

**Res'eau Project 5.1: Questionnaire Completed at Gander
NFLD, "Clean Water Conference," March 2010**

Analysis by
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Our thanks to Deneen Spracklin, Haseen Khan and participants who completed the questionnaire at the Conference, March 23-25, 2010

Questionnaire Analysis

Types of question (58 questions)

- Base data
- Source of raw water
- Current treatment technologies
- Operation issues
- Water distribution system
- General

Response type

- Operators in small water systems to be asked to complete the questionnaire.
- In some occasions, the operators will be invited in groups and while they will all be in one room, the questions will be answered individually (e.g., in Newfoundland).
- In other occasions, we intend to either send the questionnaire by email or conduct interviews by phone or in person.

Questionnaire Analysis

□ Data analysis

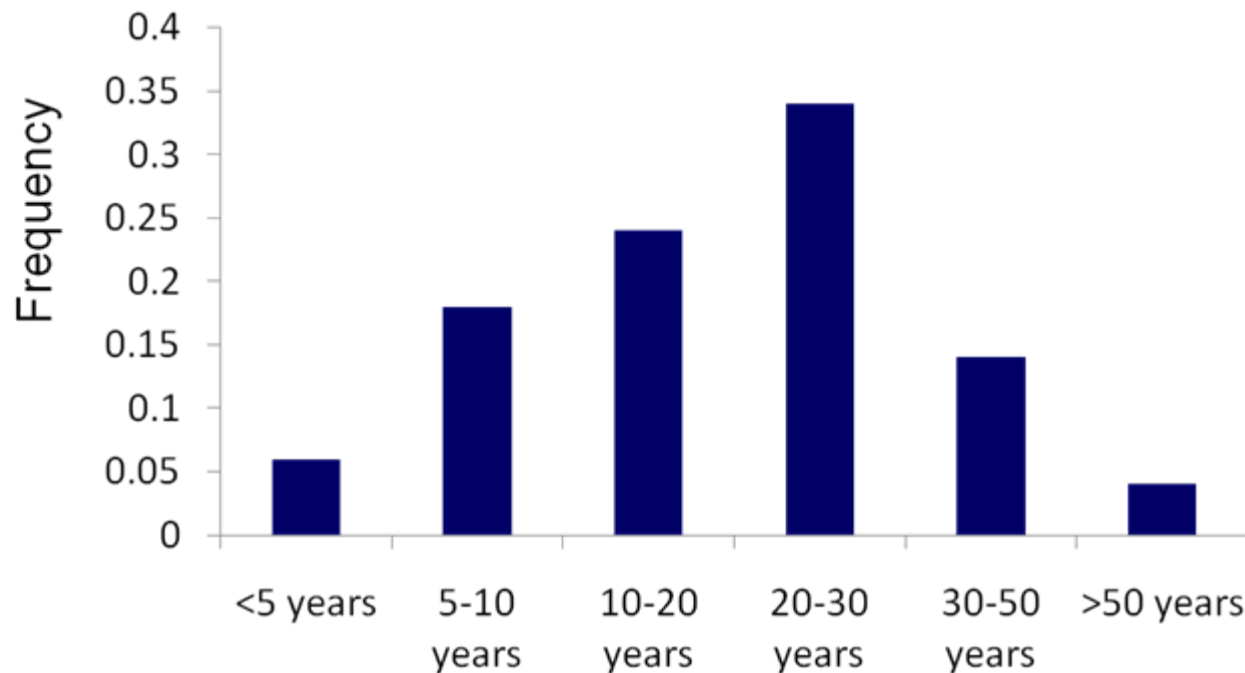


Figure 1 Age of treatment system (**Question #8**, 50 responses derived from 53 questionnaires)

