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THE LEAGUE OF WOMEN VOTERS of New York State

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By E-mail: **scopingplan@nyserda.ny.gov**

Draft Scoping Plan Comments
NYSERDA
17 Columbia Circle
Albany, NY 12203-6399

Re: NYS Climate Leadership and Community Protect Act
Comments to Scoping Plan – Forestry and Agriculture

The League of Women Voters of New York State ("LWVNYS" or the "League") thanks the Climate Action Council (the "Council") for the Climate Action Plan (the "Plan") the Council has created in conjunction with the New York State (the "State") Climate Leadership and Community Protection Act (CLCPA). These comments address the portion of the Plan devoted to forestry and agriculture. The Plan contains a valuable analysis that explains why our forests and agricultural land form a critical piece in the efforts to reduce and sequester greenhouse gases (GHG) and other toxic emissions. The League appreciates the complex and deep study reflected in the Plan regarding what needs to be done and the care that needs to be taken to carry out the CLCPA's objectives.

Our planet faces a climate change emergency. Acknowledging the exigencies, the CLCPA recognizes that New York State must undertake the enormous task of reinvigorating and maintaining our forests and agricultural systems in ways that address currently intractable climate conditions. If properly managed, these systems can play an important role in reducing GHG emissions and in mitigating the effects of climate change. In order to accomplish these goals research, legislation, regulations, education, effective outreach and especially sufficient funding, will be critical.

Scientists and engineers have learned a tremendous amount about the complexity of forests and soils in recent years. They have developed better ways to manage the GHG emissions produced by farm animals and techniques for sequestering more carbon. This research has opened new doors that will allow practitioners to plant trees in the best locations, using a mix of species that complement and support each other. It will likewise help farmers implement procedures that enrich their soils while saving money and reducing GHG emissions.

Animal waste and the general production of methane by ruminants presents a particularly complicated challenge and there is much debate about the right ways to handle it . Determining the best course of action will require further research, a dramatic increase in the education of and outreach to farmers, and significant financial support for the application of new principles. Money invested now will prevent further escalation of GHG emissions and save on increased costs in the long-term, so it is important to invest funding consistent with the benchmarks of the CLCPA.

The comments included here address the LWVNYS' general responses to the Plan regarding forestry and agriculture, focus on some specific topics, and discuss a few items that have not been included in the Plan but should be. We also applaud and encourage the further pursuit of a few specific items mentioned in the Plan.

As an overview, the LWVNYS would like to see significantly more specificity and concrete information in future versions of the Climate Action Plan with regard to forestry and agricultural improvements and management. The League recommends that a thorough cost-benefit analysis be performed, including, but not limited to, a discussion of jobs to be gained, jobs to be lost, specific cost estimates for actions to be taken, savings that may be incurred as a result of these actions, and how the needed funds will be sourced. It will be valuable to include a proposal for the use of low interest loans to farmers and private foresters and a means for cost sharing of equipment. In addition, a specific timeline should be provided for the activities and changes proposed.

In order to transform this Plan into a workable roadmap, it must include a mechanism for clear, effective oversight and coordination of what will be a very complex, yet time-sensitive process. The Plan should include a proposal for a high-level person or committee (or both) tasked to oversee these activities, make sure they are in fact carried out by appropriate deadlines, and enable the different participants to be well coordinated.

The Plan points to a large number of different agencies, organizations and educational institutions that can help in the implementation. This includes Cornell's College of Agriculture and Life Sciences (CALS), Cornell Cooperative Extension (CCE), the SUNY College of Environmental Science and Forestry (ESF), the New York State Department of Environmental Conservation (DEC), and many more. To achieve the intended outcomes, little will be accomplished unless the efforts of these diverse entities are well-coordinated and appropriately complement each other. In other words, these formidable entitles should be linked through a master plan.

Strong, precise legislation and regulations will need to be written. Incentives used to promote voluntary actions will be important but not sufficient. To facilitate the CLCPA's intent, the CAC should engage input from specific legislators representing key regions with farmland and forests aided by experts in relevant fields to craft the legislation and/or regulations and shepherd them through to enactment.

