MINUTES OF THE MEETING
OF THE
ASSEMBLY COMMITTEE ON NATURAL RESOURCES

Eighty-First Session
March 29, 2021

The Committee on Natural Resources was called to order by Chair Howard Watts at 4:03 p.m. on Monday, March 29, 2021, Online. Copies of the minutes, including the Agenda (Exhibit A), the Attendance Roster (Exhibit B), and other substantive exhibits, are available and on file in the Research Library of the Legislative Counsel Bureau and on the Nevada Legislature's website at www.leg.state.nv.us/App/NELIS/REL/81st2021.

COMMITTEE MEMBERS PRESENT:

Assemblyman Howard Watts, Chair
Assemblywoman Lesley E. Cohen, Vice Chair
Assemblywoman Natha C. Anderson
Assemblywoman Annie Black
Assemblywoman Tracy Brown-May
Assemblywoman Maggie Carlton
Assemblyman John Ellison
Assemblywoman Cecelia González
Assemblywoman Alexis Hansen
Assemblywoman Susie Martinez
Assemblywoman Robin L. Titus
Assemblyman Jim Wheeler

COMMITTEE MEMBERS ABSENT:

None

GUEST LEGISLATORS PRESENT:

Assemblywoman Michelle Gorelow, Assembly District No. 35

STAFF MEMBERS PRESENT:

Jann Stinnesbeck, Committee Policy Analyst
Allan Amburn, Committee Counsel
Devan Kajatt, Committee Manager
Nancy Davis, Committee Secretary
Trinity Thom, Committee Assistant

OTHERS PRESENT:

Matthew Forister, Foundation Professor, Department of Biology, University of Nevada, Reno
Malia Libby, Conservation Associate, Environment Nevada
Christi Cabrera, Policy and Advocacy Director, Nevada Conservation League
Madelyn Reese, Member, Legislative Committee, Toiyabe Chapter, Sierra Club
Lisa Ortega, Private Citizen, Henderson, Nevada
James Russell, President, Northern Nevada Beekeepers Association
Cameron Dyer, Private Citizen, Reno, Nevada
Doug Busselman, Executive Vice President, Nevada Farm Bureau Federation
Ashley Jeppson, Administrator, Plant Industry Division, State Department of Agriculture
Thomas Dunn, District Vice President, Professional Fire Fighters of Nevada
Daniel Fischer, Deputy General Manager, Clark County Water Reclamation District
Tobi Tyler, Chair, Political Committee, Toiyabe Chapter, Sierra Club
David Cherry, Manager, Government Affairs, City of Henderson
Leo Drozdoff, representing Truckee Meadows Water Authority
Edith Duarte, representing Western States Petroleum Association
Nikki Bailey-Lundahl, Government Affairs Manager, Nevada Mining Association
Tim Shestek, Senior Director, State Affairs, American Chemistry Council
Greg Lovato, Administrator, Division of Environmental Protection, State Department of Conservation and Natural Resources

Chair Watts:
[Roll was taken. Committee rules and protocol were reviewed.] We will start with our work session today, beginning with Assembly Bill 171.

Assembly Bill 171: Establishes certain protections for certain swamp cedars. (BDR 47-468)

Jann Stinnesbeck, Committee Policy Analyst:
Assembly Bill 171 was heard in this Committee on March 15, 2021 [Exhibit C]. This bill declares that it is the policy of the State of Nevada to protect the Spring Valley population of Rocky Mountain junipers, known as "swamp cedars," that occur in White Pine County within the Bahsahwahbee Traditional Cultural Property. The bill makes it unlawful for any swamp cedar within that property to be willfully or negligently cut, destroyed, mutilated, or removed without first obtaining a special permit from the State Forester Firewarden. There is one amendment proposed by Assemblyman Watts, which provides that Indian tribes are exempt from the provisions of the bill whether the Indian tribe is native to Nevada or not.

Chair Watts:
Are there any questions?

Assemblywoman Cohen:
Regarding the exemption for Native Americans, is that for any members of any tribe? Does this have to be a tribal event for the exemption to apply?

Chair Watts:
The original exemption had language that had the word "native" in it; there were concerns that that language could exclude members of Native American tribes that reside outside the state. We have several tribes whose lands occupy multiple states, and we also have large traditional tribes that now exist in multiple tribal governments. The purpose was to clarify that anyone who comes here to practice their ceremonies or to gather food or medicine is covered by the existing exemption that is under statute.

Assemblywoman Cohen:
If it is an individual person, he has to be gathering articles for food, medicinal, or ceremonial use. He cannot just be wanting to hang out, is that correct?

Chair Watts:
That is correct. Are there any other questions? Seeing none, I will entertain a motion to amend and do pass A.B. 171.

> ASSEMBLYWOMAN COHEN MOVED TO AMEND AND DO PASS ASSEMBLY BILL 171.
>
> ASSEMBLYWOMAN BROWN-MAY SECONDED THE MOTION.

Is there any discussion?

Assemblywoman Titus:
I will support this measure out of Committee, but I reserve my right to change my vote on the floor.

Chair Watts:
Is there any other discussion? Hearing none, we will vote.

> THE MOTION PASSED. (ASSEMBLYMEN BLACK, ELLISON, AND WHEELER VOTED NO.)

I will take the floor statement. The next item on our work session today is Assembly Joint Resolution 4.

Assembly Joint Resolution 4: Urges Congress to designate certain land in Spring Valley as a National Heritage Area. (BDR R-467)

Jann Stinnesbeck, Committee Policy Analyst:
Assembly Joint Resolution 4 was heard in this Committee on March 15, 2021 [Exhibit D]. This resolution urges certain land in Spring Valley to be designated as a National Heritage Area. Assemblyman Watts proposed an amendment, which makes the following changes:

- Revises the "Whereas" clauses in order to provide language that reflects the experience of the Indian tribes in this area, including language that discusses the spiritual beliefs of the tribes and the massacres that occurred in this area; and

- Urges the United States Congress to take action to further protect certain lands in the Spring Valley area, including possible designation as a national monument or expansion of Great Basin National Park.

Chair Watts:
Are there any questions? Seeing none, I will accept a motion to amend and do pass Assembly Joint Resolution 4.

> ASSEMBLYWOMAN COHEN MOVED TO AMEND AND DO PASS ASSEMBLY JOINT RESOLUTION 4.
>
> ASSEMBLYWOMAN GONZÁLEZ SECONDED THE MOTION.