Questionnaire Analysis

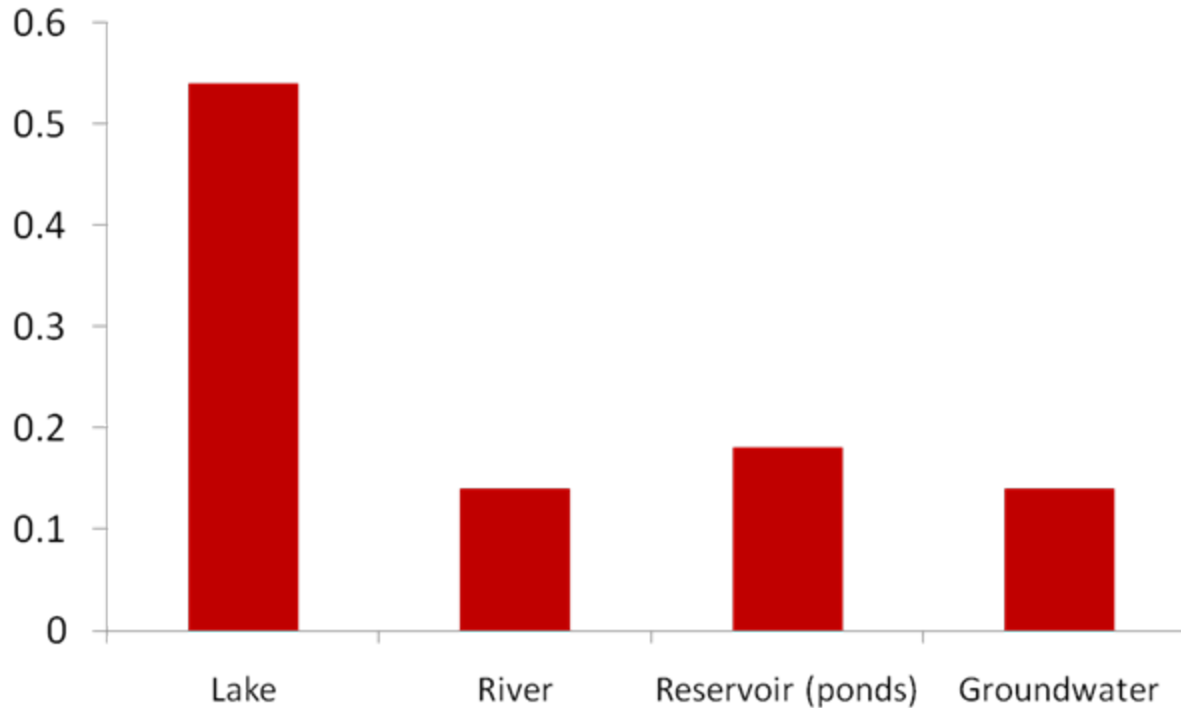


Figure 2. Types of water resources (27, 7, 9, and 7 small water systems among 50 responses use **Lake**, **River**, **Reservoir (ponds)**, and **groundwater** as water resource, respectively (**Question #12**))

