**Annex 5**

**Templates for Mid-Term Evaluation Report**

**(Individual and Consensus)**

**Water Joint Programming Initiative**

**2018 Joint Call**

*Closing the water cycle gap - Sustainable management of water resources*

These Project Management Guidelines will be effective from the date of the National funding decisions and shall remain in force until the last final project report is approved in 2022.

**The Mid-Term Consensus Report will be made available to the Consortium as well as CSC and JPI Water GB.**

**MID-TERM INDIVIDUAL EVALUATION REPORT**

**PROJECT TITLE AND ACRONYM**

Name of Coordinator: Bas Amelung

Project code: WaterWorks2017-Simtwist

Duration of project: 36 months

Start date:  **Jun 19** End date: **May 22**

**DETAILS OF THE EVALUATOR**

Name: Jessica Budds

Organisation: University of East Anglia

Date of review: 10 April 2021

### **Scientific and technological progress** (*Maximum 250 words)*

|  |
| --- |
| *Please describe the work performed and the results obtained during the lifetime of the project, and the conformity of work progress within the initial schedule. Take into account the following aspects:** *Has progress been achieved towards reaching the project objectives according to the original description and milestones?*
* *Detailed update on methodology & results*
* *How has the progress of the project promoted a multi-disciplinary work?*
* *Dissemination of the results (publications, patents, other)*

This is a very well executed report that presents progress over 18 months in an clear, comprehensive, honest, and structured manner. The project started in June 2019, but suffered delays due to funding decisions pending for Spain and Italy, which delayed the contracting of postdocs. The work done covers many elements of work packages 1 to 4, and some of 5 and 6. The progress on tasks compared with the original plan is presented clearly and frankly, explaining the rationale for any changes (e.g. combination of stakeholder interviews) or delays. Very good progress has thus been made with secondary data collection and analysis, model assessment, interviews, policy review, and methodology. The scientific review of water footprint analysis in tourism locations could be expected to be completed. The work is being conducted collaboratively across all partners, and endeavouring to maintain a similar nature and pace of work in the two cases despite partner funding and Covid-19, with work-around strategies being sensibly deployed where necessary. The work for hydrosocial analysis and agent-based modelling is more dependent on field-based activities, and sensible mitigation strategies are proposed, e.g. splitting the workshop into synchronous and non-synchronous events. Stakeholder engagement has comprised those interviewed and local institutions in case locations. The project has three journal articles in preparation, representing solid progress. I find the progress very satisfactory.  |

### **Collaboration, coordination and mobility within the Consortium** (*Maximum 250 words)*

|  |
| --- |
| *Please evaluate the collaboration, coordination and mobility within the Consortium* *Take into account the following aspects:** *Efficiency on the coordination and organization of the projects*
* *Collaboration effective between the partners*
* *Mobility of the research between the consortia*
* *Does the project meet the transnational nature and its added value?*

Although mobility has been affected by the Covid-19 situation, and the second annual meeting was moved online, the mobility between the project members has been good, with several external visits. Additional mobility and collaboration has occurred through Wageningen-based MSc and BSc dissertations in parallel. The coordination activities described are very well-defined and strong, with a clear line of command across the project and for each work package. A very good number of meetings across the project have been held to date, and, as above, there seems to be a concerted effort to keep both case studies at the same stage of progress to ensure eventual comparability. This shows that the project work is integrated in a meaningful way across partners, whereby each partner leads an activity according to their disciplinary specialisation but with feedback from other partners, and across the case study locations, whereby the project work is developing in conjunction rather than in a disconnected way. I am therefore satistifed that communication across the project, as well as the integration of the project work, is excellent and raises no concerns at this stage, and, indeed, provides added value to this programme.  |

### **Coordination with other international project funded by WaterWorks2017, or other instruments** (*Maximum 250 words)*

|  |
| --- |
| *Please evaluate the external collaboration of the Consortium,* *Take into account the following aspects:** *Collaboration effective with other projects funded by WaterWorks2017*
* *Collaboration effective with other projects or consortia*

The report does not mention links with other JPI projects or other projects funded from other sources, perhaps as this is a smaller and more ‘niche’ project than some of the others funded under this call, with a very integrated and united team. I understand that this sort of engagement is expected, but in this case I am not concerned by its apparent absence. Indeed, I think this project represents an(other) example of good interdisciplinary work and cross-partner collaboration.  |

