

**Utah Division of Water Quality's (DWQ) Response to Public Comments from the Public Comment Period and Two Public Hearings Regarding the Utah Pollutant Discharge Elimination System (UPDES),  
UTG170000, Pesticide General Permit (PGP)**

| Comment Number | Commentor, Group or Agency | Permit Part | Public Comments   | DWQ Response<br>June 10, 2022   |
|----------------|----------------------------|-------------|---|---|
|                |                            |             | <p>This is DWQ's written response to public comments received during the public comment period (December 12, 2021 – January 12, 2022) and comments received before the March 7<sup>th</sup> public hearing and after the public comment period.</p> |   |
| 1              | Tena Rohr                  | None        | <p>I believe SLCMAD has acted in violation of the existing permit, and I request a public hearing on whether SLCMAD should be allowed a renewal of their permit.</p>  | <p>DWQ appreciates the many excellent and detailed comments which provided valuable information for DWQ to consider. Some comments were unclear due to technology issues, these were interpreted as best as possible.</p> <p>At the request of the public, DWQ held public hearings regarding the PGP on March 7 and March 14, 2022. Hearing information can be found at <a href="https://deq.utah.gov/public-notices-archive/water-quality-public-notices">https://deq.utah.gov/public-notices-archive/water-quality-public-notices</a> (under public notices archive at the bottom of the page).</p> <p>DWQ will not be able to respond every type of comment from the public. The purpose of the public notice under Utah Administrative Code and Clean Water Act rules pertaining to public notice of UPDES and National Pollutant Discharge Elimination System permits, is to receive public comments on the proposed permits themselves. For example, no matter how factually or scientifically based a comment may be, DWQ will not be able to respond to general comments on the toxic effects or the benefits of pesticide use when not pertaining to content in the Utah's proposed PGP. Public comment periods and hearings for permit issuance are not the forums for DWQ to receive such public comments. DWQ also will not respond to comments providing the hazards or benefits of the operation of a permittee or of a pesticide use sector. However, if sufficient data specific to permittee's non-compliance is presented, DWQ will consider that data in permit issuance or termination. The purpose of the public notice was to receive comments on the proposed permit renewal for permit issuance as is, permit revision, or general permit denial and issuance of individual UPDES pesticide permits.</p> <p>The UPDES PGP requires Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) registration and labeling for all pesticides applied. The United States Environmental Protection Agency (EPA) conducts or reviews extensive research on pesticide toxicity and use before approving and registering a pesticide product. FIFRA labels are prepared with environmental instructions, warnings, and prohibitions of use when needed. Instructions for targeted species, application rates, locations of applications, etc. are included in labels to protect human health and the environment. Pesticide toxicity and residue considerations are included in label content as approved by the EPA. DWQ is not the appropriate agency to bring up questions or comments on pesticide toxicity on a specific product as DWQ doesn't engage in that research work and is does not receive funding to conduct independent research on specific pesticide products. DWQ defers to EPA's expertise and role as the agency</p> |

|   |                             |   |   |   |
|---|-----------------------------|---|---|---|
|   |                             |   |   | authorized to approve pesticide products for sale and use in the United States and in turn, Utah.   |
| 2 | Ryan Van Goethem, EutroPHIX | <p>1. Cover Page. C.1, C.2.</p> <p>2. Pgs 5 and 6. Part 1.</p> <p>3. Pg 25. Part 2 Table 6.</p> | <p>1. Cover Page - Correction may be needed to the date depending on intended duration of permit coverage. January 2026 would be 4 years. Jan 2027 would be five years.</p> <p>2. Pages 5-6 - The new permit declares a new category of approved activity for Algae, Cyanobacteria, Pathogen Control, and Nutrient Abatement for the general permit (Part 1 C.1) utilizing pesticides, biological agents, and chemicals as defined. Activity E is further limited by: b. Group 5 operators for non-EPA approved products (of any kind) must of director approval, or individual permit; c. treatments of unregistered pesticides, chemicals, or biological agents to surface waters of the state is prohibited under this permit except for treatments according to paragraph b (Group 5 operators).(Part 1 C.2).</p> <p>The permit as written produces a result in which the state recognizes that any algae, cyanobacteria, pathogen control and nutrient abatement to waters of the state falls under regulation of this permit, then further limits that category to use EPA approved technology, and that un-approved products can only be used in Utah Lake (with directory approval or individual permit).</p> <p>Aquatic systems across the country and likely numerous smaller waterbodies within Utah utilize products for this category of activity which are not regulated by the EPA and FIFRA. Examples would be enzymes, bacteria, water colorants, and nutrient binding compounds. Under this current structure of limitations in the permit, the use of those products would be illegal in all state waters except Utah Lake, with no exception or pathway for use described for the period of this permit. The previous permit did not cover activities such as nutrient abatement and therefore use of these products was not regulated through a permit in Utah as long as they complied with the States narrative and numeric water quality standards. Implementing activities of nutrient abatement and water quality improvement across waters in Utah would likely be severely limited by the wording of this permit.</p> <p>If the intent and desired result is as described above, no changes are needed. If restricting nutrient abatement and water quality improvements to this degree is not desired we suggest allowing the use of un-approved products (except products that require EPA registration before use, eg. (pesticides) to waters of Utah as long as they maintain compliance with Utah's narrative and numeric standards. Examples of this would be nutrient abatement and unregistered pond dyes in ponds within the state.</p> <p>3. Page 25 Table 6 - copper is minimal in background conditions of Utah Lake and applied dissolved copper quickly changes from dissolved to bound due to ligands and water characteristics without becoming dissolved in the water column again under normal lake conditions (Willis and Bishop 2016 and references within). We agree that day 4 sampling would be appropriate for standards compliance. We believe there is little value in pre-treatment copper sampling and monthly post sampling of copper as there are not reasonable mechanisms for copper to become dissolved again. The least valuable would be the requirement to sample monthly for two months post application as the probability of detecting copper is extremely low but this would add significant logistical complexity for permittees and cost to management programs. We believe these same comments hold true for aluminum as well.</p> <p>Willis, B.E., Bishop, W. (2016), <i>Understanding Fate and Effects of Copper Pesticides in Aquatic Systems</i>. Journal of Geoscience and Environmental Protection, 4: 37-42.</p> <p>Also, a study regarding the fate of copper pesticides can be found at the following link address: <a href="http://dx.doi.org/10.4236/gep.2016.45004">http://dx.doi.org/10.4236/gep.2016.45004</a></p> | <p>The permit will be changed to 2027 instead of 2026.</p> <p>DWQ will reword these requirements to clarify the requirements. DWQ recognizes that some types of products are not pesticides such as some nutrient abatement products. DWQ will edit the permit so that only products (pesticides, chemicals, and biological agents as defined in the proposed permit) that are registered by EPA or approved by the Director will be allowed to be used in Utah Lake. These types of products can still be applied in other state waters, as currently allowed.</p> <p>Only applications with copper or aluminum are covered by the requirements in Table 6. DWQ will change the monitoring requirements pertaining to treatments with copper and aluminum. Monitoring will include: 1) season background sampling which would need to be collected one week or less of the first treatment of the season and 2) 4-day post-application monitoring collected 4 days after each application. This monitoring protocol should be sufficient to determine background levels, any excessive metal accumulations, and compliance to the numeric and narrative water quality standards.</p> |

|   |   |                         |   |   |
|---|---|-------------------------|---|---|
|   |   | 4. Pg 25. Part 2 B.1.   | 4. Page 25 B.1 - This requirement makes it infeasible for Group 5 operators to provide rapid response to harmful algae blooms if 5+ day notification is required. For example, if a Utah Lake marina had a cyanobacteria bloom float in, Group 5 operators would be required to notify and then wait 5 days until treatment could occur. We suggest this requirement be removed or altered with an exception for responses required within a 5-day window. A notification process is reasonable, but a defined period of 5 days should not be implicit and required within the permit.  | DWQ will include language for a two-day treatment notification requirement for all treatments under Group 5.  |
|   |   | 5. Pg 28. Part 2 D.7.a. | 5. Page 28 7.a - For operators under this permit, the August 15th submission of annual reports is in the middle of the operating season when labor resources are strained. We see little need for this requirement to be tied to the fiscal year for Utah. We suggest that reporting be due near the end of the calendar year for work performed. Almost all other state permits for these activities have been annual reporting due after the main summer growing season such as winter of the permit year (MI, Nov 30th), or spring of the following year (CA, March 1st; WA, Feb 1st). The permit coverage period and invoicing could also be shifted to a calendar year timetable as well.<br><br>If changes can be made, we suggest an annual reporting date no earlier than December 1st. Changes to reporting may also be made specifically for Group 5 operators without major changes to the existing system.  | DWQ will change the Annual Report deadline from August 15th to February 1st. Instead of the Annual Report covering the State's fiscal year, it will cover the calendar year which corresponds better with the typical pesticide treatment season.   |
|   |   | 6. Pg 31. Part 3 D.3.a  | 6. Page 31 3.a "pesticide produce" should be "pesticide product"  | The typo will be corrected to read pesticide product instead of pesticide produce.  |
| 3 | Ryan Lusty, Utah Mosquito Abatement Association | None.                   | Being subject to the UPDES permitting program, members of the Utah Mosquito Abatement Association are required to renew our pesticide general permit for point source discharge to waters of the state of Utah. Unfortunately, in order to do our job protecting public health in Utah from vector-borne disease, we as mosquito control agencies are double regulated by the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), and the Clean Water Act (CWA). Being subject to both laws is redundant at best and unnecessarily restrictive on our ability to protect the public from disease.<br><br>Mosquito abatement agencies have been doing what is required by UPDES since FIFRA was enacted in 1947, hence the frustration with the redundant requirements. Since we were made subject to NPDES in 2011 we have done what is required of us to legally operate under both FIFRA and the CWA. So long as the permit continues to require us to follow FIFRA and not go much beyond the scope it has over these past 10 years, we believe that we will be able to continue protecting the public health as we have done. While we will continue to abide by the permit, we ask that the Department of Environmental Quality limit the scope of the permit so that we can do our job to the best of our ability. | The application of pesticides has been regulated through FIFRA since 1947. On November 27, 2006, EPA issued a rule that FIFRA would continue to cover pesticide applications to surface waters. Subsequent to issuance, the rule was taken to court where the United States 6 <sup>th</sup> Circuit Court ruled that pesticide discharges to surface waters must be covered under the National Pollutant Discharge Elimination System (NPDES) Permitting Program. On October 31, 2011, EPA issued the first federal Pesticide General Permit (PGP), which has been renewed every five years since.<br><br>Utah DWQ is delegated to administer the NPDES permitting program for the state of Utah. Therefore, in October 2011, DWQ made state administrative code changes (R317-8-9) and issued the first Utah Pollutant Discharge Elimination System (UPDES) Pesticide General Permit (PGP) which has been renewed every five years thereafter.<br><br>There are some requirements of the UPDES PGP that are redundant in the FIFRA Program, however there are several water quality protections in the UPDES PGP that are not found under FIFRA. In addition, the UPDES PGP provides additional controls on discharges and provides a means for DWQ to conduct enforcement in the event of a water quality problem. The PGP also provides a means of compliance with Utah's water quality standards.<br><br>DWQ appreciates the Mosquito districts' compliance with FIFRA requirements, however compliance with the UPDES permitting program is also required by pesticide operators in Utah. Permittees that control mosquitoes will continue to need to comply with the PGP. |
| 4 | Dr. Brian Moench, Utah Physicians for           | None                    | <i>Comments from the Utah Physicians for a Healthy Environment (UPHE) group provided public comments which can be found at the following link: <a href="https://drive.google.com/file/d/1DPOnPR3x2i_r2YNNC_Fyq8tKINFb-FE/view?usp=sharing">https://drive.google.com/file/d/1DPOnPR3x2i_r2YNNC_Fyq8tKINFb-FE/view?usp=sharing</a></i>  | Please refer to Comment #1.<br><br>The Salt Lake City Mosquito Abatement District (SLCMAD) is allowed discharge of pesticides to waters of the State through compliance with the UPDES PGP.   |

|    |                       |      |  |  |
|----|-----------------------|------|--|--|
|    | a Healthy Environment |      | <i>Also, a study regarding pesticide risks can be found at the following link: <a href="https://drive.google.com/file/d/1InaMiZxtTb1ZKrx5UlhZUmytypYFxiIV/view?usp=sharing">https://drive.google.com/file/d/1InaMiZxtTb1ZKrx5UlhZUmytypYFxiIV/view?usp=sharing</a></i>   | SLCMAD is allowed to use EPA registered pesticides as long as FIFRA label instructions are followed. Utah DWQ is following the compliance model established by the National Pollutant Discharge Elimination System (NPDES) program and the federal Pesticide General Permit. |
| 5  | Nancy Alice McHugh    | None | <p>It had been shown by Utah Physicians for a Healthy Environment and Dr Brian Moench's testimony (&amp;detailed report) to the Salt Lake City Council that the pesticides being used by the Salt Lake City Mosquito Abatement District are unnecessary, counter-productive and dangerous to human health.</p> <p>SLCMAD has acted in gross violation of the conditions of their existing permit. SLCMAD was to use Integrated Pest Management (IPM) practices which, among many other things, involve using pesticides only as a last resort when non-chemical strategies have failed.</p> <p>We need a public hearing to determine whether or not SLCMAD should be allowed to renew its permit. A public hearing will enable us to more thoroughly expose their violations of that permit and why it should not have it renewed.</p> | Please refer to Comment #1.  |
| 6  | Katie Pappas          | None | I am writing to request that there be a public hearing prior to extending the Salt Lake City Mosquito Abatement District's permit, enabling the spraying of toxic pesticides in the northwest quadrant. I believe SLCMAD has not attempted to address the mosquito problem with other less toxic methods, as they are required. The area they are spraying is ecologically sensitive. The wetlands and area on the south end of the Great Salt Lake provide habitat for wildlife and migratory birds that depend on the insect populations for survival. Every effort should be made to address the mosquito population without using toxins which also negatively affect the human population.  | Please refer to Comment #1.  |
| 7  | Kandy Richards        | None | I am very concerned about the ongoing and increased use of pesticides. It is my understanding that SLCMAD has acted in gross violation of their existing permit, and asking that you request a public hearing on whether SLCMAD should be allowed a renewal of their permit. We must pay more attention to our environment and stop poisoning ourselves.   | Please refer to Comment #1.  |
| 8  | Angie Castle          | None | As a lifetime resident of the Wasatch Front, I'm increasingly concerned about the decisions being made which ignore the health and well-being of the citizens. Pesticides are a known carcinogen. The large amount being sprayed in the wetland area of the Great Salt Lake is unacceptable. Please do not blindly renew this permit without requiring SLCMAD to exhaust all other non-chemical options. In fact, it would only be fair to the public to require a hearing related to the alleged wrong doings and permit violations of SLCMAD.  | Please refer to Comment #1.  |
| 9  | David Pedersen        | None | <p>I just learned that SLCMAD has been violating many of the conditions of its UDWQ permit, especially the clause that requires the exploration of all non-pesticide alternatives (the "last-resort" principle). As someone with many friends in Utah, I am alarmed and upset by this, and as such I respectfully request that your department hold a public hearing regarding the proposed renewal of the SLCMAD's permit (something that, in my opinion, should not happen). People need to be heard, especially when the matter at hand is literally one of life or death.</p> <p>There are far better options for pest control, such as insect deployments (like Winnipeg does with its annual releases of dragonflies to control its mosquito issue), and the SLCMAD should be using those instead.</p>                           | Please refer to Comment #1.  |
| 10 | Aria Klein            | None | I believe the SLCMAD has acted in gross violation of their existing permit to use IPM practices, among many others. These pesticides are harmful for humans, increase poor air quality and damage the GSL ecosystem. I would love to request a public hearing to discuss this issue.   | Please refer to Comment #1.  |
| 11 | Tussy King            | None | As a constituent of SLC, I would like to request that a public hearing regarding SLCMAD's lack of adherence to their permit guidelines be held before that permit is renewed. SLCMAD has not shown interest in using the least amount of pesticide necessary according to guidelines.  | Please refer to Comment #1.  |
| 12 | Julia D'Alesandro     | None | Please allow a public hearing for the pending pesticide permit application. Continued spraying is not the only measure that can be taken and it will further pollute our air and damage young children's lungs. Please let's explore our options.  | Please refer to Comment #1.  |

|    |                                 |      |   |                             |
|----|---------------------------------|------|---|-----------------------------|
| 13 | DK Kilmer                       | None | I am a registered voter and very concerned about pesticides being sprayed in the Northwest quadrant of this city where winds could carry toxic chemicals into residential areas and school yards. Please schedule a public hearing on this issue to allow citizen input. I do not believe a permit to spray is a healthy remediation.   | Please refer to Comment #1. |
| 14 | Stacey Cole, Brett Evans        | None | SLCMAD has acted in serious violation of their existing permit, and as residents of Salt Lake City my husband and I request a public hearing on whether SLCMAD should be allowed a renewal of their permit.   | Please refer to Comment #1. |
| 15 | Joan Entwistle                  | None | As a Utah resident I am concerned about aerial spraying for mosquitoes in Utah, and especially around the Great Salt Lake. Spraying impacts all of us - we pay for the health costs of autism and other impacts of pesticides on human health. These impacts are far worse than the impact of West Nile Virus. Having lived in an area of the country where West Nile Virus, and Lyme disease has been endemic for many years, I learned that aerial spraying large areas does not reduce the risk to humans, and is unnecessary. This spraying impacts other insects, and these insects are part of the food chain. The impact to human health of damaging wetlands and the resulting increase in pollution of the Great Salt Lake impacts all of Utah, as all Utahns will have to bear the health care costs and economic costs of the damage.<br><br>Please ask for a 2-year moratorium on further spraying so these issues can be studied and a better plan can be developed. | Please refer to Comment #1. |
| 16 | Lionel Trepanier                | None | I have observed that SLCMAD has acted in gross violation of their existing permit. SLCMAD has been spraying pesticides over wetlands without attempting to use and despite the existence of less dangerous methods of insect control. I request a public hearing on whether SLCMAD should be allowed a renewal of their permit. Please keep me informed of your actions regarding this matter.  | Please refer to Comment #1. |
| 17 | Kathy Pope                      | None | I am against pesticides that have bad side effects being used in SLC. I am also opposed to a property tax hike to pay for getting poisoned.   | Please refer to Comment #1. |
| 18 | Sam Rushforth                   | None | SLCMAD has acted in gross violation of their existing permit. I request a public hearing on whether SLCMAD should be allowed a renewal of their permit.   | Please refer to Comment #1. |
| 19 | John Prehn                      | None | No new permit. Public hearing. Massive dump of highly toxic chemicals is not the answer. We live here, too.   | Please refer to Comment #1. |
| 20 | LeRoy Anderson, Dianne Anderson | None | SLCMAD has done things that violate their permit and that endanger public health. We think it's important to have a public hearing on whether SLCMAD should be allowed to renew their permit.   | Please refer to Comment #1. |
| 21 | Brent Tucker                    | None | I believe SLCMAD has acted in gross violation of their existing permit with regard to spraying on the northwest quadrant of Great Salt Lake. This activity will continue the destruction of the wetlands. Please request a public hearing on whether SLCMAD should be allowed a renewal of their permit.  | Please refer to Comment #1. |
| 22 | Robert Nelson                   | None | It appears clear to me that SLCMAD has significantly violated its existing permit. Therefore, I respectfully request a public hearing on whether SLCMAD should be allowed a renewal of their permit.  | Please refer to Comment #1. |
| 23 | Kirk Mendenhall                 | None | The Salt Lake City Mosquito Abatement District (SLCMAD) is seeking to renew a permit from the Utah Division of Water Quality (UDWQ) to spray pesticides in the Northwest Quadrants, an area that includes sensitive wetlands of the Great Salt Lake. The permit requires SLCMAD to use Integrated Pest Management (IPM) practices which allows for use of pesticides ONLY as a last resort when other non-chemical strategies have failed. SLCMAD has not come close to exhausting non-chemical strategies and uses massive amounts of pesticides regardless of need or use of other tactics. For this reason, and the corresponding impact on human health and the Great Salt Lake ecosystem, SLCMAD is in gross violation of their permit. Accordingly, UDWQ must hold a public hearing to determine if and when SLCMAD should be allowed a renewal of their permit.  | Please refer to Comment #1. |
| 24 | Larry Dean                      | None | I would like to see the Abatement Districts permit reviewed to determine if they are in violation of their existing permit. Salt Lake Valley residents should not be exposed to the toxic chemicals being used by the district.   | Please refer to Comment #1. |

