ONE WATER COMMUNITIES

Self-Assessment Framework and Rating System

Created By:

One Water Solutions Institute

Acknowledgments

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One Water Communities Self-Assessment Framework and Rating System

Purpose: Communities throughout the world are transitioning toward the One Water approach to improve efficiency and reduce costs while addressing climate change adaptation, resilience to extreme events, and social equity and environmental justice. The overarching goal of the One Water Assessment Framework is to enable utilities and stakeholders to develop coherent One Water strategies at both the city and multijurisdictional metropolitan levels. This project introduces a One Water Communities (OWC) Self-Assessment Framework with commensurate indicators and a 1-to-5 rating system to measure progress toward implementation of One Water goals, strategies, and implementation actions.

Approach: The project activities included a comprehensive and systematic literature review of One Water topics, key water expert interviews, a national water utility and practitioners survey, and a facilitated virtual stakeholder workshop attended by representatives from utilities and municipalities across broad geographic regions.

One Water Approach Defined: One Water is a collaborative planning and implementation approach that fosters integrated and equitable management of water resources for long-term resilience and reliability, meeting both community and ecosystem needs.

A "One Water Community" holistically manages all water systems to meet the needs of all people and the environment, today and in the future.

The One Water paradigm addresses both integration of physical systems across traditional disciplines and integration of agencies across traditional sectors. It promotes coordination among various departments or functions of cities and auxiliary agencies in charge of planning, water supply, wastewater management, storm and flood waters, water quality, and watersheds.

The concept of One Water offers a unified approach to managing the inherent interconnectivities among the different contexts where water is managed, as well as its connections with other natural and social sectors. This paradigm motivates an enhanced and holistic understanding of the urban water cycle and microclimate, improved representation of the social and environmental context of urban water systems that fosters integrative management and identifies key sustainability goals (e.g., resilience and reliability) amid socioeconomic constraints.

The One Water approach utilizes tools that can be centralized or decentralized, well-established or still evolving. Important One Water technologies include water conservation and demand management systems, stormwater management and green infrastructure, fit-for-purpose-use of alternative local water sources, water recycling, energy management, nutrient recovery, and source separation.

Key Elements of the One Water Approach

Nine Key Elements of a One Water Community are defined to engage a broad audience of One Water champions by breaking down silos and facilitating conversations through a common methodology and language to communicate within and across agencies and audiences. These Key Elements inform the specific goals of the One Water approach in the community and are characterized by subcategories of indicators that should be collectively considered and incorporated at all stages of the development, implementation, and assessment of One Water plans and strategies. The assessment of the Key Elements (i.e., goals) and subcategories (i.e., specific objectives) is informed by a set of baseline, benchmarking, and performance indicators and metrics that are selected appropriately for each assessment level.

One Water Communities Self-Assessment Framework

The One Water Communities (OWC) Self-Assessment is a framework that groups can use to track progress through levels of demonstrated achievement. The Framework includes “Levels” by which communities can evaluate their One Water strategies, practices, and outcomes against appropriate expectations of performance and includes three Levels that are oriented toward processes and actions:

Level 1 – Onboarding: A community begins by setting the foundations for their One Water approach. This includes developing an understanding of existing conditions and establishing direction through a shared vision and a set of objectives commensurate with Key Elements for One Water Communities. The primary focus of this assessment level is on the alignment of leadership and resources while gathering essential information required to assess opportunities for collaboration across city organizations and engagement with the community at large.

Level 2 – Progressing: A community builds upon its shared One Water vision and objectives to identify and develop plans for One Water policy, management, and technological solutions. Key cross-organizational partnerships are forged to identify One Water strategies to meet the intended goals of the One Water program in the face of emerging opportunities and threats. At this Level, cross-departmental and agency collaborations are institutionalized and agreed upon. Engagement vehicles are explored to foster effective communication with agency and community stakeholders. This assessment level entails development of key indicators, metrics, and desired targets to assess the progress of the One Water program.

Level 3 – Advancing: A community adaptively implements the One Water Plan recommendations. Implementation and adaptation are informed by continuously monitoring key performance metrics in the face of evolving conditions. Efforts are supported and reinforced by both internal and external stakeholders. Procedures are established to update the initial One Water Plan based on changing conditions and regular feedback from stakeholders. Best practices are adopted to facilitate transparency in communication of outcomes and verification of the reported progress.

LEVEL 1
Onboarding Community

- **Organizational capacity**: One Water Leadership Team
- **Key product**: One Water Vision and Guiding Principles Document
- **Expected duration**: 6 – 12 months

LEVEL 2
Progressing Community

- **Organizational capacity**: Cross- organizational partnerships and engagement
- **Key product**: One Water Plan
- **Expected duration**: 1 – 3 years

LEVEL 3
Advancing Community

- **Organizational capacity**: Evaluation and continuous improvement capacities
- **Key product**: One Water Adaptive Management Plan and report cards
- **Expected duration**: Ongoing and continuously conducted in 1 – 3-year cycles

OWC Action Categories

Action Category	Level 1 Onboarding	Level 2 Progressing	Level 3 Advancing
One Water Planning	Information Gathering	Plan Development	Adaptive Implementation
Organizational Culture	Leadership Commitment	Organizational Alignment	Inspired Organization
Stakeholder Engagement	Institutional Collaboration	Community Engagement	Continuous Feedback
Informed Actions	Quick-Wins	Collaboration Opportunities	Commitment and Investment
One Water Monitoring	Baseline Indicators	Benchmarking Indicators	Performance Indicators

To help communities appropriately gauge their Level (i.e., Onboarding, Progressing, or Advancing), the self-assessment framework includes five action-oriented categories within which clear expectations are defined. These five Action Categories are: One Water Planning; Organizational Culture; Stakeholder Engagement; Informed Actions; and One Water Monitoring. A community that demonstrates appropriate achievement across the Action Categories can transition to the next Level.

