

REPORT OF THE AGRICULTURAL LANDS WORKING GROUP FOR  
THE VERMONT CONSERVATION STRATEGY INITIATIVE



Photo Credit: Scott Magnan

***State of Knowledge of Soil Biodiversity (2020)***

*Soil biodiversity could constitute, if an enabling environment is built, a real nature-based solution to most of the problems humanity is facing today, from the field to the global scale. Therefore, efforts to conserve and protect biodiversity should include the vast array of soil organisms that make up more than 25% of the total biodiversity of our planet.*

Signed by:

*United Nations Food & Agriculture Organization Director-General, QU Dongyu  
Executive Secretary of the United Nations Convention on Biodiversity, Elizabeth Maruma Mrema*

April 18, 2024

## **Introduction**

The Vermont Conservation Strategy Initiative (VCSI) has established working groups to address specific themes or questions raised by Act 59 of 2023 – the Community Resilience and Biodiversity Protection Act (CRBPA). The Agricultural Lands Working Group (ALWG) was established by the VCSI to investigate and deliberate on a deliverable established by the CRBPA at 10 V.S.A. § 2803(b)(1)<sup>1</sup> – ‘criteria shall be developed to determine the types of agricultural lands that will qualify as supporting and restoring biodiversity and therefore count towards the natural resource management area category’. During the inventory phase of the VCSI, the ALWG considered what is at stake in conserving agricultural land, what agricultural lands already are conserved, and if those conserved agricultural lands could count towards the 30 by 30 goal under the vision, goals, and definitions of the CRBPA.

## **Membership**

### **Agricultural Lands Working Group Members:**

Caroline Gordon – Rural Vermont  
Darlene Reynolds – VT Dairy Producers Alliance  
Dave Blodgett – USDA NRCS  
Eric Clifford – Champlain Valley Farmers Coalition  
Jen Miller – NOFA VT  
Jennifer Byrne – Natural Resources Conservation District  
Marli Rupe – VANR DEC

Mike Snow – CT River Watershed Farmers Alliance  
Ryan Patch – VAAFMM (Co-Chair)  
Scott Magnan – Franklin Grand Isle Farmers Watershed Alliance  
Stacy Cibula – VHCB (Co-Chair)  
Stephen Leslie – VT Healthy Soils Coalition  
Tyler Miller – Vermont Land Trust

## **The Process**

The Agricultural Lands Working Group (ALWG) met nine times during December through March of 2024. Meeting times were usually two hours in length, and the group met on Wednesdays, generally from 11am – 1pm. Meeting recordings, notes and presentations are available on the VHCB website: <https://vhcb.org/our-programs/VCSI>. The ALWG also hosted a public roundtable on March 21, 2024 from 6pm – 8pm, The proceedings were recorded and are also on the VHCB website. Drafting of this report was conducted over at least three distinct drafts, authored primarily by staff at the Vermont Housing and Conservation Board (VHCB) and the Vermont Agency of Agriculture, Food & Markets (VAAFMM) as VCSI contracted facilitation services were not available to support drafting the report for the ALWG. Drafts were reviewed at publicly recorded meetings of the ALWG. Every member of the ALWG supported the statement that: ‘All future and conserved agricultural lands should be counted towards State goals of conserving 30 percent of the land of the State by 2030 and 50 percent by 2050.’ A majority of ALWG members supported the unabridged submission of this report. Letters from ALWG members regarding the CRBPA, VCSI, and this report are included in an appendix.

## **Recommendations**

To advise VHCB on their charge at 10 V.S.A. § 2803(b)(1): ‘The [Conserved Lands] inventory shall include: A review of the three conservation categories defined in section 2801 of this title and suggestions for developing any modifications or additions to these categories that maintain or complement the core concepts of ecological reserve areas, biodiversity conservation areas, and natural resource management areas in order to complete the conserved land inventory and inform the comprehensive strategy in the conservation plan. As part of this review, criteria shall be developed to determine the

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<sup>1</sup> VCSI ALWG charge available at: <https://docs.google.com/document/d/e/2PACX-1vQZR0yaFuI7MQOt2xkeL7mfhkzuQ8H-1QOz0LjNk7AFzXinw6Lr0dgjFYUUhWuZ2dHfvTnrVDz0ryf/pub>

types of agricultural lands that will qualify as supporting and restoring biodiversity and therefore count towards the natural resource management area category’ – the ALWG broke the request and the response down into two distinct parts:

For the question of: ‘criteria shall be developed to determine the types of agricultural lands that will qualify as supporting and restoring biodiversity and therefore count towards the natural resource management area category’ – the ALWG recommends the following criteria:

1. **All current and future conserved agricultural lands should be counted towards State goals of conserving 30 percent of the land of the State by 2030 and 50 percent by 2050.**

For the question of: ‘A review of the three conservation categories defined in section 2801 of this title and suggestions for developing any modifications or additions to these categories that maintain or complement the core concepts of ecological reserve areas, biodiversity conservation areas, and natural resource management areas in order to complete the conserved land inventory and inform the comprehensive strategy in the conservation plan,’ the ALWG recommends the following changes be made to definitions and titles used in the CRBPA:

2. The term ‘biological diversity’ or ‘biodiversity’ should be defined by the VCSI; the ALWG recommends utilizing the term ‘Biological Diversity’ as defined by the UN Convention on Biological Diversity: ‘Biological diversity’ means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.”<sup>2</sup>
3. The Natural Resources Management Area definition [10 V.S.A. § 2801(3)] should be amended to be retitled the: **Natural and Working Lands Management Area.**
4. The ALWG recommends keeping the term Sustainable Land Management [10 V.S.A. §2801(5)], but **recommends redefining SLM to be analogous with the UN Convention on Biological Diversity definition from which the findings of the CRBPA are derived: *Sustainable Land Management is defined in this report as “the stewardship and use of land resources, including soils, water, animals and plants, to meet changing human needs, while simultaneously ensuring the long-term productive potential of these resources and the maintenance of their environmental functions”***<sup>3</sup>

## **The Holistic Agricultural Context**

The VCSI Agricultural Lands Working Group answers its charge with the following statement: **All current and future conserved agricultural lands should be counted towards State goals of conserving 30 percent of the land of the State by 2030 and 50 percent by 2050.** The conservation of agricultural lands prevents those lands from being developed and protects biological diversity – including soil biodiversity – on those parcels. At present, lands protected by agricultural conservation easements are 33 percent forested, 43 percent pasture or hay, 14 percent in annual crop production, and 10 percent wetlands.<sup>4</sup> The distribution of lands managed by agriculture in Vermont’s conserved agricultural parcels mirrors

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<sup>2</sup> Convention on Biological Diversity (CBD), 1992: text and annexes / Secretariat of the Convention on Biological Diversity, first adopted 22 May 1992. p.4. Available at: <https://www.cbd.int/doc/legal/cbd-en.pdf>

<sup>3</sup> IPCC, 2019: Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems [P.R. Shukla, J. Skea, E. Calvo Buendia, V. Masson-Delmotte, H.-O. Pörtner, D. C. Roberts, P. Zhai, R. Slade, S. Connors, R. van Diemen, M. Ferrat, E. Haughey, S. Luz, S. Neogi, M. Pathak, J. Petzold, J. Portugal Pereira, P. Vyas, E. Huntley, K. Kissick, M. Belkacemi, J. Malley, (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, 896 pp. <https://doi.org/10.1017/9781009157988>. p. 6

<sup>4</sup> The Nature Conservancy, 2022: ‘Distribute\_NE\_Secured\_Areas\_2022\_public.zip’. Available at: <https://tnc.app.box.com/s/cmhy0pubssnth0d276b9ecg5s2mwu6f0>

the balance of land types managed by agriculture across the entire State: Vermont farmers manage more forest than they do cropland or pasture. Based on the 2022 USDA NASS Agricultural Census, Vermont farmers manage 543,096 acres of

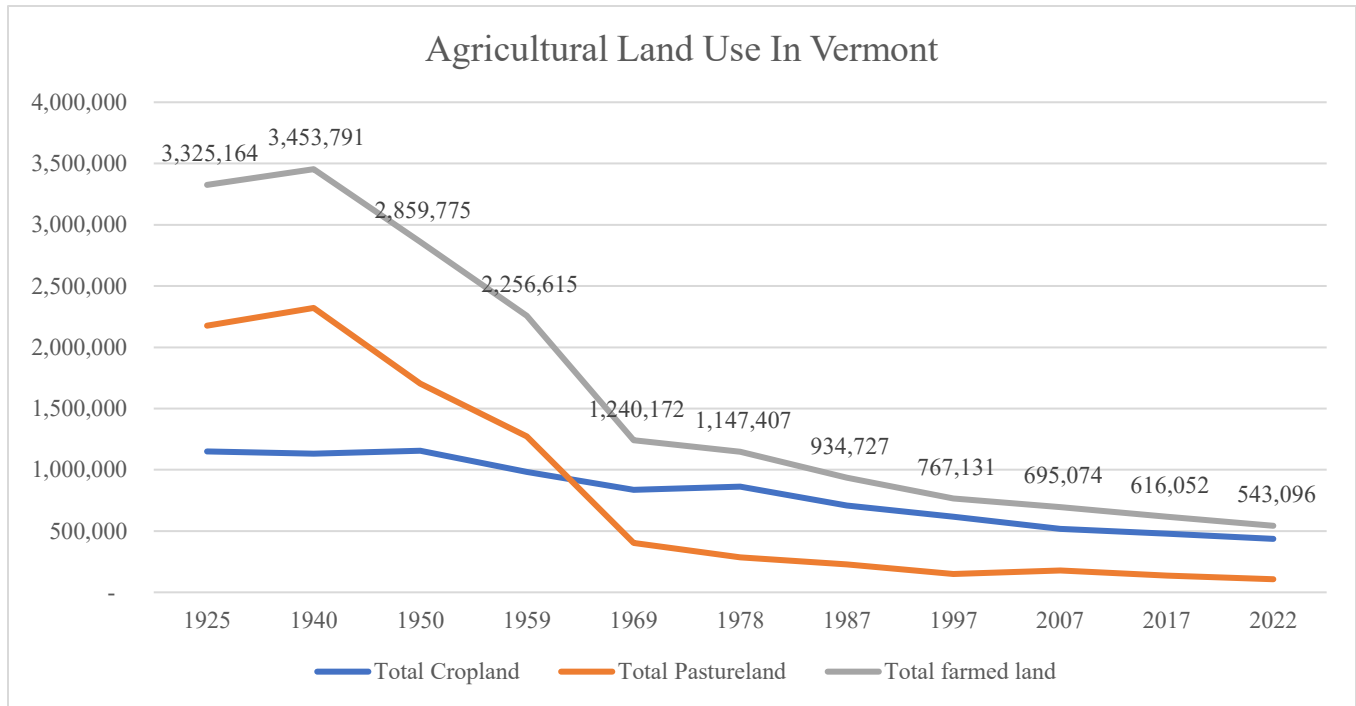


Figure 1

total cropland, permanent pasture, and pastured woodland. Based on the same census, farmers manage 551,271 acres of woodland not pastured. Vermont farmers manage 8,175 more acres of forestland than they do land used for growing food and crops.<sup>5</sup> Figure 1 shows the decline of agricultural land use since 1925.

There exist 226,653 acres of agricultural conservation easements in Vermont which are ‘permanently secured for agriculture.’ Of this close to a quarter million acres, 127,744 – or 56% - of agricultural conserved parcels are used for farming, the balance of the easements are in wetlands or forest cover. 226,653 conserved agricultural easements represents 3.8% of Vermont’s terrestrial land area; 127,744 acres of conserved agricultural cropland and pasture represents 2.2% of Vermont’s terrestrial land area. The 543,096 acres of total land used for growing food and crops in Vermont in 2022 represents 9.4% of Vermont’s terrestrial land area. Only 18% of Vermont’s agricultural land is conserved in easements, and only 10% of Vermont’s prime soils are protected from development by these easements. At the present moment, only 2.2% of Vermont’s land area is conserved for agriculture, and actively used for farming. The ALWG believes including the 2.2% of existing conserved agricultural acres used for farming towards either the 2030 or 2050 goals in the CRBPA does not jeopardize or threaten other non-farming land use types and their specific biodiversity conservation goals and targets as articulated in the CRBPA. The ALWG believes including agricultural lands strengthens the totality of biodiversity services protected acknowledging that currently, arguably only agricultural conservation easements satisfy the requirements of the act regarding the terms ‘perpetuity’ and requirements for protection from ‘conversion’ for agricultural lands being counted towards CRBPA conservation targets and goals – the Conservation Planning portion of the VCSI should examine what other mechanisms exist to protect agricultural lands for 2050 in addition to agricultural conservation easements..

The ALWG recommendation to count all conserved agricultural lands towards 30 percent and 50 percent land conservation goals is made with significant, intentional, and broad deliberation within the ALWG and incorporates the

<sup>5</sup> USDA National Agricultural Statistics Service (NASS), 2022: Census of Agriculture – Vermont, Table 8. Land: 2022 and 2017. Available at: [https://www.nass.usda.gov/Publications/AgCensus/2022/Full\\_Report/Volume\\_1\\_Chapter\\_1\\_State\\_Level/Vermont/st50\\_1\\_007\\_008.pdf](https://www.nass.usda.gov/Publications/AgCensus/2022/Full_Report/Volume_1_Chapter_1_State_Level/Vermont/st50_1_007_008.pdf)

established and latest science on soil biodiversity and agriculture<sup>6</sup>, guidance from the leading international governing bodies on biological diversity and climate change resilience from the United Nations<sup>7</sup>, and a belief that humans are a part of nature and, as such, human and societal needs and goals should also be considered as part of any land use planning exercise – especially one as impactful and novel as the CRBPA which seeks to set land use conservation policy for 50% of the terrestrial landscape – close to three million acres of soil – for perpetuity in Vermont.<sup>8</sup>

The CRBPA vision at 10 V.S.A. § 2802(a)<sup>9</sup> is stated in such a way as to be reflective of a holistic planning framework; the ALWG believes this vision should be utilized for a statewide land use plan. The CRBPA vision section even includes explicit written support for working farms and forests. Similarly, the ‘Conservation Plan’ requirement section established by the CRBPA at 10 V.S.A. §§ 2804(a) – (b) speaks to the implementation of the vision established by the Act, which includes direct articulation of support for working farms and forests as part of a vision for a holistic ecologically functional Vermont.<sup>10</sup> Where the ALWG finds friction in considering the CRBPA vision and plan, is with the specific goals of the CRBPA at 10 V.S.A. § 2802(c) which are narrowly focused on an undefined aspiration of ‘biodiversity’ and specific definitions of certain conservation categories in the Act which do not include agriculture *prima facie* – agriculture must meet certain, unspecified criteria to be included in one of the three conservation categories. In discussion with other VCSI subcommittees the ALWG learned that many stakeholders to the VCSI believe soil biodiversity in agricultural systems does not contribute to ecosystem function or biodiversity as they feel is articulated in the CRBPA<sup>11</sup>. The ALWG believes there exists a global scientific consensus which supports the concept that soil biodiversity is an important component of biological diversity writ large, and that agriculture can – and does – positively contribute to the stewardship and improvement of soil biodiversity and other biodiversity metrics.<sup>12</sup>

Published literature on soil biodiversity has stated for almost three decades that the discipline is novel, understudied, and underappreciated.<sup>13</sup> The ALWG – and the farmers that participated in this discussion, however, are no strangers to soil biodiversity and how the concept remains an essential component for sustainable agroecological systems that have been discussed not just within the ALWG but within the broader Vermont agriculture policy milieu: the importance of maintaining and improving ‘soil health.’<sup>14</sup> The definitions in the CRBA - and many prominent stakeholders in the VCSI - appear to object to the inclusion of all agricultural soils in a ‘conserved lands for biodiversity future’ for Vermont.. The ALWG puts forward this report with the intent of providing a summary of the global scientific perspective on the importance of soil health for agriculture while simultaneously highlight the incredible work Vermont farmers have undertaken locally to meet recent environmental crises in Vermont. Vermont needs agriculture more than ever, not just to help meet biodiversity goals, but to also satisfy other human development needs – including food security into the near and medium term of a changing climate.