Is there any discussion?

Assemblywoman Titus:
Again, I will vote this out of Committee but reserve my right to change my vote on the floor.

Chair Watts:
Is there any other discussion? Hearing none, we will vote.

> THE MOTION PASSES. (ASSEMBLYMEN BLACK, ELLISON, AND WHEELER VOTED NO.)

I will take the floor statement. That concludes our work session, and we will move on to our bill hearings. I will open the hearing on Assembly Bill 275.

Assembly Bill 275: Establishes provisions relating to the use of pesticides containing certain chemicals. (BDR 51-131)

Assemblywoman Michelle Gorelow, Assembly District No. 35:
I am pleased to present Assembly Bill 275, which establishes neonicotinoid pesticides, known as neonics for short, as restricted-use pesticides in the state.

Before reviewing the bill and conceptual amendment [Exhibit E], I would like to begin by explaining the origins of neonic pesticides and how they have come to undermine important pollinator populations.

Neonicotinoid pesticides first emerged in the 1990s as a safe and environmentally friendly alternative to more traditional insecticides. Neonic manufacturers praised and marketed its nontoxicity for mammals and vertebrates, its water solubility, and selectivity for certain insects. The market for neonic pesticides exploded after farmers and consumers alike made the switch, which is why neonicotinoids gross billions of dollars annually.

Today neonics are ubiquitous. In Nevada, there are more than 650 registered neonicotinoid-containing pesticides in the marketplace. However, our collective reliance on these chemicals in farming, gardening, and pest management has created a serious problem that researchers and regulators never anticipated. One 2019 study published in the Public Library of Science estimates that America's agricultural landscape has become 48 times more toxic to pollinators such as honeybees in the last 25 years, due almost exclusively to the presence of neonicotinoid insecticides.

The problem with neonics is that they are systemic. They dissolve in water, so plants absorb the toxins into their tissues. When bees and other pollinators like butterflies encounter these neonic-treated plants, it can be devastating. At toxic levels, neonics kill bees. Even with sublethal amounts, the negative outcomes are lasting.

Cornell University's Pollinator Network has compiled a list of studies documenting the effects of neonics on bees. Research has shown that exposure to neonics alters memory and learning; impairs navigation and locomotion skills; weakens immunity; and reduces food consumption, reproduction, and foraging rates.

Specific neonic chemicals have also been shown to pose even more serious threats to pollinator health. Imidacloprid, which is the most widely used pesticide in the world, has been linked to colony collapse disorder by researchers at the Harvard T.H. Chan School of Public Health. Their study suggests that low-dose exposure to neonics can trigger a biological reaction in bees more fatal than compromised immunity, as other studies have demonstrated.

The threats neonics pose to pollinator health are well-founded, which is why governments have already taken action to limit neonicotinoid use. In 2018, the European Union banned outdoor use of neonics, and already, four states have made neonics restricted use. There are also five other states with neonicotinoid legislation this session. Assembly Bill 275 is a small contribution towards curbing neonicotinoid use. In essence, it would remove neonic pesticides from consumer shelves but allow professional farmers and gardeners to continue using neonicotinoids.

Here is how it would work: The Nevada Pesticides Act grants the Director of the State Department of Agriculture the power to classify certain harmful or toxic pesticides as restricted use.

Section 3 of the bill would amend the statute, defining "restricted-use pesticide" by creating a new subsection that includes neonicotinoid pesticides in the definition.

Section 1 of the bill articulates what is meant by neonicotinoid pesticides to include all the existing active-ingredient neonic chemicals and any future chemical the Director assigns to the neonicotinoid class. The proposed amendment [Exhibit E] slightly alters this definition by excluding certain consumer products, wood preservatives, and pest control activities from the definition. I have elected to do so because research has shown that these products and services pose a negligible risk to pollinators.

Section 2 of the bill makes a conforming change to place the definition of neonicotinoid into *Nevada Revised Statutes* (NRS), and section 4 formally authorizes the Director of the State Department of Agriculture to designate any chemical not included in the definition as a part of the neonic class.

Section 5 adds the new definition of restricted-use pesticide to NRS 586.406, which establishes the rules for selling restricted-use pesticides in the state. According to the statute, restricted-use pesticide retailers register with the Department annually, maintain at least two years of records, and submit a monthly report detailing sales. Under law, the Director can also limit the time, conditions, and location where restricted-use pesticides may be applied. Section 6 would create a location-based regulation that bans neonicotinoid pesticide application on state land.

Section 7 defines neonics again for the purpose of custom application of restricted-use pesticides. Section 8 places the definition in NRS, and section 9 allows neonics to be considered restricted-use pesticides for custom application. Section 10 establishes that only certified applicators can purchase and use restricted-use pesticides and makes it illegal for a person to apply neonics on state land. Finally, section 11 sets the effective date for the bill as January 1, 2022.

As written, A.B. 275 will require a two-thirds vote because the State Department of Agriculture issues fees to administer the restricted-use pesticide program. For the Committee's edification, restricted-use retailers pay a flat fee of $25 annually to register with the State Department of Agriculture.

The Department also oversees certification for farmers and applicators through an exam that costs $50. The State Department of Agriculture also provides information on free training workshops and self-study guides. Passage guarantees four years of certification, so the annual expense to applicators is only $12.50. This modest fee ensures that the Department can operate and regulate restricted-use pesticides without additional money from the State

General Fund. We do not anticipate this bill would have any meaningful financial impact on retailers or farmers because, for the most part, they are already registered or certified.

By classifying neonics as restricted-use, we ensure that only qualified and trained applicators have access and save our pollinator populations from unintentional overuse.

I would now like to hand it over to Matthew Forister, the Trevor J. McMinn Endowed Professor in Biology at the University of Nevada, Reno. He will talk a little bit more about our declining insect populations in Nevada. After that, Malia Libby, Conservation Associate at Environment America, will discuss some other ecological ramifications of neonic pesticides.

