



Regional Compliance for a Sustainable Bay

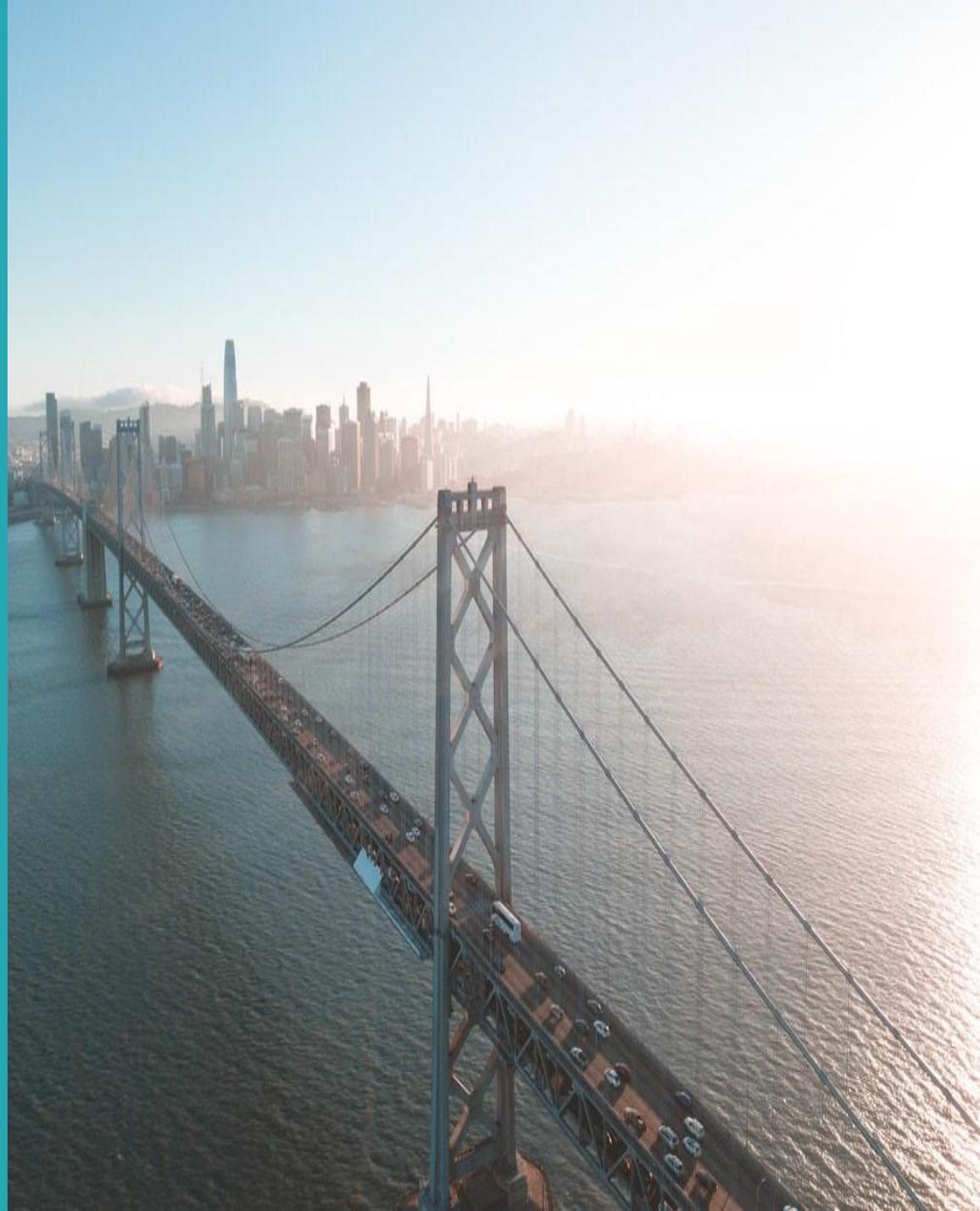
Workshop 1

May 2020



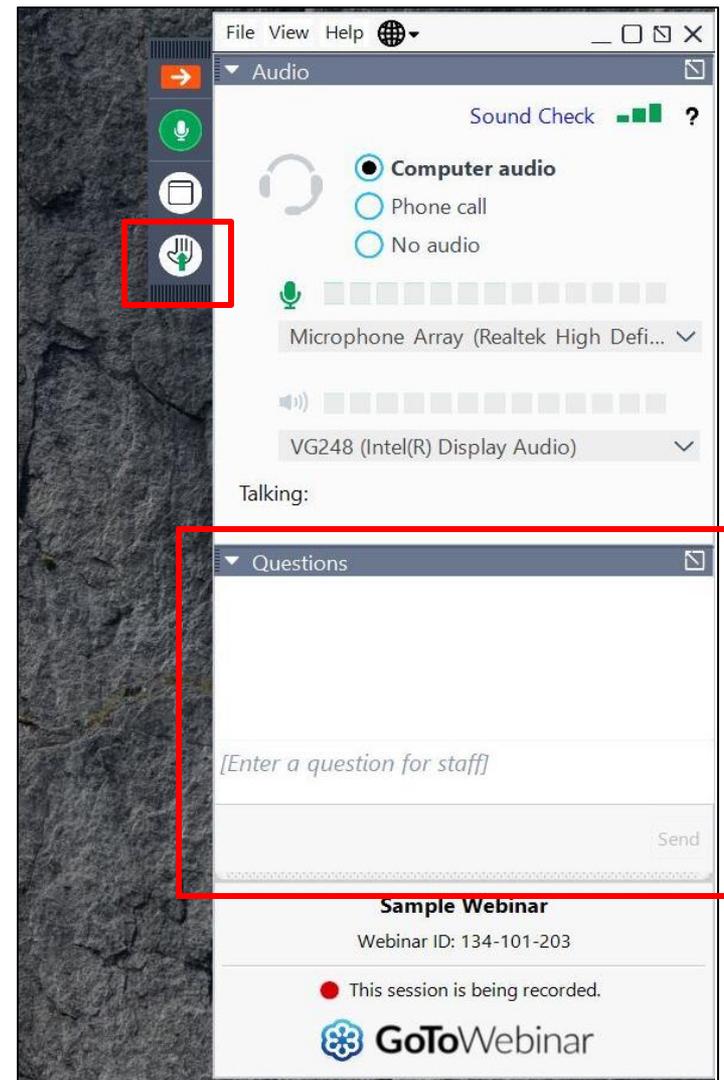
CITY of SAN PABLO
City of New Directions