Questionnaire Analysis

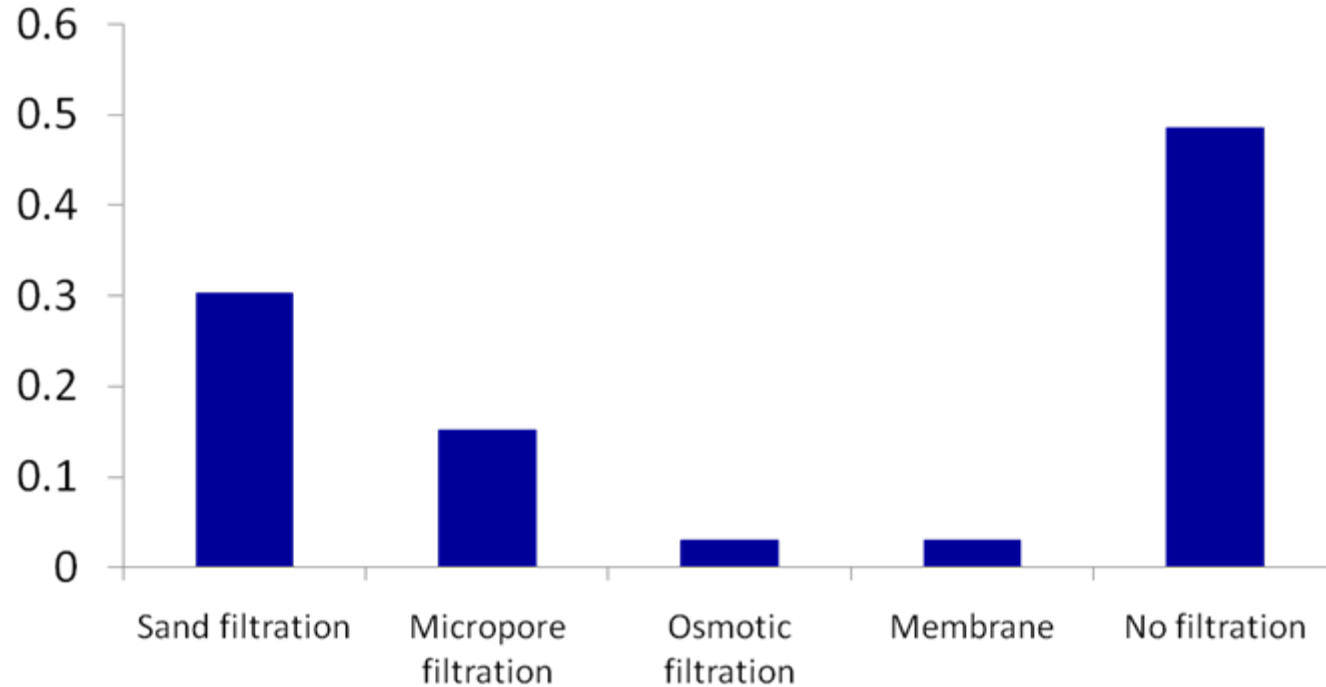


Figure 3. Types of filtration. 10, 5, 1, and 1 small water systems using sand filtration, Micro-pore filtration, Osmotic filtration, and membrane, respectively and 16 ones do not use any filtration; 6 small system use chemically-assisted filtration (33 responses, Questions #18 &19).

