TO: Personnel Board

FROM: Tameaka Bryant, Human Resources Analyst

DATE: August 5, 2019

SUBJECT: Water Utility Engineering Section

Madison Water Utility General Manager Tom Heikkinen has requested a study of the Water Utility Engineering Section. Over the past decade, the roles and responsibilities of several Water Utility Engineering staff have evolved to include additional expertise and areas of responsibility in order to renew its infrastructure system. The Water Utility Engineering section has doubled in size and their capital budget has increased by 350% since 2000. As a result, this study included the positions of Principal Engineer (#1851, CG18 R16), Engineer 4 (#1854 CG18 R12), 2-Engineer 3s (#3807 and 4316, CG18 R10), and the Asset Manager (#4523 CG18 R10). After reviewing the submitted position descriptions and conducting interviews with Tom Heikkinen, Water Principal Engineer Al Larson, Engineer 4 Adam Wiederhoeft, Engineer 3s Kelly Miess and Peter Holmgren, Asset Manager Seth McClure, and City Engineering Operations Deputy Kathy Cryan, I am recommending the following:

- Create a new classification of Water Utility Assistant General Manager with placement in CG18, Range 17.
- Recreate the current Principal Engineer-Water position #1851 as an Assistant General Manager in CG18, Range 17, and reallocate the incumbent, Al Larson, to the new position.
- Recreate position #1854 as a Principal Engineer 1 in CG18, R15, and reallocate incumbent A. Wiederhoeft to the new position.
- Recreate positions #3807 and #4316 of Engineer 3 as Engineer 4 and reallocate incumbents K. Miess and P. Holmgren to the new respective positions.
- Delete the classification of Asset Manager in CG18, R10, and create a new classification series of Asset Manager 1 in CG18, R10, and Asset Manager 2 in CG18 R12.
- Recreate current Asset Manager position #4523 as an Asset Manager 2, and reallocate the incumbent, S. McClure to the new position.

The Engineering section of the Water Utility is responsible for all of the capital budget design and construction for the Water Utility, ensures that the system meets all of the required standards and policies as set forth by the Water Board, and plans for and prioritizes the maintenance and upkeep of the 900 miles of pipe. When Mr. Larson first began at the Water Utility in 2001 there were only 9 members in the Engineering section; today there are 20. The Engineering sections latest initiative is the Distribution System Renewal Program, with the goal to replace or reline 300 miles of pipe in the next 30 years. The Engineers are charged with finding effective ways to replace and maintain an aging Water piping system in the safest way possible. As part of this study I'll talk about these positions in this order: Principal Engineer-Water, Engineer 4, 2-Engineer 3s, and the Asset Manager.

The class specification for the Principal Engineer-Water describes:

> supervisory, administrative and professional civil engineering work including responsibility for the Water Utility's Engineering Section. The work involves planning, organizing, directing and evaluating diverse Water Utility functions and projects; providing engineering support to other sections of the agency; and actively participating in the management and administration of the Water Utility, including action on behalf of the Water Utility General Manager during absences or as specifically delegated. The work is characterized by considerable independent judgment and is performed under the general supervision of the Water Utility General Manager.

While the overview implies broad responsibilities, the examples of duties and responsibilities describe (among others):

> Plan and manage the Engineering Section, assigned staff and all engineering construction projects associated with the Water Utility. Assign projects and supervise the development of plans for capital improvement projects. Approve and authorize the specifications for projects, review recommended bids and proposals, and make final recommendations to the General Manager, Water Utility Board, and Board of Public Works. Review and oversee the preparation of plans and specifications for mains, wells, elevated storage tanks, reservoirs, pump houses and all major Utility facilities.
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> Supervise the selection of consultants for engineering reports, plans and specifications for construction projects not designed in-house. Recommend consultant selection for master plan work and other professional services.
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> Direct the administration, inspection and finalization of subdivision and construction contracts.
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> Review and discuss with appropriate person(s) the specifications for all new requested materials before purchasing. Coordinate major materials purchases with existing inventories and projected use and sign requisitions and purchase orders.
>
> Actively participate in the preparation of the Utility's capital and operating budgets, including the prioritizing and costing of Water Utility public works projects.
>
> Keep informed of state statutes, administrative codes, City ordinances and Public Service Commission rules and regulations relating to the Water Utility and its public works projects.