Introduction



Purpose of Workshop

- All attendees will be on mute until we open up the line for comments and questions
- To speak anytime, please click the hand icon to virtually raise your hand, and we will unmute you
- To comment or ask questions, type your question into the question bar



- We will first address questions and comments received via the web-meeting forum and then open the line to oral comments and questions
- After the meeting you may email any comments/questions to Kelly Havens (khavens@geosyntec.com) and Amanda Booth (AmandaB@sanpabloca.gov)
- This meeting will be recorded and available at:
<https://www.sanpabloca.gov/2685/Regional-Alternative-Compliance>

- Introduce the Project and Project objectives
- Summarize the capabilities and limitations of Alternative Compliance Systems
- Identify and discuss major components of Alternative Compliance Systems
- Answer stakeholder questions or concerns about Alternative Compliance Systems



Susanne Heim

Principal, Panorama Environmental, Inc.; **Facilitator** for the Regional Compliance for a Sustainable Bay Project



Amanda Booth

Senior Environmental Program Analyst, City of San Pablo Environmental Services Division; **Project Lead** for the Regional Compliance for a Sustainable Bay Project



Kelly Havens, P.E.

Senior Engineer, Geosyntec Consultants

Consultant Team Project Manager for the Regional Compliance for a Sustainable Bay Project



Mark Kieser

Senior Scientist/Principal, Kieser & Associates, LLC

Specialist in water quality trading programs and policy development; Regional Alternative Compliance System **Technical Advisor and Development Lead**

Workshop Agenda

- Presentation (1st hour)
- Break (5 minutes)
- Focused topics (2nd hour)
 - Alternative compliance system metric
 - “Exchange” overview
 - Control measures to achieve metric
 - Certification
- Closing
- Questions and comments will be taken at the end of each focused topic discussion and after the presentation

