

Operator-In-Training Requirements & Experience Sub Workgroup

Final Report & Recommendations

5/16/2023

Workgroup Members:

Chris Castaing, Chair, Operations & Maintenance Manager for San Diego County Water Authority, CA SWRCB Water Distribution Operator D-5 and Water Treatment Operator T-2, CA/NV AWWA Certified Backflow Tester, Proctor, and Cross Connection Control Specialist, Adjunct Professor Water Technology at Palomar and Mt. San Jacinto Community Colleges, Drinking Water Advisory Committee member

Monte Hamamoto, Silicon Valley Clean Water, Chief Operating Officer, CA SWRCB Wastewater Treatment Plant Operator Grade V, Drinking Water Certification T-3, Drinking Water Distribution D-2, Adjunct Professor Water Resources Management, Gavilan College, Wastewater Advisory Committee member

Kody Tompkins, City of Barstow, General Manager of Environmental Services, CA SWRCB Wastewater Treatment Plant Operator Grade V, Drinking Water Certification T-2, Drinking Water Distribution D-2, and CWEA Collections System Maintenance 4, Wastewater Advisory Committee member

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Sue Mosburg, Executive Director, CA/NV Section of the American Water Works Association

Purpose: The workgroup will assist the State Water Board to evaluate and develop a legislative proposal for eliminating or amending the Operator-In-Training requirement for wastewater treatment operators.

Background: The OIT workgroup met virtually on a biweekly basis from 9/13/2022 to 5/16/2023 to evaluate the OIT program and develop recommendations for the Advisory Committees to consider in formulating their final recommendation to the State Water Resources Control Board.

Early on, the workgroup decided that a survey was needed to gather input from key stakeholders on the existing experience and education requirements. The survey was developed by the group and was administered online (via SurveyMonkey software) in partnership with the California Water Environment Association (CWEA), the California Nevada Section of American Water Work Association (CA NV AWWA), California Association of Sanitation Agencies (CASA), and California Rural Water Association (CRWA). Responses were collected from 10/28/2022 to 11/23/2022. Respondents were asked to rate their sentiments regarding the current education and experience requirements and were able to provide qualitative feedback via comments. There were 408 respondents with a range of certification levels, agency sizes, and job roles relevant to OIT. The survey results were discussed at subsequent meetings and used as the basis for the final recommendations. The full results of the survey are included in Appendix A.

In addition to the survey, the workgroup also invited the participation of Dan DeMoss, the Executive Director of the California Rural Water Association. Mr. DeMoss attended the 11/29 meeting, where the group had an in-depth discussion about the challenges faced by rural agencies and operators.

On 3/07/2023, the workgroup invited the participation of Jose Martinez, General Manager of Otay Water District, Robert Cheng, Assistant General Manager, Coachella Valley Water District, and Jack Bebee, General Manager of Fallbrook Public Utility District. These General Managers oversee utilities with both water and wastewater, and they shared their unique perspective on OIT, which led to Recommendation #2.

The group met on 5/16/2023 to review, discuss, and approve the final recommendations outlined in this report.

Approach to Recommendations:

Given the absolute priority of public health and safety, and the breadth of opinions within the industry, the group decided to take a conservative approach and propose modifications to the existing program that aim to alleviate some of the pressures felt by small systems while maintaining the overall level of competency of the operator. This approach is supported by the survey data, which found that 74% of respondents were either satisfied or very satisfied with the current education requirements, and 79% found them to be adequate or very adequate in meeting the goal of protecting public health and safety. Additionally, 63% of respondents were either satisfied or very satisfied with the current experience requirements, and 73% found them to be adequate or very adequate in meeting the goal of protecting public health and safety.

The group unanimously agreed that the purpose of the Operator Certification Program is to establish baseline competency that each municipality or agency must build on. Ultimately, each employer has a responsibility to ensure their operators are properly trained with the necessary education and experience to ensure their plants are operated and maintained properly, and able to meet state and federal regulatory requirements to ensure protection of the public health and the environment.

Recommendation #1:

Change the education requirement so that education credits can be earned after the OIT certificate is obtained. The 6 Educational Points must be earned before the certificate's expiration date. This gives an individual up to 3 years to earn the educational points and they can be accumulating their experience hours while earning their education points concurrently.

Rationale:

Applicants in rural agencies and disadvantaged communities typically do not have education levels above a high school diploma. Upon hire, it can take upwards of 6 months to earn the education credits necessary to obtain the OIT certificate. This is especially problematic for employers with a 12-month probationary period as they cannot be evaluated on the performance of operator duties during that time.

Additionally, California is reaching a crisis point in regard to workforce talent. Fewer qualified applicants are entering the workforce. At the same time, an aging workforce is causing a

significant number of retirements, leading to a critical talent shortage. Allowing the education credits to be earned after obtaining the OIT certificate removes a roadblock to obtaining an OIT position, allows more people to get into the trade, and builds a stronger career pathway. 55% of survey respondents were in favor of this change.

Because an OIT cannot operate a facility without direct supervision by a certified operator, nor should they be able to negatively impact public health while under direct supervision, the education credits are not necessary prior to earning the certificate. Earning the education credits while working as an OIT supports the overall goal of teaching, training, and preparing individuals to become certified operators.

Cons Considered: Larger, urban agencies are more competitive and use the education credits as a screening measure, by only considering applicants that have already earned the necessary education to obtain the OIT certificate. It shows a level of commitment to the career path from the applicant, as well as academic aptitude.

Recommendation #2:

Allow agencies the option to establish a formal onboarding operator training apprenticeship program (Program) in lieu of the OIT certification requirement. The formal Program would need to meet established criteria (to be determined) and be approved by the State. Apprentices in an approved Program would have the same operational limitations that OITs have with respect to working under the direct supervision of a certified operator and the experience gained in a Program would count toward operator certification.

Rationale:

All members of the workgroup and invited participants agreed that experience at the facility where an operator is currently employed is just as important to establishing competency as any previous experience. Some larger agencies with 24/7 plants have enough operators to cover operator openings with overtime worked by existing operators from other shifts while an OIT is going through an initial onboarding training process. A barrier to entry into the wastewater operator field at smaller agencies and/or 8-hour staffed plants is that OIT positions are not paid positions since many smaller agencies and municipalities do not have the funding for such extra positions. People already working are typically not willing to take a step back to an unpaid position, so they gravitate to the drinking water side or E/I vocations with easier entry-level career paths. This recommendation will provide more flexibility and a shorter onramp for agencies that are willing to establish a robust onboarding Program. The industry is highly self-regulated since all plants must meet NPDES regulations.

Other Options Considered:

Initial discussions centered around whether mirroring current drinking water certification requirements, which all members agreed are less onerous for entry-level applicants, was practical.

Current drinking water regulations allow water treatment or distribution operators to hold certifications of any grade and only the designated chief plant operator is required to hold a certificate of the grade matching the facility classification. In addition, there is no experience requirement for Grades 1 and 2

certification levels in water treatment or distribution and, therefore, there is no need for an OIT classification.

Current wastewater treatment regulations have minimum grade requirements for not only the designated chief plant operator, but also for supervisors and shift supervisors. In addition, at least 50% of operators in Class IV and V wastewater treatment plants must be certified Grade II or higher. One year of full-time qualifying experience, defined as a minimum of 1,800 hours, is required to obtain a Grade I certificate. There is an OIT classification for an entry-level operator to gain the required experience while under the direct supervision of a certified operator.

The majority of the group agreed that the Grade I wastewater operator classification is a journey-level operator and even with the minimum qualifying experience requirement met for Grade I wastewater operator certification, additional hours of experience are necessary at most plants due to the complexity of the processes and the size of the facilities. Facility management is responsible for ensuring their operators, regardless of certification level, are properly trained to operate and maintain their facilities in compliance with all regulatory requirements.

Another option considered was an exception lowering the 1,800 hours of qualifying experience requirement for small, rural community plants with minimal operator duties. Initially, this approach may have seemed to be a solution, but it was thought that this approach would only exacerbate and contribute to a poaching problem where operators gain their required experience in small plants who have made a significant investment in training them only to then have the new employee leave for a better-paying job at a bigger facility. It would also result in problems for HR staff in other agencies trying to evaluate minimum qualifications for Grade I operator position applicants from small, rural communities.

The group did not feel lowering the bar for entry into the wastewater field by rewriting wastewater regulations to mirror drinking water regulations would serve to continue to protect the public health nor solve recruitment concerns. Eliminating would also most likely result in pushback from veteran wastewater operators concerned with watering down the profession and potentially providing a basis for employers to reduce salaries if minimum job requirements are reduced. In addition, lowering the hours of qualifying experience did not appear to be a long-term solution to improving entry-level recruitment. The education requirement appeared to be the bigger concern and hurdle for entry into the field based on OIT survey feedback and the concerns of small, rural communities.

Additional Comments and Opinions of the Workgroup:

In the group's discussions, it was revealed that there are wastewater treatment facilities in the state offering unpaid OIT positions for individuals to gain experience. The wastewater industry has an obligation to the communities it serves to provide paid OIT positions and not take advantage of those trying to gain experience to get into the field. This should also help to correct the imbalance where individuals opt for water treatment or distribution careers rather than wastewater since it is currently perceived to be "easier" to get into those fields with no experience and the only way to get OIT experience in some communities is to volunteer, which most people cannot afford to volunteer 1,800 hours.

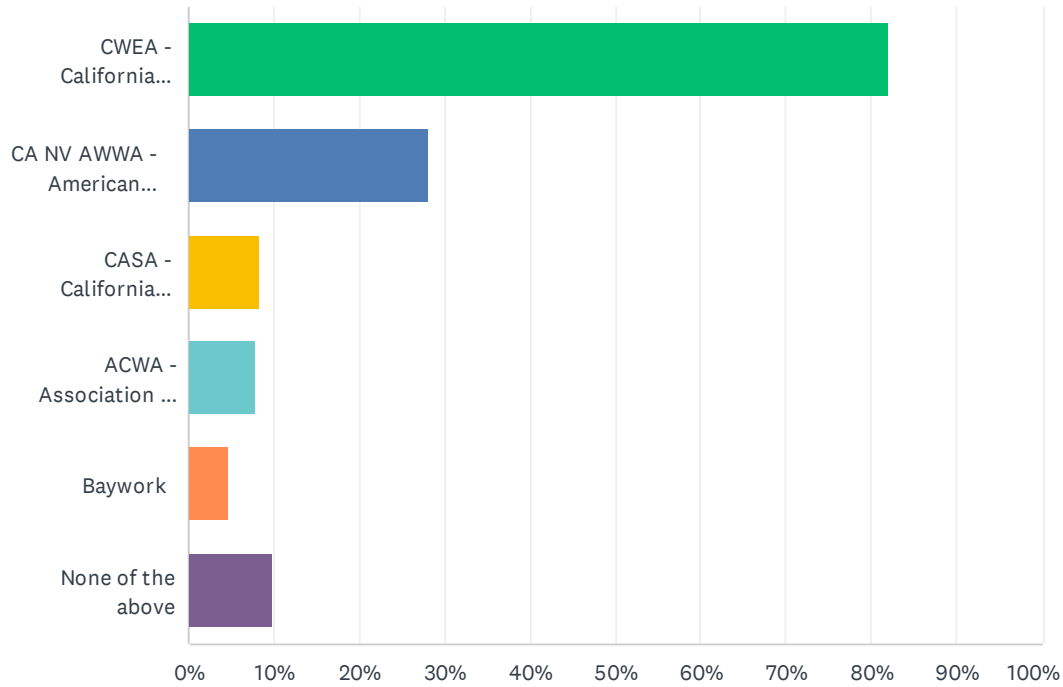
Achieving the required 1,800 hours working at some agencies takes longer than a year since employees are limited to 30 hours a week to avoid pension costs (i.e., rather than hiring 3 full-time workers working 40 hrs. per week for 120 man-hours, 4 part-time workers at 30 hrs. per week are hired to achieve the 120 man-hours). For agencies that offer full time employment, the 1,800-hour requirement is achievable and reasonable.

Appendices Included in this Report:

- Appendix A: Survey data from the OIT Survey

Q1 Which industry associations are you a member of? Select all that apply.