Currently, Al Larson, Principal Engineer-Water supervises the Computer Mapping/GIS Coordinator, Engineer 4, and the Water Construction Supervisor. He has taken on responsibility for long range capital budget planning for the Water Utility. He also serves as the backup to the Water Utility General Manager, and provides technical leadership and expertise to both the Water Operations, Water Quality, and Water Supply groups in the Water Utility. Because of these broader responsibilities for strategic planning, the position is no longer involved in the day-to-day oversight of pipeline renewal, extension and replacement projects. Rather, the duties and responsibilities for pipe renewal, extension, and replacement listed above have largely shifted to the Engineer 4 (to be discussed later in this memo). With the increase in responsibility and scope of this position, it has become parallel to the Assistant City Engineer classification in the Engineering Division. The Assistant City Engineer classification specification (attached) states:

> …highly responsible managerial, administrative and professional engineering work in the Engineering Division. Under the general supervision of the City Engineer, this position serves as the Deputy City Engineer and exercises considerable judgment and discretion in overseeing the design, support, and field activities of the Division and directly carrying out responsibilities in the areas of personnel and budget management, interdepartmental planning and coordination activities, Board and Commission support, and other related areas. This position will act on behalf of the City

> Engineer and the Engineering Division during absences of the City Engineer and/or as specifically delegated in order to provide for continuity of services.

Since Mr. Larson is responsible for the long range capital planning, and strategic guidance in the Water Utility; and does the background research to present new initiatives to the Water Board, his position is comparable to the class specification stated above. Finally, in discussion with Mr. Heikkinen, he agrees that having a true Assistant General Manager would help alleviate some of his supervisory responsibility. Currently, Mr. Heikkinen has 7 direct reports, a large number for an agency head. By creating an Assistant General Manager position now, Mr. Heikkinen would have the ability to shift formal supervision of some of his sections to that position, with the eventual goal of having a second Assistant General Manager position created to provide parallel structure with agencies such as Engineering and Parks. As a result, I recommend creating a new classification of Water Utility Assistant General Manager in CG18, R17, and recreating position #1851 as the Water Utility Assistant General Manager. Normally, such movement would require competition as the broader responsibilities are not necessarily a logical outgrowth of the Principal Engineer-Water classification as originally conceived. However, because Mr. Larson has been performing these duties with increasing responsibility since at least 2006, it would not make sense for him to compete for the job he has essentially been doing for almost 13 years. Therefore, I recommend that Mr. Larson be reallocated to the new Water Utility Assistant General Manager position.

Because of the change to Mr. Larson's position, the position of Engineer 4 has taken on many of the duties listed above that were previously part of the Principal Engineer-Water classification. Mr. Wiederhoeft is responsible for receiving Engineering plans from the Planning Division pertaining to new developments or projects that use the City's water system, and then assigns the work to the three design engineers (2-Engineer 3s, included in this study and an Engineer 2 that is not included in this study). He also keeps some work for himself based on the workload of the design engineers. Mr. Wiederhoeft selects and works with consultants for engineering projects. He works very closely with Seth McClure, Asset Manager, on project prioritization. They have created a map of the Water Utility pipeline that highlights what lines are high risk, most likely to fail and which ones are for critical customers. Mr. Wiederhoeft, alongside Mr. McClure, has created a more streamlined asset risk assessment system when determining which water main gets replaced. Because most of the operational duties of the Engineering section have been taken on by the Engineer 4, but because these duties also had previously been performed by the Principal Engineer-Water, it is appropriate to consider the proper classification. The work described is similar to how the Principal Engineer 1 in City Engineering functions. The Principal Engineer 1 is responsible for the day-to-day work of the engineers in the respective section. This includes prioritizing and assigning work, working with the Principal Engineer 2 on section budgets, working with consultants on projects, etc. In discussion with Ms. Cryan, she agrees that the work is consistent with the Principal Engineer 1. As a result, I recommend recreating the Engineer 4 position as a Principal Engineer 1, in CG18, R15, and because Mr. Wiederhoeft has been performing this work, reallocating him to the new position. I considered whether it would be appropriate to maintain the Principal Engineer-Water classification, but because the higher-level strategic planning is staying with the Water Utility Assistant General Manager classification, the Principal Engineer 1 classification is more appropriate.