It will likely be useful to specifically involve legislators from different rural areas and from parts of the State that lie within the Adirondack Park. It will be particularly important to ensure that any legislation, regulations and especially funding place small and medium sized farms front and center. Too often, the large industrial farms reap most of the benefits and support made available

by farm legislation while there is a simultaneous failure to adequately regulate and monitor their practices.

In summary, significant funding, carefully crafted legislation and regulations, a clear timeline, and strong, effective oversight will be required to make this important roadmap become an effective reality.

The LWVNYS next addresses specific aspects of the Plan that we recommend should be included or significantly strengthened, and others we hope will be emphasized.

The League is intrigued by the Plan's proposal to establish a NY Tree or Climate Corps (p. 280). The description does not specify how this Tree Corps would be formed, but if it is in part modeled after the Peace Corps, this is a way that young people could learn about and become engaged in forestry efforts for a period of two or three years and hopefully bring what they have learned into further education, careers, or simply educating the general public.

The issue of invasive species is addressed in the discussion of forestry. Regenerate NY is pointed to as a New York State agency that should be further funded to facilitate a key role in confronting this issue. The LWVNYS notes that Regenerate NY makes use of chemicals to control invasive species and further understands that pesticides often kill important insects and pollinators. In addition, these toxic chemicals frequently end up in New York's water supply and food chain. The weedkiller Roundup is just one of the potentially carcinogenic herbicides with active ingredient glyphosate that is widely used and can be purchased anywhere in NYS. When implementing the Plan, it is critical that chemical methods be used only when absolutely necessary and particularly toxic chemicals (including those suspected to cause cancer) should not be used at all. To this end, the League recommends enacting legislation to limit or otherwise prohibit the use of herbicides and pesticides in forestry, agriculture, and general lawn/garden care commensurate with the health and safety risks they present.

Heavy and light equipment are used widely in forest management on both public and private lands. Given the CLCPA's overall goal toward using renewable energy, legislation and/or regulations should be written to require all of the forest management and residential yard maintenance equipment (such as lawn mowers, leaf blowers and the like) to run on electricity, battery power or fuel cells by a firm deadline.

The Plan discusses the likely need to use hydrogen fuel cells. The LWVNYS observes that among the different ways to capture hydrogen for use in fuel cells, these methods are frequently not "green" even though they may claim to be. The League urges that care and further research is needed to determine the optimal sources of hydrogen for use in fuel cells. (See The New York Times article "For Many, Hydrogen is the Fuel of the Future. New Research Raises Doubts", by Hiroko Tabucci, August 12, 2021).

The Plan further proposes that an equipment cache be developed for foresters to use but does not say the equipment in the cache must use only electricity, battery or fuel cell power. Without this restriction it could easily become a dumping ground for old equipment running exclusively on fossil-fuel. This same issue arises regarding the need to develop an equipment cache for farmers, one that helps them to afford the expensive switch to new non-fossil-fuel based equipment.

The Plan discusses the need for financial and technical assistance for private landowners who have or want to develop forests on their land. The Plan restricts that assistance to areas of 15 acres or more in size. If one travels around central New York and other regions, one will see that many landowners have wooded areas that are smaller than 15 acres but still need good management. In many cases these plots are adjacent to similar acreage owned by others or lie adjacent to public forests or nature preserves. Any guidelines written concerning this financial and technical assistance should include and benefit landowners in this situation as well.

The Plan proposes creation of a carbon bank. The idea of forming a carbon bank sounds good, but only if it is done with extreme caution and care. A carbon bank must be created in a way that benefits the environment rather than helping corporations and other entities avoid responsibility for their contributions to greenhouse gas emissions and other environmental hazards.

