



Ke Kahawai Pono

"The trustee who oversees the rightful sharing of water."

Water Use Reporting Compliance

Joint Government Water Conference

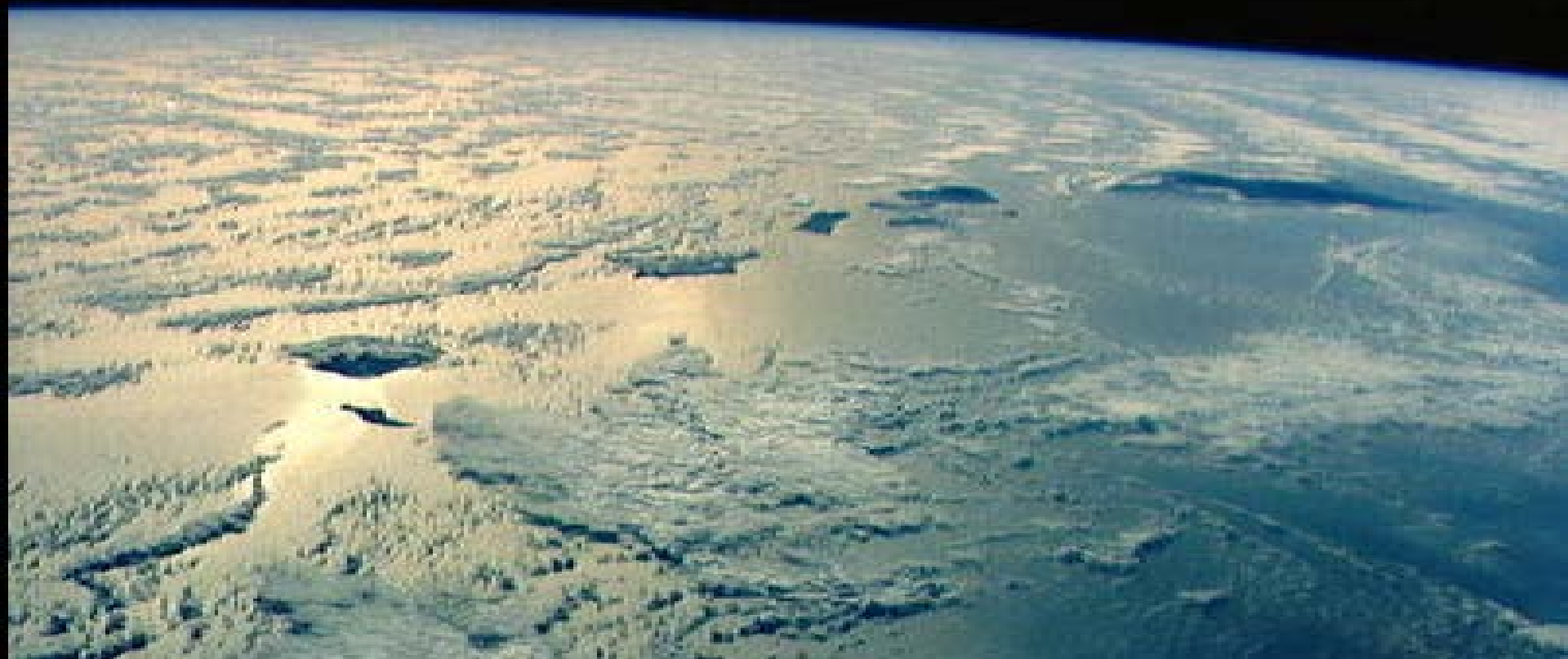
King Kamehameha's Kona Beach Hotel Courtyard, Kailua-Kona, Hawaii

