FACILITIES & OTHER SERVICES

- Research Library and Documentation.
- Aquaculture Research and Development Centre, with a hatchery for production of fish fingerlings.
- Formulation of fish feed from local agriculture by-products for cost-effective fish production in ponds and cages.
- Biosecure facilities for Aquaculture Research.
- Laboratory for fish genetic studies.
- Quarantine facilities for holding fish.
- State-of-the-Art water quality laboratories, for drinking water quality and pollution assessments.
- DIONEX Ion Chromatograph for analysis of cations and anions.
- UNICAM 969 AA Spectrometer fitted with furnace and hydride generation systems.
- Flame Photometer.
- UV/Visible Spectrophotometers.
- Gas Chromatograph/Mass Spectrometer (GC/MS).
- Specialized Software (HYDATA, Arc View, ERDAS, HYROM) for Data Analyses.
- Geo-technical supervision (drilling)/Pumping tests.
- Hydro-geological and geophysical investigations to detect suitable sites for drilling boreholes/hand-dug wells.
- Drilling of wells and boreholes for communities, agricultural and mining concerns, schools and churches.
- Borehole logging and hydraulic fracturing.
- Remote Sensing and Geographical Information System Laboratory for studies on impacts of land use and other environmental changes on water resources.
- 2D Lund Image Equipment (max. depth 70m).
- 3D LS Resistivity Equipment (max. depth 270m).
- Design of small scale dams, reservoirs and dugouts.
- Hydro meteorological station for weather monitoring.
- Surface water resources assessment for agriculture, mining, environmental management, irrigation, community water development, etc.
- Design of urban drainage and flood control systems.
- Nutrients, trace metals, hydrocarbons and micro biological analyses.
- Environmental Impact Assessment.
- Control of aquatic weeds e.g. water hyacinth.
- Control of water-borne/water-related diseases.
- Preparation of biological larvicides for mosquito control.
- Consultancy, Advisory, Collaborative Studies and Training.
CSIR-WATER RESEARCH INSTITUTE

CSIR-Water Research Institute (WRI) is one of the 13 component Institutes of the Council for Scientific and Industrial Research (CSIR). With a mandate to research into water and related resources, WRI generates and provides scientific information, strategies and services towards the rational development, utilization and management of the water resources of Ghana, in support of socio-economic advancement, especially in the Agriculture, Health, Industry, Energy, Transportation, Education, Environment and Tourism sectors.

The mandate of the Institute is realized through the research and development activities of five (5) Technical Divisions and three (3) Non-technical Divisions. The Technical Divisions are: Environmental Biology and Health, Environmental Chemistry and Sanitation Engineering, Fishery and Aquaculture, Groundwater and Surface Water. The Non-Technical Divisions are: Administration, Commercialization, and Finance.

ENVIRONMENTAL BIOLOGY & HEALTH DIVISION
- Enhancement of public health status through sound environmental and water pollution control strategies.
- Assessment of water quality.
- Identification and control of water-borne diseases.
- Supply of biological specimens as Teaching Aids.
- Environmental impact assessment and watershed management.
- Research into water-related diseases, other infectious and non-communicable diseases to develop strategies for prevention, control and elimination.
- Molecular genetics studies to develop DNA based diagnostic tools and disease pathogens.
- Bacteriological water quality analyses.

ENVIRONMENTAL CHEMISTRY & SANITATION ENGINEERING DIVISION
- Generation, processing and dissemination of water and wastewater quality information to end-users.
- Provision of laboratory analytical services for municipal and district waste disposal departments, water supply, mining, tourism, and other industries.
- Monitoring pollution in inland, coastal and marine waters recommendation of pollution control strategies.
- Studies on Hydrogeochemical/Hydrochemistry of ground and surface waters
- Characterization of trophic state and determination of primary productivity of inland lakes
- Development of appropriate techniques for treatment and disposal of domestic sewage in Ghana.

FISHERY & AQUACULTURE DIVISION
- Expansion of local fish production through participatory research and technology transfer in aquaculture and sustainable management strategies in inland and coastal waters.
- Planning and feasibility assessment of various types of culture and stock enhancement systems
- Treatment of fish fry for mass production for supply to farmers
- Supply of fingerlings of tilapia and catfish
- Feed formulation from local materials to achieve cost effectiveness in fish farming
- Feed assessment and culture system fertility improvement techniques
- Development of Integrated Fish – Livestock and Fish – crop farming models

GROUNDWATER DIVISION
- Groundwater assessment
- Borehole drilling and management
- Geophysical investigations
- Human Capacity Building and Knowledge Transfer
- Database Management
- Hydrogeological Consulting
- Environmental Impact Assessment

SURFACE WATER DIVISION
- Research on the state of surface water bodies (rivers, lakes, reservoirs, lagoons, etc.) in Ghana.
- Development of appropriate rainfall harvesting systems for domestic, agro and industrial supply.
- Surface water resources assessment for agriculture, mining, environmental management, irrigation and community water development, etc.
- Coastal erosion and shoreline protection works.
- Erosion studies.
- Hydrographical survey.

COMMERCIALIZATION DIVISION
- Commercialization of research and development activities.
- Promotion of commercialization efforts through documentation and transfer of appropriate technologies.
- Dissemination of information and provision of technical support services for sustainable utilization and management of water resources for socio-economic development.
- Provision of ICT services/strategies in support of the Institute’s activities
- Identifying audience/clients for the Institute’s products and services
- Organizing promotional events such as press conferences, open days, exhibitions and tours/visits