From: Sent: To: Subject: County Clerk Monday, July 06, 2020 7:50 AM GET Committee FW: HAWAII WILDLIFE FUND, ET AL. V. COUNTY OF MAUI, CIVIL 12-00198 SOM (GET-26)

From: Hannah Bernard <bernardhannah@icloud.com>
Sent: Sunday, July 05, 2020 4:36 PM
To: County Clerk <County.Clerk@mauicounty.us>
Subject: HAWAII WILDLIFE FUND, ET AL. V. COUNTY OF MAUI, CIVIL 12-00198 SOM (GET-26)

I am submitting testimony on behalf of Hawaii Wildlife Fund on this item:

# HAWAII WILDLIFE FUND, ET AL. V. COUNTY OF MAUI, CIVIL

### 12-00198 SOM (GET-26)

During the GET meeting scheduled for July 7, 2020.

Aloha Committee Chair Mike Molina, Vice Chair Rawlins-Fernandez and Councilmembers:

We understand the Corporation Counsel will update you folks on the injection well status next Tuesday July 7. We hope that you'll be able to utilize information from our attorney, David Henkin, during this update as well. We believe Maui's Corp Counsel still seems to fundamentally misunderstand, or willfully misrepresent the Supreme Court ruling in our case, with statements from Richelle Thomson, April 24, 2020, such as:

"...The (Supreme) Court also did not rule against the County..."

"..the Supreme Court laid out some of the factors that the lower court must consider in determining whether or not the disposal of recycled water into wells at the Lahaina Wastewater Reclamation Facility requires an NPDES permit. Here are the factors that must be considered:

- 1. Transit time
- 2. Distance traveled
- 3. The nature of the material through which the pollutant travels
- 4. The extent to which the pollutant is diluted or chemically changed as it travels
- 5. The amount of pollutant entering the navigable waters relative to the amount of the pollutant that leaves the point source
- 6. The manner by or area in which the pollutant enters the navigable waters
- 7. The degree to which the pollution (at the point it enters the water body) has maintained its specific identity (Pg. 16)

In addition, the Corp Counsel has repeatedly used the tactic of calling for executive session with the County Council, when in fact, it is simply not necessary nor appropriate. As stated in Richelle Thomson's letter to GET Chair Mike Molina on June 30:

"...Regarding settlement: On May 30, 2020, Mayor Victorino proposed a settlement offer to the plaintiffs. On June 9, the Plaintiffs rejected this proposal and made a counterproposal. If the committee desires, these matters can be discussed in executive session. "

First, we question whether you were apprised of and approved this settlement offer before we received it. Second, we question why you would have to move to executive session to discuss this offer, which was made to us on May 30, and we rejected and followed with a counter proposal that the county rejected. This very settlement offer, which bordered on insulting, is in the public domain now, and was in fact discussed during a webinar hosted by the Environmental Law Institute on June 12, wherein the esteemed participants laughed out loud at how preposterous the county's position was. You can see for yourself in the video clip below: Environmental Law Institute webinar on our case (among others), during which Harvard Law School Environmental Law Professor Richard Lazarus and John Cruden (former Assistant Attorney General for the Department of Justice's Environment and Natural Resources Division, laugh out loud at the County's settlement position (at 49:50 to 50:55):

### https://bit.ly/SCOTUSELI

To make matters worse, the Corp Counsel proposed to the District Court to hire experts witnesses to conduct more tests, collect more data and analyses, and to spend at least an additional \$1 million in research, utilizing taxpayer dollars in pursuit of their interpretation of the Supreme Court's decision. We question how much more money the county is willing to spend to prove that a facility that was designed to dispose of wastewater into wells that transport it to the ocean is indeed polluting the ocean. Meanwhile, as another year inevitably drags by while we are dragged through the courts, the reef will continue to suffer.

This situation has become ludicrous. The thought of the county spending one more dime to defend this losing battle in a court of law is appalling. I hope the Council can ask how much more money this administration is willing to spend to be proven wrong one more time.

