

COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII

Surface Water Use Permit Applications,) Case No.. CCH-MA15-01
Integration of Appurtenant Rights and)
Amendments to the Interim Instream Flow) SUPPLEMENTAL TESTIMONY OF
Standards, Na Wai Eha Surface Water) AYRON STRAUCH, PH.D.; EXHIBIT 1;
Management Areas of Waihee, Waiehu, Iao) CERTIFICATE OF SERVICE
and Waikapu Streams, Maui)
)
)
)
)

SUPPLEMENTAL TESTIMONY OF AYRON STRAUCH, PH.D.

1. I have been asked to provide testimony summarizing the work conducted by the Commission on Water Resource Management (CWRM) in establishing, implementing, and monitoring measurable interim instream flow standards (IIFS) for the four hydrologic units comprising Nā Wai ‘Ehā, Central Maui: Waikapū, Waiehu, Wailuku and Waihee.
2. On October 4, 2016, my testimony was filed with CWRM and posted on the website in this case.
3. In submitting my testimony, I inadvertently did not include Table 1 that was referenced in my previously filed testimony.
4. Attached as Exhibit 1 is Table 1 that was referred to in my previous testimony.

I declare under penalty of law that the foregoing is true and correct.

DATED: Honolulu, Hawaii, October 7, 2016.

/s/ Ayrton Strauch, Ph.D.
Ayrton Strauch, Ph.D.

Na Wai Eha flow values	elevation (ft)	1984-2007 Natural Q50 (mgd)	estimated Regulated Q50 (mgd)	2011-2016 Diverted Q50 (mgd)
LOCATION				
Waihee				
above Waihee Ditch Intake	605	34	n/a	17.62 ^R
above Spreckels Ditch Intake	400	34	16 ^{GS}	6.76 ^R
at CWRM IIFS monitoring site	300	34	11 ^{GS}	n/a
Field 1 Intake	270	34	11 ^{GS}	0
near mouth (zero diversion at Field 1)	45	32	8.5 ^{GS}	n/a
near mouth (3.2 mgd diversion at Field 1)	45	32	3.5 ^{GS}	n/a
North Waiehu				
above Waihee Ditch Intake (after close in 2011)	880	3.2	n/a	0
South Waiehu				
North Auwai Intake	620	3.2	n/a	0
South Auwai Intake	570	3.2	n/a	0
above Spreckels Ditch Intake	280	2.3	2.3 ^{GS}	3.99 ^R
Waiehu				
at CWRM IIFS monitoring site blw confluence	190	3.9	2.58 ^C	--
Wailuku				
above lao-Waikapu/Maniania Ditch Intake*	780	25	n/a	11.48 ^R
above Spreckels Ditch Intake	260	23	n/a	10.69 ^a
at Waiehu Beach Rd	35	21	4.3 ^{GS}	--
Waikapu				
above South Waikapu Ditch Intake	1160	4.3	n/a	1.38 ^R
above Everett Ditch Intake	950	5.6	n/a	0
above North Auwai Intake	560	5.3	4.17 ^C	???
above Waihee Ditch Intake	440	5.3	n/a	1.36 ^R

*combined flow of lao-Waikapu and lao-Maniania ditches

^a8.31 mgd after diversion modification in February 2015 by HC&S

natural flow values from Oki et al. 2010

regulated flow values from Oki et al. 2010 (^{GS}) or CWRM monitoring of IIFS (^C)

amount diverted estimated from water use reporting (^R) or CWRM monitoring (^C)

EXHIBIT 1

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Management Areas of Waihee, Waiehu, Iao and)
Waikapu Streams, Maui)
_____)

CERTIFICATE OF SERVICE

On October 11, 2016, a copy of the foregoing document was posted on the Commission on Water Resource Management's website and served on the parties that have opted for electronic service.