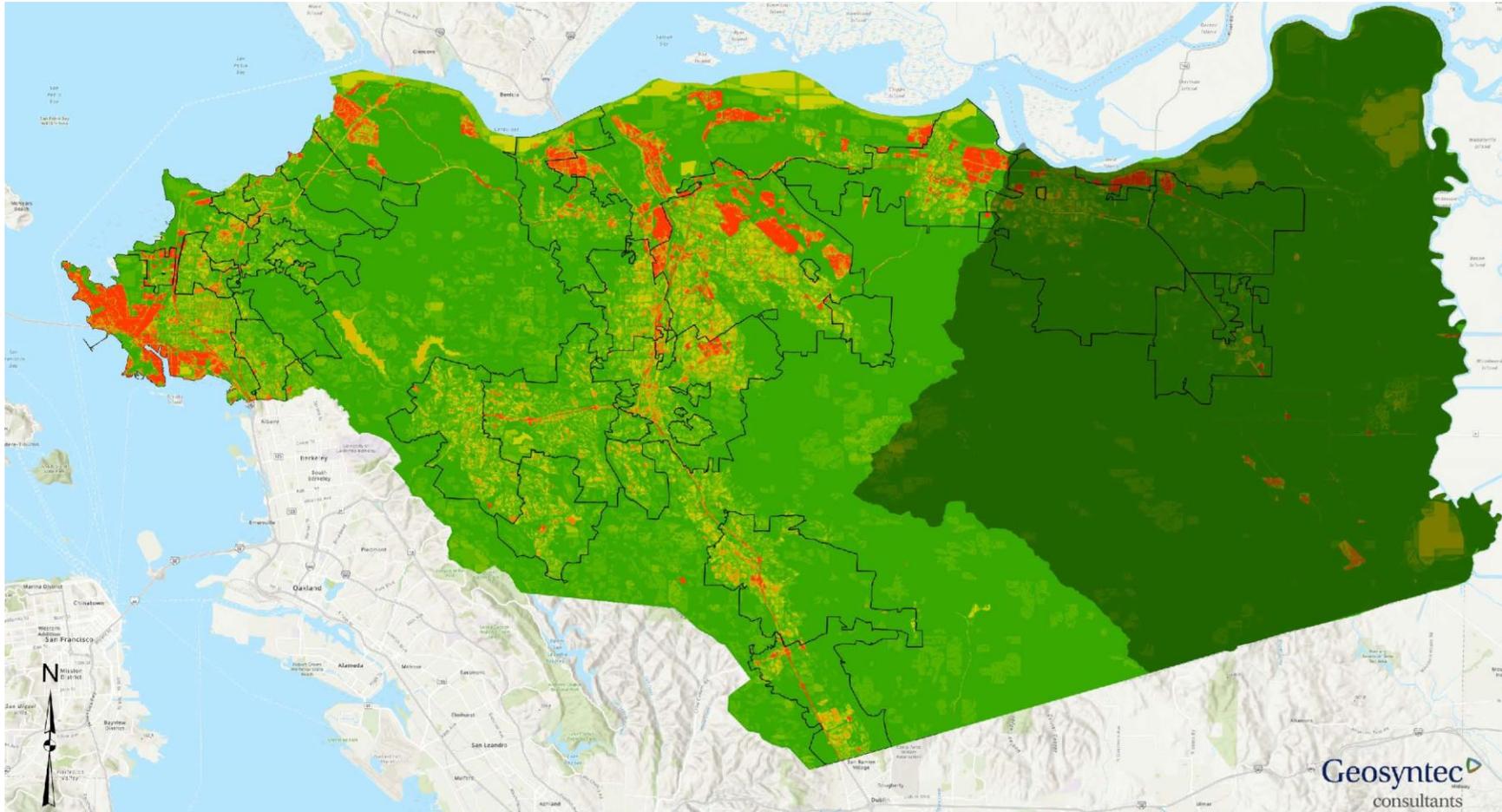
Workshop Agenda

| Topic | Discussion | Facilitator | Duration |
|---|--|---|----------|
| Introduction | Introduction and Overview; Approach to Interactive Web-based Workshop | Susanne Heim <i>Panorama Environmental</i> | 15 min |
| Presentation | Overview of Project Objectives | Amanda Booth <i>City of San Pablo</i> | 10 min |
| | Overview of Project Deliverables and Timeline | Kelly Havens <i>Geosyntec Consultants</i> | 10 min |
| | Introduction to Alternative Compliance Systems | Mark Kieser <i>Kieser & Associates</i> | 15 min |
| | Questions on Overall Project | | 10 min |
| Break | | | 5 min |
| Alternative Compliance System Metric | a. What is it? b. Why is it important? c. Bay Area Considerations d. Audience Comments / Feedback | Kelly Havens | 15 min |
| “Exchange” Overview | a. What is ‘exchanged’? b. How does this work? c. Eligibility Considerations d. Audience Comments / Feedback | Mark Kieser | 15 min |
| Control Measures to Achieve Metric | a. What are these and why are they important? b. Funding / Financing of Control Measures c. Bay Area Considerations d. Audience Comments / Feedback | Mark Kieser / Kelly Havens | 20 min |
| Certification | a. What is certification and why is this important? b. On-Going O&M c. Audience Comments / Feedback | Mark Kieser | 15 min |
| Closing | Conclusion, Next Steps | Amanda Booth / Kelly Havens | 10 min |

The Workshop will be recorded and posted to the Project Website following the meeting:
<https://www.sanpabloca.gov/2685/Regional-Alternative-Compliance>

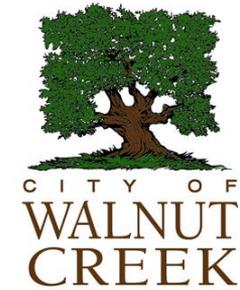
Overview of Project Objectives





PCBs load distribution in Contra Costa County per draft RAA model results

Project Partners:



Main Project Objectives

- **Help** to cost effectively meet the TMDL goals
- Develop a system that “opens the door” to fund larger projects and projects that have better water quality outcomes
- Provide the opportunity for cities and counties to strategically invest in green stormwater infrastructure (and/or other measures that have water quality benefits)
- Create mechanisms for funding ongoing maintenance
- Develop a system to efficiently track and account for projects

- Identify and fiscally account for benefits of water quality project
- Understand and create opportunities for innovative funding mechanisms
- Address social and environmental justice issues
- Explore and learn about alternative compliance structures that currently operate in the US

- What is the appropriate metric for the Bay Area?
- How will the system operate? (i.e. what type of system will be created?)
- What is the approval process for a project?
- How are projects funded? (Capital and ongoing O&M)
- How are projects and exchanges tracked?
- What is the appropriate legal agreement?

All aspects above need to be legally defensible

Overview of Project Deliverables and Timeline



Overview of Project Tasks

| Project Task | Timeline |
|------------------------|-----------------------|
| Meetings and Workshops | Throughout Project |
| Literature Review | Summer 2020 |
| System Development | Winter/Spring 2021 |
| Legal Review | Summer 2021 |
| Pilot Testing | Fall 2021/Winter 2022 |
| Project Wrap-Up | Spring 2022 |

Consultant Team:

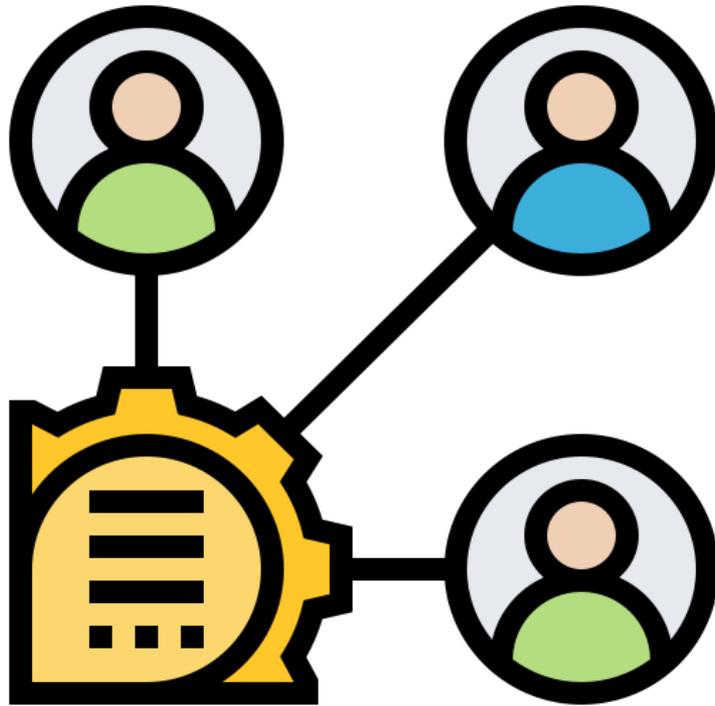


- Project includes three committees:
 - Steering Committee (i.e., Project Partners)
 - Technical Advisory Committee
 - Advisory Committee



Advisory Committee Members

| County/ Agency | Representatives, Organization (as applicable) |
|---|--|
| Alameda County | Shannan Young, City of Dublin |
| | Kristin Hathaway, City of Oakland |
| Contra Costa County | Karin Graves, CCCWP |
| | Frank Kennedy, Kennedy and Associates |
| San Mateo County | Matt Fabry, SMCWPPP |
| | James O'Connell, City of Redwood City |
| Santa Clara County | Pam Boyle Rodriguez, City of Palo Alto |
| | Rinta Perkins, City of Santa Clara |
| Solano/Fairfield-Suisun, Vallejo | Kevin Cullen, Fairfield-Suisun |
| Marin County | Rob Carson |
| Napa County | Jamison Crosby |
| San Francisco Public Utilities Commission | Sarah Minick |
| Sonoma County | Oriana Hart |
| Port of Oakland | Angela Clapp |
| Caltrans District 4 | Hardeep Takhar |
| | Wilfung Martono |



- Committee meetings will be scheduled at key junctures in system development to obtain:
 - Project direction,
 - Technical input, and
 - Stakeholder considerations.
- Workshops are intended to solicit feedback from wider stakeholder audience