Answered: 410 Skipped: 2

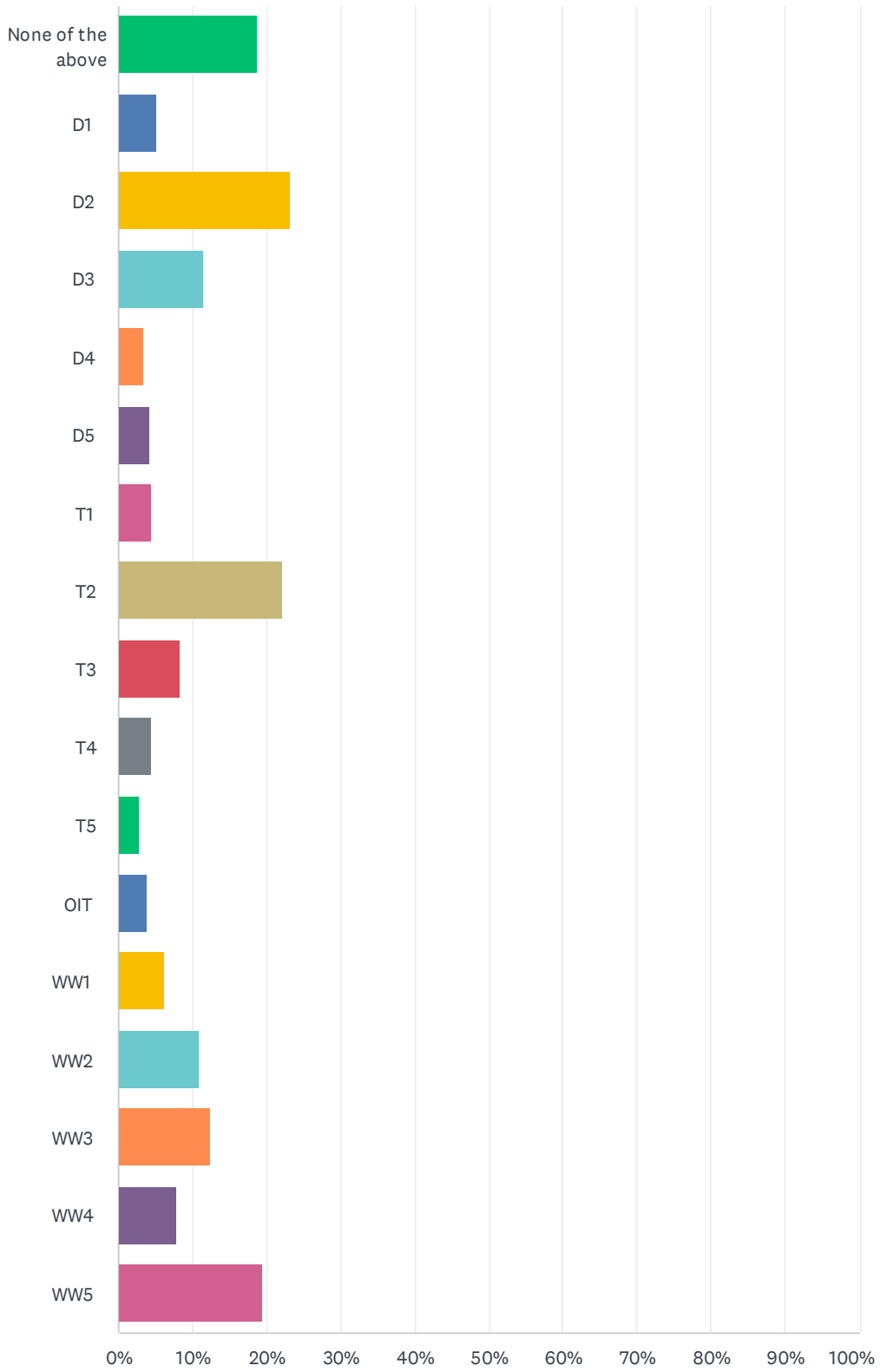


ANSWER CHOICES	RESPONSES	
CWEA - California Water Environment Association	82.20%	337
CA NV AWWA - American Waterworks Association, CA-NV Section	28.05%	115
CASA - California Association of Sanitation Agencies	8.29%	34
ACWA - Association of California Water Agencies	7.80%	32
Baywork	4.63%	19
None of the above	9.76%	40
Total Respondents: 410		

Q2 Do you hold a state issued Office of Operator certification? Select all that apply.

Answered: 407 Skipped: 5

Wastewater Operator Certification Program Survey

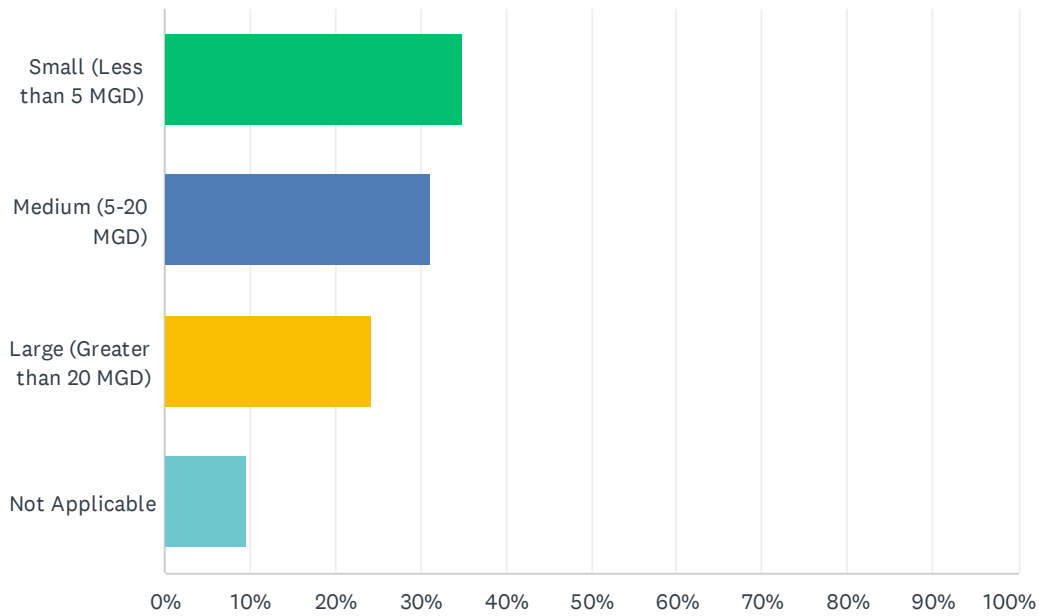


Wastewater Operator Certification Program Survey

ANSWER CHOICES	RESPONSES	
None of the above	18.67%	76
D1	5.16%	21
D2	23.34%	95
D3	11.55%	47
D4	3.44%	14
D5	4.18%	17
T1	4.42%	18
T2	22.11%	90
T3	8.35%	34
T4	4.42%	18
T5	2.70%	11
OIT	3.93%	16
WW1	6.14%	25
WW2	10.81%	44
WW3	12.29%	50
WW4	7.86%	32
WW5	19.41%	79
Total Respondents: 407		

Q3 What is the size of your current agency or employer?

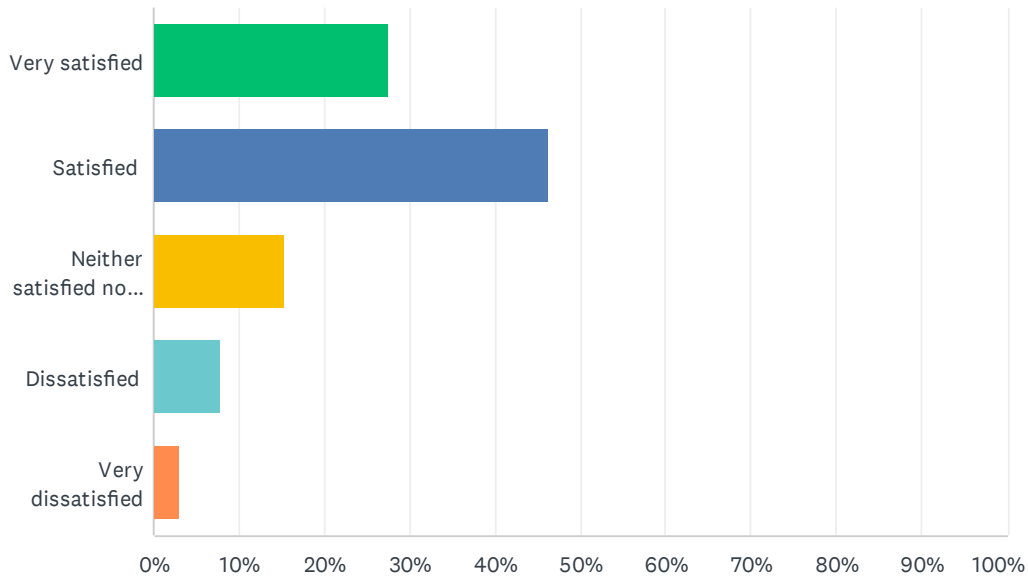
Answered: 410 Skipped: 2



ANSWER CHOICES	RESPONSES	
Small (Less than 5 MGD)	34.88%	143
Medium (5-20 MGD)	31.22%	128
Large (Greater than 20 MGD)	24.39%	100
Not Applicable	9.51%	39
TOTAL		410

Q4 The current requirements to become a Grade I WW Operator are:6 educational points = 60 hours of qualifying education1 full time year = 1,800 hoursHow satisfied are you with the current Education requirements?

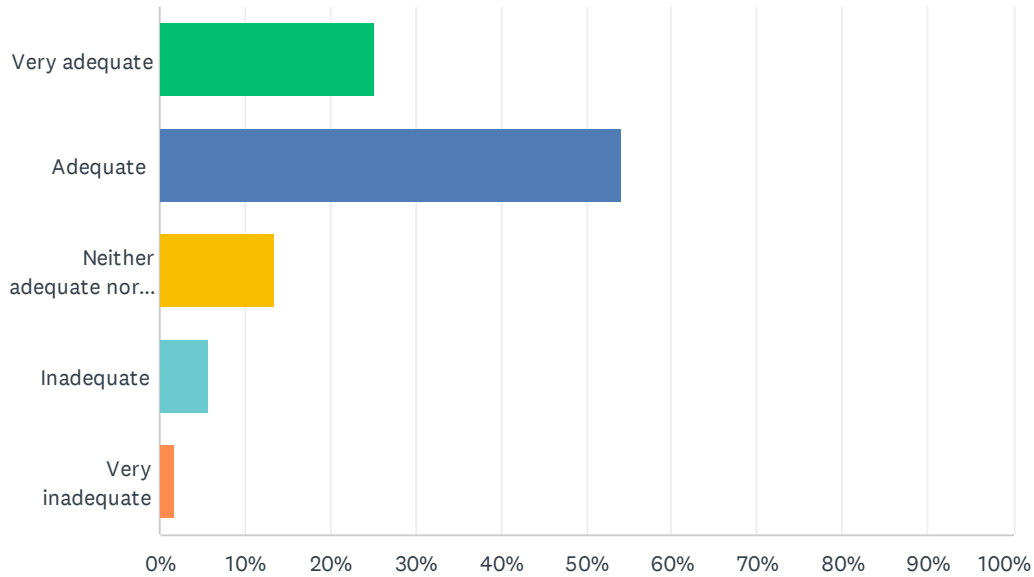
Answered: 367 Skipped: 45



ANSWER CHOICES	RESPONSES	
Very satisfied	27.52%	101
Satisfied	46.32%	170
Neither satisfied nor dissatisfied	15.26%	56
Dissatisfied	7.90%	29
Very dissatisfied	3.00%	11
TOTAL		367

Q5 Overall, how adequate do you find the current Education requirements in meeting the goal of protecting public health and safety?

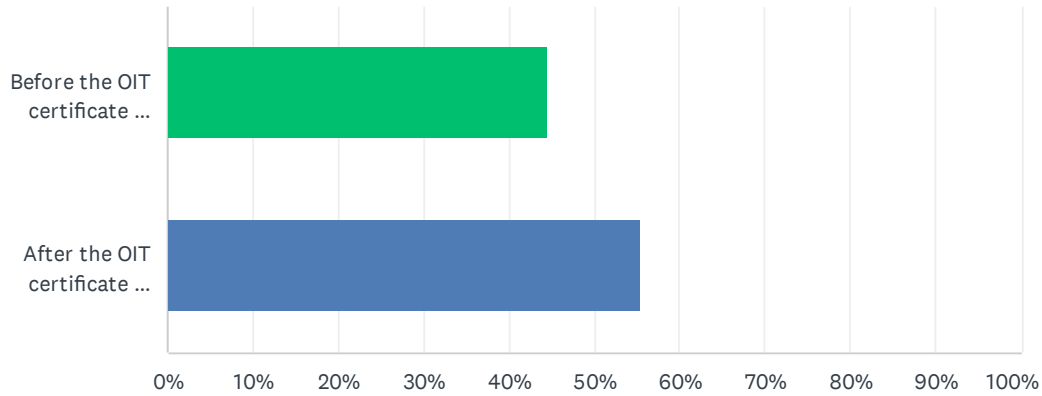
Answered: 367 Skipped: 45



ANSWER CHOICES	RESPONSES	
Very adequate	25.07%	92
Adequate	54.22%	199
Neither adequate nor inadequate	13.35%	49
Inadequate	5.72%	21
Very inadequate	1.63%	6
TOTAL		367

Q6 In your opinion, when should the education requirement be completed?

