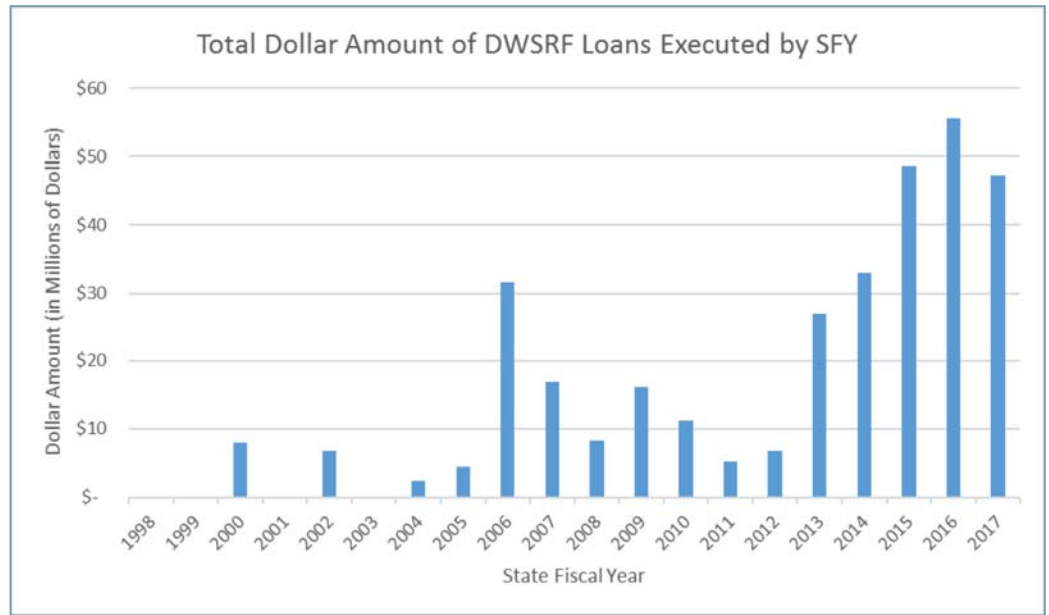


DWSRF ANNUAL REPORT STATE FISCAL YEAR 2017

The Safe Drinking Water Branch (SDWB) is pleased to provide this annual report on the activities of our Drinking Water State Revolving Fund (DWSRF) for the State Fiscal Year (SFY) 2017 (July 1, 2016 - June 30, 2017). For SFY 2017, the DWSRF executed \$46,889,784.00 in loans. At the same time, the Program easily met the \$44,347,640.65 disbursement target mandated by federal officials at the beginning of the year.

The DWSRF is a federally-capitalized loan program that provides low interest loans to the four County water departments for their drinking water infrastructure projects. Since 1997, the Hawaii DWSRF has financed \$328,539,724.49 in County water supply projects, such as treatment plants, new drinking water sources, the replacement of aging waterlines, and storage tanks. The graph below shows the dramatic increase in loan volume since

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OCTOBER 2017

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DWSRF ANNUAL REPORT

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program inception in 1997. The resulting public health benefits and water and energy savings for over 1 million rate paying residents Statewide, coupled with the favorable debt service opportunity for the County entity (current rates vary between 1% and 2% depending on the project loan amount), is a win-win for all parties. In addition, the DWSRF continues to provide additional subsidization (zero percent interest + principal forgiveness), to a portion of these already low interest loans to counties that complete construction projects on schedule.

The DWSRF supported the following projects in SFY 2017:

- ◆ The Hawaii Department of Water Supply received a loan for \$9.429 million and disbursed almost \$12 million. The loan will provide funding for the Piihonua-Kukuau Reservoir and Transmission Improvements project.
- ◆ The Honolulu Board of Water Supply (HBWS) committed \$15.96 million in executed loans and disbursed almost \$26.6 million. One of the loan commitments funded one-third of the \$32.88

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MILILANI MEMORIAL PARK INSTALLS UPGRADED MEMBRANE UNITS

In late August, the Mililani Memorial Park water system upgraded their membrane filtration treatment system to Evoqua's L10N ultrafiltration units. This small water system in Central Oahu takes water from the Waiawa Ditch and filters and disinfects the water, as required under the Surface Water Treatment Rules, to meet Federal and State drinking water standards. The new L10N membranes include upgraded SCADA capabilities for



The new Evoqua unit fits through the door at the Mililani Memorial water treatment plant with less than an inch to spare.



Certified Water Management operators, ITC Water Management contractors, and Evoqua manufacture representative stand beside the newly installed membrane system.

ease of monitoring and operation and will be easier to repair than the previous units. The units are designed to provide at least 20 years of treatment with the proper maintenance.