Joseph Alueta
P.O. Box 785
Wailuku, HI 96793

David & Anne Brown
2525 Kahekili Hwy.
Wailuku, HI 93793-9233

Pauline Kanegai Curry
P.O. Box 3172
Wailuku, HI 96793

Michael Bailie
PO Box 1433
Wailuku, HI 96793

Regino Cabacungan
2192 Mokuahau Road
Wailuku, HI 96793

Charles Dando, Sr. & Jr.
85 E. Kanamele Loop
Wailuku, HI 96793

Vernon Bal
230 Koeli Street
Wailuku, HI 96793

Thomas Cerizo
1740 Kamamalu Place
Wailuku, HI 96793

Alfred & Patricia DeMello
El Ranchitos DeMello
P.O. Box 1394
Lockeford, CA 95237

Dorothy Bell
1419 Nuna Place
Waikapu, HI 96793

Cordell Chang
2315 Kahekili Hwy.
Wailuku, HI 96793

Michael Doherty
41 Waihee Valley Road
Wailuku, HI 96793

Alan Birnie
175 W. Waiko Road
Wailuku, HI 96793

Joshua Chavez
P.O. Box 6240
Kahului, HI 96733

Richard Emoto
2032 B Ulei Lane
Wailuku, HI 96793

Gary & Evelyn Brito
2160A Puuohala Road
Wailuku, HI 96793

Winifred and Gordon Cockett
1159 Piihana Road
Wailuku, HI 96793

Patricia Federcell
88 S Papa Avenue, Apt. 404
Kahului, HI 96732-3307

Rudy & Perlita Fernandez
P.O. Box 330808
Kahului, HI 96733

Roderick Fong
Fong Construction Company
Inc.
495 Hukilike Street, Bay 4
Kahului, HI 96732

Dave Gomes
Hawaiian Cement - Maui
Concrete and Aggregate
Division
P.O. Box 488
Kahului, HI 96732

Russel Gushi
185 West Waiko Road
Wailuku, HI 96793

Valentine Haleakala
2160 Puuohala Road
Wailuku, HI 96793

Steve Haller
1060 East Kuiaha Road
Haiku, HI 96708

Robert Hanusa
895 Malaihi Road
Wailuku, HI 96793

Darrell Higa
918 Kanakea Loop
Lahaina, HI 96761

George & Yoneko Higa
592 S. Papa Avenue
Kahului, HI 96732

Paul and Jennifer Higashino
P.O. Box 239
Wailuku, HI 96793

Hiolani Ranch LLC
P.O. Box 34167
San Diego, CA 92163

Brian Ige
RCFC Kehalani, LLC
2005 Main Street
Wailuku, HI 96793

Ronald Jacintho
Pohakulepo Recycling, LLC
150 Pakana Street
Wailuku, HI 96790

Ronald Jacintho
ROJAC Trucking, Inc.
150 Pakana Street
Wailuku, HI 96793

Amanda Jones
Spencer Homes Inc.
P.O. Box 97
Kihei, HI 96753

Kaanapali Kai, Inc.
P.O. Box 910
Wailuku, HI 96793

Kaui Kahalekai
202 Waihee Valley Road
Wailuku, HI 96793

Kenneth Kahalekai
240 Waihee Valley Road
Wailuku, HI 96793

Alfred Kailiehu Sr.
Alfred Kailiehu, Jr.
3660 Kahekili Hwy.
Wailuku, HI 96793

Leinaala Kihm
1415 Honua Place
Wailuku, HI 96793

Sterling Kim
Hale Mua Properties, LLC
250 Alamaha Street, Suite
N18
Kahului, HI 96732

Clifford & Cristal Koki
P.O. Box 442
Wailuku, HI 96793

Lawrence Koki
2585 Kahekili Highway
Wailuku, HI 96793

Mary Jane Kramer
Na Mala o Waihee Private
Water Co. Inc.
c/o Commercial Properties of
Maui Management, Inc.
1962-B Wells Street
Wailuku, HI 96793

Donald Kuemmeler
RCFC Kehalani, LLC
555 California Steet, Suite
3450
San Francisco, CA 94104

Living Waters Land
Foundation, LLC
P.O. Box 7
Santa Barbara, CA 93102

Jane Laimana
45-520 Alokahi Street
Kaneohe, HI 96744

Cindy Lee, Managing Agent
Waiolani Mauka Community
Association, Inc.
c/o Scott Nunokawa
P.O. Box 946
Wailuku, HI 96793