August 11, 2015



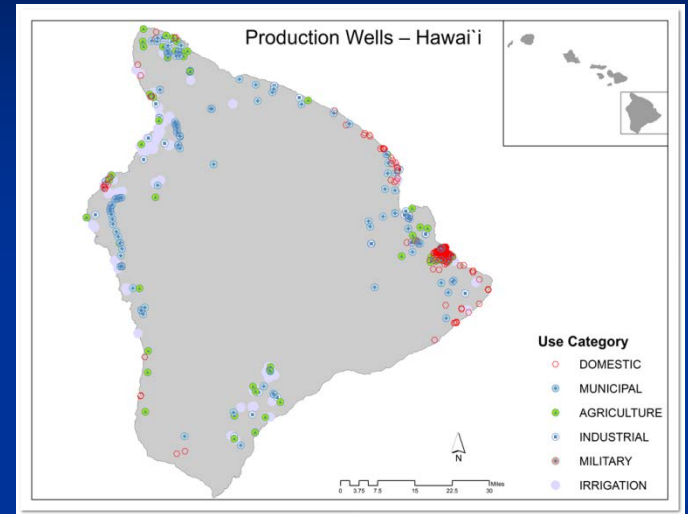
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Water Use Reporting Compliance

- 4,850 + wells statewide
- First well installed in 1879- (Ewa Beach, Oahu)
- Importance of proper well maintenance
- Need to properly seal abandoned wells



Water Use Reporting Compliance

Accounting for the quantity of water withdrawn from Hawaii's production wells is crucial for maintaining a healthy balance of recharge and withdrawal, so our aquifers can continue to provide us, and those who follow us, with the high quality fresh water we are so fortunate in Hawaii to have.

Water Use Reporting Compliance

The CWRM manages Hawaii's ground water, as well as surface water resources, through our Water Resource Information Management System database (WRIMS).

WRIMS is updated continuously, and one of the most important inputs is the water use reports that every well owner/water use reporter is required to submit on a monthly basis.

This presentation is focused on ground water use reporting; our surface water branch also has a comparable on-line method for reporting surface water usage.

Water Use Reporting Compliance

USAGE CODES

- All documented wells have been classified with a usage code
- There are 10 general classification codes
- 7 of these general codes have sub classifications, with a total of 42 individual well usage codes