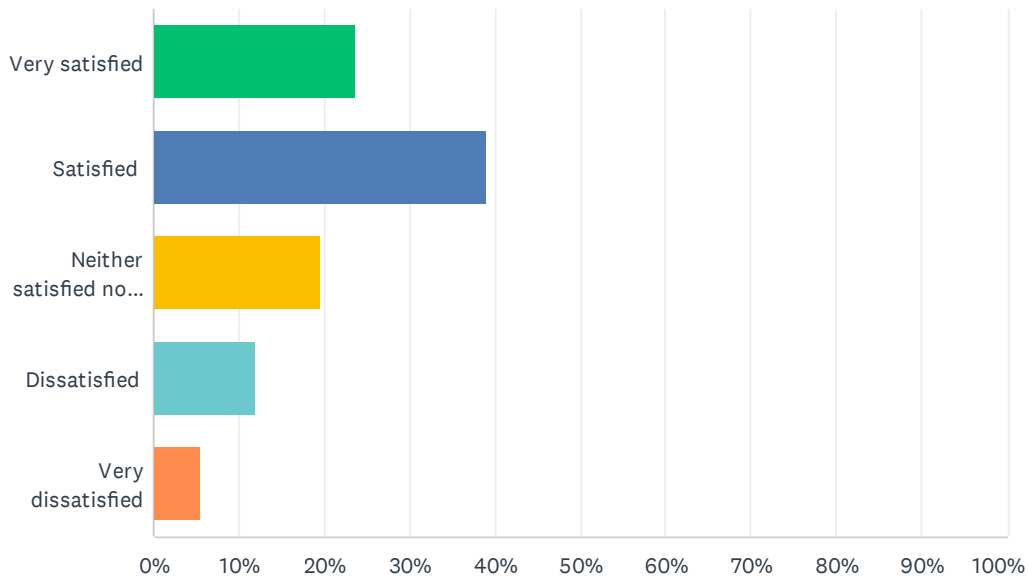
Answered: 363 Skipped: 49



ANSWER CHOICES	RESPONSES	
Before the OIT certificate is issued	44.63%	162
After the OIT certificate is issued, within the first year of experience	55.37%	201
TOTAL		363

Q7 How satisfied are you with the current Experience requirements?

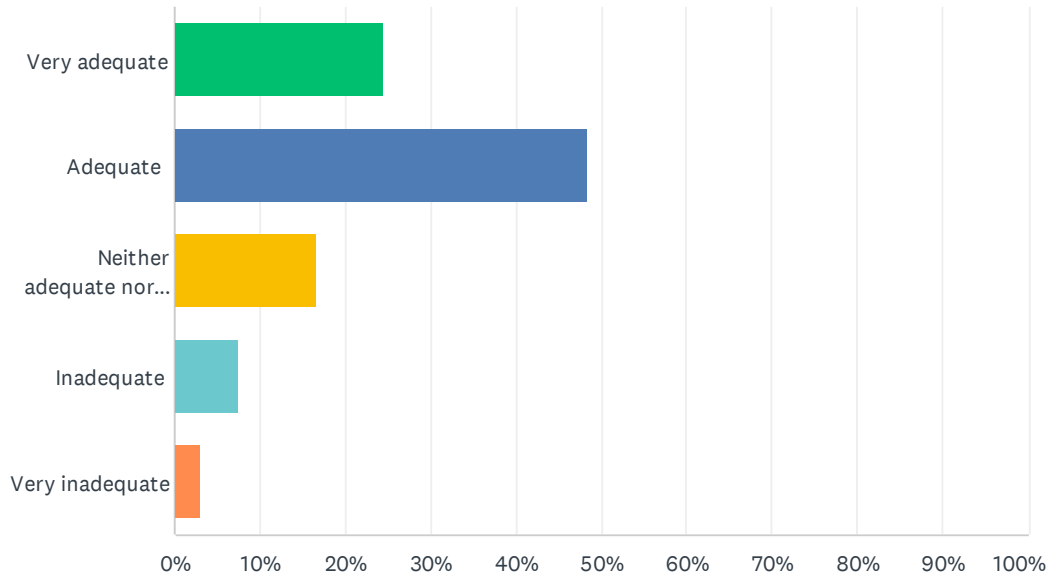
Answered: 366 Skipped: 46



ANSWER CHOICES	RESPONSES	
Very satisfied	23.77%	87
Satisfied	39.07%	143
Neither satisfied nor dissatisfied	19.67%	72
Dissatisfied	12.02%	44
Very dissatisfied	5.46%	20
TOTAL		366

Q8 Overall, how adequate do you find the current Experience requirements in meeting the goal of protecting public health and safety?

Answered: 367 Skipped: 45



ANSWER CHOICES	RESPONSES	
Very adequate	24.52%	90
Adequate	48.50%	178
Neither adequate nor inadequate	16.62%	61
Inadequate	7.36%	27
Very inadequate	3.00%	11
TOTAL		367

Q9 If you any feedback about the Education and Experience requirements for Wastewater Treatment Plant Operators, please list it here:

Answered: 133 Skipped: 279

#	RESPONSES	DATE
1	Waste water operators should not get half time credit for water treatment certs if it doesnt work the other way	4/3/2023 12:15 PM
2	I think to get into the field at the bottom level, it is a great starting point for education and experience.	12/20/2022 10:23 AM
3	Supervisory, Maintenance, and Electrician work needs to be clarified as you are seeing more and more staff trying to get an Operations Certificate.	11/29/2022 11:54 AM
4	I feel that if educational requirements need to be met before an OIT certificate can be issued. It becomes a problem with what a new employee can do around the facility until they meet the requirements? Also delays them getting their grade I certificate.	11/28/2022 9:04 AM
5	Requiring educational CEU's prior to the issuance of the OIT certificate delays advancement and does not enhance the quality of the operator. Cant train a person for several months in some cases because the certification is not issued.	11/28/2022 8:24 AM
6	I think getting the 1800 OIT hours is the most difficult part of becoming certified. I feel lucky because I started earning hours right away on my path toward a career in wastewater. A classmate gave me info for a volunteer OIT opportunity during my first semester taking water classes at Solano College. I got my OIT certificate and started volunteering before the end of the semester. I don't know where I would have began earning hours otherwise. Competing for OIT jobs is not easy. Many are only for limited hours, part time and are often far away from home. People with families and mortgages can't just volunteer their time like I was able to.	11/24/2022 11:53 AM
7	This requirement is a major roadblock to new WW operators. To get a "T" certification all one has to do is to pass a written test, then they are able to treat and serve potable water to consumers. With WW, new operators have to have 1800 hours of OJT to treat WW. This is backwards in my opinion. The OJT requirement should be on the potable water operators rather than the wastewater operators. We were starting to have problems hiring new guys that were wanting to be WW operators that gave up on getting a WW certification because of the OJT requirement and just switched to "T" certs and got jobs elsewhere. I have been in the industry since the mid '70's and I have never understood the reasoning behind the OJT requirement. Luckily for my plant, we can now use either certification, "T" or "WW", to operate the plant. All the guys that needed to get "WW" certifications are just getting "T"s instead. Also: Just so you know, no one has any interest in getting an "AWT" cert either, even though some of us have been "encouraged" to do so. Note of interest: One of the photos used for this survey face page shows a guy turning a T handle in front of an RO vessel array. That is Tyson and Joe. Tyson just retired. Joe is our Maint. supervisor, and not an OP.	11/21/2022 4:14 PM
8	OIT implies that the candidate is learning what the job is all about. Making education run in parallel to this is better as the candidate would have a better appreciation for what is being taught and possibly help from senior staff to better understand concepts.	11/21/2022 3:20 PM
9	OIT is an unnecessary hurdle and interpretation of experience by SWRCB staff is a problem	11/21/2022 3:17 PM
10	There are not enough ways for operators to get experience. Labor agreements require certification for entry level candidates, but people cannot get experience to get the needed certificate. We've found it difficult to hire qualified candidates or onboard younger operators.	11/17/2022 12:38 PM
11	I think there should be a second path for Grade I's that gives them some experience credit for higher education.	11/17/2022 7:46 AM
12	As entry level education is needed to understand the treatment and experience is required to understand how it affect the public health.	11/16/2022 3:03 PM
13	I feel this certification should be disregarded and that it's a money grab upon society's	11/16/2022 2:49 PM

Wastewater Operator Certification Program Survey

members. There are plenty of excellent operators/ people who never need a certification and can perform much better than an operator that is only "book smart." Again this is and has been a money grab!

14	Requiring education prior to OIT cert eliminates at least half the viable candidates coming out of high school. This requirement has drastically reduced the pool of candidates for recruitment. Some students are sick of school and want to get on with life, an excellent trade in the blue collar world. When they see our industry requires education just to start, they go somewhere else. Once here, we can help them to understand how some education can be helpful for them and advancement. Our industry does not need a great deal of education to advance. Some just want to be skilled labor, not supervisory or management. I employ this group to push to eliminate the education requirement for a grade 1 OIT. Keep it for higher grades and even to become certified. It is not as much of a challenge to work with an OIT, while working, to complete the Sac State Ken Kerry programs.	11/16/2022 12:44 PM
15	The Grade 1 for other certifications requires zero experience. This should probably be similar.	11/16/2022 11:29 AM
16	get updated on all your shots- hep a & b, polio, typhoid fever, covid	11/16/2022 10:49 AM
17	The problem with the OIT program is that you need experience/hrs to be able to apply for the program. Many municipalities hire people already with there liscencing for OIT positions which is unfair and weeds out many qualified applicants. There should be no experience necessary for the OIT program and licensed individuuls should not be allowed to apply for the OIT.	11/16/2022 10:23 AM
18	It is terribly tough for a potential OIT to attain the 1800hrs needed to become a Grade1 Operator. It took me years before someone would give me the chance. I had already taken my Grade2 & passed, but could never find a plant who would give me the hours needed. I mean, how many people can afford to live for 1800hrs/almost a year without getting paid?	11/16/2022 9:50 AM
19	Good educational oppotunities are hard to find unless you are in a very populated area. Operators at smaller treatment plants are definitely disadvantaged.	11/16/2022 9:33 AM
20	Applicants for entry level operator jobs are able to attain up to a D2/T2 certification without direct job experience, creating a barrier that helps narrow down and identify more competent trainees better prepared to enter the field. Similar factors for selection of trainees on the WWT side is not available. A State adopted standardized approach to lead future operators into the both fields would be highly encouraged. Perhaps segregating testing knowledge competency from field experience via a dedicated OIT program applicable to both water and WWT while still ensuring field experience preludes certification.	11/15/2022 7:37 AM
21	when it comes to qualifying experience I've heard from newer operators and experienced myself this main problem: you've passed your grade I WWTPO test, but don't have the allotted 2,080 hours to be issued your certificate. Then while applying and interviewing for "Entry Level" positions such as OIT-I or WWTPO-I the agency informs you that they appreciate your interest in the position but they are seeking candidates with more experience or those who currently hold their certificate in hand. But how can one gain more experience or obtain the required contact hours if not given the opportunity and/or understanding and willingness of employers to hire the next generation of operators. I am aware of and lucky to have had the chance to volunteer under an OIT certificate while attending the Tri Valley ROP program at a WWTP. However the duration of that Volunteering was only allowed until the end of the class. without a program such as the one I attended it could've been frustrating and potentially discouraging when I was calling all the facilities within my 100mi range.	11/14/2022 11:56 AM
22	I think that the education requirements are appropriate, but I don't think the experience requirements are appropriate. There are some places that don't have paying OIT programs and that means that it is a financial burden for those folks to become a WWTP. If an employer were to advertise an OIT position (which is rare) they would be inundated with applicants and wouldn't have people with baseline knowledge of wastewater treatment. If the Grade I level experience requirements could be met with less time, employers wouldn't be seeing such a labor shortage in the market. I would suggest the experience requirement to be at most 3 months (360 hours).	11/14/2022 10:25 AM
23	I feel the WWO certification should require continuing education similar to that of drinking water. In addition, the combined requirement of 1 year experience creates a barrier to entry.	11/12/2022 8:22 PM
24	It should be 2 to 3 years instead of 1 year.	11/10/2022 8:59 AM
25	I believe that 1 year experience is much too great of a challenge for people to achieve. I have	11/9/2022 11:09 AM

Wastewater Operator Certification Program Survey

a program with our local Work Force Agency which allows for Professional Training Programs but only allows for 1200 hours. These programs are available in California but are limited in available hours. I had 16 clients do 1200 hours and pass the exam but did not have the threshold of the year. Agencies are hesitant to hire non-certified employees because they do not want to take the risk of these employees not passing their exam. 12 of the 16 candidates found permanent employment and the rest had to let their certification lapse due to not being able to get employed. I would recommend keeping the OIT education as is but possibly lowering the work experience to 6 - 8 months.