### **Coverage of the themes and sub-themes of the call** (Maximum *250 words)*

|  |
| --- |
| *Please evaluate the relation within the project results and the themes and the sub-themes of the call.**Theme 1. Enabling sustainable management of water resources.*The overall aim for this theme is to develop new governance and knowledge management approaches.* *Sub-theme 1.1. Promoting adaptive water management for global change:*

The aim of sub-theme 1.1 is to increase knowledge and to develop evidence-based methodologies and technologies for monitoring the cumulative impacts of human activities and climate change on the water cycle, but also to develop management options on the water cycle (considering all cycle compartments) and water / ecosystem services. This knowledge must be applicable for the adaptive management of water resources on a regional scale, while enabling downscaling to address local or catchment situations.* *Sub-theme 1.2. Integrative management by implementing Natural Water Retention Measures (NWRM) such as Managed Aquifer Recharge (MAR):*

The aim is to increase the knowledge and develop NWRMs such as MAR in a multidisciplinary way, to protect, prolong, sustain and augment freshwater supplies. Evidence of their effectiveness and on the multiple benefits they deliver should be demonstrated.* *Sub-theme 1.3. Mitigating water stress in coastal zones and urbanized areas:*

The aim is to develop and demonstrate a comprehensive coastal zone management system based on monitoring and modelling to ensure the provision of freshwater security under a range of conditions including saline intrusion, sediment management, storms, floods and droughts, but also specific coastal water uses. Please, refer to H2020 calls on nature-based solutions to propose complementary actions.*Theme 2. Strengthening socio-economic approaches to water management.*The overall aim of this theme is envisaging education and communication initiatives to raise social awareness of consumption habits and water scarcity and to increase the levels of social acceptance and use of recycled water.* *Sub-theme 2.1. Integrating economic and social analyses into decision-making processes:*

The aim is to increase the knowledge the effectiveness and efficiency of existing economic mechanisms and policy instruments related to water management, with a special emphasis on implementation of water policies (such as the EU Water Framework Directive) and development of a circular and green economy. The approach should aim to break boundaries between services valuation including more flexible pricing and charging mechanisms, management tools and institutions, and the employment of economic and social sciences to develop best practice management guidelines for efficient water uses, including under extreme events such as droughts and floods.* *Sub-theme 2.2. The reuse of water:*

The aim is to develop integrative methods and cost-effective technologies for the implementation of acceptable and sustainable solutions on a large scale for different reuse cycles, spanning from irrigation, via livestock drinking water, to human consumption. Furthermore, goals include assessments of social acceptance for the use of recycled water and the development of integrated approaches combining technological solutions with social-psychological acceptability, economic viability and appropriate governance approaches. Research into the removal of emerging contaminants must consider the cost of the technology vs yield and realistic options for reuse of the recovered water. Please refer to projects funded under previous Water JPI Joint Calls (2013, 2015, 2016 and 2017) to avoid any duplication. See Joint Calls on Water JPI website.* *Sub-theme 2.3. Connecting science to society:*

The aim is to increase understanding of the role of socio-economic approaches to water uses in hydrological cycles. Knowledge building should address stakeholders' and public awareness of water challenges and values, and how perception of policy measures and technological solutions are formed and how stakeholders can be steered towards desirable behaviour. Local and/or regional context (attitude, social norms, cultural context, etc.) should be taken into consideration. The value of improved water stewardship overall should be considered by developing sustainable business models.* *Sub-theme 2.4. Promoting new governance and knowledge management approaches:*

The aim is to develop innovative water management tools and approaches suitable for decision-making based on an analysis of the limitations of current practices. These approaches should involve the broad participation of stakeholders (including public monitoring, communication and education), multidisciplinary research, and short and long-term water cycle scenarios to support decision-making and the integration of water policy into other policy fields. In effect, governance capacities for implementation of water policies at the local and regional levels should be enhanced.*Theme 3. Supporting tools for sustainable integrative management of water resources.*This theme aims to complement the actions developed under the European Strategy Forum for Research Infrastructures (ESFRI) and other European initiatives. Emphasis should be on establishing networks and information sharing among existing research facilities/field labs, analytical methods, monitoring tools and programmes, access to databases and platforms, exploring the use of big data solutions and establishing reliable hydrological standards. Across the globe, there is a large body of knowledge, methodology and data related to hydrology and the water cycle that has the potential of being beneficial for a wide range of the world's regions. The alignment of water-related research and sharing of data and results will serve to avoid duplication of research, support progress based on previous finding, and thus facilitate the establishment of water management policies addressing rapid climatic changes.This is a highly interdisciplinary and integrated project, and so is extremely well aligned with the themes of the JPI programme as well as its ambition. It is clear that the team is endeavouring to keep the same pace in both case studies, and to ensure comparability, which, for example, has had to be addressed due to different climate models being used in the two countries. The team is also being innovative with regard to both funding and Covid-19 mitigation measures.  |