- Drivers and regulatory considerations
- Background on alternative compliance system approaches
- Key system components
- Outlines next steps for System Development

To be completed Summer 2020



TABLE OF CONTENTS

| | |
|---|---|
| 1. INTRODUCTION AND OBJECTIVES | 1 |
| 2. REGULATORY CONSIDERATIONS | 1 |
| 2.1 Legal Basis for Alternative Compliance..... | 1 |
| 2.2 Alternative Compliance Demand Drivers | 2 |
| 2.3 Environmental Clearance (CEQA Considerations) | 2 |
| 2.4 Regulatory Considerations for the San Francisco Bay Area | 2 |
| 2.5 Regulatory Considerations for PCBs..... | 2 |
| 3. ALTERNATIVE COMPLIANCE APPROACHES | 2 |
| 3.1 Water Quality Trading Programs..... | 2 |
| 3.2 Water Quality, Stormwater Crediting and Offset Programs..... | 3 |
| 3.2.1 Stormwater Compliance Programs Similar to Stormwater Crediting/Offset | 3 |
| 3.3 Performance-based Contracting..... | 3 |
| 3.4 Community Based Public-Private Partnerships (CBP3)..... | 3 |
| 3.5 Wetland and Stream Mitigation Banking Markets | 3 |
| 3.6 Payment for Ecosystem Services..... | 4 |
| 3.7 One-off Market-Based Approaches and Early Market-based Pilot Trading for Non-Conventional Pollutants..... | 4 |
| 4. ALTERNATIVE COMPLIANCE METRIC | 4 |
| 4.1 Baselines | 4 |
| 4.2 Unit of Exchange (credit metric) | 5 |
| 4.3 Alternative Compliance Metric Calculation Methods | 5 |
| 5. PRACTICES TO ACHIEVE CREDITING REDUCTIONS | 5 |
| 6. ALTERNATIVE COMPLIANCE SYSTEM COMPONENTS | 5 |
| 6.1 Eligible Entities | 6 |
| 6.2 Eligible Transactions | 6 |
| 6.3 Trade Ratios | 6 |
| 6.4 System Restrictions/Restricted Waters | 6 |
| 6.4.1 Restrictions on Generation of Alternative Compliance Metric | 6 |
| 6.4.2 Restrictions on Use of Alternative Compliance Metric..... | 6 |
| 7. COMPLIANCE RISK CONSIDERATIONS | 6 |
| 7.1 Certification and Verification | 6 |
| 7.2 Water Quality Monitoring and Evaluation | 7 |
| 7.3 Compliance and Enforcement..... | 7 |

Regional Alternative Compliance System Literature Review ii March 27, 2020
DRAFT Annotated Outline

Will use Literature Review; Project Committee Input; Workshop Feedback

Key Components and Considerations:

- Analyses for **metric** definition
- Definition of **eligible entities** and **geographical limits** of exchange
- **Funding/financing** of projects
- System instructions and **procedures**
- **Tracking Tool** and use instructions



- **Summary Report, including:**
 - Objectives and regulatory drivers
 - Summary of analyses and System decisions
 - Description of risk and uncertainty management
- **Tracking System**
 - Metric-generating project data
 - Metric and Exchange tracking
 - Project performance, i.e., O&M tracking

- Template Documents and Supporting Documents
 - MOU or interagency agreements
 - Annual Program Report Template
 - O&M Inspection Certification
 - Participant contractual language



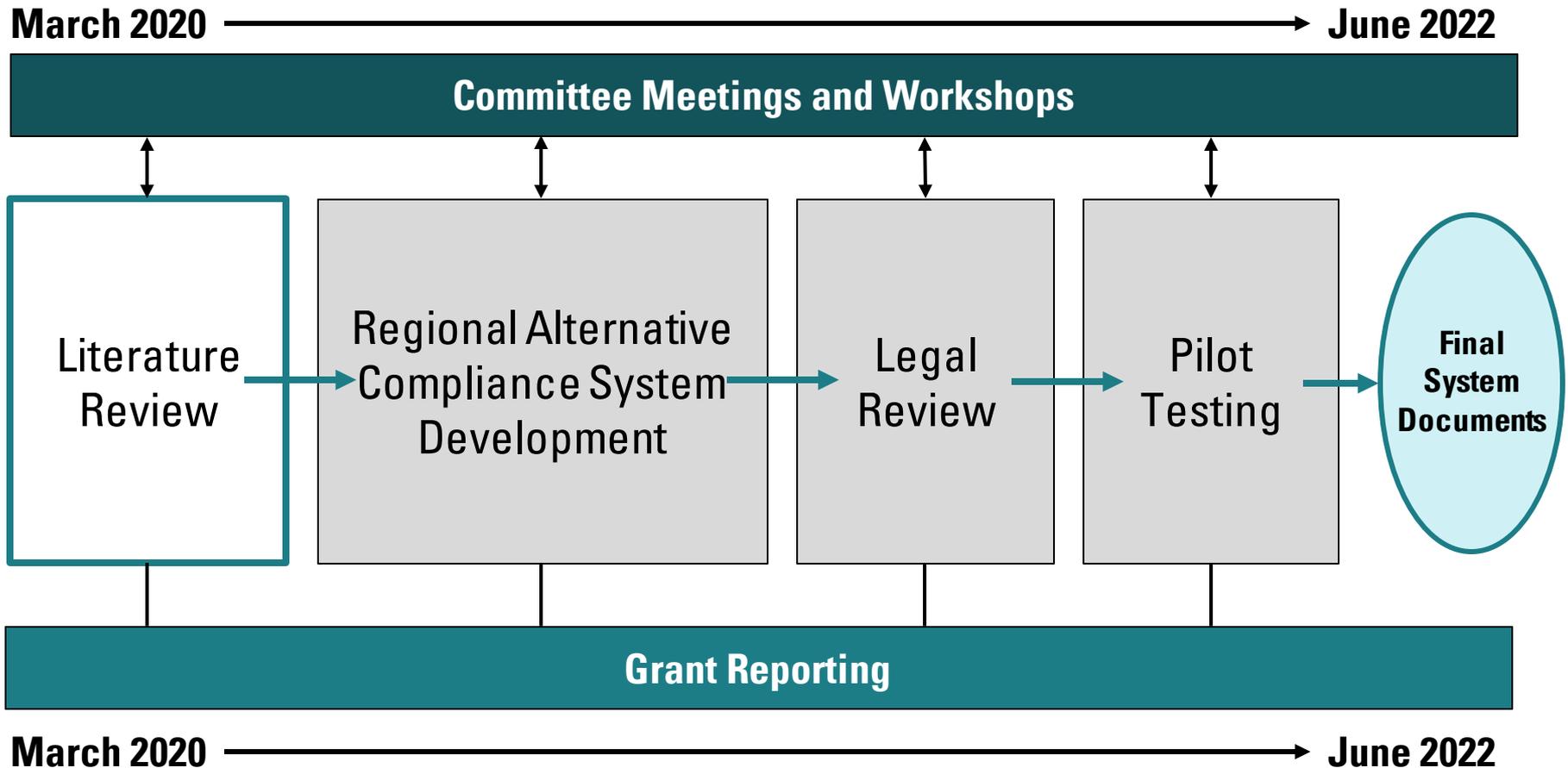
- Review by **City & County Attorneys** and **Federal Clean Water Act Expert**
 - Written comments and TAC meeting
- Comments will be compiled, addressed, reviewed by project committees
- Revised Final System Documents