26	It is ridiculous that a drinking water operator only need 1 college course to be a D2 operator and no experience yet a OIT needs 1 year experience in wastewater. In my Opinion a Grade I wastewater Operator should need only pass the exam. Drinking water is more critical and needs almost no experience. The 1 year experience is making it so hard to fill positions across the state.	11/9/2022 7:43 AM
27	https://bookstore.tpctraining.com/ TPC training manuals should be necessary reading material for this level as well.	11/8/2022 9:15 AM
28	Should be able to receive certification just like water treatment and water distribution operators do. Its getting extremely hard to get the experience time in the industry.	11/8/2022 9:12 AM
29	with new on line testing more educational classes . Focus on the new test materal.Grade 1-5	11/8/2022 7:20 AM
30	With the silver tsunami occurring and a limited workforce to replace existing skilled operators, flexibility in how and what certification looks like and can be achieved would help to alleviate the limited workforce and would do more towards protecting water quality and public safety than doing things like we have always done them in the past.	11/7/2022 6:38 PM
31	OIT program is a joint investment by the WWTP agency and the employee requiring input from both parties. It's difficult to quickly obtain a grade 1 Operator certificate, but this difficulty helps to produce a knowledgeable and invested operator in the end. The requirements are adequate.	11/7/2022 2:01 PM
32	I've worked both water and wastewater. I personally feel it is ridiculous to require on the job training for wastewater and not water. It should be the other way around.	11/7/2022 11:29 AM
33	For an OIT I believe it is important to have the educational part done BEFORE they get their Certificate and the Experience part done before they can get their Grade 1 test. For a Grade 1 Operator, I believe that both part Education and Experience should to be done BEFORE the Grade 1 certificate is issued. What should be considered is that you CAN NOT use time at a College to "buy" time/education/experience. Regardless what field you had in college (science, micro biology, health, ect) it will NOT give you the needed education/experience/understanding of a Wastewater Treatment Plant Operation. Being "Book-smart" does NOT make you know or understand your treatment facility. Also: ALL Educational requirements should be strictly involve Wastewater Treatment material, any courses that have to do with wastewater, any refresher trainings from CRWA, CWEA, AWWA, ect.	11/7/2022 9:27 AM
34	Most OITs require 2-3 years before receiving their WW2 Cert. This causes challenges with maintenance and operation and greater risk of environmental damage.	11/7/2022 9:22 AM
35	I think wastewater operators should have contact hour requirements just as water treatment and distribution operators.	11/7/2022 9:11 AM
36	Having Wastewater operators require an OIT for one year is ridiculous on the grounds of safety when Water Plant operators that turn out a human consumable don't need to complete an OIT.	11/7/2022 7:14 AM
37	For small systems, it is very difficult for WW OIT's to accumulate the required 1800 hours, It could take 3-4 years.	11/5/2022 10:52 AM
38	Starting to notice a trend of OITs entering this career that are are not properly prepared and unmotivated to learn.	11/5/2022 5:01 AM
39	more electrical and maint.	11/4/2022 6:48 PM
40	In small utilities that require dual certified operators, that one year requirement could take longer than one year calendar wise because they could be learning water and wastewater plants during that year	11/4/2022 1:55 PM
41	The 1800 hours experience for grade 1 exam is limiting the ability to get interest in our field. The minimum education for exam is also a limiting factor in recruitment. These limits have no	11/4/2022 1:14 PM

Wastewater Operator Certification Program Survey

bearing on protecting public health and the environment. Examinations provide competency overview.

42	With the amount of License Requirements Operators have to maintain with annual course requirements. the experience is ok, but could be better to obtain high quality candidates.	11/4/2022 11:28 AM
43	It is difficult to gain experience on Grade 1 as it may require the candidate to volunteer hours. This may be difficult especially in southern California.	11/4/2022 10:00 AM
44	Keep it up.	11/4/2022 6:55 AM
45	I believe they are about right	11/3/2022 5:53 PM
46	On education--I have a Water Quality degree which was 12-15 4 hour classes (4 classroom hours for twelve weeks, consisting of water and wastewater hands on lab, source water control, water treatment techniques, wastewater techniques, math, et al) from a community college in CO. Honestly, it was much more intense than Sac State OWP classes and I received no classroom time towards licensing. I had 25 years experience in water treatment (surface multimedia filters, membranes and others) and had to test up in this state, even though I had A or Grade 4-5 licenses in CO. I passed the D% easily and after passing I found none of my CO experience counted. This bothers me. I taught at the CO water and wastewater schools and Leadville schools. Again, no credit. I reviewed the Wastewater tests (all levels) annually for three years and worked on converting CO to ABC tests. No credit. There is a very parochial attitude towards experience in this state. Also, the OIT program is outdated. Who wants to be unpaid for year? and there is a wastewater operator shortage. OIT needs to be changed to WW1, so newcomers can get paid, just restrict what they can do.	11/3/2022 5:50 PM
47	The 1 year of full time qualifying experience is tough for most individuals to obtain.	11/3/2022 5:33 PM
48	I have an associate's degree in WWTP operations. I think that having an associate's degree should cut the requirements for work experience by at least a couple of months, especially for grade II operators.	11/3/2022 4:41 PM
49	It is great if OIT candidates have both educational and experience prior to starting, but some don't have the opportunity to gain the educational experience and should be given the opportunity to obtain. By requiring up front, it has limited the qualified candidates able to apply and have lost some people with high potential.	11/3/2022 3:32 PM
50	How can one get a cert if you need the hours, but you can't get the hours without the cert???	11/3/2022 2:05 PM
51	Any easing of the requirements for certification at any level is antithetical to ensuring operators have the competence necessary to protect the public and receiving waters.	11/3/2022 1:16 PM
52	I think that Algebra level mathematics should be required for everyone.	11/3/2022 1:04 PM
53	You need the education part as you are leaning and working in the plant. Your understanding and retaining very little if you get the education before first hand experience in the plant.	11/3/2022 11:41 AM
54	Education and Experience go hand in hand. This requirement is for WW1 which is entry level which is a step in getting the next level so if the requirements should not be discouraging. I think the requirements for subsequent level should be looked into it not the entry level.	11/3/2022 11:37 AM
55	none at this time.	11/3/2022 11:22 AM
56	Having the education required before the issuance of an OIT Certificate can help the trainee better understand the overall training process.	11/3/2022 10:32 AM
57	obtaining 60 hours of education in the first year or prior to becoming an OIT is too onerous.	11/3/2022 10:25 AM
58	I would add more educational points needed to 90 or 120. Make sure one of the classes is some type of maintenance class. Most of my best operators have some type of maintenance background.	11/3/2022 10:11 AM
59	I feel that there should an exemption for operators who have plant experience in other fields such and refinery or chemical plant experience.	11/3/2022 9:55 AM
60	Waste Water should be consistent with the Water and Dist. that do not require full time qualifying experience for the lower levels	11/3/2022 9:43 AM
61	The OIT requirement makes it very hard for new operators to get into the business. The grade 1 certificate should be education only to take the test, if they pass, they are certified.	11/3/2022 9:20 AM

Wastewater Operator Certification Program Survey

62	When entering the field I started from scratch. AS degree focused on Water and Wastewater studied. Experience is the most important education you can have as you move up the ladder.	11/3/2022 9:15 AM
63	There should be an entry-level grade without experience requirement	11/3/2022 8:48 AM
64	I would move to follow the T1 Experience Requirements to allow for more opportunity for certification and filling entry level positions in Wastewater.	11/3/2022 8:43 AM
65	Other Grade 1 certificates do not require experience. That is usually gained after the Grade 1. It is difficult and discouraging to applicants and beginners in the wastewater field to have to work for a full year at a plant before they can even apply for the Grade 1 certification.	11/3/2022 8:28 AM
66	1800 Hours is a lot of hours and at a lot of smaller plants the operators do Treatment and Wastewater so they do not get the 8 hours a day for experience but more like 2 hours. This would equate to 3.5 years to get all 1800 hours.	11/3/2022 8:23 AM
67	We need more Wastewater Treatment Plant Operators. OIT gets their foot in the door.	11/3/2022 8:21 AM
68	requirements for wastewater operations fundamentally still stem from the 1980s and earlier when treatment plants were very simple to operate. Treatment plant complexity has increased many fold since then with dozens of new factors coming into play (recycled water, membranes, resource recovery, much stricter permits, P3s, nutrient removal, massive technology advancement that is nothing like oxidation ditches were for both liquids and solids treatment. Modern treatment plants are more like highly complex refineries these days and should require much higher education and experience requirements to properly operate.	11/3/2022 8:08 AM
69	The education experience is inconsistent with Water and Distribution which in my opinion have a larger impact on public health for drinking water gets to the public quicker than treated effluent. It's difficult to hire operators and allow them to be a part of the day to day operation when they have to be constantly monitored for 1800 hours. It's difficult for anyone trying to break in to the industry who doesn't have full time employment, to get their OIT hours and prolongs their ability to get certified.	11/3/2022 7:54 AM
70	requiring OIT applicants to have 6 education points has made it difficult get candidates at times. The education points required as you move up in certification is adequate and needed.	11/3/2022 7:54 AM
71	None	11/3/2022 7:42 AM
72	I believe requiring one year of full-time experience before allowing certification is why we are not able to remain staffed. In today's climate, people cannot afford unpaid or extremely low paid work in order to enter this field.	11/3/2022 7:25 AM
73	Employers need to find it in there budget to create the entry level positions that provide the inexperienced candidates the opportunities to learn to be treatment operators. Some of the previous and newer generation operators just want to jump thru the certification process (just pass the exam), stop their needed lifetime learning, get to the top of the licensing hierarchy without the critical experiences being had, then we are truly left without people that are not able to handle/operate thru the random crisis situations that do happen in our respective clean water fields of expertise. Paid opportunities are key to the future of our clean water industry.	11/3/2022 7:16 AM
74	IMO there ought to be more requirements towards understanding basic mechanics of valves pumps etc At least they ought to be able to identify these components and understand what they do. People off the street are often unable to even identify a valve from a pump etc. Considering these are the components they are going to operate they ought to get some education on them with pictures/hands on etc.	11/3/2022 7:10 AM
75	none	11/3/2022 6:58 AM
76	We tried a new way of obtaining certification at my agency. It was slightly different than explained above, but a similar result. We allowed employees to be promoted to supervisor prior to obtaining a certification (receive cert before fulfilling education), and it backfired. Employees were not able to complete certification in time, and it's hard to un-ring that bell. We ended up extending the probationary period several times. I think all requirements should be fulfilled prior to getting the cert.	11/3/2022 6:57 AM
77	I believe the year of qualifying experience as a certified Operator-In-Training is of utmost importance	11/3/2022 6:52 AM
78	Many do not learn about the industry prior to job acceptance; thus, the individual being able to	11/3/2022 6:43 AM

Wastewater Operator Certification Program Survey

obtain the 6credits of additional education beyond HS is unlikely. They would not know where to obtain the information, this is usually garnered while on the job. Its feasible to have them complete this within the first year.

79	Experience used to be 2080 hours and the was reduced to 1800 hrs. In my opinion it should have stayed at 2080 hours	11/3/2022 6:36 AM
80	I Think If An Operator Had A Certification For Sometime For Work Or Just To Have. And If He Did Move On To Another Job Not Related To Water Or Wastewater. He Should Be Eligible Just To Pay The Fee To Update The Certification Not Retake The Test All Over. Shouldnt Be A Time Frame To Lose Your Cert. Gonna Lose A Lot Of People In This Field.	11/3/2022 6:18 AM
81	I don't agree with experience requirements. The rules need to be revisited.	11/3/2022 6:14 AM
82	It can be difficult for people to get hired without certification and as an employer, I typically need people with certifications. Perhaps there could be a 3 month long "academy" where folks could pursue certification on their own before agencies invest one year to see if they want to actually become an operator.	11/3/2022 6:13 AM
83	I feel the complexity of biology and experience combined take time to understand. For those who pick it up quicker there are avenues to progress quicker if you put in the time to get there.	11/3/2022 4:03 AM
84	Most of these OIT programs are centered around experience. Yet we don't emphasize to existing certified operators how they should be guiding the OITs... Like "Public health is everything". "NEVER NEVER NEVER fake a number". "The two most important things we do: 1. Safe water. 2. Fire flow " Add to the list however you like... The point is we're not doing a great job of training the trainer (the existing certified operator who the OIT is working for).	11/3/2022 3:57 AM
85	It's a fine line. It's crazy how you can take a Sac State course and jump to your T2 but if you want a WW cert, It's a lot more work.	11/2/2022 10:46 PM
86	Some of the best/knowledgeable operators I've known are grades2&3 with 10-15 yrs actual experience. That should count towards criteria to higher certification. I'm seeing 'book smart/college' get gr4&5 certs but no common sense/motivation to do the labor. It's shifting the dynamic and making more 'desk operators' than 'field operators'. Going to lose a lot of 'seasoned' operators in the years to come.	11/2/2022 10:06 PM
87	It would be nice if the SWRCB encouraged municipalities to have OIT positions available.	11/2/2022 9:46 PM
88	I an a retired DESIGN civil engineer. I'm not nor was I ever an operator.	11/2/2022 9:32 PM
89	Education needs to be completed during or after employment as OIT. Unrealistic to expect prospective operators to take 3 unit course prior to finding job.	11/2/2022 8:41 PM
90	The wastewater treatment should be like the water treatment process	11/2/2022 7:43 PM
91	Allow OIT - I and then before getting the license you must meet the Education and OJT Experience like it was before April 2006. This will allow more operator's to explore the field and not be detoured.	11/2/2022 7:42 PM
92	I would suggest the education be 90 hours of course work with an accredited college or 9 CEU's. I also would change the Operator 1 to replace an OIT 1. The first level of certification would be WW1 same as the water or distribution 1 certification. The certification would be awarded after the education and the test for the WW1 was passed.	11/2/2022 6:54 PM
93	More is better. However, the industry needs interested and engaged bodies.	11/2/2022 6:53 PM
94	It fine the way it is.	11/2/2022 6:46 PM
95	I think that the experience and education requirements are appropriate however, because operators need a full year of experience before being issued a certificate it forces many operators to work for free in an OIT program for at least a year. This is a huge barrier to entry for many to enter the industry.	11/2/2022 6:41 PM
96	I would like to see consistency across the education and experience requirements for treatment, distribution, and wastewater certifications.	11/2/2022 6:38 PM
97	Clean water grade I operators should have the same OIT requirement. It is a safety issue having new people jump into grade I or II positions with no OIT experience.	11/2/2022 6:13 PM
98	Obtaining 1,800 hours of experience is difficult in my opinion.	11/2/2022 6:08 PM

