

## **APT Committee**

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**From:** Dawn Lono  
**Sent:** Tuesday, March 2, 2021 12:02 PM  
**To:** APT Committee  
**Subject:** Testimony for 3/2/2021 APT Mtg. - SY Tables from 2019 WRPP  
**Attachments:** Pages from WRPP App F\_Inventory and Assessment of Resources\_July2019.pdf

Aloha APT Committee –

Please find attached Appendix F of the Water Resource Protection Plan as testimony to be considered in your APT meeting of 3/2/2021.

Mahalo,  
Dawn Lono

**Table F-10 Comparison of Predicted Sustainable Yields Considered by CWRM  
Sustainable Yield (SY) in Million Gallons Per Day (MGD)**

Aquifer Sector	Aquifer System	RAM (1990)	RAM (2008) corrected <sup>(1)</sup>	RAM + Updated Information <sup>(2)</sup>	RAM 2 + Updated Information <sup>(2)</sup>	SY Range (2019) <sup>(3)</sup>	Previously Adopted SY (2008)	Sustainable Yield (2019)	Alternate 2019 SY Selection Criteria
<b>Hawai'i</b>									
Kohala	Hāwī	27	13	11-29	~	11-29	13	<b>11</b>	~
Kohala	Waimanu	109	110	122-128	~	110-128	110	<b>110</b>	~
Kohala	Māhukona	16	17	10-11	~	10-17	17	<b>10</b>	<sup>(29)</sup>
E. Mauna Kea	Honoka'a	31	31	29	~	29-31	31	<b>29</b>	~
E. Mauna Kea	Pa'auilo	59	60	56	~	56-60	60	<b>56</b>	~
E. Mauna Kea	Hakalau	150	150	166	~	150-166	150	<b>150</b>	~
E. Mauna Kea	Onomea	143	147	189	~	147-189	147	<b>147</b>	~
W. Mauna Kea	Waimea	23	24	16	~	16-24	24	<b>16</b>	<sup>(29)</sup>
NE. Mauna Loa	Hilo	349	349	379	~	349-379	349	<b>349</b>	~
NE. Mauna Loa	Kea'au	395	395	429	~	395-429	395	<b>395</b>	~
SE. Mauna Loa	'Ōla'a	124	125	211	~	125-211	125	<b>125</b>	~
SE. Mauna Loa	Kapāpala	19	19	53	~	19-53	19	<b>19</b>	~
SE. Mauna Loa	Nā'ālehu	117	118	213	~	118-213	118	<b>118</b>	~
SE. Mauna Loa	Ka Lae	31	31	48	~	31-48	31	<b>31</b>	~
SW. Mauna Loa	Manukā	42	25	83	~	25-83	25	<b>25</b>	~
SW. Mauna Loa	Ka'apuna	50	51	54-97	~	51-97	51	<b>51</b>	~
SW. Mauna Loa	Kealakekua	38	38	54-88	~	38-88	38	<b>38</b>	~
NW. Mauna Loa	'Anaeho'omalū	30	30	77	~	30-77	30	<b>30</b>	<sup>(29)</sup>
Kīlauea	Pāhoa	435	437	432	~	432-437	437	<b>432</b>	~
Kīlauea	Kalapana	157	158	234	~	158-234	158	<b>158</b>	~
Kīlauea	Hilina	9	9	35	~	9-35	9	<b>20</b>	<sup>(27)</sup>
Kīlauea	Keaīwa	17	17	45	~	17-45	17	<b>17</b>	~
Hualālai	Keauhou	38	38	80	~	38-80	38	<b>38</b>	~
Hualālai	Kīholo	18	18	40	~	18-40	18	<b>18</b>	~