Water Use Reporting Compliance

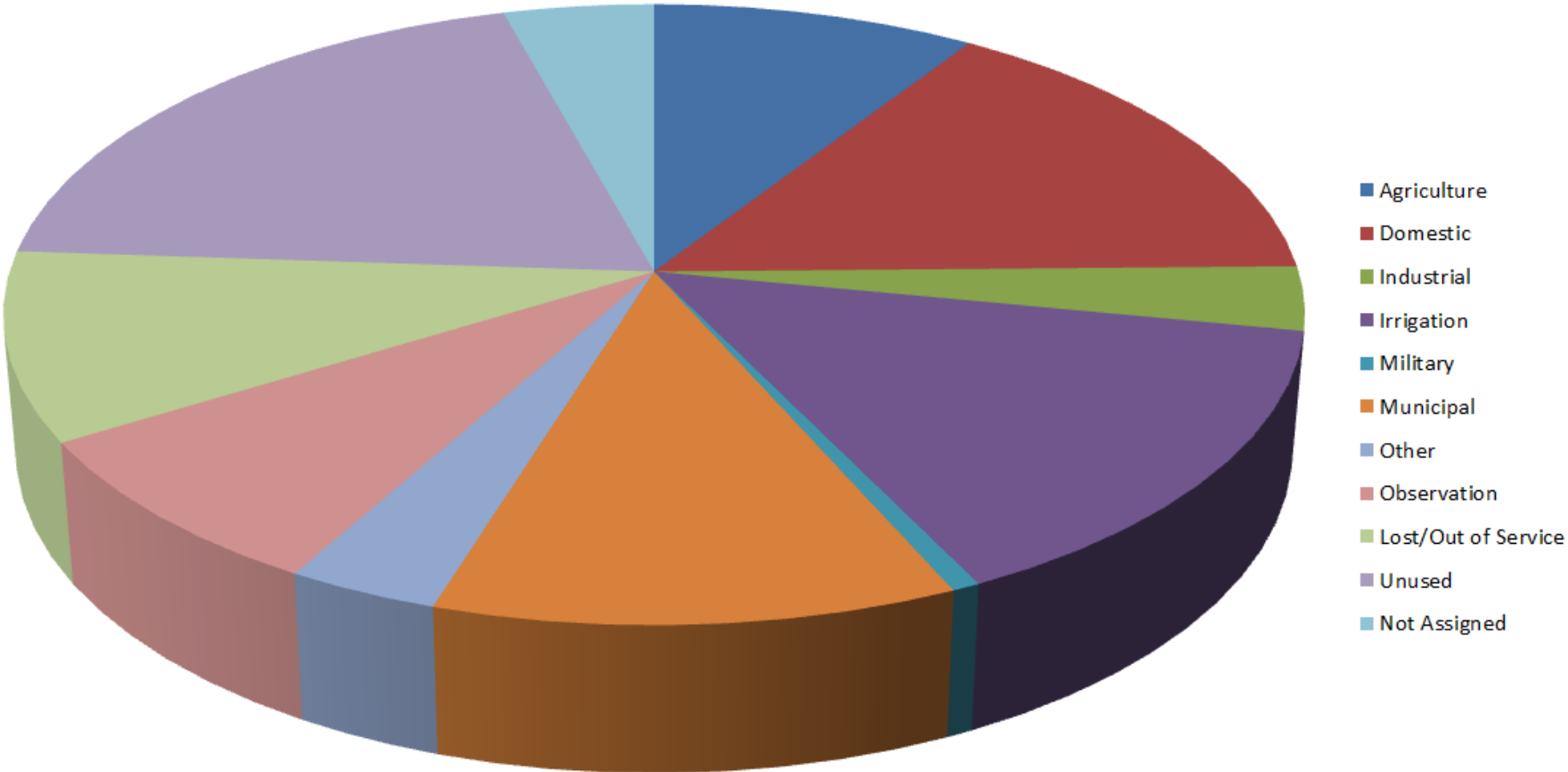
■ Production Wells

- MUN- municipal
- AGR- agriculture
- IRR- irrigation
- IND- industry
- MIL- military
- DOM- domestic use
- OTH- other