Specific information for DSS development: **Questionnaire**

Data analysis

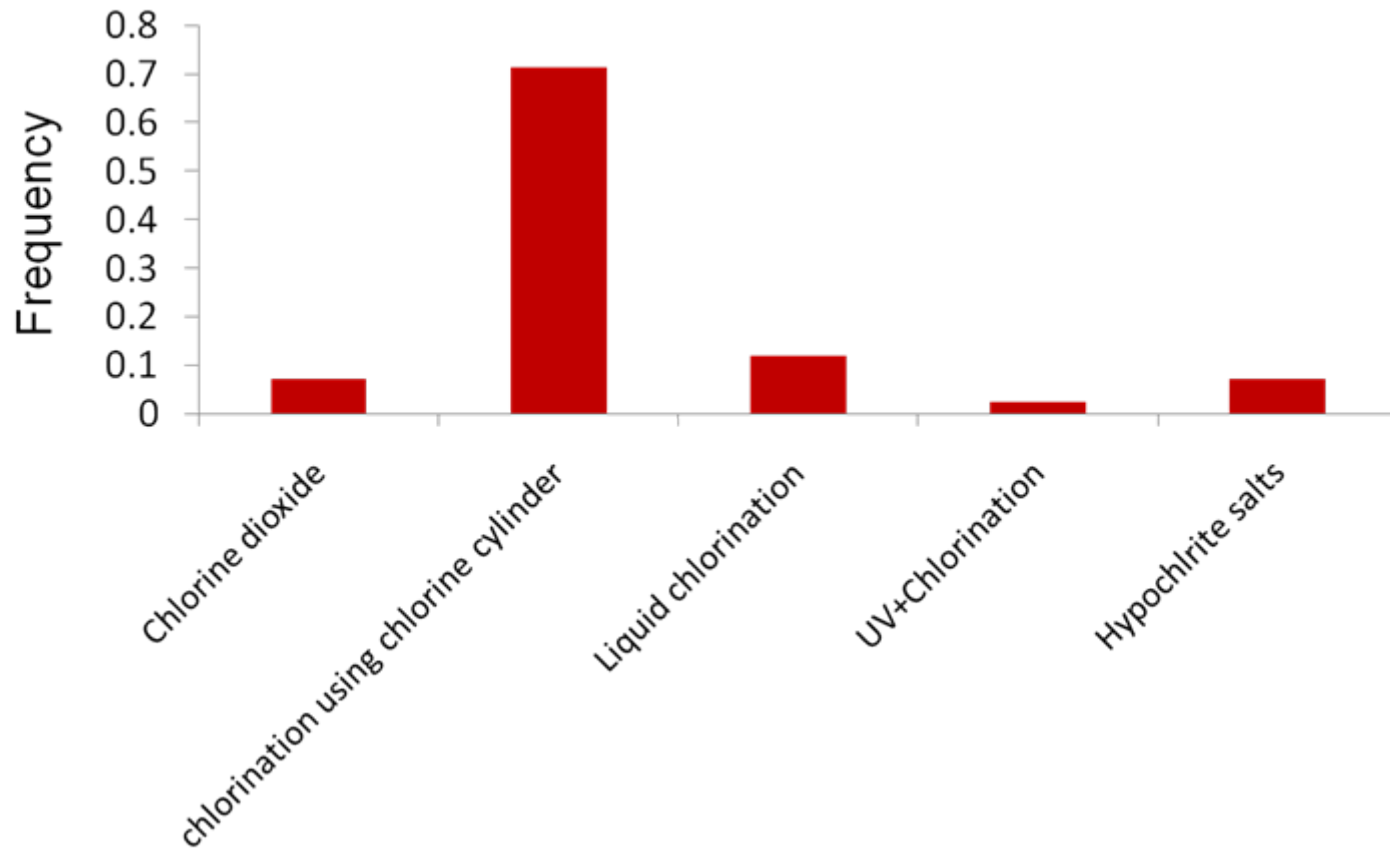


Figure 4. Disinfection process (Question#20, 42 responses, 53 questionnaires)

Specific information for DSS development: **Questionnaire**

Data analysis

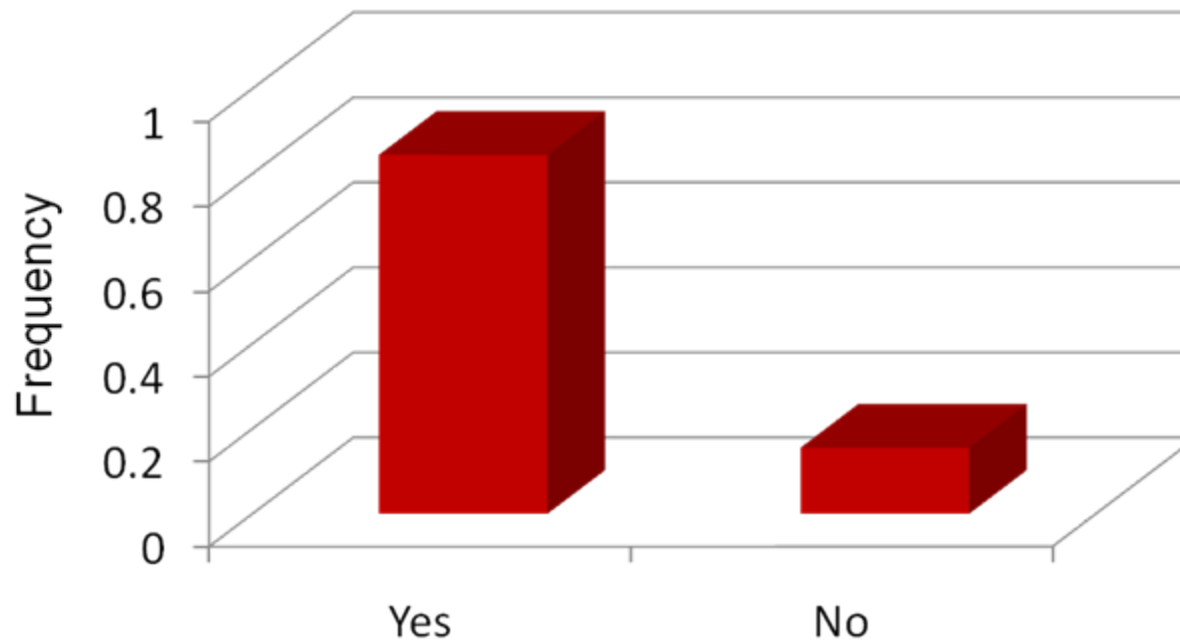


Figure 5. Are the treatment techniques employed in your system sufficient to provide safe drinking water in all situations (Question #21, 45 responses)