**Table F-10 (continued)**  
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Aquifer Sector	Aquifer System	RAM (1990)	RAM (2008) corrected (1)	RAM + Updated Information (2)	RAM 2 + Updated Information (2)	SY Range (2019) (3)	Previously Adopted SY (2008)	Sustainable Yield (2019)	Alternate 2019 SY Selection Criteria
<b>Kaua'i</b>									
Līhu'e	Koloa	30	29	33	~	29-33	30	<b>29</b>	~
Līhu'e	Hanamā'ulu	40	36	27	~	27-40	36	<b>27</b>	~
Līhu'e	Wailua	60	43	51	~	51-60	43	<b>51</b>	(28)
Līhu'e	Anahola	36	17	21	~	21-36	17	<b>21</b>	(28)
Līhu'e	Kīlauea	17	5	10	~	10-17	5	<b>10</b>	(28)
Hanalei	Kalihiwai	16	22	16-22	~	16-22	11	<b>16</b>	(28)
Hanalei	Hanalei	35	34	35-47	~	35-47	34	<b>35</b>	(28)
Hanalei	Wainiha	24	24	82	~	24-82	24	<b>24</b>	~
Hanalei	Nāpali	20	17	28	~	20-28	17	<b>20</b>	(28)
Waimea	Kekaha	12	10	15	~	10-15	10	<b>10</b>	~
Waimea	Waimea	42	37	48	~	37-48	37	<b>37</b>	~
Waimea	Makaweli	30	26	43	~	26-43	26	<b>26</b>	~
Waimea	Hanapēpē	26	22	226	~	22-26	22	<b>22</b>	~
<b>Lāna'i</b>									
Central	Windward	3 <sup>(4)</sup>	3	5	~	3-12	3	<b>3</b>	~
Central	Leeward	3 <sup>(4)</sup>	3	5	~	3-6	3	<b>3</b>	~
Mahana Sector	Hauola	~	~	3	~	~-3	0	~0	~
Mahana Sector	Maunalei	~	~	2	~	~-2	0	~0	~
Mahana Sector	Paoma	~	~	4	~	~-4	0	~0	~
Ka'a	Honopū	~	~	4	~	~-4	0	~0	~
Ka'a	Kaumalapau	~	~	2	~	~-2	0	~0	~
Kanao	Lealia	~	~	1	~	~-1	0	~0	~
Kanao	Manele	~	~	1	~	~-1	0	~0	~

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<b>Maui</b>									
Wailuku	Waikapu	2	3	6-8	~	3-8	3	<b>3</b>	~
Wailuku	Iao	20 <sup>(5)</sup>	10	23-28	19-24	10-28	20	<b>20</b> <sup>(15)</sup>	(9a-c, 11)
Wailuku	Waihee	8	6	15-23	~	6-23	8	<b>8</b> <sup>(16)</sup>	(9a, 9c)
Wailuku	Kahakuloa	8	5	7-8	~	5-8	5	<b>5</b>	~
Lahaina	Honokōhau	10	9	14-17	~	9-17	9	<b>9</b>	~
Lahaina	Honolua	8	8	8-11	~	8-11	8	<b>8</b>	~
Lahaina	Honokowai	8	6	12-16	~	6-16	6	<b>6</b>	~
Lahaina	Launiupoko	8	7	13-18	~	7-18	7	<b>7</b>	~
Lahaina	Olowalu	3	2	6-7	~	2-7	2	<b>2</b>	~
Lahaina	Ukumehame	3	2	5-6	~	2-6	2	<b>2</b>	~
Central	Kahului	1	1	1-10	~	1-10	1	<b>1</b> <sup>(32)</sup>	~
Central	Paia	8	7	8-33	~	7-33	7	<b>7</b> <sup>(32)</sup>	~
Central	Makawao	7	7	20-25	~	7-25	7	<b>7</b>	~
Central	Kamaole	11	11	11-16	~	11-16	11	<b>11</b>	~
Koolau	Haiku	31	24	24-27	~	24-31	27	<b>24</b>	~
Koolau	Honopou	29	16	16-25	~	16-29	25	<b>16</b>	~
Koolau	Waikamoi	46	37	37-40	~	37-46	40	<b>37</b>	~
Koolau	Keanae	96	75	75-83	~	75-96	83	<b>75</b>	~
Hana	Kuhiwa	16	14	14-38	~	14-38	16	<b>14</b>	~
Hana	Kawaipapa	48	31	31-48	~	31-48	48	<b>31</b>	~

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<b>Maui (continued)</b>									
Hana	Waihoi	20	18	18-24	~	18-24	18	<b>18</b>	~
Hana	Kipahulu	49	15	15-57	~	15-57	42	<b>15</b>	~
Kahikinui	Kaupo	18	16	13-17	~	13-17	16	<b>13</b>	~
Kahikinui	Nakula	7	7	7-15	~	7-15	7	<b>7</b>	~
Kahikinui	Lualailua	11	11	11	~	11-15	11	<b>11</b>	~
<b>Molokai</b>									
West	Kaluakoi	2	2	2-4	~	2-4	2	<b>2</b>	~
West	Punakou	2	2	3	~	2-3	2	<b>2</b>	~
Central	Hoolehua	2	2	2	~	2	2	<b>2</b>	~
Central	Pala'au	2	2	3	~	2-3	2	<b>2</b>	~
Central	Kualapuu	7	4	5-8	5-6	5-8	5 <sup>(6)</sup>	<b>5<sup>(17)</sup></b>	<i>(9a, 9c-d, 10)</i>
Southeast	Kamiloloa	3	3	5	~	3-5	3	<b>3</b>	~
Southeast	Kawela	5	5	10	~	5-10	5	<b>5</b>	~
Southeast	Ualapue	8	8	8-11	~	8-11	8	<b>8</b>	~
Southeast	Waialua	8	6	6-8	~	6-8	6	<b>6</b>	~
Northeast	Kalaupapa	2	2	4	~	2-4	2	<b>2</b>	~
Northeast	Kahanui	3	3	9	~	3-9	3	<b>3</b>	~
Northeast	Waikolu	5	5	8	~	5-8	5	<b>5</b>	~
Northeast	Hauptu	2	2	5-6	~	2-6	2	<b>2</b>	~
Northeast	Pelekunu	9	9	12-14	~	9-14	9	<b>9</b>	~
Northeast	Wailau	15	15	29	~	15-29	15	<b>15</b>	~
Northeast	Halawa	8	8	11	~	8-11	8	<b>8</b>	~

