3.1 Equitable access to safe and secure potable water supply - To provide safe, secure and affordable water supply services that are accessible to all households, educational institutions, health institutions and businesses.

Objectives	Rating Scale	Guiding questions	Suggested data collection sources	Facilitator guiding questions and notes
Water system design To provide secure water supply services that is accessible to all households, educational institutions, health institutions and businesses. **Monitoring and evaluation** To provide safe water supply services (and therefore free from micro-organisms, chemical substances and radiological hazards) that is of an acceptable colour, odour and taste for domestic use. **Legislation and regulation** To develop national and/or local standards for drinking-water quality that are based on measures of drinking-water safety defined by the World Health Organization (WHO) Guidelines for drinking-water quality. **Revenue, funding and investment** To deliver affordable water supply services to all households, educational institutions, health institutions and business.	1. **Few people** (**less than 30%** of urban population) have access to safe and secure* water for basic needs. The source of supply (communal stand pipe, well, roof tank or metered supply) is **within 1000 m** of the home and collection time **does not exceed 30 minutes**. River, creek or other represent inadequate access. 2. **Some people (30-60%** of urban population) have access to safe and secure* water for basic needs. The source of supply (communal stand pipe, well, roof tank or metered supply) is **within 1000 m** of the home and collection time **does not exceed 30 minutes**. River creek or other represent inadequate access. 3. **Many people (60-95%** of the urban population) have access to safe and secure* water for drinking and other consumptive purposes. The source of supply (communal stand pipe, well, roof tank or metered supply) is **within 1000 m** of the home and collection time **does not exceed 30 minutes**. River, creek or other represent inadequate access. Water is affordable at less than 3% of household income. 4. Safe and secure* water is available to **almost all people (more than 95%** of the urban population) all of the time for drinking and other consumptive purposes. Water is available as metered tap water (or tank water) in houses and affordable at **less than 3% of annual household income**. 5. Safe and secure water is **available to everyone** for drinking and other consumptive purposes. Water is available as metered tap water (or tank water) in houses and affordable at **less than 3% of annual household income**. **Measures are in place (such as discounted bills etc.) to address affordability and access for disadvantaged** and low-income groups as well as future community needs. Future threats to water security are taken into account in planning and a long term water strategy is in place.	**Water system design** Is a safe water supply capable of supplying between 50 and 100 litres of water per person per day available to everyone? What proportion of households, educational institutions, health institutions and businesses are connected or have access to potable water? **Monitoring and evaluation** Is safe water supply available to everyone? If not, what percentage of the urban population has access? What are the international standards for quality and how does the quality of supply compare? **Legislation and regulation** Does national and/or local standards for drinking-water quality reflect the measures and requirements defined by the World Health Organization (WHO) Guidelines for drinking-water quality? **Revenue, funding and investment** What is the cost of water? Are mechanisms available for lower income households to be subsidised? Are mechanisms available for to provide access to homeless people?	Policy, legislation and regulation Existence of national and/or local standards for drinking-water quality that are based on measures of drinking-water safety defined by the World Health Organization (WHO) Guidelines for drinking-water quality Contact water utilities to determine the proportion of households connected to mains water system and or alterative supplies (such as, recycled water supplied via separate supply network). Also include households with independent supply e.g. rainwater tanks WHO international standards Monitoring data for micro-organisms, chemical substances colour, odour and taste for domestic use. Calculate the cost of water relative to household incomes. (Water charges as a percentage of various household income groups. i.e. the relative cost of water to household incomes) - collect household income data from ABS - contact water retailers/utilities for water costs and standards Compare and contrast household income to cost of water Identify mechanisms to subsidise costs for lower income households	**Hierarchy** 1. <30% people have access to safe and secure supply 2. 30-60% people have access to safe and secure supply 3. 60-95% people have access to safe and secure supply 4. >95% people have affordable access to safe and secure supply 5. Universal and affordable access to safe and secure supply **Examples** **Definitions** **Access:** Water source being within 1,000 metres of the home and collection time should not exceed 30 minutes (defined by the World Health Organization (WHO)) ***Safe:** Up to developed world potable standards, without health risk ***Secure:** Supply is available at least 4 days a week **Affordable:** Water costs should not exceed 3 per cent of household income (suggested by the United Nations Development Programme (UNDP)) **Common Q and A's / Notes** **Must mention** To reach a rating 5 focus is on affordability, and measures to address affordability for disadvantaged (such as discounted bills etc.) Usually a 4-5 ratings is achieved in Australian cities. If security of supply is not achieved then rating is reduced to 1 point

3.2 Equitable access to safe and reliable sanitation - To provide reliable sanitation services that is affordable and accessible to all households, educational institutions, health institutions and businesses.