|    |                          |      |  |                             |
|----|--------------------------|------|--|-----------------------------|
|    |                          |      |  |                             |
| 25 | Marlene Deer             | None | I'm requesting that you set up a public hearing of SLCMAD to determine whether their permit should be renewed. My opinion is that it should not since they have not followed the requirements of their existing permit with regard to pesticide spraying for mosquitos. A hearing would allow the public to learn more about SLCMAD's past actions and provide a forum for input regarding permit renewal.   | Please refer to Comment #1. |
| 26 | Janet Houtz              | None | As a citizen of Salt Lake County, I would like to request a public hearing to discuss the permit renewal for mosquito abatement. This is an important health and environmental issue which needs to be addressed.  | Please refer to Comment #1. |
| 27 | Amy Kopschke             | None | I am a resident of Salt Lake County and am concerned about the renewed permit for SLCMAD to spray pesticides. I believe they have acted in gross neglect by not using other methods before pesticides, and should not be allowed to continue this practice.<br><br>Please hold a public hearing to determine if they should be able to continue their pesticide use under the permit.  | Please refer to Comment #1. |
| 28 | Annie Studer             | None | I am a Salt Lake City resident who does not want any mosquito abatement done with pesticide spraying since I personally react very poorly to the chemical toxicity and it is very dangerous for youth, the elderly, and those who are immuno-comprised, especially with Covid continuing to affect people's health.<br><br>Additionally, the SLCMAD is already violating their existing permit with practices that are violating wetland and human health considerations.<br><br>Please go forward with a public hearing to hear why SLCMAD should not be allowed to renew its permit.   | Please refer to Comment #1. |
| 29 | Dorothy Owen, Westpointe | None | Westpointe is the home of the administrative and field offices of the SLCMAD. It is the largest community (by area) within Salt Lake City with both urban and rural components. As a result, the people who live here have a greater interest in the issues facing the abatement district. To that end the Westpointe Council has hosted SLCMAD on a number of occasions to make people aware of their activities. People in the area are concerned about the health and safety of the environment especially with the tremendous increase in development. It is the community council's responsibility to make sure all voices are heard regarding important issues impacting the area. A number of questions and concerns have been raised regarding the pending permit which have not been answered. This is a broader issue than just our local area and needs to be addressed at a higher level. Therefore, we urge the Division to host a public hearing before making a decision on this permitting matter. | Please refer to Comment #1. |
| 30 | Eugene Jones             | None | I understand that the Salt Lake City Mosquito Abatement District wants to renew a permit to spray pesticides in the Northwest Quadrant. That permit mandates that the District use pesticides only as a last resort because the area includes Great Salt Lake wetlands of the resort. As I understand it, the District not tried several other alternatives, but has instead has sprayed extensively. As a citizen of Salt Lake, I therefore request a public hearing on this renewal process.   | Please refer to Comment #1. |
| 31 | Rebecca Burrage          | None | I am writing to ask that a public hearing be allowed prior to issuing a renewal of the pesticide spraying permit for Salt Lake City Mosquito Abatement District. I have personally spoken with the director of the equivalent program for the city of Boulder, Colorado. She and her staff have been able to manage their mosquito population well without any pesticides. I would like to see our local districts seriously look at ways to avoid use of toxic pesticides that are so bad for fetuses, children, and wildlife.  | Please refer to Comment #1. |
| 32 | Ashley D.                | None | I believe SLCMAD has acted in gross violation of their existing permit, and that you request a public hearing on whether SLCMAD should be allowed a renewal of their existing permit. This is a huge concern and possibly violates public health and safety regulations. This is extremely upsetting to me as I am a breast cancer survivor. I was diagnosed in 2018 at 39 years old. I have no genetic mutations to link the cancer and thus exposure to environmental pollutants and toxins is one of the most plausible explanations for why a healthy young woman might get invasive breast cancer at such a young age. I have become increasingly aware of things that are done without the public's knowledge or ever giving them the right to have a say so in things that are ultimately extremely harmful to their health and safety  | Please refer to Comment #1. |

|    |                               |      |   |                             |
|----|-------------------------------|------|---|-----------------------------|
|    |                               |      | and only when people get very sick and end up with life altering diseases like cancer does it come up in discussion of how or why this could happen. Please stop the secretive and morally wrong practices of continued violations that are jeopardizing the health and safety of the general public and doing so without ever bothering to educate and allow the public to have their say on whether they want these toxic pollutants sprayed near or on the places they live. Utah has seen what happens when they fail to warn the public of certain toxic chemicals being dumped or sprayed near or on where people live. Please don't allow another downwinders type of disaster to destroy the lives of innocent people and for potentially generations from now have this exposure wreak havoc on health and safety. The public has a right to know of any potential dangers that threaten the environment they live in. It is the Utah governments responsibility to ensure public safety first and protect people from these kinds of gross violations. Therefore, I request that you hold a public hearing before you renew the current SLCMAD permit.  |                             |
| 33 | Benjamin Jordan               | None | It appears the Salt Lake City Mosquito Abatement District (SLCMAD) has acted in gross violation of their existing permit with UDWQ. I request a public hearing on whether SLCMAD should be allowed a renewal of their permit.   | Please refer to Comment #1. |
| 34 | Thea Brannon Salt Lake County | None | I am staunchly opposed to the renewal of the pesticide application by the Mosquito Abatement people. I don't think enough people understand that much more can be done instead of heavy pesticide application. I think you should hold a public hearing so that the citizenry, some of them newly awakened to our shrinking Great Salt Lake and the area abutting it which is critical to hundreds of thousands of birds, may benefit from an open vetting of this important issue.   | Please refer to Comment #1. |
| 35 | Susan Furca                   | None | Because I believe SLCMAD has acted in violation of its permit, I think a public hearing should be held regarding the renewal of the permit.   | Please refer to Comment #1. |
| 36 | Malin Moench                  | None | I urge the Utah Division of Water Quality (UDWQ) not to renew the Salt Lake City Mosquito Abatement District's permit to spray pesticides in the Northwest Quadrant. I am concerned that the Great Salt Lake wetlands ecosystem is being degraded by its routine, widespread spraying of pesticides in the Quadrant. I am even more concerned that my relatives who work year-round at the Salt Lake Airport are putting their health at risk by long-term exposure to the pesticides being sprayed in the area where they work.<br><br>I understand that the permit authorizing SLCMAD's routine spraying operation requires it to try all other methods of mosquito control first before resorting to toxic pesticides, and that SLCMAD is not meeting that requirement. I also understand that the permit requires SLCMAD to gather mosquito population data to establish population baselines before it sprays for mosquitos so that it can assess their effectiveness, but that SLCMAD ignores this requirement as well.<br><br>Please withhold renewal of SLCMAD's permit so that it will take seriously the requirements of Integrated Pest Management that is currently disregarding. Whether or not SLCMAD is violating its permit is something that requires thorough investigation in a hearing before SLCMAD's permit is renewed. | Please refer to Comment #1. |
| 37 | John Burton                   | None | I am aware of the many health hazards associated with pesticide spraying--so much so that I cautioned a friend in Illinois who lives besides someone spraying for mosquitos--My friend has no more Monarch butterflies in her Monarch Garden. This spraying is helping us to our demise. My husband sprayed DDT in orchards in the NE for years, and is still alive. He is lucky, but many were impacted. I see the mosquito abatement plan as similar, in that there is little concern for the people or animals involved. The mosquitos just become more resistant.   | Please refer to Comment #1. |
| 38 | Sandra Bright, Taylorsville   | None | I request a public hearing on whether SLCMAD should be allowed renewal of their pesticide spraying permit.  | Please refer to Comment #1. |
| 39 | Kristen Healy, LSU            | None | I wanted to provide comment on behalf of mosquito control regarding Permit Number UTG170000. I am an associate professor at Louisiana State University, and my research focus is evaluating potential impacts of pesticides on the environment and non-target organisms. I have worked extensively with local beekeepers, large scale commercial beekeepers, federal honey bee researchers, and our work has shown that when <b>mosquito control is done correctly and according to label instruction, we</b>   | Please refer to Comment #1. |

|    |  |       |  |                             |
|----|--|-------|--|-----------------------------|
|    |  |       | <p><b>would not anticipate negative impacts to pollinators.</b> We've expanded our research projects into other non-target organisms, including bumble bees and crawfish. In all of our studies, we include research experts on mosquito biology and control, along with researchers with expertise in honey bees, (or crawfish, bumblebees, etc. depending on the focus of the study). We have demonstrated in all studies so far that <b>we would not anticipate any potential impacts to these non-target organisms when mosquito control is done correctly.</b> As several researchers (including myself) have spoken at a national level on this topic, we've seen a huge effort towards mosquito control and beekeepers working together. As we educate each other on both sides, we all see the value in protecting both the environment and the public from mosquito-borne diseases.</p> <p>The science behind mosquito control applications is to provide the lowest possible dose as possible. This is much different from what people envision from products used only 60 to 80 years ago. Decades of research on product development has allowed us to develop products that break down within hours and that are less toxic than table salt. In fact, the actual dose we apply is often equivalent to a teaspoon that is spread over an entire acre. (And that teaspoon of product is designed to treat an entire air column above the acre). The advancement of this science has allowed mosquito control to provide huge public health benefit to local citizens, while minimizing any potential risk to the environment. The goal of mosquito control is always "One health" focused, centering around the idea of protecting human health and animal health, while maintaining a healthy environment.</p> <p>As an expert on public health, environmental health, mosquito control, honey bees, and ecological risk assessment, I'd be happy to answer any questions you may have.</p>  |                             |
| 40 | Mark Clifton<br>North Shore<br>Mosquito<br>Abatement<br>District | None. | <p>I am writing as the Executive Director of a mosquito abatement district in northern Illinois in support of renewing the UPDES discharge permit for mosquito control in the state of Utah. While I am not a resident of Utah, I am qualified to speak on the importance of mosquito control in supporting the economic development, quality of life, and most importantly, the public health of communities across the country. Mosquito control is a vital, yet somewhat obscure component to creating healthy, active, and comfortable communities. At best, mosquitoes are annoying and inhibit a variety of outdoor activities. At worst, mosquitoes disrupt economic development, and are capable of transmitting serious and fatal diseases to humans, pets, livestock and other animals. Because most mosquito control operations work tirelessly in the background and are usually out of the spotlight, it is easy for public misconception to develop about how mosquito control agencies function. It is also easy to underestimate the importance mosquito control and chemical control methods play in protecting the public health.</p> <p>In 2018, the CDC issued a <i>Vital Signs</i> factsheet titled, "Illnesses on the rise" which outlined the rising danger to human health from vector-borne diseases. Among the CDC's findings were that human disease cases from mosquito, tick and flea bites <u>tripled</u> between 2004 and 2016. Nine new pathogens spread by mosquitoes and ticks have been discovered or introduced since 2004 (CDC 2018). The CDC also found that mosquito-borne epidemics are happening more frequently, are more severe, and will continue to get worse as the world grows warmer and more connected (CDC 2018). Distributions of mosquitoes and ticks are expanding, distributions of arboviruses are similarly poised to expand; sometimes in dramatic fashion as the world witnessed with the Zika virus in 2016. There is a long list of known pathogens which, if introduced, have the potential to cause outbreaks in the United States. The CDC further found that, "<b>Local and state health departments and vector control organizations face increasing demands to respond to these threats</b>" and, "<b>More proven and publicly accepted mosquito and tick control methods are needed to prevent and control these diseases</b>"(CDC 2018). As if to underscore the CDC's concern about the state of vector control across the nation, over 1000 people were sickened by a severe outbreak of West Nile virus in Maricopa County, Arizona in 2021 alone. These people likely all needed profound and extended health care. Many are likely to be permanently disabled from the effects of neuro-invasive West Nile virus. Many others will die. A resident of the District where I work here in Illinois wrote to me about her husband's experience after contracting</p> | Please refer to Comment #1. |

|    |  |       |   |                             |
|----|--|-------|---|-----------------------------|
|    |  |       | <p>West Nile virus in 2021. She said, <b>“My husband died of West Nile Virus [...] after three weeks in the ICU... He went through three weeks in the ICU losing the use of his limbs, unable to speak, unable to breathe without assistance and finally his kidneys gave out. I am told by so many people that they didn’t understand the danger or didn’t know about it.”</b> I include this quote here because nothing creates the proper perspective better than hearing the actual words from someone who has had a profound experience with a vector-borne disease like West Nile virus. Preventing these kinds of outcomes on a community scale can only be accomplished through the treatment of locations where mosquitoes reproduce which, as we all know, are aquatic and require a NPDES permit.</p> <p>While it is tempting to think that mosquito control can be accomplished solely through natural methods, by the introduction of more predators, or by planting repellent plants, the majority of public health professionals understand the role chemical and biopesticide adult and larval control methods play in reducing the risks to public health. A 2017 study by the National Association of County and City Health Officials (NACCHO) recognizes 1) adult and larval control and 2) routine vector control via chemical, biological, or other means as two of the five absolute core competencies required of a vector control agency. The study also identified that 32% of vector control organizations are not currently performing chemical abatement activities and this deficiency is, <b>“leaving their communities at risk”</b> (NACCHO 2017). These are the words of county and city health officials and not my own. Unfortunately, 84% of mosquito control organizations are lacking in at least one core competency as identified by NACCHO. The Salt Lake City Mosquito Abatement District is one of just a few mosquito control organizations across the United States that meets <b>all</b> of NACCHO’s core and supplemental competencies and would be considered “fully capable” of meeting the rising burden of vector-borne disease. Preventing mosquito abatement districts like SLCMAD from obtaining an UPDES general permit for mosquito control would instantly and grievously degrade the capabilities of this organization, degrade the quality of life within the district, and would seriously place Salt Lake City’s communities at a tangible risk for a serious mosquito-borne disease outbreak. To put it plainly, the need for proficient vector control has never been greater at the same time the State of Utah is entertaining the idea of limiting the most important tools available to protect public health by failing to issue an UPDES general permit for mosquito control activities.</p> <p>Thank you for hearing these comments. I hope those that will be deciding the general permit for mosquito control understand the importance this permit plays in enabling mosquito control districts to perform their vital public health function.</p> |                             |
| 41 | Craig Hidalgo, Clarkston Town                  | None. | <p>As a mayor of a small municipality in the extreme northern western part of cache valley I would like to encourage you to support the continued abatement efforts of Cache Mosquito Abatement District. It has been brought to my attention that there are those who oppose this practice but as a community surrounded by water, I cannot emphasize enough just how vital this is to help us to enjoy being outside during the spring, summer, and fall seasons. I know the citizens of my community wholeheartedly support this initiative as well because very early in the spring I start to receive calls complaining about the mosquitos and it doesn’t stop until it freezes.</p>  | Please refer to Comment #1. |
| 42 | Scott Archibald, Sunrise Engineering           | None. | <p>I am writing to show support for the continued mosquito abatement spring in the State of Utah.</p> <p>Please continue the practice.</p>  | Please refer to Comment #1. |
| 43 | Rui-De-Xue, Anatasia Mosquito Control District | None. | <p>I heard that Salt Lake City Mosquito Control Abatement District to apply for renewal of the NPDES permit and you collect the public comments. I would like to provide my comments and strongly support to renew the permit based on my more than 40-year experience and expertise.</p> <p>The mosquito-borne diseases are still a big threat to our public health. Mosquitoes are still number 1 animal that kill the people and animals and mosquito-borne disease-malaria still caused about 300,000 deaths per year worldwide. Based on CDC report, 9 new germs/pathogens have been found in the USA in the past decades, such as, West Nile, Zika, and Chikgunya. Zika outbreak in Brazil and several other</p>  | Please refer to Comment #1. |

|    |                                       |       |   |                             |
|----|---------------------------------------|-------|---|-----------------------------|
|    |                                       |       | <p>countries, and Florida in 2014-2016. There were more than 1,500 new born babies/children with small heads in Brazil became disable for life time due to their mother-infected with Zika. Florida had several cases in 2016. Each child may cost over \$3 million for her/his life time support. Also, there are still many travel-related human cases, malaria, dengue, Zika... and invade vector species have increased due to global warming, urbanization, and global transportation/migration.</p> <p>The pesticide application is still one of the major tools and methods to control mosquitoes and other vectors. DDT application in the 1950's &amp; 1960's helped the USA and other countries to have get ride of malaria. The DDT has been banned in the USA in the early 1970's and many other countries. Pyrethroid insecticides and several biopesticides have been used as one of major tools for mosquitoes and other vector control in the past 40 years. Due to the high resistance of mosquitoes and other vectors to current insecticides and the expensive cost for research and development of new mode of action pesticides, we face the strong shortage of effective pesticides as the weapon to fight the outbreak of mosquito populations and mosquito/vector-borne diseases. Currently, there are only a few kinds of pesticides available and we do not have too many choices from the marketing and face a big challenge for control of mosquitoes and other vectors.</p> <p>Current pesticides included biopesticides and chemical pesticides all are under the FFIRA and registered by EPA. They are safe for people, animal, and environments if following the labels and use properly. Also, all applicators have a good training to handle and use the pesticides and the most applicators have the licenses and received annual continue education for credits.</p> <p>We do use integrated pest management (IPM) strategy to control mosquitoes and other vectors. Application of pesticides is one of integrated methods or tools. Usually, the pesticide application is one of the last choice, if other methods do not work and could not control the situation. Mass application of pesticides only used for the control outbreak of mosquitoes and mosquito-borne diseases after flooding, hurricanes, and other disaster.</p> <p>In conclusion, I strongly support and ask you to support and renew the NPDES permit based on my many year experiences and expertise.</p> |                             |
| 44 | Ilene Risk                            | None. | <p>As a local public health practitioner for over 25 years, I have followed up on numerous arboviral disease reports. I have talked with many individuals who have been impacted by mosquito borne diseases in Salt Lake County, and I have seen the devastation caused by mosquito borne diseases, including long-term disabilities and, sadly, death.</p> <p>As a current board member of a mosquito abatement district, I know how carefully mosquito control is managed by the districts. Districts strictly follow guidelines for pesticide use and, in doing so, lower the burden of mosquito borne diseases. In addition, mosquito districts closely monitor the types of mosquitoes and the presence of disease in those mosquitoes to ensure that they provide a targeted response from pesticide use. While there are some concerns with pesticide, pesticides play an important public health role and are used judiciously by mosquito control agencies.</p> <p>Mosquito borne diseases pose a significant public health threat, and government agencies must continue to commit to mosquito control efforts.</p>   | Please refer to Comment #1. |
| 45 | Justin Harbison,<br>Loyola University | None. | <p>I am writing as a faculty member of the Loyola University Chicago's Parkinson School of Health Sciences and Public Health. The focus of my research for the past decade has been on improving our capacity to identify and respond to mosquito-borne diseases. This includes the recent pandemics of Zika and Chikungunya viruses that have threatened the United States. My research has taken me from Florida, to Western Kenya, to California, and most recently to the Chicagoland area in Illinois. From my experience, it is clear to me that the work performed by mosquito abatement districts is critical to public</p>   | Please refer to Comment #1. |

|    |            |       |  |                             |
|----|------------|-------|--|-----------------------------|
|    |            |       | <p>health. As such, I write you to strongly support renewing the General UPDES Pesticide Permit for mosquito control in the state of Utah.</p> <p>Clearly, I'm not a resident of Utah but what happens in your state may have troublesome repercussions throughout the country. As this current COVID pandemic has shown us, duplicative and unnecessarily burdensome regulations hinder our timely response to disease threats. By not renewing the UPDES General Permit, the science-based mosquito abatement work performed in your state will be unnecessarily mired in regulations. Simply put, there is no gained benefit to both public health and the environment by doing away with the General Permit for mosquito control. In fact, removing UPDES will have a negative effect on Utah's public health mosquito control work and reduce the capacity to protect the safety of your citizens.</p>  |                             |
| 46 | Joe Conlon | None. | <p>I welcome the opportunity to provide comment on the upcoming renewal of the UPDES Pesticide Permit. As a citizen concerned with both the environment and efficient and science-based government regulation, I feel strongly that the General Permit not be renewed for the following reasons:</p> <ul style="list-style-type: none"> <li>• Environmental concerns are already fully vetted as a condition of pesticide registration via the Federal Insecticide, Fungicide and Rodenticide Act, which regulates manufacture, composition, sale, labeling, use and disposal of registered pesticides, including those that mosquito control entities utilize to prevent/control mosquito-borne disease. The registration process involves an intensive and costly evaluation of health &amp; environmental data and ability to issue data call-ins where data are missing. It also evaluates a risk/benefit balancing. FIFRA 3(c)(5) states that a pesticide can be registered a pesticide only if it will not cause "unreasonable adverse effects on the environment." The pesticides used by Utah mosquito control entities have met this standard.</li> <li>• The resources (both monetary and manpower-related) required to obtain approval, monitoring and reporting place significant constraints and potential delays in vital mosquito-borne disease prevention and control by siphoning off worker time and scarce funds for no tangible environmental benefit beyond meeting FIFRA requirements. Indeed, every dollar or man-hour needed to meet UPDES requirements beyond FIFRA is a dollar not being put toward protecting the Utah citizen's health. Has the past implementation of Utah's General Permit resulted in a documented reduction in environmental harm? To my knowledge this has not been demonstrated.</li> <li>• Meeting the regulations requirements potentially reverses mosquito control evolution toward biological controls by decreasing larvicide use in subject waters, thus expanding use of adulticides for the same measure of control, which increases selection pressure for pesticide resistance.</li> <li>• It unnecessarily places public health entities in danger of civil lawsuits, compromising mosquito control decisions based on proven science. This will mitigate science-based control strategies that will result in fewer environmental protections from zoonoses that affect wildlife as well as humans.</li> <li>• In addition, liability fears are fueling pressures to forego consideration of preventive adulticiding until human cases have presented, allowing for transmission to take place while diseases are incubating in the human population. This effectively makes humans disease sentinels. Nationally, mosquito-borne disease victims alleging that responsible entities did not provide adequate public health protection have filed lawsuits.</li> </ul> <p>I am fully cognizant of environmental concerns associated with pesticide use. If applied illegally in violation of the label, pesticides can be harmful. That is why FIFRA was enacted - and FIFRA is the law. Public Health entities such as mosquito control districts certainly have no interest in harming the environment - their personnel live here too. But the taxpayers need to be shown and convinced that</p> | Please refer to Comment #1. |

