Water Missions International Community Development Programs

Safe Water Success Framework – Executive Summary

April 14, 2015 (Rev.1)

The mission of Water Missions International is to be a best-in-class Christian engineering ministry that transforms lives through sustainable safe water and sanitation solutions. It is understood from this statement that Water Missions International's highest community-level goal is transformed lives of people in the specific areas of service where we work. We approach our work with the understanding that lack of safe water and sanitation in any setting is a manifestation of broken local and systemic relationships. Our holistic approach to community development through water, sanitation and hygiene is specifically designed to target these broken relationships that perpetuate the poverty cycle in a defined service area.

Figure 1 outlines a framework for achieving and measuring success in Water Missions International's programs. The framework illustrates how the activities of Water Missions International's country programs lead to the achievement of a desired set of outputs. These outputs, which are cumulatively referred to as "success standards", define what we believe is necessary in order for safe water solutions to be proven capable of functioning in a manner that provides all people within the defined service area with *sustainable access to safe water services*, which is the desired outcome of our work. The framework also shows that achievement of the success standards is expected to result in transformed lives of people within the individual service areas.

The success standards are defined as follows:

1. The ***Accessibility Standard*** ensures that all people in the service area have access to water service that has been proven capable of meeting their stated needs on a daily basis
2. The ***Safety Standard*** ensures that water solutions have been proven capable of providing a level of service that does not pose a significant risk to human health over a lifetime of consumption or use
3. The ***Sustainability Standard*** ensures that
    a. the management structure has been proven capable of functioning for an indefinite period of time
    b. water service has been proven capable of being delivered in a financially stable manner for an indefinite period of time
    c. awareness of transformational opportunities and practices has been raised among all people in service area

Although specific community-level activities will vary based on country, region and management model they should be planned and carried-out with the intent to accomplish the success standards. Standards should be achieved over a specific monitoring period that is defined at the outset of each project and is at least as long as the duration of one cycle of turnover in management or contractual agreement.

Each standard is accompanied by a set of specific and measurable indicators. Baseline values for the indicators should be evaluated either during initial community assessment or at the time of commissioning. Target values should be set and measured in a manner that is considerate of both community and Water Missions International perspectives, and should be specified in the project design documents. Action plans should be developed and monitoring periods extended accordingly if target values are not achieved within the duration of the initially-defined time period. In this manner, the standards for accessibility, safety and sustainability will be considered as "met" only when the specified targets are achieved.

A comprehensive list of considerations that apply to these standards is included in Water Missions International's Transformation Strategy. A selection of references that provided the foundation for this success framework is presented below. The complete logical framework for safe water, including a complete description of all indicators, sources of evidence and suggested targets, is presented in Figure 1.

List of Referenced Guidelines and Standards

1. Accord WASH Alliance. (2014). Principles of Excellence in WASH. Available at http://accordnetwork.us5.list-manage1.com/track/click?u=98f99cc090d6118349d32df61&id=9d13e262eb&e=f702015753.
2. IRC. WASHCost Briefing Note 1a: Life-cycle costs approach – costing sustainable service. Available at http://www.ircwash.org/resources/briefing-note-1a-life-cycle-costs-approach-costing-sustainable-service.
3. IRC. Water Services That Last, Triple-S Building Blocks. Available at http://www.waterservicesthatlast.org/resources/building_blocks.
4. SustainableWASH.org. (2010). WASH Sustainability Charter. Available at http://sustainablewash.org/wash-sustainability-charter.
5. The Sphere Project. (2011). Humanitarian Charter and Minimum Standards in Humanitarian Response. Available at http://www.sphereproject.org/handbook/.
6. United States Environmental Protection Agency. National Primary Drinking Water Regulations. Available at http://water.epa.gov/drink/contaminants/#Primary.
7. World Health Organization. (2011). Guidelines for Drinking-Water Quality, 4th Ed. Available at http://www.who.int/water_sanitation_health/publications/2011/dwq_guidelines/en/.

