Reasonable Assurance and Stormwater Control Planning

Lessons Learned in Using Models to Support Muncipal Stormwater Permit Implementation Plans and Watershed Restoration Strategies

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Workshop Plan For Today

- Introduction to RAA Methods
- Case Studies (technical and practical considerations)
  - Los Angeles
  - Paso Robles (San Luis Obispo County)
  - San Diego
  - Lake Tahoe
  - San Francisco Bay Area
- Synthesis and Next Steps

Workshop Objectives

- Understand use of RAA for stormwater management planning, financial planning, implementation, and permit compliance
- Show differences (pros and cons)among existing approaches
- Show how RAA can provide framework for multi-benefits
- Identify how State and EPA can assist with RAA

How we got here

Concerns w/ open-ended iterative approach to meeting Receiving Water Limitations

- Plans lacked specificity and accountability
- Limited improvements in stormwater management practices
- Limited water quality improvements
- Limited funding and funding drivers
- No safe harbor from enforcement

How we got here

The Deal

Require robust assurances that plans will work

In Exchange

- Self-determination of actions
- Opportunity for multi-benefit actions
- Time
- Permit-term compliance assurance

What Is Reasonable Assurance Analysis?

Uses robust analytical models and tools to

- Evaluate pollutant sources
- Site management solutions
- Determine controls needed to meet permit requirements
- Guide infrastructure planning and funding decisions
- Support control tracking, evaluation, and reporting

Available modeling tools vary in sophistication, capability, and cost

Long term analytical foundation for robust stormwater programs

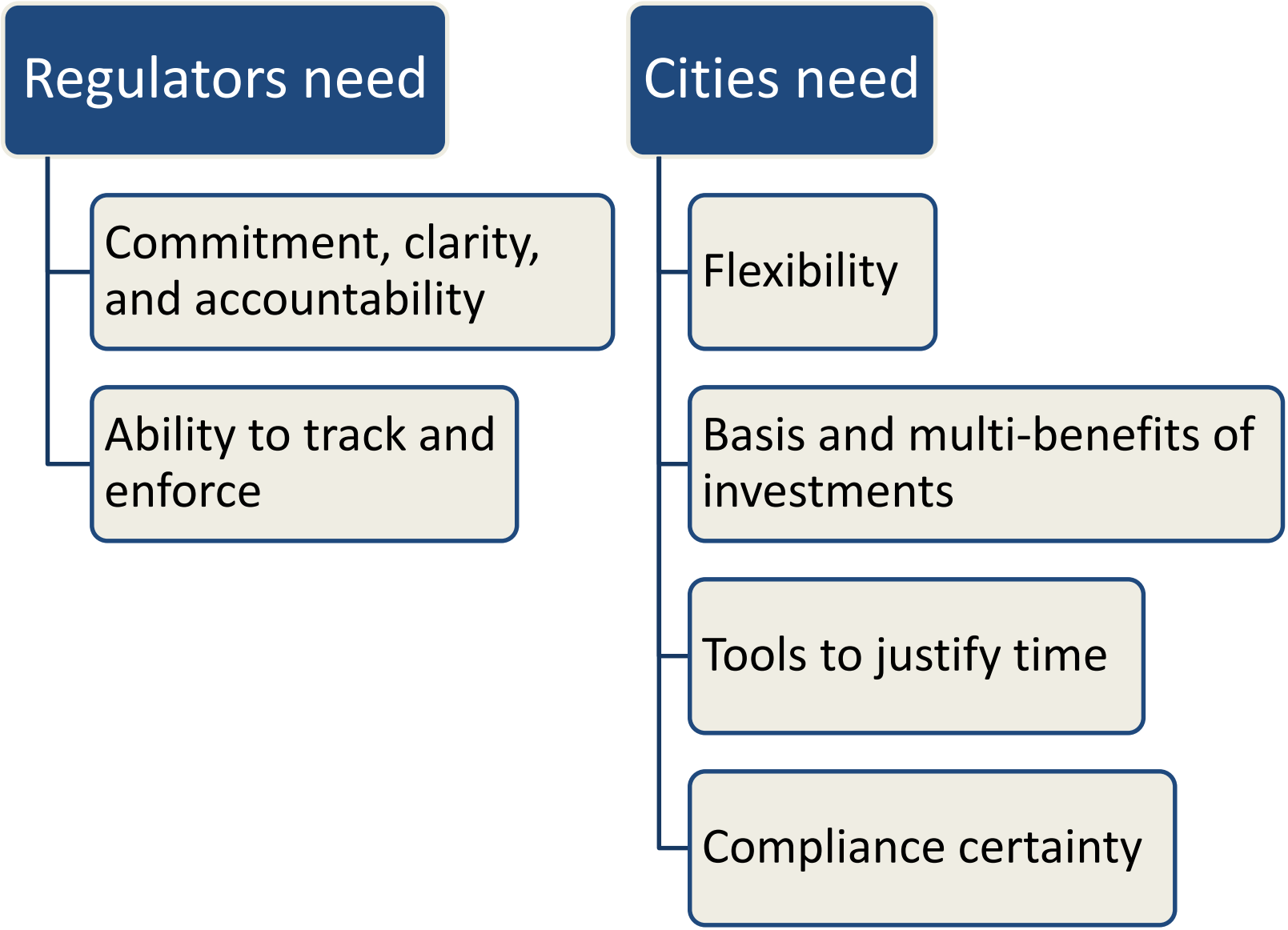
Technical Differences in RAA Methods

- Types of water quality models
  - process-based/deterministic
- Temporal and spatial scales and specificity
- Ability to connect hydrology and pollutant analysis to practice siting and performance
- Ability to consider non-stormwater opportunities/constraints
- Data needs for setup and revision

Practical Consideration in RAA Method Selection

- Technical expertise and data needed to develop and use
  - Role of consultants and your staff
- Costs for startup and ongoing operation
  - Not a one-time investment
- Fit with stormwater permit requirements
  - Yields what permit requires (level of assurance needed, reporting, tracking…)
- Provides information local decision makers need

Why Use Reasonable Assurance Approach?



What Does SF Bay Permit Require?

Green Infrastructure Plans	• By all
Reasonable Assurance Analysis	• By some to meet load reductions within permit term • By more to meet long-term load reductions