1. **Stakeholder/industry engagement** (*Maximum 250 words)*

|  |
| --- |
| *Please evaluate the participation of stakeholder/industry on the project and the added value of this participation.*Stakeholder engagement is good, but is mainly focused on the two case study locations so far and could also be scaled up to wider and/or international actors at this stage. The communication plan may need to be revised in line with the lower possibility of conducting face-to-face activities if the pandemic conditions continue to affect the countries concerned.  |

### **Recommendations for improvements/amendments of the report** (Please complete Table below)

|  |  |  |
| --- | --- | --- |
| **Page** | **Modification** | **Rationale for change** |
| 4 | Explain why the scientific review is still in progress at this stage.  | Explanation for the delay needed.  |
| 10 | Is there any way of collating the MSc and BSc theses into project outputs? | Just a comment.  |
| 16 | The paper published in *Urban Water Journal* does not mention this project as a source of funding, so should presumably be removed from the list of project publications.  | Ambiguity.  |
|  |  |  |

1. **Recommendations/ problems and risks** (Maximum *250 words)*

|  |
| --- |
| *Please include problems identified or specific risks to the projects, deviations in relation to the planned work or budget, as well specific recommendations/feedback with could be relevant to the Consortium.*The project has made very good and solid progress, despite delays arising from funding issues and, later on, the shift to online activities as a result of the Covid-19 pandemic. some changes have been made, but these have been clearly explained and justified, and are acceptable. The project is well organised and administered, and activities have been completed to a high standard, with key milestones achieved, and in a manner that integrates the project partners in an interdisciplinary and equitable way. I have no concerns about the progress of this project, and feel that it represents an example of best practice in terms of interdisciplinary research and project organisation, as well as the presentation of a clear and meaningful progress report.  |

**MID-TERM EVALUATION CONSENSUS REPORT**

**This Consensus Report will be made available to the Consortium as well as CSC and JPI Water GB.**

**PROJECT TITLE AND ACRONYM**

Name of Coordinator:

Project code: WaterWorks2017-CONSORTIUM ACRONYM

Duration of project:

Start date: End date:

**FOLLOW-UP GROUP**

Please include the data of the FG members reviewing the report

|  |  |
| --- | --- |
| Name | Organisation |
|  |  |
|  |  |

### **Scientific and technological progress** (Maximum *250 words)*

|  |
| --- |
| *Please describe the work performed and the results obtained during the lifetime of the project, and the conformity of work progress within the initial schedule. Take into account the following aspects:** *Has progress been achieved towards reaching the project objectives according to the original description and milestones?*
* *Detailed update on methodology & results*
* *How has the progress of the project promoted a multi-disciplinary work?*
* *Dissemination of the results (publications, patents, other)*
 |

### **Collaboration, coordination and mobility within the Consortium** (Maximum *250 words)*

|  |
| --- |
| *Please evaluate the collaboration, coordination and mobility within the Consortium**Take into account the following aspects:** *Efficiency on the coordination and organization of the projects*
* *Collaboration effective between the partners*
* *Mobility of the research between the consortia*
* *Does the project meet the transnational nature and its added value?*
 |

### **Coordination with other international project funded by WaterWorks2017, or other instruments** (Maximum 250 *words)*

|  |
| --- |
| *Please evaluate the external collaboration of the Consortium**Take into account the following aspects:** *Collaboration effective with other projects funded under the 2018 Joint Call:*
* *Collaboration effective with other projects or consortia.*
 |

### **Coverage of the themes and sub-themes of the call** (Maximum 250 words*)*

|  |
| --- |
| *Please evaluate relation within the project results and the themes and the sub-themes of the call.**Theme 1. Enabling sustainable management of water resources.*The overall aim for this theme is to develop new governance and knowledge management approaches.* *Sub-theme 1.1. Promoting adaptive water management for global change:*

The aim of sub-theme 1.1 is to increase knowledge and to develop evidence-based methodologies and technologies for monitoring the cumulative impacts of human activities and climate change on the water cycle, but also to develop management options on the water cycle (considering all cycle compartments) and water / ecosystem services. This knowledge must be applicable for the adaptive management of water resources on a regional scale, while enabling downscaling to address local or catchment situations.* *Sub-theme 1.2. Integrative management by implementing Natural Water Retention Measures (NWRM) such as Managed Aquifer Recharge (MAR):*