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<sup>6</sup> FAO, ITPS, GSBI, CBD and EC. 2020. State of knowledge of soil biodiversity - Status, challenges and potentialities, Report 2020. Rome, FAO. <https://doi.org/10.4060/cb1928en>.

<sup>7</sup> UN Convention on Biological Diversity (CBD) 2023: Conference of the Parties to the Convention on Biological Diversity. Fifteenth meeting – Part II and resumed part II, Report of the Conference of the Parties to the Convention on Biological Diversity, pp. 225 IPCC, 2019.

<sup>8</sup> European Environment Agency (EEA), 2023: Exiting the Anthropocene? Exploring fundamental change in our relationship with nature. *From* <https://www.eea.europa.eu/publications/exiting-the-anthropocene/exiting-the-anthropocene-exploring-fundamental>

<sup>9</sup> 10 V.S.A. § 2802(a) *The vision of the State of Vermont is to maintain an ecologically functional landscape that sustains biodiversity, maintains landscape connectivity, supports watershed health, promotes climate resilience, supports working farms and forests, provides opportunities for recreation and appreciation of the natural world, and supports the historic settlement pattern of compact villages surrounded by rural lands and natural areas.*

<sup>10</sup> 10 V.S.A. § 2804(b)(1) *a comprehensive strategy for achieving the vision and goals of section 2802 of this title while continuing to conserve and protect Vermont's agricultural land, working forests, historic properties, recreational lands, and surface waters; [emphasis added]*

<sup>11</sup> Conservation Categories Workgroup Report to the VCSI Science and Policy Committee – Draft, January 26, 2024.

<sup>12</sup> FAO, 2020

<sup>13</sup> Neher D.A., 1999: Soil community composition and ecosystem processes - Comparing agricultural ecosystems with natural ecosystems. *Journal of Agroforestry Systems*. p. 1.

<sup>14</sup> Vermont Agency of Agriculture, Food & Markets (VAAF) 2023: Payment for Ecosystem Services and Soil Health Working Group Final Report. Available at: <https://legislature.vermont.gov/assets/Legislative-Reports/PES-Working-Group-Final-Report-15Jan2023.pdf>

The ALWG is hopeful that since agricultural stakeholders and farmers were not invited to provide full testimony on the development and passage of the CRBPA, in either the House or Senate during deliberations, that the inclusion of extensive framing and references to academic literature on the topic of soil health and agriculture in this document will help inform VCSI stakeholders as it considers how best to incorporate agriculture into the goals of the CRBPA. The CRBPA cites the United Nations (UN) in the findings section to elucidate and frame the global biodiversity crisis – the ALWG draws heavily from UN sources for this reason, including references from the UN Convention on Biological Diversity (CBD), the UN Intergovernmental Panel on Climate Change (IPCC), and the UN Food and Agriculture Organization (FAO) to share the framework and roadmap the UN offers to respond to the global biological diversity crisis: “*Soil biodiversity could constitute, if an enabling environment is built, a real nature-based solution to most of the problems humanity is facing today, from the field to the global scale. Therefore efforts to conserve and protect biodiversity should include the vast array of soil organisms that make up more than 25% of the total biodiversity of our planet.*”<sup>15</sup> The ALWG believes that excluding conserved agricultural lands from CRBPA 2030 and 2050 goals would deviate the VCSI from the UN Convention on Biodiversity framework for protecting and enhancing biological diversity which includes agriculture and agricultural soils.<sup>16</sup>

The food system in Vermont incurred over \$69 million in damages as a result of excessive precipitation in 2023 (one of four federally declared climate disasters in Vermont in thirteen months).<sup>17</sup> With an agricultural economy that is already strained<sup>18</sup> - irrespective of climate disasters - farmers may have no choice but to sell pieces of land, or the whole farm, to survive these climate disruptions; those primary agricultural soils that make up many of the remaining farms in Vermont are the same soils where developers can build unrestrained by many State environmental permitting programs, such as State wetlands permitting or State heavy cut permitting. Considering where and how lands are conserved to meet 2030 and 2050 land conservation goals - inclusive of an ecosystem which includes humans - is needed and is the framing the ALWG recommends the VCSI adopts to build towards a community resilient Vermont future. The ALWG believes biodiversity should not be considered absent its connection to other ecosystem services of land and the needs of humans, and should be considered in such a way as to include the source of 25% of the biodiversity on the planet – all soils, including agricultural soils.<sup>19</sup>

Ignoring the potential value and contributions of Vermont agriculture to State land use conservation goals is to – arguably – externalize, exploit, and commodify food, the environment, and the people that produce and harvest the food elsewhere. To consider what would happen if 50% of Vermont’s land area is proposed to be ‘set aside’ as an unmanaged or lightly managed biodiversity reserve for trees and plants is to not consider the cost to other regions of the world which produces the vast majority of food which is imported into Vermont. In addition to avoiding environmental externalities, a land use plan which anticipates changing human needs on a warming planet is to plan for community resilience – the majority of food flows from outside of Vermont to feed Vermonters; food produced elsewhere is more vulnerable to food system disruption than food grown and consumed in Vermont in a changing climate.<sup>20</sup> In order to increase Vermont’s food security, more land will be needed for agriculture in the region. By including all conserved agricultural lands in the NRMA Category, we will acknowledge agriculture’s contributions to both biodiversity and climate resilience, and in doing so we will bring CRBPA’s Goals into alignment with the holistic Conservation Vision described in the CRBPA.

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<sup>15</sup> FAO 2020, p. xxii.

<sup>16</sup> CBD 2023.

<sup>17</sup> Vermont Agriculture Recovery Task Force, 2023: Extreme Weather Impact & Recovery. P.5. Available at:

<https://agriculture.vermont.gov/sites/agriculture/files/documents/Ag%20Recovery%20Task%20Force%20Report.pdf>

<sup>18</sup> Braun K. 2024: ‘US farm US farm income set for biggest plunge in 18 years as prices cool way off,’ Reuters. Available at:

<https://www.reuters.com/markets/commodities/us-farm-income-set-biggest-plunge-18-years-prices-cool-way-off-2024-02-14/>;

USDA 2023: The Outlook for U.S. Agriculture – 2023 Available at: <https://www.usda.gov/sites/default/files/documents/2023AOF-agricultural-economic-foreign-trade-outlook.pdf>. Note: The U.S. is a net food importer for the first time in 2023.

<sup>19</sup> FAO 2020.

<sup>20</sup> New England Feeding New England (NEFNE) 2023: Estimating production for 30 regional self-reliance. Available at:

[https://nefoodsystemplanners.org/wp-content/uploads/NEFNE\\_Volume-2\\_Estimating-Production-for-30\\_Regional-Self-Reliance.pdf](https://nefoodsystemplanners.org/wp-content/uploads/NEFNE_Volume-2_Estimating-Production-for-30_Regional-Self-Reliance.pdf)

The ALWG recommendation: ‘**All current and future conserved agricultural lands should be counted towards State goals of conserving 30 percent of the land of the State by 2030 and 50 percent by 2050**’ – is predicated on the concept that the resource being valued and protected above all else is the soils themselves and those soils which are best suited for agricultural production. The policy context of Vermont has changed over time – in 1970, agriculture was exempted from land use review<sup>21</sup>, and in 1987 VHCB was created to both build affordable housing and also protect Vermont’s natural and cultural resources, which includes agricultural lands.<sup>22</sup> In 1880, 84% of the land of Vermont was in farming.<sup>23</sup> In 2022, 9% of the land in Vermont was used for farming. Including all soils used for agricultural production today will, arguably, minimally affect the balance of 30% of 50% goals as stated in the CRBPA. Including only those agricultural lands that meet the tests for ‘permanence’ in the CRBPA and can therefore be counted towards 2030 or 2050 goals – those lands protected in an agricultural conservation easement – cover only 2.2% of land in Vermont will arguably impact the other land uses to be included in the CRBPA even less.

Looking at the land cover composition of Vermont, where almost 80% of the land is in forest today, there is a desire among some members of the ALWG to discuss the nuances and distinctions between the scale and legacy of agricultural intensification between Vermont, the rest of the United States and certain other regions of the world. Vermont agriculture has been returning agricultural lands to forest and other land uses since 1940, whereas trends globally are that of an expanding agricultural footprint.<sup>24</sup> . The ALWG began to discuss some of the opportunities for new and existing conservation efforts to set incentives that enhance biodiversity on farms and is planning to continue this work in the next phase of this process when more decisive recommendations will be made for how to enhance support for biodiversity and the working lands through conservation planning. Just as the ‘Green Revolution’ did not consider the externalities of unfettered expansion of food production – so too does the ALWG advise the VCSI to not make the same mistakes of past policy initiatives: one where a singular goal of biodiversity [which is currently siloed and undefined in the CRBPA] is considered independently and does not consider the potential negative externalities of excluding most, if not all, of agricultural soils from being counted towards state land use conservation goals.

These negative externalities for agriculture referenced above are clear to those that work the land, as evidenced by comments received from farmers during the ALWG ‘Round Table’ public meeting. Failure to include agricultural soils in 2030 or 2050 goals is to, arguably, further expose agricultural soils to development pressure. All agricultural lands are an important and highly threatened natural resource that is crucial to Vermont’s future food security, climate resilience, as well as biodiversity. Permanent land conservation – through the acquisition of development and management rights – is often that of balancing finite financial resources available for conservation with maximum conservation benefit. This often means that those natural resources which are not threatened by development or land use change are not prioritized for conservation as those that are under pressure from conversion. In the vision section of the CRBPA, the Act states that the vision of Vermont is to ‘support historic settlement pattern[s] of compact villages surrounded by rural lands and natural areas’ – As the State grapples with affordable housing needs, and an ever expanding set of development pressures around village and city centers – conserving those ecological reserve areas (ERA) and biodiversity conservation areas (BCA) in areas that are most threatened by development are assumed to be where resources will be first deployed. This will limit where development can occur around the expanding village and city centers, increasing further pressure on those agricultural soils left in between development and ERA/BCAs.

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<sup>21</sup> An Act to Create an Environmental Board and District Environmental Commissions, Pub.Act. No. 250, § 1, 1969, Vt.Laws (Adj.Sess.) 237 (eff. Apr. 4, 1970).

<sup>22</sup> Vermont Housing and Conservation Trust Fund Act, Pub. Act No. 88 § 1 1987. Vt Laws (eff. June 11, 1987)

<sup>23</sup> The Vermont Planning Council 1968: Vision and Choice: Vermont’s Future – The State Framework Plan. p. 25. Available at: [https://outside.vermont.gov/agency/ACCD/ACCD\\_Web\\_Docs/CD/CPR/Resources-and-Rules/DHCD-Planning-VisionChoice-FutureStateFramework-1968.pdf](https://outside.vermont.gov/agency/ACCD/ACCD_Web_Docs/CD/CPR/Resources-and-Rules/DHCD-Planning-VisionChoice-FutureStateFramework-1968.pdf)

<sup>24</sup> Arneth, A., F. Denton, F. Agus, A. Elbehri, K. Erb, B. Osman Elasha, M. Rahimi, M. Rounsevell, A. Spence, R. Valentini, 2019: Framing and Context. In: Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems [P.R. Shukla, J. Skea, E. Calvo Buendia, V. Masson-Delmotte, H.-O. Pörtner, D.C. Roberts, P. Zhai, R. Slade, S. Connors, R. van Diemen, M. Ferrat, E. Haughey, S. Luz, S. Neogi, M. Pathak, J. Petzold, J. Portugal Pereira, P. Vyas, E. Huntley, K. Kissick, M. Belkacemi, J. Malley, (eds.)]. <https://doi.org/10.1017/9781009157988.003>

Current land use proposals being considered in the Vermont Legislature in both the House of Representatives and the Senate (including: S.311 and H.687)<sup>25</sup> propose to loosen and/or remove land use development restrictions in designated downtown and village center areas and a large periphery around those zones. The CRBPA proposes to prioritize conservation of ERA's and BCA's of which agricultural land cannot be a part.<sup>26</sup> Jurisdictional to all lands in Vermont, existing environmental permitting programs regulate conversion of those landscape features which are most valued by the CRBPA – forest and wetlands. VAAFMM has no land use review authority to recommend – as a hypothetical – that a proposed development converts too much primary agricultural soils to impervious surface in an area and shouldn't proceed.<sup>27</sup> There is no authority at VAAFMM – or VANR – to 'stop' development of primary agricultural soils, only a process to recommend a condition for the developer to pay for conversion if the project is jurisdictional to Act 250.<sup>28</sup> There is no existing tool or program to halt the conversion of primary agricultural soils to development but for farmers voluntarily conserving their farms and agricultural soils through the sale of development rights through land conservation programming. This is why the ALWG is urging the VCSI to consider how further development restrictions on already protected natural resources through conservation efforts of the CRBPA further tips the balance and focus of development to the best soils for productive agriculture.

In many ways, land use protection policy for Agriculture has not kept up with the economic realities of farming in Vermont. In 1969, the year before Act 250 was instituted, there were 836,246 acres of total cropland. As of 2022, there were 436,297 acres of total cropland. That's a 47.8% decrease, or a loss of 399,949 acres.<sup>29</sup> New England Feeding New England (NEFNE) suggests that the region will need 588,000 acres of additional (*new*) acres of cleared land in order to feed 30% of New England's dietary needs with New England grown food by 2030 – New England is estimated to produce 21% of the food it consumes today.<sup>30</sup> Vermont and Maine are states that are identified in NEFNE report as areas of existing agricultural potential and opportunity to produce the additional food needed by New England to meet their 30% by 2030 goals. Vermont is losing farmland, but New England needs more land used to grow food and crops. Planning only for biodiversity protection goals, without considering additional needs of Vermont or regional society, sets the VCSI up for conflict with changing societal needs in a changing climate.

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<sup>25</sup> S.311 available at: <https://legislature.vermont.gov/bill/status/2024/S.311> ; H.687 available at: <https://legislature.vermont.gov/bill/status/2024/H.687>

<sup>26</sup> 10 V.S.A. § 2802(c) – “prioritizing ecological reserve areas to protect highest priority natural communities and maintain or restore old forests.”