Wastewater Operator Certification Program Survey

99	It is difficult to obtain a WW operator certification due to the lack of hours available. Much of the experience learned in the education can be applied already. It would be a reasonable decision to reduce or cut the experience hours out of the requirements. If that is not possible, there should be more emphasis in creating availability for paid training hours.	11/2/2022 5:43 PM
100	Model/mirror the requirements for WW certification off of the Water Treatment Certification program. Remove the OIT, WW Grade I becomes the entry level. WW Grade II would require education (3 units /36 hr) to take the exam. If it works for Water Treatment/Distribution in protecting public health it should work for Wastewater as well. - Chander Letulle	11/2/2022 5:21 PM
101	Not being able to get a level 1 cert without any experience is ridiculous. It should be more like the drinking water side.	11/2/2022 5:15 PM
102	I am not an operator, I am a maintenance supervisor. At my plant the maintenance techs do all of the work and repairs to the plant. They do documentation on equipment and make sure that the plant is in permit compliance. And it's a shame that with all that experience and knowledge of the plant that they only qualify for OIT certification. In my opinion time at the plant should count towards treatment certification.	11/2/2022 5:08 PM
103	I feel that the larger the system and more employees it has that the experience required is a little less important because there are more employees to fall back on but with less employees the experience is more important.	11/2/2022 5:07 PM
104	11/2/2022 5:03 PM Good evening, CWEA Leadership: I am a member of CWEA Santa Clara Section. I have my Water Treatment Operator and High-Tech Water Treatment Operator education through AWWA California-Nevada Section. Interested in working in a wastewater treatment plant in a managerial role at some point. Currently working for a stormwater firm as an inspector-in-training. I get tons of ads from CWEA every day but have not been able to afford their wastewater operator courses. Wondering if there are any scholarships available? Thanks. Matthew Frazier Stormwater Compliance Technician, SWPP Queen 1429 Stark Way San Jose, CA 95118 (408) 656-5622 – Mobile matthewf@swppqueen.com kitchenfrazier@hotmail.com	11/2/2022 5:04 PM
105	The problem I have is that the tertiary part of my wastewater facility is only in operation 6 months out of the year. So it takes twice as long to get hours needed for my OIT. It use to be that when my tertiary plant was down, whatever work time that was done during the winter would count for 8 hours a day. Now they have stopped that and my OIT's only get like 6 months a year. Since my operators have to be dual certified, it makes it hard to get them the wastewater time needed.	11/2/2022 5:04 PM
106	I think there should be sort of a hybrid entry where if you can pass your grade I test but don't have a full year of experience you should still be considered a grade I. I think you disqualify a lot of people from jobs by making them wait a year to get working experience which at times, and in my personal experience, was extremely difficult to obtain. Also, as an OIT you are limited in what you can do because you are a liability to the plant you are working at not being certified or sometimes fully employed so it hampers what type of experience you can actually get.	11/2/2022 4:53 PM
107	Water and Wastewater certification are now implemented by the same agency (SWRCB). Certification requirements (Education and experience) should be the same for both water and wastewater	11/2/2022 4:36 PM
108	OIT position openings are few and far between	11/2/2022 4:32 PM
109	It is very hard for someone new to the industry to get the 1800 hours of qualifying experience for OIT. There seems to be a lack of OIT opportunities, at least in my area (San Diego County).	11/2/2022 4:22 PM
110	I think the employer should determine the experience needed to operate. Some Grade I's are able to operate with guidance after 6 months. Others after 18 months. For such an introductory certification I don't think CWEA should mandate the year of experience.	11/2/2022 4:22 PM
111	I wish I understood more simple ways of developing a path to get started. My plant does not help get me started.	11/2/2022 4:19 PM
112	Entry level training for Grade 1 OIT is an investment by the Agency/Employer. All agencies should consider it an opportunity in their community to bring in home-grown talent and train. Too often, agencies are tending to delegate the training investment to others, and this has led	11/2/2022 4:19 PM

Wastewater Operator Certification Program Survey

to a skewed dysfunction in our industry and shifted the burden of training away from the beneficiary of the training.

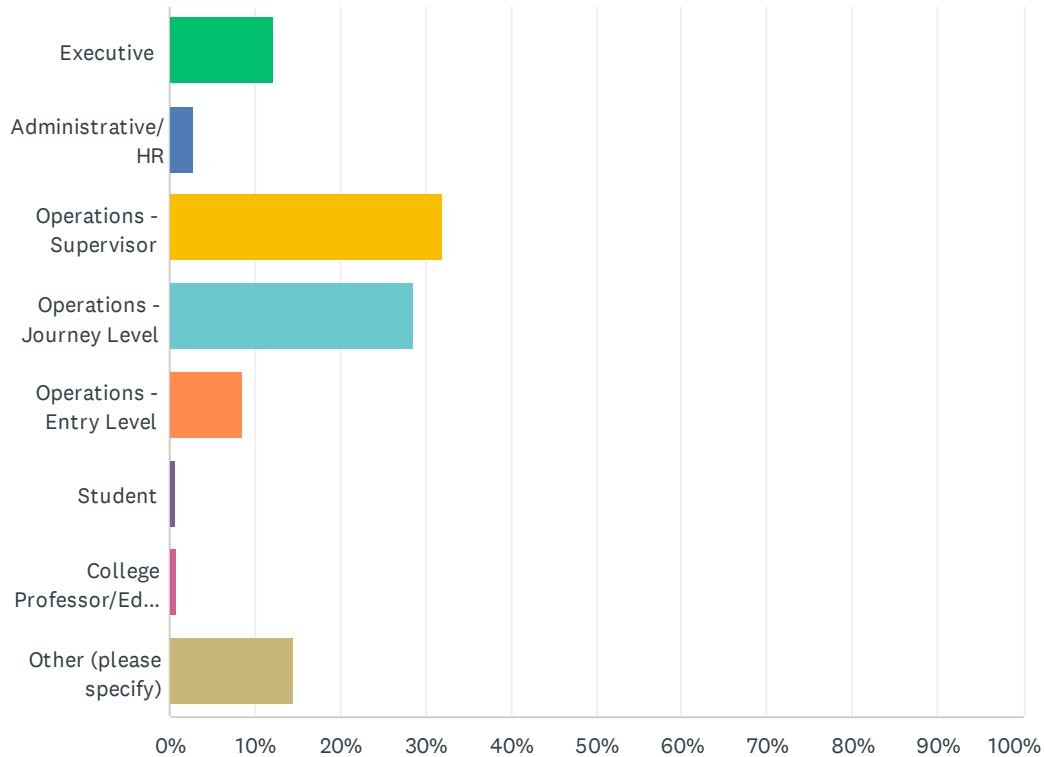
113	The education part is probably the least qualifying thing for a plant operator. I know from my experience at my plant that the operators and leads with higher education have been awful workers. All brains and no common sense or mechanical minds. Useless, future managers that have no insight as to what it takes to be nor the physical drive to ascertain the knowledge that is needed for true operations work. At my current plant the grade 2 have to train the 3-5 as all they know is what a book taught them and have no ability to do the simplest task such as follow lines to make sure they are valves correctly. When I am in an emergency, I don't need you to tell me this wasn't in Ken Kerry's book, I need you to be quick free thinking and physically able to manually turn a tight valve. Stop letting engineers have input on test and education because more than 90% of what they design can't be used in most plants. Let real operators have input on the test as what they have seen first hand, rather than questions purposefully missing information or worded for the sole purpose to confuse. That is text book bad teaching and a lack of using actual functioning tools that you have access to (the operators themselves).	11/2/2022 4:15 PM
114	This is fine for Grade I but it should be more experience required as you move up. The licenses are somewhat taken with a grain of salt in the industry due to them being easy to obtain with education. Experience is what gets you the knowledge and makes you a better operator. Education is less than 25% in my opinion.	11/2/2022 4:11 PM
115	If operator jobs are not being filled fast enough, drop the 1 year of making significantly less money as a sacrifice to becoming an operator. Perhaps substitute other WW experience (ie lab), or other experience for OIT hours. Probationary periods are already substantially longer in this sector than others. Why a full time year of OIT? Many of us with considerable experience in WW would happily make the transition if the OIT was not such a financial loss.	11/2/2022 4:07 PM
116	In 2012 when the requirement for 6 education units started before issuance of an Operator in Training, this severely impacted the ability to hire for entry positions	11/2/2022 10:21 AM
117	If we are so concerned about public health and the environment, why are we only requiring 11 months on the job to qualify for a license?	11/2/2022 10:16 AM
118	the experience requirement is vitally important before a license is granted. Obtaining a license and thereby able to act as a CPO without any experience would be detrimental. However, to help the small agencies with recruitment and individuals trying to get started, the number of hours could be reduced.	11/2/2022 8:19 AM
119	As permits to operate facilities become increasingly dependent on more advanced treatment processes, the requirement and level of training needed becomes greater. Advanced Waste Treatment, Nutrient Removal, Title 22 production/ distribution; even biological secondary processes. The volume of process data available for interpretation by operators is much greater than 10 or 20 years ago. I am not sure the exam and combination of education/experience match what is needed for today's operators and the technology used. I have had many operators state that the education or experience does not translate/match what we are doing in our actual day to day jobs. Please understand I am not frowning on what work has been done. I am just trying to provide real useful information I have received to help improve a process and dedicated staff working hard to protect public health.	11/2/2022 8:17 AM
120	Being an operator with very small systems in the rural area septic systems and knowledge of their operation and oversight would be beneficial to a lesser grade of operator.	11/2/2022 8:02 AM
121	I am not wastewater	11/2/2022 7:57 AM
122	I would like to see the OIT candidates have the ability to receive their OIT Certificates prior to meeting the 6-CEU Education requirement. They should be able to complete the 6-CEU requirement after their OIT time starts for their 1800 hour requirement and the education requirement needs to be satisfied within the first year of OIT employment.	11/2/2022 7:51 AM
123	I feel like the educational requirement for 6 CEUs is a good requirement to ensure that OITs know the basics of WW operation but finding a quality educational program, especially for rural systems is difficult. Ideally, the educational components would be complete before OIT certificate is issued but the state needs to work on providing more and better educational opportunities. Self-paced classes (i.e. Ken Kerry) is not an ideal way to complete the CEUs for many people.	11/2/2022 7:30 AM

Wastewater Operator Certification Program Survey

124	California dose not recognize tribal certifications or the years of experience.	11/2/2022 7:15 AM
125	Only issue is the Grade 1 level experience requirements. It makes sense if you have only high school diploma and 6 educational points then 1 years of experience is needed. My issue is if a person, who meets the education requirement, passes the grade 1 exam, should be allowed to shorten the time needed or bypass the qualifying experience, but for only the Grade 1 OIT.	11/2/2022 6:56 AM
126	I am okay with the current requirements but if obtaining Grade 1 operators is becoming difficult, maybe lessen the experience to 6 months of full time. If someone passes their Grade 1 exam, 6 months should be adequate time for them to obtain their certificate.	11/2/2022 6:54 AM
127	The experience requirement is a huge barrier to entry for new WW Operators. It makes no sense for 1 year of experience BEFORE becoming an OIT. Let an operator get OTJ experience at the lower grade level like they can on the water side.	11/2/2022 6:35 AM
128	There should be a way to fast track OIT time, with this job market it is very tough to find employees.	11/2/2022 6:29 AM
129	Experience hours dropped to 1040 hours.	11/2/2022 6:07 AM
130	It is difficult to find the experience with local and government companies.	11/1/2022 4:55 PM
131	Too difficult to get an OIT position to meet the expected experience.	11/1/2022 4:47 PM
132	If the certifications matched across the board I would be very satisfied. It is hard to get into a wastewater treatment plant with just having completed the exam but I hold T2 and D2 certification	11/1/2022 4:41 PM
133	6 months in training	11/1/2022 2:50 PM

Q10 Which of the following options most closely aligns with your current job role or career level?