Questionnaire Analysis

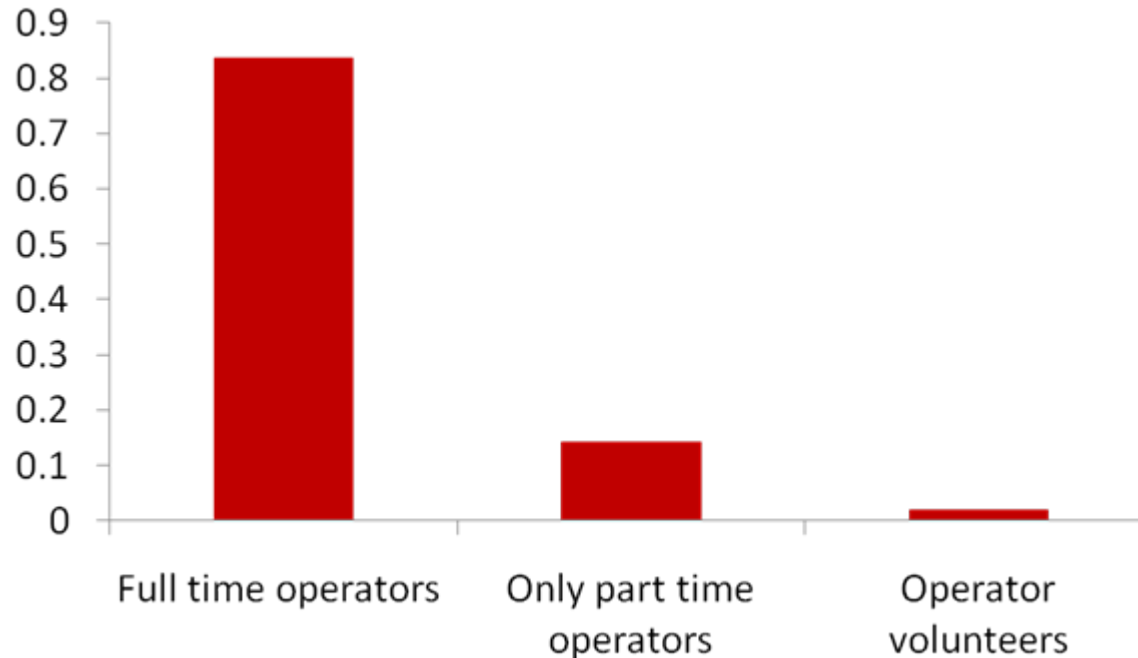


Figure 6. Types of operators. **7** small water system do not have full time operators, and **1** small water system only have operator volunteers among **49** responses; others have full time operator(s) and (or) part time operators (**Questions #22 &23**)

