

# Memorandum


**TO:** TRANSPORTATION AND  
ENVIRONMENT COMMITTEE

**FROM:** Kerrie Romanow

**SUBJECT:** SEE BELOW

**DATE:** September 14, 2018

Approved



Date

9-18-18

**SUBJECT: SAN JOSÉ-SANTA CLARA REGIONAL WASTEWATER FACILITY  
STAFFING LEVEL AND TRAINING STATUS REPORT**

## **RECOMMENDATION**

Accept this report on the status of staffing and training at the San José-Santa Clara Regional Wastewater Facility<sup>1</sup> (Wastewater Facility).

## **OUTCOME**

Acceptance of the report will update the Committee on the status of the Wastewater Facility staffing and training.

## **BACKGROUND**

The Environmental Services Department has provided periodic staffing status reports to the Transportation and Environment Committee and City Council on the vacancy rates for critical operations and maintenance classifications (wastewater operators, wastewater mechanics, industrial electricians, and instrument control technicians) and on staff efforts to recruit and retain employees in these critical classifications. A high of 25 percent of critical operations and maintenance positions were vacant in December 2012. The last staffing report presented to the Transportation and Environment Committee on June 5, 2017 reported a 13 percent vacancy rate in the combined critical job classifications.

<sup>1</sup> The legal, official name of the facility remains San Jose/Santa Clara Water Pollution Control Plant, but beginning in early 2013, the facility was approved to use a new common name, the San José-Santa Clara Regional Wastewater Facility.

## ANALYSIS

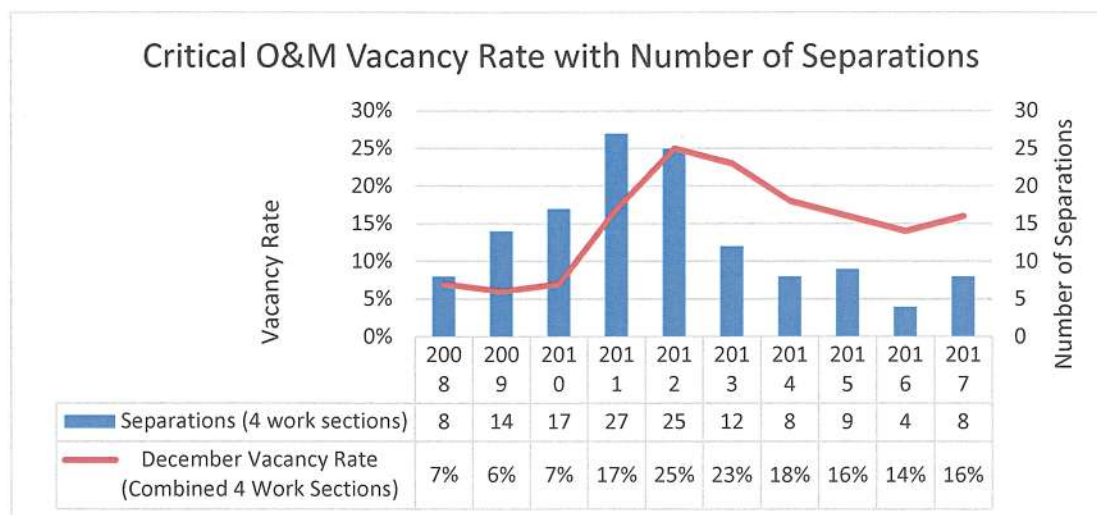
The Environmental Services Department continues to perform a multi-pronged approach for addressing Facility staffing. This approach includes recruitment and the use of temporary staff to fill vacancies, engaging and developing our current workforce, and performing outreach and engagement activities to attract and build the future workforce.

### **Status Update on Vacancies**

The collaborative efforts of Environmental Services Department (ESD), Human Resources (HR) and the Office of Employee Relations to address the Facility's staffing challenges, has resulted in reducing the vacancy rate for the combined group of critical operations and maintenance positions (wastewater operators, wastewater mechanics, industrial electricians, and instrument control technicians) to eleven percent (11%) as of September 1, 2018.

Work Section	As of May 1, 2017			As of September 1, 2018		
	Authorized FTEs	Vacancies	Vacancy Rate	Authorized FTEs	Vacancies	Vacancy Rate
Wastewater Operators	61	4	18%	63	6	11%
Wastewater Mechanics	54	15		52	8	
Instrumentation	11	3		13	1	
Industrial Electricians	11	2		12	1	
Combined O&M work sections	137	24	18%	140	16	11%

Over the years, as illustrated in the following graph, the vacancy rate for critical operations and maintenance classifications has been reduced from the high of 25% in 2012 to 11% as of September 2018. It is a challenge to be fully staffed when new vacancies are created through separations including retirement.





Twenty-seven (27) wastewater operator, wastewater mechanic, industrial electrician and instrument control technician positions were filled from May 1, 2017 to September 1, 2018.

### **Staffing Model**

In fiscal year 2014-15, 18 wastewater attendant (formerly plant attendant) positions were repurposed to create additional points of entry into the operations and maintenance trades job series and to help develop a qualified candidate pool for existing wastewater operator trainee, wastewater mechanic, industrial painter, instrument control technician, air conditioning mechanics and heavy equipment operator positions. Wastewater attendants assist journey level positions by performing the entry level tasks while learning various job functions as they rotate and cross-train through the Facility work groups. This creates more opportunity to “grow our own” and develop staff to promote into the various journey level positions throughout the Wastewater Facility. Since 2014, 27 wastewater attendants were hired. Of those, 20 are still employed at the Facility, including 6 who were promoted to journey level trade positions. Three were promoted to wastewater mechanic, 1 to air conditioning mechanic, 1 to painter, and 1 heavy equipment operator.