- The Revised Final System will be **Pilot Tested**
 - 1 to 2 projects (implemented separately)
- Pilot projects will include development of:
 - Tracking System
 - MOUs or Interagency agreements
 - O&M certification documents
- Lessons learned will be used to revise System documents



Overall Project Schedule

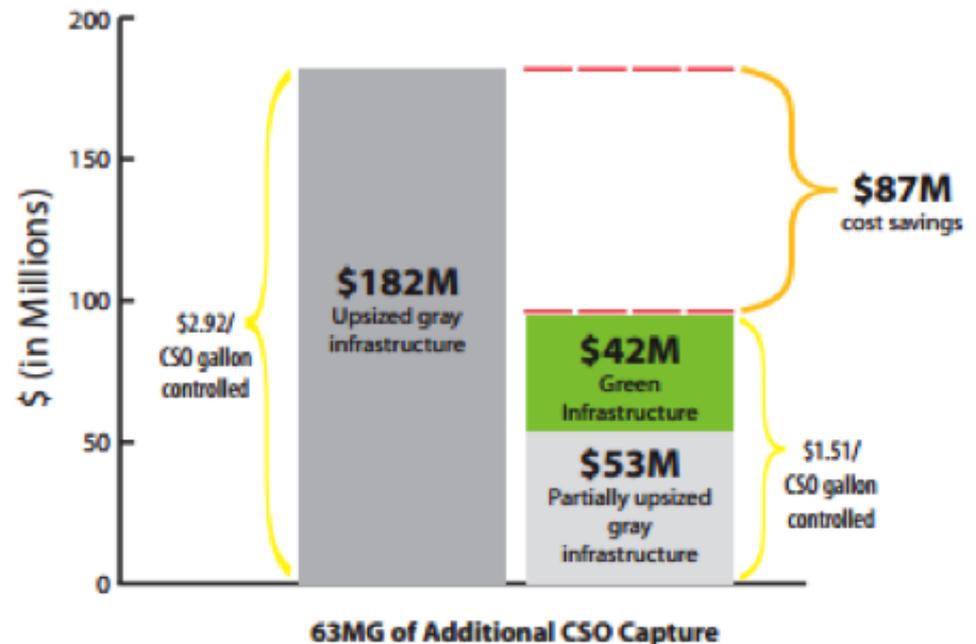


Introduction to Alternative Compliance Systems



What is an Alternative Compliance System?

- Alternative compliance systems are flexible compliance programs that allow regulated dischargers to meet equivalent discharge reductions by investing in the implementation of controls at other source locations.
- The ultimate objective of an alternative compliance system is to achieve an overall environmental benefit at a reduced overall cost

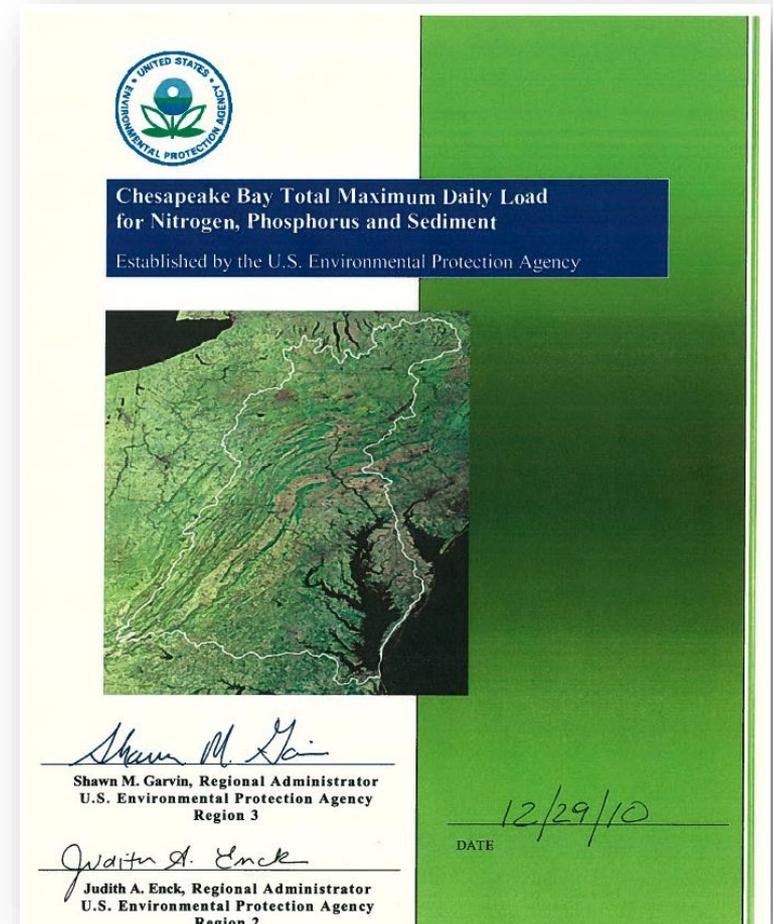


What are Examples of Alternative Compliance Systems?