<sup>27</sup> 10 V.S.A. § 6001(15); 10 V.S.A. § 6086; 10 V.S.A. § 6093

<sup>28</sup> *ibid*

<sup>29</sup> USDA NASS Ag Census 1969, 2022.

<sup>30</sup> NEFNE, 2023 (Volume 2) Estimating Production for 30% Regional Self-Reliance [https://nefoodsystemplanners.org/wp-content/uploads/NEFNE\\_Volume-2\\_Estimating-Production-for-30\\_-Regional-Self-Reliance.pdf](https://nefoodsystemplanners.org/wp-content/uploads/NEFNE_Volume-2_Estimating-Production-for-30_-Regional-Self-Reliance.pdf)



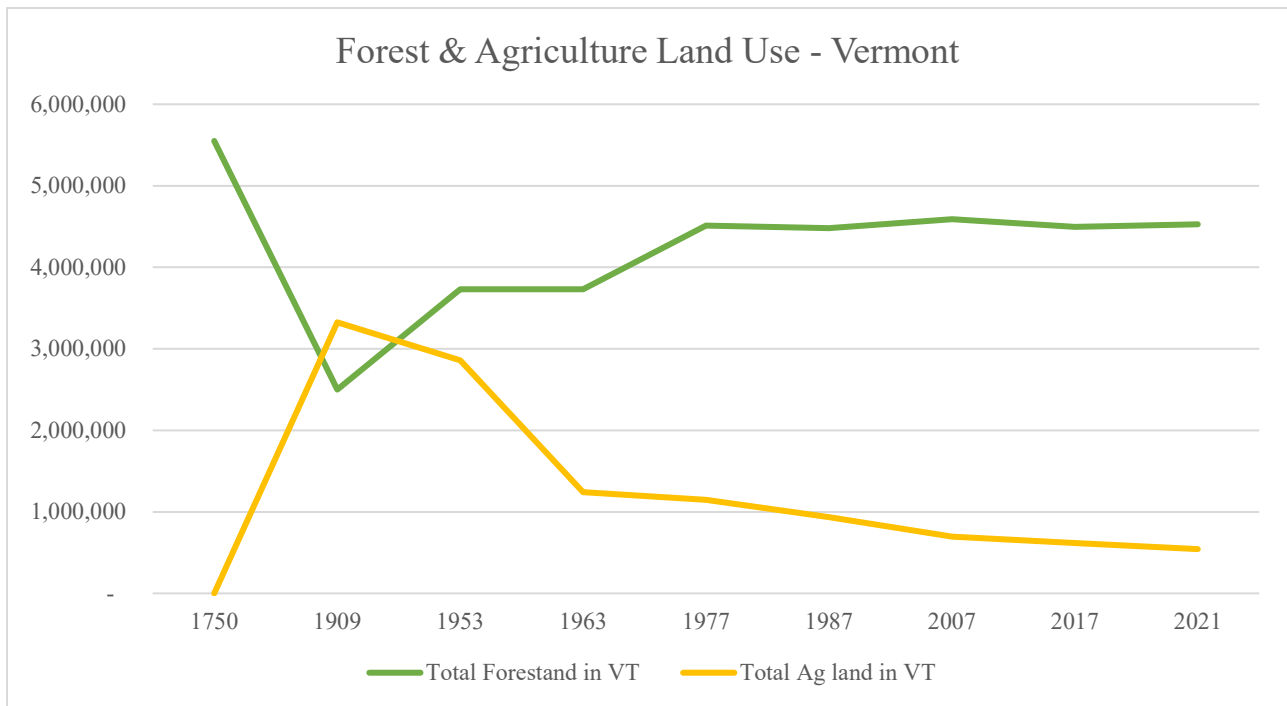


Figure 2

It is the ALWG’s hope to work collaboratively with other stakeholders in the VCSI to stand together with a unified voice to conserve Vermont’s natural and working lands. Vermont is undergoing a housing and development crisis, and if the natural and working landscape does not stand together in the face of development pressures to say: ‘build where we currently have development and leave these natural and working lands in their current states,’ then the ALWG fears goals of the CRBPA will not be met.

**Findings of the Agricultural Lands Working Group**

Biodiversity

Undefined in the CRBPA is the term ‘biodiversity.’ The term biodiversity is not further defined in Title 10 of the Vermont Statutes Annotated in which the CRBPA is established, as far as the ALWG could find. That the term biodiversity can be interpreted by different peoples in different ways - and that many interpretations can be considered valid based on context or whichever academic literature someone chooses to cite - makes for a rather confusing and ever-changing discourse. Since the CRBPA chose to use UN framing in the findings section of the CRBPA, the ALWG suggests utilizing the United Nations (UN) Convention on Biological Diversity (CBD) definition of ‘biological diversity’ to mean ‘biodiversity’ as used in the CRBPA. The UN CBD defines the term as: “‘Biological diversity’ means the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.”<sup>31</sup>

The UN CBD for World Biodiversity Day [May 22<sup>nd</sup>] has put together the following explainer on the differences between biodiversity and nature, stating: “Biodiversity and Nature, close but not quite the same:”

*According to the officially adopted definition by the [UN] Convention on Biological Diversity, biodiversity is “the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.” In other words, biodiversity is the part of nature that is alive, and includes every*

<sup>31</sup> CBD 1992.

*living thing on Earth. Nature is all the existing systems created at the same time as the Earth, all the features, forces and processes, such as the weather, the sea and mountains. In other words, nature is all life on Earth (i.e. biodiversity), together with the geology, water, climate and all other inanimate components that comprise our planet. Perhaps the best way to truly understand the importance of biodiversity is try to imagine what nature would look like without it.*<sup>32</sup>

The ALWG particularly enjoys that humans are integrated into the picture of biodiversity chosen by the UN CBD – along with other representations of wildlife (Figure 3).

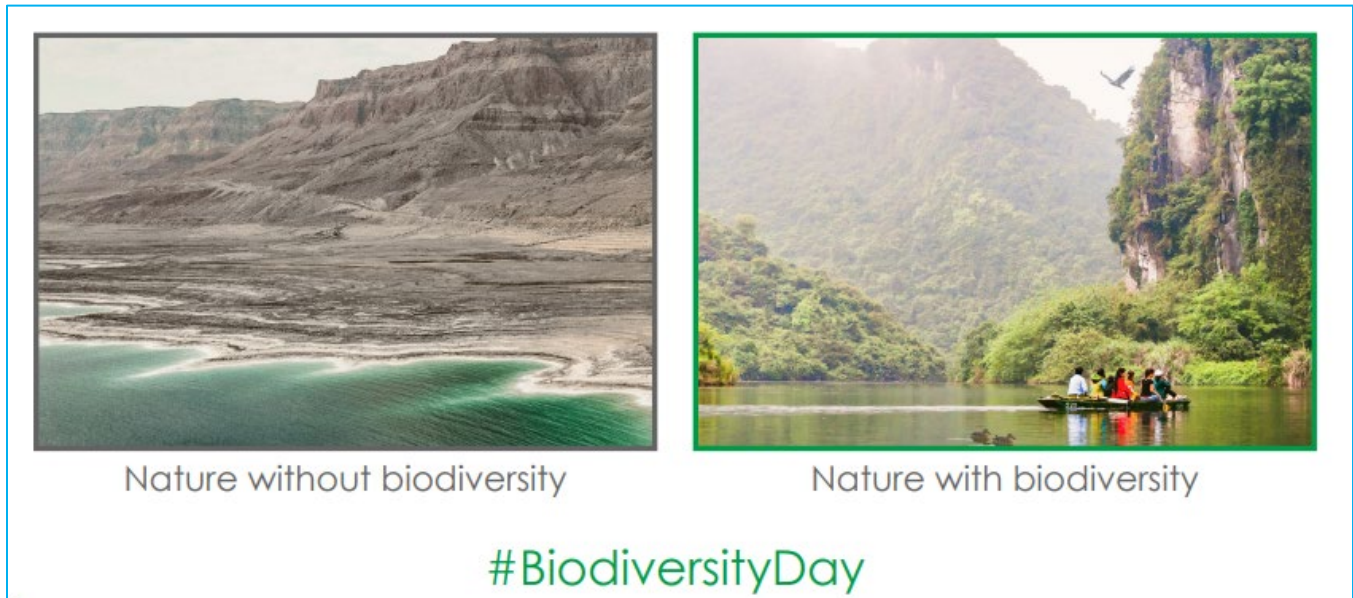


Figure 3

While arguably not an academic or legal explanation that is governed by the CRBPA, nor which the VCSI is bound to include, understanding how the ALWG has conceived of biodiversity and nature and why the ALWG has utilized the UN CBD definition is central to understanding the ALWG recommendation. The ALWG looked to the UN CBD as the CRBPA has cited the UN in its findings section to establish the state of the global biodiversity crisis.

Where the CRBPA cites the UN in its findings section to establish the state of the global biodiversity crisis,<sup>33</sup> the CRBPA then does not incorporate the clear framework for addressing the global biodiversity crisis as promulgated by UN – which, in fact, includes agriculture as a necessary and impactful partner that can improve biodiversity.<sup>34</sup> The most explicit and direct example of this deviation from international framing is in the definition of ‘Sustainable Land Management’ used in the CRBPA; The UN framing specifically includes land resources (soil, water, animals) as well as referencing the “productive potential” of these resources and the “maintenance of their environmental functions.” The definition in Act 59 of 2023 specifically excludes agricultural lands unless they support biodiversity in an undefined manner. The ALWG respectfully rejects the CRBPA framing and argues that agricultural lands in Vermont are important for many biodiversity quantifications and should be considered as an important land use for biodiversity protection. Since the CRBPA references the UN findings to demonstrate the need for attention to biodiversity, the ALWG recommends consistency by adopting the UN definition of biological diversity for the purposes of discussing the concept of biodiversity in the VCSI.

The ALWG would like to enter into the record of the VCSI, the following framework and plan of action for agriculture and biodiversity as adopted by the UN CBD. This section will transcribe from the UN Convention on Biodiversity and the UN IPCC Special Report on Land Use adopted by the UN CBD to establish that the CRBPA takes a concerningly narrow

<sup>32</sup> CBD: ‘Biodiversity and Nature, close but not quite the same. Available at: <https://www.cbd.int/idb/activities/difference-biodiversity-nature.pdf>

<sup>33</sup> Act 59 of 2023; Section 2 §§ 3(A) – (D) “According to the United Nations:...”

<sup>34</sup> CBD 2023, pp. 225

approach to building Community Resilience and Biodiversity Protection – at least compared to how the UN recommends such goals to be conceptualized, planned for, and implemented. This section is intended to further demonstrate that agriculture is a part of the UN Convention on Biodiversity, and the UN recommends that all stakeholders be at the table when planning and setting land use goals.

*CBD/COP/15/17 Page 225*

*15/28 Biodiversity and agriculture:*

*“Acknowledging the importance of soil biodiversity in underpinning the functioning of terrestrial ecosystems and, therefore, most of the services it delivers, Recognizing that activities to promote the conservation, restoration and sustainable use of soil biodiversity, and the ecosystem functions and services they provide, are key in the functioning of sustainable agricultural systems for food and nutrition security for all, for climate change mitigation, adaptation and co-benefits, for the transition towards more sustainable agricultural and food systems and to enhance the achievement of the Sustainable Development Goals.”<sup>35</sup>*

In 2019, the UN published a Special Report on climate change and land. The UN describes the effort as such:

*The Special Report on Climate Change and Land broke new ground for IPCC. It was the first IPCC report to be produced by all three Working Groups in collaboration with the Task Force on National Greenhouse Gas Inventories (TFI), and it was the first IPCC report with more authors from developing countries than authors from developed countries. **It was marked by an inspiring degree of collaboration and interdisciplinarity, reflecting the wide scope of the mandate given to authors by the Panel.** It brought together authors not only from the IPCC’s traditional scientific communities, but also those from sister UN organisations including the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), the Science-Policy Interface of the UN Convention to Combat Desertification (UNCCD) **and the Food and Agriculture Organization of the UN (FAO).**<sup>36</sup>*

This report recommends:

*Inclusiveness in the measurement, reporting and verification of the performance of policy instruments can support sustainable land management (medium confidence). **Involving stakeholders in the selection of indicators, collection of climate data, land modelling and land-use planning, mediates and facilitates integrated landscape planning and choice of policy** (medium confidence). {3.7.5, 5.7.4, 7.4.1, 7.4.4, 7.5.3, 7.5.4, 7.5.5, 7.6.4, 7.6.6}*

The CRBPA cites the UN in the framing and findings of the Act; therefore considering the full suite of assumptions and recommendations published by the UN from that same biodiversity framework lends important context for the VCSI process. For this reason, the ALWG believes the VCSI should include agriculture as a full partner, and work to set shared goals to ensure the permanent protection of all lands that support society to be resilient – not just a single priority of biodiversity.

### *Agriculture & Biodiversity*

*“The condition of our soils ultimately determines human health by serving as a major medium for food and fibre production and a primary interface with the environment, influencing the quality of the air we breathe and water we drink. Thus, there is a clear linkage between soil quality and human and environmental health. As such, the health of our soil resources is a primary indicator of the sustainability of our land management practices.” (Acton and Gregorich, 1995; from the Report of the International Technical Workshop organized by EMBRAPA-SOYBEAN and FAO, Londrina, Brazil, 24 to 27 June 2002)<sup>37</sup>*

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<sup>35</sup> *ibid*

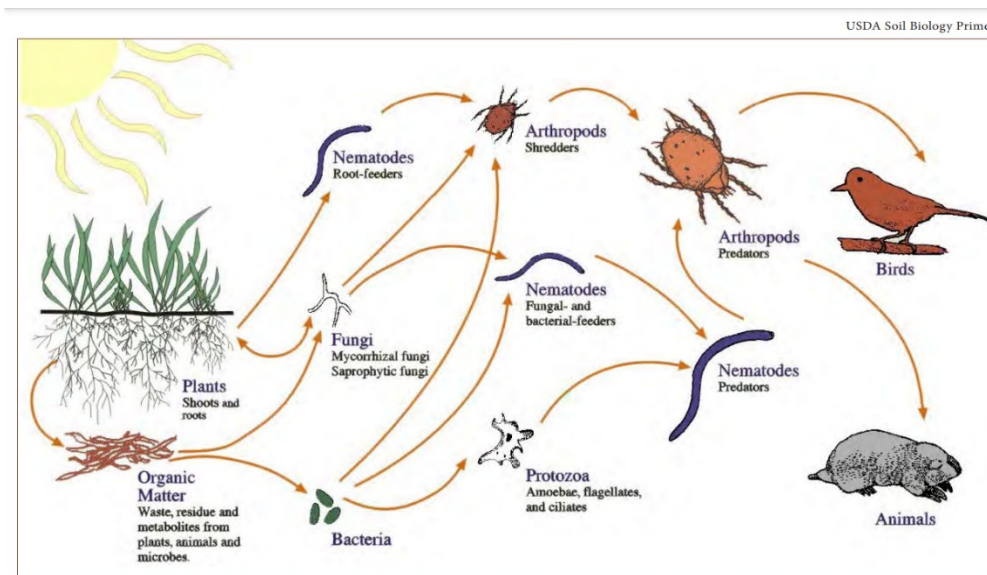
<sup>36</sup> IPCC 2020

<sup>37</sup> <https://www.cbd.int/agro/soil.shtml>

*Soil organisms contribute a wide range of essential services to the sustainable function of all ecosystems, by acting as the primary driving agents of nutrient cycling, regulating the dynamics of soil organic matter, soil carbon sequestration and greenhouse gas emission, modifying soil physical structure and water regimes, enhancing the amount and efficiency of nutrient acquisition by the vegetation, and enhancing plant health. These services are not only essential to the functioning of natural ecosystems but constitute an important resource for the sustainable management of agricultural systems.*<sup>38</sup>

The ALWG suffered from a lack of inclusion of a member from the local university researchers and practitioners of plant and soil science who have dedicated entire careers to researching biodiversity and agricultural soils and the associated impacts on ecosystem function. The ALWG recommends that the Science and Policy subcommittee invite local experts from the University of Vermont (UVM) Extension and from the Gund Institute for the Environment at UVM to receive a briefing on the current state of soil science, biodiversity, and agriculture.