Specific information for DSS development: **Questionnaire**

Data analysis

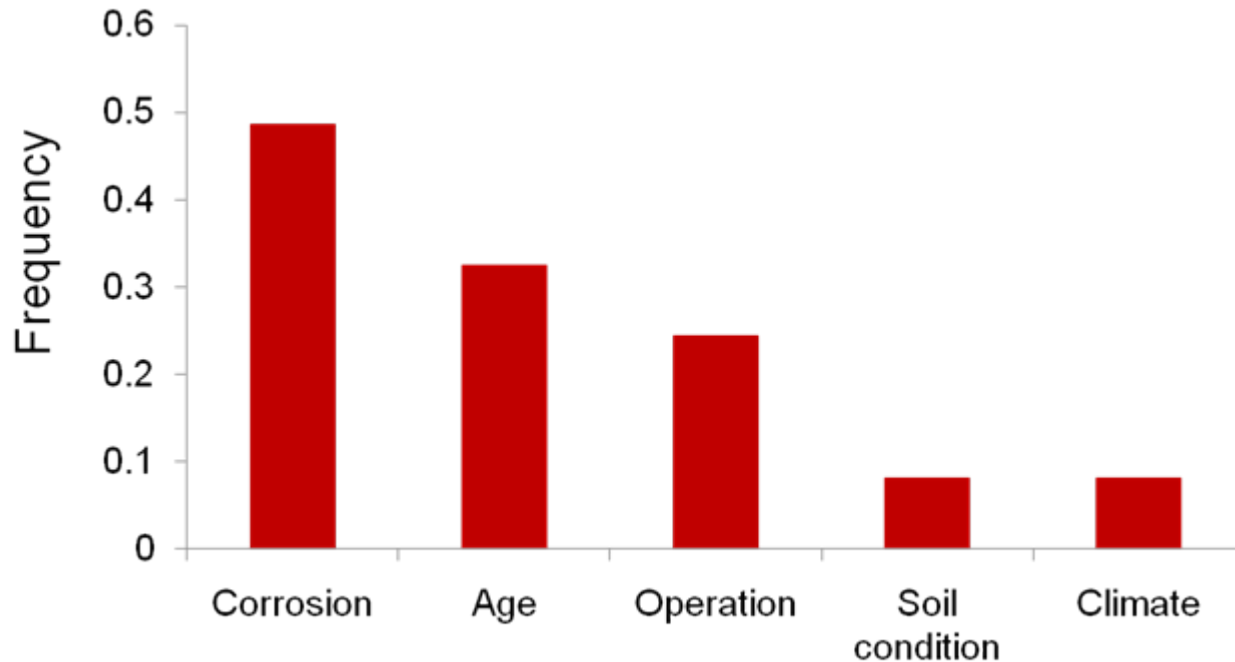


Figure 7. Factors affecting failure of small water systems (Question #29, 37 responses)

Specific information for DSS development: **Questionnaire**

Data analysis

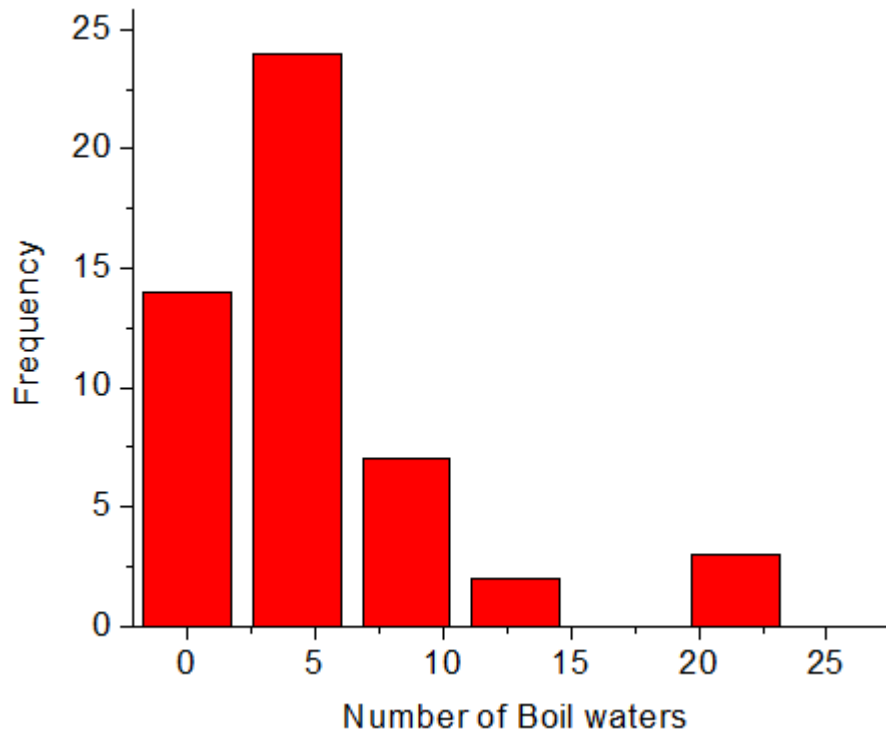


Figure 8. Numbers of boil water (Question #31, 51 responses)