Non-Production Wells

- OBS- observation
- UNU- unused
- ABN- abandoned

Statewide - Total Number of Wells vs. Usage Classification



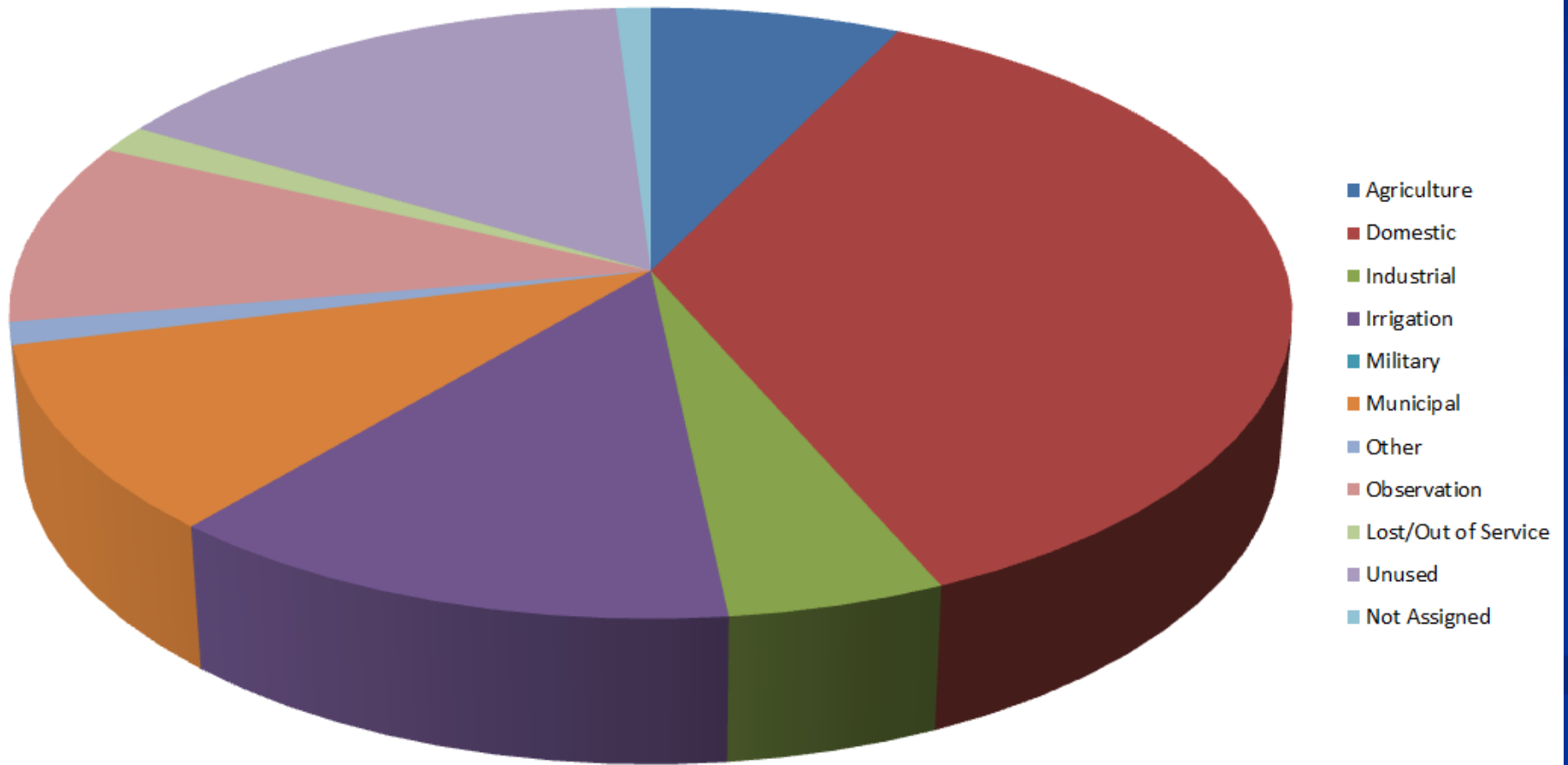
Overall Reporting by Island

| | KAUAI | | OAHU | | MOLOKAI | | LANAI | | MAUI | | HAWAII | |
|----------------|------------|-------------------|------------|-------------------|------------|-------------------|------------|-------------------|------------|-------------------|------------|-------------------|
| Well Type | # of wells | Percent reporting | # of wells | Percent reporting | # of wells | Percent reporting | # of wells | Percent reporting | # of wells | Percent reporting | # of wells | Percent reporting |
| Production | 268 | 42.2% | 893 | 55.8% | 93 | 38.7% | 10 | 100% | 567 | 33.8% | 788 | 28.9% |
| Non-production | 169 | 11.2% | 770 | 19.9% | 86 | 4.7% | 18 | 83.3% | 157 | 12.1% | 291 | 16.5% |
| Total | 437 | 27.6% | 1,606 | 29.7% | 179 | 21.4% | 28 | 92.9% | 724 | 24.7% | 1,079 | 25.6% |