- A carbon bank should not be used as an excuse by an entity to avoid undertaking serious efforts to reduce GHG emissions. The entity must instead demonstrate that it has done everything possible to eliminate those emissions or is in the process of doing so. This demonstration must be reflected in writing with the protocol in place and be subject to regular review, a time limit on compliance, and an enforcement mechanism in place. Self-reporting is not acceptable.
- It is likely that much of the funds associated with the carbon bank will be used for afforestation or reforestation efforts. Too often such global efforts have resulted in planting cheap monocultures of trees rather than a healthy mix of trees that are climate change resilient. In addition, the trees must be planted in locations that are well-suited for their survival and where they do not interfere with the survival of other important plants and trees. It will be critical to engage a knowledgeable arborist to oversee these activities. (see, Finding the Mother Tree, by Suzanne Simard, Penguin Random House)

The League supports the Plan's inclusion of the production of biochar and ways to increase the use of wood products. Both uses reflect important methods for increasing carbon sequestration. Educating the public concerning these uses will be important.

The Plan provides an excellent analysis of the complex nature of New York's farms and the steps that should be taken to address climate change. The League submits that it is not sufficient to depend on the voluntary participation of farmers to carry out the needed steps to implement the goals of the CLCPA, even when incentives are given. As much as possible, adoption of key practices should move forward by educating farmers on the benefits of the changes, including those that range from greater food production to decreases in costs. But it is highly unlikely that there will be a major sustained shift to new practices without the implementation of strong, precise regulations, ongoing support and effective enforcement.

The League agrees with the Climate Justice Working Group (CJWG) that carefully crafted regulations will be critical and that the addition of fees to the cost of fertilizer will likely also be needed in order to discourage the use of excess applications and amounts. Such fees should apply only to amounts that are beyond the minimum a farmer would need. These funds can then be used to support the institution and expansion of regenerative agriculture.

The needed changes in practices will vary dramatically among the different rural areas of New York. Changes in weather patterns will also require that adjustments be made. For example, appropriate actions to take in the Adirondacks will not be the same as those needed in the region around Jamestown. For this reason, it is essential that experts who have a deep understanding of agriculture, especially regenerative farming, be involved in the crafting of legislation and regulations.

Major efforts are being made in France with regard to changing the way that farming is done. The article at https://www.euractiv.com/section/agriculture-food/news/french-farmers-endorse-carbon-farming-but-highlight-transition-costs/ discusses the fact that there will be a transition period of several years during which farmers will likely face some risks. It is being proposed in France that significant government support be given during that period of time. It is understood that after the transition is complete France should have farms that are more resistant to climate change, able to sequester more carbon, more productive and will result in saving money previously spent on fertilizers and pesticides.

Regenerative farming techniques should be emphasized in all legislation and regulations, including the use of cover crops, as a way to reduce the need for pesticides, better preserve and build up the soil while also reducing the amount of necessary plowing. We applaud the Plan's call for cover and double crops as well as moves from annual to perennial crops, all of which can dramatically reduce the amount of necessary plowing. (See Building Soils for Better Crops, 4th edition, by Fred Magdoff and Harold van Es, available as a book or PDF at https://www.sare.org/resources/building-soils-for-better-crops/).

The use of co-locating solar panels on land with sheep and other animals should also be encouraged. The League is pleased to see the inclusion of agroforestry and silvopasture in the analysis. These are valuable ways to sequester carbon while also providing new and interesting ways to farm.

When one travels by farmland in New York one sees large expanses of bare ground at certain times of the year. This leads to problematic runoff during heavy rains as well as the loss of critical soil to store carbon. The use of cover crops could dramatically reduce these problems. The League hopes that major efforts will be made on this front.

Attention needs to be paid to the formation of stream buffers, so fertilizer and soil do not end up in New Yorkers' water supplies. The Finger Lakes Land Trust (www.FLT.org) is demonstrating how these buffers can be formed by purchasing or preserving land along streams and lakes in the region and building such buffers. Activities of this sort should be supported and carried out throughout the State.

Small and medium-sized farms are too often overlooked or under-appreciated when farm legislation and funding are instituted. Too many of our smaller farms are having financial difficulties with the result that they are frequently bought out by large industrial farms or their land is turned into developments. These farms are the bedrock of our agricultural system, especially in New York State, and they need legislative and financial help and support to sustain their existence. In addition, those farmers who have already begun to use regenerative farming techniques should be eligible for financial support as fully as those who are just beginning the process, but unfortunately that is currently not usually the case. The League hopes these curable

circumstances will be resolved to champion the sustainability of smaller farmers and treat all farmers undertaking regenerative farming practices consistently.

