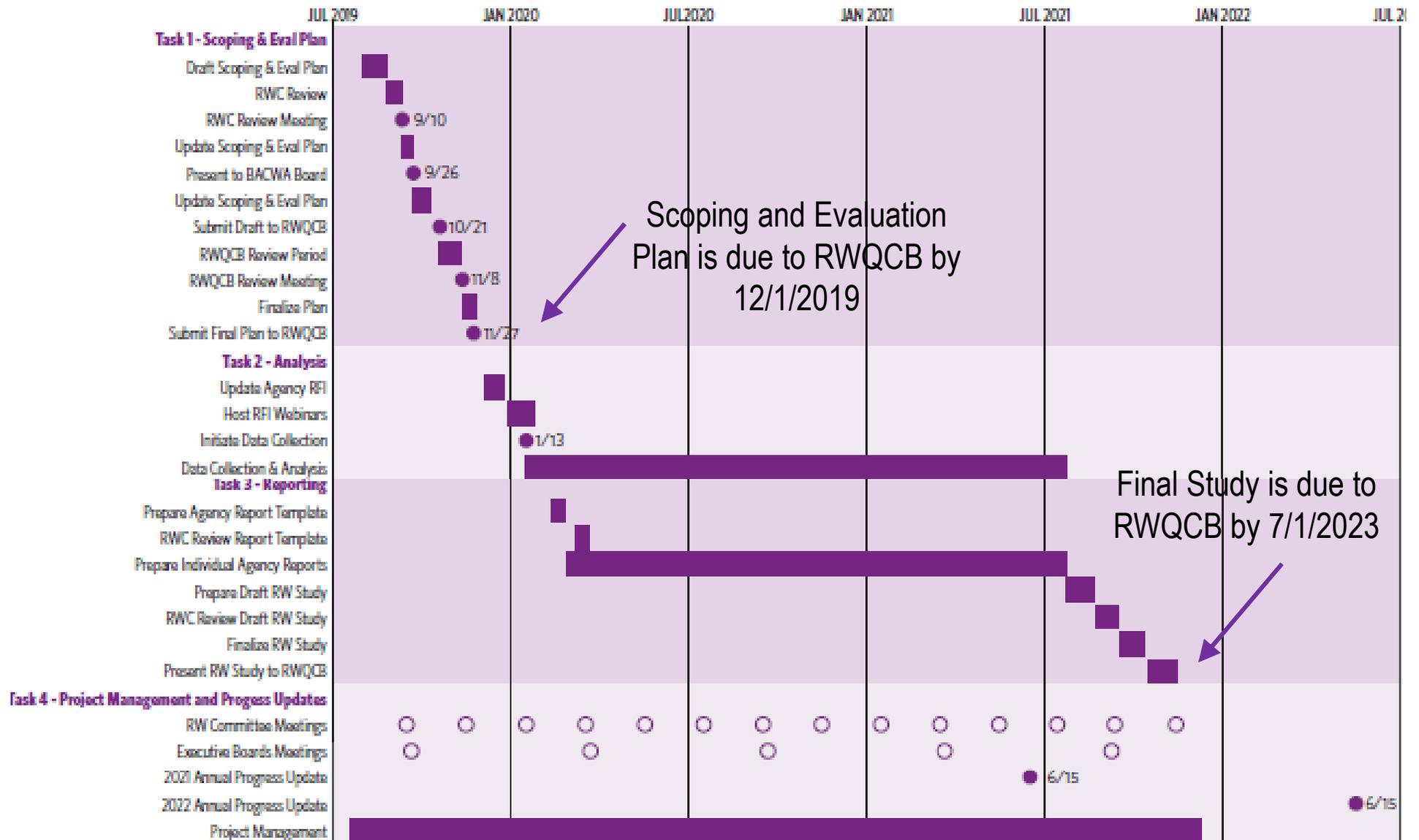
# Recycled Water Study Approach



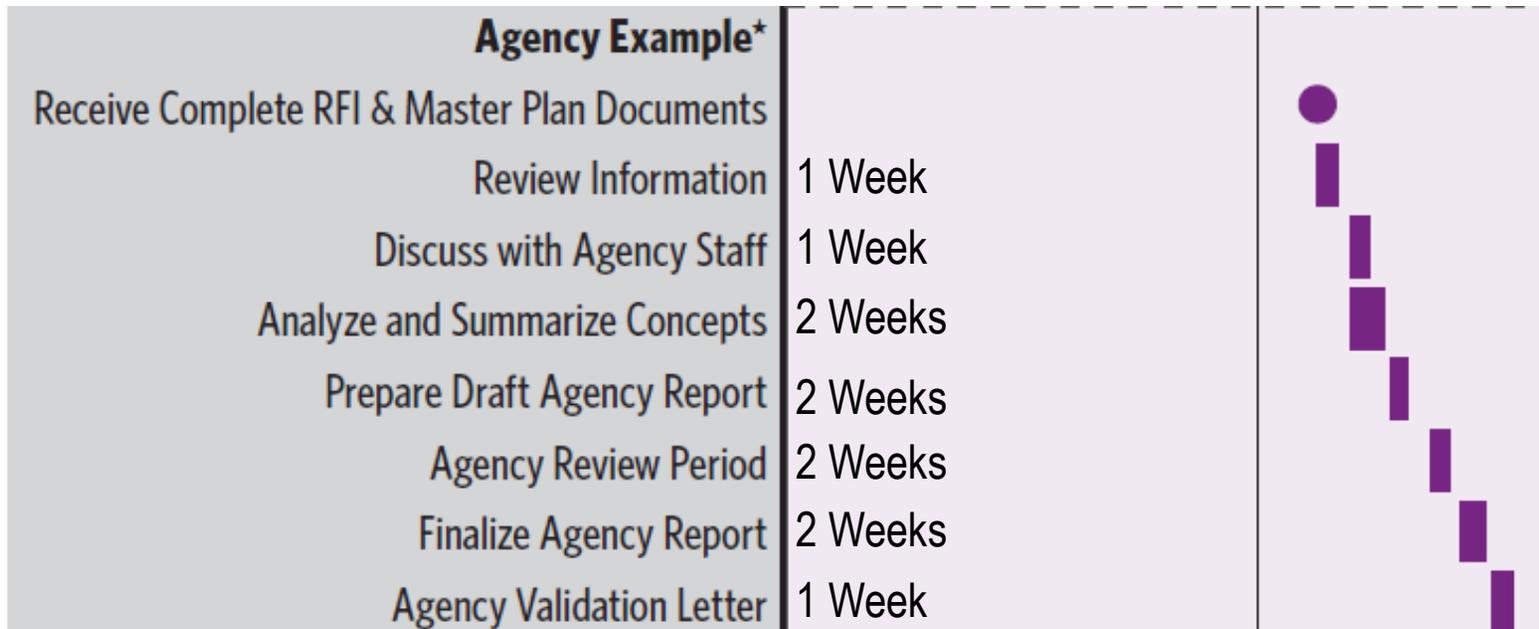
## Key Steps

- Complete Scoping and Evaluation Plan and Obtain RWQCB Buy-In
- Issue a request for information (RFI) to each participating agency
- Compile data and planning documents and perform a preliminary assessment
- Prepare draft report for each participating agency
- Obtain feedback and finalize each agency report
- Prepare Draft Recycled Water Study
- Obtain feedback and finalize the Recycled Water Report
- Submit to the Water Board

# Project Schedule



# Example Schedule for Agency Engagement



Estimated duration from start through completion, is approximately 2 months. Depending on complexity of program and number of participants, this could extend.



02

## **Scoping and Evaluation Plan**

# Scoping and Evaluation Plan

## Table of Contents

- Introduction
- Schedule
- Data Collection and Analysis
- Agency Reporting
- Recycled Water Study
- List of participating facilities

## Status

- Draft Submitted to RWC 9/15/2019
- Requesting your feedback by 9/30/2019, but earlier is preferred
- Presenting to the BACWA Board on 9/27/2019

As written, the Draft Scoping and Evaluation largely mirrors HDR's scope of work.