The aim is to increase the knowledge and develop NWRMs such as MAR in a multidisciplinary way, to protect, prolong, sustain and augment freshwater supplies. Evidence of their effectiveness and on the multiple benefits they deliver should be demonstrated.* *Sub-theme 1.3. Mitigating water stress in coastal zones and urbanized areas:*

The aim is to develop and demonstrate a comprehensive coastal zone management system based on monitoring and modelling to ensure the provision of freshwater security under a range of conditions including saline intrusion, sediment management, storms, floods and droughts, but also specific coastal water uses. Please, refer to H2020 calls on nature-based solutions to propose complementary actions.*Theme 2. Strengthening socio-economic approaches to water management.*The overall aim of this theme is envisaging education and communication initiatives to raise social awareness of consumption habits and water scarcity and to increase the levels of social acceptance and use of recycled water.* *Sub-theme 2.1. Integrating economic and social analyses into decision-making processes:*

The aim is to increase the knowledge the effectiveness and efficiency of existing economic mechanisms and policy instruments related to water management, with a special emphasis on implementation of water policies (such as the EU Water Framework Directive) and development of a circular and green economy. The approach should aim to break boundaries between services valuation including more flexible pricing and charging mechanisms, management tools and institutions, and the employment of economic and social sciences to develop best practice management guidelines for efficient water uses, including under extreme events such as droughts and floods.* *Sub-theme 2.2. The reuse of water:*

The aim is to develop integrative methods and cost-effective technologies for the implementation of acceptable and sustainable solutions on a large scale for different reuse cycles, spanning from irrigation, via livestock drinking water, to human consumption. Furthermore, goals include assessments of social acceptance for the use of recycled water and the development of integrated approaches combining technological solutions with social-psychological acceptability, economic viability and appropriate governance approaches. Research into the removal of emerging contaminants must consider the cost of the technology vs yield and realistic options for reuse of the recovered water. Please refer to projects funded under previous Water JPI Joint Calls (2013, 2015 and 2016) to avoid any duplication. See Joint Calls on Water JPI website.* *Sub-theme 2.3. Connecting science to society:*

The aim is to increase understanding of the role of socio-economic approaches to water uses in hydrological cycles. Knowledge building should address stakeholders' and public awareness of water challenges and values, and how perception of policy measures and technological solutions are formed and how stakeholders can be steered towards desirable behaviour. Local and/or regional context (attitude, social norms, cultural context, etc.) should be taken into consideration. The value of improved water stewardship overall should be considered by developing sustainable business models.* *Sub-theme 2.4. Promoting new governance and knowledge management approaches:*

The aim is to develop innovative water management tools and approaches suitable for decision-making based on an analysis of the limitations of current practices. These approaches should involve the broad participation of stakeholders (including public monitoring, communication and education), multidisciplinary research, and short and long-term water cycle scenarios to support decision-making and the integration of water policy into other policy fields. In effect, governance capacities for implementation of water policies at the local and regional levels should be enhanced.*Theme 3. Supporting tools for sustainable integrative management of water resources.*This theme aims to complement the actions developed under the European Strategy Forum for Research Infrastructures (ESFRI) and other European initiatives. Emphasis should be on establishing networks and information sharing among existing research facilities/field labs, analytical methods, monitoring tools and programmes, access to databases and platforms, exploring the use of big data solutions and establishing reliable hydrological standards. Across the globe, there is a large body of knowledge, methodology and data related to hydrology and the water cycle that has the potential of being beneficial for a wide range of the world's regions. The alignment of water-related research and sharing of data and results will serve to avoid duplication of research, support progress based on previous finding, and thus facilitate the establishment of water management policies addressing rapid climatic changes. |

1. **Stakeholder/industry engagement** (*Maximum 250 words)*

|  |
| --- |
| *Please evaluate the participation of stakeholders/industry on the project and the added value of this participation.* |

### **Recommendations for improvements/amendments of the report** (Please complete Table below)

|  |  |  |
| --- | --- | --- |
| **Page** | **Modification** | **Rationale for change** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

1. **General Assessment Comments** (*Maximum 250 words)*

|  |
| --- |
| *Please include a summary of the key points of this evaluation.* *Problems identified or specific risks to the projects. As well recommendations/feedback, which could be relevant to the Consortium.*  |