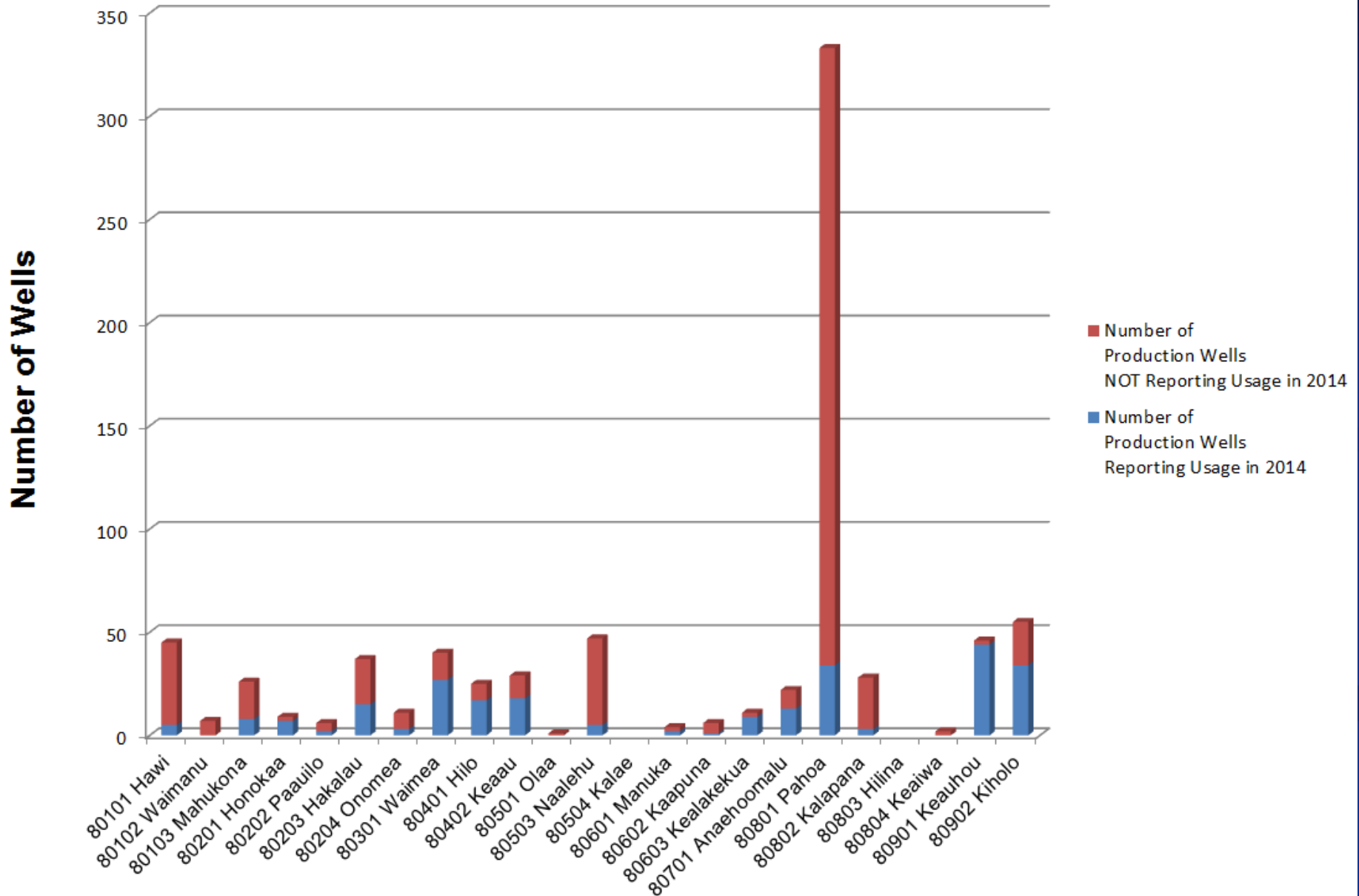
Breakdown of compliance, by island, and by well use classification:

| | KAUAI | | OAHU | | MOLOKAI | | LANAI | | MAUI | | HAWAII | |
|----------|------------|-------------------|------------|-------------------|------------|-------------------|------------|-------------------|------------|-------------------|------------|-------------------|
| Use Code | # of wells | Percent reporting | # of wells | Percent reporting | # of wells | Percent reporting | # of wells | Percent reporting | # of wells | Percent reporting | # of wells | Percent reporting |
| AGR | 42 | 57.1% | 178 | 41.6% | 31 | 67.7% | 0 | - | 85 | 30.6% | 79 | 31.6% |
| DOM | 112 | 9.8% | 82 | 19.2% | 16 | 0 | 1 | 100% | 93 | 15.1% | 396 | 9.8% |
| IND | 9 | 22.2% | 64 | 46.9% | 3 | 0 | 0 | - | 18 | 22.2% | 53 | 45.3% |
| IRR | 28 | 39.3% | 220 | 37.2% | 21 | 14.3% | 4 | 100% | 249 | 28.1% | 139 | 43.2% |
| MIL | 2 | 0 | 25 | 60.0% | 0 | - | 0 | - | 0 | - | 0 | - |
| MUN | 68 | 95.6% | 243 | 98.4% | 13 | 92.3% | 5 | 100% | 80 | 88.8% | 109 | 90.8% |
| OTH | 7 | 0 | 81 | 0 | 9 | 0 | 0 | - | 42 | 2.4% | 14 | 0 |
| OBS | 26 | 0 | 175 | 13.1% | 3 | 0 | 0 | - | 52 | 4.6% | 106 | 16.0% |
| UNU | 93 | 20.4% | 447 | 24.8% | 68 | 4.4% | 17 | 94.1% | 90 | 13.3% | 170 | 17.1% |
| ABN | 50 | 0 | 148 | 12.8% | 15 | 6.7% | 1 | 0 | 15 | 13.3% | 15 | 6.7% |