Specific information for DSS development: **Questionnaire**

□ Data analysis

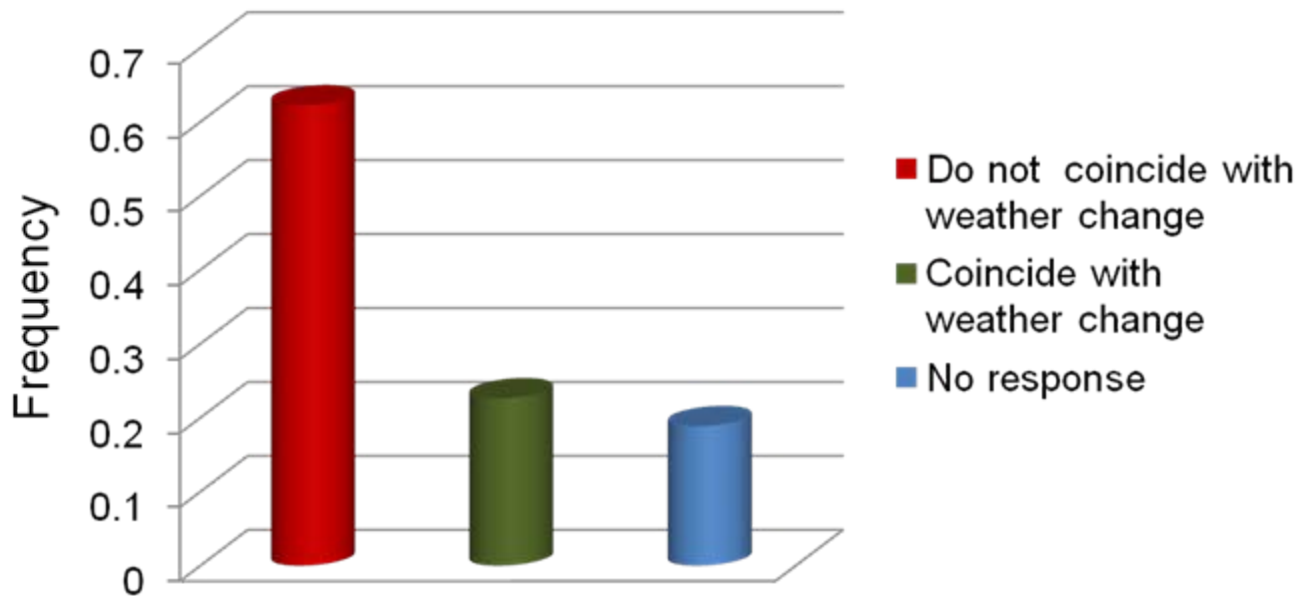


Figure 9. Analysis of treatment problems coinciding with weather change (Question #32)

Specific information for DSS development: **Questionnaire**

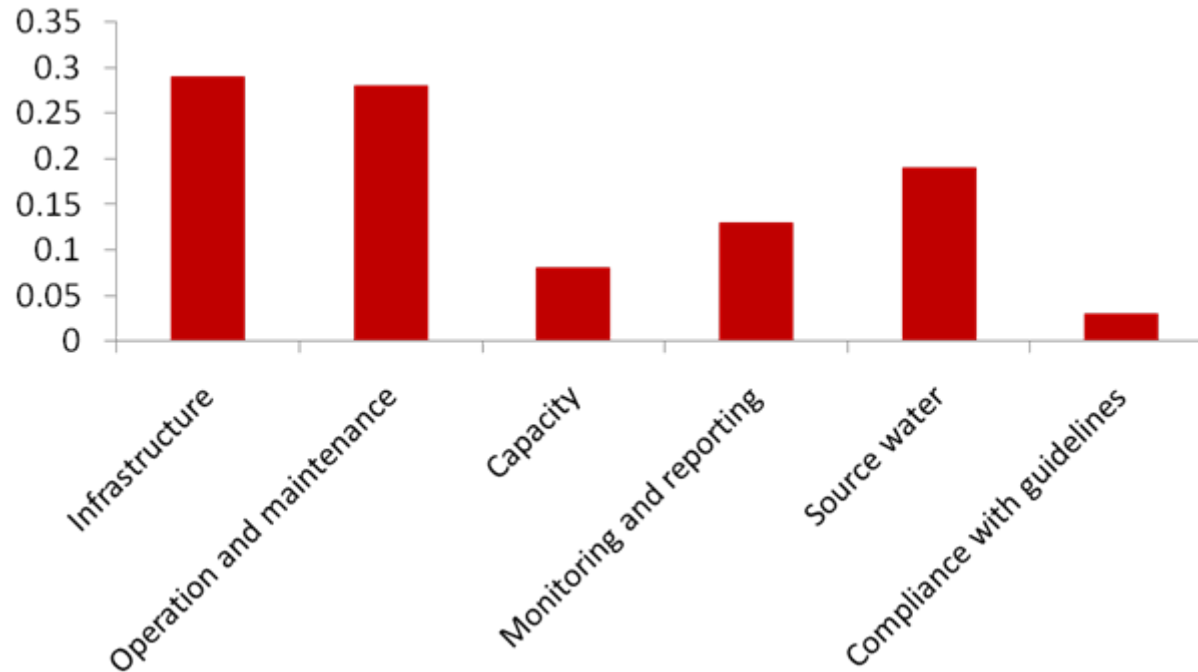


Figure 11. Weights for key challenges in delivering clean and safe drinking water (Question #48)