

Sustainable Water Management Profile

North Bay Watershed Association ™ April 22, 2016



 $An\ initiative\ of\ Resources\ Legacy\ Fund$

How do you measure Sustainability?







Sustainable Water Management

Water is managed in a way that meets current economic, ecological, and quality of life needs without compromising the ability to meet those needs in the future.



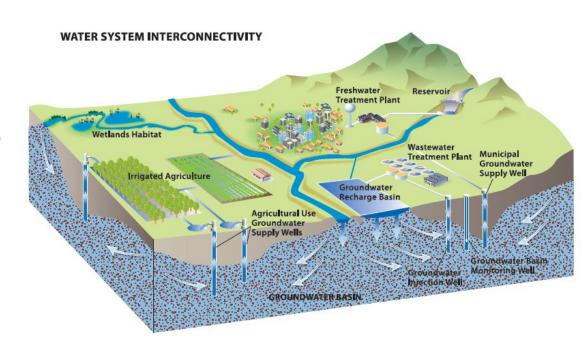
Water System Challenges

- Increasing Population
- Aging infrastructure
- Groundwater overdraft
- Degraded ecosystems
- Increasing conflict
- Management fragmentation
- Uncertainty due to climate change



Solving California's Water Crisis

- No single strategy can meet all needs
- Integrated, diverse strategies contribute to sustainable solutions
- Water management actions and issues are interconnected
- Manage water as a natural resource



Challenge

 As water supplies come under increased pressure, regions lack a uniform tool to assess water management sustainability



Goal

■ Find or develop a tool to assess sustainable water

management and inspire improvement at a regional scale



SWM Profile

Water Foundation's tool for advancing long-term water supply resilience and water resource stewardship at a regional scale







SWM Profile Is Not...

- Traditional "ESG" analysis
- Small-scale site-specific analysis
- Designed to be global or international tool
- Stakeholder-driven certification process
- All-encompassing sustainability analysis

SWM Profile Is...

- Focused on sustainable water supply management
- Accessible to different audiences
- Flexible and scalable
- Voluntary
- Easy to implement
- Expert driven

SWM Profile Development



An initiative of Resources Legacy Fund









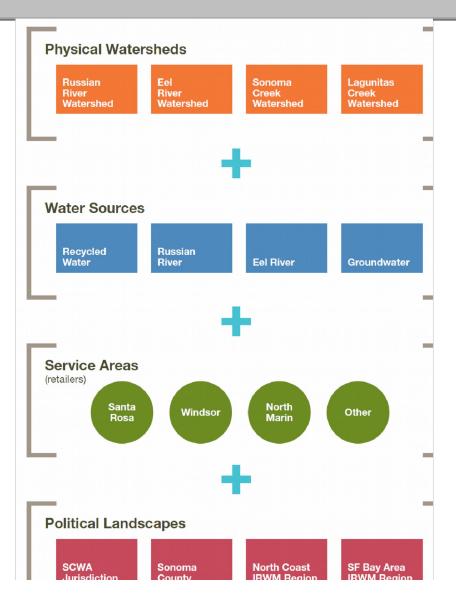
SWM Profile Development

- Partner for Pilots: SCWA (v1.0); IEUA (v2.0)
- Peer Review
 - Advisory Committee
 - Subject matter experts
- Coordination with other water sustainability efforts
 - Ceres (AquaGuage, Green bonds)
 - DWR (Sustainability Indicators Framework)

SWM Profile Potential Users

- Profiled water agency ("Profile Subject")
- Regional entities
- Nonprofit organizations
- Financial/business
- State and federal agencies
- Policy makers
- Public

Defining "Region"



- SWM Profile region:
 - "Region of Interest"
- Assessment boundaries:flexible by stressor