In reflecting on this process, there is a type of confusion many participants felt when faced with a prevailing perspective amongst other VCSI subcommittees that agriculture – and the soils which are cultivated by agriculture – do not contribute to biodiversity. As an example why, and for background, farmers in Vermont are required to engage in nutrient management planning and develop a written nutrient management plan to ensure compliance with state environmental rules for agriculture – the Required Agricultural Practices (RAPs).<sup>39</sup> Within the Nutrient Management Plan (NMP) development process, many farmers have taken a UVM Extension course on nutrient management planning so farmers can write their own NMP. Within the curriculum is great discussion about the ‘soil food web’ and the biodiversity that is present within the soil and how managing agricultural soils for ‘soil health’ contributes to improved agricultural and ecological function of the soils. Figure 3 is extracted from this UVM Extension farmer NMP course and will help readers visualize how the soil-food-web within agricultural soils are connected to a vision of ‘biodiversity’ that is perhaps meant



Even though it may not be obvious at first, soil is full of life. Complex food webs exist in the soil ecosystem that help to cycle nutrients.

Figure 4

by other subcommittees within the VCSI: fauna which is much easier to observe above ground than that which goes on below ground.<sup>40</sup>

In 2020, the Food and Agriculture Organization of the United Nations (UN FAO or FAO) published the ‘State of Knowledge of Soil Biodiversity: Status, challenges and potentialities.’<sup>41</sup> The ALWG would like to submit into the VCSI

<sup>38</sup> <https://www.cbd.int/agro/soil.shtml>

<sup>39</sup> CVR 20-010-008 (2.17, 2.25, 2.39, 6.05, 6.06)

<sup>40</sup> [https://www.uvm.edu/sites/default/files/media/DiggingIn2017\\_Final\\_ReducedSize.pdf](https://www.uvm.edu/sites/default/files/media/DiggingIn2017_Final_ReducedSize.pdf)

<sup>41</sup> FAO 2020.

record the foreword as published in the UN FAO report cited above in its entirety – the argument made by the UN FAO provides an underline on the points attempted to be articulated by the ALWG:

*Our well-being and the livelihoods of human societies are highly dependent on biodiversity and the ecosystem services it provides. It is essential that we understand these links and the consequences of biodiversity loss for the various global challenges we currently face, including food insecurity and malnutrition, climate change, poverty and diseases. The Agenda 2030 for Sustainable Development sets out a transformative approach to achieve socio-economic development while conserving the environment.*

*There is increasing attention on the importance of biodiversity for food security and nutrition, especially above-ground biodiversity such as plants and animals. However, less attention is being paid to the biodiversity beneath our feet, soil biodiversity. Yet, the rich diversity of soil organisms drives many processes that produce food, regenerate soil or purify water.*

*In 2002, the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) decided at its 6<sup>th</sup> meeting to establish an International Initiative for the Conservation and Sustainable Use of Soil Biodiversity and since then, the Food and Agriculture Organization of the United Nations (FAO) has been facilitating this initiative. In 2012, FAO members established the Global Soil Partnership to promote sustainable soil management and increase attention to this hidden resource. The Status of the World's Soil Resources (FAO, 2015) concluded that the loss of soil biodiversity is considered one of the main global threats to soils in many regions of the world.*

*The 14<sup>th</sup> Conference of the Parties invited FAO, in collaboration with other organizations, to consider the preparation of a report on the state of knowledge on soil biodiversity covering its current status, challenges and potentialities. This report is the result of an inclusive process involving 300 scientists from around the world under the auspices of the FAO's Global Soil Partnership and its Intergovernmental Technical Panel on Soils, the Convention on Biological Diversity, the Global Soil Biodiversity Initiative and the European Commission. The report presents the state of knowledge on soil biodiversity, the threats to it, the solutions that soil biodiversity can provide to problems in different fields, including agriculture, environmental conservation, climate change adaptation and mitigation, nutrition, medicine and pharmaceuticals, remediation of polluted sites, and many others.*

*The report will make a valuable contribution to raising awareness of the importance of soil biodiversity and highlighting its role in finding solutions to today's global threats; it is a cross-cutting topic at the heart of the alignment of several international policy frameworks, including the Sustainable Development Goals (SDGs) and multilateral environmental agreements. Furthermore, soil biodiversity and the ecosystem services it provides will be critical to the success of the recently declared UN Decade on Ecosystem Restoration (2021-2030) and the upcoming Post2020 Global Biodiversity Framework.*

***Soil biodiversity could constitute, if an enabling environment is built, a real nature-based solution to most of the problems humanity is facing today, from the field to the global scale. Therefore efforts to conserve and protect biodiversity should include the vast array of soil organisms that make up more than 25% of the total biodiversity of our planet.*** [emphasis added]

*FAO Director-General Qu Dongyu  
Executive Secretary of CBD Elizabeth Maruma Mrem*

The current enabling environment of the VCSI is not inclusive of agriculture and agricultural soils. The ALWG recommends the VCSI include conserved agricultural lands as important contributors to biodiversity through their stewardship of agricultural soils and other natural and working lands managed by farmers both adjacent and within farm boundaries.

### Soil Health & Agriculture

*The U.S. Department of Agriculture Natural Resources Conservation Service (USDA-NRCS) defines soil health as the “continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans”<sup>42</sup>. Soil health integrates the physical, chemical, and biological characteristics, distinguished by emphasis on biological properties such as biodiversity, food web structure and ecosystem function<sup>43</sup>. A great diversity of organisms inhabit healthy soils in managed and unmanaged ecosystems, where they support ecosystem multi-functionality, suggesting that soil biodiversity is a key factor in regulating the functioning of ecosystems<sup>44, 45</sup>.*

USDA NRCS has provided significant resources to farmers across the nation to educate on soil health, and to support implementation of conservation practices which maintain and improve soil health. The State of Vermont has been similarly engaged in supporting NRCS and local approaches to improving soil health on farms. The State of Vermont defines ‘healthy soils’ in Title 6 of the Vermont Statutes Annotated as: ‘soil that has a well-developed, porous structure, is chemically balanced, supports diverse microbial communities, and has abundant organic matter.’<sup>46</sup> The Required Agricultural Practices (RAPs) – Vermont’s agricultural environmental land use regulations for water quality – include soil health management activities within the rule at Section 6.04.<sup>47</sup> In 2019, after three years of deliberations, the Vermont General Assembly passed Act 64 of 2019 with enabled nation leading legislation around regenerative farming. Act 64 of 2019 took the term ‘healthy soils’ and embedded it in a mandate for the Payment for Ecosystem Services and Soil Health Working Group (PES Working Group) to explore and recommend a program to quantify the ecosystem service benefits provided by farming and to support farmers to steward and improve soil health.

The PES Working Group met from 2019 through 2022 to deliver a final report in 2023 which included 475 pages of report<sup>48</sup> and appendices documenting the research and deliberation the greater Vermont agricultural community put in to recommend a program and policy on improving healthy soils in Vermont. A focus on soil health provides a focal point for action and plausibly addresses several desired outcomes, including improved farm productivity. Healthy soil is central to the sustainable, productive, and climate resilient cultivation of food and crops in Vermont and provides a host of additional environmental, economic, and social co-benefits. A framework that rewards farmers for rebuilding healthy soils could potentially improve many ecosystem services simultaneously and provide a framework for a viable, sustainable, and regenerative Vermont agricultural system.

The PES Working Group, based on its legislative charge, deliberations, and research from its technical contractors, prioritized the following ecosystem services as the key services which could be feasibly linked as measurable outcomes to farmer improvements in soil health management:

1. Climate regulation, particularly carbon storage and sequestration
2. Climate resilience, that is, the ability of food production and the associated landscape to be resilient in the face of more intense heat and storm events brought about by climate change<sup>49</sup>
3. Downstream flood risk mitigation
4. Soil conservation
5. Biodiversity

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<sup>42</sup> NRCS. Soil Health. Available online: <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/soils/health/> (accessed on 7 September 2019).

<sup>43</sup> Lavelle, P.; Decaens, T.; Aubert, M.; Barot, S.; Blouin, M.; Bureau, F.; Margerie, P.; Mora, P.; Rossi, J.P. Soil invertebrates and ecosystem services. *Eur. J. Soil Biol.* 2006, 42, S3–S15. [Google Scholar]

Culliney, T. Role of arthropods in maintaining soil fertility. *Agriculture* 2013, 3, 629–659. [Google Scholar]

<sup>44</sup> Wagg, C.; Bender, S.F.; Widmer, F.; van der Heijden, M.G. Soil biodiversity and soil community composition determine ecosystem multifunctionality. *Proc. Natl. Acad. Sci. USA* 2014, 111, 5266–5270. [Google Scholar] [CrossRef]

<sup>45</sup> Neher D. and Barbercheck M. E. 2019: Soil Microarthropods and Soil Health: Intersection of Decomposition and Pest Suppression in Agroecosystems, *Journal of Insects*. Available at: <https://www.mdpi.com/2075-4450/10/12/414>

<sup>46</sup> 6 V.S.A. § 4802(4)

<sup>47</sup> VT Code of Rules 20-010-008 (6.07). Available at: [https://agriculture.vermont.gov/sites/agriculture/files/documents/RAPFINALRULE12-21-2018\\_WEB.pdf](https://agriculture.vermont.gov/sites/agriculture/files/documents/RAPFINALRULE12-21-2018_WEB.pdf)

<sup>48</sup> VAAF, 2023: PES. <https://legislature.vermont.gov/assets/Legislative-Reports/PES-Working-Group-Final-Report-15Jan2023.pdf>

<sup>49</sup> 10 V.S.A. § 590(4) “Resilience” means the capacity of individuals, communities, and natural and built systems to withstand and recover from climatic events, trends, and disruptions.

The PES Working Group recognized that ecosystem services do not operate in isolation but are intrinsically linked with one another. Therefore, while it is useful to assess ecosystem services individually to understand their relationship to soil health, the Working Group took the approach of understanding the joint value of ecosystem services from agriculture and how ecosystem services are “stacked” within an area of land to produce multiple co-benefits.

The PES Working Group also explored where on the farm these services might be provisioned, including in the soil, in the field, at the edge of field, in the farm’s forest, on the farmstead, and on the farm as a whole. For guiding an initial program, the Working Group concluded that the program should focus on outcomes in the soil (e.g., improved carbon sequestration), in the field (e.g., more diverse cover crops to support biodiversity), and at edge-of-field (e.g., increased stormwater retention) while considering outcomes in other parts of the farm.

Following extensive deliberation, the PES Working Group selected an idea first proposed by a group of farmers to supplement payments to farmers in Vermont who enroll in the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)’s Conservation Stewardship Program (CSP). The PES Working Group proposed that a performance program be created to incentivize and reward agronomic management for soil health – in addition to traditional pay-for-practice agronomic conservation programs – this program has been stood up and is called the Vermont

CASH scores by crop type

Table 32. Descriptive statistics of overall soil health scores by crop type.

| Type        | n   | Minimum | Q1    | Median score | Mean score | Q3    | Maximum | Standard Deviation |
|-------------|-----|---------|-------|--------------|------------|-------|---------|--------------------|
| Vegetable   | 22  | 54.59   | 70.74 | 84.99        | 80.16      | 90.48 | 97.06   | 13.21              |
| Field crops | 4   | 83.04   | 85.96 | 90.27        | 89.88      | 94.19 | 95.94   | 5.94               |
| Corn        | 114 | 52.57   | 74.88 | 81.21        | 81.53      | 89.01 | 98.15   | 9.08               |
| Pasture     | 37  | 60.29   | 84.06 | 87.83        | 87.54      | 96.48 | 99.23   | 9.51               |
| Hay         | 44  | 64.00   | 79.91 | 89.55        | 87.16      | 94.55 | 98.58   | 8.70               |

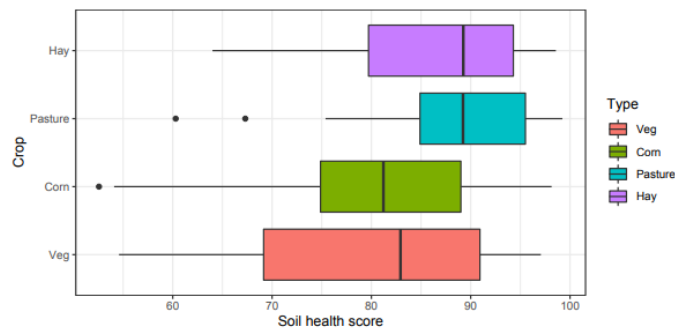


Figure 5

Farmer Ecosystem Stewardship Program (VFESP).<sup>50</sup> 83 Farmers have joined the VFESP with close to 15,500 acres enrolled in the program in its first year.

The PES Working Group’s technical contractors conducted a survey of farmers in Vermont, the results of which reinforce this emphasis, focus, and support for soil health within the agricultural community. The survey found that 99 percent of Vermont farmers believe improvements in soil health have benefits for the environment off their farm, 95 percent of Vermont farmers believe that they should take additional steps beyond required practices to protect soil health, and 90 percent of Vermont farmers believe they have a responsibility to be part of climate solutions.<sup>51</sup> These findings suggest that Vermont farmers have an innate understanding of their responsibility for soil health management and that the value of

<sup>50</sup> <https://agriculture.vermont.gov/CSP-Assist#:~:text=The%20Vermont%20Farmer%20Ecosystem%20Stewardship%20Program%20is%20designed%20to%20ensure,enhancements%20through%20the%20CSP%20program.>

<sup>51</sup> UVM Extension, 2022: Results of the 2022 Vermont Farmer Conservation & Payment for Ecosystem Services Survey. Available at: [https://agriculture.vermont.gov/sites/agriculture/files/doc\\_library/3.%20Farmer%20PES%20Survey%20Results\\_%20VT%20PES%20Task%203a%20Report.pdf](https://agriculture.vermont.gov/sites/agriculture/files/doc_library/3.%20Farmer%20PES%20Survey%20Results_%20VT%20PES%20Task%203a%20Report.pdf)

their management practices extends beyond their farms. This same survey showed that: **94% of Vermont farmers believe they have the knowledge and technical skill to enhance soil health on their farm, yet only 58% have the financial capacity to do so.**

The global food system into which Vermont farmers are selling their food and crops necessitates producing the most amount of food at the least cost to survive fierce competition for lower prices within the commodity marketplace. Vermont farmers – and supporting state and federal technical and financial assistance programs - push against this intensification trend by supporting adoption of conservation practices; but, despite unprecedented investments in Vermont agriculture since Act 64 of 2015, farmers are still subject to the limitations of a global economic system which is predicated on cheap food.<sup>52</sup> All agricultural soils can contribute to biodiversity; losing primary agricultural soils to development never even gives future farmers a chance to improve and steward biodiversity, which the vast majority of farmers clearly want to undertake, are have the ability to undertake, but the economic system under which they produce food does not always allow them to farm in ways they might want to.

