

## WATER RESOURCES SPECIALIST 1-3

### CLASS DESCRIPTION

#### General Responsibilities:

This is professional work involving water resource considerations within the City's Engineering Division. This work involves performing technical environmental work relative to stormwater quality and groundwater impacts and requires judgment and discretion within policy parameters. The work is performed under the supervision of a Principal Engineer or an Engineer 4.

This series is structured to provide advancement from Water Resources Specialist 1 to Water Resources Specialist 2, and from a Water Resources Specialist 2 to a Water Resources Specialist 3 as a function of the employee's career development as outlined in the training/experience requirements below.

#### *Water Resources Specialist 1*

This is entry-level professional work involving water resource considerations within the City's Engineering Division. The Water Resources Specialist 1 evaluates and coordinates activities related to surface water runoff and groundwater resources; identifies potential environmental problems and regulatory requirements; and provides formal submissions to the Wisconsin Department of Natural Resources, U.S. Army Corps. of Engineers or other agencies for review or approval.

#### *Water Resources Specialist 2*

This is intermediate-level professional work involving water resource considerations within the City's Engineering Division. The Water Resources Specialist 2 evaluates and coordinates activities related to surface water runoff and groundwater resources; identifies potential environmental problems and regulatory requirements; develops strategies for dealing with proposed development and existing problems; and provides formal submissions to the Wisconsin Department of Natural Resources, U.S. Army Corps. of Engineers or other agencies for review or approval.

#### *Water Resources Specialist 3*

This is journey-level professional work involving water resource considerations within the City's Engineering Division. The Water Resources Specialist 3 evaluates and coordinates activities related to surface water runoff and groundwater resources; identifies potential environmental problems and regulatory requirements; develops strategies for dealing with proposed development and existing problems; provides formal submissions to the Wisconsin Department of Natural Resources, U.S. Army Corps. of Engineers or other agencies for review or approval; performs complex analysis of information using GIS-related computer programs; represents the Engineering Division on multi-jurisdictional committees; and serves as the primary point of contact relative to stormwater discharge permits and compliance.

## Examples of Duties and Responsibilities:

### *Water Resources Specialist 1*

Prepare or participate in routine studies and reports relating to the water quality impacts of urban development or proposed development. Oversee the collection of all necessary data, prepare data analysis, and incorporate data and analysis into required reports (subject to review).

Perform wetland delineations and evaluations or review the submittals of delineations and evaluations of private consultants, in accordance with the 1987 U.S. Army Corps. of Engineers Wetland Delineation Manual. Make recommendations as to the regulatory requirements for developments, proposed developments, proposed construction projects or maintenance when in or near a wetland, navigable waterway, environmental corridor or any other environmentally sensitive area.

Provide technical assistance in the establishment and maintenance of publicly-owned wetlands, greenways, retention ponds and other natural areas with stormwater management features. Recommend actions to be taken in the protection of Madison lakes and other water resources.

Prepare and apply for permits from the Wisconsin Department of Natural Resources, U.S. Army Corps. of Engineers, Dane County or other state, federal, or local municipalities, as needed for compliance with the regulatory requirements for surface water runoff and/or infiltration of runoff into the groundwater. Consult on City policies and procedures relating to public works projects, property acquisition, groundwater and surface water monitoring, stormwater management, etc.

Prepare and present relevant educational and informational presentations.

Perform related work as required.

### *Water Resources Specialist 2*

All the work of a Water Resources Specialist 1, with a higher degree of independence and judgment, and

Determine what actions, if any, should be taken in the protection of Madison lakes and other water resources.

Make recommendations concerning new or enhanced City policies and procedures relating to public works projects, property acquisition, groundwater and surface water monitoring, stormwater management, etc. Recommend new/revised policies and procedures.

Use GIS/cartographic tools to create and manage databases to track erosion control permits and impact fee districts.

Perform related work as required.

### *Water Resources Specialist 3*

All the work of a Water Resources Specialist 2, and

Perform complex GIS/database queries to conduct analyses/recommendations/mapping associated with EPA/WPDES permit and Stormwater Utility.

Represent the Engineering Division on multi-jurisdictional committees relative to water quality issues, such as the Madison Area Municipal Stormwater Partnership and related subcommittees.

Prepare and evaluate Requests for Proposal for water quality-related projects. Serve as project manager overseeing water quality projects. Coordinate projects with other City and external agencies.