Hawaii - Total Number of Wells vs. Usage Classification

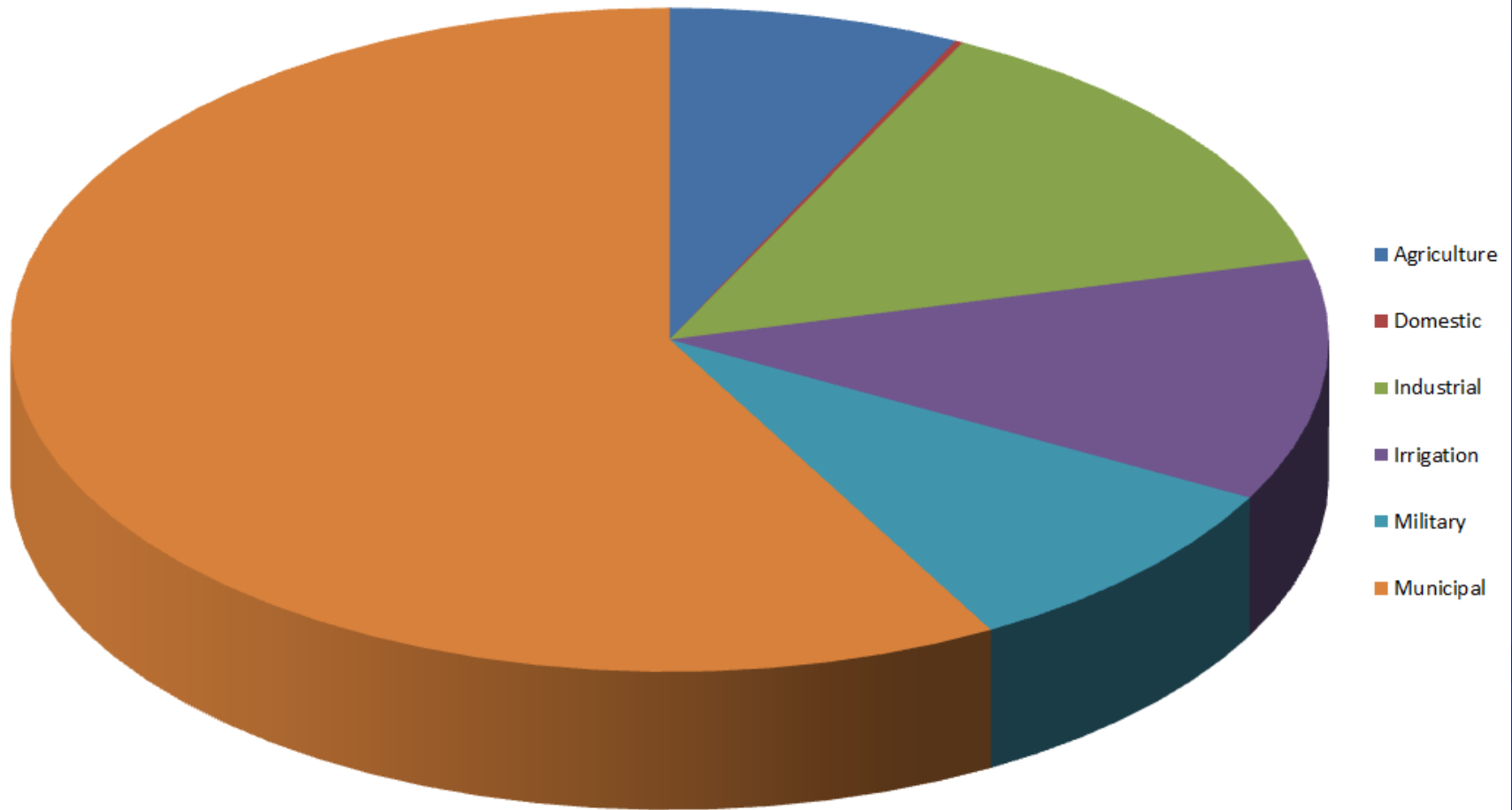


WATER USE REPORTING - HAWAII (By Aquifer System Areas)