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<b>O'ahu</b>									
Honolulu	Pālolo	5	4	4-8	5-6	4-8	5	<b>5</b>	(33)
Honolulu	Nu'uuanu	15	14	12-19	12-14	12-19	14	<b>14</b>	(31)
Honolulu	Kalihi	9	9	7-13	7-9	7-13	9	<b>9</b>	(31)
Honolulu	Moanalua	18	17	13-25	13-17	13-25	16	<b>16</b>	(31)
Honolulu	Waialae <sup>(7a)</sup>	3	3	~	~	~	~	~	~
Honolulu	Waialae-West <sup>(7a)</sup>	~	4	2-3	~	2-3	4 <sup>(7a)</sup>	<b>2.5<sup>(19)</sup></b>	~
Honolulu	Waialae-East <sup>(7a)</sup>	~	2	4-10	~	2-10	2 <sup>(7a)</sup>	<b>2<sup>(18)</sup></b>	~
Pearl Harbor	Waimalu	45	47 <sup>(20)</sup>	42-84	48-50	42-84	45	<b>45<sup>(20)</sup></b>	(9a-c)
Pearl Harbor	Waiawa <sup>(7c)</sup>	52	See Waipahu-Waiawa	~	~	~	~	~	~
Pearl Harbor	Waipahu <sup>(7c)</sup>	50	See Waipahu-Waiawa	~	~	~	~	~	~
Pearl Harbor	Waipahu-Waiawa <sup>(7c)</sup>	~	107	105-180	105-110	105-180	104 <sup>(8)</sup>	<b>105<sup>(21)</sup></b>	
Pearl Harbor	'Ewa <sup>(7d)</sup>	3	See 'Ewa-Kunia	~	~	~	~	~	~
Pearl Harbor	Kunia <sup>(7d)</sup>	8	See 'Ewa-Kunia	~	~	~	~	~	~
Pearl Harbor	'Ewa-Kunia <sup>(7d)</sup>	~	10	15-20	15-19	15-20	16 <sup>(8)</sup>	<b>16<sup>(22)</sup></b>	(9a-d, 10, 11)
Pearl Harbor	Makaīwa <sup>(7e)</sup>	~	0	<1	~	<1	0	~	~
Central	Wahiawā <sup>(7b)</sup>	104	23	141	~	23-141	23 <sup>(7b)</sup>	<b>23<sup>(23)</sup></b>	(11)

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<b>O'ahu (continued)</b>									
Wai'anae	Nānākuli	1	1	1	~	1-2	2	1	~
Wai'anae	Lualualei	4	3	4-9	~	3-9	4	3	~
Wai'anae	Wai'anae	2	2	3-4	~	2-4	3	<b>3</b> <sup>(24)</sup>	<i>(14a-b,d)</i>
Wai'anae	Mākaha	3	3	4-6	~	3-6	3	<b>3</b>	~
Wai'anae	Kea'au	4	4	3-7	~	3-7	4	<b>3</b>	~
North	Mokulē'ia	9	8	17-29	~	8-29	8	<b>17</b> <sup>(30)</sup>	<i>(10)</i>
North	Waialua	5	4	17-30	~	4-30	25 <sup>(7b)</sup>	<b>17</b> <sup>(25)</sup>	<i>(10)</i>
North	Kawailoa	32	29	22-40	~	22-40	29	<b>22</b>	~
Windward	Ko'olauloa	42	36	35-41	~	35-41	36	<b>35</b>	~
Windward	Kahana	15	15	21-23	~	15-23	15	<b>15</b>	~
Windward	Ko'olaupoko	30	30	28-46	~	28-46	30	<b>28</b>	~
Windward	Waimānalo	13	10	9-25	~	9-25	10	<b>9</b>	~
Waiāhole(26)	Waiāhole(26)	~	15	15	~	15	~	<b>15</b> <sup>(26)</sup>	~

Notes:

- ~ Not Calculated
- CWRM Commission on Water Resource Management
- RAM Robust Analytical Model
- SY Sustainable Yield
- WRPP Water Resources Protection Plan