## The Analysis – Based on Agency-Provided Information

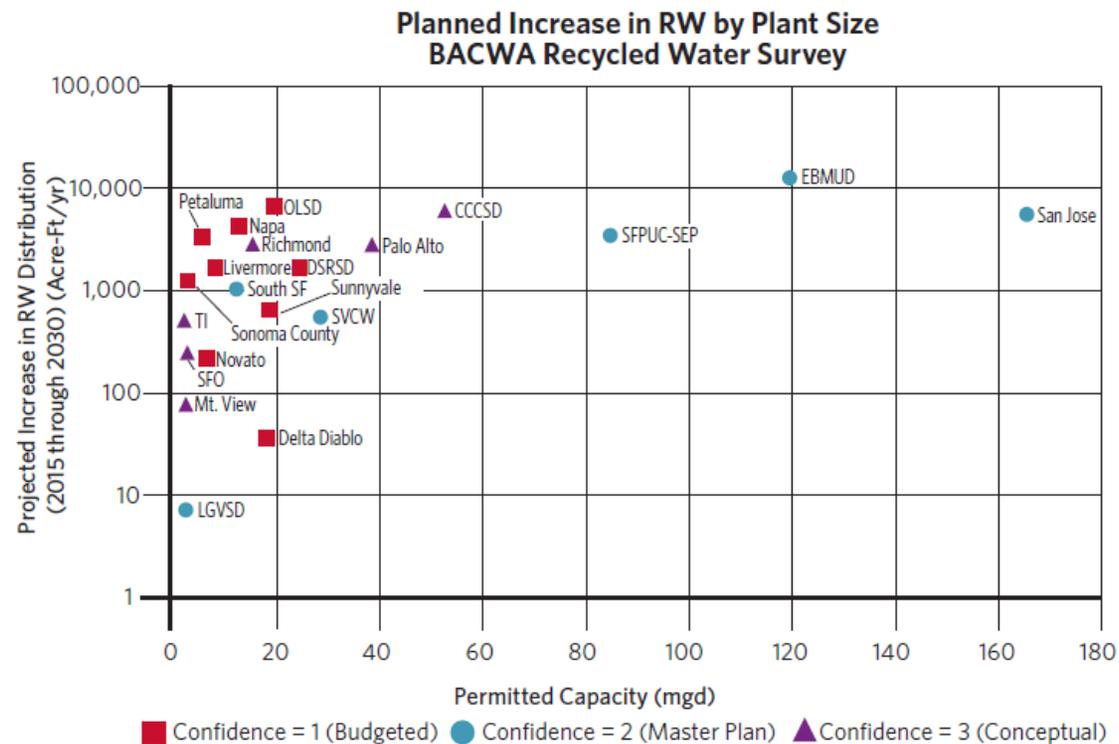
- Recycled water flows in 5 year increments, by use type.
- Estimated nutrient load reductions for each project.
  - Nutrient load reductions will be developed using the same approach as the 2018 Nutrient Reduction Study
- Capital and O&M costs (if available). HDR is not preparing new estimates, just escalating to latest ENR index.
- Likelihood of project implementation (and weighting?)
- Unit metrics
  - \$/AFY
  - \$/lb nutrient removed
  - Capital (or PV)\$/gallon of recycled water used per day (\$/gpd)
- Adverse effects and benefits
- Assessment of feasibility, efficacy, and reliability
- Identification of potential challenges to implementation

## **Input Needed, Item 1:**

- HDR's project schedule shows completion in late 2021, but permit requires submission of final report by 7/1/2023. What date should be shown in the Schedule Section?
  - Based on last study, we acknowledge the study may take longer than we initially plan
  - We recommend listing 7/1/2023.

## Input Needed, Item 2:

- Projects may be in various stages of development (back of envelope, master plan, line item in a CIP, feasibility study, in design, in construction)
- From the data collected for the 2018 Study:



## **Input Needed, Item 2:**

- Projects may be in various stages of development (back of envelope, master plan, line item in a CIP, feasibility study, in design, in construction)
  - Should we apply a weighting factor to account for uncertainty in whether the project will be constructed or not?
  - We recommend: Remain silent on weighting in the Scoping and Evaluation Plan. Collect the information. Make a decision mid-2020 as more information is collected and the implications become more clear.



# 03 **Next Steps**

## Next Steps

- Provide comments on the Draft Scoping and Evaluation Plan by 9/30/2019.
  - Send comments to Lorien Fono and Holly Kennedy
- HDR will update the Draft Scoping and Evaluation Plan and submit to the BACWA Board for final review.