ITC Water Management was the design engineer and installation contractor, Certified Water Management is the operator for the water system and Evoqua is the equipment manufacturer. Great job, everyone!

DWSRF ANNUAL REPORT

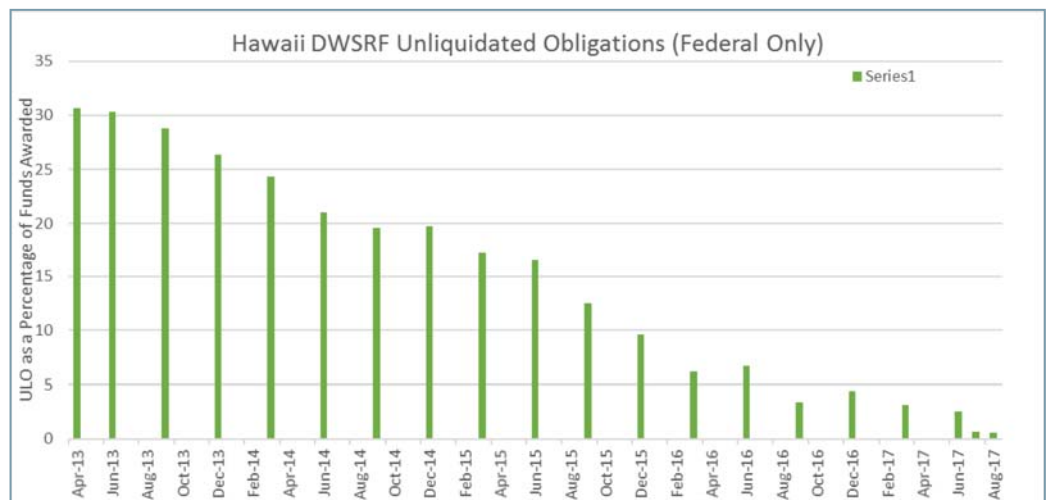
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million Energy Savings Performance Contracting (ESPC) project which involves installation of several energy saving features (lighting, variable speed drives, PV panels, etc.) at over 50 locations island-wide. This will provide the HBWS with a significant savings and enable more capital improvement projects to be funded. The remaining two-thirds of the loan will be committed in two more loan increases over the next couple of years. The other executed loan was for the HBWS Pro-Fi (Programmatic Financing), which allows the HBWS flexibility to apply SRF to eligible project costs island-wide and the SRF program to disburse its funds in a timely manner. This Pro-Fi is the first of its loan type in Hawaii and a major milestone for the SRF program as it helps the program maintain a low ULO.

- ◆ The Maui Department of Water Supply disbursed about \$10.8 million and received a loan commitment for \$21.5 million – our second largest lump sum loan in DWSRF history! The commitment will provide funding for the Iao Surface Water Treatment Plant Upgrades.

For the last few years, the US Environmental Protection Agency (EPA) has placed extra emphasis for states to disburse their awarded federal funds. Undisbursed funds, whether they be for loans or eligible “set aside” uses, are considered “unliquidated obligations” or ULOs. As recently as three years ago, the Hawaii program was the worst performing program in the nation for ULOs. It is now one of the top performing programs nationwide with a 0.6-percent overall Federal ULO (zero-percent ULO loan fund). This is due to the help, commitment and hard work of the County water departments, EPA, and consultants, as shown in the graph below.

Going forward, a major initiative for the DWSRF is to expand its customer base by offering loans to privately-owned public water systems. Steps have already been taken to reach out to the private systems through an “SRF 101” workshop that was held during the Pacific Water Conference in February 2017 and through the training offered by the program in May 2017. We are very excited and look forward to these changes that will further help the Hawaii public maintain access to safe drinking water!





WATER: THE CURRENT THAT CONNECTS US

2017
 56th Annual ^{2nd Annual}
HWWA AND HRWA
 Conference & Exposition

November 1-3 at Sheraton Kona Resort & Spa at Keauhou Bay

ABPA Hawaii Chapter

Backflow Testers
 Certification & Re-Certification Exam

Register at www.abpa.org



Thursday, November 16, 2017

10:00 a.m. - 2:00 p.m.

*Free Non-Instruction Practice Day
 For registered applicants only*

Friday, November 17, 2017

*Written & Hands-On Examinations
 Pearl City, Hawaii*

HRWA
 CEU Training Program
 for
 Water System Operators



Contact hrwaoffice@hawaiiirwa.org or 808-315-8925 for registration information.