The Plan proposes pilot projects, but more emphasis should be put on farmer-to-farmer outreach. While beneficial, it is not sufficient for experts from Cornell's Cooperative Extension to approach the farmers. It will be most effective for farmers to also hear from other farmers about how the required changes work, what their experiences have been, and how they have benefited from those changes. We are asking our farmers to make major changes in how they operate, including new ways of performing farming tasks they have performed for a very long time. For example, farmers will need to experiment with using cover crops and dramatically reduce the amount of tilling they do. Farmers need to know these shifts in practices can be done successfully, without too much difficulty, and that they will have access to the needed financial and other support to carry them out. We recommend that the State encourage and support networks of farmers to help in this transitional process as we move ahead.

In addition to supporting farmer-to-farmer networks, the State should help those with smaller farms acquire the use of needed equipment. For example, special equipment will be needed to plant seeds without first plowing the fields. Grants and other means of cost sharing can be instituted. Further, a group of farmers can jointly own and insure key pieces of equipment that they share. It is useful to look at the list of micro-grants awarded by the Adirondack Council from 2016 through 2021. (See https://www.adirondackcouncil.org/page/recipients-of-micro-grants-247.html)

The Plan discusses the need for the inclusion of historically underserved farmers and potential new farmers. This is an extremely valuable component in the Plan. Small and medium sized farms will be critical in maintaining New York's food supply in the future and may be best able to adapt in response to changes in our climate while reducing costs of transporting food produced in distant locations. The Union of Concerned Scientists has an important article on the dramatic effect the consolidation of farms has on the number of midsize farms and the number of black farmers in the U.S. (Catalyst Volume 21, Summer 2021 pp. 14-17).

In order to support the smaller farmers, the impacts associated with large, consolidated farms, and in particular Consolidated Animal Feeding Operations (CAFO's), need to be addressed. Not only are these very large farms often poorly managed, they frequently buy up land that often puts existing farmers out of business; land that could be used and potentially managed more productively by smaller farmers. It is not clear what is the best way to address this problem, but it needs to be tackled if we are indeed to help the smaller farmers, keep a vibrant and healthy food supply, while addressing the climate change emergency.

During the pandemic it became apparent that farmers were allowing imperfect but nutritionally sound food to rot on the field due to economic considerations. Wasted food constitutes the third largest contributor to global warming across the food chain and must be addressed across the food chain. Further, New York has a food insecure population that could benefit from fresh produce. One recommendation that could provide added income (through tax credits or otherwise) to farmers while feeding healthy food that would otherwise go to waste to New York's food insecure residents is to implement statewide a work-study program with the SUNY College system involving students (for class credit) to collect imperfect food from State farms and transport it in refrigerated mobile pantries to identified locations in New York's food deserts

and otherwise to regions with food insecure residents without transportation. Similar efforts could be used to help the food insecure while also aiding farmers who have excess produce from their farmers' markets by paying the farmers an appropriate amount for the unsold products.

The League is concerned that the Plan seems to allow the use of methane from ruminants and their waste for so-called "Renewable Natural Gas." The combined use of "renewable" with "natural gas" is in effect an oxymoron and has the effect of greenwashing a heat trapping energy source New York (and beyond) needs to move beyond. The League recommends abandoning the combined use of these two terms to avoid confusion. Not only can the use of methane from these animals lead to methane leaks, it may also encourage the continued use of natural gas by adding to existing infrastructure and making it easier to avoid the conversion to non-fossil fuel sources of energy.

The LWVNYS agrees with the CJWG that facilitating the CLCPA should focus on prevention of methane production as much as possible and otherwise keep its use localized. Using the methane in fuel cells might be an effective way to reduce the problem. In addition, as was mentioned in the Plan, a change in what the ruminants are fed can make a difference in methane emissions. For example, research performed in Australia has found that the addition of just 2% of the seaweed Asparagopsis taxiformis, found on the coast of Australia, to the feed for sheep leads to a 70 to 80 percent drop in methane produced. (See, Drawdown, edited by Paul Hawken, p.205). The Australian scientists continue to study the effect on cattle while similar research on feeding seaweed to cattle is being done at UC Davis.