Objectives	Rating Scale	Guiding questions	Suggested data collection sources	Facilitator guiding questions and notes
Water system design To provide reliable sanitation services that is accessible to all households, educational institutions, health institutions and businesses. **Monitoring and evaluation** To provide safe sanitation services that ensures the protection of human health. **Legislation and regulation** To establish and maintain national and/or local standards for sanitation that are based on measures of sanitation safety defined by WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP). **Revenue, funding and investment** To deliver affordable sanitation services to all households, educational institutions, health institutions and business.	1. **Few** people (**less than 30%** of urban population) have access to and use safe and reliable sanitation (pit latrine with slab/ventilated, sealed privies). Insufficient drainage leads to public health risks. 2. **Some** people (**30-60%** of urban population) have access to and use safe and reliable sanitation (pit latrine with slab/ventilated, sealed privies), not shared by too many and of sufficient capacity. Insufficient drainage sometimes causes public health risks. 3. **Many** people (**60-95%** of the urban population) have access to and use safe and reliable sanitation (pit latrine with slab/ventilated, sealed privies), not shared by too many and of sufficient capacity. M**any households are connected to a sewer system** or otherwise have a **hygienic toilet facility in the house** (flush/pour flush to sewer, septic tank or pit latrine, or composting toilet). Discharge to the environment **sometimes causes public health** risk due to leaks or insufficient treatment. 4. Safe and reliable sanitation is available to and used by **almost all people (more than 95%** of the urban population). Most households are connected to a sewer system or otherwise have a **hygienic toilet facility in house** (flush/pour flush to sewer, septic tank or pit latrine, or compositing toilet). **Most discharge** to the environment **that causes public health risk is prevented** (including leaks) or treated at wastewater treatment plant to at least secondary standards prior to release. The system takes planning for growth into account along with other shocks and stresses. 5. Safe and reliable sanitation is available to and used by everyone. **All households are connected** to a sewer system or otherwise have a **hygienic toilet facility in house** (flush/pour flush to sewer, septic tank or pit latrine, or compositing toilet). **Discharge** to environment **that causes public health risk is prevented** (including leaks) or treated at wastewater treatment plant to at least secondary standards prior to release. Measures are in place (such as discounted bills etc.) to address affordability for disadvantaged and low-income groups. The system takes planning for growth into account along with other shocks and stresses.	**Water system design** Is safe sanitation available to everyone at affordable prices? What proportion of households have access to safe and reliable sanitation? **Monitoring and evaluation** What are the international standards? What are the monitored or reported results for water supply quality? **Legislation and regulation** Does national and/or local standards for sanitation services reflect the measures and requirements defined by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP)? **Revenue, funding and investment** What is the cost of water supply compared to household income? Are mechanisms available for lower income households to be subsidised?	Contact water utilities to determine the proportion of households connected to a sewerage system. Also include households with access to an alternative hygienic domestic toilet facility e.g. septic tanks, pit latrine, sealed privies, etc.) WHO international standards Legislation and regulation Policy documents Calculate the cost of sanitation relative to household incomes. (Sanitation charges as a percentage of various household income groups. i.e. the relative cost of safe sanitation to household incomes) - collect household income data from ABS - contact water retailers/utilities for sanitation costs and standards Compare and contrast household income to cost of sanitation Identify mechanisms to subsidise costs for lower income households Are water borne diseases present in the community?	**Hierarchy** 1. <30% people have access to safe and reliable sanitation 2. 30-60% people have access to safe and reliable sanitation 3. 60-95% people have access to safe and reliable sanitation 4. >95% people have affordable access to safe and reliable sanitation 5. Universal and affordable access to safe and reliable sanitation **Examples** **Definitions** **Safe and reliable:** Systems are adequately maintained so not to place risk on human health through poor level of treatment (or leaking from septic systems) prior to discharge. **Secondary treatment standards**: Secondary treatment is a treatment process for wastewater (or sewage) to achieve a certain degree of effluent quality by using a sewage treatment plant with physical phase separation to remove settleable solids and a biological process to remove dissolved and suspended organic compounds. After this kind of treatment, the wastewater may be called as secondary-treated wastewater. **Common Q and A's / Notes** This indicator is about public health risk from human waste that is discharged (to the environment); environmental health risk is addressed in the Ecological Health goal **Must mention**

3.3 Equitable access to flood protection - To reduce nuisance flooding to protect citizens and infrastructure and to deliver affordable protection against flood risk to everyone.