- Types of Alternative Compliance approaches that are being utilized include:
 - Water Quality Trading
 - Offset Programs
 - In-lieu Fee Programs
 - Performance-based contracting and Community Public/Private Partnerships
 - Others such as Payment for Ecosystem Services and Compensatory Mitigation Banking

What is the Legal Basis for Alternative Compliance?

- Alternative compliance systems are legally enabled through existing rules, guidance, and plans (such as TMDL implementation plans)



- The use of alternative compliance systems are generally driven by regulatory requirements such as TMDLs, impending TMDLs, WQS/WQBELs or requirements for new development/urban growth

DEPARTMENT OF ENERGY AND ENVIRONMENT

NOTICE OF FINAL RULEMAKING

Stormwater Management and Soil Erosion and Sediment Control Amendments

The Director of the Department of Energy and Environment (DOEE), under the authority set forth in the District Department of the Environment Establishment Act of 2005, effective February 15, 2006 (D.C. Law 16-51; D.C. Official Code § 8-151.01 *et seq.* (2013 Repl. & 2018 Supp.)); Water Pollution Control Act of 1984, effective March 16, 1985 (D.C. Law 5-188; D.C. Official Code § 8-103.01 *et seq.* (2013 Repl. & 2018 Supp.)); and Mayor's Order 2006-61, dated June 14, 2006, hereby gives notice of the adoption as final of the following amendments to Chapter 5 (Water Quality and Pollution) of Title 21 (Water and Sanitation) of the District of Columbia Municipal Regulations (DCMR).

DOEE's adoption of the final rule comes after publication of a proposed rule in the February 15, 2019, issue of the *D.C. Register* (66 DCR 0078892). DOEE has closely reviewed all of the comments that were received on the proposed rule during the 45-day public comment period and is finalizing the amendments.

The 2013 Stormwater Rule is achieving its intended objectives, setting the District on a long-term path to reducing stormwater runoff so District streams and rivers can once again become fishable and swimmable without inhibiting the development that provides valuable benefits to the District. Approximately 825 projects have been successfully designed in compliance with the regulations, designing runoff-reducing green infrastructure that will capture stormwater from approximately 850 acres of the District, while the annual average number of development projects increased by approximately 20%.

Though the regulations have generally achieved DOEE's intent, compliance has been a disproportionate burden for certain types of projects. DOEE's primary regulatory focus in developing the 2013 Stormwater Rule was on development, meaning relatively large new and renovated buildings and parking lots. For these projects, the cost to design and install runoff-reducing green infrastructure is small relative to the total project cost. However, for projects with a relatively low total project cost, the cost to achieve stormwater compliance can be relatively high. This includes single- and two-family affordable houses, projects to install or maintain athletic playing fields, trails for walking and biking, small structures such as picnic shelters at parks, and landscaping maintenance. DOEE also recognizes that these projects provide a public benefit and does not want to create disincentives to completing them. The proposed rulemaking provides compliance flexibility and exemptions to these projects for which compliance with the 2013 Stormwater Rule is a disproportionate burden.

To address the disproportionate burden of compliance, DOEE will finalize definition changes and exemptions to address single- and two-family affordable housing, athletic playing fields, permeable athletic tracks, permeable play areas trails, small structures at parks, and landscaping maintenance. Based on prior projects, DOEE estimates that the amendments may reduce the regulated area draining to best management practices (BMPs) on future Stormwater Management

Background on Alternative Compliance Systems

- In the last 25 years, many common elements of alternative compliance systems have been adapted from USEPA's 2003 policy on water quality trading.
- This position was updated to encourage more flexibility and innovative approaches by a 2019 EPA memorandum.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



Office of Water
Water Quality Trading Policy
January 13, 2003



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 6 2019

OFFICE OF WATER

MEMORANDUM

SUBJECT: Updating the Environmental Protection Agency's (EPA) Water Quality Trading Policy to Promote Market-Based Mechanisms for Improving Water Quality

- Regardless of the type of alternative compliance approach, common elements that need to be defined in alternative compliance systems include:
 - System area
 - Alternative compliance metric
 - Eligible entities for participation
 - Approved control measures
 - Baseline for generating a unit of alternative compliance metric
 - Metric quantification methods
 - Methods for addressing risk and uncertainty, such as through uncertainty ratios and reserve pools
 - Compliance and enforcement provisions

Questions / Break

Alternative Compliance System Metric



What is the Alternative Compliance System Metric?

- Unit of water quality benefit
- Unit of pollutant discharge reduction reflecting both:
 - Regulatory pollution control requirement
 - Measurable outcome of alternative control
- Often expressed as:
 - Mass pollutant load reduction per time (e.g., kilograms/year) or
 - Measure of benefit from alternative control (e.g., “acres greened”), consistent with regulatory requirements

What is the Alternative Compliance System Metric?



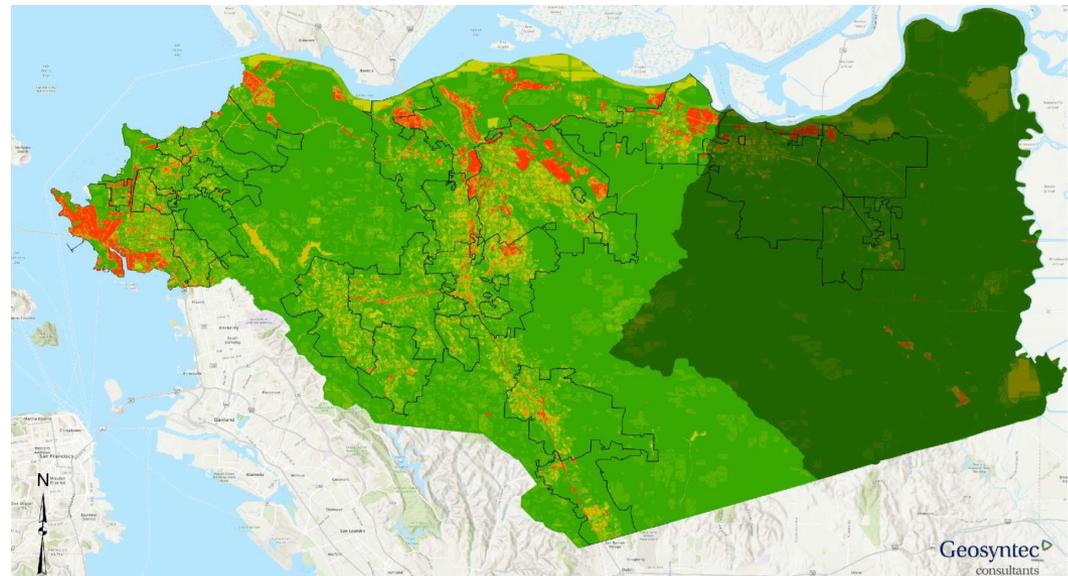
- **The unit generated by projects and then exchanged**
- Methods to calculate metric generated must be clearly defined and consistent

Why is the Metric Designation Important?



