

Title	Hydrology & Hydraulic Engineering Senior Specialist
Vacancy Number	MoPW/SRTAP /1400-77
Ministry	Ministry of Public Works
Organization	Survey and Design Directorate, MoPW
Project	Sustainable Reform & Technical Assistance Project
Duty Station	Kabul, Including Provinces
Duration	1 Year (with possibility of extension)
No of Jobs	4
Nationality	Afghan
Sex	Male/Female
Salary Range	According to NTA Salary Scale (Grade-B)
Announcing Date	27/May/2021
Closing Date	08/June/2021
Job Type	Engineering
Shift	Full Time
Job Status	Sourcing
Experience	Specific 5 years, General 7 years

Background:

The Ministry of Public Works (MoPW) is responsible for the planning, design, procurement, implementation, monitoring, and maintenance of the various transportation infrastructure projects such as roads, bridges, and its relevant drainage and retaining/protection structures in the government of the Islamic Republic of Afghanistan.

The Directorate of Survey and Design is a technical survey (Feasibility study, topographical survey, Geotechnical Investigation, Hydrology and hydrologic design,) and design (Geometric Design, pavement design, structural design and bridge design) of all roads and bridges projects as per national and international standards. The survey and design process are required to complete as per approved and standard computer programs.

The survey and design directorate of MoPW is responsible to prepare standard drawings as per mentioned standards and approved programs applicable at construction site. The ministry is recruiting data collectors to carry out pavement and roadway structures' design and technical surveys of the various Road Network and of rural roads throughout Afghanistan.

Scope of Work/Job Summary:

Planning and design of hydraulic structures to be save, economic, climatically adapted, develop and utilize the standard design criteria. Under the supervision of the Head of Department, The Hydrology/Hydraulic Engineer will have a sound knowledge of water effects on flood plains, ground and surface runoff, and precipitation, in order to providing analysis and modeling.

Duties & Responsibilities:

- Supervising hydrology team, check and review the hydrology and Hydraulic reports.
- Assessment of the targeted site of the project.
- Data collection and site information using different sources, site, related organization and available online (NRCS, HEC, USGS, NOAA).
- Calibration and validation of collected data.
- Preparing plan and methodology for the hydrology and hydraulic design of road and bridges.
- Hydrology and hydraulic model using (Civil 3d, GIS, Arc-Hydro, HEC-RAS, HEC-HMS, GEO-HMS, WIN-TR55, WIN-TR20, GOOGLE-EARTH, FLOW-2D, GLOBAL-MAPPER).
- Using the standard and approved design criteria (AASHTO Drainage Manual, Federal Highway, HEC-11, HEC-14, HEC-18, HEC-22, Not Limited).
- Calculation of rainfall intensity and its distribution, preparing hyetograph considering different design period and delineation of streamline crossing the roads.
- Watershed delineation, analyzing soil types, infiltration rate and land use.
- Hydrology modeling for analyzing surface runoff and creating hydrograph.
- Identifying the accurate location and types of road structures (side-ditch, culverts, bridges...) considering site visit.
- Design and hydraulic modeling for identifying opening size of the structures and protection.
- Prepares written and oral Hydrology/Hydraulic reports.
- Analysis of watershed runoff, channel analysis, floodplain delineation, erosion and sedimentation analysis, statistical analysis for flood frequency, and ground water and reservoir system analysis and modeling.
- Calculation and analysis of Scour depth, sedimentation and morphological change of the river.
- Analysis and calculation of river and road embankment protections and providing retaining wall, gabion, riprap, apron...)
- Preparing Hydrology/Hydraulic reports.
- Any other assignment as required by the supervisor.

Coordination Jobs

- Attending meeting with key staff to improve and develop the hydrology and hydraulic design for better implementation of the projects.
- Keep good communication/coordinating with other related design departments (Surveying Geometric, Bridge and culvert structure design...) based on intelligence of technical, economic, social and sustainable development.
- Coordination with site engineers team of ministry of public works due to quality insurance and implementation of the projects.
- Willing to travel all over Afghanistan for data collection.

- Coordination and report to the head of department.

Skills & Competencies:

- Must have knowledge and experiences on Civil 3d, GIS, Arc-Hydro, HEC-RAS, HEC-HMS, GEO-HMS, WIN-TR55, WIN-TR20, GOOGLE-EARTH, FLOW-2D, GLOBAL-MAPPER
- Will be working with a team of senior road/bridge design engineers providing the GIS specialization in addition to providing water modeling and hydrology design services
- Proven organizational, negotiation and problem-solving skills.
- Proficiency in English, Dari and Pashto (Reading, Writing and Speaking)
- Excellent communication skills (both oral and written).
- Self-discipline, integrity and ability to work under pressure to meet tight deadlines.
- Familiar with approved design criteria (AASHTO Drainage Manual, Federal Highway, HEC-11, HEC-14, HEC-18, HEC-22
- Ability to work independently and as part of a team, accept responsibility, and be extremely discrete with sensitive information.

Job Requirements:

- Bachelor Degree in Civil Engineering, Hydrology/Hydraulic, Water Resources Engineering and environmental engineering with 8 years experiences, 3 years relevant.
- Master's degree in Civil Engineering, Hydrology/Hydraulic, Water Resources Engineering, with 5 years' experience, 3 years relevant.

Required Documents:

- CV with an application form for the relevant position;
- Copy of verified Degree by the Ministry of Higher Education;
- Copy of verified Afghan ID Card (Tazkera) or Passport copy;
- Copy of verified last Posting Contract;
- Copy of other documents seems to be necessary.

Submission Guideline:

Interested candidates are requested to forward their applications; detailed CV and other required documents hr.mopw@yahoo.com indicate the vacancy number (**MoPW/SRTAP /1400-77**) and the post title (**Hydrology & Hydraulic Engineering Senior Specialist**) in the subject line when applying by email to the Human Resource Unit – Sustainable Reform and Technical Assistance Project of Ministry of Public Works (MoPW) at Kabul, Afghanistan.

Office Address:

SRTAP Office, Railway Building, Kabul Jalalabad Road, in front of KMTC, MoPW, Kabul, Afghanistan.

Only short-listed candidates will be notified for written exam and interview