		Summary	Indicators	Source of Evidence	Target	Assumptions
Goal "Impacts"		Transformed lives of people in service area	Examples of restoration of wholesome relationship that can be tied directly to WMI activities (e.g. physical and emotional health impacts, social impacts, economic and environmental impacts and spiritual impacts)	follow-up reports, follow-up surveys, impact studies	N/A	
Purpose "Outcomes"		Sustained access to safe water supply and sanitation service	**Water Outcome 1 - Total People with Access:** Number of people with access to safe water	household survey	varies	(1) Burden of diarrheal disease is due to unsafe WASH practices; (2) healthy WASH behaviors are adopted by end-users; (3) Services are set-up and maintained in an integral manner
			Water Outcome 2 - Household Penetration: Percentage of households in the defined service area using water supplied by the safe water solution	household survey, monthly summary reports	varies	
			Water Outcome 3 - Household Consumption: Average daily quantity of water collected from the safe water solution by each household in the defined service area	household survey, monthly summary reports, remote monitoring	varies (≥ design supply)	
			Water Outcome 4 - Household Handwashing Behavior: Percentage of households within the defined service area that demonstrate proper handwashing behavior at follow-up	follow-up surveys	≥95%	
Outputs	1	**Accessibility Standard:** All people in the service area have access to water and sanitation services that have been proven capable of meeting their stated needs on a daily basis	**W1.1 Reliability:** Number of days in service outage due to failure of technical or administrative system within the last 30 days	follow-up report	≤1 day	(1) Elements that are critical to accessibility and user satisfaction (quantity, proximity, ability and willingness to pay, personal safety) are accounted-for in design; (2) water sources utilized by safe water solutions do not contain dissolved contaminants that pose a risk to human health or that are aesthetically unpleasing (evaluated based on WHO guidelines and national standards); (3) demand for safe water/sanitation and communal sense of ownership exists or is created through promotional efforts; (4) all stakeholders (members of the local church, management personnel, government authorities, etc.) carry-out responsibilities as planned; (5) spare parts and materials (including soap and anal cleansing materials) are available through local sources and/or WMI country program office; (6) monitoring period is at least as long as the duration of once cycle of turnover in management or contractual agreement
	2	**Safety Standard:** Water and sanitation solutions have been proven capable of providing a level of service that does not pose a risk to human health	**W2.1 Microbiological Quality:** Percentage of treated water samples taken at point of collection (or use) over the last three months where total coliforms are undetectable by membrane filtration technique	follow-up reports	100%	
			W2.2 Turbidity: Percentage of treated water samples taken at point of collection (or use) over the last three months where turbidity is ≤5 NTU	follow-up reports	100%	
			W2.3 Chlorine Residual: Percentage of treated water samples taken at point of collection (or use) over the last three months where free chlorine concentration is ≥0.2 and ≤0.5 mg/L*	follow-up reports, remote monitoring	100%	
	3	**Sustainability Standard - Management Capacity:** Management structure has been proven capable of functioning over the long-term	**W3.1 Management Capacity Index:** Collective measure of management personnel's perceived capacity to oversee and/or respond to financial, technical, and social elements that are critical to ongoing safe water service delivery	follow-up reports	varies	
	4	**Sustainability Standard - Relational Awareness:** Awareness of transformational opportunities and practices has been raised among all people in service area	**W4.1 WASH Promotion Coverage:** Percentage of planned promotional household visits and related events targeted at women and children that have been carried-out by individuals from within the service area.	monthly summary reports	100%	
			W4.2 Relational Awareness Index: Collective measure of the perceptions that people within the service area hold regarding transformational opportunities and practices in water, sanitation and hygiene.	follow-up reports	varies	
	5	**Sustainability Standard - Financial Sustainability:** Water and sanitation services have been proven capable of being delivered in a financially sustainable manner	**W5.1 Operational Cost Recovery:** Average percentage of monthly operational expenses (OpEx) that are covered by income from water usage fees and/or tariffs and additional local revenue sources	monthly summary reports	≥100%	
			W5.2 Replacement Cost Recovery: Average percentage of estimated monthly savings required to cover targeted capital maintenance expenses, including those associated with eventual replacement* (CapManEx) that are deposited in a bank	monthly summary reports, bank statements	≥100%	
			W5.3 Banking Compliance: Percentage of revenue in excess of day-to-day operational expenses over the last three months that has been deposited in a bank account or stable financial institution	monthly summary reports, bank statements	100%	

*An alternative indicator (e.g. residual level of a different type of disinfectant) may be approved as a substitute in cases when chlorine disinfection is not utilized.

Figure 1: Safe Water Logical Framework