

APPENDIX 1 - DECISION MATRIX FOR WATER TREATMENT

Chemical composition	Fe>5 aerate	Fl>1.5 and/or other parameters outside WHO guideline consider i) national standards, ii) duration of supply and short-long term implications of exceeding limits, iii) what communities do currently “acceptable norm”, iv) consider alternative source, v) discuss/agree best way forward with relevant authority and community		TDS>1,000 Check with users on acceptability. Consider alternative source. If no acceptable source available see desalination technical brief
Turbidity	<u><5</u> Suitable for chlorination without other pre-treatment	<u>5-50</u> Natural Settlement Sedimentation Coagulation-Flocculation, Membrane filtration Package treatment	<u>>50</u> Coagulation/flocculation, Roughing filters	
Supply type & management	<u>Refugee/IDP camp</u> NGO operation, clear exit strategy needed which considers operating cost, complexity, consumables etc.	<u>Community Managed Supply</u> Capacity likely to be limited, avoid complex treatment, use of chemicals, ensure post installation monitoring & follow-up	<u>Utility company</u> Technical decisions likely to be taken jointly, informed by capacity and technology already in use	
Duration	<u>Emergency (0-3 mths)</u> What equipment/options are available and can be set up quickly to meet immediate needs to acceptable quality & quantity? In Country Contingency stock? local markets? international airfreight?	<u>Medium term (3-12 mths)</u> Improving quantity and quality of treated water if required.	<u>Long term/ durable solutions (12 mths+)</u> What is most cost effective and sustainable solution? Local capacity, private sector parts, O&M support	
Demand	<u><5m/hr</u> Package treatment, membrane filtration	<u>Beyond m3/hr</u> Batch treatment, Lamella Clarifiers, sand filtration		