Aloha and mahalo for your continued steadfast kind kokua,

Hannah

Hannah Bernard Executive Director Hawai'i Wildlife Fund P.O. Box 790637 Paia, HI 96779 (808)280-8124 wild@aloha.net www.wildhawaii.org



,

From: Sent: To: Subject: Attachments: Nick Drance <nick@themauimiracle.org> Monday, July 06, 2020 8:12 AM GET Committee Testimony for July 6 Meeting RE: GET 26 Testimony July 6.docx

Pls see attached. Thank you for all the hard work you've been doing. Aloha, Nick



Nicholas James Drance Kihei, Hi 96753



TO: Government, Ethics and Transparency Committee <u>get.committee@mauicounty.us</u>

July 6, 2020

Aloha Chair and Committee Members,

I support Council Member Kelly King's proposed Resolution (GET 26) to Direct Corporation Council to direct all settlement offers to the Council, regarding the Supreme Court ruling against Maui County.

This will ensure that the process is dealt with properly, out in the open, for all to see. It prevents Corporation Council from hiding their actions or preventing Counsel from shutting Council out of the process.

Mahalo, Nick Drance S. Kihei 80-8-727-0224

From:	John Gelert <jgelert@yahoo.com></jgelert@yahoo.com>
Sent:	Monday, July 06, 2020 9:02 AM
То:	GET Committee; GET Committee
Subject:	Lahaina Injection Well case

Attention: Government, Ethics and Transparency Committee

### Aloha Committee!

Maui County Council showed us before the Injection Well case at the Supreme Court that they were concerned about the environmental pollution. I believe they would be more qualified to come up with a plan to remediate the problem; allowing Corporate Council to intervene with the remediation degrades our health and reefs further.

(

Please support Council Member Kelly King's proposed Resolution (GET 26) to Direct Corporation Council to direct all settlement offers to the Council, regarding the Supreme Court ruling against Maui County! This will ensure that the process is dealt with properly, out in the open, for all to see. It prevents Corporation Council from hiding their actions or preventing Counsel from shutting Council out of the process.

Maholo,

John Gelert Kihei, Hawaii

From:	Jodi sussman <jodisussman33@gmail.com></jodisussman33@gmail.com>
Sent:	Monday, July 06, 2020 9:08 AM
То:	GET Committee
Subject:	RE: Supreme Court Ruling RE: Lahaina Injection Well Case.

July 6, 2020

Aloha Chair and Committee Members,

I support Council Member Kelly King's proposed Resolution (GET 26) to Direct Corporation Council to direct all settlement offers to the Council, regarding the Supreme Court ruling against Maui County.

This will ensure that the process is dealt with properly, out in the open, for all to see. It prevents Corporation Council from hiding their actions or preventing Counsel from shutting Council out of the process.

1

Maholo Nui Jodi Sussman 28 Kai Makani Loop #102 Kihei HI 96753

From:	David Henkin <dhenkin@earthjustice.org></dhenkin@earthjustice.org>
Sent:	Monday, July 06, 2020 9:11 AM
То:	GET Committee
Cc:	brian.bilberry@co.maui.hi.us; richelle.thomson@co.maui.hi.us; moana.lutey@co.maui.hi.us
Subject:	Earthjustice Testimony Re: GET-26
Attachments:	2020-7-7 EJ Testimony re GET-26.pdf

Please find attached Earthjustice's testimony re: GET-26, which will be considered by the Governance, Ethics and Transparency Committee Meeting tomorrow morning.

Please distribute to the committee members.

Thank you for your assistance.

Regards,

David Henkin Attorney Earthjustice 850 Richards St., Suite 400 Honolulu, HI 96813 T: 808-599-2436, ext. 6614 F: 808-521-6841 www.earthjustice.org

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### TESTIMONY REGARDING GET-26 <u>HAWAII WILDLIFE, ET AL. V. COUNTY OF MAUI</u>, CIVIL 12-00198 SOM BMK, U.S. SUPREME COURT DOCKET 18-260

Governance, Ethics and Transparency Committee Meeting July 7, 2020 9:00 a.m.

