IN THE MATTER OF

Contested Case Hearing Re Conservation District Use Application (CDUA) HA-3568 for the Thirty Meter Telescope at the Mauna Kea Science Reserve, Ka'olehe Mauka, Hāmakua, Hawai'i, TMK (3) 4-4-015:009

APPLICANT UNIVERSITY OF HAWAI'I AT HILO'S

WITNESS LIST

PARTY: University of Hawai'i at Hilo

<table>
<thead>
<tr>
<th>NAME OF WITNESS</th>
<th>ADDRESS</th>
<th>SHORT DESCRIPTION OF AREA OF TESTIMONY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gary Sanders</td>
<td>TMT International Observatory LLC, West Walnut St., Pasadena, CA 91124</td>
<td>Overview of the Thirty Meter Telescope (TMT) Project.</td>
</tr>
<tr>
<td>2. Stephanie Nagata</td>
<td>Office of Mauna Kea Management (OMKM) University of Hawai'i, 640 N. A'ohōkū Place, Rm 203, Hilo, HI 96720</td>
<td>Overview of Mauna Kea Management.</td>
</tr>
</tbody>
</table>

1 Applicant University of Hawai'i at Hilo's Witness List was previously filed on July 18, 2016. This revised Witness List is being submitted pursuant to Minute Order No. 13 dated July 21, 2016 [Doc. 115].
<table>
<thead>
<tr>
<th>NAME OF WITNESS</th>
<th>ADDRESS</th>
<th>SHORT DESCRIPTION OF AREA OF TESTIMONY</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Sara Collins</td>
<td>Pacific Consulting Services, Inc. 720 Iwilei Road, Suite 424 Honolulu, HI 96817</td>
<td>Historic Properties within the UH Management Lands on Mauna Kea.</td>
</tr>
<tr>
<td>6. Richard Nees</td>
<td>Pacific Consulting Services, Inc. 720 Iwilei Road, Suite 424 Honolulu, HI 96817</td>
<td>Archaeological Surveys on Mauna Kea.</td>
</tr>
<tr>
<td>7. Akira Oakaokalani Ruddle-Miyamoto</td>
<td>c/o OMKM, University of Hawai‘i 640 N. A‘ohōkū Place, Rm 203 Hilo, HI 96720</td>
<td>Family connection with Mauna Kea.</td>
</tr>
<tr>
<td>8. Chad Kalepa Baybayan</td>
<td>c/o OMKM, University of Hawai‘i 640 N. A‘ohōkū Place, Rm 203 Hilo, HI 96720</td>
<td>Mauna Kea, astronomy and traditional Polynesian navigation.</td>
</tr>
<tr>
<td>10. Wallace A. Ishibashi, Jr.</td>
<td>OMKM, University of Hawai‘i 640 N. A‘ohōkū Place, Rm 203 Hilo, HI 96720</td>
<td>Family connection to Pu‘u Poliahu and traditional cultural practices on Mauna Kea.</td>
</tr>
<tr>
<td>11. Clifford Smith</td>
<td>c/o Carlsmith Ball, LLP (tlk) 1001 Bishop Street, Ste 2100 Honolulu, HI (96809-0656)</td>
<td>Mauna Kea Flora.</td>
</tr>
<tr>
<td>12. Grant Gerrish</td>
<td>c/o Carlsmith Ball, LLP (tlk) 1001 Bishop Street, Ste 2100 Honolulu, HI (96809-0656)</td>
<td>Botanical Survey of Mauna Kea.</td>
</tr>
<tr>
<td>13. Hon. Walter M. Heen (Ret.)</td>
<td>c/o Carlsmith Ball, LLP (tlk) 1001 Bishop Street, Ste 2100 Honolulu, HI (96809-0656)</td>
<td>History of UH Management of Mauna Kea.</td>
</tr>
<tr>
<td>14. Fritz Klasner</td>
<td>OMKM, University of Hawai‘i 640 N. A‘ohōkū Place, Rm 203 Hilo, HI 96720</td>
<td>Management of Natural Resources on UH Management Lands.</td>
</tr>
<tr>
<td>NAME OF WITNESS</td>
<td>ADDRESS</td>
<td>SHORT DESCRIPTION OF AREA OF TESTIMONY</td>
</tr>
<tr>
<td>-----------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>16. Andrew Hood</td>
<td>Sustainable Resources Group International Inc.</td>
<td>Fate and transport of materials generated by summit and potential affect on the environment.</td>
</tr>
<tr>
<td></td>
<td>111 Hekili Street, Suite A373 Kailua, HI 96734</td>
<td></td>
</tr>
<tr>
<td>17. Jesse Eiben</td>
<td>c/o OMKM, University of Hawai‘i 640 N. A‘ohōkū Place, Rm 203 Hilo, HI 96720</td>
<td>Wēkiu Bug.</td>
</tr>
<tr>
<td>19. David Callies</td>
<td>William S. Richardson School of Law, University of Hawai‘i 515 Dole Street Honolulu, HI 96822</td>
<td>Land use issues and regulation.</td>
</tr>
<tr>
<td>20. David Lassner</td>
<td>University of Hawai‘i Bachman Hall, Room 202 2444 Dole Street Honolulu, HI 96822</td>
<td>Status of UH stewardship of Mauna Kea.</td>
</tr>
<tr>
<td>21. Guenther Hasinger</td>
<td>Institute for Astronomy University of Hawai‘i 2680 Woodlawn Drive Honolulu, HI 96822-1839</td>
<td>Future of astronomy at the Mauna Kea Observatory and the impact of the TMT Project.</td>
</tr>
<tr>
<td>22. Robert McLaren</td>
<td>Institute for Astronomy University of Hawai‘i 2680 Woodlawn Drive Honolulu, HI 96822-1839</td>
<td>Development of the Mauna Kea Science Reserve.</td>
</tr>
<tr>
<td>23. Paul H. I. Coleman</td>
<td>Institute for Astronomy University of Hawai‘i 2680 Woodlawn Drive Honolulu, HI 96822-1839</td>
<td>The impact of the TMT Project on the educational and professional opportunities for Native Hawaiians.</td>
</tr>
<tr>
<td>24. Michael Bolte</td>
<td>TMT International Observatory LLC West Walnut St. Pasadena, CA 91124</td>
<td>Astronomy and TMT's capabilities.</td>
</tr>
</tbody>
</table>
Other Witnesses:

The Applicant reserves the right to call rebuttal witnesses to rebut the testimony of any witnesses called by other parties to this proceeding. The Applicant may also call as a witness any direct or rebuttal witnesses named or designated by other parties to this proceeding.

DATED: Honolulu, Hawai‘i, August 1, 2016.

IAN L. SANDISON
TIM LUI-KWAN
JOHN P. MANAUT

Attorneys for Applicant
UNIVERSITY OF HAWAI‘I AT HILO
BOARD OF LAND AND NATURAL RESOURCES
STATE OF HAWAI‘I

IN THE MATTER OF

Contested Case Hearing Re Conservation District Use Application (CDUA) HA-3568 for the Thirty Meter Telescope at the Mauna Kea Science Reserve, Ka‘ohe Mauka, Hāmakua, Hawai‘i, TMK (3) 4-4-015:009

CERTIFICATE OF SERVICE

The undersigned certifies that the above-referenced document was served upon the following parties by email unless indicated otherwise:

JUDGE RIKI MAY AMANO (Ret.)
gma3cc@yahoo.com
Hearing Officer

JULIE H. CHINA, Deputy Attorney General
julie.h.china@hawaii.gov
Counsel for the BOARD OF LAND AND NATURAL RESOURCES

J. DOUGLAS ING, ESQ.
douging@wik.com
ROSS T. SHINYAMA, ESQ.
rshinyama@wik.com
Watanabe Ing LLP
Counsel for TMT INTERNATIONAL OBSERVATORY, LLC

MICHAEL CAIN
Office of Conservation and Coastal Lands
1151 Punchbowl Street, Room 131
Honolulu, HI 96813
michael.cain@hawaii.gov
Custodian of the Records
(original + digital copy)

RICHARD NAWIHEA WURDEMAN, ESQ.
rmwurdeaman@rmwlaw.com
Counsel for Petitioners MAUNA KEA ANAINA HOU; CLARENCE KUKAUAKAHI CHING; FLORES-CASE OHANA; DEBORAH J. WARD; PAUL K. NEVES; and KAHEA: THE HAWAIIAN ENVIRONMENTAL ALLIANCE

LINCOLN S.T. ASHIDA, ESQ.
isa@torkildson.com
NEWTON J. CHU, ESQ.
njc@torkildson.com
Torkildson, Katz, Moore, Hetherington & Harris
Counsel for PERPETUATING UNIQUE EDUCATIONAL OPPORTUNITIES (PUEO)

JOSEPH KUALII LINDSEY CAMARA
kualiiic@hotmail.com

RICHARD L. DELEON
kekaulike@msn.com

HARRY FERGERSTROM
hankhawaiian@yahoo.com

CINDY FREITAS
hanahanai@hawaii.rr.com
WILLIAM FREITAS  
pohaku7@yahoo.com

TIFFNIE KAKALIA  
tiffnickakalia@gmail.com

BRANNON KAMAHANA KEALOHA  
brannonk@hawaii.edu

GLEN KILA  
makakila@gmail.com

JENNIFER LEINA‘ALA SLEIGHTHOLM  
leina.alas808@gmail.com

LANNY ALAN SINKIN, ESQ.  
lanny.sinkin@gmail.com  
Representative for the Temple of Lono

C. M. KAHO‘OKAHI KANUHA  
kahookahi@gmail.com

KALIKOLEHUA KANAELE  
akulele@yahoo.com

MEHANA KIHOI  
uhiwai@live.com

MAELANI LEE  
maelanilee@yahoo.com

STEPHANIE-MALIA TABBADA  
stabbada@hawaiiantel.net

DWIGHT J. VICENTE  
2608 Ainaola Drive  
Hilo, HI 96720-3538  
(no email; mailing address only)

DATED: Honolulu, Hawai‘i, August 1, 2016.

IAN L. SANDISON  
TIM LUI-KWAN  
JOHN P. MANAUT

Attorneys for Applicant  
UNIVERSITY OF HAWAI‘I AT HILO