David & Katherine Lengkeek
128 River Road
Wailuku, HI 96793

Nadao Makimoto
1480 Honoapiilani Highway
Wailuku, HI 96793-5930

Glenn McLean
350 West Waiko Road
Wailuku, HI 96793

Kenneth Mendoza
2160 B Puuohala Road
Wailuku, HI 96793-0463

Lawrence Miyahira
Jason Miyahira
P.O. Box 762
Wailuku, HI 96793

Jerri Jane K. Young
1455 Miloiki Street
Honolulu, HI 96825-3229

Jinsei Miyashiro Trust
P.O. Box 235
Wailuku, HI 96793

Lester Nakama
Aloha Poi Factory, Inc.
800 Lower Main Street
Wailuku, HI 96793

David Niehaus
1630 Piihola Road
Makawao, HI 96768

David Nobriga
Nobriga's Ranch Inc.
P.O. Box 1170
Wailuku, HI 96793

Francis Ornellas
340 Iao Valley Road
Wailuku, HI 96793

Kalani & Tera Paleka
P.O. Box 342
Wailuku, HI 96793

Robert Pinto
c/o Claire Pinto
130 Pilikana Place
Wailuku, HI 96793

Milla Richardson
94 Laukahi Street
Kihei, HI 96753

Isabelle Rivera
c/o Regino Cabacungan
2192 Mokuhaui Road
Wailuku, HI 96793

Katherine Riyu
P.O. Box 696
Wailuku, HI 96793

Peter Fritz
107 Waihee Valley Rd.
Wailuku, HI 96793

Alfred Santiago & Colin
Kailiponi
2445C Vineyard St.
Wailuku, HI 96793

Ione Shimizu
219-K West Waiko Road
Wailuku, HI 96793

Donnalee & David Singer
P.O. Box 3017
Wailuku, HI 96793

Kurt & Betsy Sloan
P.O. Box 310
Kihei, HI 96753

Warren Soong
245A West Waiko Road
Wailuku, HI 96793

Yoshie Suehiro & Natalie
Hashimoto
915 Malaihi Road
Wailuku, HI 96793

Noel & Katherine Texeira
P.O. Box 2846
Wailuku, HI 96793-7846

Thomas & Patricia Texeira &
Denise Texeira
205 Waihee Valley Road
Wailuku, HI 96793

Waldo Ullerich
Emmanuel Lutheran Church
& School
P.O. Box 331194
Kahului, HI 96733

Melvin Riyu & Judith
Yamanoue
PO Box 696
Wailuku, HI 96793

ELECTRONIC SERVICE

Noelani & Alan Almeida
Gordon Almeida
P.O. Box 1005
Wailuku, HI 96793

alana89@juno.com

Douglas Bell
1420 Honua Place
Waikapu, HI 96793

puna.papabell@gmail.com

Doyle Betsill
c/o Betsill Brothers
P.O. Box 1451
Wailuku, HI 96793

teresa@bbcmaui.com

Francisco Cerizo
PO Box 492
Wailuku, HI 96793

cerizof@gmail.com

Heinz Jung and Cecilia Chang
P.O. Box 1211
Wailuku, HI 96793

cici.chang@hawaiiantel.net

Jordanella (Jorrie) Ciotti
484 Kalua Road
Wailuku, HI 96793

jorrieciotti@gmail.com

Fred Coffey
1271 Malaihi Road
Wailuku, HI 96793

hawaii50peleke@yahoo.com

James Dodd
P.O. Box 351
Wailuku, HI 96793

jimdodd47@gmail.com

Kathy De Hart
P.O. Box 1574
Wailuku, HI 96793

kdehart17@gmail.com

John V. & Rose Marie H. Duey
Hoolulahu LLC
575 A Iao Valley Rd.
Wailuku, HI 96793
cc: Nani Santos