The Engineer 4 classification specification states:

> …advanced-level professional engineering and project supervision work performed in the office and/or field in connection with the planning, design, management and construction of a wide variety of public works projects. Assignments are received from a higher-level engineer or supervisor and the work involves the application of independent professional judgment to define the project; determine the best methods of addressing the situation(s), including the assignment of project components to lower-level staff, and professional certification of the results. The work is performed under the general direction and coordination of a higher-level professional engineer or supervisor and regularly involves the supervision of lower-level staff including professional engineers.

Ms. Miess has been an Engineer 3 since 2012. For the past 3 years, her position has become more complex. Her work is assigned by Mr. Wiederhoeft and she is responsible to develop project design drawings independently and certify them with her professional engineering license. She maintains her Professional Engineer license, approves work plans of lower level staff, stamps the plans of the Engineer 2 in the Engineering section, ensures that work plans are well designed and constructible, and coordinates projects with consultants. This work is all consistent with the Engineer 4 class specification so I recommend that her position be recreated as an Engineer 4 and she be reallocated to the new position.

Mr. Holmgren is also an Engineer 3 and has been since 2013. His work is very similar to Ms. Miess's work listed above. For the past 3 years, similar to Ms. Miess, his work has become increasingly independent. His work is assigned by Mr. Wiederhoeft and he independently decides how to proceed with drawing the plans with limited supervision. He is also a registered Professional Engineer, so he also stamps plans of lower level engineers. Mr. Holmgren also drafts resolutions that are sponsored by Alders for the Water Board, coordinates projects with consultants, and takes turns supervising the Water Utility Engineering intern with Ms. Miess. Because his work is also consistent with the Engineer 4 level, I recommend that his position be recreated as an Engineer 4 and he be reallocated to the new level.

Mr. McClure is the first Asset Manager hired by the City back in November, 2015. At that time, the Asset Manager was classified in CG18, R10, to be consistent with the level of an Engineer 3. However, since taking on the position, his role has changed drastically. Originally, he was hired to be the project manager for consultants that were evaluating how the Water Utility should implement an asset management program. As of spring, 2018, there were no more consultants and Mr. McClure was responsible for independently implementing the consultants' suggestions. After meeting with him; I recommend recreating the Asset Manager position into a series with the levels differentiated by level of complexity and independence of the work. The Asset Manager 1 would remain in CG18, R10, and the Asset Manager 2 level in CG18, R12 would be comparable to the independence and limited supervision of the Engineer 4, which class specification is attached and summarized above. It is still important to maintain the level of Asset Manager 1 for other agencies who may need to hire an Asset Manager position in the future. However, this will allow for progression as agencies gain expertise in asset management. Because Mr. McClure is performing at the higher level, I recommend recreating his position as an Asset Manager 2 and reallocating him to the new position.

The necessary resolutions to implement these recommendations have been drafted.

Editor's Note:

Compensation Group/Range	Position Title	2019 Annual Minimum (Step 1)	2019 Annual Maximum (Step 5)	2019 Annual Maximum +12% longevity
18/10	Asset Manager 1 and Engineer 3	$ 69,375.80	$ 83,377.06	$ 93,382.31
18/12	Asset Manager 2 and Engineer 4	$ 75,840.96	$ 91,560.04	$ 102,547.24
18/15	Principal Engineer 1	$87,538.96	$105,182.74	$ 117,804.67
18/16	Principal Engineer Water	$91,560.04	$ 110,339.84	123,580.62
18/17	Assistant Water Utility Manager	$95,769.44	$ 115,498.24	$ 129,358.03

cc: Tom Heikkinen – Water Utility General Manager
Al Larson – Principal Engineer
Mike Lipski-Human Resources Services Manager