|    |  |       |  |                             |
|----|--|-------|--|-----------------------------|
|    |  |       | <p>the UPDES has a demonstrably good return on investment, or provides any value added in terms of significant gains in environmental improvement beyond the theoretical. I believe a comprehensive review of the history of the UPDES implementation will not find data proving any significant environmental enhancement. The potential human cost from withholding legal and scientifically-based mosquito control methodologies as a result of adherence to duplicative UPDES regulatory requirements, however, may prove incalculable.</p>  |                             |
| 47 | Christopher Lesser, Manatee County Mosquito Control District | None. | <p>Permit ID: UTG170000 UPDES Pesticide General Permit</p> <p>The Manatee County Mosquito Control District (FL) is submitting comments to the Utah Department of Environmental Quality (Agency) pertaining to the Agency's renewal of the National Pollutant Discharge Elimination System (NPDES), Pesticide General Permit (PGP) for aquatic pesticide use specific to the Salt Lake City Mosquito Control District. The Manatee County Mosquito Control District located in southwest Florida provides public-health services to 400,000 residents and nearly 700,000 annual visitors. The District is responsible for protecting the public from mosquito borne diseases to include Zika, Chikungunya, Dengue, West Nile Virus, Malaria, and Eastern Equine Encephalitis. These comments are submitted as an amicus curiae to the Agency.</p> <p>Background - How We Got Here:</p> <p>All mosquito control districts (MCD) in the United States, including Manatee County and Salt Lake City Mosquito Control District have historically applied insecticides under the regulatory authority of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) which ensured environmentally safe and efficacious chemicals to be market available for protecting human and domesticated animal health from mosquito borne diseases, for ensuring quality-of life by minimizing nuisance mosquito populations and promoting the economic development of lands often plagued by high populations of mosquitoes. FIFRA was Congressionally-authorized in 1947 and Congressionally-modernized in 1972; to date, virtually all mosquito control districts in the US have been able to operate very well under FIFRA in delivering quality public service while simultaneously having no environmental concerns, including concerns over water quality. FIFRA is a science-based chemical registration process that is recognized as one of the finest in the World. After a public health insecticide is thoroughly evaluated over the course of 10-15 years, the EPA can culminate this process with a statement "this product can be applied without unreasonable risks to human health, wildlife or the environment." Additionally, it is important to underscore the involvement of Congress in FIFRA; FIFRA was passed by Congress and has been in existence for 50+ years with various Congressional modifications during this period, supposedly acting in accordance of the will of the people. During this 50-year period, Congress never felt that beneficial-use insecticides, applied according to strict EPA label instructions, were ever a "pollutant". These highly regulated insecticides were developed and tested for the betterment of society. These are insecticides that are used to control diseases such as Zika, West Nile Virus, Eastern Equine Encephalitis, St. Louis Encephalitis, malaria, yellow-fever, dengue fever as well as controlling nuisance populations of mosquitoes and ensuring economic growth in areas that were previously uninhabitable prior to modern mosquito abatement practices. Never did Congress consider insecticides to be a point-source pollutant. Unfortunately, the will of Congress is no longer being executed. Through several "environmental-activist" lawsuits going back to the late 1990's, a handful of Federal Court decisions, an undefended 2006 position from the EPA and lack of action from Congress, beneficial use insecticides are being regulated as a point-source pollutant under the CWA and NPDES process that started April 2011. This is a very unfortunate position for all pesticide users.</p> <p>We continue to feel that the additional regulatory layer added by the NPDES-permitting process increases the workload to our programs while adding no environmental benefits or protection. Over the past 5 years, the Manatee County MCD has operated under both FIFRA and the CWA with the additional burden of the CWA + NPDES process costing the District approximately \$100,000 in the first year of implementation and \$50,000 each year thereafter. There have been absolutely no additional</p> | Please refer to Comment #1. |

|    |  |       |  |                             |
|----|--|-------|--|-----------------------------|
|    |  |       | <p>environmental safeguards offered by NPDES that were not already in place under FIFRA, but this permit has reduced operational efficiency, forced the reallocation of money from protecting public health to NPDES compliance, and opened the District to citizen-lawsuits.</p> <p>The Manatee County MCD appreciates the Utah Department of Environmental Quality willingness to accept our public comments on the proposed reissuance of the Pesticide General Permit (PGP) and accept our support of the efforts made by the Salt Lake City Mosquito Control District to continue to protect public health. Below, the Agency will find a series of General Comments related to this process.</p> <p>General Comments: Foremost, the Agency is encouraged to re-issue a PGP to the Salt Lake City Mosquito Control District unless the Agency has empirical, quantitate evidence-based information that the District has somehow impaired water quality of the State in violation of any EPA chemical label used to control mosquito populations.</p> <p>Additionally, any renewed PGP should not create or impose any additional burdens or new costs upon end-users of aquatic pesticides beyond that which already exists. The EPA developed the PGP in 2010 in compliance with the 6th Circuit Court's mandate for NPDES permitting. Seemingly, the PGP's contents developed at that time should also meet the CWA + NPDES requirements for public health pesticide applications of today. We ask that no additional environmental regulations, surveillance, data collection, GIS mapping or chemical tracking mandates be placed into the new PGP that would place an un-necessary financial burden upon the already cash-limited District.</p> |                             |
| 48 | Elliott Christensen, North Point Consolidated Irrigation Company | None. | <p>I am writing in support of the above captioned permit renewal for Salt Lake City Mosquito Abatement District ('the District').</p> <p>Our North Point Canal delivers the yearly water supply to most of the major critical water fowl habits along the southeast shores of the Great Salt Lake. These include the National Audubon's shorebird sanctuary, Salt Lake Airport's and Kennecott's shorebird mitigation ponds, and most of the dozen major waterfowl goose and duck hunting clubs (covering many thousands of acres in total).</p> <p>Our operations and those above mentioned water users (our shareholders) cannot function without the critical services rendered by the District, including (most importantly) their continued use of the chemical applied as requested in this permit renewal.</p> <p>Please proceed with all due haste in moving this renewal permit forward for approval!</p>   | Please refer to Comment #1. |
| 49 | Jeanne Moeller, Anatasia Mosquito Control District               | None. | <p>I strongly support the renewal of the NPDES permit. As an elected official for an Independent Mosquito District with 16 years of service, my comments are based on the knowledge I have learned as a lay person. When I first ran for office my campaign was aimed at reducing pesticide use, however, with an open mind and a willingness to learn, I found that pesticide applications when correctly applied is one of the major tools and methods to control mosquitoes and other vectors. Every mosquito control employee is provided training to handle any pesticides used in their areas. In addition, they must receive annual continuing education credits. Many have advanced degrees. I have attended many American Mosquito Control. conferences, and have heard many presentations from Salt Lake City Mosquito Abatement District employees as well as speaking to them directly. In my opinion, the work they do is science based and they maintain the backup materials to prove what they do is not harmful to the employees who handle those chemicals on an almost daily basis nor are they harmful to residents or the environment. For the past 40 years, Pyrethroids and several bio pesticides have been the major insecticides used in mosquito control agencies. These pesticides are approved by FIRA and are registered by the EPA. What we are now seeing in many areas of the US is a resistance of the current insecticides to many species of mosquitoes. There are fewer tools in our toolbox these days to help us not only control mosquito populations but to also protect our residents from vector born disease. There are fewer new</p>  | Please refer to Comment #1. |

|    |                 |       |   |                             |
|----|-----------------|-------|---|-----------------------------|
|    |                 |       | <p>pesticides being released for our use as the development of new pesticides is expensive for research and development that can and often does take years for EPA approval. Mosquito Control Agencies must be allowed to use the tools at hand to help control Mosquito populations and prevent mosquito-borne disease.</p> <p>The Salt Lake City Mosquito Abatement District uses integrated pest management (IPM) strategies. IPM has its own policies that must be followed in addition to state and federal guidelines. Their staff and the Board Of Trustees are tasked with many legal requirements. Please due your due diligence in researching the successes of the Mosquito Abatement District before you make any decisions in renewing their NPDES permits.</p> <p>I strongly support the renewal of the NPDES permit. It's the best tool in your toolbox to ensure mosquito control is done correctly with high standards that not only protects residents but the environment.</p>   |                             |
| 50 | Aleta Fairbanks | None. | <p>I see that a public hearing has been scheduled for Monday, March 7th about the General UPDES Pesticide Permit. I am definitely in favor of issuing this permit for mosquito control. I personally know three persons who had West Nile virus. One of my friends was sick in the hospital with two other persons who also had West Nile virus. She, fortunately, survived; the other two did not. She suffered greatly and had to learn how to walk and talk again. She is so fortunate that her eyesight and hearing returned, and her digestive system is working well, too. Several years ago, I met someone who was not so lucky. She has to wear sunglasses all of the time because light hurts her eyes, her diet is severely restricted, and she is unable to work. We have a lot of wetlands around the Great Salt Lake that produce mosquitoes, and West Nile virus is present in Utah. People who live around the Jordan River see a lot of mosquito activity, and they are very grateful when mosquito applications are conducted. We must do all we can to protect people from mosquito bites, for they are aggravating in addition to possibly being life-threatening.</p> <p>I have full confidence in the government regulations that have been established to protect public health, and I am not aware of any scientific proof showing that there is a direct relationship between mosquito pesticide applications and any health issues. I encourage you to issue the General UPDES Pesticide Permit.</p> | Please refer to Comment #1. |
| 51 | Richard Loomis  | None. | <p>Thank you for taking my phone call the other day regarding the Pesticide General Permit. Please see my formal comments which are attached.</p> <p><b>Reference: Pesticide General Permit, UTG170000</b></p> <p>I am writing in support of renewing the permit for the next five years without further restrictions. There is no scientific evidence that the pesticides and application practices of mosquito abatement districts including Salt Lake City Mosquito District have violated any EPA standards.</p> <p>It is accepted practice in this country to accept EPA regulations and guidance of pesticides and their application. Unless there is hard scientific evidence to the contrary, the renewal process should be routinely approved without further restriction or limitations. For those who disagree the burden is on them to support their concerns with scientific evidence that meets the rigor of the EPA scientific analysis and process.</p> <p>By restricting mosquito districts from their mission of protecting us from mosquitoes we are needlessly exposing ourselves and especially children to mosquito borne pathogens that can be deadly.</p> <p>I have been learning a lot about this subject since attempting to set up the first ever mosquito abatement program in Mali Africa. The mosquito breeding grounds are strikingly similar in Ouelessebougou Mali and the Northwest Quadrant of Salt City. However, literally everyone contracts malaria in</p>                             | Please refer to Comment #1. |

|    |   |       |  |                             |
|----|---|-------|--|-----------------------------|
|    |   |       | <p>Ouelessebougou, Mali at least once a year and it is not uncommon for up to three children in every village under the age of five die each year from malaria.</p> <p>For those who may have concerns, let them bring science to the table. Meanwhile, let's not step back in time and needlessly expose Utahns to mosquito borne pathogens.</p>  |                             |
| 52 | Dimitrina Bauman                          | None. | <p>I'm very concern if the mosquito control can't be done on the way was done until now. I'm allergic to mosquito bites and without this control (they are doing now) I can't be able to enjoy my outside live during the summer.</p> <p>Without the mosquito control as done now I will probably finish in hospital after a few bites.</p> <p>Please take under consideration my words.</p>   | Please refer to Comment #1. |
| 53 | David Whitney                             | None. | <p>Thank you for the opportunity to comment regarding the UPDES Pesticide General Permit renewal. I would like to speak in support of the renewal of the UPDES Pesticide General Permit for mosquito control. I believe the services that mosquito abatement districts in Utah provide is critical to preventing the spread of diseases through mosquitoes and help protects the quality of life that I enjoy living in Utah. Please consider my local voice before those who do not reside in this state.</p>   | Please refer to Comment #1. |
| 54 | Robert Peterson, Montana State University | None. | <p>Attached please find my public comments regarding Utah Pollutant Discharge Elimination System, Pesticide General Permit UTG170000 and my CV.</p> <p>The intent of my letter is to provide written comments to the Utah Department of Environmental Quality regarding the Utah Pollutant Discharge Elimination System, Pesticide General Permit, UTG170000.</p> <p>I am a professor of entomology at Montana State University and I was the 2019 president of the Entomological Society of America. I conduct research on risks to people and wildlife from tactics used to manage mosquitoes, and a large proportion of the more than 126 research papers I have published in peer-reviewed scientific journals has been on the risks posed by pesticides. I am also attaching my curriculum vitae to this correspondence. Please note that this letter does not necessarily represent the opinions of Montana State University, nor am I corresponding as an employee of Montana State University, nor am I being remunerated for my letter.</p> <p>As with most mosquito control programs in the U.S., the Salt Lake City Mosquito Abatement District's professionals use an Integrated Pest Management (IPM) approach to managing mosquitoes. IPM is a science-based approach that uses tactics that are effective, minimize harm to the public and the environment, and are sustainable. IPM is the gold standard for managing pests and I have been involved in IPM research my entire 37-year career. IPM for mosquitoes involves identification of mosquito species and surveillance of their populations at all life stages. When populations of mosquitoes (immatures, adults, and especially pathogen infected females that feed on blood) reach action levels, public-health officials take steps to lower those populations using a variety of tactics.</p> <p>I will not discuss here in any detail that the National Pollution Discharge Elimination System (NPDES) permit requirements provide little or no environmental benefit and may have unintended, deleterious effects, or discuss that the regulation of public health mosquito management products should continue under EPA-FIFRA—and duplicative regulation under the Clean Water Act is inefficient, costly, and burdensome. Mosquito management will not only protect people, but it will also protect pets, livestock, and wildlife. This is because mosquito populations above certain levels can reduce well-being, cause secondary infections from bites, and result in serious diseases.</p> <p>The world's experience with the COVID-19 pandemic has clearly demonstrated the importance of public health, public-health expertise, and scientific evidence to inform health policy. The risks associated with mosquito management are well understood, regulated by appropriate federal and state agencies, and</p> | Please refer to Comment #1. |

|    |   |       |  |                             |
|----|---|-------|--|-----------------------------|
|    |   |       | <p>managed to result in negligible risk to people and the environment within the proven best practices of IPM. Unless one is swayed by motivated reasoning (as we have seen all-too-often the past two years), the above represents the current weight of scientific evidence.</p> <p>I encourage the DWQ to make decisions based on scientific weight of evidence and best practice and approve General Permit UTG170000 for mosquito management.</p>   |                             |
| 55 | Jason Probus, Macon Mosquito Abatement District | None. | <p>I am writing as the Executive Director of a mosquito abatement district in central Illinois. Understandably, Illinois and Utah are many miles apart and mosquito control operations differ considerably across the United States in their methodologies and implementation. However, what we share in common is our commitment to our communities in providing a measure of control to promote the public health and wellbeing of our residents. Most importantly, we each target mosquitoes where their lifecycles begin- in standing bodies of water, which require an NPDES permit. Due to these commonalities, I feel it appropriate that I urge you to support the renewal of the General UPDES Pesticide Permit for mosquito control in the state of Utah as it may have repercussions felt in my district.</p> <p>In my experience, mosquito control has been one of the most unobtrusive public programs that exists. As a result, when we do our work effectively it often goes unnoticed, making it easy for others to dismiss or misunderstand the important role we play in our communities -and that is in some ways by design. A targeted approach to mosquito abatement means we must treat standing water where larval mosquitoes are present. Thus, limiting the number of adult mosquitoes that are more noticeable to the general public. Limiting the ability to disrupt the lifecycle while in aquatic habitats greatly reduces the control of mosquitoes overall, while simultaneously increases the potential for vector borne diseases. Ultimately, failing to renew the UPDES permit will result in a negative effect on public health and greatly reduce the ability to protect the citizens of Utah.</p> <p>Thank you for considering these comments. I hope they help reinforce the importance this permit plays in allowing mosquito control districts to effectively perform their work which is critical to public health.</p>   | Please refer to Comment #1. |
| 56 | Christopher Bibbs                               | None. | <p>My name is Christopher Bibbs, a research scientist and entomologist formerly affiliated with Universities such as the University of Florida, University of Arizona, and currently a freelance consultant in Dallas, TX that assists research in mosquito behavior, ecology, and non-chemical pest management (such as social programs and sterile insect technique). I wanted to offer some words in support of mosquito abatement in Utah, in part because public health is a deeply rooted passion of mine.</p> <p>Mosquito abatement has a deep and intricate history in the United States. For some Districts, such as those contained in Utah, that history dates back to the 1920's as a vital service for the livability of land near water. Utah holds a unique distinction as the third US state to officially support a mosquito abatement program, behind only New Jersey and California.</p> <p>Mosquito abatement programs were, are, and continue to be the only systematically enforced public health safeguard against mosquito-borne pathogens. Zika virus entered the US to global headlines in 2016. This, among other viruses, are given to mosquitoes when they bite other infected humans. These importable pathogens are consistently arriving in the US. Chikungunya virus arrived from Africa and the Caribbean in 2013 as a different, but similar, febrile illness. Prior to that, Dengue virus, which results in debilitating "break-bone fever" and hemorrhagic illnesses, has been repeatedly imported since 1980 into the US with local transmission events occurring as recently as 2013, 2015, and 2020 in multiple states. West Nile virus, an encephalitis, has been dominant as a common arbovirus acquired in mosquitoes from birds since 2000, and is routinely detected across the whole of the US every single year. Before that, LaCross Virus, St. Louis Encephalitis, Eastern Equine Encephalitis, and Western Equine Encephalitis have all been present and transmitted to people, hospitalizing children and adults alike. These viruses are all still present in the US today. Not a single one of these pathogens have a vaccine that is both considered safe and effective for use in the US.</p> | Please refer to Comment #1. |

|    |   |       |   |                                     |
|----|---|-------|---|-------------------------------------|
|    |   |       | <p>The only thing instituted in the US that curbs this risk is the environmental stewardship, technological advancement, and scientific rigor of mosquito abatement entities such as those contained in Utah. A regrettable adage in mosquito management has become that a sign of a good job is the average person being oblivious what mosquito abatement is even for. Dozens of countries still have near guaranteed transmission of malaria, which had its highest imported case numbers in the US in 2017 since 1971, and was locally transmitted in the US as recently as 2000-2003. But malaria is “not [your] problem here in the US” precisely because mosquito abatement professionals have guarded your health in their unique way since the 1920's.</p> <p>Besides the fundamental necessity of guarding your health from incurable pathogens from mosquitoes, the earliest charges of mosquito abatement have been environmental stewardship. This was most heavily driven towards marsh management, which also manifests as marsh rehabilitation in the modern day. The mosquito control people remember is trailing fog machines in the middle of the day on their bike as a child, or maybe a friend or uncle insisting that a bit of motor oil in a puddle takes care of all the mosquitoes guaranteed. That hasn't been the real face of your mosquito abatement for decades. Modern mosquito abatement uses the lowest pounds per acre of any given pesticide, both per treatment and total accumulation, as compared to any other industry using pesticides. Even your monthly lawn maintenance, fertilizer, and insect pest prevention in your local yard or garden is often 20-50 times more concentrated than anything mosquitoes require. Furthermore, mosquito abatement has a healthy investment in managing resistance and reducing cost and required chemical deposition to do their job. This monitoring is something completely foreign to many other industries, such as grain, livestock, and personal property management until the operator observes an irreparable failure in their tactics.</p> <p>Mosquito abatement is a preventive public health agency. The real damage happens when you do away with them, and this includes the advocacy and protection of the lands they work on. We all live on the land we care for. Your local mosquito abatement people are your friends, neighbors, and city-mates. They live here too. There is no desire to poison the land and people they are trying to protect. We should all want a better future. It just so happens that for these professionals, that can include protecting you from incurable viruses.</p> |                                     |
| 57 | Matthew Scott                                     | None. | <p>I love the summer nights in Utah. But I remember one occasion about 35 years ago when my wife and I took our young family to an air show out at airport #2. We didn't know about it until before, so we got there rather late, just before sunset. We had just gotten to the tarmac and were approaching some of the airplanes on display when we were 'attack' by a horde of mosquitos. All the children were in shorts and we were in short sleeves, so we were all prime targets. Within a couple of minutes, we gave up hope of seeing the planes on display and were running for the car. When we got there, the children were crying and the parents were cursing and we were all nursing numerous bites. Our baby, in the stroller had between 5 and 10 mosquito bites on her face. It only takes one experience like that to win a person over to the Mosquito Control Program.</p>  | Please refer to Comment #1.         |
| 58 | Sean Amodt, Southwest Mosquito Abatement District | None. | <p>I am the District Administrator of the Southwest Mosquito Abatement &amp; Control District in Washington County, Utah. Our district was formally established in 2002 in response to the spread of WNV across the U.S.</p> <p>Despite the redundancy of the UPDES permit with federal laws and the associated record keeping and reporting, I would like to add my positive comment in support of Mosquito Abatement activities and the need for continuing with a permit.</p> <p>Unfortunately, the Utah Physicians for a Healthy Environment are using this issue as a method to eliminate all discharge of pesticide, biological or chemical, into the environment. This effort is unethical and an activist tactic. The requirements of the permit actually encourage and compliment the efforts we do at mosquito abatement districts to effectively control mosquito issues in order to protect the health of the public. I believe that they should be working with us to get a permit for the discharge of pesticides so that it can be done more effectively instead of fighting against the process.</p>  | Please refer to Comments #1 and #3. |