Perform related work as required.

## QUALIFICATIONS

### Knowledge, Skills and Abilities:

#### *Water Resources Specialist 1*

Working knowledge of wetland soil and plants. Knowledge of the environmental aspects of surface water runoff, stormwater quality, groundwater and soil contamination. Knowledge of biological and chemical principles involved in stormwater runoff and non-point source pollution. Knowledge of environmental monitoring and sampling techniques and groundwater quality standards. Knowledge of regulatory requirements from the federal, state and local levels, applicable to the City of Madison. Knowledge of relevant computer modeling and use of a Geographic Information System. Ability to prepare technical reports for submission to state or federal agencies. Ability to coordinate technical data collection and investigation activities. Ability to communicate effectively, both orally and in writing. Ability to establish and maintain effective working relationships. Ability to make recommendations and contribute to the resolution of environmental problems. Ability to maintain adequate attendance.

#### *Water Resources Specialist 2*

All of the above, and

Thorough knowledge of wetland soil and plants. Working knowledge of the environmental aspects of surface water runoff, stormwater quality, groundwater and soil contamination. Working knowledge of biological and chemical principles involved in stormwater runoff and non-point source pollution. Working knowledge of environmental monitoring and sampling techniques and groundwater quality standards. Working knowledge of regulatory requirements from the federal, state and local levels, applicable to the City of Madison. Working knowledge of relevant computer modeling and use of a Geographic Information System. Ability to serve as a technical expert regarding environmental problems.

### *Water Resources Specialist 3*

All of the above, and

Thorough knowledge of the environmental aspects of surface water runoff, stormwater quality, groundwater and soil contamination. Thorough knowledge of biological and chemical principles involved in stormwater runoff and non-point source pollution. Thorough knowledge of environmental monitoring and sampling techniques and groundwater quality standards. Thorough knowledge of regulatory requirements from the federal, state and local levels, applicable to the City of Madison. Thorough knowledge of relevant computer modeling and use of a Geographic Information System. Ability to serve as project manager, coordinating activities with multiple agencies. Ability to represent the Engineering Division by coordinating and participating on multi-jurisdictional committees and workgroups. Ability to perform complex analysis using GIS tools and databases.

#### Training and Experience:

Generally, positions in this classification will require:

### *Water Resources Specialist 1*

Graduation from an accredited college or university with a bachelor's degree in Natural Resources, Environmental Studies, Geography/Geology, or other related degree with an emphasis in water studies. Other combinations of training and/or experience which can be demonstrated to meet these standards and result in the knowledge, skills and abilities necessary to perform the duties of the position will also be considered.

### *Water Resources Specialist 2*

One year of professional water resources management experience (involving surface water runoff, groundwater assessment, or both, and related evaluation and coordination activities). Such experience should be supplemented by graduation from an accredited college or university with a bachelor's degree in Natural Resources, Environmental Studies, Geography/Geology, or other related degree with an emphasis in water studies. Other combinations of training and/or experience which can be demonstrated to meet these standards and result in the knowledge, skills and abilities necessary to perform the duties of the position will also be considered.

### *Water Resources Specialist 3*

Three years of professional water resources management experience (involving surface water runoff, groundwater assessment, or both, and related evaluation and coordination activities), including or supplemented by at least 2 years experience in using GIS systems. Such experience should be supplemented by graduation from an accredited college or university with a bachelor's degree in Natural Resources, Environmental Studies, Geography/Geology, or other related degree with an emphasis in water studies. Other combinations of training and/or experience which can be demonstrated to meet

these standards and result in the knowledge, skills and abilities necessary to perform the duties of the position will also be considered.

Specific training and experience requirements will be established at the time of recruitment.

Necessary Special Qualifications:

Ability to meet the transportation requirements of this position.

Physical Requirements:

*All positions*

Ability to walk on uneven terrain in order to access wetlands, construction sites, and other required locations. Ability to enter confined spaces such as a storm box.

<b>Department/Division</b>	<b>Class Title</b>	<b>Comp. Group</b>	<b>Range</b>
Engineering	Water Resources Specialist 1	18	06
Engineering	Water Resources Specialist 2	18	08
Engineering	Water Resources Specialist 3	18	10

Approved: \_\_\_\_\_  
Brad Wirtz  
Human Resources Director

Date