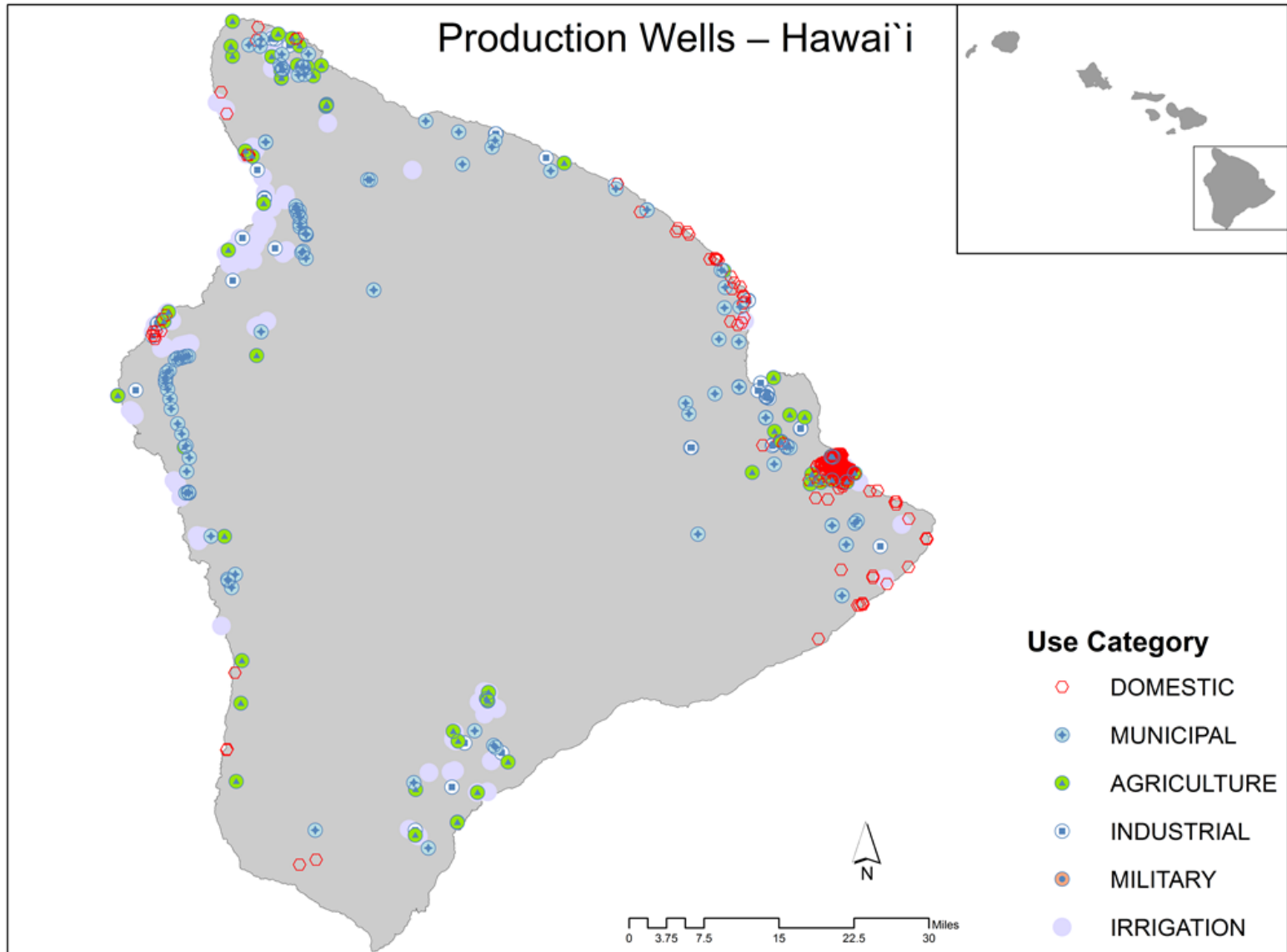


Water Use Reporting Compliance

Reported Pumped Quantity for Oahu in 2014
by Usage Classification



Water Use Reporting Compliance



Water Use Reporting Compliance

- Under the Hawaii Administrative Rules, Title 13, Chapter 168, Subtitle 7, all documented wells, including those that have not been properly abandoned, must have a water use report (WUR) submitted monthly- this includes wells not currently in use.
- For the CWRM to be able to account for all unused and abandoned wells (not properly sealed) should be reported- with 0 gallons used.
- Observation wells should report measured parameters

On-Line Water Use Reporting

- Historically, water use reporters have submitted their monthly reports by mail or FAX.
- To simplify, and to make the process easier, and far more efficient, the CWRM has developed an on-line reporting system, and made it public in May 2013.
- Each registered water use reporter can now log on, and enter the appropriate data for each well that is being reported.

On-Line Water Use Reporting

- On-Line Water Use Reporting Demonstration

On-Line Water Use Reporting

- The benefits of on-line reporting are manifold:
 - 24/7 availability for the reporter to submit data on-line
 - Logged on reporters can download the pumping history, including graphs, and any files associated with the reported well(s)
 - Reduced CWRM department man hours needed for entering WUR data manually

On-Line Water Use Reporting

- As more water use reporters are reached and added to our on-line system by our staff, the percent of successful submissions has increased substantially.
- We're still a long way from our compliance goals, but the increase in reporting compliance using this system is very encouraging.

On-Line Water Use Reporting

- Ground Water Use Reporting Outreach Program, establishing contact with water use reporters who haven't reported in the previous 12 months.
- Introduce tardy reporters to the on-line website process, demonstrate the ease and efficiency of on-line reporting.
- Goal: bring Oahu reporters into compliance, followed by expanding to reach reporters on other islands, and bring as many reporters into compliance as possible.

On-Line Water Use Reporting

- Water use information is essential to the understanding of the behavior and response of our water resources to stresses from water withdrawals.
- Such information also ensures that demand is managed effectively within the sustainable limits of our water supply.
- Water use information can also be used to evaluate the effectiveness of alternative water management policies, regulations, and conservation activities; assess the impacts of population growth and corresponding increases in water demands; develop trends in water use; and make projections of future demands.

On-Line Water Use Reporting

- In an effort to implement management policies of the Commission identified through the State Water Code, its Rules, and the Water Resource Protection Plan, well and stream diversion owners are required to document and report their total monthly water use so that our public trust resources can be better understood and managed for future generations.
- While water use reporters will still be able to report by FAX, or mail, we are encouraging reporters to go on-line.



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<http://hawaii.gov/dlnr/cwrm/>

