



OPERATIONS & MAINTENANCE VOLUNTEER TRADES PROGRAM (VTP)

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Introduction

The Inland Empire Utilities Agency (IEUA) Volunteer Trades Program (VTP) provides individuals the opportunity to explore a wide range of career paths within the Operations and Maintenance (O&M) Department. VTP provides opportunities for professional development by obtaining practical real-world work experience. The volunteer program is designed to provide individuals with meaningful work experience to enhance their future career development. VTP is also designed for the volunteers to meet the requirements from the California State Water Resources Control Board (SWRCB), the California Water Environment Association (CWEA), and the International Society of Automation to qualify for professional certifications.

Volunteers will have the opportunities to shadow and work with staff from the Collections, Operations, Mechanical, and Electrical/Instrumentation departments. Based on the volunteer's work experience, educational background, certifications, trade preference, and available positions, they will be assigned to the department that best fits them as well as the Agency to enrich their future career.

IEUA Background

IEUA is a regional wastewater treatment agency and wholesale distributor of imported water. Today, the Agency is responsible for serving approximately 875,000 people over 242 square miles in western San Bernardino County. The Agency is focused on providing three key services: (1) treating wastewater, developing recycled water, local water resources, and conservation programs to reduce the region's dependence on imported water supplies and drought-proof the service area; (2) converting biosolids and waste products into a high-quality compost made from recycled materials; and (3) generating electrical energy from renewable sources.

The Agency was originally formed as the Chino Basin Municipal Water District on June 6, 1950 as a municipal corporation with a mission to supply supplemental imported water purchased from the Metropolitan Water District of Southern California (MWD) to municipalities in the Chino Groundwater Basin. Since then, the Agency has expanded its mission from a supplemental water supplier to include regional wastewater treatment with domestic and industrial disposal systems, and energy production facilities. In addition, the Agency has become a major provider of recycled water, a supplier of biosolids/compost materials, as well as continuing its leading role in water quality management and environmental protection in the Inland Empire.

Contracting Agencies

As a regional wastewater treatment agency, the Agency provides sewage utility services to contracting agencies under the Chino Basin Regional Sewage Service Contract: the cities of Chino, Chino Hills, Fontana, Montclair, Ontario, Upland, and Cucamonga Valley Water District (CVWD) in the city of Rancho Cucamonga; State of California correctional facilities; and the unincorporated

areas of San Bernardino County, including the Chino Agricultural Preserve. In addition to the contracting agencies, the Agency provides wholesale imported water from MWD to seven retail agencies: the cities of Chino, Chino Hills, Ontario, Upland, CVWD in the city of Rancho Cucamonga, Fontana Water Company in the city of Fontana, and the Monte Vista Water District (MVWD) in the city of Montclair.

Agency Divisions

The Agency, a special assessment district, is governed by a five seat publicly elected Board of Directors. Each director is assigned to one of the five divisions which are: Division 1- Upland/Montclair; Division 2- Ontario/Agriculture Preserve; Division 3- Chino/Chino Hills; Division 4- Fontana; Division 5- Rancho Cucamonga. The Regional Technical and Policy Committees provide information on technical and policy issues, with representatives from each of the five divisions on these committees.

Agency Facilities

Industrial and municipal wastewater collections are provided through regional wastewater interceptors and two non-reclaimable wastewater pipeline systems. Recycled water is produced at four regional water recycling plants (RWRPs): Regional Water Recycling Plant No. 1 (RP-1), Regional Water Recycling Plant No. 4 (RP-4), Carbon Canyon Water Recycling Facility (CCWRF), and Regional Water Recycling Plant No. 5 (RP-5). In addition, the Agency has three facilities where the biosolids produced at the water recycling plants are handled: RP-1 Solids Handling Facility, Regional Water Recycling Plant No. 2 (RP-2) Solids Handling Facility, and the Inland Empire Regional Composting Facility (IERCF). Along with these facilities, the Agency maintains and operates the Chino I Desalter in the City of Chino on behalf of the Chino Basin Desalter Authority (CDA).