Course	CEUs	Date	Location	Fee PWS Employee
Contaminants, Sampling & Monitoring Water Quality	0.6	10/10/17	Kona	\$270
Contaminants, Sampling & Monitoring Water Quality	0.6	10/12/17	Kauai	\$270
Contaminants, Sampling & Monitoring Water Quality	0.6	10/17/17	Oahu	\$270
Contaminants, Sampling & Monitoring Water Quality	0.6	10/18/17	Maui	\$270

DSO Exam Review Class by HRWA

Oahu ♦ 7:30 a.m. - 3:30 p.m. ♦ Pacific Pipe Co., 1255 Kula St., Pearl City

Grade 1 & 2 - October 9-11 ♦ Grade 3 & 4 - October 11-13

Contact HRWA at hrwaoffice@hawaiiirwa.org for registration information.

WTPO PASS RATE DROPS TO ALL TIME LOW

The overall pass rate for the Water Treatment Plant Operator (WTPO) exam dropped to 20% for this past July's exam. This is the lowest ever pass rate recorded since September 2001. The table to the right provides a breakdown by grade.

Grade	Passed	Examinees	Passing Rate
1	2	8	25%
2	0	2	0%
3	1	1	100%
4	0	4	0%
Total	3	15	20%

The SDWB Operator Library has the American Water Works Association (AWWA) Water System Operations Water Treatment Series books available to borrow for those who would like to study the latest reference material recommended by the test writers. Please contact Jodi Yamami at 808-586-4263 for borrowing details.

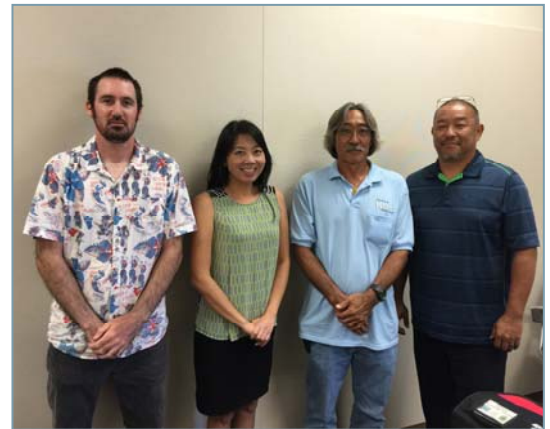
For those who would like to re-take the exam in January 2018, please submit your exam registration form and fee by October 23, 2017.

WELCOME TO THE BOARD, MARK

Mark Prescott was nominated by the Governor and confirmed by the Senate on April 7, 2017 to serve on the Board of Certification of Public Water System Operators with a term expiring June 30, 2020.

Mark has over eleven years of drinking water experience and is currently the owner and operator of the Hawaiian Beaches Water Company's small water system on the island of Hawaii. He possesses both a Distribution System Operator and a Water Treatment Plant Operator certification. His knowledge will bring valuable insight to the Board from both an operator and an owner's perspective. Welcome to the Board, Mark!

Jodi Yamami, member of the SDWB, was also confirmed by the Senate for a third term ending June 30, 2020 after a one year break in service. Both Mark and Jodi took their Oath of Office prior to their first board meeting on August 22, 2017.



Board Members from left to right: Mark Prescott, Jodi Yamami, Galen Shigeta, & Glenn Ah Yat

**2017
DSO & WTPO
RENEWALS
DUE
11/16/17**

QUARTERLY CALENDAR

- ◆ **10/10 CT Report Due**
Surface Water Systems
- ◆ **10/10 MRDL Report Due**
Disinfection Systems who complete their own tests
- ◆ **10/10 TCR Report Due**
Systems who complete their own tests
- ◆ **10/10 Enhanced Coagulation Report Due**
Conventional Treatment Systems
- ◆ **10/10 Chemical Quarterly Monitoring Report Due**
Systems with quarterly monitoring requirements
- ◆ **10/23-25 DSO Exam**
Maui, Kona, Oahu, Hilo, & Kauai
- ◆ **10/23 WTPO Applications Due**
January Examinees
- ◆ **11/1-3 HWWA/HRWA Conference**
Kona
- ◆ **11/9 CT Report Due**
Surface Water Systems
- ◆ **11/9 TCR Report Due**
Systems who complete their own tests
- ◆ **11/16 DSO & WTPO Renewals Due**
Selected Operators
- ◆ **11/22 WTPO Exam Registrations Due**
January Examinees
- ◆ **11/28 Board of Certification Meeting**
SDWB Oahu, 10:00 am
- ◆ **12/8 CT Report Due**
Surface Water Systems
- ◆ **12/8 TCR Report Due**
Systems who complete their own tests

