



April 21, 2020

Matt Lohr  
Chief, Natural Resources Conservation Service  
U.S. Department of Agriculture  
Washington, DC 20250

Dear Chief Lohr,

As you know, on January 13 we submitted details comments on the CSP IFR (reattached here at the end of these new comments). At that time, we wrote “Please also note, as discussed briefly in Part B of our comments, that we will also be submitting additional comments on the manual, payment schedule, and enhancements, once those critical elements of program implementation become publicly available and we have time to analyze them.” With this letter we are beginning that process.

Below please find our comments on the CSP-specific portion of the Manual and on the 2020 CSP Activity List of practices and enhancements. We hope to send you additional comments and recommendations on the payment schedule in the future.

We want to thank Deputy Chief Bramblett and his program team for the several conversations we have had in person, by phone, and over email since January to dive into issues with CSP and CART implementation. We hope these will continue and that programmatic changes will be made in the very near future that address our key concerns. We are also in touch with Deputy Chief Gelburd and her team on a variety of conservation practice standards and are hereby adding our concerns related to CSP enhancements to our continued engagement. We would also welcome the opportunity to meet with you by phone to discuss these matters further.

Sincerely,

Eric Deeble  
Policy Director

cc:

Jimmy Bramblett, Deputy Chief for Programs  
Michael Whitt, Program Policy Branch Chief  
Diane Gelburd, Deputy Chief for Science and Technology  
Bianca Moebius-Clune, Director, Soil Health Division

**Manual – Part 530 (Working Lands Conservation Programs Manual)**  
**Subpart Q (CSP)**

Our comments below follow page order.

**BFR and SDFR Targets and Funding Pools** (530.301(A)(1) - page Q.1) – The Manual, like the IFR, includes the statutory requirement for at least a 5 percent funding set-aside and ranking pool for both beginning farmers and ranchers and socially disadvantaged farmers and ranchers. We refer you to our comments on the IFR (page 10 and 11) and again urge you to raise these minimum levels to at least 10 percent for the reasons stated in our IFR comments.

While we hope the final rule will make this change, we also would point out that the change could be made solely in the Manual and modified further in future years as the data warrants, or, in the words of NRCS 2014 CSP Rule preamble, “*NRCS is establishing a policy goal to expand enrollment by beginning farmers and ranchers and socially disadvantaged farmers and ranchers in all ranking pools, and will also allocate additional acres to the two set-aside ranking pools as needed to address program demand amongst these producers.*” Hopefully what was true then about the agency’s intention is still true now. We urge you to make the change to ten percent, at least in the Manual, without delay.

**Organic Allocation** (530.301(A)(2) - page Q.2) – We welcome the clear statement in the IFR and the Manual of the separate allocation for organic and transitioning-to-organic operations. As we stated in our IFR comments, we urge you to address two fine tuning points – weighting the formula in the direction of farm numbers, and providing state office flexibility, using multiple information sources, to determine transitioning acres and farm numbers. We urge you to make those two changes to the language in the Manual without delay.

**Ranking Pools** (530.301(A)(4) - page Q.2) – We are delighted that the Manual clearly requires separate ranking pools and spending plans for BFRs, SDFRs, and organic/transitioning farms, consistent with our recommendation in our IFR comments (see page 6). In this instance, the Manual is correcting a deficiency in the IFR, and we would thus urge you to also fix the Rule by adopting our recommended language on page 6 of our IFR comment letter, thereby making it consistent with the Manual.

**Priority Resource Concerns** (530.301(A)(5) - page Q.2) – We are alarmed that the Manual prohibits states from choosing more than five priority resource concerns (PRCs). The statute and the IFR say at least five, but the Manual, and actual practice in the field during 2020, has made five the cap rather than the minimum. Furthermore, when the “at least five” floor was originally written into statute, the agency had eight macro RCs from which a state could choose at least five. Now, with CART, the agency has switched to 17 narrower and more refined macro RCs, and yet now is dictating a strict limit of five. This limitation does not make sense as a conservation matter and it is inconsistent with the statute as well. Retaining the same ratio of PRCs to RCs would suggest allowing 10 or 11 PRCs. We believe allowing at least eight (which is less than half) should be the new minimum. We urge you to change the language in the Manual to allow at least eight PRCs. At the very least, we urge you to remove the word “exactly” and thus allow states to make the determination based on their own unique set of priority resource concerns.

**Stewardship Threshold** (530.302(E)(1) – page Q.5) – We are surprised the Manual at this point provides even less detail than the IFR and, like the IFR, fails to include the statutory requirement to

include planning criteria and program data in determining the ST. We refer you to our IFR comments on page 5 and 6, and urge you, again, to reword this section to be inclusive, using the language we provided in the redline on page 6 of our IFR comment letter in both the Rule and the Manual.

**Stewardship Threshold Eligibility Clarification** (530.302(E)(2) – page Q.5) – We believe the language in paragraph (2) could be misconstrued to mean that applicants who meet or exceed the stewardship threshold for all PRCs on one or more land uses are not eligible. We urge you to clarify this paragraph by adding an explanatory “Note” as follows:

“**Note:** Applicants that have already met or exceeded the stewardship threshold for three or more Priority Resource Concerns on one or more land uses at the time of application are eligible and encouraged to enroll in CSP.”