Objectives	Rating Scale	Guiding questions	Suggested data collection sources	Facilitator guiding questions and notes
Water system design To reduce nuisance flooding in storm events and protect citizens and infrastructure from flood risk. **Revenue, funding and investment** To deliver affordable protection against flood risk to everyone.	1. Rainfall events lead to minor flooding that **always disrupt** everyday activities. **Substantial proportion** of the urban population (**more than 10%**) are **at risk** of severe consequences to life associated with flooding (including health and welfare). Almost **no action** is undertaken to address the issue. 2. Rainfall events lead to minor flooding that **regularly disrupt** everyday activities. **Significant proportion** of the urban population (**2-10%**) are **at risk** of severe consequences to life associated with flooding (including health and welfare). Actions are taken in some areas to reduce flood risk. 3. Rainfall events lead to minor flooding that **sometimes disrupt** everyday activities. **Some** of urban population (**less than 2%**) are **at risk** of severe consequences to life associated with flooding (including health and welfare). Measures are undertaken to reduce the impact on infrastructure and property. A **coordinated response** is undertaken to address these risks **across some areas**. A number of different actions are undertaken in some areas to reduce flood risk. **Detention measures** located in catchments reduces downstream impacts associated with peak flood events. 4. Rainfall events **generally do not disrupt** everyday activities. **Almost everyone's lives and welfares are well protected** against flood risks, although extreme events may **affect some property** in some areas in a negative manner and the **risks** are **understood**. Measures are undertaken to reduce the impact on infrastructure and property. A **coordinated and integrated response** is undertaken with urban planning, infrastructure planning and housing typology (raised or floating dwellings) **explicitly taking flood risks into account**. **Harvesting** and **detention measures** throughout catchments reduces flooding impacts associated with peak flood events. 5. Rainfall events **do not disrupt** everyday activities. **Human safety** is **virtually guaranteed**, and infrastructure and **property damage** are **infrequent**; **risks** are **well understood**. A c**oordinated and integrated response** is undertaken with urban planning, infrastructure planning and housing typology **explicitly taking flood risks into account**. Urban areas are designed to provide a flood mitigation function as part of **multifunctional landscapes**.	**Water system design** Do rainfall events disrupt normal day-to-day activities? What level of flood protection is in place? Are people and properties protected and if so how? What is the probability of flooding events with human lives lost, significant economic damage and social disruption? What urban design initiatives and infrastructure have been implemented to protect against flooding? What planning and preparedness measures are in place? What town planning controls on urban development are in place?	Calculate the cost of flood risk protection to household incomes. (Flood risk protection costs as a percentage of various household income groups. i.e. the relative cost of flood risk protection to household incomes) - collect household income data from ABS - contact water retailers/utilities water costs Refer to disaster management plans, emergency plans, building codes, policy etc., to provide evidence that urban planning and design specifically takes into account fluvial flood protection The measures in place in flood-prone areas e.g. designated areas specifically designed to accommodate flooding, elevated homes, retarding basins, floodways, overland flow paths etc. Refer to flood modelling and mapping for data about the probability and effects of flooding	**Hierarchy** Do you have a safe and reliable system? Is the system functioning as it should? Hierarchy is based on frequency and severity of disruption from flooding and measures in place to deal with flooding. 1. Minor flooding is always disruptive. >10% people lives at risk in flooding. Almost no action taken to address these. 2. Minor flooding is regularly disruptive. 2-10% people lives at risk in flooding. To address these risks, people are relocated and/or flood infrastructure. 3. Minor flooding is sometimes disruptive. <2% people lives at risk in flooding. A coordinated response addresses these risks by: people are relocated, flood infrastructure, urban planning, housing typologies, detention measures 4. Minor flooding is generally not disruptive. Almost everyone's lives are well-protected from flooding although property damage may occur in some areas. A coordinated and integrated response explicitly takes flood risks into account by: people are relocated, flood infrastructure, urban planning, housing typologies, detention measures, harvesting measures 5. Minor flooding is never disruptive. Everyone's lives are well-protected from flooding and property damage is infrequent. Flood risk is well understood. A coordinated and integrated response explicitly takes flood risks into account by: people are relocated, flood infrastructure, urban planning, housing typologies, detention measures, harvesting measures, multi-functional urban designs and landscapes **Examples** **Regularly disrupt:** building inundation, lots of road closures **Housing typology:** Raised floors, floating dwellings **Actions to reduce flood risk:** relocation of those most at risk, infrastructure planning that provides protection against flooding, housing typology that responds to flood events **Definitions** Define extreme events in terms of flood magnitude/frequency? **Common Q and A's / Notes** Is % urban population at risk at one point in time or over the years? **Must mention**