Soil health has been studied extensively in Vermont. In 2021, UVM Extension undertook the *State of Soil Health in Vermont* project which is an initiative to measure soil health and soil carbon on farms across the state of Vermont. Initial results are heartening: each category of crop tested for soil health through the Cornell Assessment for Soil Health (CASH) test had both mean and median scores in the ‘Very High Soil Health’ category [80-100]. Surprising for many outside agriculture which may assume corn grown in Vermont can only negatively affect soil health; the mean score for corn crops was higher than the mean score for vegetable crops.

The *State of Soil Health in Vermont* (SOSH) provides the VCSI with some important contextual information about Vermont farmer’s management: Organic matter content in Vermont’s agricultural soils is high when compared against national and neighboring states’ numbers. Average soil organic matter content based on the SOSH data for agricultural fields in Vermont is 4.3%. National mean organic matter content in agriculture based on the NRCS Rapid Carbon Assessment data is 3.2%. In New York, average agricultural field organic matter content is 3.1%. **High organic matter content on Vermont farms is evidence of good soil stewardship by many farmers.**<sup>53</sup> Again, the SOSH points to an interactive understanding of soil health, one where corn fields have a higher mean soil organic matter rate compared to vegetable fields. The ALWG brings up these data points to attempt to underline the point that the soil science does not paint as linear a story about certain types of agriculture improving soil health, and that improving soil health depends on farm and field specific management, among many other factors. Regardless, as supported by the SOSH, all farm sectors, on balance, have a very high degree of soil health – certainly when compared to the national or regional average. New York State is the fourth largest dairy producer in the United States – so the organic matter content in Vermont soils cannot only be attributed to local dairy manure volumes; farmer current and historic management practices have a large influence on improving soil health.

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<sup>52</sup> Patel & Moore 2017. pp. 138 – 160.

<sup>53</sup> Alissa White, Heather Darby, Lindsey Ruhl & Erin Lane. 2022. The State of Soil Health in Vermont: Summary statistics from Vermont agriculture in 2021. University of Vermont Extension. Burlington, VT. Available at: [https://www.uvm.edu/sites/default/files/Northwest-Crops-and-Soils-Program/Articles\\_and\\_Factsheets/State\\_of\\_Soil\\_Health\\_Summary\\_Statistics\\_2022.pdf](https://www.uvm.edu/sites/default/files/Northwest-Crops-and-Soils-Program/Articles_and_Factsheets/State_of_Soil_Health_Summary_Statistics_2022.pdf)



Table 3. Soil organic matter content collected on Vermont farms in 2021 by the State of Soil Health project.

| Field Type  | Number of fields | Soil organic matter |      |      |      |
|-------------|------------------|---------------------|------|------|------|
|             |                  | Min                 | Mean | Q3   | Max  |
| Vegetable   | 20               | 1.5%                | 3.7% | 4.9% | 6.2% |
| Field crops | 4                | 3.6%                | 5.5% | 6.7% | 7.3% |
| Corn        | 112              | 1.6%                | 4.1% | 4.7% | 7.2% |
| Pasture     | 21               | 3.1%                | 5.3% | 6.2% | 9.1% |
| Hay         | 38               | 2.3%                | 4.8% | 5.8% | 7.5% |
| All fields  | 195              | 1.5%                | 4.3% | 5.3% | 9.1% |

Figure 6

Farmers can affect soil health through the agronomic management choices they make. The most common principles for managing farmed land for soil health is to:

- Maximize Presence of Living Roots
- Minimize Disturbance
- Maximize Soil Cover
- Maximize Biodiversity<sup>54</sup>

The practices which Vermont farmers can adopt which improve soil health includes: cover crop, reduced tillage, no-till, crop rotation, manure and compost application, grazing management, filter strips, forage and biomass planting, nutrient management, riparian buffer, and silvopasture – among other practices. Vermont farmers have been adopting conservation practices at an increasing and dramatic rate post the passage of Act 64 of 2015 – ‘Vermont’s Clean Water Act’. Since 2016, close to 300,000 acres of conservation practices have been implemented by Vermont farmers through just VAAFMs agronomic programs.<sup>55</sup> Evaluating the newly released USDA NASS Ag Census for 2022 for Vermont, the scale of adoption of conservation practices by farmers extends beyond state and federal financial assistance programs. For all tillage practices performed in 2022, 71% of all cultivated acres in Vermont were managed with either reduced or no-tillage. Only 29% of Vermont agricultural fields that were cultivated in 2022 were cultivated with intensive tillage. In 2014, under 2,500 acres were subject to no-till or reduced-till management. In 2022, over 80,000 acres were cultivated with no or reduced tillage. Cover crop adoption shares a similar impressive increase in adoption amongst Vermont farmers: from under 10,000 acres in 2014 to over 37,000 in 2022.<sup>56</sup>

In summary, **94% of Vermont farmers believe they have the knowledge and technical skill to enhance soil health on their farm, yet only 58% have the financial capacity to do so.** Excluding conserved agricultural soils from the VCSI and excluding conserved agricultural land from counting towards CRBPA goals will leave behind the immense effort and

<sup>54</sup> USDA NRCS: <https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/soils/soil-health>

<sup>55</sup> VAAFMs 2024:

<https://app.powerbigov.us/view?r=eyJrIjoiOGU4ZGVlOWYtNzFkZC00ODM4LTg1NDctYmI3YWZhNThmYTM5IiwidCI6IjIwYjQ5MzNiLWJhYWQtNDMzYy05YzAyLTcwZWRjYzclNTIjNiJ9>

<sup>56</sup> USDA NASS Ag Census – Vermont 2022:

[https://www.nass.usda.gov/Publications/AgCensus/2022/Full\\_Report/Volume\\_1\\_Chapter\\_1\\_State\\_Level/Vermont/st50\\_1\\_047\\_047.pdf](https://www.nass.usda.gov/Publications/AgCensus/2022/Full_Report/Volume_1_Chapter_1_State_Level/Vermont/st50_1_047_047.pdf)

progress all sectors of Vermont agriculture have undertaken to improve soil health on their farms. Recognizing farming as the culture to steward the soil and its potential to enhance and improve soil biodiversity should be recognized and championed as an important part of Vermont's biodiversity protection goals, especially given how few acres are left in agriculture in Vermont and how fewer still are conserved for agriculture in perpetuity.

### **How should Vermont agriculture be counted towards Vermont's 30x30 and 50x50 goals?**

As stated above, the ALWG believes that **all conserved agricultural lands should be counted towards Vermont's 30 by 30 and 50 by 50 land use conservation goals**. Currently, based on a narrow reading of the CRBPA, only conservation easements satisfy the requirement of protecting the land use of the majority of an area from conversion. Other conservation tools exist for agriculture and the ALWG believes these should be assessed extensively for the second phase of the VCSI. Conserved agricultural easements today include forestlands, wetlands, riparian corridors, pastures and open cropland that directly support biodiversity, as well as other critical co-benefits such as food security and flood resilience – both necessary to future the ecological, economic and social functions identified in the definition of sustainable land management. For the reasons established in prior sections, if the land is conserved for agriculture, it should be counted towards state land use conservation goals. That being said, the ALWG has investigated deeply both how agricultural lands fit not only into the category of a Natural Resource Management Area as defined in the CRBPA, but also how Vermont agriculture fits well into the definition of Sustainable Land Management as defined in the CRBPA. The ALWG believes there is ample evidence to support the ALWG position that all agricultural lands should be counted based on the current construction of the CRBPA; but, notwithstanding this argument, the ALWG recommends that amending the NRMA category and the 'Sustainable Land Management' definition to be congruent with UN policy recommendations is the most equitable option for the VCSI to consider. Setting such a baseline does not take away from the need and the charge to enhance the support for the working lands in the conservation planning phase for transitioning in a just way towards more sustainable land management on the farms that already exist and on the farms we need to support to launch in those important decades to come.

Below is a summary of each way that agriculture fits into the VCSI framework and should be counted towards the goals established in the CRBPA.

#### **Agriculture and the Natural Resource Management Area (NRMA) definition**

The CRBPA at 10 V.S.A. § 2801(3) defines NRMA as: “**Natural resource management area** means an area having permanent protection from conversion for the majority of the area but that is subject to long-term, sustainable land management.” Breaking down the definition into the sum of its parts, ‘Natural resources’ is defined by the Oxford Dictionary as: ‘Factors of production provided by nature. This includes land suitable for agriculture, mineral deposits, and water resources useful for power generation, transport, and irrigation. It also includes sea resources, such as fish and offshore mineral deposits.’<sup>57</sup>

**Sustainable land management** as defined in the CRBPA means ‘the stewardship and use of forests and forestlands, grasslands, wetlands, riparian areas, and other lands, including the types of agricultural lands that support biodiversity, in a way, and at a rate, that maintains or restores their biodiversity, productivity, regeneration capacity, vitality, and their potential to fulfill, now and in the future, relevant ecological, economic, and social functions at local, State, and regional levels, and that does not degrade ecosystem function.’<sup>58</sup>

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<sup>57</sup>

<https://www.oxfordreference.com/display/10.1093/oi/authority.20110803100225401?p=emailACF94RMACXBKE&d=10.1093/oi/authority.20110803100225401>

<sup>58</sup> 10 V.S.A. § 2801(5)

The other subordinate definition to NRMA which is of importance is ‘conversion’ which is defined in the CRBPA as: “a fundamental change in natural ecosystem type or habitat, natural or undeveloped land cover type, or natural form and function of aquatic systems.”

Breaking down these definitions, the ALWG feel agricultural lands fit well into the above definition of NRMA in the following ways:

1. *Natural resource* – utilizing the Oxford Dictionary definition as an example of the common understanding of the word, it appears clear that since agriculture is in the definition, agricultural lands and the soil used to grow food, crops and fiber should or could be considered a ‘natural resource’.
2. *Management area* – while ‘management area’ is undefined in the CRBPA, areas that are used for agriculture can be clearly defined and delineated from other land uses both with remote sensing technologies, as well as through visual observation. Though, areas of land used for the production of maple sap could often be classified as either ‘forestry’ or ‘agriculture’ depending on the regulatory context – so where those forests used for maple production need to be considered for both land use types is less necessary to be distinguished as they could both fit into the NRMA category definition.
3. *Permanent protection* - for the purposes of the VCSI, the ALWG has chosen to submit that those agricultural lands which are subject to conservation easements by qualified entities in Vermont meet the threshold for ‘permanent protection’ – because as the easement deeds detail, the extinguishment of development rights – and other land conservation mechanisms considered by the ALWG – are stated to be ‘in perpetuity’.
  - a. Entire parcels of property are conserved through VHCB sponsored agricultural land easements. The ALWG also feels that this meets another qualifying term within the definition: ‘majority of the area’.
4. *Conversion* – within the definition of conversion provided by the CRBPA, ‘undeveloped land cover type’ is listed as an initial state from which transformation or transition into other land uses would trigger the threshold of conversion. This framing is compatible with the State’s land use law found in Title 10 Chapter 151 which states that the word ‘development’ does not include: ‘The construction of improvements for farming, logging, or forestry purposes below the elevation of 2,500 feet.’<sup>59</sup> The ALWG suggests that land used for farming qualifies as an ‘undeveloped land cover type’ both for the purposes of the VCSI as well as from the Act 250 perspective.
5. *But that is subject to long-term, sustainable land management* – ignoring the specifics of the CRBPA until the next section, all land used for farming must follow the Required Agricultural Practices (RAP) Rule as administered by the Vermont Agency of Agriculture, Food & Markets (VAAFMM). This rule, while primarily drafted to protect water quality, provides a framework for sustainable land management by setting erosion standards from fields which are compatible with specific soil type and condition, as well as nutrient management standards which ensure accumulation of nutrients in soils do not exceed environmental standards. That this rule applies to every farm, and is enforced by VAAFMM, supports the ALWG assertion that agriculture is the most heavily regulated working land use in Vermont – and therefore certainly meets the standards for long-term, sustainable land management.

#### *Agriculture and Sustainable Land Management*

Analyzing the definition ‘Sustainable Land Management’ as promulgated by the CRBPA, the ALWG asserts that agriculture in Vermont meets the threshold for this definition and therefore is eligible to be counted under the NRMA category as defined in the CRBPA.

1. *Types of agricultural lands that support biodiversity* – according to the UN IPCC and the UN Convention on Biodiversity, agriculture is a key land use to support biodiversity and combat biodiversity loss across the terrestrial landscape.

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<sup>59</sup> 10 V.S.A. § 6001(3)(D)(i)

The following citations are derived from the 2019 UN Report on Climate Change and Land.<sup>60</sup> It frames how agricultural land can support and restore biodiversity, how agricultural land use policy can provide multiple co-benefits, and that if implemented with intention, agricultural lands can have benefits for a whole suite of human and environmental needs, including biodiversity:

- a. ***Agricultural practices that include indigenous and local knowledge can contribute to overcoming the combined challenges of climate change, food security, biodiversity conservation, and combating desertification and land degradation (high confidence). Coordinated action across a range of actors including businesses, producers, consumers, land managers and policymakers in partnership with indigenous peoples and local communities enable conditions for the adoption of response options (high confidence) {3.1.3, 3.6.1, 3.6.2, 4.8.2, 5.5.1, 5.6.4, 5.7.1, 5.7.4, 6.2, 7.3, 7.4.6, 7.6.4}***
  - b. ***Near-term actions to promote sustainable land management will help reduce land and food-related vulnerabilities, and can create more resilient livelihoods, reduce land degradation and desertification, and loss of biodiversity (high confidence). There are synergies between sustainable land management, poverty eradication efforts, access to market, non-market mechanisms and the elimination of low-productivity practices. Maximising these synergies can lead to adaptation, mitigation, and development co-benefits through preserving ecosystem functions and services (medium confidence). {3.4.2, 3.6.3, Table 4.2, 4.7, 4.9, 4.10, 5.6, 5.7, 7.3, 7.4, 7.5, 7.6, Cross-Chapter Box 12 in Chapter 7}***
  - c. ***If implemented at appropriate scales and in a sustainable manner, land-based mitigation practices have the capacity to reduce emissions and sequester billions of tonnes of carbon from the atmosphere over coming decades, while also preserving or enhancing biodiversity, water quality and supply, air quality, soil fertility, food and wood security, livelihoods, resilience to droughts, floods and other natural disasters, and positively contributing to ecosystem health and human well-being (high confidence) (Toensmeier 2016; Karlsson et al. 2020).***
2. *...in a way, and at a rate, that maintains or restores their biodiversity, productivity, regeneration capacity, vitality, and their potential to fulfill, now and in the future, relevant ecological, economic, and social functions at local, State, and regional levels and that does not degrade ecosystem function.*
    - a. The European Environment Agency defines ‘Sustainable Forest Management as ‘*the stewardship and use of forests and forest lands in such a way, and at a rate, that maintain their biodiversity, productivity, regeneration capacity, vitality and their potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national, and global levels, and that does not cause damage to other ecosystems.*<sup>61</sup> It appears to the ALWG that the term sustainable forest management has been transformed into a definition it was perhaps never intended to encompass. Adding agriculture, but only with a qualifier about certain types of lands that support biodiversity, and further restricting the qualifier in the EEA definition about ‘damage to other ecosystems’ – and changing it to ‘does not degrade ecosystem function’ is to perhaps stretching the intent of a sustainable forest management definition in a way that degrades the usefulness – or intent – of the concept.
    - b. This section is one of the explicit parts of the CRBPA definition of ‘sustainable land management’ which deviates significantly from the definition promulgated by the United Nations. The UN definition says: ‘ensuring the long-term productive potential of these resources and the **maintenance** of their environmental functions.’ The CRBPA definition sets the standard to one that when comparing agricultural lands to an unmanaged forest – agriculture cannot come out ahead when comparing soil biodiversity metrics. This does not mean that soil biodiversity is not unique or important within

<sup>60</sup> IPCC 2019: [https://www.ipcc.ch/site/assets/uploads/sites/4/2022/11/SRCCL\\_SPM.pdf](https://www.ipcc.ch/site/assets/uploads/sites/4/2022/11/SRCCL_SPM.pdf)

<sup>61</sup> European Environment Agency 1993: Glossary. Available at: <https://www.eea.europa.eu/help/glossary/eea-glossary/sustainable-forest-management>

agricultural soils; but something as broad as ‘degrading ecosystem function’ leaves much room for many to argue for the exclusion of agricultural lands from contributing to biodiversity.