|    |                                      |       |  |                             |
|----|--------------------------------------|-------|--|-----------------------------|
|    |                                      |       | <p>Our efforts every season are to proactively find ways to lessen our use of pesticide and impact on the environment. (You will see our results for last season in the attached Mosquito Surveillance Report.) This is one of the goals and objectives of having a permit. Why would this not be a good thing?</p> <p>It is a common occurrence to have people thank us for our work as they share their stories about getting 'eaten alive' by mosquitoes in the past. These experiences also help me to believe that our efforts are effective and beneficial to the whole environment.</p> <p>I also believe that the permit should further encourage our research ability to find new and better methods of control to add to the toolbox instead of taking away our possibilities.</p> <p>Mosquito Surveillance Report- November 2021 Board Meeting</p> <ol style="list-style-type: none"> <li>1. Seasonal employees- -4 seasonal employees hired this season</li> <li>2. Trapping- -Trapping nights year-to-date- 68 -Comparison to last year- 68 -Traps set per night- 15 (as of November)</li> <li>3. Collections (adults)- -Total mosquitoes collected year-to-date- 37277 mosquitoes -Comparison to last year- 30908 mosquitoes -Aedes aegypti collected in Springdale - 76 mosquitoes</li> <li>4. Testing- -Total vials tested year-to-date- 643 -Comparison from last year- 543 -Positive WNV pools year-to date- 0 -Comparison from last year- 0 -Positive SLE pools year-to-date- 0</li> <li>5. Treatments (larval)- -Total larval treatments year-to-date: 1592 -Comparison from last year: 1650 - Total acres treated year-to-date: 198 -Storm drains treated: 309 -Troughs treated: 151</li> <li>6. Fogging- -5.31 gallons of product used over 441 acres -Comparison from last year: 8.47 gallons of product used over 577 acres -Total fogging treatments year-to-date: 31 7. Service Calls- -Total service calls year-to date: 43 -Comparison to last year: 58 8. Education &amp; Training -Scholarship projects - Esme Cope: Spatiotemporal Distribution of Culex in Utah</li> </ol> |                             |
| 59 | Norah Saarman, Utah State University | None  | I am writing to provide support of the UPDES Pesticide General Permit renewal. This permit is vital to the functioning of the mosquito abatement districts to complete their mission to protect the community from vector borne diseases such as west Nile virus.  | Please refer to Comment #1. |
| 60 | Jeff Eason                           | None. | <p>I am writing in response to the Utah Department of Environmental Quality (UDEQ) Division of Water Quality (DWQ) solicitation for public comments on the proposed UPDES Pesticide General Permit (PGP), Permit Number UTG170000. I am a resident of Salt Lake County and in favor of approval. The renewal of the Salt Lake City Mosquito Abatement District (SLCMAD) PGP is paramount to the agency's ability protect the public from mosquitoes and mosquito-borne diseases through the use of U.S. Environmental Protection Agency (EPA) approved insecticides.</p> <p>SLCMAD conducts targeted insecticide applications for both larvae and adult mosquitoes educated by mosquito surveillance, concentration verification, and insecticide resistance assays to ensure applications are efficient and effective. As such, SLCMAD is considered a "<a href="#">Fully Capable</a>" (highest ranking) vector control organization by the National Association of County and City Health Officials. SLCMAD's service results in a decrease of nuisance and disease carrying mosquitos and a positive public health impact for all Salt Lake City residents, but most notably for those who live closest to the Great Salt Lake, a major mosquito habitat. Many of the communities surrounding the southern shore of the Great Salt Lake are identified as communities with high <a href="#">social vulnerability</a> and have demonstrated disproportionate health outcomes due to the effects of <a href="#">social determinants of health</a>.</p>  | Please refer to Comment #1. |

|    |  |       |  |                             |
|----|--|-------|--|-----------------------------|
|    |  |       | By granting the renewal of Permit Number UTG170000, the DWQ will enable the SLCMAD to continue mosquito control operation in service of decreased morbidity and mortality with a direct impact for our most vulnerable community members.  |                             |
| 61 | Danny Miller   | None. | In response to the open public hearing you are holding I would like to voice my support in favor of allowing mosquito abatement to continue to operate and use appropriate insecticides to treat the waters of Utah to keep mosquito population in check. These pesticides are safe as they are applied using the proper label rate and provide a great deal of protection to the public from nuisance and vector borne mosquitoes. To not grant them this permit would be a great deterrent to the public health of the people of Utah.   | Please refer to Comment #1. |
| 62 | John Bushnell  | None. | I'm John Bushnell, and I am writing this letter today as the first identified person in Utah who contacted West Nile Virus in early September of 2015.<br><br>I had the virus for approx. two weeks, which was two weeks of meningitis hell.<br><br>I urge you to keep in place all mosquito control programs for the good and health of the community. I want no one else to have to go through the sickness and pain that I endured during that period.  | Please refer to Comment #1. |
| 63 | David Brown,<br>American<br>Mosquito<br>Control<br>Association | None. | Please find attached a letter from AMCA in support of passage of the Utah Pesticide permit.<br><br>The American Mosquito Control (AMCA) wants to express our full support for the renewal of the Utah Pollutant Discharge Elimination System (UPDES) Pesticide General Permit Number UTG170000 that is currently up for review and public comment. This pesticide permit will allow the continuation of safe and effective mosquito control activities while ensuring measures are in place to remain in compliance with treatments that may occur to waters of the State of Utah. The permit will authorize the applications of pesticides to reduce mosquito populations provided all of the permit conditions are met. It is important to recognize that Utah mosquito control agencies use EPA registered products that already ensure applications to waterways will not result in significant adverse impacts to the environment, and the permit is simply one more step that provides oversight on these applications.<br><br>AMCA stands ready to assist the State of Utah to ensure our members are in full compliance with provisions of the proposed permit that will protect state waters while also protecting the health and quality of life of the residents of Utah. | Please refer to Comment #1. |
| 64 | Andrew Young   | None. | I live in Rose Park, UT and last year was one of the worst years for mosquitos. I know these "doctors" stopped the mosquito district from managing many of the mosquito sources near Rose Park last year. If the "doctors" succeed in getting the permit to not be renewed, I fear for my kids and myself.<br><br>My daughter swells up like a balloon when she is bitten by a mosquito. I have tried many types of insect repellent specifically for mosquitos, to no avail. If the district is shut down due to not having a permit. There will be a full scale invasion of the mosquitos. I worry I will not be able to go outside and enjoy the great parks with my son and daughter without completely being eaten alive by mosquitos.  | Please refer to Comment #1. |
| 65 | Scott Earl   | None. | Mosquito Control in Salt Lake County is one of the best organizations in the valley. They not only treat around ponds, river-ways, & ditches, they treat in residential ponds. They test for Mosquito & Larva and professional and by the pesticide book treat only areas in need of treatment. At the golf course they treat ponds and natural areas including wetlands in the spring & early summer. They do an amazing public service at a very low cost and I believe strongly they should continue their efforts. I hope they keep up their great work.   | Please refer to Comment #1. |
| 66 | Glenn Strong   | None. | I am writing to voice my support for mosquito control in the Salt Lake area. I grew up in Miami, Florida during the 60's and 70's and I saw the mosquito abatement trucks regularly performing their spraying. As a kid I remember my friends and I naively riding our bikes right by the mosquito abatement trucks  | Please refer to Comment #1. |

|    |  |       |  |                             |
|----|--|-------|--|-----------------------------|
|    |  |       | (and their fog!) and I never felt or noticed any harm. I do not recall autism being prevalent until I moved to the west in the 80s, so the statement by some that it causes autism should really be questioned.  |                             |
| 67 | Monica Strong  | None. | <p>I am writing to voice my support for the mosquito abatement program that we have in the Salt Lake City. I am a late-comer to this debate and I don't think many people know that this program is possibly going to be paused, so the letters in support may very well be outnumbered by the letters in opposition to the program.</p> <p>As a resident of the Sugarhouse area I usually notice by June or July that the mosquitoes have reached us and if we spend time in our backyard we best cover up with a throw or long sleeves and pants. I have needed to call the mosquito abatement department to ask them check around our neighborhood for possible breeding grounds and I cannot imagine the abatement program being halted in the next few years. A good friend of ours suffered through west Nile virus a few years back and said it was one of the worst things he's ever been through so it is not a disease to be taken lightly. I was raised in California where mosquito abatement is a regular part of life to no ill effects that I'm aware of. I would like to see it continue in the Salt Lake area in the years to come.</p>   | Please refer to Comment #1. |
| 68 | Mike Senyk, Associated Executives of Mosquito Control Work in New Jersey | None. | <p>Please see the attached letter in support of the issuance of Pesticide General Permit for Mosquito Control.</p> <p>I am writing to urge the Utah Division of Water Quality to issue a Pesticide General Permit for Mosquito Control. Without this permit, decades of hard work and progression from mosquito control agencies would be lost, and the public would be subjected to swarms of disease carrying mosquitoes.</p> <p>The importance of mosquito control often goes unnoticed, but unmanaged mosquito populations are one of mankind's most dangerous natural threats. Many Americans have forgotten that Malaria was once rampant in this country, being eventually suppressed by the efforts from effective mosquito abatement. Over a dozen mosquito borne illnesses have potential to cause an outbreak in this country, either through localized infection or introduction from another part of the world. For example, West Nile Virus, which spread to America in 1999, has sickened thousands in a single year, causing over 2,500 deaths since its arrival.</p> <p>It is a misconception that treatment for mosquitoes are conducted haphazardly, by unqualified individuals. Mosquito control personnel are trained and licensed, following pesticide usage guidelines set forth from the Environmental Protection Agency (EPA) and each state's environmental and resource management agency. In addition, pesticide applicators are educated in selecting effective chemicals specific to mosquito habitat, life cycle, and abundance while minimizing environmental impacts and ensuring public safety. It is every applicators duty to maintain their license by attending recertification courses that keep the applicator up to date on pesticide safety and responsibility, pesticide mode of action, proper maintenance of records, and regulatory updates.</p> <p>Mosquito control operations throughout the country wage a constant battle by reducing mosquito numbers that threaten our everyday lives. The issuance of the Pesticide General Permit for Mosquito Control would provide the opportunity for the state of Utah to continue the fight for a safer tomorrow.</p> | Please refer to Comment #1. |
| 69 | Conner Peterson, UDAF  | None. | <p>Attached is a comment letter from the Utah Department of Agriculture and Food (UDAF) in support of issuing the UPDES PGP UTG170000. Please contact me with any questions regarding this matter and we appreciate the opportunity to provide comments, thank you.</p> <p>The Utah Department of Agriculture and Food (UDAF) has reviewed the Utah Pollutant Discharge Elimination System (UPDES), Pesticide General Permit (PGP), UTG170000 provided by the Utah Department of Environmental Quality's (DEQ) Division of Water Quality (DWQ). UDAF supports the issuing of this permit and acknowledges the importance of mosquito abatement treatments occurring</p>  | Please see Comment #1.      |

|    |   |       |   |                             |
|----|---|-------|---|-----------------------------|
|    |   |       | <p>throughout Utah. Without mosquito abatement treatments, a major increase in West Nile virus (WNV) positive cases is likely to occur. WNV not only is harmful to humans, but is also harmful to livestock and wildlife throughout the state. Livestock and wildlife are iconic symbols of the history and heritage of the state of Utah, and also major economic drivers for the state. Increased risk of WNV being detected in livestock and wildlife will result in significant damage to our food supply and the economy.</p> <p>In 2021, thirteen positive cases of WNV were confirmed in horses in Utah. Additionally, 654 pools tested positive for WNV according to data collected by UDAF personnel. The Utah Department of Health reported the highest number of positive mosquito pools ever seen in Utah during 2021. <sup>1</sup>Data from previous years would predict that at least 25 percent of horses infected with WNV would die or require euthanasia. <sup>2</sup> WNV can have severe negative effects on the brain function of horses. <sup>3</sup> “These signs may include: staggering, loss of appetite, depression, fever, weakness or paralysis of the hind limbs, head pressing, inability to swallow, circling, hyperexcitability, convulsions or coma.” <sup>4</sup></p> <p>The chemicals used for mosquito abatement are shown to be safe and effective. WNV gains attention from the media when positive cases occur; however, the threat of this virus is perpetual and does not go away just because it’s not making the news. A vaccine exists for horses, but not for humans and this results in the need for the continued controlling of mosquitos throughout the state. The importance of issuing this UPDES PGP goes even beyond mosquito abatement as the public notice provided by DWQ states that, “This proposed permit, if issued, will cover pesticide treatments to control: 1) mosquitos and other insects; 2) weeds and plants; 3) nuisance animals, 4) forest canopy pests; and 5) algae, cyanobacteria, pathogens, and nutrient abatement.” It is essential for these pesticide treatments to occur in order to protect and benefit the food supply for the citizens of Utah.</p> <p>In conclusion, we wish to emphasize the importance of issuing this permit and continuing mosquito abatement treatments throughout the state of Utah. We appreciate the opportunity to provide comment and look forward to continually working with DEQ and DWQ.</p> <p><sup>1</sup> UDAF. 2021. West Nile Virus Confirmed in Utah Horses. <a href="https://ag.utah.gov/2021/09/07/west-nile-virus-confirmed-in-utah-horses/">https://ag.utah.gov/2021/09/07/west-nile-virus-confirmed-in-utah-horses/</a></p> <p><sup>2</sup> USU Extension. 2004. West Nile Virus. <a href="https://extension.usu.edu/animalhealth/ou-files/westnile04new.pdf">https://extension.usu.edu/animalhealth/ou-files/westnile04new.pdf</a></p> <p><sup>3</sup> Ibid.</p> <p><sup>4</sup> Ibid.</p> |                             |
| 70 | Stephen Chapman                           | None. | <p>I understand there is an upcoming meeting to do away with Pesticides for Mosquito abatement. I am totally opposed to the idea of doing away with Pesticides for this purpose. I grew up in an environment when mosquitos were not controlled and how miserable that was. The abatement in my area and areas that I use has been great and I know if we do away with the methods now being used will cause a lot more problems than we have.</p> <p>Please take into consideration my comments and my concerns with doing away with the current methods.</p>  | Please refer to Comment #1. |
| 71 | Hannah Rettler, Utah Department of Health | None. | <p>Please see the letter attached from UDOH in support of continued use of pesticides within mosquito abatement practices. We would appreciate that this would be included in the public comments for the DWQ hearing that will be held on Monday to discuss this permit.</p> <p><a href="#">Comment Letter.</a></p>  | Please refer to Comment #1. |

|    |                 |       |   |                             |
|----|-----------------|-------|---|-----------------------------|
| 72 | Marie Barnhurst | None. | <p>I understand that Utah's permit to spray pesticides is up for renewal, and I would like to voice my opinion.</p> <p>Because I have spent considerable time around the Jordan River, in our public parks, and near the airport, I am familiar with the mosquitoes in these areas. It's quite an unpleasant experience to receive multiple mosquito bites within a short period of time. My husband is especially sensitive to these bites, experiencing extreme itching discomfort and swelling at the site.</p> <p>Everyone knows that mosquitoes breed in water, and I can't possibly imagine how we could wage the war against huge mosquito populations without being able to treat Utah's waters with the pesticides that will protect us all from discomfort and possibly West Nile virus. I know that the federal government regulates pesticide usage and has indicated that pesticides used in mosquito control are safe for humans.</p> <p>I am absolutely in favor of issuing this pesticide permit in the interest of protecting public health and public comfort. Why would we discontinue the use of an approved and effective deterrent to the mosquito population?</p> <p>Please issue the permit to continue the work for the protection and comfort of our population.</p>  | Please refer to Comment #1. |
| 73 | Kira Kilmer     | None. | <p>Look at the science, the health risks, and find an alternative control. Nearby neighborhoods and the lake environment should not be put at risk for wind drift neurotoxins.</p>  | Please refer to Comment #1. |
| 74 | Monica Hilding  | None. | <p>The DWQ should not be issuing a permit for activity that degrades the water quality and ecosystem of the GSL, and is itself a serious health hazard, while serving no useful function. In other words, SLCMAD should have no "default" or inherent right to spray toxic chemicals over state water unless it can scientifically demonstrate that the benefits outweigh the risks.</p> <p>Since Rachel Carson wrote Silent Spring, we have known that pesticides are damaging not just to the targeted species, but to all in the web of life that interact with those species. Birds are already declining all over this country. The Great Salt Lake provides a refuge during migration for many species of birds. Can SLCMAD demonstrate that pesticide spraying has not affected the birds of the Great Salt Lake?</p> <p>What about children? I have 2 children on the autism spectrum. My daughter was diagnosed with Hashimoto's disease, a problem with her thyroid at the age of 14. She also suffers from an autoimmune disorder. Can SLCMAD demonstrate that this practice of annual spraying has not caused developmental, thyroid, and autoimmune disorders in my children who were born and grew up in Salt Lake City?</p> <p>Pesticide companies have been falsely assuring the public and city officials for years that pesticides can be safely sprayed, but the more we learn about these toxic chemicals, the more we find out about how damaging they are to us, and our environment, especially water.</p> <p>It is your job to protect the quality of our water, please do not issue this permit to SLCMAD.</p> | Please refer to Comment #1. |
| 75 | Aline Devaud    | None. | <p>I'd like to comment regarding the proposed spraying of pesticides to kill mosquitoes in Salt Lake County.</p> <p>I am in my 60s and remember as a child this type of spraying that was done in my neighborhood outside of Chicago.</p> <p>I understand at this time that spraying for mosquitoes is not well advised and does a lot of damage to things other than mosquitoes.</p>   | Please refer to Comment #1. |

|    |                 |       |   |                             |
|----|-----------------|-------|---|-----------------------------|
|    |                 |       | <p>The use of pesticides introduces them into our ground water, the precious water in the state of Utah. I personally have not used pesticides in my yard or house in many years.</p> <p>Pesticides also land on other living things other than the mosquitoes. I can think of the praying mantis egg cases I have in my yard that would be damaged were I in the spraying area.</p> <p>Insects are a vital part of our ecosystem. Insects are an essential food source for many birds. Birds are already exposed to many people-created hazards and need our vigilance and protection.</p> <p>And breathing in pesticides causes health concerns directly to those who are right there.</p> <p>Please discontinue the mosquito abatement spraying program.</p>   |                             |
| 76 | Dianne Gaschler | None. | <p>I have been a member of UPHE for many years.<br/> These points SPEAK VOLUMES to me on how we don't need mosquito abatement here in SL.<br/> You must read these significant details and with a healthy conscience vote must against these mosquito policies.<br/> It's so perfectly clear to me! Please let it be to you also!<br/> Use that healthy conscience to vote against this.</p> <ol style="list-style-type: none"> <li>1. <i>The DWQ should not be issuing a permit for activity that degrades the water quality and ecosystem of the GSL, and is itself a serious health hazard, while serving no useful function. In other words, SLCMAD should have no "default" or inherent right to spray toxic chemicals over state water unless it can scientifically demonstrate that the benefits outweigh the risks. It cannot demonstrate that. This practice has become an institutionalized relic of the 1950s and should be abandoned.</i></li> <li>2. <i>Pesticides in general, including those used by SLCMAD, are a widespread risk to human health even at low doses, especially regarding brain development for fetuses and infants.</i></li> <li>3. <i>A major decision on the risks vs. benefits of exposing the public to dangerous chemicals is currently being made by a small group of people in a quasi-government agency that has no expertise in the relationship between chemical toxins and public health. The DWQ permit allows this non-sequitur to continue.</i></li> <li>4. <i>VOCs from pesticide spraying contributes to local air pollution, throughout the summer, which, because of wildfires, has become the time of year where our pollution is already at its worst.</i></li> <li>5. <i>Pesticide spraying has created a chemical arms race, is not effective in reducing mosquito populations long term, is losing its effectiveness even in the short term, and can even be counterproductive in controlling mosquito populations.</i></li> <li>6. <i>We must not allow a cure worse than the disease. The incidence of severe outcomes from West Nile Virus (WNV) is so low, and has steadily decreased during the last 15 years, that preventing those outcomes should not be allowed to eclipse the long list of other health and environmental concerns from pesticide use.</i></li> <li>7. <i>Spraying has not even been proven to reduce the incidence of WNV.</i></li> <li>8. <i>Claims of safety and need for pesticide spraying use a faulty risk/benefit analysis, faulty logic and outdated, faulty science. It makes no sense to expose hundreds of thousands of people to neurotoxic</i></li> </ol> | Please refer to Comment #1. |