3.4 Equitable and affordable access to amenity and cultural values of water-related assets – To enhance amenity values associated with urban landscapes and provide affordable access to water related assets with high amenity values to everyone.

Objectives	Rating Scale	Guiding questions	Suggested data collection sources	Facilitator guiding questions and notes
Urban landscape design To enhance amenity values associated with urban landscapes. **Revenue, funding and investment** To provide affordable access to water related assets with high amenity values to everyone.	1. Water-related assets **do not provide amenity and cultural benefits** in most areas of the city. Enjoyment of available amenity benefits of assets comes at a **relatively high cost** for some households or have issues with safety. 2. Water-related assets **provide amenity and cultural values in some areas of the city**. These areas are **not easily accessible** and enjoyment of these benefits comes at a **relatively high cost** for **some** households or have issues with safety. 3. Water-related assets **provide amenity and cultural values in large areas of the city**. These areas are **mostly accessible** and come at a **moderate cost** for some households. 4. Water-related assets **provide amenity and cultural values in most areas of the city**. These areas are **highly accessible** and enjoyment of these benefits comes at **low cost**. 5. Water-related assets **provide amenity and cultural values in all areas of the city** and are implemented to **improve lower socio-economic areas.** These areas are **highly accessible** and enjoyment of these benefits **comes at no cost**.	**Urban landscape design** What amenity values are associated with water-related assets? Where are they located? Are they easily accessible? Are the amenity values of most water-related assets accessible to different income groups? Are there admission costs? **Revenue, funding and investment** How are the relative costs to enjoy such amenities distributed between different income groups? **Define amenity and cultural benefits for your specific area**	Review policy documents Use GIS to map the distribution of water assets with high amenity values	**Hierarchy** 1. Water assets mostly do not deliver amenity benefits, or at a high cost 2. Water assets deliver amenity benefits in some areas, but not accessible and/or at a relatively high cost 3. Water assets deliver amenity benefits in large areas, mostly accessible and/or at a moderate cost 4. Water assets deliver amenity benefits in most areas, highly accessible and/or at a low cost 5. Water assets deliver amenity benefits in all areas, highly accessible and/or at no cost. Water assets deliberately designed to improve amenity in lower socio-economic areas **Examples** • Waterways and water-related assets are channelized, have few attractive elements, or exclude people. • Retarding/detention basins may be single purpose and protected by fencing or alternatively, may be landscaped and incorporate community facilities such as trails and shelters. • Reservoirs may incorporate parklands • Example of low accessibility: coastline or inlets backing onto private property with no public access (e.g. Gold Coast) **Definitions** **Water-related assets:** natural assets (e.g. rivers, creeks, bays, beaches) and built assets (e.g. public parks and fountains, constructed wetlands, retarding basins, reservoirs, biofilters, cycle paths and walking trails beside water assets) **Accessibility:** people can readily access the amenity in terms of location (distribution and distance to travel), affordability (financial and time cost), universality (all people including those with a disability) **Common Q and A's/ Notes** **Is there overlap with the Quality Urban Space indicator, 'Activating connected pleasant urban green and blue space?** This indicator is about equity of access, which is informed by how well activated and connected blue-green space is but has a different emphasis Water or sewerage treatment plants are isolated and exclude community uses or may be more integrated into local urban or non-urban landscapes and support community uses. For example, Western Treatment Plant in Melbourne encourages bird watching activities and incorporates a 'discovery centre' for education. Singapore uses a recycled water plant for functions and events including weddings. **Must mention**