CITY-WIDE WATER AND CLIMATE RESILIENCE THROUGH WATER SENSITIVE DESIGN AND PLANNING (WSDP)
INTERNATIONAL VIRTUAL TRAINING PROGRAMME, JANUARY / FEBRUARY 2022

Part A: Pre-training material on Moodle e-learning platform (self-study, 25 January to 1 February 2022)

Before virtual sessions are conducted, participants will be provided with a list of ‘Essential’ and ‘Recommended / Supplementary’ reading and audio-visual material. It is expected that the ‘Essential’ reading material will take participants about 10-12 hours to complete, with a focus on the following themes:

- Introduction to ‘Sustainable urban water management’: Focus on challenges in the water sector wrt climate change in South Africa / Africa; Centralised vs Decentralised water services; etc. (provided by WRC, CSE)
- Need for Water Sensitive Design and Planning (WSDP) to build urban climate resilience: Brief overview of the urban water crisis and opportunities for building water resilience (provided by UCT, WRC)
- Introduction to WSDP concepts, including rainwater harvesting (RWH), Sustainable Drainage Systems (SuDS), Decentralised wastewater treatment (DWWT), on-site sanitation, reuse etc. (provided by UCT, CSE)
- Framework for implementation of water sensitive spatial planning strategies in South African cities (provided by UCT, JLL)

An online discussion forum / feedback session will be arranged at the end of the pre-training week, to engage with the participants prior to the virtual sessions. The material will also be supplemented with a ‘Pre-training assessment’, in order to gauge awareness and knowledge of WSDP concepts amongst participants. The assessment (to be completed in the form of a quiz) will need to be submitted via Moodle by 9am on Monday 1 February 2022.

Live online sessions

1. Orientation / Introduction to course including background to why training is needed (Mr Jay Bhagwan & Ms Shanna Nienaber, WRC; Dr Suresh Rohilla, CSE) – presented live during a virtual Zoom session at 9am on 25th January 2022
2. Online discussion session – feedback on pre-training and instructions for facilitated training (A/Prof Kirsty Carden, UCT / Mr Dhruv Pasricha, CSE) presented live during a virtual Zoom session at 9am on 1st February 2022

List of recorded lectures and selected documentaries (including name of presenter plus estimated time to complete)

1. Lecture: Setting the context for South African water challenges – Dr Kirsty Carden, UCT (30 min)
2. Lecture: WSD for South Africa: Framework, guidelines and policies – Dr Kirsty Carden, UCT (60 min)
3. Lecture: Sustainable Drainage Systems (SuDS) and stormwater harvesting – Prof Neil Armitage, UCT (60 min)
4. Decentralised wastewater treatment (DWWT), on-site sanitation, reuse – CSE
6. Lecture: Framework for implementation of water sensitive spatial planning strategies in South African cities – Dr Hildegard Rohr, JLL (60 min)
7. Documentary – The Future of Water: story of Windhoek (15 min)
List of selected ESSENTIAL readings (full list available on the MOODLE platform)

14. WRI (2021). Water resilience in a changing urban context - Africa's challenges and pathways to action
Part B: Virtual training sessions (Zoom)

The virtual sessions are to be conducted over three days, inclusive of group exercises. Group exercises will conclude with a short presentation by participants, 7-10 minutes per group. A short post-training assessment task will be presented to participants at the end of the virtual sessions (documentation of a short WSDP case study within the participant’s home area - for completion within 2 weeks). At the end of the virtual training, the presentations and other reading material associated with the two days will be provided to participants. **Certificates of attendance will only be provided once all assessments / assignments are submitted.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>09h00 – 10h00</td>
<td>Feedback on Part A and introduction of participants (CSE, UCT)</td>
<td>Urban water resilience frameworks and case studies in South Africa</td>
<td>Planning and designing WSUDP features</td>
</tr>
<tr>
<td></td>
<td>Application of WSDP at regional scale – case studies highlighting the use of WSD and SuDS in South Africa (UCT)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10h00 – 11h00</td>
<td>Data requirements for planning WSD features; sources of data (CSE)</td>
<td>Guest lecture 2 – ‘Liveable urban waterways programme and other resilience initiatives’, Ms Tamsin Faragher, Acting Director: Resilience, City of Cape Town</td>
<td>Planning considerations for RWH, SuDS, DWWT (CSE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>O&amp;M, Economics, Stakeholder involvement and institutional frameworks (CSE, UCT)</td>
</tr>
<tr>
<td>11h30 – 13h00</td>
<td>Application of WSDP at Individual, Neighbourhood and Municipal scale: land-use and water quality &amp; quantity impacts (UCT, CSE)</td>
<td>Group exercise on ‘Data requirements and respective analysis for planning WSD features’ (CSE, UCT)</td>
<td>Opportunities for WSDP and building climate resilience in existing laws and policies in South African context (UCT, JLL)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14h00 – 15h30</td>
<td>Guest lecture 1 - John Matthews (time tbc)</td>
<td>Group exercise on ‘Planning and Designing WSD features’ (CSE, UCT)</td>
<td>Group presentations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Discussion and closing; post-training assessment (WRC, CSE, UCT, JLL)</td>
</tr>
</tbody>
</table>

WRC / CSE / UCT / JLL training programme on City-wide Water and Climate Resilience through Water Sensitive Design and Planning (WSDP) Virtual training, 2 to 4 February 2022