|    |                 |       |   |                             |
|----|-----------------|-------|---|-----------------------------|
|    |                 |       | <p><i>chemicals in a vain attempt to prevent a neurotoxic disease that will only affect a few dozen people at most.</i></p> <p><i>9. Pesticide spraying has adverse impacts on beneficial insects, bird populations, wildlife, the ecosystem of the Great Salt Lake and far beyond. Aerial pesticide spraying can travel thousands of miles, even to other continents.</i></p> <p><i>10. There are better, safer ways to control mosquitoes already being implemented in other states such as Colorado and Wisconsin.</i></p> <p><b>Conclusion</b></p> <p><i>The scientific and empirical evidence is overwhelming that spraying adulticides to kill mosquitoes, especially aerial spraying, is ineffective, and can be even counterproductive, over the long term, and even the short term, to both goals of controlling mosquito populations and preventing West Nile Virus. Furthermore, the medical literature strongly indicates that routine aerial spraying over Salt Lake City's airshed represents a broad-based danger to public health.</i></p>  |                             |
| 77 | Tussy King      | None. | <p>I won't be available to comment in person this coming Monday evening at the hearing of the Utah Division of Water Quality regarding SLCMAD's licensure. I would like to make known my concern to you about the current spraying of pesticides by SLCMAD.</p> <p>There are many studies that show spraying pesticides such as the type SLCMAD uses to be harmful to human health in various ways. In addition, the water quality and ecosystem of the Great Salt Lake is degraded with such harmful toxins in the pesticides.</p> <p>I commented at SLCMAD's last hearing and listened to much of that hearing. I realized halfway through that SLCMAD's board seems to be in a groupthink mode in which dissent is not accepted, let alone intelligent discussion of the issues.</p> <p>I would ask that you seriously consider not issuing their license until they have proven that they have tried other methods that work equally well without the toxic quality of the current pesticide. Other areas of the country have found other ways to control mosquitoes.</p>   | Please refer to Comment #1. |
| 78 | Rebecca Burrage | None. | <p>I am writing to encourage your agency to turn down the application by SLCMAD to use pesticides. We know they seriously affect the water quality and ecosystem of the Great Salt Lake, and they are a serious health hazard for the people in our area even when used in low amounts.</p> <p>The studies that are being used to justify their use of pesticides are faulty. There are other much less toxic ways to control mosquito populations, and I believe these should be considered first rather than spraying immediately.</p> <p>In this Beyond Pesticides article, it was reported that "A meta-analysis conducted by researchers at University College London found that long-term low-level exposure to organophosphate pesticides produces lasting damage to neurological and cognitive functions, such as information processing and working memory. This research pulled data from 14 studies with data assimilated from more than 1,600 participants, in order to provide a quantitative analysis of the current literature on the chronic effects of organophosphate exposure. Unfortunately, there is little independent data on Naled's toxicity outside of industry generated data."</p> <p><a href="https://www.beyondpesticides.org/assets/media/documents/NaledChemWatchFactsheetCitedFinal.pdf">https://www.beyondpesticides.org/assets/media/documents/NaledChemWatchFactsheetCitedFinal.pdf</a></p> | Please refer to Comment #1. |

|    |   |       |   |                             |
|----|---|-------|---|-----------------------------|
|    |   |       | <p>This article from ScienceDirect is concerning because Naled is used by Salt Lake City MAD, over Great Salt Lake wetlands:</p> <p>"A major route of contamination of surface waters by Naled is spray drift and direct application for mosquito abatement." <a href="https://www.sciencedirect.com/topics/agricultural-and-biological-science/naled">https://www.sciencedirect.com/topics/agricultural-and-biological-science/naled</a></p> <p>Naled degrades into another organophosphate, Dieldrin, which is about as toxic as Naled, but with a much longer half life. In various types of water, dieldrin can last up to 6 months. When introduced into the soil, it can last more than two weeks. It was banned in the EU in 1998, and also banned in many other countries, such as Sri Lanka, Cambodia, and Bangladesh. It's the pesticide used in "No Pest Strips." The EPA rates it as a class C carcinogen, which is a worse rating than Naled. <a href="#">"Mosquito Pesticide Spraying: Another Downwinder Threat to Utahns"</a></p> <p>Thank you very much for declining the application by the SLC Mosquito Abatement District. By doing so, you will be encouraging them to look for other less toxic options and making a difference for the environment and the citizens who live here.</p>   |                             |
| 79 | Autumn Angelus, Office of Mosquito Control Coordination | None. | <p>Please find our comment pertaining to the Utah PDES permitting hearing attached to this email.</p> <p>Integrated mosquito management, or IMM, is a responsible multi-faceted approach to controlling nuisance and pathogen-carrying mosquitoes. Government mosquito control programs were established out of necessity, boosting economies, and reducing mosquito-borne disease instances. Government mosquito control agencies are typically bound by many levels of oversight, preventing chemical pesticide misapplication.</p> <p>Integrated Mosquito Management is meant to attempt to control mosquitoes before they hatch as adults, though this is not always the case. Chemical insecticides are a vital part of IMM and are used to aid in controlling all stages of mosquito development. When used responsibly, chemical control has been proven to reduce burdensome mosquito populations in any given area.</p> <p>Mosquito control pesticides, when used by public health professionals according to labeling instructions, pose minimal risk to humans and the environment. When used properly in an IMM manner to reduce the potential development of insecticide resistance, they are incredibly effective at reducing/managing mosquito populations. Common biorational formulations targeting larval mosquitoes include active ingredients such as: Bacillus thuringiensis israelensis (Bti), Bacillus sphaericus (Bs), and Spinosad, etc.</p> <p>Publicly funded mosquito control programs (mosquito abatement districts), as you have in Utah, are a crucial part to protecting public health from mosquito transmitted disease. These individuals are trained and licensed to apply a variety of public health pesticides designed to protect public health. Withholding a required UPDES permit to make these pesticide applications would be irresponsible from a public health perspective. This would cripple a programs' ability to successfully manage a public health nuisance/threat event posed by unchecked mosquito populations.</p> | Please refer to Comment #1. |
| 80 | Susan Furca   | None. | I ask that you please deny the renewal of SLCMAD's pesticide permit for all the reasons spelled out by the Greater Salt Lake Audubon Society. We have friends living in the most affected area and are concerned for their health, as well as for the wildlife and the Earth itself. This beautiful planet is the only one we have!   | Please refer to Comment #1. |
| 81 | Colleen Davis   | None. | In as much as I dislike mosquitos and due to the fact that Utah's permit is up for renewal: I support said renewal to eliminate as many of these critters as possible. There is enough to worry about without adding the sickness these pests bring. The pesticides are effective, so use them to get the job done.   | Please refer to Comment #1. |
| 82 | Jan Ellen Burton  | None. | The Division of Water Quality is intended to protect citizens. Yet if the spraying of pesticides continues, the people of the Wasatch Front will certainly be harmed, particularly those living adjacent to the Great   | Please refer to Comment #1. |

|    |                                  |       |   |                             |
|----|----------------------------------|-------|---|-----------------------------|
|    |                                  |       | <p>Salt Lake, where much of the spraying will occur. After Salt Lake City had hurricane winds, I know spraying was done in Liberty Park. When I saw the signs indicating spraying would be done, I left with my dog. The idea that mosquito pesticide spraying was necessary because fallen trees left holes which had filled with water was nonsensical. I did not want my dog to drink water contaminated by pesticides, and I worried about children, who are attracted to water, being contaminated. The drought quickly took care of the excess pools of water, but what about the long-term effects of pesticides?</p> <p>Pesticide spraying will adversely affect people, many insects, birds, wildlife and the whole ecosystem of the Great Salt Lake. Ironically, mosquitos are more adaptable, and can build up resilience to pesticides. So, spraying can create more harm than good. Pesticides can cause problems for brain development for fetuses and infants. So why expose huge numbers of people to neurotoxic chemicals in a bizarre (and unsuccessful) attempt to eradicate mosquitos?</p>  |                             |
| 83 | Nicola Nelson                    | None. | The dangers of pesticides have been proven many times. Please end all mosquito spraying near or on the Great Salt Lake.   | Please refer to Comment #1. |
| 84 | Daniel Markowski, VDCI           | None. | <p>VDCI operates the largest fleet of fixed-wing mosquito control aircraft in the world and each year we conduct applications for districts and municipalities in up to 14 states. As such, we are very well aware of the Federally-mandated National Pollutant Discharge Elimination System (NPDES) permitting that is required by mosquito control professionals. I am writing you because the current UPDES permit is under a public comment period prior to an anticipated renewal, as required every five years by DWQ.</p> <p>The UPDES permits are a requirement under the Clean Water Act and are essential to protecting the water quality of the many waters of the state, as well as providing broad protections for the wildlife and aquatic ecosystems of Utah. As I'm sure you are aware, due to Federal mandates, Mosquito Control Programs (MCPs) are required to have NPDES permits under the CWA for mosquito control pesticide applications (including both biological pesticides and chemical pesticides) occurring over, near, or in waters of the US. In short, if the UPDES Permit is not renewed to include pesticide treatments to control: 1) mosquitos and other insects; 2) weeds and plants; 3) nuisance animals, 4) forest canopy pests; and 5) algae, cyanobacteria, pathogens, and nutrient abatement; the State's MCPs would be unable to properly conduct their jobs of protecting the health of residents and wildlife of the State.</p> <p>I ask that you consider the fact that in 10 years of prior permitting, the many MCPs within the State that have properly and lawfully followed the State's permit. To my knowledge there have been no adverse incidents to the Waters of Utah reported due to mosquito control applications. Yet due to these applications, please consider as well, the number of people that have benefitted from the MCPs work with an improved overall quality of life. It is also immeasurable the number of livestock and endangered species that have thrived without the persistent burden of irritation and extensive blood loss caused by unabated mosquito populations.</p> <p>Despite concerns to the contrary, Mosquito Control Professionals have always seen themselves as good stewards of the environment. Operating under the UPDES General Permit for 10 years with no evidence of adverse environmental impacts indicates that we are indeed able to perform the work that the public's welfare necessitates while ensuring a standard of care required for the safety to our precious aquatic ecosystems.</p> <p>VDCI respectfully requests that the DWQ renew UPDES, Pesticide General Permit, Permit Number UTG170000 to cover pesticide treatments to control: 1) mosquitos and other insects; 2) weeds and plants; 3) nuisance animals, 4) forest canopy pests; and 5) algae, cyanobacteria, pathogens, and nutrient abatement without delay.</p> | Please refer to Comment #1. |
| 85 | Priscilla Matton, Bristol County | None. | Please see the attached public comment for UPDES, Pesticide General Permit, Permit Number UTG170000.  | Please refer to Comment #1. |

|    |                                       |       |   |                             |
|----|---------------------------------------|-------|---|-----------------------------|
|    | Mosquito Control Project              |       | <p>Please accept the following letter in support of approval for the Salt Lake City Mosquito Abatement District's UPDES permit request to conduct mosquito control activities in compliance with federal law. The Utah Division of Water Quality (DWQ) oversees the Pesticide General Permit (UTG170000) for the Utah Pollutant Discharge Elimination System (UPDES). This is the local state version of the Clean Water Act's (CWA) National Pollutant Discharge Elimination System (NPDES) permit under the CWA for mosquito control pesticide applications (including both biological pesticides and chemical pesticides) occurring over, near, or in waters of the US. However, these permits are redundant since the pesticide product used have been reviewed and approved by Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).</p> <p>The Salt Lake City Mosquito Abatement District (District) uses an Integrated Pest Management (IPM) approach to make the best decisions about the mosquito management methods needed to reduce the risk of mosquito-borne illness and provide residents with relief from nuisance levels of biting mosquitoes. The IPM methods currently employed by the District address each stage of the mosquito life cycle while following applicable federal, state and local statutes, regulations and guidance regarding proper pesticide application. Any treatments completed are done in accordance with applicable pesticide statutes, regulations and label directions. All of which have been reviewed and approved by EPA under FIFRA.</p> <p>DWQ should approve the permit request for coverage under the CWA's NPDES requirements for the Salt Lake City Mosquito Abatement District.</p>   |                             |
| 86 | Heather Dove, Great Salt Lake Audubon | None. | <p>I am submitting the attached comment letter regarding the pesticide permit renewal being discussed in today's public hearing at 6 pm. Please enter it into the public record.</p> <p>I am writing to request that the state's and in particular, Salt Lake City Mosquito Abatement District's (SLCMAD) pesticide permit renewal be denied for the following reasons:</p> <p>SLCMAD has been spraying large amounts of organophosphates in the wetlands around the south shore of Great Salt Lake (GSL) – i.e., in the critical habitats so important to the millions of migrating and resident birds that utilize GSL every year. This spraying has occurred irrespective of the fact that a) it has been proven that use of organophosphates ultimately does not work as mosquitos adapt and rebound to even larger numbers and b) this spraying has been occurring in an area that is considered a globally important bird area which should be off-limits to human interference.</p> <p>Spraying has adverse impacts on beneficial insects, bird populations, wildlife, the ecosystem of the Great Salt Lake and beyond. A recent headline in Smithsonian Magazine reads, "Insects Are Dying Off at an Alarming Rate". Another from National Geographic reads, "You'll Miss Them When They're Gone". A recent study concluded that the American landscape had become 48 times more toxic to insects than was the case in the 1990s. Insects are irreplaceable in keeping the world's ecosystems and food chains viable, yet 40% of insect species are threatened with extinction.</p> <p>Pesticides reduce survival and reproductive success for birds, including malformed embryos, smaller broods, decreased parental care and territorial defense, poor feeding, weight loss, and impaired temperature control and migratory instincts. ("Toxic Effects of Pesticide on Avian Fauna" Environmental Biotechnology Vol 3, Oct 2020, pp 55-83)</p> <p>Bird populations have declined by 3 billion since the 1970s, a decline of about 30%. The cause of this alarming drop is multi-factorial, but there is no doubt that the loss of insects and the physiologic damage from pesticides themselves have contributed significantly to this precipitous decline.</p> <p>We do not need pesticides, especially on the south shore of Great Salt Lake. Birds out at GSL are natural predators of mosquitoes. Mosquitos will be well controlled if we leave it to the birds. Instead of spraying, we should be doing all we can to protect our wetlands from development and make them as</p> | Please refer to Comment #1. |

|    |   |       |  |                             |
|----|---|-------|--|-----------------------------|
|    |   |       | <p>healthy and biodiverse as possible so that the natural predators are the ones that control mosquito populations.</p> <p>It seems we have learned nothing in the 60 years since Rachael Carson published "Silent Spring."</p> <p>Please deny renewal of SLCMAD's pesticide permit and urge them instead to explore and adopt non-spray methods of controlling insects, such as those adopted by Boulder City, CO and Madison, WI.</p>  |                             |
| 87 | Chris Barker,<br>UC Davis   | None. | <p>I am the Director of a Pacific Southwest Center of Excellence in Vector-Borne Diseases that includes Utah within our region (<a href="https://pacvec.us">https://pacvec.us</a>). Our center aims to enhance the capacity of the Pacific Southwest region to respond to vector-borne diseases through a combination of research, training, and collaboration between academic institutions and public health and vector control agencies. I am writing in support of public health and mosquito control programs in your state because I learned recently that your Utah Division of Water Quality is conducting a 5-year review of your Pesticide General Permit (UTG170000) for the Utah Pollutant Discharge Elimination System (UPDES).</p> <p>West Nile virus disease is the most common mosquito-borne illness in the U.S., and cases have occurred annually in Utah since 2003. The virus is transmitted in natural cycles between mosquito and birds, and humans become infected when an infected mosquito bites a person. To get ahead of potential outbreaks, mosquito control agencies in Utah and other parts of the U.S. routinely monitor mosquito populations to track their abundance and infection rates for West Nile virus as a way to identify areas where control is needed. These agencies also monitor and control nuisance mosquitoes, such as floodwater species found in wetlands, that emerge in vast numbers and can have significant impacts on quality of life.</p> <p>Guided by surveillance, mosquito control agencies perform targeted mosquito control that aims to reduce biting and disease risk. Mosquito control takes many forms, including reduction of aquatic mosquito breeding sources through improved irrigation, wetland management, elimination of standing water in urban areas, public education about ways to avoid mosquito biting, and use of pesticides to reduce mosquito populations. Pesticides are an essential part of the toolbox for protecting public health. The pesticide products used by mosquito control are regulated under the Clean Water Act and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and their use is not indiscriminate. Combined with other elements of mosquito control, EPA-approved pesticides are a proactive way to keep mosquito populations as low as possible, and they are the only effective way to eliminate infected adult mosquitoes rapidly in places and times when risk is high.</p> <p>Thank you for your consideration of these important issues for public health in our region, and I hope the permit process will allow mosquito control agencies in Utah to continue to perform their important work. I appreciate the opportunity to provide input.</p> | Please refer to Comment #1. |
| 88 | Chris Horton,<br>Massachusetts<br>State<br>Reclamation<br>and Mosquito<br>Control Board | None. | <p>Please find the attached letter of support for the renewal of the Salt Lake City Mosquito Abatement District's NPDES permit. Dr. Faraji is a leading researcher and administrator in the field of Integrated Mosquito Management and your region is fortunate to have him working on your behalf.</p> <p>Please consider this letter of support for the Salt Lake City Mosquito Abatement District's UPDES permit request to conduct mosquito control activities in compliance with federal law. The Utah Division of Water Quality (DWQ) oversees the Pesticide General Permit (UTG 170000) for the Utah Pollution Discharge Elimination System (UPDES). This is the local state version of the Clean Water Act's (CWA) National Pollution Discharge Elimination System (NPDES) permitting that is regulated at the federal level. Mosquito Control Programs (MCPs) are required to have NPDES permits under the CWA for mosquito control pesticide applications (including biological and chemical pesticides) occurring over, near, or in waters of the US. These permits are redundant to pesticide product review and approval by</p>  | Please refer to Comment #1. |

|    |                |      |   |                             |
|----|----------------|------|---|-----------------------------|
|    |                |      | <p>the Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).</p> <p>The Salt Lake City Mosquito Abatement District (District) uses the Integrated Pest Management (IPM) approach to reduce mosquito populations to tolerable levels for residents and reduce the risk of mosquito-borne illness. This approach addresses each stage of the mosquito life cycle with approved, science-based treatment strategies that comply with federal, state and local regulation and guidance. Any pesticide treatment is performed in accordance with applicable pesticide statutes, regulations and label directions. All of which are reviewed and approved by EPA under FIFRA.</p> <p>I recommend approval of the Salt Lake City Mosquito Abatement District permit request under CWA NPDES requirements.</p>   |                             |
| 89 | Randy Sessions | None | <p>I am writing to encourage the renewal of the Pesticide General Permit for mosquito control.</p> <p>I have been associated with mosquito control in the State of Utah for the past 40+ years. I am intimately familiar with the products used and the methods used to deploy those products. The people who engage in the control of mosquitoes are trained professionals who follow all label requirements and sincerely do everything in their power to adhere to the requirements of the EPA and the State of Utah when applying these highly specialized and specific mosquito control products. In addition, these men and women are environmentalist themselves, not ever desiring to harm the environment or the people they serve. Claims that the products are unsafe or are being used incorrectly or should not be used at all are unfounded. These products are completely vetted by the EPA and backed up with the latest science. In addition, these products have a long track record of no harm to the environment or to people when used according to the label. The following is a list of benefits Utah citizens receive when mosquito control is allowed to continue by renewing the PGP:</p> <ol style="list-style-type: none"> <li>1. <u>Immediate Specialized and Professional Protection</u> from the very real and constant treat of severe outbreaks of mosquito-borne West Nile virus, Western Equine Encephalitis, St. Louis Encephalitis, and other invasive mosquito borne diseases in humans.</li> <li>2. <u>Preservation Of the Health and Well Being</u> of the citizens as applied to physical trauma, annoyance and irritation, frequent infections, and possible severe allergic reactions as in unabated mosquito parasitism upon humans.</li> <li>3. <u>Substantial Economic and Recreational Enhancement</u> by the promotion of the full enjoyment and participation of citizens in all outdoor recreational activities and public gatherings, with unimpeded patronization of recreation-oriented business establishments and other outdoor places of commerce.</li> <li>4. <u>Maximum Enhancement</u> of the quality of the entire spectrum of outdoor activities as participated in by Utah's <u>economically vital</u> tourist industry.</li> <li>5. <u>Preservation of Land and Residential/Commercial Property Values</u> via the regular abatement of mosquito/disease vector populations. Tremendous numbers of our citizens work, play and dwell in many regions within the long-standing operational boundaries of the mosquito control programs which have a mosquito/disease vector productive potential of such high intensity as to otherwise render those areas uninhabitable by any rational standards of living.</li> <li>6. <u>A Vital Contribution to The Local Ranching And Cropland Agriculture Industry.</u> <ol style="list-style-type: none"> <li>a. The <u>Economic Benefits</u> of essential irrigation developments may be fully realized. A <u>single acre</u> of Utah irrigated pasture or river sub-up or overflow</li> </ol> </li> </ol> | Please refer to Comment #1. |

|    |                |       |   |                             |
|----|----------------|-------|---|-----------------------------|
|    |                |       | <p>mosquito sources may produce several <u>million</u> mosquitoes in just one of many broods per season. Many of those numerous mosquito species so generated can migrate and feed (on humans and livestock) as far as <u>twenty miles</u> from their point of origin.</p> <p>b. <u>Natural Vitality In Livestock and Poultry Is Preserved</u>, with very real and dramatically higher profits from increased meat, milk and egg production.</p> <p>c. <u>Essential Protection</u> is provided for valuable livestock as from mosquito-borne disease, including West Nile virus in Utah horses and other equines.</p> <p>d. <u>Field Culture And Crop Harvest</u> operations as well as total outdoor work productivity are <u>substantially improved</u> with effective mosquito control. An unimpeded farm/ranch worker is a cost-effective worker.</p> <p>Most of the citizens of Utah have not lived here when professional mosquito control programs did not exist in the State and are unaware of the impact of unabated mosquito populations. Most of the mosquito habitat still exist today and the maximum carrying capacity of those sources would be reached with-in a couple of years with-out continued mosquito abatement. Mosquito abatement programs need the Pesticide General Permit to continue their safe and professional abatement of mosquitoes in the State of Utah.</p>  |                             |
| 90 | Nancy McHugh   | None. | <p>I am profoundly OPPOSED to granting SLCMAD a permit to continue its pesticide spraying. Utah Physicians for a Health environment have documented in scientific detail by this spraying has been ineffective, extremely dangerous to public health, and needlessly endangered both human and wildlife residents of Salt Lake's Westside.</p> <p>UPHE's presentation to the Salt Lake City Council included presenters from Mosquito Abatement offices in Colorado and Wisconsin, who articulated that they have been able to effectively deal with their mosquitos while using completely different products than used by SLCMAD. Also, chemicals used by SLCMAD are NOT PERMITTED in ANY European cities.</p> <p>Why is Salt Lake's Abatement office determined to be stuck in an outdated, dangerous and counterproductive regime of spraying?</p> <p>It makes no sense.....and raises valid questions about the District's executive leadership.</p>   | Please refer to Comment #1. |
| 91 | Daniel Mendoza | None. | <p>Please find attached a letter of support for Pesticide General Permit (UTG170000). As I will not be able to attend in person, please feel free to read the letter as a written comment during the meeting.</p> <p>I am a long-time resident of Salt Lake City and enjoy the proximity to nature that is afforded to our community. I understand that the UPDES permitting process is under the public comment period and would like to express my full support for its renewal by the DWQ. Like many, I had little knowledge of the work the Salt Lake City Mosquito Abatement District did until I attended a Climate Change Symposium hosted by the Salt Lake County Health Department in 2015. There I learned about the vector-borne illness dangers SLC faces, especially in the face of a changing climate, as well as the mitigation efforts by SLCMAD to combat this public health issue. In the Spring of 2021, I worked on a project for SLCMAD modeling the dispersion of the adulticide naled (dibrom) and unequivocally found that there is no danger to residents from the aerial applications performed. Additionally, I have been working on a thorough literature review on health outcomes of naled and its byproduct, dichlorvos (DDVP), and found that there are no negative health outcomes to humans associated with the ultra-low volume (ULV) application used by SLCMAD. Both studies will be published in peer-reviewed academic</p> | Please refer to Comment #1. |

