### Recommendations for Further Action

Development of the monitoring system and associated predictive models for air quality management has enabled the comprehensive understanding of air quality issues in Riyadh City, as well as the key sources of air pollution. This was the first and fundamental step towards air quality improvement. Now that this knowledge is in place and continues to improve, it is necessary to use this information to develop an air quality strategy that tackles emissions sources head-on.

*Air Quality Strategy*

1. **Air Quality Management Strategy 2020** - Utilising the capabilities within the AQ model, develop a range of scenarios to inform policy options that deliver the most efficient and effective reductions in air pollution that can be considered by the HCEP for action. Priority pollutants are PM10, PM2.5 and Benzene. Each intervention should be accompanied by an implementation plan, budget and timescale.

*Air Quality and Health Effects*

1. So far very limited progress has been made with respect to understanding how air pollution in Riyadh directly and indirectly affects human health. Studying the health effects of air pollution is an initiative under the *Executive Plan for Riyadh Environment Protection* and is being led by the Ministry of Health. Further progress in this area would help accurately target policy interventions so that those most affected by air pollution may benefit.

### Water Resources and Supply

The city of Riyadh is primarily supplied by two sources of potable water:

* desalinated water conveyed from desalination plants located on the East coast (Ras Alkhair and Jubail); and
* shallow and deep groundwater aquifers located in the vicinity of Riyadh.

Water from both sources is blended and the proportion of each source is approximately 930,000m3 from aquifers and 1.6m m3 from desalinated water[[1]](#endnote-1).

To ensure that Riyadh’s water supply continues to flow in the event of an emergency situation, strategic reservoirs have been developed at various locations around the city which will be able to supply the city for up to 7 days by 2020[[2]](#endnote-2).

The quality of drinking water is governed by GAMEP standard (formerly PME) *Environmental Standard 10 -Drinking Water Quality*, and overseen by the Saudi Standards, Metrology and Quality Organisation (SASO). In 2018, Riyadh’s drinking water supply system achieved 98.92% conformity over the year (156,000 parameters checked), against a conformity target of 97%[[3]](#endnote-3).

In 2017, the city of Riyadh consumed 2.5 million m3 of drinking water per day[[4]](#endnote-4), this equates to 357 litres/person/day, which is 94 litres per person per day higher than the Saudi national rate (see Figure 33). Water consumption in Riyadh has been increasing year on year for the last 50 years. In the last 5 years alone, demand has increased 25% (see Figure 34).

Sectoral use of water in Riyadh is divided proportionately as indicated in Figure 35. The domestic sector consumes over three quarters of the potable water supplied in Riyadh.

The NWC state that the potable water supply networks connects over 97% of the population of Riyadh, with over 519,000 domestic connections[[5]](#endnote-5).

1. <https://www.arriyadhgeoenv.gov.sa/web-Apps/views/apps/envodb.html?applang=fl#/$$show-view-story-map-controller> [↑](#endnote-ref-1)
2. National Water Company, 2018 XXXXXXX [↑](#endnote-ref-2)
3. Saudi Standards, Metrology and Quality Organisation - Number of Parameters Checked of the Distribution System 2018. [↑](#endnote-ref-3)
4. <https://www.arriyadhgeoenv.gov.sa/web-Apps/views/apps/envodb.html?applang=fl#/$$show-view-story-map-controller> [↑](#endnote-ref-4)
5. Saudi Standards, Metrology and Quality Organisation - Number of Parameters Checked of the Distribution System 2018. [↑](#endnote-ref-5)