Agriculture’s recommendation for the VCSI: modify the definition of NRMA and attendant definitions to fit the Vermont context and align with UN conventions.

## **Conclusions**

These recommendations of the ALWG conclude the inventory phase of the VCSI. It is the desire of the ALWG to be equitable partners during the two-year planning phase and take a holistic approach in considering how farmland should be conserved in the future and what incentives can be set through conservation planning for more sustainable land management. Conservation Easements will be one, but not the only, tool to take into consideration for the policy mix needed to enhance support for the working lands. The ALWG believes biodiversity should not be considered absent its connection to other ecosystem services of land and the needs of humans, and should be considered in such a way as to include the source of 25% of the biodiversity on the planet – all soils, including agricultural soils. Recognizing farming as the culture to steward the soil and its potential to enhance and improve soil biodiversity should be recognized and championed as an important part of Vermont’s biodiversity protection goals, especially given how few acres are left in agriculture in Vermont and how fewer still are conserved for agriculture in perpetuity.

1. **All current and future conserved agricultural lands should be counted towards State goals of conserving 30 percent of the land of the State by 2030 and 50 percent by 2050.**
2. The term ‘biological diversity’ or ‘biodiversity’ should be defined by the VCSI; the ALWG recommends utilizing the term ‘Biological Diversity’ as defined by the UN Convention on Biological Diversity: ‘Biological diversity’ means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.”<sup>62</sup>
3. The Natural Resources Management Area definition [10 V.S.A. § 2801(3)] should be amended to be retitled the: **Natural and Working Lands Management Area.**
4. The ALWG recommends keeping the title Sustainable Land Management (SLM) [10 V.S.A. §2801(5)], but **recommends redefining SLM to be analogous with the UN Convention on Biological Diversity definition from which the findings of the CRBPA are derived from:** *Sustainable Land Management is defined in this report as “the stewardship and use of land resources, including soils, water, animals and plants, to meet changing human needs, while simultaneously ensuring the long-term productive potential of these resources and the maintenance of their environmental functions”*<sup>63</sup>

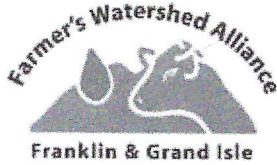
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<sup>62</sup> CBD 1992.

<sup>63</sup> IPCC 2019, pp. 6.

## **Appendix**

*Letters from Agricultural Lands Working Group Members regarding: Act 59 of 2023, the Vermont Conservation Strategy Initiative, and the ALWG process*



P.O. Box 298, St. Albans, VT 05478  
farmerswatershedalliancenw@gmail.com  
farmerswatershedalliance.org

To whom it may concern:

The Franklin Grand Isle Farmers Watershed Alliance is signing onto the document and supports all agriculture being included in Act 59. Unity in the farm community, evolving practices and observations, and some data support our decision.

We do feel that the document had to be written in a manner to support this decision, because it was going to be met with opposing point of views, creating an unfortunate debate based on belief more than fact, and we were very reluctant to sign on for this reason. The landscape seems to be trending towards the intent of the Act without further government intervention which makes this unfortunate.

We do have concerns that the agricultural community was not invited to the table during the formation of Act 59 which made the process hard to understand without earlier engagement, and then the decision of whether agriculture should be included had to be rushed; therefore we still have lots of questions on how and why Act 59 was established and how it will be implemented in the planning process.

Among those questions we have is how this Act will impact future generations of Vermonters who wish to own land, houses and/or farmland. It seems likely that it would trend towards raising the cost of parcels not under protection, and potentially limit farm operations on protected land to standards set that do not make farming viable.

We feel the agricultural community can offer insight in future discussion if we are included in those discussions.

Thanks,

Scott Magnan, Chair  
Franklin Grand Isle Farmers Watershed Alliance

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Apr 3, 2024

**Rural Vermont response and additional statement against carbon markets  
regarding the revised  
Ag Working Group Report v. 4.3**

Dear Stacy,

You know how much Rural Vermont has been engaged during our process in the Ag Working Group for the past four months and we are looking forward to diving deeper into this collaborative work in the planning phase ahead of us. Today, I unfortunately don't have the authority to sign-on for my organization to draft 4.3 of the ALWG recommendations for the inventory phase of the VCSI because of a lack of a timely formal review process for staff and board.

*Act 59 calls for the Inventory Report by July 1, 2024 which is three months out from this week.*

I recommended last Friday together with my suggested edits by email that v. 4.3 of the report could clearly state that it hasn't been formally approved by the stakeholders in the group - I think that could have avoided our formal withdrawal from signing-on to the report. While the process section mentions that the drafts were authored primarily by staff at VHCB and VAAF, Version 4.3 of the report does not indicate if and how the final version got reviewed and approved or rejected by the group. It simply states: "Drafts were reviewed at publicly recorded meetings of the ALWG." In fact, the last draft (4.3) was not reviewed at all at a publicly recorded meeting.



In my email on Friday I had also requested for the report to clarify in the process section that the ALWG is a group utilized by VHCB and ANR for information gathering (with support from VAAFM) and as such not subject to public meeting laws or formal decision making of the group. VHCB had explained this in a meeting to reason a lack of transparency of meeting recordings and notes of all other workgroups other than the ALWG. The ALWG itself was also not facilitated in a way that agreements about statements and recommendations were made in a formal way. The language in the report misses any reference to decision making autonomy of the agency leadership in the process and instead suggests through the language used that viewpoints represented in the report v. 4.3 would have been adopted by the group in some form (such as: The ALWG is hopeful, ...; The ALWG believes...; The ALWG draws heavily from ...; The ALWG puts forward this report...; The ALWG recommends...”). In comparing the version from 032824 to 4.3 I didn’t see any changes to this sort of framing in the report.

The last two drafts, which I both received only within the last week, had made significant changes and included new framing that the authoring agencies adopted from the UN and the PES & Soil Health Working Group that the ALWG did not have much or any discourse about. Specifically the language around soil health in context of the PES & Soil Health WG introduced framing diametrically opposed to the way that Rural Vermont, the White River NRCD and the Vermont Healthy Soils Coalition had requested to reference the work of that group. At the last meeting of the ALWG on March 29, Rural Vermont expressed confusion how the redraft didn’t mention any discourse against carbon markets that occurred in various meetings of the group but instead inclusion of language around ecosystem services - a framework that has only been discussed by the group as something that a 3 year public engagement process already occurred on about with the consensus against the adoption of a new performance based program. We appreciate the new reference in draft 4.3 to the final PES & Soil Health Working Group report in mentioning the decision for the Small Farmer Cohorts proposal (that Rural Vermont is part of) for advancing the Conservation Stewardship Program with the Vermont Farmer Ecosystem Stewardship Program (VFESP). Beyond that, version 4.3 still does not make any reference to the discourse the ALWG had with opposing stakeholders like Rural Vermont to finance large land acquisitions by land trusts and invested agencies through conservation easements in 30x30 through carbon markets. For that reason I appreciate the opportunity to include this letter as an appendix to the final ALWG inventory report with the inclusion of excerpts from Rural Vermont’s most recent statement against carbon markets from March 8th, 2024 (below).

**In light of less than 24 hours for the Rural Vermont staff and board to review version 4.3 of the Report of the Agricultural Lands Working Group for the Vermont Conservation Strategy Initiative, I have to conclude that I cannot sign on to a report that was not subject to feasible decisions and formal review by represented organizations of the significant work at hand.**

Respectfully submitted,  
Caroline Gordon LL.M.  
Legislative Director | Rural Vermont

## Appendix

### **Rural Vermont statement against carbon markets as financing strategy for 30x30**

**Rural Vermont is opposed to financing conservation efforts, like conservation easements, through carbon markets. From the Rural Vermont [website](#):**

The Vermont Conservation Strategy Initiative (VCSI) is underway - and it is important that we use our voice to influence it! Act 59 was passed in 2023 with a goal to conserve 30% of Vermont's total area by 2030 and 50% by 2050.

As Vermont is developing a new conservation plan - its policies and regulations more broadly - must protect and support food sovereignty, and the rights of people and communities articulated in the UN Declaration on the Rights of Peasants and Other People Working in Rural Areas:

“Peasants and other people living in rural areas have the right to land, individually and/or collectively (...), including the right to have access to, sustainably use and manage land and the water bodies, coastal seas, fisheries, pastures, and forests therein, to achieve an adequate standard of living, to have a place to live in security, peace and dignity and to develop their cultures.” - Article 17 UNDROP (United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas, 2018)

[...]

**Affirm the consensus of the PES and Soil Health Working Group against new programs based on measuring outcomes in agriculture.**

The [PES and Soil Health Working Group](#) met from 2019-2023 to address questions from the VT legislature related to: ag standards and practices for better environmental outcomes, existing and potential incentives, and proposed changes and programs. Ultimately, the group opposed proposals grounded in measured outcome based models that could lead to the development of carbon and offsets markets in VT agriculture, and favored the CSP+ approach recommended by the Small Farm Cohort, which involves enhancing support for sustainable farming practices through [increasing access to](#), and improving, existing federal programs for Vermont farmers.

**Protect 30x30 and land conservation efforts from being financed by carbon and / or other “off-set” markets.**

Rural VT has long been in solidarity with the [National Family Farm Coalition](#), [La Via Campesina](#), the [Indigenous Environmental Network](#), the [Institute for Ag and Trade Policy](#), [Friends of the Earth](#) and others in opposing carbon and other “off-set” markets. Globally, the goal to conserve 30% of land and sea by 2030, and 50% by 2050 have been paired with the “net zero” ideology and offset markets, resulting in land grabs, and displacement of communities from working lands and waters (see recent [New York Times article](#) from Feb 20th, 2024). There is significant data around carbon markets’ ineffectiveness at actually lowering emissions, their impacts on corporate land ownership and displacement of communities, and more broadly as [false solutions](#) to the climate crisis.

**Recommend policies that ensure conserved land is protected from corporate and consolidated ownership and which facilitate farmland access and ownership for farmers and farmworkers; maintaining community sovereignty over land use over time.**

In VT, and around the world, we are seeing large “conservation” organizations, corporations, and governments working together towards conserving land and waters with a vision of conservation which: is largely absent of human presence; in which conserved land and agricultural land are seen as forms of wealth management, investment and a class of “natural asset”; which does not protect local communities’ democratic control of land and resources; which displaces indigenous peoples and farmers and fisherfolk; which does not take into account critical human needs such as food sovereignty and resiliency; and which positions and defers to markets and corporate actors as principle arbiters of access, control, equity, and the future of these places (check out our [glossary of terms here](#) and list of [resources here](#)). In our efforts to protect the integrity of our ecosystems and habitat, and to ensure we have farmland enough to feed the people living here - we must also protect our communities’ democratic control over, and access to, the land as one of our most critical resources.

**Protect all farmland in VT from development in perpetuity, with flexibility for development of housing and essential infrastructure, and enable and support the conversion of land (including conserved land) into agriculture, and into the hands and control of the people working the land.**

According to Hunger Free VT, two out of every five people in VT are food insecure. We rely upon importation for the vast majority of our food across the northeast, and New England Feeding New England reports that we need to

bring back into production 400,000 acres of land in underutilized production and an additional 590,000 of additional acres of new crop land to even meet 30% of our regional food needs by 2030. The American Farmland Trust (AFT) estimates that VT could lose another 41,000 acres by 2040 if current trends continue - or more if trends worsen. AFT also pointed to the imminent turnover of 40% of farmland within the next couple of decades as farm owners / operators age and move on from farming. Agricultural support programs have been underfunded 50% from what the administration requested in 2023. We need more independent farms, more farmers, more farmworkers, more farmland, more agroecological education and training to even meet 30% of our regional needs; and these considerations must be fundamental to the VCSI. The inventory report should outline land currently in agriculture, land in agriculture currently conserved, what land is potentially best positioned to be converted into farmland moving forward, and how much we will need to assure food security and sovereignty over time. Policies beyond conservation easements must be considered in the upcoming two year conservation planning phase.

**Invite the meaningful inclusion of VT’s indigenous community in the 30 x 30 process.**

The enabling statute finds that “the land and waters, forests and farms, and ecosystems and natural communities in Vermont are the traditional and unceded home of the Abenaki people”, meaning that any effort to increase land conservation must include land access opportunities for Indigenous People and to all who come from historically marginalized and disadvantaged communities. President Biden’s executive order of 2021 on 30x30 explicitly honors Tribal Sovereignty and supports the priorities of Tribal Nations. Currently, neither of the State recognized Abenaki tribes are represented in any of the work groups that are part of the Vermont Conservation Strategy Initiative. We believe that the Indigenous people of Vermont have important knowledge to share about land care strategies and that their ideas for land use and conservation should be decisive for the Vermont Conservation Plan that’s projected for the end of 2025.

**Recognize that the Vermont Agency of Agriculture, Food and Markets is the authority regulating VT agriculture.**

Act 59 calls for enhanced support for the working lands through land conservation. It is positive that the state wants to better support the working lands and diversified farming in alignment with soil health principles. The 30x30 initiative and conservation easements specifically are not an appropriate place for regulating agricultural practices. Improving the Required Agricultural

Practices Rule is the appropriate path to addressing these concerns equitably amongst producers. The definition of sustainable land management as defined in Act 59 opens the door for linking measured outcomes of biodiversity with off-set trading schemes as a financing strategy because it can be interpreted as only including those parcels of agricultural land that enhance biodiversity at a measurable rate. Alternatively, "sustainable land management" can be interpreted to include all agricultural lands with good reason. Grasslands are specifically named - that's  $\frac{3}{4}$  of all conserved agricultural lands - and the UVM State of Soil Health in Vermont initiative provides evidence that soil health across all types of farming in Vermont is presently preserving those soils' ability to support and restore biodiversity in the future. Even in those cases where current agricultural practices have the potential to negatively impact biodiversity, they are free from development and practices can be improved. All agricultural lands are important and all farms manage highly threatened natural resources that are crucial to Vermont's future food security and climate resilience.