|    |   |       |   |                             |
|----|---|-------|---|-----------------------------|
|    |   |       | journals. I urge your office to move forward with the decision to renew Pesticide General Permit (UTG170000) and allow SLCMAD to do their job keeping our community safe.   |                             |
| 92 | Richard Bradley Sorensen                                | None. | <p>I wish I could attend the public meeting in person tomorrow night, however, I have a previous commitment, so I greatly appreciate the opportunity to submit my comments electronically. The following are my comments on the UPDES Permit for mosquito control.</p> <p>I would like to preface this comment by acknowledging the fact that I am an employee of the Salt Lake City Mosquito Abatement District. However, I currently live in an area located close to the wetland habitats around The Great Salt Lake and also grew up on the West side of Salt Lake City. As such, I have experienced many mosquitoes in my time, so I understand the impacts that would be associated with not renewing the mosquito control permit.</p> <p>I know the amount of mosquitoes that the residents currently experience in my neighborhood as well as the rest of Utah would greatly increase if the permit is to not be renewed. An increase in mosquito numbers would make many of the areas that surround The Great Salt Lake un-inhabitable. In fact on some nights I am barely able to go out into my own backyard currently without being overwhelmed by mosquitoes. I also know that the quality of life in these areas is not the only associated risk.</p> <p>The other risk associated with an increase in mosquito numbers is mosquito transmitted diseases. Last year we had multiple human cases of West Nile Virus in Utah as well as a few deaths. Many people like to think that West Nile Virus is no longer present or the risks of West Nile Virus doesn't justify the need for mosquito control. However, I think the family members of the individuals that passed away last year, as well as all of those that have experienced hardship and loss related to WNV, would disagree. Every year I start to worry for all of my family, as well as for those in my area, when we start detecting WNV in mosquitoes. Without the ability to control mosquitoes in the wetland habitats we will only see an increase in all potential mosquito transmitted diseases, not just West Nile Virus.</p> <p>I urge you to listen to the voices of those who have seen and felt the effects of high mosquito populations rather than the few who have requested for a non renewal of the permit. The mosquitoes and risks associated with mosquitos are significant enough as it is. Please re-issue the permit and allow the mosquito abatements to make applications in order to improve the general public's quality of life as well as control these public health issues.</p> | Please refer to Comment #1. |
| 93 | Jon Gaeta, Responsible Industry for a Sound Environment | None. | <p>I am writing to express our support for the continued practice of mosquito control in the State of Utah. I understand that the Division of Water Quality is reviewing Utah Pollutant Discharge Elimination System (UPDES) permits and it is of the utmost importance to public health that these Pesticide General Permits (PGPs) for mosquito control be renewed.</p> <p>Mosquito control professionals in Utah are important stewards to the environment and, through integrated pest management (IPM), they are able to use best management practices that protect the public from the threat of vector-borne diseases. With dozens of potential mosquito-borne illnesses that emerge every year, the need to have well-resourced mosquito control districts is critical. The emphasis to protect public health cannot be understated enough as our nation recovers from the COVID-19 Pandemic.</p> <p>West Nile virus (WNV), first detected in the United States in 1999, remains a focal point for mosquito control professionals. Each season these highly trained professionals are tasked with limiting the spread of this potentially lethal disease. In order to minimize the impact of WNV, mosquito control districts must monitor, collect samples, and apply mosquito control pesticides when necessary to protect the public from the threat of disease. In 2021, the State of Utah had 28 human cases of West Nile virus, which resulted in three documented deaths. To cease the work being done by these professionals would inevitably lead to greater risk of disease and death for Utah citizens.</p>   | Please refer to Comment #1. |

|    |  |       |   |   |
|----|--|-------|---|---|
|    |  |       | Given the ongoing threat vector-borne diseases pose to the people of Utah, we must urge you to renew the Pesticide General Permit for mosquito control.   |   |
| 94 | Gabrielle Sakolsky-Hoopes, Cape Cod Mosquito Control | None. | <p>Please find attached my comments regarding support for the renewal of the UPDES PGP for mosquito control applications.</p> <p>I am writing to support the renewal of the UPDES PGP for mosquito management applications. All products used in applications have been approved for use by the EPA under the Federal Insecticide, Fungicide, and Rodenticide Act. This would allow for mosquito control applications in Utah to be conducted in compliance with the Clean Water Act.</p> <p>I have directed vector surveillance and control activities for over 25 years. Additionally, I am a past president of the Northwestern Mosquito Control Association and currently serve as chair of the American Mosquito Control Association's (AMCA) Pesticide Environmental Stewardship Program (PESP) committee. PESP is a program that encourages organizations to partner with the EPA to reduce the potential risk of pesticide applications by utilizing an Integrated Pest Management approach to pest control. Salt Lake City Mosquito Abatement District has been an active individual partner in this program since 2010. Their activities follow an Integrated Mosquito Management (IMM) approach to mosquito control.</p> <p>Key components of an effective IMM plan can include both larvicide and adulticide applications. Mosquito abatement districts use science-based surveillance to determine the most effective means to manage mosquito populations for the health and comfort of residents and visitors. Any restriction to these practices could lead to an increase in arbovirus transmission. Therefore, it is important the PGP be renewed at this time.</p> | Please refer to Comment #1.   |
| 95 | Adam Snow, Washington County                         | None. | <p>I am a commissioner for Washington County and I serve on the board of Southwest Mosquito Abatement and Control District. I understand that the Division of Water Quality is receiving a lot of interest and comments regarding the above referenced permit. I wanted to write to submit my positive comment and communicate the county's support for mosquito abatement programs.</p> <p>The Southwest Mosquito Abatement and Control District serves important functions in our county. The district uses integrated pest management strategies that are designed to be cost-effective control measures, which are intended to reduce mosquito populations and the diseases they potentially carry, while being environmentally sensitive.</p> <p>The county strongly supports mosquito abatement by the Southwest Mosquito Abatement and Control District. We would ask that the Division of the Water Quality would continue to allow and support such programs.</p>  | Please refer to Comment #1.   |
| 96 | Donald Lundwall, Smith Hartvigsen PLLC               | None. | <p>On behalf of the Utah Mosquito Abatement Association, please see attached letter providing public comments on the Division of Water Quality's proposed new General Pesticide Permit No. UTG170000.</p> <p><a href="#">COMMENT LETTER.</a></p>  | The current PGP has been administratively extended until the next permit is issued, the PGP is not terminated at this time. |
| 97 | Neil Vickers   | None. | <p>I am writing to you regarding the renewal of Pesticide General Permits for mosquito control. Mosquitoes are prevalent throughout the State of Utah and are both vectors of pathogens that cause human diseases and detrimental to the quality of life of the citizens of Utah. Mosquito abatement districts in Utah are run by professional managers and employees who adhere to best practices and strict Federal rules regarding the use of chemical mosquito control agents. Denying Pesticide General Permits for mosquito control would be extremely detrimental from the public health perspective given the increasing prevalence of West Nile virus in Utah (and surrounding states) as well as the introduction of particular invasive mosquito species (<i>Aedes aegypti</i>) that are capable of transmitting several dangerous human disease pathogens. I offer my full support for issuance of the PGP for mosquito control.</p>  | Please refer to Comment #1.   |

|    |  |       |  |                             |
|----|--|-------|--|-----------------------------|
| 98 | Erin Cadwalader, Entomology Society of America | None. | <p>Please see the attached letter for my comments regarding tonight's hearing. Please don't hesitate to reach out if you have any questions.</p> <p>The intent of my letter is to provide written comments to the Utah Department of Environmental Quality regarding the Utah Pollutant Discharge Elimination System, Pesticide General Permit, UTG170000.</p> <p>I am the Director of Strategic Initiatives for the Entomological Society of America (ESA), the largest society in the world serving the needs of individuals who study insects and arthropods. While I am not an entomologist, I earned my PhD in neurobiology and anatomy from the University of Utah and was a resident of Salt Lake City for nearly nine years. For the last ten years I have worked in the science policy community in Washington, DC and began representing ESA six years as a registered lobbyist and now serve on staff. I accepted the position with ESA because I became passionate about the issues we educate policymakers about, and central to this is advocacy on integrated pest management (IPM).</p> <p>In the 1970s, following the growing concerns about the environmental impact of pesticides, scientists and farmers began widespread testing of a new pest management decision-making framework known as IPM. Instead of aiming for pest eradication, IPM is a science-based, environment-friendly, and realistic goal of pest management. Based on ecological concepts, IPM replaced an "insecticides-only" approach to pest control with a philosophy that relies on both chemical and non-chemical tactics, including monitoring, removing standing water, and other assessment strategies. The "integration" in the IPM approach is comprehensive and lies in the weaving together of biological, cultural, physical, and chemical tools to manage pests in a way that reduces overall economic, health, and environmental risks. Additionally, it helps slow the rate at which insects develop resistance to pesticides, an ongoing challenge.</p> <p>In my current role, I lead the Vector-Borne Disease Network (VBDN), a coalition of non-profit organizations, including membership and trade associations, vector control groups, mosquito abatement districts, and educational institutions such as the Centers for Disease Control and Prevention (CDC) regional Centers of Excellence. The Salt Lake City Mosquito Abatement District (MAD) is a partner of the Pacific Southwest Regional Center of Excellence in Vector-Borne Diseases and is part of the VBDN.<sup>1</sup> The group advocates for vector-borne disease research and management funding, seeks to connect the community of vector professionals, and envisions a world where human suffering from arthropod disease vectors is reduced. The SLC MAD, like most other mosquito control programs, uses an IPM approach to mosquito management. The risks to human health associated with mosquitoes and other vectors of disease are present even in the desert. While much attention has been focused on the COVID-19 pandemic, just last year Arizona experienced the worst outbreak of West Nile virus in U.S. history with over 1,500 cases and 1 <a href="https://pacvec.us/partners/">https://pacvec.us/partners/</a> 110 deaths. <sup>2</sup> As with most public health threats, pro-active management is far more effective than reactive responses to outbreaks once they have started.</p> <p>Using science based IPM strategies, SLC MAD plays an important role in helping protect the public health of Utahns. I encourage the DWQ to make decisions based on the scientific weight of evidence as well as the importance for public safety and approve General Permit UTG170000 for mosquito management.</p> | Please refer to Comment #1. |
| 99 | Kris Monson, Smithfield City                   | None. | <p>I hope this letter is not too late to be included in the comments before the meeting tonight.</p> <p>I am in favor of renewing the permit as it has been very beneficial in our community with mosquito control. Zika was identified in a mosquito just 3 miles from our town last summer and I'm sure numbers will grow this year. When chemical abatement is applied, mosquitos are almost non-existent in our town, much to the relief of most residents. We have many standing water sources such as small reservoirs, ponds, a dam, as well as rivers and streams where mosquitos thrive. Treatment is necessary to keep the numbers down.</p>   | Please refer to Comment #1. |

|     |   |                       |   |   |
|-----|---|-----------------------|---|---|
|     |   |                       | <p>We own two hives of bees and have asked for the back part of our property not to be sprayed. We have not lost a hive to the spray in the eight years we have had them because the application of the spray has been well-controlled.</p> <p>I support the permit for pesticide usage in Smithfield City.</p>   |   |
| 100 | Steve Fairbanks   | None.                 | <p>I understand there is a protest against granting a permit to disperse pesticides on, near, around or over water in the State of Utah. In as much as the Federal Government regulates these pesticides on a number of levels and has found them safe in the amounts used for mosquito abatement, this permit should be granted for the safety of the citizens and livestock in this State. The research and testing shows these pesticides to be far safer than the mosquito borne illness they prevent.</p>  | Please refer to Comment #1.   |
| 101 | Ryan Lusty, Utah Mosquito Abatement Association         | Page 28. Part 2.D.7   | <p>Attached is a letter from the Utah Mosquito Abatement Association in regards to a few changes we would like to see in the proposed General Pesticide permit No. UTG170000. Thank you for your consideration of these comments.</p> <p>The Utah Mosquito Abatement Association (UMAA) would like to thank the Department of Environmental Quality and specifically the Division of Water Quality for guidance and clarification during the open public comment period on the Utah Pesticide General Permit (UPDES). Since 2011, mosquito abatement programs within UMAA have implemented UPDES into our programs and have strictly followed the Pesticide General Permit, while helping DWQ understand the intricacies of integrated mosquito management programs. Because pesticides are thoroughly regulated through the Federal Insecticide, Fungicide, and Rodenticide Act, the UPDES permitting has been redundant and does not necessarily provide additional environmental benefits. In fact, it is important to note that most of what the UPDES permit requires from mosquito control programs was already implemented and members of UMAA have been conducting integrated mosquito management for public health protection and enhancement of quality of life for several decades.</p> <p>In regards to the actual Pesticide General Permit (PGP), UMAA would like clarification on reporting due dates for the annual report. Mosquito abatement districts in Utah work on a calendar year, but on Page 28 of the PGP, part 7a states, "operators must submit an annual report to DWQ by August 15<sup>th</sup> for the previous fiscal year (July 1<sup>st</sup> – June 30<sup>th</sup>)." However, mosquito control efforts generally take place between the months of April through October. If possible, we would prefer to submit the previous year reports on a calendar year (January 1<sup>st</sup> – December 31<sup>st</sup>) with the report being due to DWQ by February 15<sup>th</sup>. We would also like to request that the mosquito abatement districts be allowed to submit a Non-Form Annual Report which would allow the submission of pesticide records for conciseness and clarity based on actual usage.</p> <p>UMAA members value protecting public and environmental health. To that end, our members follow the rules and guidelines for both the Environmental Protection and the Centers for Disease Control and Prevention who work closely with each other and with other federal, state, and local agencies to protect the public from mosquitoes and mosquito-borne pathogens. UMAA members will continue to work with the DWQ to ensure that all of mosquito control activities remain in full compliance with federal, state, and local laws to protect waters and the environment while fulfilling our public health duties. We hope to work with the DWQ on making permit compliance and reporting easier while still meeting all Clean Water Act requirements.</p> | <p>Please Comment #3.</p> <p>DWQ will change the annual report due dates to February 1<sup>st</sup> to cover the previous calendar year (January 1 - December 31). DWQ will modify the Annual Report Form accordingly.</p>  |
| 102 | Brian Moench, Utah Physicians for a Healthy Environment | Page 13. Part 1.F.1.d | <p>Please accept for the record, the comments below regarding the re-issuing of a water quality permit for the Salt Lake City Mosquito Abatement District to discharge pesticides over state waters.</p> <p>Please also accept the attached report providing more details for those comments.</p> <p>These comments are made to the Utah Division of Water Quality on behalf of</p>   | <p>The Clean Water Act and the PGP allows pesticide residue to waters of the state within the constraints of the PGP and FIFRA. Obviously, pesticide residues in water should be minimized and avoided, however it is unavoidable that pesticide residues will be present in state waters, the PGP is not a zero-discharge permit. The Clean Water Act allows this discharge with compliance with a National Pollutant Discharge Elimination System (NPDES) permit, or in Utah, a Utah Pollutant Discharge Elimination System</p> |

|  |  |  |  |
|--|--|--|--|
|  |  | <p>Utah Physicians for a Healthy Environment.</p> <p>In section R317 of the Utah code, the "Narrative" water quality standard is described. It states, "It shall be unlawful, and a violation of these rules, for any person to discharge or place any substance in such a way as will be or may become offensive, or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by bioassay or other tests."</p> <p>Hundreds, if not thousands of studies have demonstrated that pesticides in general, including the ones used by the Mosquito Abatement District, have "undesirable human health effects," even at very low doses, and in some cases, at the lowest detectable dose.</p> <p>Section 7.3 says, "Waters of the State shall be free from human-induced stressors which will degrade the beneficial uses, as prescribed by the biological assessment processes and biological criteria set forth below.</p> <p>Pesticides spread throughout the environment certainly qualify as "human-induced stressors."</p> <p>Utah Physicians for a Healthy Environment would like to know if any of the water over which the Salt Lake City Mosquito Abatement District sprays pesticides on a regular and routine basis, has ever had "biological assessment processes" to see how much pesticide contamination of the Great Salt Lake and/or the wetlands surrounding has occurred.</p> <p>As far as we can tell, with regard to control of pesticide discharge in the state, there is very little if any enforcement, of very loose to almost non-existent regulations. But we believe this statute gives the state the authority to evaluate whether it is in the public interest to allow mosquito abatement districts throughout the state, including the one in Salt Lake City, to have permits to routinely discharge pesticides over state waters. We believe it is not in the public interest for all the reasons that we spell out in the report that we have sent to the Division of Water Quality.</p> <p>When spraying pesticides for mosquito control became institutionalized decades ago, medical and toxicological research about them was still in its infancy, even then justification for their use was questionable at best. If today's physicians relied on 70 and 80 year old research and practices, we could hardly call it medical care. But we are in a similar situation with use of mosquito pesticides. The evidence is now overwhelming that the equation has shifted sharply towards ending this practice, a relic of the 1950s.</p> <p>Section 19-5-105 second paragraph states, "the board may make rules more stringent than corresponding federal regulations for the purpose described in Subsection (1), only if it makes a written finding after public comment and hearing and based on evidence in the record that the corresponding federal regulations are not adequate to protect public health and the environment of the state. Those findings shall be accompanied by an opinion referring to and evaluating the public health and environmental information and studies contained in the record which form the basis for the board's conclusion."</p> <p>It is long overdue that the purpose, efficacy, and public health impact of widespread, routine pesticide spraying for mosquito control be completely re-evaluated. For multiple reasons mosquito populations are increasing, and likely to continue to do so. Continued, vain reliance on toxic chemicals will only accelerate an unnecessary, hazardous, and ineffective, if not counterproductive, chemical arms race. There are much safer alternatives currently in use elsewhere, the time to get off that treadmill is now.</p> <p><a href="#">PESTICIDE SPRAYING STUDY</a></p> | <p>(UPDES) permit. FIFRA label instructions are prepared to minimize potential impacts of product use</p> <p>PGP permit holders must comply with Utah's Narrative Water Quality Standard in UAC R317. They must look for adverse effects of their pesticide treatments in state waters and notify DWQ when they occur. DWQ does not have the resources to routinely monitor the waters where 80+ PGP operators apply pesticides. It is not possible without extensive study to determine the sources of pesticides in state waters and at what concentration does a pesticide cause violation of the Narrative Water Quality Standard. The Numeric Water Quality Standards have defined violation points, whereas violation of the narrative standard is more descriptive. DWQ will likely monitor state waters when there is a known or suspected illegal discharge, or valid complaint pertaining to environmental harm or discharge from an operator's pesticide treatments.</p> <p>DWQ does not plan to reevaluate the implementation of the State Pesticide Rule (UAC R317-8-9) or the PGP at this time. DWQ is following the compliance model set by EPA and is similar to the implementation of the PGP programs in other states.</p> |
|--|--|--|--|

