



January 25, 2019

Re: Letter of Support for Vegan Protein Option Proposal (CF: 11-1678-S3)

Dear Councilmembers,

This letter expresses The Land and Sea Institute's support of the recent vegan protein option motion by Councilmember Koretz. The Land and Sea Institute is a food and climate research organization dedicated to climate change mitigation and decreasing global food insecurity.

The Los Angeles City Council is at the forefront of creating sustainable cities. The policies you've implemented are recognized globally and have served as models for sustainability practices in major cities. The vegan protein proposal shines as an opportunity to trailblaze emission-reduction efforts and build ethical food systems.

Implementation of the proposal will have health benefits for the city, combat climate change, and spark an interest in sustainability for citizens in Los Angeles. Announcement of the motion has already generated positive press for the city. Dozens of articles have been published about the proposal and the impact it could have on climate change. It is being hailed by major news sources, businesses, and social movements as a groundbreaking effort to incorporate the [United Nations' strong recommendations](#) for a global shift to plant-based diets into government policy.

There are three factors that strongly suggest this proposal would be successful:

1. There is broad, rapidly growing public support for plant-based foods (a [Nielson survey](#) showed that 39% of Americans are intending to incorporate more plant-based foods in 2019).

2. The plant-based protein options available are delicious. Large restaurant chains are recognizing the value of including consumer taste-tested and approved products on their menu, like [Carl's Jr.](#), which recently added the Beyond Burger to their chain.
  3. Food service providers' implementation of this requirement will be smooth. There is a large market of exceptional plant-based food options available for institutional purchasing, including those already sold in [Dodgers Stadium](#) and [other large venues](#). The [plant-based food market](#) is expansive and rapidly growing, with sales up 20% to \$3.3 billion in 2018, and investment increases of 30%.
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## **Benefits for Los Angeles**

Implementation of this policy would provide benefits for the citizens of Los Angeles.

- **Climate Change:** Supporting plant-based alternatives is an investment by the city in [resource efficiency](#), [water conservation](#), and [land preservation](#). Animal foods generally use significantly more resources and emit more pollutants during production than plant-based foods. A 2018 [University of Michigan study](#) concluded that the Beyond Burger, a plant-based burger made from pea protein, canola oil, coconut oil, and beet juice extract, emits 90% less greenhouse gas emissions, uses 46% less energy, has 99% less impact on water scarcity, and 93% less impact on land use than a quarter pound of beef produced in the United States.
- **Water:** Endorsing plant-based alternatives in large venues will help improve water supply deficiencies in California. Animal production uses [one third of the total water](#) used in agricultural production. In drought-prone regions, such as Southern California and the Southwest United States, livestock operations play a large role in [groundwater and aquifer depletion](#). Additionally, these operations' heavy use of [fertilizers](#), [antibiotics](#), and [other chemicals](#) pollute bodies of water and increase [human health risks](#).
- **Health:** Providing support for plant-based foods in stadiums, movie theatres, and airports will introduce millions of citizens to [plant-based foods](#), which help prevent chronic disease and support better health outcomes. As the authors of a Lancet Report released this January noted, current global diets “contribute to a substantial rise in the incidence of diet-related obesity and diet-related non-communicable diseases, including coronary

heart disease, stroke, and diabetes. Unhealthy diets pose a greater risk to morbidity and mortality than does unsafe sex, and alcohol, drug, and tobacco use combined.”

- **Economy:** Supporting plant-based meal options is an adaptation and mitigation strategy that will bolster Los Angeles’ approach to climate change. Los Angeles faces specific environmental and economic challenges from global warming. The [Fourth National Climate Assessment](#) released in November showed that “[k]ey coastal vulnerabilities arise from complex interactions among climate change and other physical, human, and ecological factors. These vulnerabilities have the potential to fundamentally alter life at the coast and disrupt coast-dependent economic activities.” The report analyzed California’s coastal impacts and concluded that “in California, an estimated 260,000 people are currently exposed to a 100-year flood; this number could increase to 480,000 by 2100 as a result of a 4.6 foot sea level rise alone...Approximately 18% of those exposed to high flood risk by the end of this century also are those who currently fall into the ‘high social vulnerability’ category.”

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## **Climate Change and Animal Agriculture**

By 2100, the global population is projected [to grow](#) from 7.6 billion to 11.2 billion and the Earth’s temperature is predicted to increase by 1.8–3.0 degrees celsius. As the studies below will illustrate, humanity is on the verge of experiencing catastrophic loss from climate change. The Food and Agriculture Organization of the United Nations (UNFAO) [reports](#) that animal agriculture is “one of the top two or three most significant contributors to the most serious environmental problems, at every scale from local to global.” Notably, this industry annually [slaughters](#) around 70 billion land animals and has colossal environmental impacts:

- causes 80% of the [Amazon rainforest destruction](#),
- contributes to at least 14.5% of [GHG emissions](#),
- produces 35–40% of [annual anthropogenic methane emissions](#) (which are [23x more warming](#) than CO2),
- and uses 26% of [ice-free land](#).