Good morning Chair Molina, Vice-Chair Rawlins-Fernandez, and members of the GET Committee:

My name is David Lane Henkin, I am an attorney with Earthjustice, and I represent the plaintiffs in *Hawai'i Wildlife Fund*, *et al.*, *v. County of Maui*.<sup>1</sup>I offer this testimony to provide the Committee with information that, hopefully, will be helpful to your deliberations.

As you know, despite the Maui County Council's efforts to settle this case cooperatively and to focus on fixing the problems with the Lahaina injection wells, Mayor Victorino and the Corporation Counsel persisted in pursuing their appeal to the highest court in the land, claiming that they were interested only in getting clarity about the Clean Water Act's requirements. The Supreme Court's ruling on April 23<sup>rd</sup> did, indeed, provide a lot of clarity.

The Corporation Counsel previously reported to you that the Supreme Court "did not issue a 'win' or 'lose' order." 4/24/20 Memo at 2. The fact of the matter is that the Court flatly rejected as "unreasonable" the County's argument that the Clean Water Act cannot regulate discharges from the Lahaina injection wells simply because pollution from those wells travels through groundwater before reaching the ocean. *County of Maui v. Hawai'i Wildlife Fund*, 140 S. Ct. 1462, 1474 (2020). Rather, the Court affirmed that discharges from the injection wells require a Clean Water Act permit if they are "the *functional equivalent of a direct discharge* … into navigable waters." *Id.* at 1477 (emphasis added).

The case has been sent back to the Hawai'i district court to make the "functional equivalent" determination. We are in front of the same district court judge who, last time around, concluded that discharges from the Lahaina injection wells are "functionally equivalent to a discharge into the ocean itself." *Hawai'i Wildlife Fund v. County of Maui*, 24 F. Supp. 3d 980, 994 (D. Haw. 2014). The Committee should think long and hard about whether it is realistic to expect the district court to make a different decision now and whether the County should continue to spend taxpayer dollars on continuing to fight in court, rather than on addressing pollution from the Lahaina injection wells.

<sup>1</sup> I am registered as a lobbyist with the Maui County Board of Ethics.

MID-PACIFIC 850 RICHARDS STREET, SUITE 400 HONOLULU, HI 96813 T: 808.599.2436 F: 808.521.6841 MPOFFICE@EARTHJUSTICE.ORG WWW.EARTHJUSTICE.ORG Earthjustice Testimony Re: GET-26 July 7, 2020 GET Committee Meeting Page 2

The Supreme Court identified seven factors as "potentially relevant" to determining functional equivalence. *County of Maui*, 140 S. Ct. at 1476. It did not, however, require the County or the plaintiffs to develop and present evidence on each of those seven factors. Rather, the Court made clear that those seven factors are "just some" of the infinite number of "factors that may prove relevant (depending upon the circumstance of a particular case)." *Id.* 

The Court did identify two factors as "the most important factors in most cases": transit time and distance traveled. *Id.* at 1477. In this case, a tracer dye study, carried out by independent University of Hawai'i researchers, has already provided that information, with tracer dye placed in the injection wells taking only 84 days to reach the ocean just offshore of Kahekili Beach Park, which is approximately one half-mile to the southwest of the Lahaina facility. There is, therefore, no need for the County to spend another dime to secure that information.

At last week's status conference with the district court, the Corporation Counsel provided a preliminary proposal for additional data collection and analysis that Corporation Counsel argues is necessary (attached). Our expert reviewed the proposal and gave an initial ballpark estimate for the scope of work it describes of more than \$1 million. The Committee should consider asking the Corporation Counsel how much it proposes to spend on continuing this legal fight and why the Corporation Counsel thinks this additional investment of taxpayer money is likely to change the ultimate outcome of the case.