The One Water Community Rating System

The OWC Framework encompasses three Levels, each characterized by five Action Categories. Moving from one OWC Level to the next entails implementing appropriate actions with specific outcomes. Thus, it is possible that a city is more advanced in some respects and is lagging in others. The Framework incorporates the consideration that communities may be at different Levels across relevant Action Categories. A 1-to-5 Star Rating System is used to assess the status of the community's programs within each OWC Level.

Implementation of the Self-Assessment Framework

The self-assessment framework helps a community better understand and prioritize their organization's commitments to One Water practices. The Framework is intended to promote and facilitate collaboration and communication both within and across agencies as well as foster public engagement and communication with key stakeholders and policy makers. To successfully implement the Framework, an organization exhibits teamwork, collaboration, and integration of related cross-jurisdictional departments and/or agencies. The procedures for the implementation of the frameworks include: (1) pre-assessment; (2) self-assessment by One Water Action Categories; (3) self-assessment by One Water Levels; and (4) Monitoring, evaluation, and documentation of progress.

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One Water Monitoring

One Water Communities indicators are used to measure progress toward achieving an organization's One Water vision and objectives. Monitoring progress helps align a city's resources with implementation actions and characterize how a community changes and adapts to future challenges. For each self-assessment Level, the community establishes a common set of baseline, benchmarking, and performance indicators that are used to monitor progress toward the desired targets and the collective One Water objectives. The methodologies used to monitor progress for each indicator should be clearly described, replicable, and transparent.

Level 1 - Baseline Indicators: Characterizing the state of water resources, water systems, and water management strategies using a predetermined set of baseline indicators that are readily available and meaningful for all communities.

Level 2 - Benchmarking Indicators: Establishing representative indicators with desired targets to track progress toward programmatic goals.

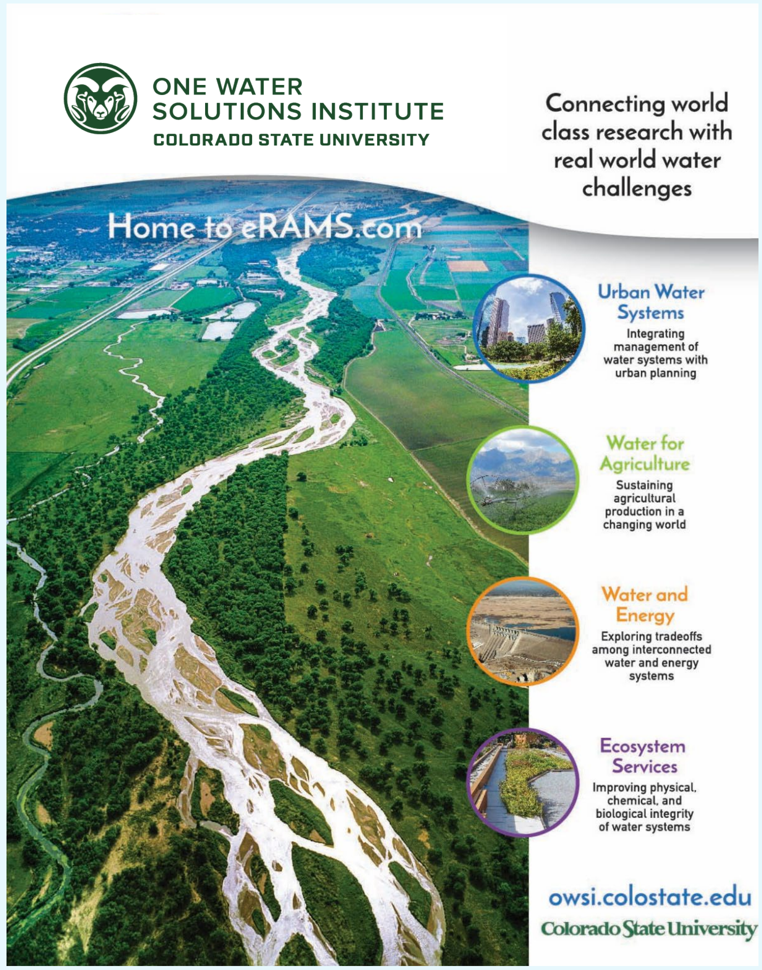
Level 3 - Performance Indicators: Developing and quantifying performance indicators to monitor improvements in key One Water elements at appropriate time intervals and spatial scales.

About

The One Water Solutions Institute (OWSI) at Colorado State University solves real-world water and environmental challenges through world-class research and innovative technologies. We facilitate collaboration between the University and outside partners including public, private, and non-governmental organizations (NGO) through a variety of research, software development, training, and educational activities.

OWSI provides expertise to assist in the planning, development, and implementation of One Water programs. We can help your community develop appropriate goals and objectives to set targets and assess progress towards a One Water future.

Learn more about OWSI by visiting http://onewatersolutions.com or contact us at owsi@colostate.edu.



One Water Communities (WRF #4969)

For more information about the WRF One Water Cities Project #4969, scan the QR code or visit: https://www.waterrf.org/research/projects/one-water-cities-development-guidance-documents-and-assessment-metrics