In addition to recycled water and wastewater services, the Agency operates a network of groundwater recharge facilities in partnership with Chino Basin Watermaster (CBWM), San Bernardino County Flood Control District (SBCFCD), and Chino Basin Water Conservation District (CBWCD). Figure 1 shows the Agency's Service Area and Divisions.

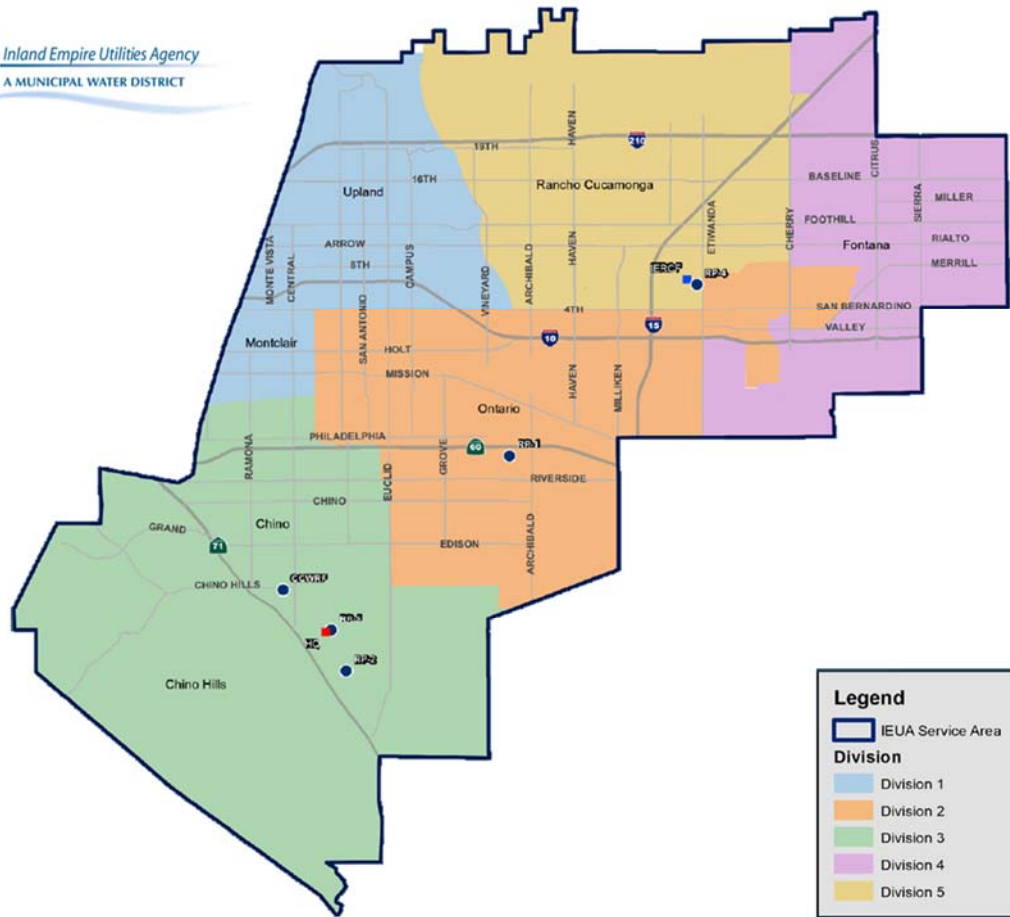


Figure 1: Agency Service Area

Program Goal

Building career pathways to supply our industry with trade workers provides crucial operational reliability. The risk to our Agency, if we do not do this, is operational failure. This impacts public health, the environment, agency budgets, and the well-being of our communities.

The goal of the IEUA VTP is to prepare qualified applicants for a career in operations and maintenance of the wastewater/water industry. The VTP is consistent with the Agency’s Values by staying in the forefront of the industry through education, innovation, efficiency, and creativity. VTP will assist individuals in becoming well trained Certified Collections System Operators, Wastewater/Water Treatment Operators, Mechanical Technologists, and Electrical/Instrumentation Technologists, who are competent and qualified to perform their duties in a safe, permit-compliant, and professional manner.