I hope this information is helpful to the Committee. I am happy to answer any questions you may have now, or in the future. I can be reached via email at dhenkin@earthjustice.org or via telephone at 808-599-2436, ext. 6614.

Case 1:12-cv-00198-SOM-KJM Document 293 Filed 06/29/20 Page 1 of 2 PageID #: 8607

DEPARTMENT OF THE CORPORATION COUNSEL 205 MOANA M. LUTEY 6385 Corporation Counsel RICHELLE THOMSON 8965 BRIAN A. BILBERRY 7260 Deputies Corporation Counsel County of Maui 200 South High Street Wailuku, Maui, Hawaii 96793 Telephone No.: (808) 270-7741

Attorneys for Defendant

# IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF HAWAII

HAWAI'I WILDLIFE FUND, SIERRA CLUB – MAUI GROUP, SURFRIDER FOUNDATION, AND WEST MAUI PRESERVATION ASSOCIATION,

Plaintiffs,

vs.

COUNTY OF MAUI,

Defendant.

CIVIL NO. 12-cv-00198 SOM-KJM

DECLARATION OF COUNSEL

# **DECLARATION OF COUNEL**

# Case 1:12-cv-00198-SOM-KJM Document 293 Filed 06/29/20 Page 2 of 2 PageID #: 8608

I, BRIAN A. BILBERRY, as counsel for the County of Maui, declare as follows:

1. I am a licensed attorney in the State of Hawai'i, Deputy Corporation Counsel with the Department of The Corporation Counsel, County of Maui, and a litigation and trial lawyer assisting with this case.

2. Exhibit E attached here is a true and correct copy of the June 28, 2020 Technical Memorandum received from Hydrologist John M. Lambie, PE, PG, CEG, CWRE. The Technical Memorandum is a preliminary proposal for further necessary data collection and analysis of the Lahaina Wastewater Treatment Plant. Mr. Lambie's curriculum Vitae is attached as Exhibit F.

3. Mr. Lambie's proposal is submitted in support of the County of Maui's Memorandum Regarding Further Investigation and Discovery [ECF No. 291], and in support of the need for additional data gathering, studies, and analysis the County believes is required for this case.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and ability.

DATED: June 29, 2020, Wailuku Maui, Hawai'i.

# /s/ Brian A. Bilberry BRIAN A. BILBERRY



# **TECHNICAL MEMORANDUM**

TO:	Brian Bilberry, Office of County Counsel, Maui County	DATE: June 28, 2020
	Richelle Thomson, First Deputy County Counsel, Maui County	

CC: Colleen Doyle, Esq., Hunton Andrews Kurth

PREPARED BY: John M. Lambie, PE, PG, CEG, CWRE

PROJ. NO. 0642-001-01

**SUBJECT:** Preliminary Concepts for Data Collection and Analysis of Lahaina Wastewater Treatment Plant Underground Injection of Reclaimed Water in Relation to Hawai'i Wildlife Fund et al. v. County of Maui, Hawaii, and Recent Supreme Court of the United States ruling

### INTRODUCTION

It is my understanding that I and my firm E-PUR LLC are engaged to assess 1)hydrogeochemical data, 2)hydrogeological data, and 3) geological data, and their analyses that would be valuable to place into the record for Civil Case No. 12-00198 in the United States District Court, District of Hawai'i under Judge Susan Oki Mollway (the Court). That understanding includes the opportunity to gather new data and facts as well to support additional analyses for the Court's consideration. Having been engaged on this matter as of June 25, 2020 there has not been time to have reviewed the large record of materials that are available and relevant and those that have been submitted as evidence to the Court is too large. My goal in the writing of this memorandum is to preliminarily identify the areas of investigation and analysis that may be most useful on the three subject areas I have listed as within my expertise and engagement as an expert.

### **GENERAL BACKGROUND INFORMATION**

Our understanding is that the case involves a petition by Plaintiffs to have the Court require that County of Maui obtain NPDES Permit(s) for its use of four injection wells operating as Class V, Subclass AB injection well system operating in accordance with Underground Injection Control (UIC) Permit No. UM-1357 first issued October, 2, 1992.