The annual production of meat is [projected to increase](#) by over 200 million tonnes to a total of 470 million tonnes by 2050, and developing countries [are projected to quadruple](#) their meat intake by 2030 from 1960 levels. Animal agriculture will continue to cause expedited,

severe climate change impacts on our food systems, economy, and health (affecting the world's most vulnerable populations) if we do not change course.

## **Support from Climate Change Reports**

Landmark reports published within the last six months underscore the urgency of addressing global warming and reducing meat and dairy intake.

- **[United Nations Special Climate Report: “1.5°C Is Possible But Requires Unprecedented and Urgent Action”](#)**

*October 2018*

- This report, conducted by 91 authors and editors from 40 countries, concluded that we have 12 years to keep global warming to a maximum of 1.5°C.
- The report compares global warming of 1.5°C with that of 2°C. Although 1.5°C will undoubtedly have harmful impacts on Earth's ecosystems, human infrastructure and health outcomes, warming of 2°C will likely create irreversible, catastrophic changes and damage.
- The authors of the study highlight these findings: “The likelihood of an Arctic Ocean free of sea ice in summer would be once per century with global warming of 1.5°C, compared with at least once per decade with 2°C. Coral reefs would decline by 70–90 percent with global warming of 1.5°C, whereas virtually all (> 99 percent) would be lost with 2°C.”

- **[“Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems”](#)**

*January 2019*

- The report, written by 37 scientists from 16 countries, identified catastrophic health and environmental harms from the current state of global food production and diets. Authors of the report state, “Providing a growing global population with healthy diets from sustainable food systems is an immediate challenge. Although global food production of calories has kept pace with population growth, more than 820 million people have insufficient food and many more consume low-quality diets.”
- A global transformation of the food system is required to feed a population of 10 billion by 2050 and attain the Sustainable Development Goals, according to authors of the report. The guidelines recommend a new diet, the “planetary health diet”, focused on plant-based eating. Specifically, they recommend doubling

consumption of legumes, vegetables, and fruits while decreasing consumption of red meat by at least 50%.

- **Fourth National Climate Assessment**

*November 2018*

- The results of this federally mandated study by the United States Global Change Research Program, conducted by a team of 300 scientists and 1000 people, painted a bleak economic and health outlook for the United States as climate change accelerates and intensifies.
- **Shrinking economy:** By 2100, the economy could lose hundreds of billions of dollars annually due to climate change impacts.
- **Crops:** Farmers' crops will decline in quality across the country and farmers in the Midwest will be producing 70% less corn and 25% less soy than current yields.
- **Livestock:** "Crops and livestock will be at increased risk of exposure to extreme heat events. Lack of prior conditioning to rapidly changing or adverse weather events, however, often results in catastrophic deaths in domestic livestock and losses of productivity in surviving animals."
- **Fishing:** Climate change will threaten coastal fishing operations, which generate \$208 billion in sales annually and support 1.6 million jobs. The shellfish industry alone will lose \$230 million annually from loss related to ocean acidification, red tides, and ocean warming.
- **Wildfires:** Wildfires, which currently burn large swaths of land in dry states like California, could burn six times more forest annually.
- **Coastal Flooding:** "More than 5,790 square miles and more than \$1 trillion of property and structures are at risk of inundation from sea level rise of two feet above current sea level – an elevation which could be reached by 2050 under a high rate of sea level rise of approximately 6.6 feet by 2100."
- **Extreme Heat:** Cities across the country, specifically the midwest, will experience extreme heat stress similar to conditions in Las Vegas, causing drought, health concerns, and loss of 500 million hours of labor.

- **Report On Ocean Temperatures: "How Fast Are The Oceans Warming?"**

*January 2019*

- This study, led by climate research group Berkeley Earth, showed that ocean temperatures are warming 40% faster than a study indicated several years ago.
- Scientists are alarmed at the rate of increase and fear the implications, which include dying marine ecosystems, rising sea levels, more destructive and wetter

hurricanes, and diminishing coral reefs (which support fish that feed hundreds of millions of people).

- Oceans are critical buffers against atmospheric warming because they absorb 93% of the heat trapped by greenhouse gases.

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## **Conclusion**

The scientific evidence and adaptation strategies presented by recent landmark climate change reports indicate that governments must take innovative, unprecedented approaches to tackling climate change. Given the political gridlock at the federal level, as well as the United States' retraction from international climate plans, local governments are uniquely positioned to play a powerful role in combating climate change and protecting their citizens from its foreseeable harms. The cities that undertake novel, high-reward strategies will be well-positioned to face the economic, health, and environmental challenges of climate change in the next century. For these reasons, The Land and Sea Institute urges the Council to support the vegan protein option proposal and believes that it will provide sweeping benefits for the city of Los Angeles.

Sincerely,

*Alicia Rodriguez*

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*Executive Director*

The Land and Sea Institute