- 1 Develop Qualified Candidates
- 2 Work Experience Opportunity
- 3 Wastewater/Water Industry Certifications
- 4 Post-Volunteer Employment Opportunities

Volunteers also energize a workplace with their enthusiasm, desire to learn, as well as bringing new skillsets with them, such as social media. Volunteers provide immediate assistance to support projects and routine work, enabling staff to perform higher priority work.

These jobs are hands-on. The only way for individuals to get real-world experience is through opportunities that provide access to work environments, which they can practice building new skills and learn from others in the field. This also gives volunteers access to work cultures and requires them to develop norms of conduct and behaviors that are essential to be successful at work.

Program Overview

The Inland Empire Utilities Agency (IEUA) Volunteer Trades Program (VTP) has been established to provide participants with the opportunity to gain practical field experience by working under direct supervision of Certified Collection System Operators, Wastewater/Water Treatment Operators, Mechanical Technologists, or Electrical/Instrumentation Technologists. Participants will have the opportunity to work at one of IEUA's wastewater and or water treatment plants. During an introductory phase of the program, volunteers will shadow Certified Tradesmen from each department for one week to determine the trade they believe matches their education, experience, and interest. Volunteers will be assigned to assist a Tradesmen that has agreed to be part of the program designed to develop the skills required to qualify for certification.

Requirements for Entry and Continuance for VTP

There are two sets of mandatory requirements for entry and continuance in the VTP. The first set is stipulated by IEUA Management, and the second set being stipulated by the State Water Resources Control Board (SWRCB) the California Water Environment Association (CWEA) and the International Society of Automation (ISA).

- 1) *Requirements for acceptance and continuance in the IEUA VTP as stipulated by IEUA Management.*
 - a. When a position is open, VTP candidates will be required to submit an online application to the IEUA Human Resources Department.
 - b. VTP candidates will be selected for appointment to an open VTP position as the result of a competitive recruitment process. Volunteers shall be at least 18 years of age, have education equivalent to the completion of twelfth grade. Current enrollment or completion of qualified water/wastewater technology, mechanical and or electrical technology, engineering coursework is desirable. The process will include a review of education and work experience as stated in the candidate's application. Once applications have been reviewed, the candidates deemed most qualified will be invited to participate in an oral interview. The oral interview panel will include lead trade staff and supervision/management staff. The final selection

will be based upon the results of the interview and successful completion of a comprehensive background investigation which includes a DMV report, a criminal report, and verification of high school (or equivalent) and/or higher level of education; a pre-placement physical examination, which may include a drug and alcohol medical screen after the Agency has successfully received results from the background investigation.

- c. In order to meet the 1,800-hour experience requirement set by the SWRCB, CWEA, and ISA for Certification, scheduling of a volunteer's hours shall be at the mutual agreement of the volunteer and his/her respective supervisor. Candidates must agree to work a minimum of a 5-hour shift totaling at least of 20 hours per week. At the rate of 20 hours per week, candidates will accumulate 1,800 hours in approximately two years. Candidates will select a set schedule block based upon availability and will be allowed to work between the hours of 6:00 a.m. and 4:00 p.m. Monday through Thursday.
- d. Once accepted into the program, the volunteer's work performance and progress will be monitored and evaluated on a regular basis. Continuance in the VTP will be contingent upon making satisfactory progress through the training program.
- e. It is the responsibility of the volunteer to maintain a "personal" logbook documenting all daily work activities. The logbook will be updated at the conclusion of each working day and will need to be signed by the assigned Tradesman to document hours worked. Additionally, volunteers will be required to maintain accurate hours in the VTP tracking spreadsheet, which will be submitted to their supervisor on a monthly basis for review and signature.

2) *Requirements for acceptance and continuance in the IEUA VTP as stipulated by SWRCB and CWEA.*

For Wastewater/water Operator-in-Training (OIT)

- a. Upon acceptance into the IEUA VTP, participants are required to submit to the Supervisor an application for an OIT Certificate or a Certificate at the Grade I/T1/D1 and or Grade II/T2/D2 level.
- b. A valid Certification must be maintained and posted in accordance with the SWRCB regulatory requirements.