It is our understanding that recently the Supreme Court of the United States (SCOTUS) vacated this Court's ruling on a Motion for Summary Judgement to grant plaintiff's demand for relief and require Maui County to apply for and obtain an NPDES. In vacating the ruling you have informed me that SCOTUS provided guidance to this Court to assess the application of the Clean Water Act to the UIC Permit and injection well system. SCOTUS ruling has been digested for us to identify the portions upon which my/our expertise may be helpful to the Court.

"We hold that the statute requires a permit when there is a direct discharge from a point source into navigable waters or when there is the *functional equivalent of a direct discharge*." (at 15)

E-PUR LLC 4061 SW Chesapeake Avenue Portland, OR 97239 503.954.2096 **EXHIBIT E** 

Page 2

"Whether pollutants that arrive at navigable waters after traveling through groundwater are 'from' a point source depends upon how similar to (or different from) the particular discharge is to a direct discharge." (at 16)

"Consider, for example, just some of the factors that may prove relevant (depending upon the circumstances of a particular case):

- (1) transit time,
- (2) distance traveled,
- (3) the nature of the material through which the pollutant travels,
- (4) the extent to which the pollutant is diluted or chemically changed as it travels,
- (5) the amount of pollutant entering the navigable waters relative to the amount of the pollutant that leaves the point source,
- (6) the manner by or area in which the pollutant enters the navigable waters,
- (7) the degree to which the pollution (at that point) has maintained its specific identity."

(at 16)

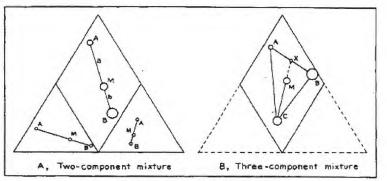
These portions of the rulings are very helpful in evaluating whether the record does or can establish functional equivalency either through analysis of new data, new analyses of existing data, or both.

### E-PUR PRELIMINARY OBSERVATIONS

The studies reviewed thus far indicate several things that are critical to this standard of functional equivalency are poorly understood.

A fundamental technique for assessing the mixing of waters was developed in 1944 by A.M. Piper and it does not appear to have been utilized in the Univ. of Hawaii study. Piper's method enables a mixing model of waters to be developed from both a graphical analyses of ionic compositions and algebraic analysis of the relative ionic strengths that enables the examiner to determine the relative volume of waters in producing the resulting ionic chemistry.

To our surprise ionic data (a.k.a. "general mineral") were collected in the University of Hawaii study but were not analyzed via the Piper method in either of the study reports, both Interim and Final. Such analysis would enable SCOTUS Factor 4-dilution/change and Factor 7-identity, if not Factor 5-relative amount, to be assessed. We believe that the investigators tested for general mineral



chemistry of groundwater at the UIC, the From Piper, 1944 Transactions of the Am. Geophysical Union

shallow near shore, at the high volume spring seeps, and at a large distance upgradient from the UIC. Their testing overall may not have been sufficient to find the chemistry of the source waters (A, B, C above) and the resulting water chemistry (M above).

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The stable isotopic data reviewed to date are insufficient as to lateral and vertical locations to assess a mixing model on stable isotopic data. Further it appears that existing data for stable isotopes of nitrogen, oxygen, hydrogen, sulfur, and chloride can be analyzed more fully to assess a variety of the SCOTUS factors such as Factor 1-travel time, Factor 4-dilution/change, Factor 5-relative amount, Factor 6-manner/area, and Factor 7-identity

Unstable (i.e. radioactive) isotope data may be uniquely well suited to further analysis of SCOTUS factors such as Factor 1-travel time and Factor 6-manner/area. Data for the radioactive isotopes of radium, radon, and hydrogen may each prove useful in improving an understanding.