Matthew Forister, Foundation Professor, Department of Biology, University of Nevada, Reno:

I am an insect ecologist. I have three points I would like to make that are relevant to this bill. First, pollinators are declining in the United States, specifically in the western United States, and possibly more severely than in the rest of the country. In my lab, we study historical records from Nevada and from across the region. We have estimated a rate of decline of 1.6 percent fewer butterflies per year. That is a compounding and startling annual loss. Butterflies are important pollinators and food for other organisms. Having fewer butterflies represents a loss of ecosystem function and values for human society. We do not have the same historical data on other insects such as wild bees, but we have good reason to believe they are declining at similar rates. It is interesting to note that the rate of decline we are talking about is consistent with observations reported from the general public, the so-called "windshield effect." People observe fewer insects smashed on their windshields—that is because the insect population is declining.

Second, based on analysis of climate, land use, and historical records, the causes of these declines are well understood. They are habitat loss, climate change, and pesticides, including neonics, as well as other kinds of habitat degradation.

In Nevada—and I talk to the public a fair bit about this—I find there is a tendency for Nevadans to assume that we have so much open land in our state, we do not need to worry about pesticides on lands that are close to home—in our yards or in city parks, for example. That is not the right way to think about the problem. We now know, and this is the result of fairly recent research, that climate change is severely impacting insects out in the open spaces of our state. That raises the stakes for careful management of the lands that we have close at hand—in other words, in our yards and other areas that we do control.

Third, smart pesticide regulation is important in towns and cities, and in my opinion, it is also important for farmers. Agriculture needs a diversity of insects for pollination, pest control, and other services. I think it is fair to say that pesticide control is an issue of food security, job security in rural areas, as well as an issue of quality of life for all Nevadans. We all need butterflies as well as other insects.

Malia Libby, Conservation Associate, Environment Nevada:
We are advocates for policies that protect clean air, clean water, and open spaces for all Nevadans. I want to thank Assemblywoman Gorelow for leading this effort to protect our environment and communities from the neonicotinoid class of insecticides.

I want to urge the Committee to move forward with this bill to classify neonicotinoids as restricted-use pesticides. As you have heard, neonics have dire impacts on pollinators in this state. Unfortunately, the impacts on the environment go much further than this. The nature of these pesticides to dissolve in water means that the pesticides can travel far beyond where they were initially applied. Neonics are carried into soil and groundwater, areas where the pesticides can persist for years before being broken down or coming into contact with wildlife. In a 2015 study by the U.S. Geological Survey, neonicotinoids were detected in half of all streams sampled across the United States and Puerto Rico. The neonicotinoids were detected most frequently and were the culprits most notably associated with urban settings. In these urban settings, neonics were detected year-round rather than seasonally as is typical with agricultural use.

Wildlife, from butterflies and other valuable pollinators to predatory insects that keep pests in check, is impacted by neonics. The widespread detection of neonics in waterways is particularly concerning for invertebrates in aquatic habitats and for the birds, fish, and amphibians that rely on these invertebrates for food.

Additionally, people are unwittingly exposed to neonics through tap water. University of Iowa researchers detected neonics in already treated tap water. These researchers have found that common water treatment methods, such as chlorination, can make neonics even more dangerous by causing them to react and form more toxic substances. One by-product of this type of process is over 300 times more toxic to mammals. These substances could have serious consequences, whether it is ingested or inevitably released back into the environment. Four states have already achieved restricted use of neonics in retail sales; with this bill, Nevada is poised to join them and protect the diverse set of species, from bees and birds and also our own health, while doing so.

In my final remarks, I want to emphasize how important this change would be for Nevada. This pesticide remains in the environment long after it has been put there. The sooner we restrict use of neonics, the sooner we will see our environment put back in balance. Thank you for considering this important step in protecting Nevada's precious wildlife and environment.

Chair Watts:
Assemblywoman Gorelow, is there anything you would like to add before I open it up to questions?

Assemblywoman Gorelow:
No, we are ready for questions.

Assemblywoman Titus:
My apricot tree is blooming too early, but it is full of honeybees. I was thankful they were there. My grandfather was a bee man in Smith Valley. He made a living for his family with honey. Many times, before the crop dusters would spray the alfalfa fields, they would call my grandpa so he could put his bees away so the spray would not kill them. Unfortunately, there were also many times that the crop dusters would not call him, and he would have to start over. I am acutely aware of what pesticides do to the bee population. Are there any products right now that I could go to the Home Depot and buy over the counter that have neonics in them?

Assemblywoman Gorelow:
Yes, there are products available on the shelf, although there are several products that retailers have voluntarily removed from the shelves.

Assemblywoman Titus:
Will this bill provide notification for all the folks who have these types of pesticides and do not know that they have been banned? I see it does not start until 2022, and there may be folks who are still buying these products. How do we get the notice out that the product has been banned?

Assemblywoman Gorelow:
The State Department of Agriculture would work on that to notify retailers that this is a restricted product. We are not going to ask someone to throw away his product, but he would not be able to purchase any new products after January 2022. Any product he has, he will keep until he uses it all.

Assemblywoman Titus:
Section 4, subsection 2, states, "The Director may, by regulation, designate any other chemical not listed in section 1 of this act as belonging to the neonicotinoid class of chemicals." I am wondering about that open-ended language of any class can be designated. Does there have to be some science behind it?

Assemblywoman Gorelow:
That is to allow the Director to put any new neonicotinoid-class product that will be developed in the future on the list. We can clarify that language; it is specifically for a neonic product made in the future.

Assemblyman Wheeler:
I understand the intent of your bill. My concern also was that the language in section 4 is so open-ended. The plain language of the bill says something that is different than the intent of the bill. I would ask that be fixed.

Assemblywoman Gorelow:
That is something we will look into.

Assemblyman Ellison:
Section 7 lists seven neonicotinoid pesticides. Are any of those currently on the market? How many of these pesticides are illegal for use on private land?

Assemblywoman Gorelow:
I will have to look for a list. I know that many of these chemicals have already been voluntarily pulled by retailers. I found a list on the Internet but could not print it. I will try again and get you the full list by the end of the week.

Assemblyman Ellison:
I was recently reading an article about bees. I have a large garden area, and we only see one or two bees. The article said they have no idea where all of the bees went because they never found all of the dead bodies.

Matthew Forister:
The expectation of finding dead bodies of insects is quite a tall order and is not really needed. This problem has been studied from all different angles. We can take these animals in the lab and show toxicity with respect to the amounts that are put out in yards and on farms. We can also look at spatial and temporal associations and see, for example, that in years when more pesticides are put out, the following year we have fewer bees. We do not need to find the dead bodies, which is a tall order for something so small. We are pretty confident that these chemicals have negative impacts in the field. They are designed to do that; it is not really shocking that they would. Another thing to keep in mind when trying to get to the bottom of reports like the one you referenced is that the honeybee is only one out of hundreds of bees in Nevada. We need all of those bees moving forward. The managed European honeybee that we use to get honey from is fine, but it is not our most important wild bee. We need to look out for the hundreds of wild bees that live in this state as well.