For Collection System Maintenance (CSM)

- a. Upon acceptance into the IEUA VTP, participants are required to submit to the Supervisor an application for a CSM Grade I Certificate.

For Mechanical Technologist (MT)

- a. Upon acceptance into the IEUA VTP, participants are required to submit to the Supervisor an application for a MT Grade I Certificate.

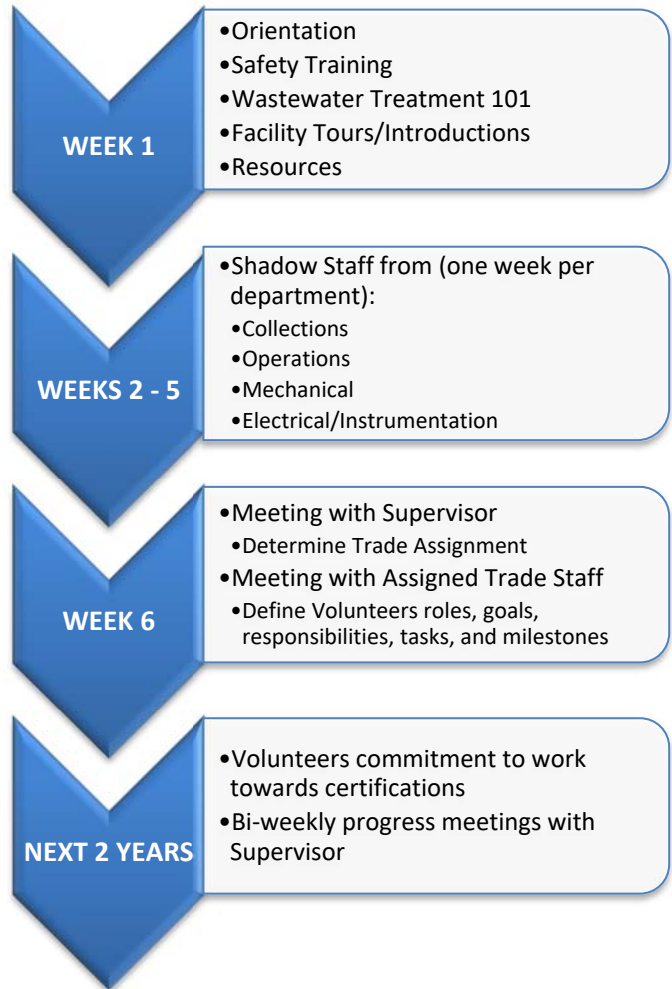
For Electrical & Instrumentation (E&I)

- a. Upon acceptance into the IEUA VTP, participants are required to submit to the Supervisor an application for an E/I Grade I Certificate as well as an application for the ISA CST Associate Exam

Volunteer Trades Program

The Volunteer Trades Program Administrator (PA), will be responsible for all aspects of program implementation. The selected candidates will start with the Introductory Phase of the program. During the Introductory Phase, the volunteers will spend the first week completing the following items:

- Orientation with the Human Resources Department. During orientation volunteers will receive a Volunteer Handbook where they will review the Agency Mission, Vision and Values statements, Agency Policies, etc.
- Review Agency safety training and policies.
- Attend Wastewater Treatment 101 presentation followed by tours of the Agency Regional Water Recycling Plant.
- Review Agency resources. Volunteers will be trained to navigate through the Agency network, review volunteer training checklists and career development checklists.
- Review O&M manuals, drawings, and permits.



Following the Introductory Phase, the Shadowing Phase will commence for the next four (4) weeks. In the Shadowing Phase, volunteers will have the opportunity to shadow Tradesmen from each department within the O&M Department. This phase is organized so that the volunteers shadow Certified Tradesmen in the following order: Collection System Operator, Wastewater/Water Treatment Operator, Mechanical Technologist, and Electrical/Instrumentation

Technologist. During this phase, the volunteers will get a better understanding of the daily tasks and responsibilities for each trade. After the four (4) weeks Shadowing Phase, the volunteers will meet with the Program Administrator to determine which trade they will be assigned to. The trades will be assigned based on the following criteria: work experience, educational background, certifications, trade preference, and available positions.