### **Outreach to Build the Future Workforce**

Since the last staffing report, from May 2017 to August 2018, ESD staff participated in 15 outreach activities that included tours, presentations, job fairs, and teacher externships.

Water Careers Pathway Consortium that was created with funds from a four-year grant (administered by West Valley College) to address the skilled worker shortage in the water industry, concluded in June 2018. Through work with this consortium, ESD jointly hosted a water careers exploration event on March 28, 2018 in the City Hall Rotunda which introduced 440 high school students to careers in the water and wastewater industry.

ESD continues to actively support and participate in the initiatives of BAYWORK, a collaborative of water and wastewater utilities working together to ensure workforce reliability. During the last year, ESD hosted 16 teachers over three separate externships that exposed them to water and wastewater careers. The teachers will incorporate their experiences into their teachings and curriculum, influencing students in their career choices.

ESD is working with Evergreen Valley Community College to provide a water/wastewater technology (Clean Water Technology) certificate program. The core courses in the certificate program will help prepare students for careers in water or wastewater industries. Additionally, these classes will accelerate the acclimation of newer employees to their jobs at the Wastewater Facility.

### **Training**

The high number of newly filled positions means training the new workforce is a high priority. As of September 2018, 52 employees in the 124 filled positions (42%) have less than three years of experience in their current roles.



**Operations Training Program:** In 2014, ESD hired a consultant who developed custom wastewater operations training modules. In 2016, the Facility implemented this competency-based training system with seven (influent systems, primary treatment, sludge control, secondary treatment, nitrification, disinfection, filtration) training modules that train and validate competency of operations staff to ensure continued and smooth operation of the Wastewater Facility. This training program is being successfully used to train new operators or existing operators as they rotate to new process treatment areas.

**Operator-in-Training Program:** The wastewater operator-in-training (OIT) program is an approximately 18-month program to train entry-level employees to the wastewater operator II level. Candidates are hired into the OIT classification and receive classroom and on-the-job training to meet the pre-requisites to take the State Water Resources Control Board wastewater treatment plant certification test and to prepare the OIT to work independently at the RWF. As reported in 2017, eight OITs were hired February 2017. All obtained their Grade II wastewater license in March of 2018. Currently, all eight have validated their competencies in their assigned treatment area using the training module and are working independently as shift operators. A recruitment to hire the next group of OITs is planned for the fall 2018.

**Mechanical Maintenance Training Program:** The mechanical maintenance division developed a basic training program for wastewater attendants, called "Skills and Knowledge Evaluation" (SKE). This program introduces knowledge and skills to attendants that will help them advance into the industrial mechanical maintenance field. The program contains evaluation sheets on 25 topics. The topics range from hand tools to bearings to shop power equipment.

The format of each SKE subject begins with a description of what is expected to be learned from the material. The second part of the SKE is the learning section where the attendant is to study the materials and answer a series of questions. The third portion of the SKE is a practical exam. The attendant works with a competent mechanic to complete a series of physical tasks. The competent mechanic reviews the SKE with the attendant and signs the SKE when it is passed. To date, 10 wastewater attendants have participated in the training programs, and four have completed the training.

A training program for the wastewater mechanic is currently being developed. The mechanic training program will be designed to train less experienced maintenance personnel on the skills and knowledge required to safely and competently perform all tasks for their assigned position.

The instrumentation and electrical shops have similar training materials and provide on-the-job training. These two trades, however, require some additional external certification.

### **Future Training Needs**

In addition to the training required for new or inexperienced staff, the Facility is in the midst of undertaking an unprecedented number of capital improvement projects to address critical rehabilitation needs and ensure operational reliability, to improve process performance through newer technologies, and to ensure compliance with regulations to protect the environment. As a result, there is a need for additional resources to assist staff with: the planning and implementation of various process shutdowns, flow diversions, or startups activities; the review

of plans and specifications for operational impacts, shutdown constraints, sequence of activities, or risk analyses; the advanced level training and troubleshooting that is needed with new equipment and wastewater treatment processes; and, the development of new or updated standard operating procedures. RWF management has issued a request for proposal seeking consultant services for this assistance. The estimated cost is \$3.75 M over the next five (5) years. Funds budgeted for technical training will be used for this project. Staff will bring forward additional information to City Council when the Consultant is selected.

### **EVALUATION AND FOLLOW-UP**

Staff will continue to work with the Department of Human Resources, Office of Employee Relations and the City Manager's Office to identify and pursue ways to retain, recruit, and train critical wastewater facility staff.

### **PUBLIC OUTREACH**

This item is scheduled to be heard at the November TPAC meeting.

### **COORDINATION**

This report has been coordinated with the City Attorney's Office, the Office of Employee Relations and the Department of Human Resources.

### **COMMISSION RECOMMENDATION**

This item is scheduled to be heard at the October 11, 2018 Treatment Plant Advisory Committee meeting.

### **CEQA**

Not a Project, File No. PP10-069 (a) Staff Reports.

/s/  
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