Assemblyman Ellison:
Can you tell us about the pesticides on the market?

Matthew Forister:
I am not an expert on the market availability of these pesticides. The Xerces Society for Invertebrate Conservation has a lot of good resources online. I was looking at some of their lists of available pesticides containing neonics; there are many of them, but I do not know them offhand.

Chair Watts:
I would like to follow up on a couple of points. One of the previous questions was referencing colony collapse disorder, and there is a lot of research and a lot of possible explanations for that. While there is still a lot of research going on about colony collapse disorders, are you saying that the neonicotinoid pesticides are not necessarily the cause of the colony collapse disorders, but they are contributing to a decline in pollinator numbers? Is that a fair characterization?

Matthew Forister:
That is exactly right. I do not work on colony collapse disorders. I do not work on honeybees at all. I am focused on natural ecosystems and the diversity of natural pollinators: bees, bumblebees, and butterflies. Those are incidentally impacted by our use of these pesticides. They are really a bigger problem. The honeybee is one very particular tiny bit of managed nature. We are worried about the functioning of all the natural ecosystems in the West that are in danger.

Chair Watts:
There were a few questions about the availability of these pesticides. Is it correct that this bill is essentially designating these as restricted-use? Anyone who goes through the process to be able to use restricted-use pesticides would still be able to apply neonicotinoids pesticides. This is just implementing a greater degree of control and training before these pesticides can be deployed.

Assemblywoman Gorelow:
That is correct. Farmers, for example, have had training and know when and how to place the pesticides. This will continue the same as with the others that are already restricted. We do not want to be putting this chemical down during adverse situations. We are trying to limit the use of this pesticide by people who do not really understand what this chemical can do. Those who have a license for restricted use would be able to continue to operate with that license.

Chair Watts:
You mentioned that some retailers are already pulling some of these products off their shelves. I believe I saw some information that the Environmental Protection Agency (EPA) is also taking additional action on this class of pesticide. They are requiring additional personal protective equipment and trying to keep it from being used on residential turf, providing additional language on labels, and advising homeowners not to use these products in certain circumstances. Do you have any knowledge of that? Can you speak to the fact that the federal government is looking into putting additional requirements on the use of these types of pesticides as well?

Assemblywoman Gorelow:
The EPA has listed several of these chemicals as restricted. It was pulled back in 2018, but I will have to get you the information on which of the chemicals were on the list and have since been removed. They are looking at putting some of these back on as restricted. As I mentioned in my testimony, the European Union has restricted and eliminated many of the chemicals.

Chair Watts:
Are there any other questions? Seeing none, I will move on to those wishing to testify in support of A.B. 275.

Christi Cabrera, Policy and Advocacy Director, Nevada Conservation League:
Neonicotinoid pesticides have severe impacts on pollinators such as bees and have been linked to pollinator decline worldwide. Pollinators are critical for productive agriculture crops; one in every three bites of food is reliant on pollination. Neonics are absorbed into plant tissue and pollen and are later ingested by pollinators. Once ingested, bees and other pollinators struggle with simple navigation and experience reduced growth rates. Recent studies have shown that neonics will reduce bee populations by 89 percent. Neonics are also linked to mass die-offs of native bees and birds and harm other insects and earthworms, which keep our soil healthy and nutrient-dense. If left unchecked, the consequences of neonic pesticides could lead to significant disruptions in our global food supply and collapse critical ecosystems. We strongly urge your support on this important piece of legislation.

Madelyn Reese, Member, Legislative Committee, Toiyabe Chapter, Sierra Club:
We represent more than 40,000 people in Nevada, and we are in support of A.B. 275. As massive numbers of bees and other pollinators keep dying across the globe, study after study continues to track these deaths to neonicotinoid pesticides. These chemicals are known toxins, causing damage to nerve cells in insects and ultimately binding to the cells and destroying them. Insects poisoned with neonics suffer from paralysis and usually end up dying. Not only are these pesticides linked to massive bee die-offs, but their use has also been shown to cause significant losses of aquatic invertebrates, a critical food source to birds and fish. Neonics use has also been linked with documented losses of bird and butterfly populations. Neonics can also pollute soil, water, and plants long after the pesticide has been administered, meaning the harmful effects continue unchecked.

We are in support of defining any neonic pesticide as a restricted-use pesticide with the State Department of Agriculture, eliminating its use in general, and prohibiting its use on state lands. These are critical and crucial ways to begin protecting the biodiversity and the health of our local ecosystems. We have seen other countries across the world, including members of the European Union as well as Canada, begin to ban several types of neonics. All my fellow members of the Sierra Club and I would love to have Nevada be the next to start restricting the use of these harmful chemicals. We believe that this bill is in the best interest of all good things in Nevada; please help protect our pollinators.

Lisa Ortega, Private Citizen, Henderson, Nevada:
I am a master arborist and current state-certified applicator. Our cities' trees have become ravaged by bark beetle infestations in our neighborhoods, our communities, and especially Las Vegas, in light of the urban heat island. These come literally from the world. I appreciate putting neonics on the restricted-use pesticide list. Please know that this does not restrict the use but restricts the type of person who can buy them. I have also found that homeowners buy whatever they want online, restricted or not. This bill will not curtail that. Thank you for considering putting neonics on the restricted-use list.

James Russell, President, Northern Nevada Beekeepers Association:
Neonics are derived from nicotine; we all know what that does to smokers. With insects, it affects the nervous system, their navigation and orientation. Once exposed to it, they cannot

return to the hives and they die in flight. Neonics are systemic; they are taken up by plants and work their way up to the plants flower and nectar. An example of that is the neonics that were applied to the linden trees in a parking lot outside of Portland, Oregon, quite a few years ago. It was sprayed on the trees on March 2; they started discovering dead bumblebees on July 1. They estimated there were somewhere between 25,000 and 50,000 dead bumblebees throughout that parking lot. The Oregon Department of Agriculture tested the tree foliage on August 12 and found the pesticide. Neonics stay in the system for a long time. As was mentioned earlier, honeybees are not the only insect. There are probably over 1,000 native pollinators in Nevada; many butterflies and moths are pollinators. *National Geographic* just stated that the monarch butterfly has declined 80 percent in the past 20 years. Much of that is due to crop lands, but it is also due to pesticides. I would like to point out that I agree that we can keep what is available to registered applicators. They have an economic incentive not to apply too much. They are putting it on acreage and they have to pay for every drop of it. It is the homeowners that I am most concerned about.