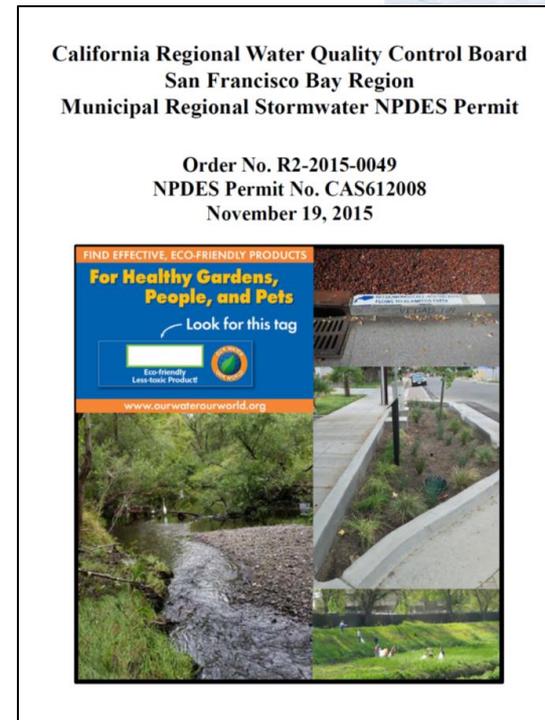
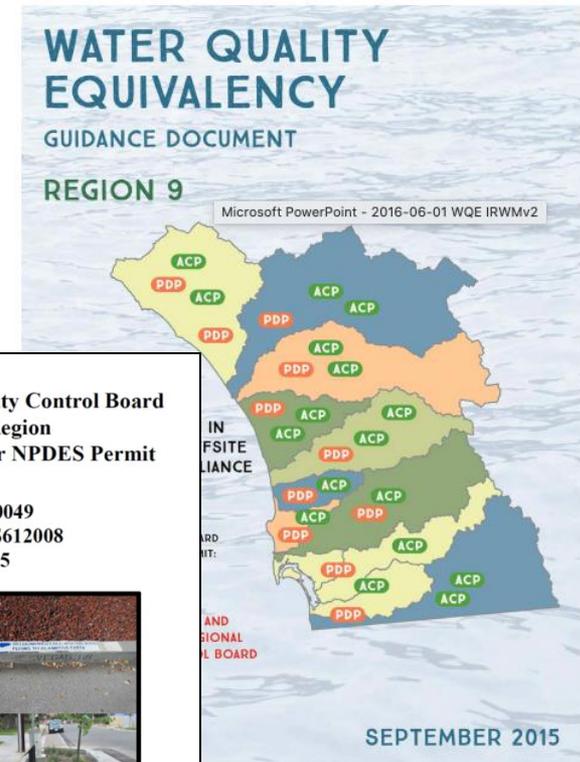
CITY OF SAN PABLO
City of New Directions

- The metric drives the **control measures** that can be implemented to generate units of metric that are exchanged
- The metric designation may result in bounds set on:
 - Geographic limitations of control measure implementation
 - Parties eligible to participate



Why is the Metric Designation Important?

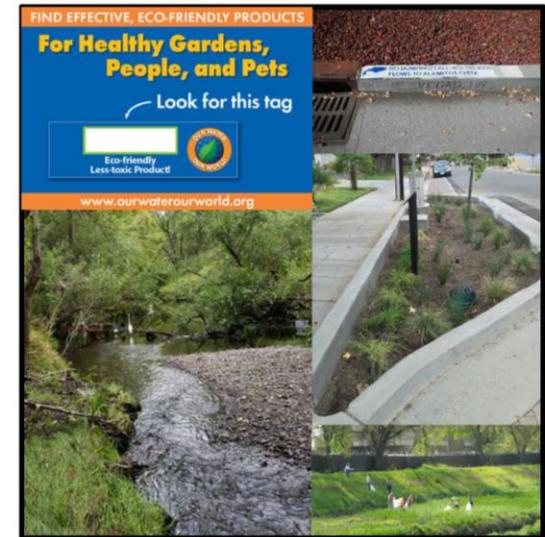
- Depending on the selected metric, “discounting” or scaling may be needed, depending on variables such as:
 - Control Measure
 - Exchanging Parties
 - Project Location
- The metric will set the accounting for **tracking Regional compliance** with key System drivers



- Primary drivers of the System:
 - Municipal Regional Stormwater Permit (MRP)
 - San Francisco Bay PCBs and Mercury TMDLs
- Relevant provisions of the MRP include:
 - C.3: New Development & Redevelopment
 - C.11 and C.12: Mercury and PCBs Controls

California Regional Water Quality Control Board
San Francisco Bay Region
Municipal Regional Stormwater NPDES Permit

Order No. R2-2015-0049
NPDES Permit No. CAS612008
November 19, 2015



- May 13th TAC meeting
 - Discuss options for metric and potential implications
- May 18th Advisory Committee meeting
 - Obtain input from stakeholder advisors
- Literature Review
 - Discussion of metric options and technical considerations

Audience Comments / Feedback

“Exchange” Overview



- **The unit of metric may be generated** from an alternative source of control **to achieve a surplus of pollution reductions** beyond the compliance requirement **by a "Seller"**
- **This surplus** of credits or offsets **can be "exchanged"** (sold or traded) **with a "Buyer"** (another regulated entity) to mutually achieve required pollutant reductions



- Depending on the alternative compliance approach, an interested seller can:
 - construct control measures under direct contract with a buyer or others to generate credits
 - construct control measures in advance on a speculative basis anticipating a future buyer
- In either situation, control measures must meet criteria set out by the System and its stakeholders to ensure that associated water quality benefits are realized.