■ Willits Map Area Clov erdale Healdsburg Windsor Wohler & Mirabel Santa Rosa∎ Russian River Estuary ■ City County Boundary --- Stream SCWA Region of Interest Lake/Reservoir Watersheds Petaluma River Nicasio Creek Stafford Lake Lagunitas Creek Nicasio Reservoir Sonoma Creek Eel River San Anselmo Russian River Novato Creek Medium and High Priority CASGEM Groundwater Basins: ////, Sonoma Valley (Medium) 0 ///// Petaluma Valley (Medium) /////, Santa Rosa Plain (Medium) ///// Ukiah Valley (Medium)

Sonoma County Region of Interest

Inland Empire Region of Interest



SWM Profile Themes



Supply



Demand



Environment



Finance

Stressors: Supply



Supply Reliability



Groundwater Supply





Source Water Quality



Natural Hazards



Climate Change

Stressors: Demand



Urban Demand



Agricultural Demand



Stressors: Environment



Sensitive Species



Watershed Health



Stressors: Finance



Finance and Investment



SWM Profile Framework

		Stress Level	Management Response				
Themes	Stressors	High/Moderate/Low	Initial Steps	Leading Practice			
SUPPLY							
	1. Supply Reliability						
	2. Groundwater Supply						
	3. Source Water Quality						
	4. Natural Hazards						
	5. Climate Change						
DEMAND							
	6. Urban Demand						
	7. Agricultural Demand						
ENVIRONMENT							
	8. Sensitive Species						
	9. Watershed Health						
FINANCE							
	10. Finance and Investment						

Sample SWM Profile Rating



Very Good



Outstanding



On the path to Sustainability

Fundamental Challenges

- SWM Profile rates a Profile Subject, in part, on regional actions outside of its control
- The SWM Profile sets a high bar

SWM Profile Changes: Version 2.0

- Assess management responses to stressors across three levels:
 - Agency operations
 - Agency collaboration
 - Other entities in the region
- Add bronze rating level

Management Response Framework

Agency Operations

Agency Collaboratio

Initial Steps

Collect, analyze, and share data

Moderate Progress

- Adopt plans And/or
- Adopt policies And/or
- •Implement projects

Advanced Progress

- Advanced plans with sustainability targets
- Identify funding
- Implement projects

Leading Practice

Demonstrate **Improvement**

•Support data collection, analysis, and **F**sharing

Participate in regional plans, policies, and/or projects

Support advanced plans, funding, and projects

Support responsibility, accountability, and authority

Other Entities in

Collect, analyze, and share data

- Adopt plans And/or
- Adopt policies And/or
- •Implement projects
- Advanced plans with targets
- Identify funding
- •Implement projects
- Demonstrate improvement Establish
- accountability and authority

ENGAGE

ADOPT

IMPLEMENT

ACHIEVE

Version 2.0: Framework

MANAGEMENT RESPONSES

				Agency Operations			Agency Collaboration			Other Entities in the Region				
ST	RESSOR	STRESS LEVEL	Initial Steps	Moderate Progress	Advanced Progress	Leading Practice	Initial Steps	Moderate Progress	Advanced Progress	Leading Practice	Initial Steps	Moderate Progress	Advanced Progress	Leading Practice
1	Supply Reliability	•			•			•			•			
2	Groundwater Supply	•		•			•					•		
3	Source Water Quality	•				•			•			•		
4	Natural Hazards	•			•					•				•
5	Climate Change	•	•				•					•		
6	Urban Demand	•		•						•			•	
7	Agricultural Demand	•			•			•					•	
8	Sensitive Species	•		•					0		•			
9	Watershed Health	•				•			•					•
10	Finance and Investment	•	•				•					•		

STRESS LEVEL

MANAGEMENT RESPONSES

- High Stress
- Moderate Stress
- Low Stress
- Complete
- Partially Complete

SWM Profile: Opportunities

- Communication tool for water utilities/regions
- Roadmap to sustainability
- Use existing data/reports in a meaningful way
- Inspire regional collaboration and integration
- Promote change

Next Steps

- Pilot test refined tool (v2.0) with IEUA
- Business plan

Questions?

- Mike Myatt, Program Manager
- mmyatt@resourceslegacyfund.org
- waterfoundation.net



An initiative of Resources Legacy Fund