|     |   |       |  |                             |
|-----|---|-------|--|-----------------------------|
| 103 | Angela Beehler, Benton County Mosquito Control District | None. | <p>I am writing in support of Utah mosquito control programs and the reissuance of the UPDES general permit. As the Committee Chairwoman on Legislative and Regulatory Affairs for the American Mosquito Control Association I worked closely with the US Environmental Protection Agency and members of Congress to help create a Pesticide General Permit (PGP) that achieved the goals of the Clean Water Act while technically feasible for mosquito control programs. Members of Congress who pressed for NPDES permits for pesticides had two main concerns: they wanted to know who was planning to make pesticide applications to/over/near Waters of the United States so they would know who to contact in case there was an adverse incident, and they wanted to enforce the use of Integrated Pest Management. It was well recognized that FIFRA would be the federal law regulating the use and the safety of pesticides, which is why the PGP focuses on the Notice of Intent to apply pesticides and the Pesticide Discharge Management Plan requirements. As long as the Utah DEQ enforces the NOI and the PDMP, the state is enforcing FIFRA through other departments, reissuance of the permits for mosquito control will not cause adverse impacts to water quality.</p>   | Please refer to Comment #1. |
| 104 | LeGrand Bitter, Utah Association of Special Districts   | None. | <p>Please find attached a formal letter from the Utah Association of Special Districts, transmitted to you for the purpose of commenting on the Utah Pollutant Discharge Elimination Systems (UPDES), Pesticide General Permit, UTG170000.</p> <p>It is vital to the public health of Utahns that Mosquito Control Programs ("MCPs") be allowed to continue to protect the public from mosquitoes and mosquito-borne diseases by renewing the Pesticide General Permits for mosquito control. MCPs are required to have National Pollutant Discharge Elimination System permits under the Clean Water Act for mosquito control pesticide applications (including both biological pesticides and chemical pesticides) that occur over, near, or in waters of the United States. The pesticide products to be used have already been reviewed and approved by the Environmental Protection Agency (EPA) under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).</p> <p>The adulticides and larvicides used by MPCs in the state of Utah are safe and effective. The American Medical Association has published several studies showing the safety of pesticides used for mosquito control and abatement. The National Pollutant Discharge Elimination System and Clean Water Act have conducted careful examinations of the pesticides used for mosquito control, and they have been found to be safe and effective.</p> <p>Diseases that are spread to people by mosquitoes include Zika virus, West Nile virus, Chikungunya virus, dengue, Western equine encephalitis, St. Louis encephalitis and malaria. Employees of MCPs are constantly inspecting, treating, and draining nuisance areas. They also monitor adult mosquito populations throughout the state by using a variety of trapping devices and test the captured mosquitoes for a number of diseases. Mosquito abatement districts use that information to diligently utilize the best scientific principles and techniques to treat those nuisance areas with FDA approved pesticide products.</p> <p>Not renewing the Pesticide General Permits would be extremely detrimental to the protection of public health from mosquito-borne pathogens for the enhancement of a quality of life free from pestiferous mosquitoes that are prevalent and abundant in our State. The Utah Association of Special Districts strongly encourages the Division of Water Quality to renew the permits.</p> | Please refer to Comment #1. |
| 105 | Tena Rohr   | None. | <p>I am against the spraying of pesticides in the wetlands surrounding Great Salt Lake, near the city's boundaries, over the fields our children play soccer in, above and on the surface of the wetland's water, and in our neighborhoods due to the damage to our health and the health of our children.</p> <p>The pesticides used by Salt Lake City Mosquito Abatement District are neurotoxins which cause damage to our health and the health of our children. Especially our unborn babies. Pesticides are now found in amniotic fluid, fetuses, and mother's breast milk. Pesticides cross the blood-brain barrier and contaminate the womb, including the baby's brain and impair the fetus' development, permanently. Insecticides work by infecting the nerve cells of insects, but also work the same way on human fetuses and infants. The baby's nerve cells are damaged by the neurotoxins sprayed on purpose in our Salt Lake Valley! The damage to the nervous system from organophosphate is comparable to that from the</p>   | Please refer to Comment #1. |

|     |  |       |  |                             |
|-----|--|-------|--|-----------------------------|
|     |  |       | <p>banned pesticide, DDT, and is associated with impaired brain development, loss of intellect, and behavior problems. The research showing the toxicity of organophosphate and links to autism is comprehensive. Attention deficit disorder, abnormal reflexes, mental and motor delays, and decreases in IQ in children are also associated with pesticide exposure.</p> <p>The evidence is clear. Pesticide spraying damages developing fetuses and contributes to autism in children. SLCMAD should discontinue the spraying of poisonous chemicals into the air that we and our babies breathe. We the people of SLC do NOT want dangerous toxins sprayed into our air! Please deny SLCMAD's permit to use pesticides.</p>  |                             |
| 106 | Banugopan Kesavaraju, Valent Biosciences LLC | None. | <p>I am writing this email in support of mosquito control. Mosquito borne diseases are still an active threat with west Nile virus being an annual issue leaving several people infected with life long debilitating effects. Mosquitoes are fascinating creatures that were here before us and will be there even after us. The only safe method to prevent mosquito borne diseases is mosquito control. Several developing and under developed countries do not have the privilege that we do in USA and lose many children and loved ones to diseases caused by mosquitoes. The water quality NPDES issues is repetitive as FIFRA already oversees and approves active ingredients for safe use of mosquito control. Moreover, EPA regulates and evaluates all dosage rates for mosquito control serving another layer of regulation before it reaches the mosquito abatement districts.</p> <p>Hopefully you would consider issuing the NPDES for years to come.</p>   | Please refer to Comment #1. |
| 107 | Colleen Davis                                | None. | <p>It is my understanding that Utah's permit to spray pesticides is up for renewal. I am very much in favor of issuing the pesticide permit to protect our public health.</p> <p>The Federal Government scientifically tests pesticides and has indicated they are safe for mosquito abatements to use. I have a friend who had West Nile Virus and almost lost her life. We do not want to risk this with the public. I am definitely in favor that the pesticide permit is issued to continue the control of mosquitoes.</p>   | Please refer to Comment #1. |
| 108 | Lauren Cwiklo                                | None. | <p>I'm submitting a comment for today's hearing, just wanting to show support for the points laid out by the Utah Physicians for a Healthy Environment.</p>  | Please refer to Comment #1. |
| 109 | Katie Pappas                                 | None. | <p>As I was prevented from reading my comments at the Division of Water Quality public hearing regarding the Utah Pesticide General Permit I submit them below.</p> <p>My name is Katie Pappas and I'm a long time resident of Salt Lake City. I'm requesting that the Utah Pesticide General Permit for the Salt Lake Mosquito Abatement District not be reissued by the Division of Water Quality until it can be demonstrated that the benefits of this spraying outweigh the risks and that water sources are not being adversely affected. We're living in a world where chemicals are ubiquitous. We often use them without considering or fully understanding the impacts on our health and the environment, particularly the long term and cumulative impacts. Such is the case with pesticide spraying. This practice has gone on for decades even though the benefits are unproven, the safety is questionable, and now, other communities have found safer and better ways to control mosquito populations.</p> <p>We've witnessed chemical overuse resulting in algal blooms and declining bee populations, and there are many, many more examples. I'm concerned that pesticide spraying will only increase due to development of the inland port in the Northwest Quadrant and the relocation of the Utah State Prison, resulting in contamination of water sources in the area. Widespread spraying of a known toxin near sensitive wetlands, bird and wildlife habitat, the Great Salt Lake and human populations should never happen. If there is a better way, why wouldn't we want to try it?</p> | Please refer to Comment #1. |

|     |   |       |   |                             |
|-----|---|-------|---|-----------------------------|
| 110 | Glenda Cotter                                       | None. | <p>I'm writing to express my deep concern about UPDES Pesticide General Permit (PGP), Permit Number UTG170000, and the pesticide spraying proposed for areas around the Great Salt Lake, Utah Lake, and other bodies of water. I'm surprised that, in the third decade of the twenty-first century, something like this permit is being contemplated. While there can be positive benefits to carefully applied insecticide in selective and limited situations, widespread and especially aerial spray programs seem astonishingly misinformed. There is potential not only for dangerous levels of human exposure, but most especially serious implications for widespread environmental harm to insects, birds, and other wildlife.</p> <p>Insect populations have crashed around the globe due in part to the overuse of pesticides, with corresponding crashes in bird populations--some species have experienced declines of 50 percent or more in their populations. The long-term effects of such declines will be devastating.</p> <p>This is but one example of the myriad negative effects that can result from routine aerial spraying over the Salt Lake City airshed. I'm sure that people with more expertise about effects on humans will also be writing to outline those potential problems, but they are numerous, dangerous, and with the potential for serious long-term consequences.</p> <p>I urge you to <b>NOT</b> approve or renew UPDES Pesticide General Permit (PGP), Permit Number UTG170000.</p> | Please refer to Comment #1. |
| 111 | James Webster                                       | None. | <p>As a longtime resident living adjacent to Miller Bird Refuge and Nature Park that encompasses Red Butte Creek I encourage the state to reinstate SLC's permit for the Mosquito Abatement District (MAD). I'm immune compromised due to chemo treatment and am especially concerned as the Culex pepiens mosquito has been found in my backyard, and treated by MAD which I greatly appreciate. This spot spraying is entirely different than mass aerial treatment as at the prison and Inland Port. It is the only effective means of preventing West Nile Virus infestation due to breeding habitats created by the SLC Parks department that perpetuates accumulation of dead tree debris in the park. Perhaps water quality scientists could look into removal of this toxic habitat, as Dax Reid at DNR and Unified Fire have suggested to the city.</p>  | Please refer to Comment #1. |
| 112 | Jan Hemming, Yalecrest Neighborhood Council         | None. | <p>Jim Webster copied me on his request to you about mosquito abatement in Miller Bird Refuge and Nature Park. We have reached an agreement with the city to stop all use of herbicides, pesticides and chemicals in the park for a period of time until there is a complete assessment of the impact they are having on wildlife, insects, habitat and other living things. I understand Jim's concern about his condition, but there are bigger and broader issues we are tackling right now. Perhaps you can check with Tyler Murdock, the new Deputy Director of Salt Lake's Public Lands, before any action is taken in the park regarding mosquitos.</p>  | Please refer to Comment #1. |
| 113 | John Kranz, New Jersey Mosquito Control Association | None. | <p>I am writing to urge the Utah Division of Water Quality to issue a Pesticide General Permit for Mosquito Control. Without this permit, decades of hard work and progression from mosquito control agencies would be lost, and the public would be subjected to swarms of disease carrying mosquitoes.</p> <p>The importance of mosquito control often goes unnoticed, but unmanaged mosquito populations are one of mankind's most dangerous natural threats. Many Americans have forgotten that Malaria was once rampant in this country, being eventually suppressed by the efforts from effective mosquito abatement. Over a dozen mosquito borne illnesses have potential to cause an outbreak in this country, either through localized infection or introduction from another part of the world. For example, West Nile Virus, which spread to America in 1999, has sickened thousands in a single year, causing over 2,500 deaths since its arrival.</p> <p>It is a misconception that treatments for mosquitoes are conducted haphazardly, by unqualified individuals. Mosquito control personnel are trained and licensed, following pesticide usage guidelines set forth from the Environmental Protection Agency (EPA) and state's environmental and resource management agency. In addition, pesticide applicators are educated in selecting effective chemicals specific to mosquito habitat, life cycle, and abundance while minimizing environmental impacts and</p>  | Please refer to Comment #1. |

|     |  |                       |   |   |
|-----|--|-----------------------|---|---|
|     |  |                       | <p>ensuring public safety. It is every applicators duty to maintain their license by attending recertification courses that keep the applicator up to date on pesticide safety and responsibility, pesticide mode of action, proper maintenance of records, and regulatory updates.</p> <p>Mosquito control operations throughout the country wage a constant battle by reducing mosquito numbers that threaten our everyday lives. The issuance of the Pesticide General Permit for Mosquito Control would provide the opportunity for the state of Utah to continue to fight for a safer tomorrow.</p>  |   |
|     |  |                       | <p><b>March 7, 2022, Public hearing comments and chat room comments</b></p> <p><b>Some verbal comments were not recorded accurately by the recording system, these comments were interpreted as best as possible by DWQ staff.</b></p>  | <p><b>DWQ Response</b><br/><b>June 10, 2022</b></p> |
| 114 | Conner Peterson, Utah Department of Agriculture and Food |                       | My name is Conner Peterson and I'm with the Utah Department of Agriculture and Food, we have technical comments that we plan to provide. We just wish to say that we support the issue and ask for staff to refer to our written technical comments that we submitted earlier and just thank the Division of Water Quality for holding this public hearing and again just emphasize the written comments we submitted in this issue and this permit, thank you, thank you sir.  | Please see Comment #1                               |
| 115 | Ryan Lusty, Utah Mosquito Abatement Association          |                       | My name is Ryan Lusty, I am the Executive Director of the Utah Mosquito Abatement Association. We appreciate the Division of Water Quality for having this hearing tonight. Regarding the permit we submitted a letter and we would refer the division to that letter, but along with that we would like clarification on reporting due dates for the annual report. Mosquito abatement districts in Utah work on a calendar year, however, on page 28 of the permit, part 7.8 states operators must submit an annual report to DWQ by August 15 <sup>th</sup> for the previous year (July 1 <sup>st</sup> through June 30 <sup>th</sup> ). However, mosquito control efforts generally take place between the month of April through October. If possible, we would prefer to submit the previous year's reports on a calendar year, January 1 <sup>st</sup> to December 31 <sup>st</sup> , with the report being due to DWQ by February 15 <sup>th</sup> . That is my comment, I would like to turn it over to.               | Please see Comment #101                             |
| 116 | Ary Faraji, Salt Lake City Mosquito Abatement District   |                       | My name is Dr. Ary Faraji, I am Executive Director for the Salt Lake City Mosquito Abatement District. I am also an entomologist both by passion and profession. I've been conducting mosquito control for over 20 years. Since the purpose of this is not to get into the specifics of pesticide efficacy or safety of mosquito control, but more specifically pertains to the language that's within the permit requirements for us in the mosquito abatement districts. Really the only other point that we would like to bring forth to the department is the fact that the mosquito abatement districts would like to provide a non-form pesticide annual usage report that is slightly different than the form that is provided in the pesticide general permit. Mr. Hall already has a copy of one of these applications, if not more, have been received since then. So we would really encourage the department to consider the use of these non-forms when it comes to submission of these annual reports, thank you. | Please see Comment #101                             |
| 117 | Heather Anderson, Utah Association of Special Districts  | None.                 | I'm Heather Anderson with the Utah Association of Special Districts and we'd like to thank the Division of Water Quality for all the work that you do for protecting our state's water, thank you very much, and we also want to thank the mosquito abatement districts and all those who protect the general public. We alongside the agricultural community would like to see this permit re-issued, and we have submitted a statement earlier today. Thank you so much.  | Please refer to Comment #1.                         |
| 118 | Tena Rohr  | None.                 | I was going to speak to the toxicity of pesticides. I am against the spraying of pesticides in the wetlands around the Great Salt Lake near the city's boundaries over the fields our children play soccer in and above and on the surface of the wetland's water. And then our neighborhoods due to the damage to our health and health of our children. Please deny the Salt Lake City Mosquito Abatement District's permit to use pesticides. Thank you for this opportunity to speak.   | Please refer to Comment #1.                         |
| 119 | Brian Moench, Utah Physicians for a Healthy Environment  | Page 13. Part 1.F.1.d | Thank you. These comments are made to the Utah Division of Water Quality, on behalf of Utah Physicians for a Healthy Environment. In Section R317 of the Utah Code, the Narrative Water Quality Standards as described, states quote, it shall be unlawful and a violation of these rules for any person to discharge or place any substance in such a way as will be or may become offense or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish or other desirable aquatic life or undesirable human health effects as determined by bio-assay or other tests, end of quote. Hundreds if not thousands of studies have demonstrated that   | Please see Comments #1 and 102.                     |

|     |                          |                      |  |   |
|-----|--------------------------|----------------------|--|---|
|     |                          |                      | <p>pesticides in general, including the ones used by the mosquito abatement districts have quote, undesirable human health effects, even at low doses, and some cases at the lowest detectable dose. Section 7.3 of State law says quote, the waters of the State shall be free from human induced stressors which will degrade the beneficial uses as prescribed by the biological assessment processes and biological criteria set forth below. Past pesticides spread throughout the environment, certainly qualify as quote, human induced stressors. Utah Physicians for a Healthy Environment would like to know if any of the water over which the state's mosquito abatement districts spray pesticides on a regular and routine basis has ever had quote, biological assessment processes to see how much pesticide contamination of the Great Salt Lake and or the wetland surrounding has occurred. As far as we can tell with regard to the control of pesticide discharge in the state, there's very little enforcement of very loose to almost non-existent regulations. But we believe this statute gives the state the authority to evaluate whether it is in the public interest. To allow mosquito abatement districts throughout the State, including the one in Salt Lake City, to have permits to routinely discharge pesticides over state waters. We believe it is not in the public interest for all the reasons that we spell out in the report that we have sent to the Division of Water Quality. When spraying pesticides for mosquito control become institutionalized became institutionalized decades ago, medical and talks. When spraying pesticides for mosquito control became institutionalized decades ago, medical and toxicology research about them was still in its infancy. Even then justification for their use was questionable at best. If today's physicians relied on 70 to 80 year old research and practices we could hardly call it medical care. But we are in a similar situation with the use to mosquito pesticides, the evidence is now overwhelming that the equation has just shifted sharply towards ending this practice, a relic of the 1950s, thank you.</p>   |   |
| 120 | Katie Pappas             | None.                | <p>My name is Katie Pappas, and I'm a long time Salt Lake City resident I'm here this evening, asking that the Utah Pesticide General Permit for the Salt Lake mosquito abatement district not be reissued by the Division of Water Quality until it can demonstrated that the benefits of this spraying outweigh the risks. I am concerned about the potential for increased spraying in the Northwest Quadrant of the Salt Lake City, because of the Inland Port development and because of the relocation of the Utah State Prison. I know that other communities have found other ways of dealing with their mosquito problems without having to resort to toxic chemicals. And you know, I think if you're going to have a public hearing it should truly be a public hearing, thank you.</p>   | Please refer to Comment #1.   |
| 121 | Joel Ban, Ban Law Office | Page 9. Part 1.D.3.a | <p>Thanks, I'm Joel Ban. The general permit process is one classification or types of discharges, such as pesticide spraying, regulated under one general permit commonly in this case the entire state. Mosquito abatement pesticide spraying throughout Utah impacts the variety of different landscapes and rather than environments, making it doubtful that one permit can adequately protect water quality. Maybe it's different world scenarios, the wetland environment, the Great Salt Lake and the list for mosquito begin in this area or understand we differ greatly for example. The St. George area, for this reason, we would instead request the individual permits to be developed for each mosquito abatement district, or at least create different permits for northern, central, and southern Utah. In terms of how the proposed permit will impact real on the ground conditions, the mosquito abatement activities. I focused on Salt Lake, which is where I reside. I have are all common and several generally applicable provisions, the general permit for instance, the general permit does not allow adequate permit discharges in areas listed on the state TMLD and headwaters list if the water is identified as impaired by that pesticide or its degradable components. In this case we are not aware of any specific water quality monitoring it measures, the level of pesticides in the applicable waters sprayed. But the established Jordan River TMDL where spraying occurs covers indications of contamination, such as dissolved oxygen. Spraying pesticides in this area can easily alter the levels of dissolved oxygen, exacerbating its impaired condition. For this reason, we request the permit be revised to prohibit spraying pesticides and these waters until definitive monitoring data. Pesticides in established other water quality standards and the permit require that discharges that harm aquatic organisms and human health be avoided. This is to be determined by bio-assay or other tests, however there's no evidence of such testing occurring. There also must be record keeping on expected impacts to non-target organisms and visual monitoring that again we saw no evidence of this type of monitoring. Without such monitoring, there may be significant losses to species impacted by pesticides and, by extension, the water quality these species depend upon. Larger applicators would be required to submit an annual report such incidents, and oh however, we didn't see.</p> | <p>General permits are effective when permittees under a UPDES permit have similar regulated activities and effluents within the state, which is the case under the PGP. DWQ does not believe individual permits and/or regional general permits are needed. The PGP allows for specific planning and pesticide management for each operator and each of the five pesticide use patterns. The pesticide permit requires an Integrated Pest Management (IPM) planning and a Pesticide Discharge Management Plan (PDMP) which allows for implementation of specific and customized management practices at an operation. A permittees' unique needs regarding treatment areas or geographical location can be incorporated into their PDMP and IPMP. IPMs and PDMPs allow flexibility in management practices while still providing compliance to CWA and Utah Administrative Code requirements for the pesticide permit. The effluent limitations are the same statewide. If there were to be differing effluent limitations, those could be included in the general permit through permit modification. If DWQ were to take the regional or individual permit approach, the new permits would be identical or very similar to the current PGP.</p> <p>DWQ does not plan to revise the permit based on the Jordan River TMDL. There is not a shown link of dissolved oxygen concentrations and pesticide contamination in the Jordan River. The DWQ permitting programs do not conduct random bio-assay testing.</p> |