April 11, 2024

## Testimony of Jennifer Byrne Regarding the 30 by 30 Conservation Strategy Initiative

Honorable Members of the House Committee on Agriculture and Forestry,

My name is Jennifer Byrne, I am the Manager of the White River Natural Resources Conservation District, a subdivision of state government covering watersheds in 4 counties in Vermont. We were founded by the 1939 Soil Conservation Act as decentralized infrastructure for locally-led decision making relating to soil, water, air, plants, animals, humans, and energy. At our District, our staff include Certified Conservation Planners, Grazing Specialists, Community Engagement Specialists, Farm Team Facilitators, Agroforestry Specialists, a Risk Management Advisor, a Certified Forester, and an Agronomist. Conservation Districts chair their Local Working Group, an ongoing community engagement mechanism that exists in federal law, regulation, and guidance to convene local farmers and land stewards, conduct Conservation Needs Assessments, and develop local Conservation Action Plans.

I am here today to voice significant concerns about the process and implications of the current 30 x 30 and 50 x 50 Conservation Strategy Initiative established by Act 59. I appreciate the opportunity to present my perspective, hoping it will shed light on some key oversights and potential misdirection within this initiative. Over the past few months I have participated in meetings led by VHCB on what is being referred to as the Agriculture Working Group of the Conservation Strategy Initiative. Since January, we have met every other week for two hours. Unlike the other working groups in this process, all the agriculture working group meetings were recorded and posted online. You can witness for yourself the confusion and circular conversation we spent most of the initial meetings engaged in. We understand that agriculture was not originally intended to be included in this act, and that the agricultural committees rightfully wanted to recognize farms for the positive biodiversity benefits they can provide to their community. Unfortunately, there is a swath of the conservation minded community that seem to be in a drivers seat for 30x30 that do not share that belief.

First and foremost, I want to be clear that the concepts of 30x30 and 50x50 are derived from a global initiative with a terrible track record of “green colonialism”, violence, and forced eviction of indigenous peoples from their land in the name of conservation. There is an underlying force for commodifying nature baked into the very core of global 30x30 initiatives. To quote Fiore Longo, head of Survival’s Decolonize Conservation campaign, “The idea that 30x30 is an effective means of protecting biodiversity has no basis in science. The only reason it’s still being discussed in the negotiations is because it’s being pushed hard by the conservation industry, which sees an opportunity to double

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the amount of land under its control. Should it go ahead, it will constitute the biggest land grab in history, and rob millions of people of their livelihoods. If governments are really meaningful about protecting biodiversity, the answer is simple: recognize the land rights of Indigenous peoples.” Indigenous people of Vermont have been notably absent from this conversation, save for one recent focus group.

The overemphasis on the term “permanent protection” is hubris at its peak, and makes it nearly impossible to fit most forms of conservation agriculture within the definitions of the act. What or who are we protecting land for or from? By excluding human beings and food production from 50% of the landscape, our children will face a future of famine and scarcity. These permanent protections will inevitably fail as the climate changes and our societal boundaries shift. The ones hit hardest will be unwealthy, non land holding people. This process is not planning for the future, it is preserving a relic of the past. We must move beyond the concept that carbon markets, conservation easements, and public parks will save our planet or provide for future famine protection. While this conversation takes place in certain conservation circles, in agricultural circles, there is more and more emphasis on the need for integration of agroforestry, agroecology, and de-siloing of conservation and working lands. This initiative has been a major distraction from the on-the-ground solutions our agricultural community has identified and are asking for.

I believe that the leadership and execution of this conservation planning process should have been entrusted at least in part to our state’s Natural Resources Conservation Council and the Conservation Districts. These districts embody the spirit of local governance and environmental stewardship, rooted in community-based decision-making and intimate knowledge of our lands and local needs. Our Conservation District’s federal guidance documents clearly define this role, stating “Locally-led Conservation consists of a series of phases that involve community stakeholders in natural resource planning, implementation of solutions, and evaluation of results. Locally led conservation begins with the community itself, working through the local conservation district. It is based on the principle that community stakeholders are best suited to deal with local resource problems.”<sup>1</sup> Our enabling statute, the 1939 Vermont Soil Conservation Act, also directs us to “develop comprehensive plans for the conservation of soil resources and for the control and prevention of soil erosion and the protection and conservation of natural resources within the district.” These duties are, for the most part, unfunded mandates.

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<sup>1</sup> USDA 440 Programs Manual, Section 500, Subpart A: Locally Led Conservation Defined  
<https://directives.sc.egov.usda.gov/landingpage/14606>

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Unfortunately, Act 59 bypasses the invaluable expertise and democratic ethos of the Conservation Districts, undermining the principle of locally led conservation. To quote directly from Act 59:

“Stakeholders shall include private owners of forestlands and agricultural lands, land trusts, conservation organizations, environmental organizations, working lands enterprises, outdoor recreation groups and businesses, Indigenous groups and representatives from historically marginalized and disadvantaged communities, watershed groups, municipalities, regional planning commissions, conservation commissions, and relevant State and federal agencies.”

Please notice the failure to explicitly name the Natural Resources Conservation Districts in this long list of stakeholders, but the explicit inclusion of similar entities such as RPCs and Conservation Commissions. We have had to go to great lengths to be consulted or included at all in discussions to date. Working groups were formed without any representation from our publicly elected Conservation District Supervisors, and it took a lot of personal effort to have any District representation invited to the table.

It was evident from the very beginning of this process that large nature organizations are playing a disproportionately influential role in this initiative. The Nature Conservancy and Vermont Land Trust are disturbingly facilitating the transfer of Vermont's precious lands into the hands of hedge funds and other financial interests. This trend is not only alarming but runs counter to the ethos of conservation and public trust. Furthermore, the contractor hired to facilitate the overall public engagement process, though staffed with good hearted people, are an organization that specializes in facilitating access to carbon markets globally. We must scrutinize these relationships and ensure that our natural world is preserved for the public good, not commodified for private profit or sold off to third party companies.

The procedural integrity of the 30 x 30 initiative is also a matter of grave concern. We on the agriculture working group were reminded repeatedly that this was never meant to be a public process, does not have to abide by open meeting laws, and that VHCB has the final say of what is recommended to ANR. I'll point out here that if this process instead sat with the NRCC and the Conservation Districts, it would have inherently been a public process. The initiative's implementation has seemed hurried, with deadlines prioritized over meaningful dialogue and consensus-building. Such an approach not only undermines the democratic fabric of our environmental policy-making but also jeopardizes the initiative's legitimacy and efficacy. Due to the hurried conclusion of the agriculture working group, most of the participating organizations did not formally



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approve of the final report due to the fact that they were not given more than 24 hours for final approval.

Throughout the agriculture working group's process, when we would question the urgency or even the need for this initiative, we were simply told it is the law and we had deadlines to meet in the Act, giving the perception that for some reason, this law was more important than any other priorities or policies identified by our communities, and far more important than building trust or taking time to do due diligence to understand the similarities and overlap in the work of the recently concluded Soil Health and Payment for Ecosystem Services Working Group, which met for over 3 years discussing similar topics. Our requests to begin our conversation where the PES working group left off and to resolutely put to rest the idea that carbon markets and nature based solutions are a viable path forward in the conservation plan for Vermont were ignored or shelved for the next phase of the process.

Here is a quote directly from the final report of the PES working group: **“Over the course of its meetings, the Working Group became aware that the language and concepts of “payment for ecosystem services” and “natural capital” are tied to the much larger developments related to the “financialization of nature” and the “privatization of the commons”. During the period in which the Working Group has operated, “natural asset companies” have emerged as a new class of publicly traded assets on global financial markets. This new asset class was designed to create a new market whose assets “generate trillions of dollars in ecosystem services annually”. This development represents an alignment of banking and corporate interests around the potential to profit from putting a price on ecosystem functions.”**

Since the conclusion of the PES working group, the world's largest carbon market verifiers, including the very companies promoted and used by TNC here in Vermont, have been exposed as frauds in the pages of Time, the Guardian, Bloomberg, and many other reputable publications. Financialization of nature disregards the intrinsic value of nature and fails to address the root causes of environmental degradation. What is being created is a financial bubble the size of which we have never seen before. Vermont can and should make a statement to the world by making these nature based market schemes illegal within the boundaries of our state.

I also call into question the amount of money spent on this process to date, and urge you to dig deeper into the budget for this initiative relative to the public good it will serve. In the past six months, our state agencies have spent countless hours in meetings discussing how to conserve 30% of our already 80% forested state. What public good does this serve? I have heard first hand stories about catered lunches and

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day long meetings of the core oversight team, circling the drain on the same questions for hours on end. Meeting minutes or recordings were not posted publicly. This is not an initiative anyone I know in the community I represent deems a priority for state or federal spending of this magnitude.

Furthermore, the sidelining of our essential environmental justice legislation raises questions about the alignment of this initiative with broader societal values and legal frameworks. If we are to pursue a truly sustainable and equitable future, our conservation efforts must be rooted in justice, ensuring that all voices are heard, respected, and meaningfully incorporated into decision making. Just two years ago, Vermont passed its first ever Environmental Justice Act which set deadlines for state agencies to come into compliance with Title VI of the Civil Rights Act by creating meaningful community engagement plans, established an Environmental Justice Advisory Council and Interagency Committee, established the policy of the state that no person in Vermont bear an unequal share of environmental burdens and environmental benefits, and directs ANR to create an environmental justice mapping tool. As a representative member of the EJ Advisory Council, I will say that despite a lot of good intentions, not a single deadline in the act has been met. Where is the urgency and emphasis to meet those deadlines? If similar emphasis was put on meaningful involvement of impacted community members in environmental decision making, we would likely not even have Act 59 in its current form.

The community engagement that has been conducted during this process has undermined our existing community engagement mechanisms within the agricultural community. VAAF and the Conservation Districts have been hosting listening sessions and local working groups around the state during the winter months, on barely any budget, and then around the same timeframe, VHC decided to tap similar constituents on an even tighter timeline to ask confusing and unresearched questions like "what land will count?" and "what conservation practices help with biodiversity?" However, they have the budget to provide stipends for each participant. If this emphasis and funding was instead put toward the Conservation District's Local Working Group process, as defined in Section 500 and 501 of the USDA Programs Manual provided with this testimony, we could leverage the community's data to directly inform state and federal conservation policies more broadly and leverage many millions of dollars of federal funds into local funding pools for direct payments to farmers and land stewards in fiscal year 2025.

In conclusion, I urge you to reconsider the direction of or completely repeal the 30 x 30 Conservation Strategy Initiative. This initiative is fundamentally flawed: based on

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concepts not supported by science or on-the-ground practitioners, but rather by big banks, corporate polluters, and “big green” organizations that stand to profit from corporate land grabs. Instead, build upon the consensus decisions of the Soil Health and Payment for Ecosystem Services Working Group, put Conservation Planning back into the hands of Conservation Planners, fund Conservation Districts’ unfunded mandates, and uplift our underutilized, decentralized, democratic conservation district infrastructure that lies nearly dormant in our state. Empower our Conservation Districts to lead in a way that is democratic, equitable, and truly reflective of our shared values, ensure genuine transparency and inclusivity, and reaffirm our collective commitment to environmental justice and the public interest.

Thank you for your attention and for the opportunity to testify on this critical matter.

# Subpart A - Locally Led Conservation Defined

## 500.0 Executive Summary

Locally led conservation consists of a series of phases that involve community stakeholders in natural resource planning , implementation of solutions , and evaluation of results . Locally led conservation begins with the community itself , working through the local conservation district . It is based on the principle that community stakeholders are best suited to deal with local resource problems . Generally , the locally led process will involve the phases listed in figure 500 -A1.

Figure 500 -A1

| Phase   | Activity  | Further Information |
|---|---|---------------------|
| 1. Public Involvement and the Conservation Needs Assessment | The conservation district leads the effort to gather public input from a broad range of agencies , organizations , businesses , and individuals in the local area who have an interest in natural resource conditions and needs . These community stakeholders evaluate natural resource conditions in a conservation needs assessment and establish broad conservation goals to meet those needs .   | Section 500.3 .     |
| 2. Conservation Action Plan                                 | The conservation district involves community stakeholders developing and agreeing on a conservation action plan that documents decisions and time schedules , identifies priorities , sets goals , and identifies Government and nongovernment programs to meet those needs . Community stakeholders , under conservation district leadership , identify which Government and nongovernment programs are needed to address specific natural resource concerns .<br><br>Note : USDA conservation programs are just some of the many programs that can be used to satisfy the community's goals and needs . | Section 500.4 .     |
| 3. Implementation of the Conservation Action Plan           | Community stakeholders , under conservation district leadership , obtain Government and nongovernment program resources and assist in implementing the programs that can satisfy the community's goals and needs , as identified in the action plan .   | Section 500.5 .     |
| 4. Evaluation of the Conservation Action Plan               | The effectiveness of plan implementation should be evaluated to ensure that the community stakeholders ' planned goals and objectives are achieved . An evaluation should be made to determine where the actual results differ from those anticipated . The difference may result in retracing one or more of the steps in the locally led conservation effort .  | Section 500.6 .     |

## 500.1 Locally Led Conservation Defined

### A. Definition of Locally Led Conservation

- (1) Essentially , "locally led conservation " is community stakeholders performing all of the following :
  - (i) Assessing their natural resource conservation needs
  - (ii) Setting community conservation goals
  - (iii) Developing an action plan
  - (iv) Obtaining resources to carry out the plan
  - (v) Implementing solutions
  - (vi) Measuring their success
- (2) These actions have been grouped into four major activities for the purpose of this guidance :
  - (i) Conservation needs assessment
  - (ii) Conservation action plan
  - (iii) Action plan implementation
  - (iv) Evaluation of results

### B. The Locally Led Principle

Locally led conservation is based on the principle that community stakeholders are best suited to identify and resolve local natural resource problems . Thus, community stakeholders are keys to successfully managing and protecting their natural resources . It challenges neighbors , both urban and rural , to work together and take responsibility for addressing local resource needs .

### C. Definition of the Word "Local"

The word "local" can mean a county , a portion of a county , a watershed , a multicounty region , or whatever geographic area is best suited to address the resource conservation needs identified . ( ) Local may also include specific sectors of a county , watershed , region , or community with common resource concerns . This may include but is not limited to groups based on operational type (organic , specialty crop , etc.), groups based on operator type (limited -resource , family -owned farms , retirees , etc.), or groups based on other mutual resource concerns .