OCTOBER 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10 <i>CT Report Due MRDL Report Due TCR Report Due Enhanced Coagulation Report Due Chemical Quarterly Monitoring Report Due</i>	11	12	13	14
15	16	17	18	19	20	21
22	23 <i>Maui & Kona DSO Exam WTPO Applications Due</i>	24 <i>Oahu & Hilo DSO Exam</i>	25 <i>Kauai DSO Exam</i>	26	27	28
29	30	31				

NOVEMBER 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 <i>HWWA/HRWA Conference</i>	2 <i>HWWA/HRWA Conference</i>	3 <i>HWWA/HRWA Conference</i>	4
5	6	7	8	9 <i>CT Report Due TCR Report Due</i>	10 HOLIDAY	11
12	13	14	15	16 <i>DSO & WTPO Renewals Due</i>	17	18
19	20	21	22 <i>WTPO Exam Registrations Due</i>	23 HOLIDAY	24	25
26	27	28 <i>Board of Certification Meeting</i>	29	30		

DECEMBER 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8 <i>CT Report Due TCR Report Due</i>	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25 HOLIDAY	26	27	28	29	30

PROTECTION OF DRINKING WATER WELLS UNDER CONSTRUCTION & REPAIR

SDWB staff have noticed several wellheads improperly secured and protected during construction and repair. In many instances, once the baseplate, pump and motor have been pulled, the wellhead is simply covered with a sheet of plywood or bagged with a trash bag. The plywood and trash bags can be easily removed by vandals and the entire aquifer contaminated. In other instances, wellhead appurtenances like vents, sounding tubes, etc. are removed and open holes remain.

In accordance with the Department of Land and Natural Resources, Commission on Water Resource Management (CWRM) Well Construction and Pump Installation Standards, Section 2.10 Well Completion, "Wells must be adequately protected at all times during and after construction to prevent the entrance of surface water runoff, pollutants, and contaminants; unauthorized access; and damage to the well." This section further details protection measures, that may or may not apply to the case of temporarily out-of-service wells, such as:

- ◆ Extending the casing two (2) feet

above the ground surface;

- ◆ Installation of lockable covers;
- ◆ Welded casing cap; and
- ◆ 4" thick concrete base.

In addition, the SDWB requires the following for drinking water wells under construction and repair;

- ◆ For flanged base plates, a blind flange is required.
- ◆ For non-flanged pieces, an adapter or extra fitting to a blind flange or welded cap per the Well Construction and Pump Installation Standards is required.
- ◆ All small diameter openings shall be capped or sealed.

It is the water system's responsibility to ensure that the well, a costly asset, and the aquifer, an irreplaceable asset, are both adequately protected from vandalism and contamination.

Remember, it is cheaper to take these simple preventive actions than to react to contamination later through treatment or the development of a new well source.



Examples of IMPROPERLY secured and protected wellheads.



Examples of PROPERLY secured and protected wellheads.



**HAWAII STATE
DEPARTMENT OF HEALTH
SAFE DRINKING WATER
BRANCH**

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DAVID Y. IGE

Governor of Hawaii

VIRGINIA PRESSLER, M.D.

Director of Health

KEITH E. KAWAOKA, D. Env.

Deputy Director for Environmental Health

The mission of the Safe Drinking Water Branch of the Department of Health is to safeguard public health by protecting Hawaii's drinking water sources (surface water and groundwater) from contamination and assure that owners and operators of public water systems provide safe drinking water to the community. This mission is accomplished through the administration of the Safe Drinking Water Program, Underground Injection Control Program (UIC), Groundwater Protection Program (GWPP), and the Drinking Water State Revolving Fund (DWSRF).

We're on the Web!

<http://health.hawaii.gov/sdwb/>

We provide access to our activities without regard to race, color, national origin (including language), age, sex, religion, or disability. Write or call our Affirmative Action Officer at Box 3378, Honolulu, HI 96801-3378 or at 808 586-4616 (voice) within 180 days of a problem.

SDWB VERBAL JUDO TRAINING

On July 11 & 12, nine members from the SDWB Engineering, Compliance, and Monitoring sections participated in an interactive training on Verbal Judo - Tactical Communications for Environmental Regulators at the old Honolulu office building. The course, developed by Dr. George Thompson of the Verbal Judo Institute and taught by Michael Freeman, a Criminal Investigator from Oklahoma, explained techniques to defuse conflict and redirect behavior into more positive channels. These techniques may be used to ease situations when dealing with overzealous public inquiries and complaints. Although these are not everyday occurrences, SDWB members are now better equipped to handle these situations when they do arise.



Mike Miyahira & Mike Cummings role-played in a training exercise.