jduey@maui.net

nanisantos808@gmail.com

Stanley Faustino
c/o Kanealoha Lovato-Rodrigues
384 Waihee Valley Road
Wailuku, HI 96793

kanealoha808@gmail.com

William Freitas
c/o Kapuna Farms LLC
2644 Kahekili Highway
Wailuku, HI 96793

kapunafarms@gmail.com

Diannah Goo
c/o April Goo
2120 C Kahekili Hwy.
Wailuku, HI 96793

ag2517@aol.com

Nicholas Harders on behalf of:

waikapu@me.com

Karl & Lee Ann Harders
1422 Nuna Pl.
Wailuku, HI 96793

Theodore & Zelig Harders
T&Z Harders FAM LTD PTNSHP
Theodore and Zelig Harders Family Ltd. Partnership
1415 Kilohi St.
Wailuku, HI 96793

Greg Ibara
227 Kawaipuna Street
Wailuku, HI 96793

gregibara56@gmail.com

Evelyn Kamasaki
Cynthia Ann McCarthy
Claire S. Kamasaki
1550 Nukuna Place
Wailuku, HI 96793

cmcmaui@live.com

Charlene E. and Jacob H. Kana, Sr.
PO Box 292
Wailuku, HI 96793

char1151@hawaii.rr.com

Kimberly Lozano
P.O. Box 2082
Wailuku, HI 96793

pauahi808@aol.com

Renee Molina
P.O. Box 1746
Wailuku, HI 96793

myoheo@yahoo.com

Douglas Myers
1299 Malaihi Road
Wailuku, HI 96793

upperwaiehu@yahoo.com

Nelson Okamura
Kihei Gardens & Landscaping Co. LLP
P.O. Box 1058
Puunene, HI 96784

nokamura@kiheigardens

Lorrin Pang
166 River Road
Wailuku, HI 96793

pangk005@hawaii.rr.com

Victor and Walette Pellegrino
c/o Hokuao Pellegrino
213 West Waiko Road
Waikapu, HI 96793

hokuao.pellegrino@gmail.com

L. Ishikawa
Piko Ao, LLC
2839 Kalialani Circle
Pukalani, HI 96768

lorilei@hawaii.edu

Michael Rodrigues
2518 W. Main Street
Wailuku, HI 96793

mikerodmaui@yahoo.com

Waldemar & Darlene Rogers
1421 Nuna Place
Wailuku, HI 96793

rogersw001@hawaii.rr.com

Burt Sakata
107 Waihee Valley Rd.
Wailuku, HI 96793

waihee89@yahoo.com

Bryan Sarasin, Sr.
c/o Bryan Sarasin, Jr.
P.O. Box 218
Wailuku, HI 96793

mauifishfarm@hawaiiantel.net

Duke & Jean Sevilla & Christina Smith
702 Kaae Road
Wailuku, HI 96793

sevillad001@hawaii.rr.com

Jeff and Ramona Lei Smith
P.O. Box 592
Wailuku, HI 96793

ohianui.ohana@gmail.com

Murray and Carol Smith
P.O. Box 11255
Lahaina, HI 96761

murray@jps.net

Crystal Smythe
John Minamina Brown Trust
727 Wainee Street, Suite 104
Lahaina, HI 96761

cytl@maui.net

Clayton Suzuki
Linda Kadosaki
Reed Suzuki
Scott Suzuki
P.O. Box 2577
Wailuku, HI 96793

csuzuki@wailukuwater.com

John Varel
191 Waihee Valley Road
Wailuku, HI 96793

jvarel@fusionstorm.com

Michele and Leslie Vida, Jr.
135 Pilikana Place
Wailuku, HI 96793

mikievida@hotmail.com

Leslie Vida, Sr.
c/o Donna Vida
125 Pilikana Street
Wailuku, HI 96793

dmlavida@yahoo.com

Roger Yamaoka
Kevin Yamaoka
1295 Old Waikapu Road
Wailuku, HI 96793

rryamaoka@aol.com
kty@hawaii.rr.com

Caleb Rowe, Esq.
Kristin Tarnstrom, Esq.
County of Maui
Department of the Corporation Counsel
200 South High Street
Wailuku, HI 96793
(County of Maui, Department of Water Supply)

caleb.rowe@co.maui.hi.us
kristin.tarnstrom@co.maui.hi.us
susan.pacheco@co.maui.hi.us