The characteristics of the UIC system wells have not fully been assessed. These injection wells have specific capacities in excess of 1,000 gpm/foot. The nature of the groundwater penetrated by the UIC system wells does not appear to have been characterized as to salinity and temperature throughout the open intervals below their cased off depth of 105 feet below ground surface. Thus the individual injection wells need to be shut down and examined in a variety of ways listed below to understand conditions of the injection wells that would influence assessment of SCOTUS factors, Factor 3-nature of subsurface material, Factor 4-dilution/change, Factor 6-manner/area, and Factor 7-identity.

The local geological and hydrogeological studies lack sufficient specificity and knowledge for the Court to understand the SCOTUS factors. For example, the geological evidence points to successive flows of overlapping or underlapping intrusions of shield volcano basalts in a near westerly direction consistent with the local topography, and then a coastal shelf of shallow sediment deposition principally by water. Conversely, the hydrogeological analysis in a number of studies by both USGS and Univ. of Hawaii infer two conjectured geological features that stand in stark disagreement with this broad regional geologic structure. First they infer a near north-south alignment of fracture zones or preferential flow pathways that has no recognizable basis in the geologic history or data. Second these studies directly infer an ancestral stream channel for Honokowai Stream may exist with no factual basis for this, and that this inferred stream channel has some characteristic that has it acting as a lateral impediment to groundwater flow in the basalts beneath surficial sediments or the depth of Honokowai Stream. Data are needed here not inference. Furthermore on missing geological data, the groundwater movement mathematical studies (i.e. hydrogeologic models) invoke seismic studies of Oahu assuming for their mathematical framework that Maui is similar; this renders these models highly imprecise as to the actual subsurface structures relevant to the movement of injected highly treated reclaimed water at the Lahaina facility. Additional geological and hydrogeological data are necessary to understand the movement of injected reclaimed water in the subsurface near the injection wells in virtually all directions both laterally and vertically. This will enable proper characterization of SCOTUS factors such as Factor 2-distance traveled, Factor 3-nature of subsurface material, and Factor 6-manner/area, if not others.

### E-PUR RECOMMENDED AREAS OF ADDITIONAL DATA COLLECTION

 Sample upgradient wells to the UIC wells in areas more proximate to the east, north and south than those used in the Univ. of Hawai'i study to enable source water assessment for mixing of general minerals and comparative stable isotopes. Upgradient and cross gradient sampling and analysis of groundwater chemistry for individual constituent concentration such as concentrations of phosphorus and related phosphates, general minerals (i.e. sodium, potassium,

# Case 1:12-cv-00198-SOM-KJM Document 293-1 Filed 06/29/20 Page 4 of 6 PageID #: 8612

Page 4

calcium, magnesium, carbonate, bicarbonate, sulfate, and chloride), various form of nitrogen (e.g. nitrate) and total nitrogen at a certified laboratory. Further at some if not all wells analyze for stable isotopes for nitrogen  $({}^{15}N/{}^{14}N)$ , sulfur  $({}^{34}S/{}^{32}S)$ , chloride  $({}^{37}Cl/{}^{35}Cl)$ , hydrogen  $({}^{2}H/{}^{1}H)$ , and oxygen  $({}^{18}O/{}^{16}O)$  in areas and wells upgradient of the injection system (Note there are no stable or useful isotopes of phosphorus).