Once a volunteer has been assigned to a specific trade, a meeting will be scheduled with their Supervisor and the Tradesmen who has agreed to be a trainer and mentor to clearly define the volunteer's roles, goals, responsibilities, and tasks. The Agency is committing to develop and monitor a Training Plan, Career Plan, and Certification Plan. The volunteers are committing to invest their time and effort to meet the requisites to qualify for the certifications and accomplish the milestones generated from the Training, Career, and Certification Plans.

Succeeding the Shadowing Phase, the Certification Phase will begin. Volunteers will commit to work for the next two years to obtain work experience required to qualify for certification. All through the Certification Phase, volunteers are scheduled to attend bi-weekly career development meetings with the Supervisor to review their progress through the VTP and to verify the volunteers are meeting their goals, provide necessary resources, and give feedback. volunteers will have a personal logbook to track work performed and will sign into the facility logbook as well. Simultaneously, a volunteer Hours Tracking spreadsheet will be updated on a weekly basis. The term of the Volunteer is limited to 1,800 hours.

VTP Training Model

The Volunteer Trades Program will implement the Explain Demonstrate Guide Enable (EDGE) techniques to teach and demonstrate the skills necessary to become a Certified Tradesman.

The EDGE techniques are:

- **Explain** – Provide detailed background information on the process and standard operating procedures. Describe what is to be accomplished and how it is done. Reference the Operations and Maintenance manuals if available.
- **Demonstrate** – Perform the task or skill necessary to accomplish the specific assignment to show the correct and safest method. Simultaneously, explain each step so the volunteer can relate the action to the explanation.
- **Guide** – Allow the volunteer to try the skill while the Tradesman observes and assists as needed. This may need to be done multiple times until the volunteer can perform the skill independently.
- **Enable** – Volunteers will be required to perform the skill unassisted while the Tradesman and Supervisor watches to ensure correct technique is being applied.

Volunteer Trades Program Provisions

The Agency is responsible to provide the volunteers with the following:

- Uniforms
- Training
 - Safety including formal and informal
 - Processes
- Personal Protective Equipment
 - Hardhats
 - Safety Vest
 - Safety Glasses
 - Hearing Protection
 - Gloves
 - Voucher for up to \$100 for the purchase of safety toe work boots (American National Standards Institute--ANSI Z41)

The Volunteers are responsible to provide

- Certifications (costs)

Evaluation of Volunteer Training Progress

In order to complete the training in any of the trade specific areas, each volunteer will be required to demonstrate his/her understanding of the subject matter and the ability to perform the work in a safe, permit-compliant, and professional manner. Subject mastery and competence to execute trade specific tasks will be demonstrated through the following methods of evaluation. Progression through the program will depend on satisfactory performance.

- 1) Volunteers will complete a process and equipment walk through conducted by their Supervisor. The volunteers will be required to demonstrate their understanding of the process and skill required to perform the task on which he/she is being evaluated. The results of the walk through will be documented by the Supervisor conducting it.
- 2) Volunteers will complete a Practical Performance Exam during which the volunteer will be required to complete a process equipment walk and or operate/repair a piece of equipment in the area in which he/she is being tested. The practical performance exam will be administered by assigned Tradesman and Supervisor. The results of the exam will be documented by the Tradesmen who administers the test.

Program Completion

Volunteers are considered having successfully completed the program upon completing their certification plan goals. volunteers will not be permitted to continue in the program once they have obtained a Grade II Collection System Operator Certification. Grade I or higher Wastewater Treatment Plant Operator Certification and/or a Water Treatment/Distribution Operator T3 or D3 Certification, Grade II Mechanical Technologist Certification, or Grade II Electrical/Instrumentation Technologist Certification.