

# A Conceptual Framework to Evaluate Water Safety Plans



## Water Safety Plans

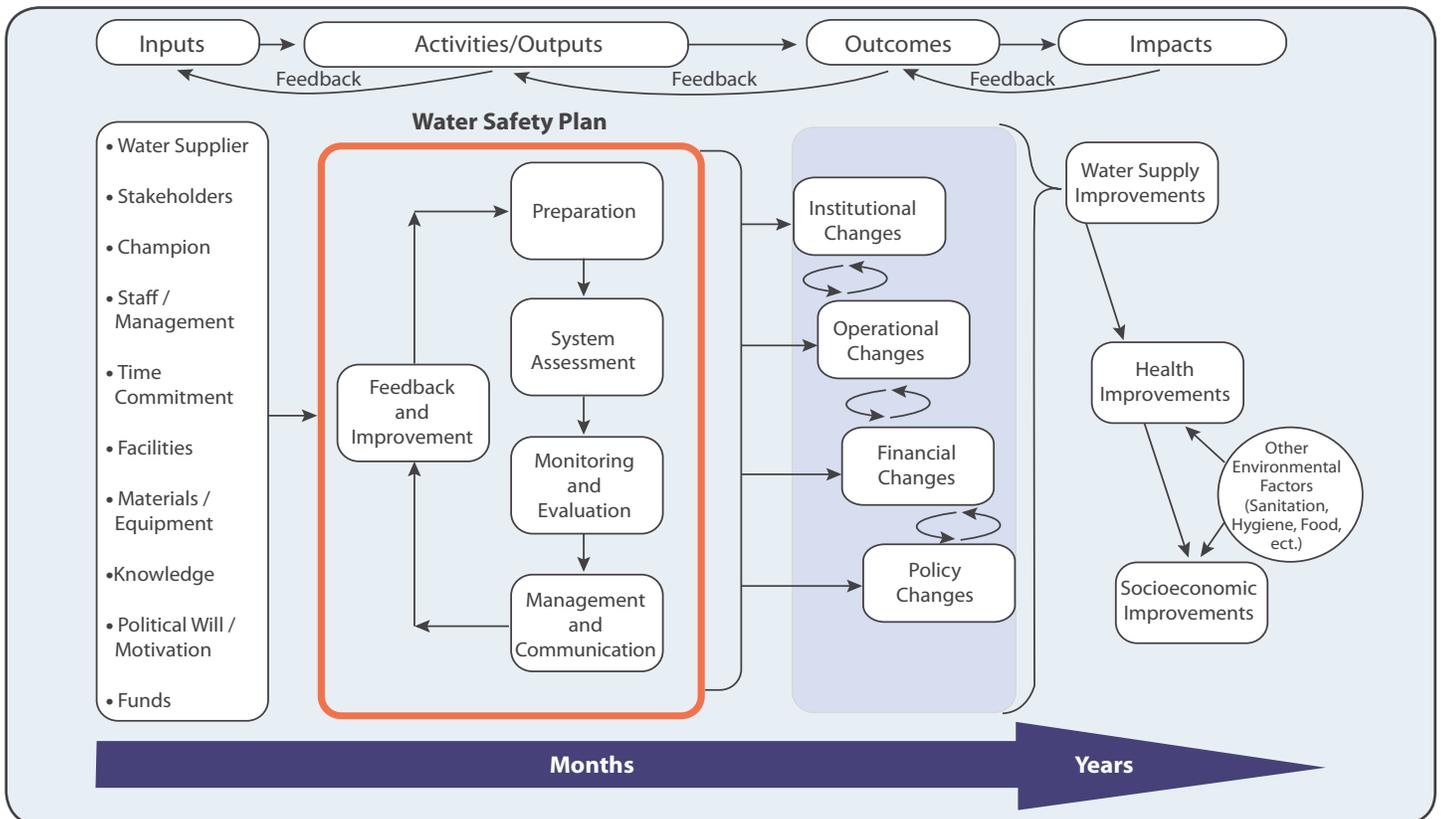
A Water Safety Plan (WSP) is a preventive management approach used to assess and manage threats to a drinking water system—from catchment to consumer.

It helps in the

- Management of activities in the watershed to control contamination of source water.
- Removal or inactivation of contaminants during treatment.
- Prevention of recontamination during distribution, storage, and handling.

## Water Safety Plan Conceptual Framework

Implementing WSPs can lead to many positive changes, from intermediate outcomes such as improved operational procedures to ultimate impacts like water supply and health improvements. Therefore, evaluating the impacts of a WSP requires a much broader analysis than simply looking at water supply and health improvements. The diagram below outlines a conceptual framework for that type of analysis. Various intermediate outcomes (i.e., institutional, operational, financial, and policy changes) resulting from the WSP process subsequently affect water supply and health. It is important to acknowledge all of these changes, and also to recognize that they will not all occur immediately or simultaneously. Simply focusing on water quality and health improvements in the context of a WSP will overlook these important intermediate outcomes (discussed on reverse) that can provide a better picture of the significance and success of the WSP.



## This conceptual framework to evaluate WSP impacts aims to:

- Elucidate the varied outcomes and impacts of WSPs beyond health impacts
- Provide a common framework and terminology for defining WSP outcomes and impacts
- Provide information for WSP implementers on what types of outcomes to expect
- Provide a basis for development of indicators to measure WSP outcomes and impacts
- Provide a common understanding of the time frames within which various WSP impacts may occur
- Illustrate the benefits of implementing WSPs, even when no direct health impacts are immediately apparent at the individual project level
- Help to establish a strong evidence base for the effectiveness of WSPs, to enable scaling up of WSP implementation.

### Water Safety Plan Conceptual Framework Outcomes

The intermediate changes that result from the WSP process are the WSP outcomes. Typically, outcomes become apparent before impacts. Although these outcomes are not specifically health-related, they provide benefits to many stakeholders in the WSP process and ultimately help improve water supply and health. This framework classifies them into four categories of change: institutional, operational, financial, and policy.

#### Institutional Change Outcome

- Increased communication and collaboration
- Improved knowledge and attitudes
- Increased training

#### Operational Change Outcomes

- Improved system infrastructure
- Implementation of improved procedures

#### Financial Change Outcomes

- Cost savings
- Cost recovery
- Increased donor support and investment.

#### Policy Change Outcomes

- Informal WSP knowledge sharing and promotion
- WSP model sharing as norms of practice
- WSP formal regulatory requirements.

The various outcomes shown above subsequently lead to impacts, which are the ultimate changes desired as a result of program activities. As implementation of WSPs becomes more widespread, more information about the outcomes and impacts from them should become available, leading to broader recognition of the spectrum of positive changes that can result from WSPs.

**For the complete manuscript of “A Conceptual Framework to Evaluate the Impacts of Water Safety Plans,” visit**

[http://www.cdc.gov/nceh/ehs/GWASH/Publications/WSP\\_Evaluation\\_Framework.pdf](http://www.cdc.gov/nceh/ehs/GWASH/Publications/WSP_Evaluation_Framework.pdf).

**For more information on Water Safety Plans, visit**

**NCEH Global Water, Sanitation, and Hygiene Team at** <http://www.cdc.gov/nceh/ehs/gwash/wsp.htm>

**IWA WSPortal at** <http://www.wspportal.org>

**WHO WSP Portal at** <http://www.who.int/wspportal/en/>