- Video inspection of the Lahaina facility injection wells (i.e. lowering a video camera down an inactive well).
- Conduct downhole geophysics in each of the four injection wells: resistivity, gamma, caliper, fluid resistivity, temperature, and sonic.
- Drill clustered monitoring wells to 60 feet, 150 feet, 200 feet, and 300 feet at several locations on the Lahaina facility to evaluate a variety of groundwater chemical and hydraulic characteristics laterally and vertically in the near field. It may be prudent to drill at least one exploratory borehole to greater depth (perhaps 600 feet) and if a useful interval is identified for examination, complete a cased well to that depth in the borehole.
- Sample waters within each injection well using vertically stratified sampling techniques after shutting them down briefly as pairs (e.g. Wells 3 and 4 together). Analyzing these samples for similar isotope and non-isotopic constituents as for the cross-gradient and upgradient wells. Sample injection wells during shutdown to determine the salt water/fresh-water interface.
- Conduct vertical flow profiling of water movement within the borehole during shutdown and injection cycles.
- Perform local/subregional area surface geophysics. Seismic velocity surveys may be better at
  identifying useful subsurface information in this geologic environment as compared to electricalresistivity surveys mentioned in your memo to the Court. Regardless of the method(s) used
  geophysical surveys would be most helpful in three areas: 1) in the areas from Lahaina facility
  west toward the ocean front, 2) north to Honokowai Stream and 3) southward to end landward
  of Black Rock point.
- Install vertical well nests near one to three of the existing shallow wells in the Starwood Vacation facility grounds in open space (e.g. 60 feet and 200 feet). Collect hydraulic head measurements and groundwater samples for similar general mineral constituents, phosphorus, nitrogen as well as the relevant stable isotopes.
- Sampling and analysis for concentrations of radioactive isotopes of hydrogen (<sup>3</sup>H, tritium) and radium (<sup>226</sup>Ra/<sup>222</sup>Rn) may prove useful at any of these locations.

### E-PUR RECOMMENDED AREAS OF ADDITIONAL DATA ANALYSIS

1) Prepare injection well as-built profiles with lithology (Factor 1-travel time, Factor 2-distance traveled, Factor 3-nature of subsurface material, Factor 6-manner/area)

- Prepare local geologic cross section(s) based on existing well lithologic logs and additional data collected/wells drilled (Factor 1-travel time, Factor 2-distance traveled, Factor 3-nature of subsurface material, Factor 6-manner/area)
- Analyze <sup>15</sup>N data and nitrogen concentration data for enrichment signals in various waters (Factor 4-dilution/change, Factor 6-manner/area, Factor 7-identity)
- 4) Analyze phosphorus, phosphate data for enrichment(Factor 4-dilution/change, Factor 5-relative amount, Factor 7-identity)
- 5) Analyze <sup>222</sup>Rn and <sup>226</sup>Ra data for flux evaluation (Factor 3-nature of subsurface material, Factor 6manner/area)
- 6) Evaluate general mineral chemistry via Piper and other methods (Factor 3-nature of subsurface material, Factor 4-dilution/change, Factor 5-relative amount, Factor 7-identity)
- 7) Analyze concentrations and forms of sulfur along with stable isotopes of sulfur and the oxygen upon it from various locations.

### EXAMINATION FOR FUNCTIONAL EQUIVALENCY

Stable isotopes of sulfur (e.g. <sup>34</sup>S) will be extremely probative. This will aid in understanding the characteristics of the water injected to the aquifer(s) and the groundwater discharging at the ocean interface. Ocean waters have a known enrichment ratio of <sup>34</sup>S to <sup>32</sup>S regardless of the concentration (isotopic enrichment/depletion is a phenomenon independent of concentration of the individual constituent) and thus can serve as a marker of water type. Moreover, modification of groundwater by earth processes will reduce this enrichment. Most importantly terrestrial sulphates (SO<sub>4</sub><sup>2-</sup>) can readily be distinguished from marine sulphates based on both <sup>34</sup>S/<sup>32</sup>S and <sup>18</sup>O/<sup>16</sup>O that is constituent to the formation of the sulphates (meaning the ratio of heavy oxygen depletion relative to oceanic oxidation vs. atmospheric oxidation that was involved oxidizing the sulfur). Collection of such data will be probative of the issue of functional equivalency to a point discharge as directed by SCOTUS.

Testing is needed at a minimum at the points of injection and upgradient to understand the isotopic abundance of stable isotopes and the constituent concentrations to assess the degree of mixing of groundwaters as well as the timing (i.e. time of travel to the discharge point based on stable isotopes).