|     |  |  |   |   |
|-----|--|--|---|---|
|     |  |  | The major part of this permit also requires us to integrate pest management. Which is to meet the pollution limits for each pesticide use and consider water for all the implications of control activities. And a specific issue, at least feel like the permit's overriding concern is with reduction of water quality gets attention, mostly because they can see that the main way to protect water quality is through integrated.  | Operators are required to make observations and keep records, including applications that result in adverse incidents involving non-target organisms. These records are retained by the operators and made available to DWQ upon inspection. Also, operators are required to submit adverse incident reports if there is an incident.   |
|     |  |  | <b>March 14, 2022, Public Hearing Comments and Chat Room Comments</b><br><br><b>Some verbal comments were not recorded accurately by the recording system, these comments were quoted and interpreted as best as possible by DWQ staff.</b>   | <b>DWQ Response</b><br><b>June 10, 2022</b>   |
| 122 | Connor Peterson, Utah Department of Agriculture and Food | Page 6. Part 1.D.1.a<br><br>Page 37. Part 4.C. | Thank you, my name is Conner Peterson with the Utah Department of Agriculture and Food. We have submitted written comments and also read a verbal comment last hearing and we just want to express our support for the concept in general of this permit and pesticide use throughout the state. A few technical things that we want to bring to the division's attention. For points of clarification that we're looking for, on page four of the permit under point A, the statement that says operator group one operators involved in all discharges of Category 1 surface waters of the State. Operators involved in the discharge of pesticides on or near surface waters of the State. Which I've been informed by the water quality board to be Category 1 waters must submit an NOI which tells each area where discharge is to occur. We're just seeking clarification on what the on or near means and far that near term can go and what definition of what that would be. Other places where that's a point of clarification that we like throughout the permit isn't a fact sheet statement of basis on pages one, four and six, in addition on page 37 of the permit. Please see the duty to provide information says, you must furnish DWQ within a reasonable time any information which DWQ may request to determine whether causes for modifying, revoking, and issuing or terminating this permit or to determine compliance with this permit. We're just concerned that this could cause a wide array of requests and place undue burden on operators, again, we wish to express our support in general for the concept of this permit. I thank the division for taking the time to have this hearing and we again wish to emphasize. Thank you. | The near in the "on or near" phrase will be removed from the permit for clarification. Only discharges in, on, or above live waters of the State will be regulated by the permit.<br><br>For permit compliance information requests, we would need permit related forms, records, or information, the permittee should already have these records. If a permit change is being considered (permit modification or issuing an individual permit, etc.), information requests could involve a large amount of information, but these are unique events. |
| 123 | Rhonda Devereaux, Happy Horse Ranch                      | None.  | Good evening, my name is Rhonda Devereaux and I am the owner of Happy Horse Ranch, I've owned this property since 2000 and it's just across the street from the field the Salt Lake Athletic Complex. So part of my property line borders the drainage canal and I'm very aware of the mosquito spraying in that area, which does relatively nothing, as far as the mosquitoes are concerned. I think it's time that we step up to the plate and look at new options to control the mosquitoes that as toxic as pesticides, herbicides, and insecticides. They do exist, they are used in many states in our nation without poisoning our water and our land and even though this permit does not cover any terrestrial spraying. When you spray from a helicopter, when you spray from a truck, when you're spraying water banks, you are indeed placing the soils that are next to water ways. I oppose the permit because the only way we will get mosquito abatement to look at other options if they don't have the permit just handed to them, thank you for your time.   | Please refer to Comment #1.   |
| 124 | Tena Rohr  | None   | Hello, I'm Tena Rohr a retired special education teacher who still cares a great deal about the health of children. The EPA has recently been here for us, which is closely related to both toxic chemicals used in an attempt to control insects. Both are strongly linked to neurologic damage and children lower IQ, lower birth weights, and other developmental disorders. Both toxic chemicals are banned in Europe due to the extremely virulent nature of these poisons. Naled is still being sprayed from airplanes over 170,000 acres of Salt Lake City's Northwest Quadrant. This is very near the communities of Salt Lake doesn't into account is where people are living, working, and raising their families. Pesticides are a known contributor to autism, ADHD, COD, and other brain disorders. Utah has one of the highest rates of autism in the nation, so Utah is to take particular of the EPA announcement to be alarmed about this badly outmoded practice. These toxic pesticides are polluting the water, air, and land. There are communities our children are suffering from mental harm from inhaling and digesting these poisons. Please deny the permit for continued spraying of contaminating toxins, the children will thank you.   | Please refer to Comment #1.   |
| 125 | Joel Ban   | Page 9. Part 1.D.3.a                           | Thank you, Joel Ban with UPHE. General permit process is one where a general classification or type of discharge, such as pesticide spraying are regulated under one general permit and, in this case, the entire state. Mosquito abatement pesticide spraying throughout Utah impacts a variety of different   | Please see Comment #1 and 121.  |

|     |                                       |       |   |                             |
|-----|---------------------------------------|-------|---|-----------------------------|
|     |                                       |       | <p>landscapes and wetland environments, making it up for that one permit can adequately protect. Water quality and many types of different wetland scenarios, the wetland environments of the Great Salt Lake in the needs for mosquito basin. In this area, understandably, differs greatly from for example, the St. George area. For this reason, we would instead request the individual permits be developed for each mosquito abatement districts, or at least create different permits for different parts of the geographical areas of the state. In terms of how the proposed permit has impacted real, on the ground, conditions and mosquito abatement activities. I focused on Salt Lake mosquito abatement districts where I reside, however all comment on several general applicable provisions of the permit. For example, the general permit does not allow permit discharges in areas listed on the state's TMDL and impaired water lists. If water is identified as impaired by that pesticide or its degradable components in the case of SLCMAD, we weren't aware of any specific water quality monitoring that measures the level of pesticides applicable in water sprayed. But the established Jordan River TMDL where spraying occurs covers pollutants such as dissolved oxygen. Spraying pesticides in this area could easily increase the levels of dissolved oxygen exasperating its impaired condition for this reason we requested the permit be revised to prohibit spraying pesticides in these waters until definitive monitoring data pesticides are established. Other water quality standards from this permit require that just causes harm to aquatic organisms or human health, be avoided. This is to be determined by assay or other tests, however, there is no evidence of such testing occurring. There must also be recordkeeping of unexpected impacts to non-target organisms and visual monitoring that again we saw no evidence of this type of monitoring. With such monitoring, there may be significant losses to species impacted by specificity, pesticides, and by extension, the water quality. That these species depend upon larger applicator applications such as SLCMAD, will be required to submit an annual report concerning such incidents and other treatments area info. But we did not see any annual report we said DWQ prohibit spraying these areas, until such results can be established. For the pollution discharge monitoring management plan that all mosquito abatement districts have on file. To discharge persons pesticides, but the primary objective of this plan. To show what pollution limits would be implemented and Salt Lake City is planning does not discuss collision limits or a certain limit. The permit requires utilization of integrated pest management where extensive monitoring of mosquitoes takes place in the utilization of control methods that reduce use of pesticides. Under this permit the least environmentally damaging methods are to be utilized for such as no action, other non-chemical measures and only as a last resort with pesticides being utilized. But in Salt Lake City, this permit requirement has been turned on its head, with significant utilization of pesticides, such as larvicides and adulticides with some mentioned mosquito fish ponds, but other than non-chemical measures are under utilized. It says that they strive to utilize integrated pest management, even though the permit finally made it mandated utilization a major part of the IPM is to meet the effluent limits for each pesticide used and consider the water quality implications of water control mosquito control activities. I think I have a minute left. We have known that DWQ uncovered these same deficiencies in the context of review of an EA under the AICPA. Where they propose utilizing the US Air Force to conduct aerial spraying. However, the same aerial occurs, without the Air Force and the same deficiencies pointed by DEQ, such as the technology based effluent limits and IPM practices still exist now. For these reasons, at least for SLCMAD, the permits applications should be denied. And spraying activities written the parameters of the permits or individual permit should be required by SLCMAD under the Code of Federal Regulations 120 2.28. Thank you.</p> |                             |
| 126 | Heather Dove, Great Salt Lake Audubon | None. | <p>Okay, Thank you. I've already submitted comments, written comments, but I'd like to make a few more points there's going to be a lot of people tonight talking about. The harms that pesticides sprayed by the mosquito districts bring to humans, but I wanted to mention the birds and insects. They are definitely impacted by the pesticides that are sprayed for control of mosquitoes. It reduces survival and reproductive success for birds, including malformed embryos, smaller brood size, decreased parental care, and territorial defense, poor feeding, weight loss, and impaired temperature control and migratory instincts, so it truly has great impact on the birds I would advocate for at least. Not renewing the pesticide permit for the mosquito abatement districts that spray around the lake. In particular, we've been dealing with the Salt Lake City Mosquito Abatement District. They continue to dodge the discussion about their use of such a toxic organophosphate as Naled by repeatedly siting well you know it's just it's we follow the EPA guidelines. But those EPA guidelines were drawn up for use of this</p>  | Please refer to Comment #1. |

|     |   |                       |  |   |
|-----|---|-----------------------|--|---|
|     |   |                       | pesticide in agricultural areas and that's not what they're spraying, they're spraying, you know, really high, high quality, high functioning wetlands that are considered globally important to birds. This Great Salt Lake is one of the most important wetland complexes available to the birds on the Pacific flyway in North America. And so, not only are they inappropriately spraying in this critical wetland area, but this wetland area in smack up against an urban are that is ringed by mountains which trap the smog and pollutants. In the valley year round, so I think allowing this practice to continue in the 21 <sup>st</sup> century, when we know better, including how to manage pests through less toxic strategies. Things like maximizing healthy wetlands and biodiversity and allowing the natural predators, that is, the 10 million birds that utilize the lake every year, allowing them to do their job of predating on the mosquitoes and other insects. This notion of spraying toxins, is a very 1950s approach to the problem, and I really think we need to bring this into the 21 <sup>st</sup> century and disallow this practice, so I would request that DWQ deny the permit, at least for the mosquito abatement districts around the lake. Thanks.  |   |
| 127 | Katie Pappas  | None.                 | Thank you, my name is Katie Pappas, and I'm now a retired nurse and Salt Lake resident. Tanks for giving the public the opportunity to express our concerns and the last restricted forum. I'm asking that the Utah Pesticide General Permit for the Salt Lake Mosquito Abatement District not be reissued by the Division of Water Quality. I know your focus is water quality, but I would ask you to look at the big picture in making your decision. The environmental and health impacts of pesticide spraying are well documented, most of the mosquito abatement districts spraying what occur in or near areas already disadvantaged by industrial and transportation health impacts. As the Northwest Quadrant is developed and the new prison opens, there will likely be even more spraying with significantly more people exposed. Prisoner and employees will be subjected to repeated exposures. The Great Salt Lake ecosystem, including beneficial insects, birds and wildlife will be impacted. For decades we've indiscriminately used chemicals to alter our environment, with little regard for the negative and long term consequences of that action. We're now seeing the effects pesticides have on desirable insects and pollinators, wetlands, and water resources are also at risk. Business as usual is killing the planet, endangering species, and shortening human life. It's time to reevaluate the way we do things, we shouldn't just keep spraying because of what we've always done. Fortunately, this is an area where progress is being made, we can learn from places that have successfully developed natural mosquito control programs that work without using toxins. If they can do it, so can we. Utah could be a leader in this and other sustainable technologies. If there's a better, safer way, why wouldn't we want to try it. Thank you.  | Please refer to Comment #1.                 |
| 128 | Brian Moench, Utah Physicians for a Healthy Environment | Page 13, Part 1.F.1.d | I am speaking on behalf of Utah Physicians for a Healthy Environment. These comments, thank you, these comments are made to the division on behalf of Utah Physicians for a Healthy Environment. It is long overdue, that the purpose, efficacy and public health impact of widespread routine pesticide spraying for mosquito control be completely reevaluated. For multiple reasons mosquito populations are increasing and will likely continue to do so. But continued vain reliance on toxic chemicals will only accelerate an unnecessary hazardous and ineffective, if not counterproductive chemical arms race. There are much safer alternatives already in use elsewhere and the time to get off that treadmill is now. In Section R317 of the Utah Code, the Narrative Water Standard is described. It states quote it shall be unlawful and a violation of these rules for any person to discharge or place any substance in such a way as will be or may become offensive or result in concentration or combination of substances which produce undesirable human health effects, as determined by bio-assay or other tests, end of quote. Hundreds if not thousands of studies have demonstrated that pesticides in general, including the ones used by the mosquito abatement district in Salt Lake have quote undesirable human health effects, even at very low doses, and in some cases at the lowest detectable does in fact, the highest volume pesticide in use by the district has been banned in the European Union, for that reason, especially because of its neuro toxicity. Section 7.3 of the Utah Code says quote, Waters of the state shall be free from human stressors which will degrade the beneficial uses as prescribed by the biological assessment processes and biological criteria set forth below, end of quote. Well, pesticides spread throughout the environment, certainly quality as quote, human induced stressors. We don't see evidence that the waters over which the state's mosquito abatement districts spray pesticides on a regular basis have ever had biological assessment processes to see how much pesticide contamination of the Great Salt Lake and or wetland surrounding the Great Salt Lake has occurred. As far as we can tell, with regard | Please refer to Comment #1, #102, and #125. |

|     |   |       |   |                             |
|-----|---|-------|---|-----------------------------|
|     |   |       | to control pesticide discharges in the State there, there are very loose to almost non-existent regulations and very little, if any, enforcement. But we believe this statute gives the state the authority to evaluate whether it is in the public interest to allow mosquito abatement districts throughout the state, including the one in Salt Lake City. To have permits to routinely discharge pesticides over state waters, we believe it is not in public interest for all the reasons we spell out in the report that we sent to the Division of Water Quality last week. When spraying pesticides for mosquito control became institutionalized decades ago, medical and toxicology research about them was still in its infancy. Even then justification for their use was questionable at best if today's physicians relied on 70 to 80 year old research and practices we could hardly call it medical care. But we are in a similar situation with the use of pesticides, now the evidence is now overwhelming that the equation has shifted sharply towards ending this practice, which is a relic of the 1950s. Lastly, Section 19-5-105 and the Utah Code, Second paragraph states quote, the Board may make rules more stringent than the corresponding federal regulations, end of quote. We believe that does indeed give the state the authority to make water quality laws stricter than the EPA's and therefore has the ability to deny reissuing this permit. Thank you.  |                             |
| 129 | Alice McHugh  | None. | Thank you, I am a resident of Salt Lake City and I commend my colleagues Katie Pappas, and Brian mentioned Heather Dove their presentations were very detailed I just simply wanted to say there is no reason to have pesticide spraying in Salt Lake City when we already know there are workable alternatives that are not toxic if all of Europe and dozens of cities in the United States have solved this problem without pesticides, Utah can do it too. Thank you.   | Please refer to Comment #1. |
| 130 | Heather Anderson, Utah Association of Special Districts | None. | Thank you very much to you moderator and Mr. Hall for hosting another meeting. I spoke at the last meeting, I encourage your support for the permit, but given all of the public comments I wanted to read the letter that we submitted to you as an association. The mosquito control programs are allowed to continue to protect the public from mosquitoes and mosquito borne diseases by having the pesticide general permits for mosquito control renewed. Mosquito control programs are required to have National Pollutant Discharge Elimination System permits under the Clean Water Act for mosquito control. Pesticide applications, including both biological pesticides and chemical pesticides occurring over, near, or in the waters of the U.S., the pesticide product's use have already been reviewed and approved by the Environmental Protection Agency under the Federal Insecticide, Fungicide, and Rodenticide Act. The adulticide insecticides by mosquito control programs in the state of Utah are safe and effective. The American Medical Association has published several studies showing the safety of pesticide use for mosquito control and abatement. The National Pollutant Discharge Elimination System and Clean Water Act have closely examined the pesticide use from mosquito control and found them to be safe and effective. Diseases that are spread to people by mosquitoes include viruses, West Nile Virus, Dengue Virus, Western Equine Encephalitis, St. Louis Encephalitis, and Malaria. Employees and mosquito control programs are constantly inspecting, treating, and draining nuisance areas. They also monitor adult mosquito populations through the state by using a variety of trapping devices and tests the captured mosquitoes for a number of diseases. Mosquito abatement districts use that information to diligently utilize the best scientific principles and techniques to treat those areas with the FDA approved pesticide products. Not renewing the pesticide general permit would be extremely detrimental for the protection of public health from mosquito borne pathogens and for the enhancement of quality of life from mosquitoes that are prevalent and abundant in our state. The association of special service districts strongly encourages the Division of Water Quality to renew the permit. Thank you and I'm Heather Anderson. | Please refer to Comment #1. |
| 131 | Terrence Marasco  | None. | Okay, so the basic concern that's in the chat is that many companies that develop these pesticides look for very high returns, million dollar contracts, etc. Many of them are as Brian said and I think Heather said, are for agricultural use but we're talking about human systems, we're talking about effects of local neighborhoods surrounding the area, and I think that the Department, the man, let's call a man, no pun intended, needs to explore other more safe opportunities for these pesticides. Thank you.  | Please refer to Comment #1. |
| 132 | Jackson George Green                                    | None. | Well, I'd like to just state that I certainly oppose these pesticides. That's how a virus, a way to control the mosquitoes that are being employed in other state of Colorado this constant was that. I'll try again, did anybody hear me? I would just definitely like the state that I'm opposed to use of insecticides and   | Please refer to Comment #1. |

|     |   |       |   |                             |
|-----|---|-------|---|-----------------------------|
|     |   |       | controlling the mosquitoes with adulticides. And then I would say we need to go more for genetically modifying the resident populations like they're proposing, and I think they've already done in Florida. And I just think the risk of pesticides to human health far outweighs the benefits of controlling mosquito populations, thank you all for our time.  |                             |
| 133 | Tussy King                                    | None. | Hi, I'm Tussy King and I just wanted to say that I agree with all the public comments that's been made, I did attend a SLCMAD meeting and I'm a social worker. The sense that I got when I was listening and commenting was that there they sort of are into group think, they're into this where there's no discussion, there's no curiosity about having you know, doing things differently. It seems like they've made up their minds already and it's really to me that's really discouraging, and so I hope that the Division of Water Quality will kind of take that I know that's a little bit subjective that was just my general impression that I got while I was listening and I also think that it sort of adds insult to injury to be taxing people when you're also poisoning. You're basically using toxins to you know poison both not only animals, but people. You know the studies have shown that apparently a lot of the usage right now with pesticides and in Utah especially Salt Lake is using toxic chemicals, instead of looking at different alternatives, thank you very much.   | Please refer to Comment #1. |
| 134 | Dorothy Owens, West Pointe Community Council  | None. | No recording.   |                             |
| 135 | Sharon Coleman, West Pointe Community Council | None. | Thank you, my name is Sharon Coleman, I'm from West Pointe Community Council and I was just wondering if, when they're talking about this if it's in certain areas, that they should not spray or you know, because spraying poisons really can cause problems in the end, and I just wanted to know where they could spray that wouldn't be harmful for people and birds and insects. So if they could give a definition of where they could spray, that'd be great. Thank you.  | Please refer to Comment #1. |
| 136 | Dorothy Owens, West Pointe Community Council  | None. | I have been the chair of the West Pointe Community Council for the past five years. Can we recreate close with something like mosquito abatement and have been to our meetings a number of times and contributed with a lot of things. We've helped recruitment of their staff and a number of things. People who live in West Pointe are very familiar with mosquito abatement districts and over the years when I visited with people of West Point and asked them about the useful services they always felt that mosquito abatement paid attention to them, which is a big deal in this area, because we often feel that municipal service partners are not paying attention to us. But that does not mean that they are not concerned about the health and safety issues that are being raised today, and I would hope that the division, as they make their decision would pay particular attention to the idea of having specialized permits that address specialized conditions. And in particular recordkeeping and procedures that are really important given at West Pointe has the two largest construction projects in the state of Utah, the Utah State prison and the following international airport both construction projects according to Salt Lake mosquito abatement districts. The wetland conditions and are deserving of some special consideration that I hope the division will look at. Thank you. | Please refer to Comment #1. |
| 137 | Terrence Marasco                              | None. | So the one on the CNN is mine and then let's see the last comment about the west side. I've been studying the west side for so many years, and when you look at our lands and the air pollution, etc, it just seems a place where we have to be particularly about using taxes. Probably the most polluted area of any urban area in the state of Utah.<br><br>I just put in an article about a spraying incident where millions of bees were killed can that just standard, who have read the whole article. Great, Thank you.<br><br>Chat Room: Agree with Ban, Moench, and Dove, but also that further research be conducted for safer cures that do not affect public health: nor has there been much incentive for companies to develop new mosquito -killing insecticides, which could be used in tandem with existing ones to slow the development of resistance. Most R&D has focused on agricultural chemicals, a far more lucrative market. "No publically traded company is going to spend the money required to discover and develop and take to market an insecticide for public health", says Nick Hamon, who heads the Innovative Vector control   | Please refer to Comment #1. |

|     |   |       |   |                             |
|-----|---|-------|---|-----------------------------|
|     |   |       | Consortium (IVCC) in Liverpool. "These companies are looking for \$100 million in sales every year to have any chance of recouping the money for a new compound. The MAD needs to find such products/processes. Bee Study. <a href="https://www.npr.org/sections/thetwo-way/2016/09/02/492404411/s-c-county-sprays-for-mosquitos-but-accidentally-takes-out-millions-of-bees">https://www.npr.org/sections/thetwo-way/2016/09/02/492404411/s-c-county-sprays-for-mosquitos-but-accidentally-takes-out-millions-of-bees</a> Indeed, CNN reports that the county used a product containing Naled, which is "highly toxic to bees," according to the manufacturer of the pesticide used. |                             |
| 138 | Brian Moench, Utah Physicians for a Healthy Environment | None. | With regard to Naled, which is the highest volume used pesticide used by the mosquito abatement districts in Salt Lake. Other studies show that the 30 or so organophosphates on the market, the two most toxic are Naled and Chlopyrifos. Which as mentioned before, was recently banned by the EPA from 90% of the former approved uses.  | Please refer to Comment #1. |
| 139 | Heather Dove, Great Salt Lake Audubon                   | None. | Article called Toxic Effects of Pesticides on Avian Fauna. And it has a huge bibliography, so check it out.<br><br>Chat room. Toxic Effects of Pesticides on Avian Fauna<br><a href="https://link.springer.com/chapter/10.1007%2F978-3-030-48973-1_3">https://link.springer.com/chapter/10.1007%2F978-3-030-48973-1_3</a>   | Please refer to Comment #1. |
| 140 | Daniel Markowski, VDCI                                  | None. | Hello, Dan Markowski here, yes I'll just read my comment, it was in reference to the bees of South Carolina and that yes, if you have unlicensed or unregulated applicators there can be very dramatic effects from a misapplication. The purpose of this permit, however is to provide regulatory oversight, to train professional at the mosquito abatement districts, so that large non-target effects can hopefully be avoided, as such, I feel that the permitting should be allowed to continue, as it has. Thank you.  | Please refer to Comment #1. |

DWQ-2022-019192