Answered: 360 Skipped: 52



ANSWER CHOICES	RESPONSES	
Executive	12.22%	44
Administrative/HR	2.78%	10
Operations - Supervisor	31.94%	115
Operations - Journey Level	28.61%	103
Operations - Entry Level	8.61%	31
Student	0.56%	2
College Professor/Education Provider	0.83%	3
Other (please specify)	14.44%	52
TOTAL		360

#	OTHER (PLEASE SPECIFY)	DATE
1	Chief Plant Operator (non supervisor role)	11/29/2022 11:55 AM
2	Engineer	11/17/2022 12:38 PM
3	Operations - Manager	11/17/2022 10:43 AM

Wastewater Operator Certification Program Survey

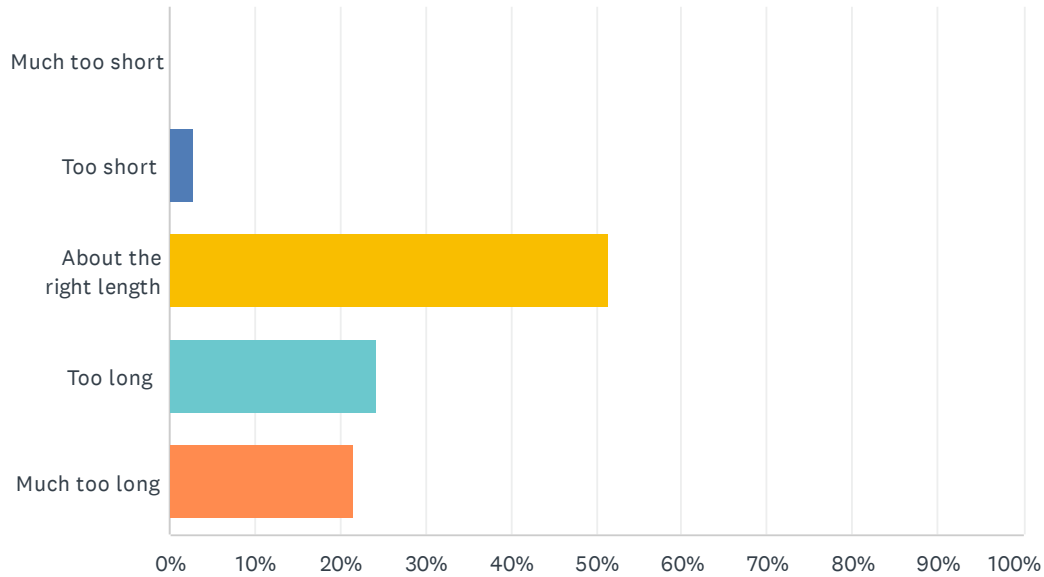
4	technician	11/16/2022 2:49 PM
5	Lab Manager	11/16/2022 11:29 AM
6	General Manager / Operations Superintendent	11/16/2022 9:34 AM
7	Operations Engineer	11/14/2022 10:25 AM
8	Supervisory	11/10/2022 9:00 AM
9	Environmental Specialist/Operator/Board of Director	11/9/2022 7:54 PM
10	Retired Water Treatment Supervisor and current Water Treatment Consultant	11/4/2022 1:56 PM
11	Equipment operator	11/4/2022 6:29 AM
12	line maintenance	11/3/2022 9:58 PM
13	I am a wastewater systems manger and a WW adjunct professor	11/3/2022 5:55 PM
14	Educator and consultant	11/3/2022 5:51 PM
15	Lab Technician	11/3/2022 4:00 PM
16	Senior Wastewater Operator	11/3/2022 4:00 PM
17	Civil Engineer	11/3/2022 3:53 PM
18	Lab Tech	11/3/2022 12:04 PM
19	Operations Director	11/3/2022 10:34 AM
20	Laboratory	11/3/2022 9:00 AM
21	Operations Manager	11/3/2022 8:49 AM
22	Capital Engineering (Operations Support)	11/3/2022 8:14 AM
23	Maintenance Supervisor	11/3/2022 7:58 AM
24	(Mid) Management but not at Executive level.	11/3/2022 7:56 AM
25	Senior Lead level	11/3/2022 7:47 AM
26	Assistant Superintendent Water Reclamation	11/3/2022 7:33 AM
27	Lab Analyst Supervisor	11/3/2022 7:27 AM
28	Chief Plant Operator	11/3/2022 7:23 AM
29	Inspector	11/3/2022 7:12 AM
30	Maintenance	11/3/2022 7:10 AM
31	Plant Superintendent	11/3/2022 6:53 AM
32	Wastewater process engineer and water treatment educator	11/3/2022 6:43 AM
33	Laboratory & Compliance Supervisor	11/3/2022 6:43 AM
34	Instrumentation and controls Technician	11/3/2022 6:14 AM
35	RETIRED	11/2/2022 9:32 PM
36	Consulting Engineer AND Education Provider	11/2/2022 8:42 PM
37	Retired.	11/2/2022 6:53 PM
38	Manager	11/2/2022 6:38 PM
39	Regulator	11/2/2022 6:09 PM
40	Plant Technician Supervisor	11/2/2022 5:09 PM
41	Water distribution operator that helps and works closely with waste water collections/treatment.	11/2/2022 5:08 PM

Wastewater Operator Certification Program Survey

42	Stormwater Compliance Technician, SWPP Queen	11/2/2022 5:05 PM
43	Operation Manager	11/2/2022 4:51 PM
44	Instrumentation and Controls Technician Grade 2	11/2/2022 4:33 PM
45	Maintenance worker	11/2/2022 4:23 PM
46	Entry level position/college education in my pocket.	11/2/2022 4:20 PM
47	Wastewater Operations Specialist for Private Firm	11/2/2022 4:11 PM
48	Regulator	11/2/2022 4:09 PM
49	Chemist	11/2/2022 4:07 PM
50	Board Member	11/2/2022 11:52 AM
51	Contract operator of multiple small systems	11/2/2022 8:02 AM
52	owner / operator	11/2/2022 7:57 AM

Q11 The timeframe to become a certified independent operator is 1,800 hours of experience after earning the OIT certificate. This timeframe is:

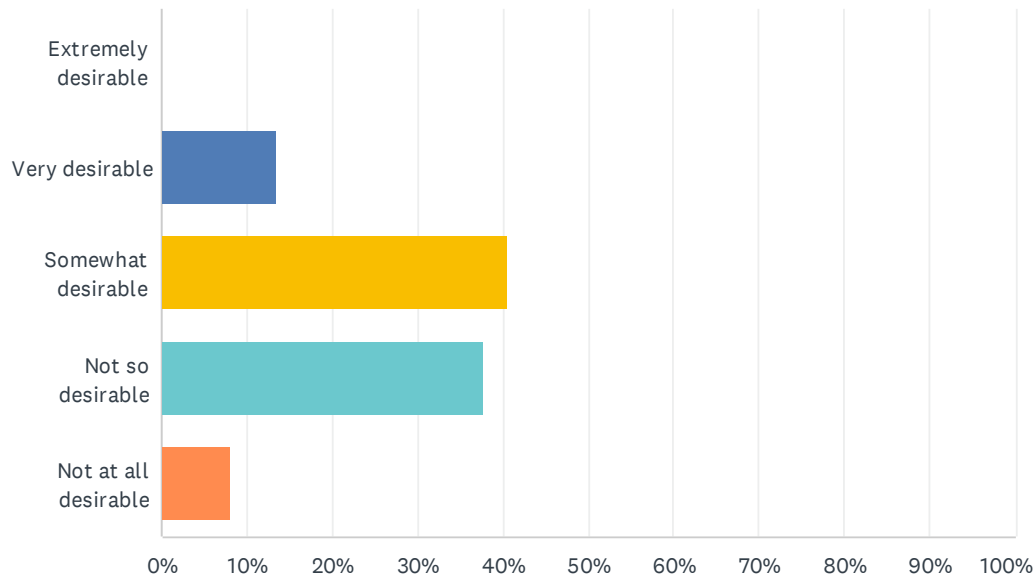
Answered: 37 Skipped: 375



ANSWER CHOICES	RESPONSES	
Much too short	0.00%	0
Too short	2.70%	1
About the right length	51.35%	19
Too long	24.32%	9
Much too long	21.62%	8
TOTAL		37

Q12 The salaries offered for OIT positions in my region are:

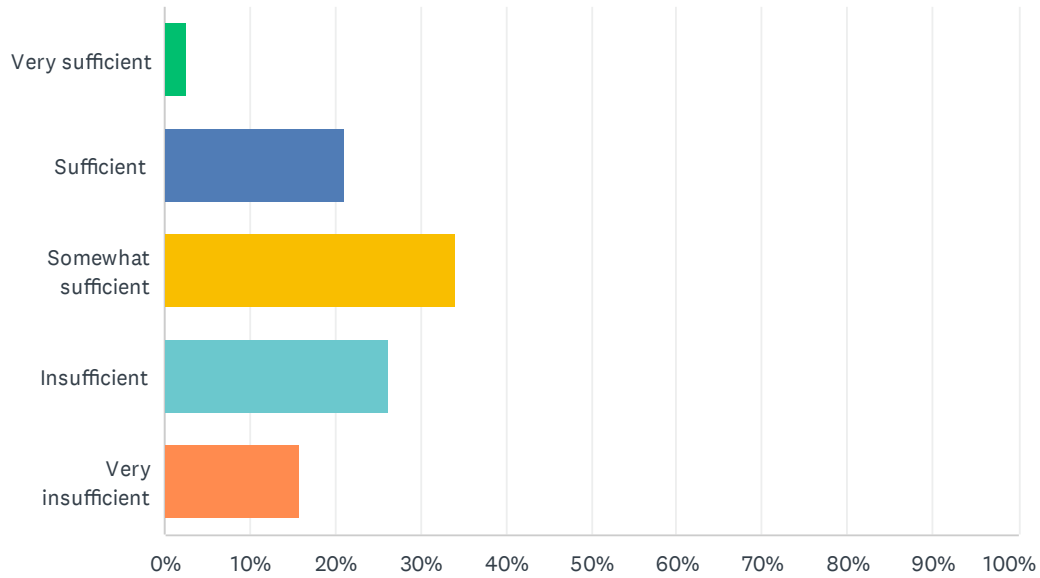
Answered: 37 Skipped: 375



ANSWER CHOICES	RESPONSES	
Extremely desirable	0.00%	0
Very desirable	13.51%	5
Somewhat desirable	40.54%	15
Not so desirable	37.84%	14
Not at all desirable	8.11%	3
TOTAL		37

Q13 The number of OIT positions available are:

Answered: 38 Skipped: 374



ANSWER CHOICES	RESPONSES	
Very sufficient	2.63%	1
Sufficient	21.05%	8
Somewhat sufficient	34.21%	13
Insufficient	26.32%	10
Very insufficient	15.79%	6
TOTAL		38

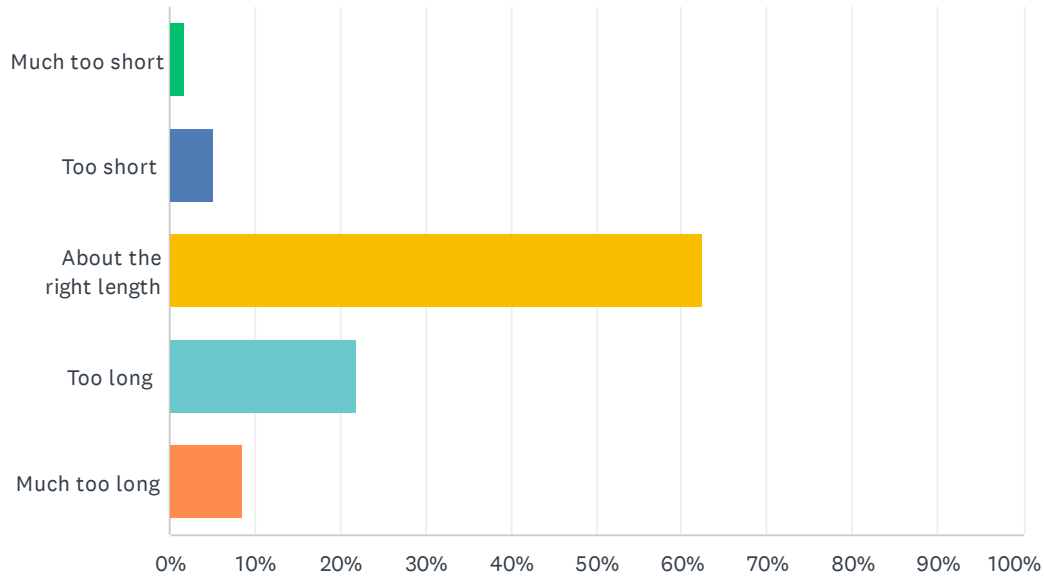
Q14 If you have any additional feedback or comments for the workgroup to consider, please leave them here:

Answered: 3 Skipped: 409

#	RESPONSES	DATE
1	The number of OIT positions available are somewhat sufficient if you are able/willing to travel beyond what is available near your home.	11/24/2022 11:57 AM
2	Plants look for certified operators so getting an OIT position to get your foot in the door is somewhat hard to find. Also plants will expect you to volunteer your time during your OIT which isn't a good option for most people.	11/22/2022 7:40 AM
3	None	11/3/2022 7:44 AM

Q15 The timeframe to become a certified independent operator is 1,800 hours of experience after earning the OIT certificate. This timeframe is:

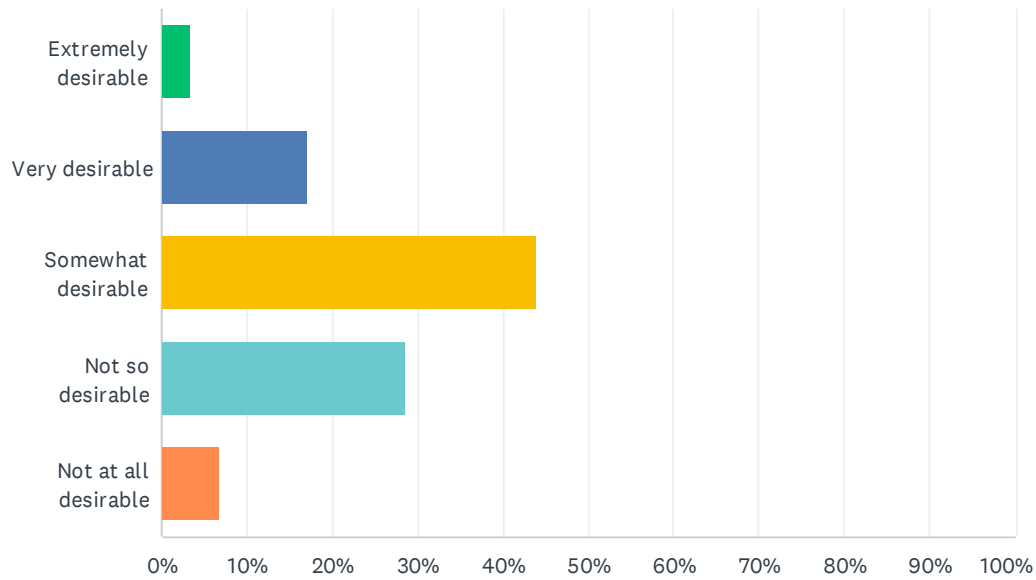
Answered: 349 Skipped: 63



ANSWER CHOICES	RESPONSES	
Much too short	1.72%	6
Too short	5.16%	18
About the right length	62.46%	218
Too long	22.06%	77
Much too long	8.60%	30
TOTAL		349

Q16 The salaries offered for OIT positions in my region are:

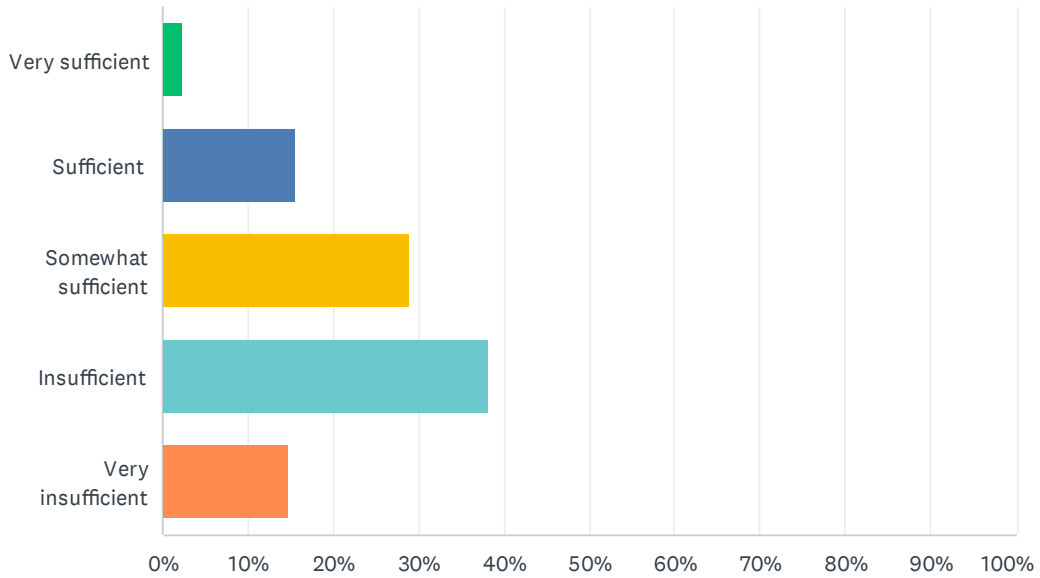
Answered: 350 Skipped: 62



ANSWER CHOICES	RESPONSES	
Extremely desirable	3.43%	12
Very desirable	17.14%	60
Somewhat desirable	44.00%	154
Not so desirable	28.57%	100
Not at all desirable	6.86%	24
TOTAL		350

Q17 The number of OIT positions available are:

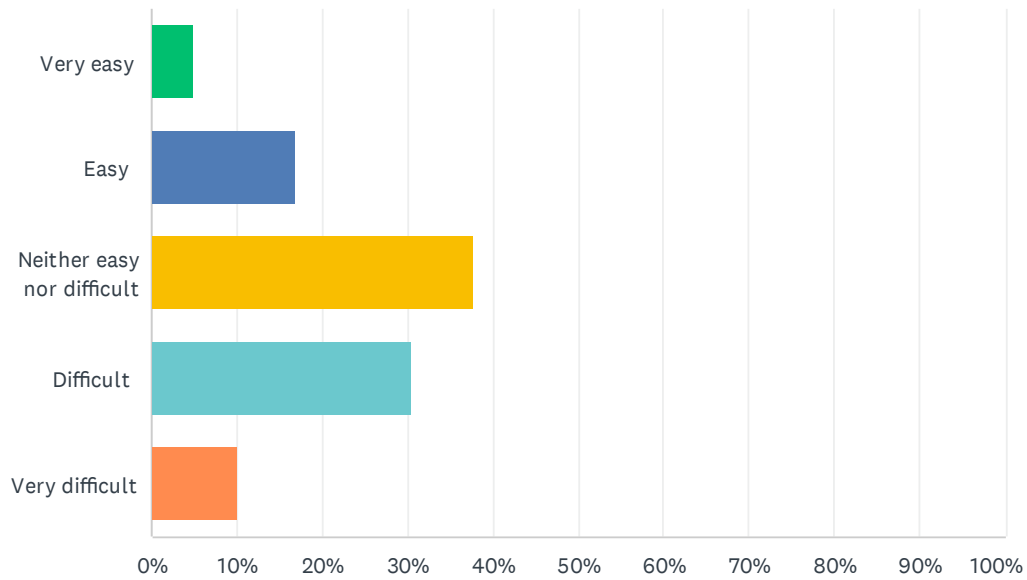
Answered: 351 Skipped: 61



ANSWER CHOICES	RESPONSES	
Very sufficient	2.28%	8
Sufficient	15.67%	55
Somewhat sufficient	29.06%	102
Insufficient	38.18%	134
Very insufficient	14.81%	52
TOTAL		351

Q18 Finding a candidate that already meets the education requirement is:

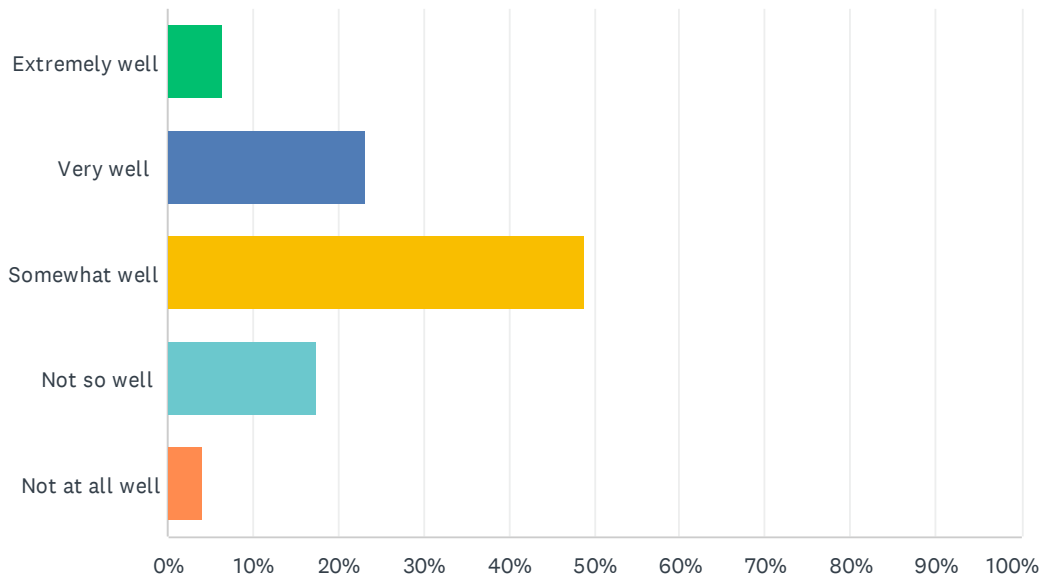
Answered: 350 Skipped: 62



ANSWER CHOICES	RESPONSES	
Very easy	4.86%	17
Easy	16.86%	59
Neither easy nor difficult	37.71%	132
Difficult	30.57%	107
Very difficult	10.00%	35
TOTAL		350

Q19 How do OIT requirements align with employer probationary periods?

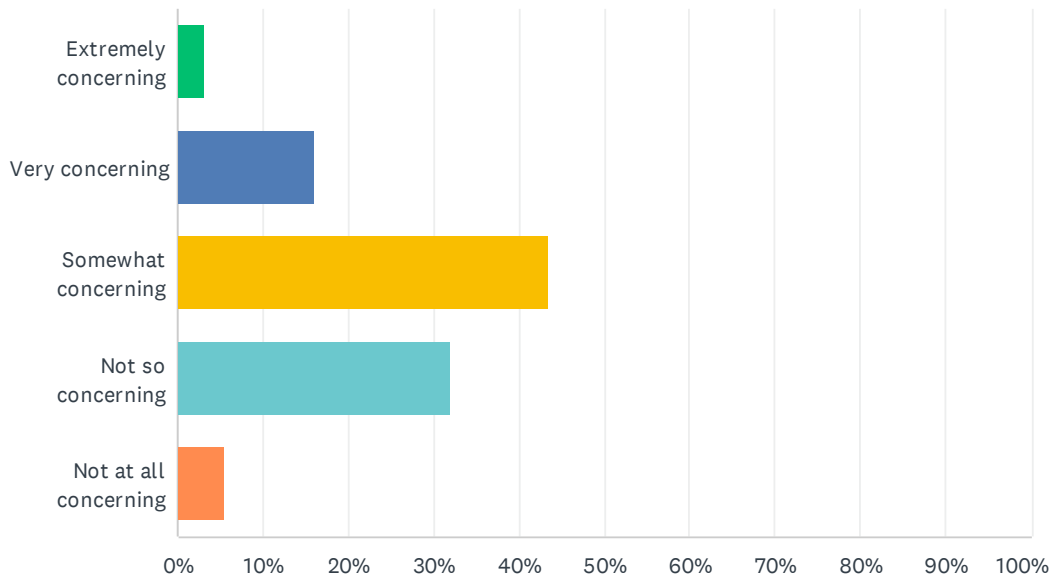
Answered: 348 Skipped: 64



ANSWER CHOICES	RESPONSES	
Extremely well	6.32%	22
Very well	23.28%	81
Somewhat well	48.85%	170
Not so well	17.53%	61
Not at all well	4.02%	14
TOTAL		348

Q20 The cost of onboarding, training and supervising an OIT is:

Answered: 348 Skipped: 64



ANSWER CHOICES	RESPONSES	
Extremely concerning	3.16%	11
Very concerning	16.09%	56
Somewhat concerning	43.39%	151
Not so concerning	31.90%	111
Not at all concerning	5.46%	19
TOTAL		348

Q21 If you have any additional feedback or comments for the workgroup to consider, please leave them here:

Answered: 70 Skipped: 342

#	RESPONSES	DATE
1	We just can't find people who want to join the industry.	12/20/2022 10:26 AM
2	1 year as an OIT is sufficient to observe the competency of the operator.	11/28/2022 8:30 AM
3	The OJT hour requirement needs to be removed or modified for WW operators. Current employees that have an interest in moving into Operations would have to work on weekends or after hours as OIT's for 3 to 4 years in order to meet the "duty" requirements and deters many in house candidates from applying for upcoming positions.	11/21/2022 4:21 PM
4	OIT position provides no value	11/21/2022 3:18 PM
5	One reason I say 1 year is too long is because advanced education should be allowed to count for experience.	11/17/2022 7:48 AM
6	It's very important to hire OITs to come up to speed and take future roles to run the industry with upcoming challenges to find interested people.	11/16/2022 3:10 PM
7	I am now an Environmental Compliance Inspector II. I hold a ECI g1, CSM g3, SWRCB d3 & t2. I am highly qualified for a OIT position and persued it but it was extreemly difficult to get hired as an OIT because experienced operators where getting those positions. In order for me to get a license I needed hrs. I couldnt get hrs without working at a plant for an OIT so the program is all backwards. I switched paths and now am an inspector for the plant and pretreatment systems but this program needs to change.	11/16/2022 10:29 AM
8	If certified, but not required to hold specific certifications for a current job, it should be possible to make the certification inactive at no cost to the certificate holder. I lost my Grade 3, T2, & D2 because my employer, a collection system only agency, would not pay for those certifications and it was too expensive for me to maintain them.	11/16/2022 9:42 AM
9	With the rise of minimum wage it is very difficult to contend with what has always been a good pay for OIT's. The addition of these educational requirements was never all that bad, it was great that some effort had to be put forth to show some level of education to start in the industry. With the rise in minimum wage, the current education requirements and the pay scale for the ladder I have seen a huge decline in applicants and qualified applicants. For example an OIT at my agency starts around \$30/hr and a neighboring city is paying \$21/hr for a burger flipper and \$26/ hr for a dish washer with benefits. The logical answer is to raise wages substantially across the board at our agency but public perception and raising rates to cover wage are real problems.	11/14/2022 6:12 PM
10	Some large agencies don't hire OIT's, they're volunteer only.	11/8/2022 9:16 AM
11	The constraints for agencies that have a smaller operator workforce limit the number of OITs that can be brought on board at one time. Additionally, the time and effort to bring an OIT through the program to be an operator is quite an investment and hard to keep doing over and over if the agency cannot stay competitive for salaries, retirement benefits, and the rising cost of housing.	11/7/2022 6:45 PM
12	Difficulty in obtaining a Grade 1 Operator certificate adds value to the employee who obtains a certificate. The employer time and financial investment, and possible loss can be significant, especially if the employer's wages are less than surrounding agencies. The certified operator can leave and obtain a higher salary at another agency. Lower paying agencies can unintentionally act as "Wastewater Operator Schools", where an OIT achieves certification and "graduates" to a better paying agency.	11/7/2022 2:11 PM
13	We try very hard to work in pairs of operators at all time, so the training and supervision is not a big issue. The salary is a big problem in our small city.	11/7/2022 9:28 AM