Colin J. Lau, Esq.
465 S. King Street, Room 300
Honolulu, Hawaii 96813
cc: Russell Kumabe
Holly McEldowney
(Department of Land and Natural Resources, Division of State Parks)

colin.j.lau@hawaii.gov

russell.p.kumabe@hawaii.gov
holly.mcelandowney@hawaii.gov

Yvonne Izu, Esq. yizu@moriharagroup.com
Wayne E. Costa, Jr., Esq. wcosta@moriharagroup.com
Kris N. Nakagawa, Esq. knakagawa@moriharagroup.com
Moriwaka Lau & Fong LLP
400 Davies Pacific Center
841 Bishop Street
Honolulu, HI 96813
cc: Garret Hew ghew@hcsugar.com
(Hawaiian Commercial & Sugar Co. (HC&S))

Tina Aiu, Esq. christina@hilt.org
Oahu Island Director
Hawaiian Islands Land Trust, HILT
P.O. Box 965
Wailuku, HI 96793
cc: Scott Fisher scott@hilt.org
Penny Levin pennysfh@hawaii.rr.com

Isaac Moriwake, Esq. imoriwake@earthjustice.org
Summer Kupau-Odo skupau@earthjustice.org
Earthjustice jbrown@earthjustice.org
850 Richards Street jparks@earthjustice.org
Suite 400
Honolulu, HI 96813
(Hui O Na Wai Eha and Maui Tomorrow Foundation)

Avery & Mary Chumbley abc@aloha.net
363 West Waiko Road
Wailuku, HI 96793
(Makani Olu Partners LLC)

Jodi Yamamoto, Esq. jyamamoto@ychawaii.com
Wil Yamamoto, Esq. wyamamoto@ychawaii.com
Yamamoto Caliboso
1099 Alakea Street
Suite 2100
Honolulu, HI 96813
(MMK Maui, LP, The King Kamehameha Golf Club, Kahili Golf Course)

Pamela Bunn, Esq. pbunn@ahfi.com
Alston, Hunt, Floyd & Ing
1001 Bishop Street, Suite 1800
Honolulu, HI 96813
(Office of Hawaiian Affairs)

Craig Nakamura, Esq.
Catherine L.M. Hall, Esq.
Carlsmith Ball LLP
2200 Main Street, Suite 400
Wailuku, HI 96793
(Wahi Hoomalu Limited Partnership)

cnakamura@carlsmith.com
chall@carlsmith.com

Peter A. Horovitz, Esq.
Kristine Tsukiyama, Esq.
Merchant Horovitz LLLC
2145 Wells Street, Suite 303
Wailuku, HI 96793
(Waikapu Properties, LLC and MTP (Maui Tropical Plantation) Operating Company, LLC)
cc: Albert Boyce

pah@mhmaui.com
kkt@mhmaui.com

albertboyce@gmail.com

Brian Kang, Esq.
Emi L.M. Kaimuloa
Watanabe Ing, LLP
First Hawaiian Center
999 Bishop Street, 23rd Floor
Honolulu, HI 96813
(Wailuku Country Estates Irrigation Company (WCEIC))

bkang@wik.com
ekaimuloa@wik.com

Paul R. Mancini, Esq.
James W. Geiger, Esq.
Paul Mancini, Esq.
Mancini, Welch, & Geiger LLP
RSK Building
305 Wakea Avenue, Suite 200
Kahului, HI 96732
cc: Avery Chumbley
(Wailuku Water Company, LLC)

pmancini@mrwlaw.com
jgeiger@mrwlaw.com

Tim Mayer, Ph.D.
Supervisory Hydrologist
Water Resources Branch
US Fish and Wildlife Service
911 NE 11th Avenue
Portland, OR 97232-4181
cc: Frank Wilson

tim_mayer@fws.gov

frank.wilson@sol.doi.gov