One key ingredient that has been left out of the analysis is the importance of encouraging residents to move to a predominantly plant-based diet and switching to meat sources from non-ruminant animals such as poultry. Analysis of the quantitative effect this would have on GHG emissions is highly complex but could be significant, particularly since much of the land now occupied by ruminants could be used for additional forests or other means of carbon sequestration. The analysis done in the Plan likely understates the effect of agriculture, and in particular ruminants, on the amount of GHGs emitted. See the research paper "Rapid global phaseout of animal agriculture has the potential to stabilize greenhouse gas levels for 30 years and offset 68 percent of CO_2 emissions this century" by Michael Eisen and Patrick Brown in the online journal PLOS Climate, February 1, 2022 (https://journals.plos.org/climate/article?id=10.1371/journal.pclm.0000010). Although this is not a peer reviewed paper, the article contains a great deal of valuable information.

Key to all of the efforts to reduce GHG emissions from agriculture will require further research and education and significant financial support for small farmers. The transition to new ways of farming will be costly in the short run for which farmers will need legislative and financial help.

At the same time that New York needs to assist the farmers, the State likewise needs to financially support public education concerning why New Yorkers should buy locally grown food, while prioritizing purchases from farmers who use the best sustainable practices. As mentioned earlier, eliminating wasted food is a critical step in tackling the climate change emergency because of the GHG emissions generated by food waste. To that end, New York needs to expand its efforts to educate residents about reducing wasted food through meal planning, understanding date labeling, food storage and meal preparation practices including leftovers. www.LoveYourFoodNY.org represents one example of a government grant used by

the Town of Mamaroneck to educate the public on this topic. The League applauds these government grants and urges its continuation and expansion.

The League recommends that the State, through DEC and in collaboration with county and local governments, more broadly engage residents to either compost food scraps on-site or through municipal food scrap recycling programs that further transform the organics into soil enriching compost used to grow more food. The League acknowledges that while it is harder to accomplish a successful food scrap recycling program in larger cities, it can be done successfully (as was accomplished in San Francisco, California) with public education provided in advance of rolling out the food scrap recycling program.

Another promising approach which could be promoted state-wide (and which has the effect of causing residents to divert food scraps from the waste stream) is known as "pay-as-you-throw" (PAYT) or "save-money-and-reduce-trash" (SMART). For example, in Massachusetts, residents pay a per-unit fee for disposal of household trash through use of a pre-printed, pre-paid-for trash bag (There are variations of this through use of special stickers or tags which the resident affixes to their own trash bag—or annual payment for weekly use of a 35-gallon trash cart.) Making residents directly responsible for the cost of their trash removal creates an incentive to reuse, donate, recycle, and compost, thereby incentivizing conservation and minimizing waste. According to MassDEP, in regions where pay-as-you-throw is in effect and residents have employed these other strategies, residential solid waste tonnage has been reduced by 25-50%, likewise decreasing air pollution from incinerators and preserving land that might otherwise be used for solid waste disposal for a more environmentally beneficial use. (See: https://www.mass.gov/lists/pay-as-you-throw-paytsave-money-and-reduce-trash-smart https://www.mass.gov/doc/paytsmart-in-massachusetts-fast-facts/download)

While New York needs to support our existing and new farmers, the State also needs to address the impacts that farming and forest preservation have on our State's indigenous populations. Too often, these residents are left out of the picture as we fail to learn and take into consideration their wishes and needs. The NYS LWV suggests adding to the Plan a component that specifically addresses the connections of the Plan to the State's indigenous populations, including how the State can give them additional support while simultaneously avoiding any negative impacts. A statewide move to expand regenerative agriculture on the part of all farmers could in fact bring tremendous sustainable benefits to the State's indigenous populations along with all people living in New York State.

Thank you for your time and consideration of these comments.

Respectfully submitted by the League of Women Voters of NYS.