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14	The OIT requirement is ridiculous because it's not required for drinking plant operators!	11/7/2022 8:17 AM
15	OITs of recent years lacking motivation for this field of work.	11/5/2022 5:04 AM
16	For small utilities, training of an OIT, requires a good trainer to train the OIT. In my career in Water Treatmebt which exceeds 40 years, I have never seen a viable program for "Training the Trainer." Instead, some utilities force an OIT on a seasoned operator who is not comfortable with training new folks.	11/4/2022 2:01 PM
17	to supervisors with a lack of time management, OITs are often fending for themselves in positions they should not be holding. They should be paired up at all times. To train and brainstorm with. Often, you hire someone with little experience and expect senior level work out of them.	11/4/2022 11:31 AM
18	Make sure to keep the 1800-hour requirement. I work in Idaho right now and individuals can operate WWTFs without any experience and it shows. Many Facilities like the one I worked at have working with mechanics to provide a path for moving into operations.	11/4/2022 6:59 AM
19	The Wastewater OIT position is roughly equivalent to a Water T1. As such, agencies should provide a fair salary	11/3/2022 5:58 PM
20	already stated.	11/3/2022 5:52 PM
21	The District's probation very from 6 months to a year. Its hard to match that with a OIT-Grade 1 status.	11/3/2022 11:44 AM
22	None.	11/3/2022 10:36 AM
23	The cost of onboarding an OIT isn't bad unless they're only using you as a way to get into the industry and leave as soon as they get their license which happens often because there isn't a lot of OIT position open.	11/3/2022 10:23 AM
24	for a small operation in a remote town it is very hard on the on the city to support an OIT for two years before they can be certified to be an operator at our plant.	11/3/2022 9:46 AM
25	The hardest part is having someone that can't hit the ground running when they're going through their OIT stage.	11/3/2022 9:42 AM
26	Once the 1800hrs has been complete, this person is still not qualified to operate the plant alone. In fact, at our facility, it takes about 3 yrs to take calls. We do not cover 24hr shifts just on-call.	11/3/2022 9:20 AM
27	what about having the wastewater, water treatment, and distribution certifications for the grade 1 all have to obtain at least one 36 hour specialized course completion and then be able to obtain a grade 1 license if they pass the test. For all grades higher than a grade 1, must have on-the-job training hours to obtain next grade levels.	11/3/2022 8:54 AM
28	please see prior comments. Due to the dramatic shift in the industry complexity since the 1980s, there needs to be new rapid pathways to get much more complex process engineering expertise into the operational realm, both by making it much easier and quicker for people with process engineering background to become operators and by raising the educational requirements for operators, perhaps two operations tracks are needed, one for basic operational tasks that does not require much education, and one for the much more complex tasks that are really process engineering in essence that requires much more educational background to even begin on this track. Trying to adopt ancient workforce development models that worked for basically simple oxidation ditches in the 1980s to highly complex 21st state of the art resource recovery "refineries" does not seem like a well thought out approach. Suggest learning best workforce development practices from highly advanced water utilities like singapore.	11/3/2022 8:15 AM
29	There needs to be more information about getting into the field out there in the public	11/3/2022 8:03 AM
30	Having an OIT program is a great benefit to a larger facility that does alot of recruitment and a great service to the community by giving recruits a chance to gain service time and experience so a grade I certificate can be issued after succesfully completing the exam.	11/3/2022 7:52 AM
31	Nome	11/3/2022 7:46 AM
32	to reiterate, we have such a low workforce because nobody has the ability to complete an unpaid or extremely low paid year in order to become fully certified	11/3/2022 7:28 AM

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33	Unpaid internships where OITs are working 20+ hours per week or even full time are exploitative of people trying to enter the field and should not be supported by CWEA or SWRCB. A 6 week or summer internship tied with a college program may be okay, but having an OIT working 1800 hours unpaid is subsidizing rate payers on the back of a new professional trying to enter the workforce. OITs are performing the duties of an Operator(while under supervision) and should be compensated appropriately.	11/3/2022 7:14 AM
34	There ought to be some basic payment to the OIT. Many qualified folks cant afford to spend 1800 hours with no pay and no guarantee of job placement	11/3/2022 7:12 AM
35	There do not seem to be many OIT positions that get advertised on a regular basis across the state. They seem to be few and far between, pretty rare.	11/3/2022 6:56 AM
36	OIT positions are not a regular occurring event in smaller districts, and are usually done as a last ditch effort to hire after exhausting regular recruitment methods for current certificate holders. Just a simple fact that can be observed.	11/3/2022 6:54 AM
37	OIT have to be trained properly to operate a WWTP, at some places more so depending on the complexity of the facility. At smaller facilities OITs do duties that are not related to operations and cannot get credit for those hours.	11/3/2022 6:43 AM
38	You Will Know If An OIT Is Ready And Interested In Staying In The Field With In 3 Months. Its Hard To Keep People Once They Get Exposed To The Real Job Requirements.	11/3/2022 6:25 AM
39	The experience requirement rules: For example, I have passed the Grade-1 certification exam in 2020. However, I can't gain my 1800 hours working in the same facility I currently work as an instrumentation technician, is not fair. We go through most of the safety and process related trainings as the operators/OITs do. As an instrumentation technician we have fair ideas of all the process instruments and SCADA components. So why can't we use the on-the-job work experience as a technician towards that 1800 hour? Please understand 1800 hours designates you as an OIT, you still must go through a year of probation (>1800 Hours) in most agencies to be an operator.	11/3/2022 6:14 AM
40	I would love to bring on OIT's all the time but the coverage issue comes up of training and certifying. We would love to open up more OIT positions.	11/2/2022 10:50 PM
41	1800 hrs OIT is a bad way to measure experience/competence. You can literally spend a year hosing/housekeeping and not learn. Often leads/supv don't want to invest the time training OIT who they think will eventually leave plant, no ROI. I was tasked many cleanings and got good enough to look at the equipment/MCC around the area and ask questions. Plus dug into schematics/SOPs. Not everyone coming to this industry has these curiosities. They're content cleaning and can pass an exam but can't figure out basics like distinguishing suction/discharge of various pumps or even trace piping. OIT should be core material that all ops knows-fundamentals/hands on, rather than just a commitment timeframe.	11/2/2022 10:23 PM
42	High school diplomas should not be a requirement for an OIT application. Testing for certifications proves capability and ability, it serves only as a burden to present it.	11/2/2022 9:50 PM
43	Need to allow/provide opportunity to secure employment first, followed by educational requirements. Also provides opportunity for employee/student to have a frame of reference during educational classes. Increase pool of prospective OITs to employers.	11/2/2022 8:48 PM
44	The hours of an OIT should be removed as well as the OIT certification for entry level. this should be replace with the WW1 certification which should require additional education and time in class to achieve the WW2. i believe the certifications should align with the Water industry certifications.	11/2/2022 6:57 PM
45	Consider bringing industry-sponsored overview programs to the One Stops.	11/2/2022 6:55 PM
46	It's hard to get workers for the pay offered.	11/2/2022 6:48 PM
47	Keep the current requirements for OIT certification also have it applied to the clean water side for water treatment operators. This way we are protecting other operators as well as the public we serve.	11/2/2022 6:15 PM
48	Delete the OIT program.	11/2/2022 5:25 PM
49	Out in our area is not even available at most places. It would be better if you could get a cert and then find a job. Very few places want to deal with an oit.	11/2/2022 5:18 PM

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50	Again I feel that plant maintenance staff should qualify for certification. Really I feel that operators should start in maintenance so that they know what is needed in order to make necessary repairs.	11/2/2022 5:12 PM
51	I feel like there should be a possible way to cut down the hours to make it easier to become a wastewater operator.	11/2/2022 5:11 PM
52	11/2/2022 5:08 PM Good evening, CWEA Leadership: The cost of becoming certified as an operator is extremely high and then when looking for a job in the field, your name goes into a hat. Extremely poor prospects here in San Jose and The Bay Area. Very corrupt hiring practices too. Cost me thousands of dollars so far getting my certificates as an operator-in-training and no one will so much as interview me. Just got hired by a stormwater firm and new opportunities there. The water and wastewater fields around here are a closed system. Matthew Frazier Stormwater Compliance Technician, SWPP Queen 1429 Stark Way San Jose, CA 95118 (408) 656-5622 – Mobile matthewf@swppqueen.com kitchenfrazier@hotmail.com	11/2/2022 5:09 PM
53	I think it would be more beneficial to hire them as an operator, especially if they can fulfill the education requirement and with the test being online now you do not have to wait as long to pass it and become certified. Again, if you fulfill education requirements and can pass the certification test that should lessen your OIT hours needed to be certified. Maybe halve the hours.	11/2/2022 4:55 PM
54	The unfortunate problem we are facing in our region is the staffing shortage. We need more certified operators, but not many are available. Hiring OITs is a great path, but they do take more time and supervision. If they would be able to become certified quicker and easier, it would alleviate stress on many smaller teams.	11/2/2022 4:42 PM
55	OIT opportunities in my area seem to be very competitive and few and far in between.	11/2/2022 4:26 PM
56	There needs to be a more physical portion to really know if an OIT can actually make it.	11/2/2022 4:17 PM
57	Its hard to find worthy candidates these days so making certification harder to obtain will make it even worse, I'm just saying people don't really respect the license level as much as they used to because people can get them with a lot of education. Which most of the time doesn't translate into a good operator.	11/2/2022 4:13 PM
58	15 and 16 were N/A had to select an option.	11/2/2022 4:11 PM
59	Remove OIT hours for certain people with a certain amount of experience in WW	11/2/2022 4:09 PM
60	The 1800 hours is good time it aligns with 1 year experience. This allows for training and the OIT to become proficient in an entry position.	11/2/2022 10:25 AM
61	I believe that not enough facilities want to take the time to train OIT's and rely heavily on poaching experienced staff from their neighboring communities. I 100% believe in bringing in OIT's as it buys you additional staff loyalty as folks tend to stay with the organization longer if given their first chance at a career.	11/2/2022 10:22 AM
62	OIT positions are very hard to come by, and those that do arise the pay is less than some fast food places. It took me nearly 2-3 years and hundreds of applications. I've had certifications in hand and would get turned away from unpaid internships, education is not the issue, experience is, OIT positions don't necessarily need experience, but it's almost as if agencies and districts in the CA area want you to have some experience, well how can one get experience, if they dont qualify for the entry level position, a position needed to gain experience, because they don't have experience.	11/2/2022 8:22 AM
63	Wastewater does not require CEU's. This does not require and operator to continue to learn, progress and acquire knowledge to improve. I believe this is a set back for this portion of the industry.	11/2/2022 8:19 AM
64	No experience dealing with this subject	11/2/2022 8:03 AM
65	1800 OIT hours is too long for an OIT seeking a grade 1 license. The resources dedicated to training an OIT are high and the agency that takes on the OIT risks losing that employee to another agency after they obtain their license.	11/2/2022 7:33 AM
66	The OIT program needs a overhaul.	11/2/2022 7:21 AM
67	We do not hire OIT's at my employment. With keeping sewer rates and recycled water rates as low as they can be for customers, taking on additional employees would affect this. If there	11/2/2022 7:01 AM

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was a way to split the cost of hiring an OIT with an agency and State, this might help getting more OIT's in the field.

68	The 1,800 hours is a huge economic burden for new employees, as most people in our area getting their hours are not paid during this time. This disproportionately impacts minorities and underprivileged applicants who can't afford to work for free as "volunteers."	11/2/2022 6:40 AM
69	I do not have enough experience to answer some questions as I am still searching for a position.	11/1/2022 4:56 PM
70	OIT positions are extremely difficult to get into in the State of California, and people are even working for free at some plants to get OIT hours. The lack of enough entry-level operators is driven not by the lack of people that want to get into the field (there can be hundreds of applicants competing for only a few positions), but by a facility's (lack of) budget and capability to train new staff. There need to be community college or trade school programs that can certify operators at least to the Grade I level, or this shortage of operators will only continue.	11/1/2022 4:05 PM