It would be useful to shut down injection-well pairs for a period such as two days (i.e. Wells 1&2, vs. Wells 3&4). This requires that the operational injection well pair can handle the discharge during the respective testing period for the "resting" injection-well pair. During that shutdown period downhole equipment would be used to assess the electrical conductivity and temperature using electronic measuring devices deployed at various depths within each well's water column. If changes are noted over the period then samples would be collected with depth for analysis of stable isotopes of chloride, sulfur, hydrogen and oxygen; prospectively sampling and analysis for the unstable isotope <sup>3</sup>H for age dating of the groundwater as described above.

#### Page 6

### **RECOMMENDED NEXT STEPS**

- Provide time for continued view of the records before the Court and background studies in the scientific literature of both the local area and the technical subjects relevant to the SCOTUS factors.
- Prepare analysis on existing data records as soon as practical
- Develop scope, schedule, and fee expectations for a scope of work agreed upon by the Court and Maui County.

#### CLOSING

E-PUR appreciates the opportunity to provide you these professional evaluations which have been performed following customary practice in our fields of groundwater geohydrology and civil engineering.

We hope to discuss our preliminary findings with you and look forward to helping Maui County successfully resolve issues raised by and within the lawsuit as the Court and time will provide.

BAN:JML

From:	David Henkin <dhenkin@earthjustice.org></dhenkin@earthjustice.org>
Sent:	Monday, July 06, 2020 9:11 AM
То:	GET Committee
Cc:	brian.bilberry@co.maui.hi.us; richelle.thomson@co.maui.hi.us;
	moana.lutey@co.maui.hi.us
Subject:	Earthjustice Testimony Re: GET-26
Attachments:	2020-7-7 EJ Testimony re GET-26.pdf

Please find attached Earthjustice's testimony re: GET-26, which will be considered by the Governance, Ethics and Transparency Committee Meeting tomorrow morning.

Please distribute to the committee members.

Thank you for your assistance.

Regards,

David Henkin Attorney Earthjustice 850 Richards St., Suite 400 Honolulu, HI 96813 T: 808-599-2436, ext. 6614 F: 808-521-6841 www.earthjustice.org

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From:	Linda Green <linda.l.green1@gmail.com></linda.l.green1@gmail.com>
Sent:	Monday, July 06, 2020 1:23 PM
То:	GET Committee
Subject:	RE: Supreme Court Ruling RE: Lahaina Injection Well Case.

RE: Supreme Court Ruling RE: Lahaina Injection Well Case.

HAWAII WILDLIFE FUND, ET AL. V. COUNTY OF MAUI, CIVIL 12-00198 SOM BMK, U.S.

Dear: Government, Ethics and Transparancy Committee: I support Council Member Kelly King's proposed Resolution to Direct Corporation Council to direct all settlement offers to the Council, regarding the Supreme Court ruling against Maui County.

This will ensure that the process is dealt with properly, out in the open, in a transparent manner for all to see and will require the Corporation Council to disclose the entire process and information to the County Council.

Sincerely, Linda Green 303-588-2963 <u>Linda.l.green1@gmail.com</u>

Regarding: SUPREME COURT DOCKET 18-260 (GET-26) Description The Committee is in receipt of the following: 1. County Communication 19-178, from Council Chair Kelly T. King, transmitting a proposed resolution entitled "REQUIRING SETTLEMENT OFFERS IN HAWAII WILDLIFE FUND, ET AL. V. COUNTY OF MAUI, RELATING TO THE CLEAN WATER ACT, TO BE TRANSMITTED TO THE COUNCIL FOR APPROVAL OR DISAPPROVAL." The purpose of the proposed resolution is to direct the Department of the Corporation Counsel, consistent with Section 3.16.020, Maui County Code, to transmit all settlement offers in Hawaii Wildlife Fund, et al. v. County of Maui, United States Supreme Court Docket 18-260, to the Council for approval or

disapproval.<u>https://mauicounty.legistar.com/LegislationDetail.</u> aspx?ID=4583301&GUID=FC45E6BF-2073-4C3C-A8D5-157BCC03D628&Options=&Search=

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