Cameron Dyer, Private Citizen, Reno, Nevada:
I am a beekeeper and a member of the Northern Nevada Beekeepers Association. As discussed, pollinators are an integral part of our environment; they support backyard gardens, farms, flowers, and businesses. Honeybees are just one part of that list. As a beekeeper, I have taken the time and effort to research pesticides that do not affect pollinators. If I do need to use a pesticide that can harm local pollinators, I try to apply them after the sun goes down and pollinators are no longer foraging so the impact of this beneficial use is minimal. I would like to thank Assemblywoman Gorelow for bringing this bill forward and setting Nevada up to be a leader of protecting some of our most important fauna. I also thank her for incorporating some language to include the previously discussed exemptions, and to continue the allowed use of this by licensed professionals, such as myself, who understand the value that pollinators bring to the world, and likely better, to apply pesticides containing neonics in the least harmful manner when possible. I ask that you vote in favor of this bill.

Chair Watts:
We will go to the next caller in support. Hearing no one, we will move to those wishing to testify in opposition.

Doug Busselman, Executive Vice President, Nevada Farm Bureau Federation:
We are testifying today in opposition to A.B. 275. The Nevada Farm Bureau's policy position supports continued use of the neonicotinoids pesticide group for agricultural and horticultural crops. We understand that A.B. 275 will not prohibit the use of neonicotinoid products but does direct the State Department of Agriculture to classify neonics as restricted-use pesticides. Based on our research, there is no evidence of any negative impacts in Nevada caused by the limited use of neonicotinoid products.

We believe that the State Department of Agriculture has the responsibility of oversight with the authority and the process for taking actions to protect people and the environment when there is a necessity to designate products as restricted use.

The EPA also has the ability to designate restricted uses. It seems that having the Legislature dictate what products should be designated as restricted use sets a troubling precedent. Neonicotinoids are very effective in pesticide technology and are among the safest pesticides for people, animals, and the environment. If the Department of Agriculture were to have a basis for making a restricted-use pesticide for any pesticide product, the normal process should be used for making this type of change without legislative directives. We encourage this Committee to not move this forward.

Chair Watts:
We will move on to the next caller in opposition. Hearing no one, we will move on to those in neutral.

Ashley Jeppson, Administrator, Plant Industry Division, State Department of Agriculture:
I wanted to thank Assemblywoman Gorelow for reaching out to the Department on this bill and for being cognizant of and trying to not create any impacts to the industry. We also want to take this opportunity to clarify that there are no fiscal notes to this bill.

Chair Watts:
Are there any questions? Seeing none, I will move on to the next caller in neutral. Hearing no one, I will close testimony. Assemblywoman Gorelow, would you like to make any closing remarks?

Assemblywoman Gorelow:
I look forward to working with everyone to clean up some of the language and continue those conversations.

[Also provided but not mentioned were Exhibit F, Exhibit G, Exhibit H, Exhibit I, Exhibit J, and Exhibit K.]

Chair Watts:
I will close the hearing on Assembly Bill 275.

[Assemblywoman Cohen assumed the Chair.]

Vice Chair Cohen:
I will now open the hearing on Assembly Bill 97.

Assembly Bill 97: Revises provisions governing toxic chemicals. (BDR 40-141)

Assemblyman Howard Watts, Assembly District No. 15:
I am glad to present Assembly Bill 97 for your consideration today, addressing certain toxic chemicals that particularly impact our firefighters.

First, let us talk PFAS, which is short for per- and polyfluorinated alkyl substances. These chemicals are used to make products greaseproof or waterproof and are used in a variety of things from cookware, food packaging, apparel, carpets, and firefighting foams. Unfortunately, several of these compounds have also been linked to serious health problems including cancer, hormone disruption, and immune suppression. They are sometimes called "forever chemicals" because they do not easily break down in the environment. The PFAS contamination has become a major issue particularly near manufacturing facilities using the chemicals, as well as at airports and military bases where it has been used in actual firefighting, training, and testing. Firefighters face high levels of potential exposure during training, testing, firefighting, and with the presence of these compounds in their turnout gear.

Here in Nevada between 2013 and 2015, the Division of Environmental Protection (NDEP), State Department of Conservation and Natural Resources and the Environmental Protection Agency (EPA) conducted a study of 98 sites within 18 public water systems, including those serving the Las Vegas and Reno metropolitan areas. That study found levels below current health advisory levels, which is very good news. We also do not have any industrial sources of this pollution in our state, which is what has contaminated water supplies in other areas. The story is different at our military installations, however. Of 11 samples at Nellis Air Force Base, 8 were above the advisory level of 70 nanograms per liter, with the highest concentration at 42,000 nanograms per liter. That is 600 times above what is considered safe. At Creech Air Force Base, 4 of 8 samples were above the advisory level, with the highest at 21,000 nanograms per liter. And at the Reno Air National Guard at Reno-Tahoe International Airport, all 11 samples were above safe levels, with the highest concentration at 110,000 nanograms per liter. That is more than 1,500 times what is considered to be a safe level.

Thankfully, there has been additional action on this, not only in other states but in the federal government. Earlier this year the EPA announced they are developing drinking water standards for the two most common PFAS chemicals: perfluorooctane sulfonate and perfluorooctanoic acid. Additionally, NDEP secured a grant to develop a PFAS action plan, is actively working to address the contamination at our U.S. Department of Defense (DOD) sites, and has the authority to address contaminants of concern at high levels even before official drinking water standards have been set.

As I learned about these developments, I have proposed an amendment [Exhibit L] that I would like to walk you through. My proposed amendment eliminates sections 1 through 5 of the bill, which would have called for the state to independently set drinking, surface water, and effluent standards, as well as section 11, which would have required permitting for facilities and the development of capture and disposal standards. Instead, I am proposing the creation of a working group to assist NDEP in the development and execution of their PFAS action plan. The Utah Department of Environmental Quality has a similar working group established. I think this will help flesh it out and develop a state-specific strategy to tackle this issue.

