# Project Summary Table

# **Workbook**

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| Please [click here](https://albertainnovates.smartsimple.ca/files/646815/f125423/Alberta_Innovates_Work_Plan_and_Budget_Workbook_-_v2_102020.xlsx) to download the **Alberta Innovates Work Plan and Budget Workbook**. Complete the following tabs of the spreadsheet and attach it in the **Attachments** section of the Application.* Work Plan: provide specific milestones and associated tasks, deliverables, timelines and costs to complete the proposed Project.
* Budget Forecast: provide a detailed budget forecast for the proposed Project.
* Revenue Forecast: identify any Project partners and if their contributions (cash and in-kind) to the Project have been confirmed.
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**Team**

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| In the **Team** table below, identify the contributing members of the Project team including their respective role(s), relevant experience/expertise (e.g., technical capabilities, qualifications, etc.), responsibilities and projected time commitment to the Project (add rows as needed). |

The project management team includes Drs. Mohamed Gamal El-Din and Evan Davies, who are the Director and Associate Director of the WRC. Drs. Bipro Dhar and Wenming Zhang will also assist Drs. Gamal El-Din and Davies in their management of the WRC. Dr. Chelsea Benally, a recently hired assistant professor and a member of the Navajo Nation with family ties to First Nations communities in the Wood Buffalo Region, will serve as the liaison to Indigenous communities.

All 10 professors in environmental engineering and all 8 professors in water resources engineering from the Department of Civil and Environmental Engineering at the University of Alberta will be members of the WRC. In addition, 2 professors from the Department of Chemical and Materials Engineering, 4 professors from Renewable Resources, 2 professors from Biological Sciences, and 1 professor from Public Health will be collaborators.

The project team has expertise in various areas of water, including water and wastewater treatment, water resources planning and management, hydraulics, urban drainage, hydrology, climate change, pollutant transport and fate, micro- and nano-pollutants, nanotechnology, resource recovery, rivers, and land-water reclamation. This expertise will position the team to undertake diverse water research while boosting innovation in cross-disciplinary areas.