- In the context of an alternative compliance system for the San Francisco Bay, eligible participating entities may include:
 - **Potential Sellers:** MS4s, MRP permittees, industrial permittees, other NPDES permittees, agencies, private property owners, third parties, entrepreneurial credit investors
 - **Potential Buyers:** MS4s, MRP permittees, industrial permittees, other NPDES permittees, agencies, developers
 - **Exchange Facilitating Entities:** credit aggregators, brokers

- Additional considerations for eligibility may include restrictions on:
 - **Sellers:** Whether entities outside of the TMDL area may sell units of metric
 - **Buyers:** The amount of purchased units of metric that can be utilized by a buyer to meet their compliance requirements

Audience Comments / Feedback

Control Measures to Achieve Metric



What are Control Measures?

- Pollutant reducing practices implemented by eligible sellers to generate units of metric.
- Can be structural and non-structural practices accepted by regulators, including but not limited to:
 - green stormwater infrastructure (GSI)
 - source controls
 - other urban stormwater treatment measures



Why are Control Measures Important?



GSI Image: City of San Pablo

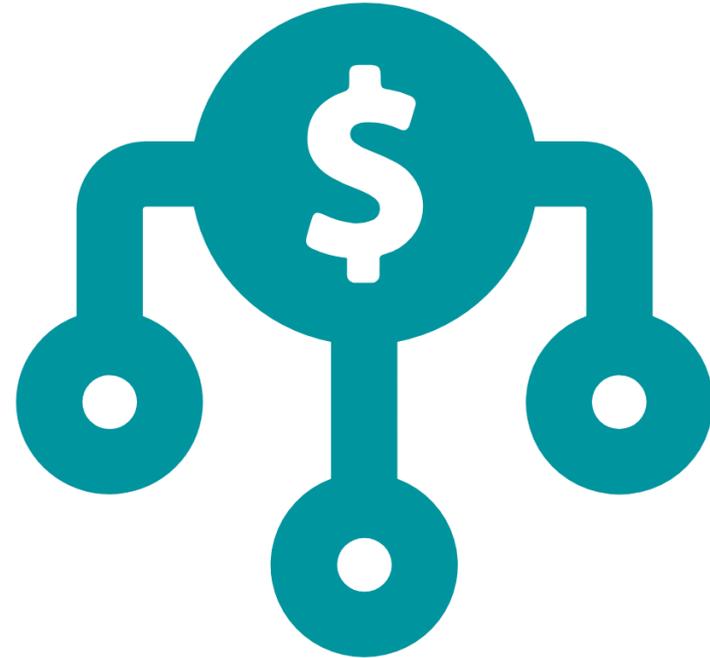
- Intended to generate **cost-effective pollutant load reductions**
- Types of control measures ultimately approved for the System will influence:
 - the cost of a unit of metric
 - who can participate as a “credit” generator
 - where control measures may be most cost-effective

- **“Funding”** refers to where the money provided to implement, maintain and operate control measures is coming from.
 - Capital budget
 - Utility fees
 - Grants
- **“Financing”** refers to mechanisms for receiving capital or money to implement, maintain and operate the control measures, with an expectation of repayment.
 - Loan guarantees
 - Insurance
 - Incubator and venture capital
 - Private equity



Considerations for Funding and Financing Control Measures

- System development focuses first on identifying and developing funding sources (financing is secondary)
- System should accommodate and harmonize different sources of funding/financing





- Control measures that can generate the identified System metric should be consistent with:
- Other regional priorities
 - Regulatory drivers, including implementation of
 - Green stormwater infrastructure and/or
 - Other PCBs control measures

Considerations:

- Geographic limitations of control measure implementation
- Where to implement control measures to maximize generation of the metric (i.e., based on high pollutant loading areas)
 - Likely to be a factor in driving market-based project implementation
- How to incorporate metric-generating project implementation into other permittee plans, objectives, and/or multi-benefit projects

Audience Comments / Feedback

Certification & Verification



What is Certification & Verification?

- Certification refers to the final administrative review, documentation, tracking and approval of a unit of metric
- Verification is the formal inspection required to confirm control measures are designed and implemented to the expectations of stakeholders.
- Certification generally conducted by a Clean Water Act (CWA)-delegated authority while verification can be undertaken by a CWA-delegated authority or third-party reviewers

Ongoing Operation & Maintenance Certification and Verification

- With proper on-going O&M, most control measures will provide pollution reductions (and therefore generate units of metric) over the project life
- Control measures generating units of metric will undergo periodic certification to ensure that O&M requirements are fulfilled



- A failure in the O&M of a control measure discovered during the verification process may result in the “default” of a unit of metric generated and exchanged in the System
- Methods of managing the compliance risk associated with a default include:
 - Reserve pools
 - True-up periods
 - Correctional/contractual obligation of generators

Audience Comments / Feedback

Closing



1. Committees meet to discuss key decisions

Spring 2020

2. Finalize Literature Review

Summer 2020

3. Committees meet to discuss Tracking System

Fall 2020

4. Analysis & System Development

Summer 2020 - Winter 2021

- A second stakeholder Workshop is currently planned for 2021
- The Workshop will present System decisions including:
 - Alternative Compliance approach,
 - System metric,
 - eligible entities,
 - geographic extent,
 - tracking system, and
 - other key components.

- The System objective is to provide implementation flexibility for projects that cost-effectively improve water quality, achieve multiple benefits, and reduce compliance pressures for local jurisdictions
- We are conducting a technically comprehensive process that is designed to provide many opportunities for stakeholder input
- Project materials and meeting recording will be available at:
<https://www.sanpabloca.gov/2685/Regional-Alternative-Compliance>
- Please send any follow up questions to: Kelly Havens (khavens@geosyntec.com) and Amanda Booth (AmandaB@sanpabloca.gov)

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Questions / Comments