Section 12 of the bill prohibits the use of firefighting foam with PFAS chemicals from being used in training to minimize firefighter exposure. Sections 13 and 14 sought to phase out the use of these foams entirely, but we are currently looking at available alternatives that can effectively deal with high-temperature fuel fires. The conceptual amendment removes these provisions and, instead, calls for any discharge of this foam to be reported to NDEP, ensuring they have the information needed to keep our water systems, and us, safe.

Assembly Bill 97 also deals with certain fire-retardant chemicals called organohalogens. While these substances increase the time for ignition and combustion and provide a critical life-saving window when fires break out, they add to the toxins in the smoke that firefighters and others are exposed to, and could leach out of some consumer products, putting our families at risk day to day. Sections 16 through 26 of the bill ensure that children's products, upholstered furniture, textiles, and mattresses that are manufactured or sold in this state in the future are free from high concentrations of these chemicals. There is a very small technical change to section 25 in my proposed amendment focusing on federal, state, and local standards that are set for these chemicals [page 2, Exhibit L].

Cancer is the leading cause of death for our firefighters, due in large part to the toxic chemicals they are exposed to on the job. Along with the conceptual amendment, A.B. 97 certainly balances overall safety of the communities by reducing the hazards our first responders face. At the same time, the bill looks to protect us all from the potential impacts these chemicals can have. I ask for your support on A.B. 97 and will stand for any questions the members of the Committee may have.

Assemblywoman Anderson:
In looking at the conceptual amendment, in particular section 11, if this legislation were to go through, would that mean we would have to reexamine the language, or does this also include the possible language that is being considered at the federal level? Also, would the national standard satisfy or address the issue you brought up regarding the DOD areas having such higher levels?

Assemblyman Watts:
Speaking of the DOD installations where the concentrations are a major issue, the DOD is moving towards trying to remove these from their compounds by the year 2024. There is a lot of work to be done to figure out what suitable alternatives can be deployed and how that phaseout works. That is something the military is looking to do to ensure the problem does not get any worse. The Division of Environmental Protection and the EPA will be working with these installations to further evaluate the extent of contamination and figure out appropriate cleanup plans for the contamination that already exists. That will happen regardless of the outcome of A.B. 97.

The federal government is particularly working on drinking water standards, which is something I proposed in the original bill. All those statewide standard settings are being removed. Once the federal government sets drinking water standards, those will apply here in Nevada as well. You will see in the fiscal notes the amount of work that would be

involved for the state to undertake and all of the research required to set standards independent of the federal government. That is something I might have been willing to support if I did not know that the federal government is already underway taking some of these steps themselves.

One of the core provisions is prohibiting the use of firefighting foams containing these chemicals for use in training. This is to minimize exposure to firefighters and, under the proposed amendment, to limit the circumstances in which the foams can be tested to minimize the exposure risk. The other component is ensuring that any discharges are reported to NDEP so they know when potential additional contamination would be occurring.

Assemblywoman Anderson:
Section 3, subsection 4 refers to water quality criteria. Is that also under consideration at the federal level, or is that based upon other elements that the State Environmental Commission will need to consider?

Assemblyman Watts:
Drinking water is one of the most important standards because that is the water we are taking in. Any source of supply for our drinking water needs to meet high-quality standards. I should note that at least the Southern Nevada Water Authority regularly tests supplies to detect contaminants, and the levels are hard to detect because they are so low, which is a good thing. Again, NDEP staff found levels well below health advisory levels. That is where we are focusing. Once we have those standards in place, if we wanted to look at effluent or surface water standards at some point, we could, but the main action that EPA is taking is on drinking water standards. Once they adopt those, they will apply to the state of Nevada.

Vice Chair Cohen:
In section 5, subsection 3, paragraph (a), there is mention of being "protective of public health, including, without limitation, the health of vulnerable subpopulations such as pregnant women, nursing mothers, infants and children." We have been focusing on the firefighters, but do we know anything about birth defects, or is it just that we have to be very careful where children are involved?

Assemblyman Watts:
I should have spoken a little about how particularly sensitive children are as well. Under the provisions of the bill that are still largely intact which deal with the fire-retardant chemicals, you will see that we also specifically tackled children's products over concern that the chemicals can leach out or gas out of these products, causing contamination. For components containing PFAS, those are of concern to children because of hormone disruption and the carcinogenic properties as well. The working group that is being proposed under the conceptual amendment would take a holistic look at PFAS contamination and assist the NDEP in the development of that action plan. This could also lead to additional policy considerations by this body in the future to ensure that we are reducing the exposure to vulnerable populations. Honestly, it is an issue for anyone exposed to it but, yes, firefighters

face the highest risk by far. Children also face great consequences if exposed to high levels of this pollution.

Vice Chair Cohen:
Is the two-thirds requirement gone with the conceptual amendment?

Assemblyman Watts:
I believe that NDEP will be speaking today in neutral about the bill, the fiscal note that they submitted, and how the conceptual amendment would impact that note. My understanding is that the amendment would remove the two-thirds requirement. I believe that section 11 references a permitting process and the payment of fees. That was for any facility with these substances to be permitted and for their management of the capture and discharge for them to be regulated. With the removal of that section, I believe the two-thirds requirement on the bill would be eliminated.

Vice Chair Cohen:
I believe our committee counsel has some clarifications as well.

Allan Amburn, Committee Counsel:
I just want to clarify that Assemblyman Watts is referring to section 11, subsection 2, paragraph (b). The reason for the two-thirds requirement originally was because the State Environmental Commission was required to adopt regulations establishing requirements for obtaining a certification of registration for a person who uses these items. Those requirements would include, without limitation, the establishment of a fee. In the proposed amendment, it appears that the requirement to establish a fee is being removed.

Vice Chair Cohen:
Are there any more questions? Seeing none, I will move on to testimony in support.