### D. Primary Focus: Resource Concerns

- (1) It is important to keep in mind that locally led conservation must be driven by natural resource conservation needs rather than by programs . Its primary focus should be to identify natural resource concerns , along with related economic and social concerns . Once the natural resource concerns are identified , appropriate Federal , State , local , and nongovernmental program tools can be used , both individually and in combination , to address these resource concerns and attempt to meet the established goals of the community stakeholders .

## 500.2 Locally Led Leadership and Public Involvement

### A. Locally Led Leadership

- (1) While there is a wide range of groups that may be in a position to lead a local conservation effort , conservation districts , under State or Tribal law, are charged with facilitating cooperation and agreements between agencies , landowners , and others ; developing comprehensive conservation plans ; and bringing those plans to the attention of landowners and others in their district . Thus, conservation districts are experienced in assessing resource needs , determining priorities , and coordinating programs to meet those needs and priorities .
- (2) Conservation districts are the logical group to coordinate locally led conservation due to their connections to Federal , State , Tribal , and local governments ; private resources ; and the public . Therefore , further discussion of the locally led effort presumes that districts will provide primary leadership ; however , leadership can come from any willing and interested group .
- (3) Refer to section (500.10 <https://directives.sc.egov.usda.gov/27711.wba>) for the National Association of Conservation Districts (NACD) guidance document , "Locally Led Conservation : An Overview for Conservation Districts ."

### B. Public Involvement

- (1) Input from a broad range of agencies , organizations , businesses , and individuals in the local area that have an interest in natural resource management and are familiar with local resource needs and conditions is an essential element of locally led conservation . These representatives should reflect the diversity of the residents , landowners ,

and land operators in the local area .

(2) The NACD documents "Locally Led Conservation : An Overview for Conservation Districts " and "Conservation District Board Member Recruitment and Community Outreach Guide" provide suggested guidelines for public outreach efforts and ways to reach out to underserved communities .

#### C. NRCS Role and Responsibilities

NRCS will support the locally led conservation effort by—

- (i) Providing assistance in identifying conservation needs .
- (ii) Providing technical and program advice to the community stakeholders throughout the effort .
- (iii) Assisting in developing and implementing strategies to include socially and economically disadvantaged groups in the locally led effort .

Note : It is not the responsibility of the designated conservationist to lead the locally led effort . NRCS's task is to support the process and provide technical information upon request .

### ( )500.3 The Conservation Needs Assessment

#### A. Introduction

A conservation needs assessment is the first step and a critical element of locally led conservation . With input and resource data from all interested parties , this assessment should provide a comprehensive evaluation of the condition of the area's natural resource base and will be the platform for making decisions about local priorities and policies for conservation programs delivered at the local level .

#### B. Definition of a Conservation Needs Assessment

- (1) The conservation needs assessment is a comprehensive analysis of the work that needs to be done to achieve broad conservation goals set by community stakeholders and to solve natural resource problems . This assessment should be based on public input and science -based information . It should include a detailed analysis of natural resource concerns within the area . To ensure versatility in all program areas , it is important that this needs assessment be resource -based , not program -based .
- (2) The conservation action plan that results from the conservation needs assessment will identify the tools that can be used to satisfy the needs .

#### C. Purpose of the Conservation Needs Assessment

- (1) The purpose of the conservation needs assessment is to ensure that conservation efforts address the most important local resource needs . The assessment will be the basis for selecting the type and extent of needed conservation systems and practices . It will also be the basis for making recommendations on funding priorities and priority areas to be addressed by the various conservation programs available .
- (2) The conservation needs assessment is the foundation for carrying out Federal programs such as the USDA Environmental Quality Incentives Program (EQIP). From a resource concern identification standpoint , this conservation needs assessment may also be used to assist localities in implementing the Clean Water Act, the Safe Drinking Water Act, the Endangered Species Act, as well as many State , Tribal , and local programs that provide assistance to private land owners and managers .

#### D. NRCS Roles and Responsibilities

- (1) The NRCS designated conservationist will support , where requested , the development of the conservation needs assessment by—
  - (i) Providing assistance in assembling natural resource inventories and data .
  - (ii) Assisting in analyzing the data and other information .
  - (iii) Providing information on socioeconomic factors involved in determining the conservation needs .
- (2) For specific guidance on resource assessment , consult steps one through four of the areawide planning process in the National Planning Procedures Handbook (NPPH).

### ( )500.4 The Conservation Action Plan

#### A. Introduction and Identification of Leadership

Using the conservation needs assessment , the conservation district involves community stakeholders to develop and agree on an action plan , generally referred to as a "conservation action plan ."

## B. The Conservation Action Plan

This plan will —

- (i) Identify natural resource conservation priorities .
- (ii) Set measurable conservation goals and objectives .
- (iii) Identify conservation technology needed to achieve these goals and objectives .
- (iv) Identify responsibility for action and create a time schedule for completion of elements .
- (v) Identify Federal , State , Tribal , local , and nongovernment programs and services needed to address specific conservation needs .
- (vi) Identify a need to develop new programs or processes to address those problems not covered by existing programs .

## C. NRCS Roles and Responsibilities

- (1) The NRCS designated conservationist will support the development of the conservation action plan by—
  - (i) Providing overall planning assistance .
  - (ii) Identifying non-USDA programs that may be of assistance .
  - (iii) Explaining appropriate USDA conservation programs and services .
- (2) For specific guidance on planning assistance , consult steps five through seven of the areawide planning process in the NPPH.

### ( )500.5 Implementing the Conservation Action Plan

#### A. Introduction

- (1) Implementation of the conservation action plan means that the community stakeholders , with the leadership of the conservation district , obtain the needed programs and services to address the problems identified by their conservation needs assessment .
- (2) In this step , they coordinate existing assistance , available through private organizations , Federal , State , Tribal , and local agencies , including USDA; ensure that appropriate program application processes are followed ; develop detailed proposals for new programs ; and seek financial , educational , and technical assistance as necessary .

#### B. NRCS Roles and Responsibilities

- (1) The NRCS designated conservationist will support the implementation of the conservation action plan by—
  - (i) Explaining , interpreting , and clarifying USDA rules , regulations , and procedures .
  - (ii) Providing input on other potential sources of assistance from Federal , State , Tribal , and local government or private sources .
  - (iii) Implementing designated roles and responsibilities as defined in Part 502 , "USDA Conservation Program Delivery ."
- (2) For specific guidance , see step eight of the areawide planning process in the NPPH.

### ( )500.6 Evaluating Results

#### A. Introduction

Locally led conservation does not end when the conservation action plan has been implemented . The effectiveness of plan implementation should be evaluated to ensure that the community stakeholders ' planned goals and objectives are achieved . An evaluation should be made to determine where the actual results differ from those anticipated . This difference may result in retracing one or more of the steps in the locally led conservation effort .

#### B. NRCS Roles and Responsibilities

- (1) The NRCS designated conservationist will support the conservation district and the community stakeholders in evaluating the results of their locally led conservation efforts by—
  - (i) Assisting in the evaluation process .
  - (ii) Providing updated natural resources information and assessments .
  - (iii) Keeping them aware of changes in the USDA programs and the program delivery process .
  - (iv) Assisting in interpreting the impact of conservation action plan implementation on the condition of the natural resources .
- (2) Refer to step nine of the areawide planning process in the NPPH for specific guidance .





# Subpart B - Local Working Groups

## 501.10 Purpose

In accordance with 7 CFR Part 610, Subpart C, local working groups are subcommittees of the State Technical Committee and provide recommendations to USDA on local and state natural resource priorities and criteria for conservation activities and programs.

## 501.11 Responsibilities of the Local Working Group

It is the responsibility of the local working group to –

- (1) Ensure that a conservation needs assessment is developed using community stakeholder input.
- (2) Utilize the conservation needs assessment to help identify program funding needs and conservation practices.
- (3) Identify priority resource concerns and identify, as appropriate, high-priority areas needing assistance.
- (4) Recommend USDA conservation program application and funding criteria, eligible practices (including limits on practice payments or units), and payment rates.
- (5) Participate in multicounty coordination where program funding and priority area proposals cross county boundaries.
- (6) Assist NRCS and the conservation district with public outreach and information efforts and identify educational and producers' training needs.
- (7) Recommend State and national program policy to the State Technical Committee based on resource data.
- (8) Utilize the conservation needs assessment to identify priority resource concerns that can be addressed by USDA programs.
- (9) Forward recommendations to the NRCS designated conservationist or Farm Service Agency (FSA) County Executive Director, as appropriate.
- (10) Adhere to standard operating procedures identified in Title 440, Conservation Programs Manual (CPM), Part 501, Subpart B, Section 501.14.

## 501.12 Local Working Group Membership

A. Local working group membership should be diverse and focus on agricultural interests and natural resource issues existing in the local community. Membership should include agricultural producers representing the variety of crops, livestock, and poultry raised within the local area; owners of nonindustrial private forest land, as appropriate; representatives of agricultural and environmental organizations; and representatives of governmental agencies carrying out agricultural and natural resource conservation programs and activities.

B. Membership of the USDA local working group may include but is not limited to Federal, State, county, Tribal, or local government representatives. Examples of potential members include —

- (1) NRCS designated conservationist.
- (2) Members of conservation district boards or equivalent.
- (3) Members of the county FSA committee.
- (4) FSA county executive director or designee.
- (5) Cooperative extension (board members or manager).
- (6) State or local elected or appointed officials.
- (7) Other Federal and State government representatives.
- (8) Representatives of American Indian and Alaskan Native governments.

C. To ensure that recommendations of the local working group take into account the needs of diverse groups served by USDA, membership must include, to the extent practicable, individuals with demonstrated ability to represent the conservation and related technical concerns of particular historically underserved groups and individuals including but not limited to women,

persons with disabilities socially disadvantaged and limited resource groups .

D. Individuals or groups wanting to become members of a local working group may submit a request that explains their interest and outlines their credentials for becoming a member of the local working group to the local working group chairperson and the NRCS district conservationist (or designated conservationist ). The district conservationist (or designated conservationist ) will assist the soil and water conservation district in making decisions concerning membership of the group .

### **501.13 Responsibilities of Conservation Districts and NRCS**

#### **A. Conservation District**

It is the responsibility of the conservation district to—

- (i) Develop the conservation needs assessment as outlined in 440 -CPM, Part 500 , Subpart A.
- (ii) Assemble the USDA local working group .
- (iii) Set the agenda .
- (iv) Conduct the USDA local working group meetings .
- (v) Transmit the USDA local working group's priority area and funding requests to the NRCS designated conservationist or the State Technical Committee , as appropriate .

Note : Where a conservation district is not present or chooses not to fulfill the responsibilities outlined in 440 -CPM, Part 501 , Subpart A, Section 501.13 , the NRCS designated conservationist will have these responsibilities .

#### **B. NRCS Designated Conservationist**

It is the NRCS designated conservationist's responsibility to participate in the USDA local working group and to—

- (i) Encourage and assist other USDA agencies to participate in the locally led conservation and working group efforts , as feasible .
- (ii) Assist with identifying members for the local working group .
- (iii) Help identify program priorities and resources available .
- (iv) Assist in the development of program priority area proposals .
- (v) Comply with the National Environmental Policy Act, nondiscrimination statement , and other environmental , civil rights , and cultural resource requirements .
- (vi) Support and advise the local working group concerning technical issues , program policies and procedures , and other matters relating to conservation program delivery .
- (vii) Ensure that populations are—
  - Provided the opportunity to comment before decisions are rendered .
  - Allowed to share the benefits of, not excluded from , and not affected in a disproportionately high and adverse manner by Government programs and activities affecting human health or the environment .
- (viii) Analyze performance indicators and reports .
- (ix) Report the conservation programs ' impacts on resources .
- (x) Perform the responsibilities of the conservation district where a conservation district is not present or chooses not to fulfill the responsibilities outlined in 440 -CPM, Part 501 , Subpart A, Section 501.6A .
- (xi) Give strong consideration to the local working group's recommendations on NRCS programs , initiatives , and activities .
- (xii) Ensure that recommendations , when adopted , address natural resource concerns .

### **501.14 Standard Operating Procedures for Local Working Groups**

#### **A. Organization and Function**

Local working groups provide recommendations on local natural resource priorities and criteria for USDA conservation activities and programs . Local working groups are normally chaired by the appropriate soil and water conservation district (SWCD). In the event the SWCD is unable or unwilling to chair the local working group , NRCS district conservationist (or designated conservationist ) is responsible for those duties .

#### **B. Meeting Scheduling**

The local working group should meet at least once each year at a time and place designated by the chairperson , unless otherwise agreed to by the members of the local working group . Other meetings may be held at the discretion of the chairperson . Meetings will be called by the chairperson whenever there is business that should be brought before the local working group .

#### C. Public Notification

- (1) Local working group meetings are open to the public and notification must be published in one or more newspapers, including recommended Tribal publications, to attain the appropriate circulation.
- (2) Public notice of local working group meetings should be provided at least 14 calendar days prior to the meeting. Notification will need to exceed the 14-calendar-day minimum where State open meeting laws require a longer notification period. The minimum 14-calendar-day notice requirement may be waived in the case of exceptional conditions, as determined by the chairperson or NRCS district conservationist (or designated conservationist).
- (3) The public notice of local working group meetings will include the time, place, and agenda items for the meeting.

#### D. Meeting Information

Agendas and information must be provided to the local working group members at least 14 calendar days prior to the scheduled meeting. The district conservationist (or designated conservationist) will assist the local working group chairperson, as requested, in preparing meeting agendas and necessary background information for meetings. The minimum 14-calendar-day notice requirement may be waived in the case of exceptional conditions, as determined by the chairperson or NRCS district conservationist (or designated conservationist).

#### E. Public Participation

Individuals attending the local working group meetings will be given the opportunity to address the local working group. Opportunity to address nonagenda items will be provided if time allows at the end of the meeting. Presenters are encouraged to provide written records of their comments to the chairperson at the time of the presentation, but are not required to do so. Written comments may be accepted if provided to the chairperson no later than 14 calendar days after a meeting.

#### F. Conducting Business

- (1) The meetings will be conducted as an open discussion among members. Discussion will focus on identifying local natural resource concerns that can be treated using programs and activities identified in 440-CPM, Part 501, Subpart A, Section 501.0C. All recommendations will be considered.
- (2) The following guidelines will govern meeting discussions:
  - (i) The chairperson will lead the discussion.
  - (ii) Only one person may speak at a time. Every participant should have an opportunity to speak. The chairperson or his or her designee is responsible for recognizing speakers.
  - (iii) The chairperson, in consultation with those members present, may establish time limits for discussion on individual agenda items.
  - (iv) State Technical Committees are advisory in nature and all recommendations are considered.
  - (v) Members may be polled, but voting on issues is not appropriate.
  - (vi) The chairperson will defer those agenda items not covered because of time limits to the next meeting.

#### G. Record of Meetings

Summaries for all local working group meetings will be available within 30 calendar days of the meeting and will be filed at the appropriate local NRCS office.

#### H. Input to State Technical Committee

Local working group recommendations are to be submitted to State Technical Committee chairperson, the district conservationist (or designated conservationist), or both (as appropriate) within 14 calendar days after a meeting.

#### I. Response to Local Working Group Recommendations

The designated conservationist will inform the local working group as to the decisions made in response to all local working group recommendations within 90 days. This notification will be made in writing to all local working groups members and made available for the public at the appropriate local NRCS office.