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| **Team Member** | **Organization** | **Title** | **Relevant Experience or Expertise** | **Project Role and Responsibility** | **Project time Commitment (%)** |
| Mohamed Gamal El-Din | University of Alberta, Dept. of Civil and Environmental Engineering | Professor in Environmental Engineering; NSERC Senior IRC; Canada Research Chair (Tier 1) | Water and Wastewater Treatment | Director of the WRC. Lead the development of the centre. | 50 |
| Evan Davies | University of Alberta, Dept. of Civil and Environmental Engineering | Professor in Water Resources Engineering | Water resources planning and management | Associate Director of the WRC. Co-lead the centre. | 50 |
| Bipro Dhar | University of Alberta, Dept. of Civil and Environmental Engineering | Associate Professor in Environmental Engineering | Waste and Wastewater Treatment | Member of the WRC | 40 |
| Wenming Zhang | University of Alberta, Dept. of Civil and Environmental Engineering | Assistant Professor in Water Resources Engineering | Urban Drainage, Hydraulics, Pollutant Transport and Fate | Member of the WRC  | 40 |
| Chelsea Benally | University of Alberta, Dept. of Civil and Environmental Engineering | Assistant Professor in Environmental Engineering | Wastewater treatment | Member of the WRC/ Liaison with Indigenous communities | 20 |
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| Maricor Arlos | University of Alberta, Dept. of Civil and Environmental Engineering | Assistant Professor in Environmental Engineering | Fate and transport modelling of micropollutants | Member of the WRC | 10 |
| Yaman Boluk | University of Alberta, Dept. of Civil and Environmental Engineering | Professor in Environmental Engineering | Materials Engineering | Member of the WRC | 10 |
| Selma Guigard | University of Alberta, Dept. of Civil and Environmental Engineering | Professor in Environmental Engineering | Supercritical fluid extraction (SFE) as a technology for environmental applications | Member of the WRC | 10 |
| Zaher Hashisho | University of Alberta, Dept. of Civil and Environmental Engineering | Professor in Environmental Engineering | Adsorption for water and air treatment applications | Member of the WRC | 10 |
| Yang Liu | University of Alberta, Dept. of Civil and Environmental Engineering | Professor in Environmental Engineering; Canada Research Chair; NSERC IRC | Biological treatment processes and resource recovery | Member of the WRC | 10 |
| Ania Ulrich | University of Alberta, Dept. of Civil and Environmental Engineering | Professor in Environmental Engineering | Transformation of organic compounds by microorganism | Member of the WRC | 10 |
| Tong Yu | University of Alberta, Dept. of Civil and Environmental Engineering | Professor in Environmental Engineering | Low-impact development (LID); biofilm processes and phenomena | Member of the WRC | 10 |
| Olubukola Alimi | University of Alberta, Dept. of Civil and Environmental Engineering | Assistant Professor in Environmental Engineering | Micro- and nano-pollutants in the aquatic environment | Member of the WRC | 10 |
| Thian Gan | University of Alberta, Dept. of Civil and Environmental Engineering | Professor emeritus in Water Resources Engineering | Hydrology and climate change | Member of the WRC | 10 |
| Mark Loewen | University of Alberta, Dept. of Civil and Environmental Engineering | Professor in Water Resources Engineering | Urban drainage and river ice | Member of the WRC | 10 |
| Yuntong (Amy) She | University of Alberta, Dept. of Civil and Environmental Engineering | Professor in Water Resources Engineering | Urban drainage and river ice | Member of the WRC | 10 |
| David Zhu | University of Alberta, Dept. of Civil and Environmental Engineering | Professor emeritus in Water Resources Engineering; NSERC IRC | Urban drainage and river ice | Member of the WRC | 10 |
| Vincent McFarlane | University of Alberta, Dept. of Civil and Environmental Engineering | Assistant Professor in Water Resources Engineering | Water resources engineering | Member of the WRC | 10 |
| Jennifer Nafziger | University of Alberta, Dept. of Civil and Environmental Engineering | Assistant Professor in Water Resources Engineering | Water resources engineering | Member of the WRC | 10 |
| Hongli Liu | University of Alberta, Dept. of Civil and Environmental Engineering | Assistant Professor in Water Resources Engineering | Hydrology and climate change | Member of the WRC | 10 |
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| Hongbo Zeng | University of Alberta, Dept. of Chemical and Materials Engineering | Professor in Chemical and Materials Engineering; Canada Research Chair  | Intermolecular and surface forces phenomena in SAGD water | Collaborator of the WRC  | 5 |
| Xuehua Zhang | University of Alberta, Dept. of Chemical and Materials Engineering | Professor in Chemical and Materials Engineering; Canada Research Chair  | Development of novel nanolens for the solar-driven photodegradation | Collaborator of the WRC  | 5 |
| M. Anne Naeth | University of Alberta, Renewable Resources | Professor in Renewable Resources; Director of Future Energy Systems; | Land-water reclamation | Collaborator of the WRC  | 5 |
| Wiktor Adamowicz | University of Alberta, Renewable Resources | Professor in Resource Economics and Environmental Sociology | Economic analysis and policy options for process water treatments | Collaborator of the WRC  | 5 |
| Scott Chang | University of Alberta, Renewable Resources | Professor in Renewable Resources  | Forest soils and nutrient dynamics | Collaborator of the WRC  | 5 |
| Tariq Siddique | University of Alberta, Renewable Resources | Professor in Renewable Resources | Soil chemistry and environmental microbiology | Collaborator of the WRC  | 5 |
| James Stafford | University of Alberta, Biological Sciences | Professor in Biological Sciences | Use of high-throughput bioindicator systems | Collaborator of the WRC  | 5 |
| Keith Tierney | University of Alberta, Biological Sciences | Professor in Biological Sciences | Water quality-aquatic vertebrate interactions | Collaborator of the WRC  | 5 |
| Patrick Hanington | University of Alberta, School of Public Health | Professor in School of Public Health | Microbial community profiling | Collaborator of the WRC  | 5 |