Thomas Dunn, District Vice President, Professional Fire Fighters of Nevada:
We are here today in support of A.B. 97 and the conceptual amendment. The PFAS chemicals have been identified as harmful substances after decades of use in thousands of everyday items. The Environmental Protection Agency has declared PFAS to be a toxic substance, determining there is no safe level of PFAS within the human body. Toxic PFAS enters the body through inhalation, absorption, and ingestion and remains in the body for two to nine years following exposure. The PFAS are linked to a growing list of health concerns including thyroid, bladder, kidney, and liver cancers; diabetes; and elevated cholesterol. Firefighters have experienced long-term occupational exposure to PFAS due to the use of firefighting foam, the fire suppression agent in firefighting and training exercises. The PFAS has also been used in personal protective equipment (PPE) to make gear water-resistant and protect firefighters from steam burns. To date, there has been limited research on the impact of PPE containing PFAS to firefighters' health.

Recently there was federal legislation, The Guaranteeing Equipment Safety for Firefighters Act of 2020, which would help advance research in this important health and safety issue.

Just this year, the International Association of Fire Fighters passed a resolution to call on the federal government to continue to study the impacts of PFAS exposure on firefighters and work with manufacturers to immediately cease the use of PPE containing PFAS.

On a public-health level, PFAS are included in a number of products, including wall coatings and any type of water-resistant coating on furniture and carpet. Everyday citizens are exposed to these chemicals as well. We would like to thank Assemblyman Watts for bringing this legislation forward. As a bit of background, several states, including California, Oregon, Washington, Colorado, Kentucky, Georgia, and Pennsylvania, have passed similar legislation as well.

Daniel Fischer, Deputy General Manager, Clark County Water Reclamation District:
Thank you for the opportunity to speak on A.B. 97. The Clark County Water Reclamation District collects and treats 100 million gallons of wastewater per day and returns most of the resulting reclaimed water to Lake Mead by way of the Las Vegas Wash. In doing so, we prevent 300 tons of pollutants from reaching the environment each day. Our Flamingo Water Resource Center is the largest such facility on the Colorado River. In collaboration with the three other major wastewater treatment agencies in southern Nevada, we wrote a letter to Chair Watts expressing concerns with sections 3 and 4 of A.B. 97. Chair Watts responded with a proposed conceptual amendment which has been discussed today and fully addresses our issues [Exhibit L]. We support a working group to look at the extent of the PFAS problems in Nevada and focus on source control for PFAS. Therefore, the position of the District on A.B. 97 is now in support. Chair Watts, thank you for listening to our concerns and making improvements to A.B. 97 and for your efforts for clean water in Nevada.

Tobi Tyler, Chair, Political Committee, Toiyabe Chapter, Sierra Club:
On behalf of the Sierra Club and the Toiyabe Chapter's more than 40,000 members and supporters statewide, I am speaking in strong support of A.B. 97.

As a retired environmental engineer, I can attest to the difficulties these chemicals pose in our environment, drinking water, and wastewater. Per- and polyfluoroalkyl substances (PFAS) do not naturally break down in the environment, can move through soils contaminating drinking water sources, and they build up—bioaccumulate—in fish and wildlife.

As Chair Watts stated, they are called "forever chemicals." These chemicals are linked to cancer and developmental and reproductive harm and have contaminated drinking water sources across the country with increasing regularity.

Setting limits for these man-made chemicals is essential to ensure the water we drink and the water in our environment are safe for all living organisms. Due to the lack of federal direction and regulation on these chemicals until very recently, several states have issued enforceable maximum contaminant levels, while others have established nonenforceable health advisory levels. This bill is the first step toward diminishing the input of these forever

chemicals in the environment by working toward establishing effluent limits, or at least a state-specific strategy as stated by Chair Watts.

To limit harm to our health and the environment, we must also stop all nonessential uses of PFAS and move to safer nonfluorine alternatives wherever possible. For example, PFAS in carpets and in firefighting foam are not necessary.

This is a very timely and important bill that the Sierra Club supports because it is imperative that these harmful chemicals be kept out of the environment. The public should be confident that their water is safe to drink and wastewater discharges will not contaminate groundwater, downstream water supplies, or the environment as a whole. We strongly urge you to pass A.B. 97.

Christi Cabrera, Policy and Advocacy Director, Nevada Conservation League:
Per- and polyfluoroalkyl substances are toxic chemicals that can contaminate water, harm the environment, and are linked to numerous health impacts, even in very low quantities. The PFAS do not break down in natural environment and can find their way into our soil and drinking water. They can also accumulate and remain in the environment, wildlife, or our bodies for extended periods of time. Because of this, they are commonly referred to as "forever chemicals." Studies have shown that exposure to these chemicals can cause adverse health impacts, including increased risk of cancers, suppressed immune systems, increased cholesterol, and problems in fetal development. This bill is a step in the right direction to keep Nevadans and our environment safe from these harmful chemicals. We would like to thank Assemblyman Watts for bringing this important legislation forward and we urge your support.

Vice Chair Cohen:
I will hear the next person in support. Hearing no one, I will hear those wishing to testify in opposition. Hearing no one, I will move to those in neutral.

David Cherry, Manager, Government Affairs, City of Henderson:
While the City of Henderson was originally in opposition to the bill as written, we thank Chair Watts for bringing the amendment in response to the concerns identified by the coalition of water reclamation stakeholders, of which the City of Henderson was a participant. With the adoption of the amendment, this will allow the city to move to the neutral position on A.B. 97.

Leo Drozdoff, representing Truckee Meadows Water Authority:
We are here today in neutral based on the language in the original bill that will be removed by the conceptual amendment. We wish to thank Chair Watts who worked with us early and often in this session and accepted some of our suggestions that we brought to his attention. Truckee Meadows Water Authority (TMWA) does indeed like the conceptual amendment and will work to get to a position of support before this bill is brought to a work session. I also want to point out, similar to Southern Nevada Water Authority, TMWA has tested for PFAS and those results were also nondetectable.

Edith Duarte, representing Western States Petroleum Association:
I am testifying today in neutral to A.B. 97. I would also like to thank Chair Watts for working with us on the conceptual amendment, especially sections 11 through 14. Firefighting foam is used to quickly, efficiently, and more safely suppress and extinguish petroleum and chemical fires. The conceptual amendment does acknowledge that there currently is no other product on the market that performs as well. We do use PFAS-containing firefighting foam to save human life and critical infrastructure.

Nikki Bailey-Lundahl, Government Affairs Manager, Nevada Mining Association:
We work toward finding firefighting solutions on our mine sites. I want to thank the bill's sponsor for working with us and other stakeholders. With the proposed amendment, the Nevada Mining Association is in neutral.

Tim Shestek, Senior Director, State Affairs, American Chemistry Council:
Thank you for the opportunity to testify on A.B. 97. This legislation touches on several different chemistries used by a variety of different industry sectors and in a multitude of different products. American Chemistry Council member companies manufacture many of the chemistries included in A.B. 97. The bill, as introduced, did present a few concerns, including a prohibition on the use of certain firefighting foams that are important for extinguishing flammable liquid fires. I want to thank Assemblyman Watts for the ongoing discussion we have had over the past several weeks. The conceptual amendment that has been described establishes a practical process for addressing PFAS-related water quality issues and appropriately prohibits training and testing with any PFAS-containing firefighting foam. I would like to make one comment about reinforcing the distinctions from the firefighting foam intended for deployment on high-hazard fires and the flame-retardant chemicals used in specific products to help ensure the fire safety of those products. These are very different issues with very different use profiles and should not be intertwined in the discussion. The proposed amendment does recognize both the fire safety benefits of flame-retardant chemistries that are used in electronics and electrical components, and industry innovations to develop more sustainable fire safety chemistries. I appreciate Assemblyman Watts for the ongoing dialogue and openness to working with us on these issues and, based on the conceptual amendment, it would be our intent to move our position on the bill.

Vice Chair Cohen:
I will take the next caller in neutral. Hearing no one, we do have Mr. Lovato on Zoom to testify in neutral.

Greg Lovato, Administrator, Division of Environmental Protection, State Department of Conservation and Natural Resources:
I am here to testify in neutral on A.B. 97. We support efforts to protect Nevada's water resources from PFAS contamination, and I want to thank Assemblyman Watts for considering input from NDEP in the March 22, 2021, conceptual amendment [Exhibit L]. The amendment would support PFAS working group activities NDEP was already planning and removes our fiscal note.

Although PFAS have been in widespread use since the 1950s, as Assemblyman Watts mentioned, statewide testing required by EPA under the federal Safe Drinking Water Act conducted from 2013 to 2015 did not detect PFAS in Nevada drinking water supplies. Many other states have had much more severe PFAS impacts to public water supplies detected in initial testing. However, NDEP recognizes the results from that statewide testing are limited in that they are a snapshot in time, only tested for 7 of nearly 30 PFAS for which commercial lab capability now exists. Also, this prior testing only targeted Nevada public water systems serving populations over 10,000, with four additional smaller systems randomly selected. It is worth noting that additional testing under this federal program is being planned from 2023 to 2025, and 29 PFAS compounds will be tested. Although PFAS have not been detected in Nevada's public water systems, NDEP will pursue additional federal funding to assess the potential threat to our water resources while we develop communication and contingency plans in the event of an occurrence.

Although the amendment removes the requirement for NDEP to set drinking water and other water quality standards, NDEP does have existing authority under Nevada water pollution control and public water systems law in *Nevada Revised Statutes* Chapter 445A to address occurrences of PFAS, and we have previously addressed contaminants that do not have federally or state-enforceable primary drinking water standards. Historic examples include releases of perchlorate at the former PEPCON [Pacific Engineering and Production Company of Nevada] and Kerr-McGee Chemical Corporation, now known as Tronox, facilities near Henderson, as well as releases of fuel oxygenates such as MTBE [methyl tert-butyl ether] from gas stations, and sulfates from mine sites. We would use these same authorities to respond to any instances of PFAS contamination.

The Division of Environmental Protection staff currently participate on an interstate PFAS working group coordinated by the EPA Office of Research and Development liaison to the Pacific Southwest Region. The Division will be tasking professional staff from both our Source Water Protection Program within the Bureau of Safe Drinking Water and environmental cleanup programs within our Bureau of Corrective Actions to coordinate the Nevada working group required in the conceptual amendment.

We anticipate that the PFAS working group activities, including recommendations related to additional steps and any sampling recommendations, could be completed in the summer of 2022.

Vice Chair Cohen:
Are there any questions from the Committee? Seeing none, Assemblyman Watts, would you like to make a closing statement?

Assemblyman Watts:
I will waive my closing remarks. Thank you for your time and consideration.

Vice Chair Cohen:
I will close the hearing on A.B. 97.

[Assemblyman Watts reassumed the Chair.]

Chair Watts:
That brings us to the last item on our agenda today, which is public comment. Is there anyone wishing to provide public comment? Hearing no one, our next meeting will be Wednesday, March 31, 2021. This meeting is adjourned [at 5:37 p.m.].

RESPECTFULLY SUBMITTED:

_____
Nancy Davis
Committee Secretary

APPROVED BY:

_____
Assemblyman Howard Watts, Chair

DATE: _____

EXHIBITS

Exhibit A is the Agenda.

Exhibit B is the Attendance Roster.

Exhibit C is the Work Session Document for Assembly Bill 171, submitted and presented by Jann Stinnesbeck, Committee Policy Analyst, Research Division, Legislative Counsel Bureau.

Exhibit D is the Work Session Document for Assembly Joint Resolution 4, submitted and presented by Jann Stinnesbeck, Committee Policy Analyst, Research Division, Legislative Counsel Bureau.

Exhibit E is a proposed conceptual amendment to Assembly Bill 275, dated March 28, 2021, submitted and presented by Assemblywoman Michelle Gorelow, Assembly District No. 35.

Exhibit F is a fact sheet titled "Save the Bees: AB 275, Neonic Reform," submitted and presented by Assemblywoman Michelle Gorelow, Assembly District No. 35.

Exhibit G is written testimony submitted by National Caucus of Environmental Legislators, in support of Assembly Bill 275.

Exhibit H is a letter, signed and submitted by Drew Toher, Director, Community Resource and Policy, Beyond Pesticides, in support of Assembly Bill 275.

Exhibit I is written testimony, dated March 26, 2021, submitted by Jeff Case, CropLife America, in opposition to Assembly Bill 275.

Exhibit J is written testimony, dated March 26, 2021, submitted by Jon Gaeta, Director, State Affairs, Responsible Industry for a Sound Environment, in opposition to Assembly Bill 275.

Exhibit K is a letter, dated March 26, 2021, submitted by Jeff Jensen, Southwest Field Staff Representative, Golf Course Superintendents Association of America, in opposition to Assembly Bill 275.

Exhibit L is a conceptual amendment to Assembly Bill 97, dated March 22, 2021, submitted and presented by Assemblyman Howard Watts, Assembly District No. 15.