**Stewardship Threshold Land Use Clarification** (530.302(E)(4) – page Q.5) – The paragraph 4 sentence is awkward and could be misinterpreted as meaning the PRC being addressed could change during the contract period. That is not what is intended but it is the way the sentence is currently written. We suggest rewriting the sentence as follows:

“(4) To meet the stewardship threshold requirement for CSP classic or renewal applications at the time of application and by the end of the contract, an applicant may meet or exceed different resource concerns ~~at the time of application and by the end of the contract~~ for each land use.”

We also believe paragraph (5) is missing a word and a plural, and recommend the following correction:

“(5) If the applicant fails to meet the requisite stewardship ~~threshold~~ thresholds for any land use, NRCS must determine the entire application ineligible.”

**Enhancements** (530.303(B)(2) – page Q.6) – We take no issue with the definition of enhancements in the Manual but note that it is inconsistent with the definition in the Rule. The definition in the Rule was both deficient and misleading, as we explained in our IFR comments on page 7. Helpfully, the definition in the Manual includes one of our recommendations in our IFR comment letter (exceeding the minimum base requirement of the associated conservation practice). We are pleased to see that and urge you to fix the Rule to match this language in the Manual.

Thankfully as well, the Manual does not repeat the misleading statement in the IFR that a single enhancement must exceed the planning (quality) criteria for the resource concern. We once again urge you to amend the Rule with the language we recommend on page 7 of our IFR comment letter. Doing both of the changes we recommended in our IFR comments would bring the Rule into consistency with the Manual while eliminating the misleading statement.

**Resource-Conserving Crops** (530.303(B)(4)(iii) – page Q.6) - We urge you to make the identical changes we recommended on page 8 of our IFR comment letter in this subparagraph of the Manual. As we stated there, we believe our language “provides additional clarify,

additional options, and better direction to state offices and STCs as they determine specific resource-conserving crops for their regions.”

**IRCCR** (530.303(B)(4)(ii) – page Q.6) - The Manual adds a definition for an Improved Resource-Conserving Crop Rotation (IRCCR) that we believe could be clarified and expanded. One option for an IRCCR named in the Manual is “changing a perennial legume to a perennial grass or grass/legume mixture.” We urge you to expand this to also include grass-legume-forbs mixture.

We also urge you to add as additional IRCCR options overseeding or interseeding a cover crop or sod crop into an annual production crop, thereby avoiding period of bare soil that results from planting the cover or sod after harvest.

We also urge you to open up the definition of an IRCCR to include diversifying the crop rotation by adding a new plant family or new crop type, provided that the diversification maintains or improves C:N balance, maintains or enhances total plant biomass and living roots, and maintains or enhances the percent of time the land has living cover and roots.

We believe it is incredibly important to include all beneficial improvements to RCCRs and not constrain the options available to the producer. We urge you to make these changes without delay.

**Comprehensive Conservation Plan** (530.304(B)(6) – page Q.7) – The Manual in subparagraph (i) succinctly states the definition of a comprehensive conservation plan in terms of priority resource concerns and stewardship thresholds. Because there are more complete definitions available in the National Planning Procedures Handbook, we take no issue with the short definition provided here. However, we continue to urge NRCS to provide this option during the 2020 enrollment year. We are pleased you committed to doing so in recent communications with us, yet we are disturbed to learn that state offices still do not have that understanding yet and are therefore still telling producers it is not available in 2020. We trust that situation will be fixed in the very near future so that 2020 applicants can include a comprehensive plan and payment in their contracts.

In addition, in subparagraph (ii) we suggest the following change to make its meaning clear:

“(ii) Comprehensive conservation plans are like conservation activity plans (CAPs) ~~and in~~ that they require producers to use a certified technical service provider to develop the plan.”

We also note the need to fill in the payment rate at 530.306(2) on page Q.14 which is currently blank.

**Contract Renewal** (530.304(D) – page Q.7) – As in the IFR, the Manual misstates the statute and must be corrected immediately. Please refer to our IFR comment letter on page 22 and 23 for complete details. Suffice it to say here that Congress removed the one renewal only language in the 2018 Farm Bill, making the opportunity for multiple renewals the new law of the land. We urge you to make that change immediately in the Manual.

We also urge you to add new language in the Manual in this subsection that tracks the language of (d) and (e) in our redline on page 23 of our IFR comments. It is critical for NRCS to be

clear about crediting renewal applicants for all of the conservation benefits resulting from their previous contracts.

**Application Evaluation Process** (530.304(E) – page Q.8) – Our comments on the ranking process in our IFR comment letter were necessarily truncated due to the complete lack of details in the IFR other than the words in the preamble that caused us alarm and we commented on in our January letter. The Manual is also lacking in any detail. However, now that the CSP Ranking Template has been shared with us, we see that the ranking system you intend to use for CSP in 2020 is completely and utterly at odds with the statute and the legislative history of the program. We urge you to cease using it until it has been retooled to give equivalent weight to the active management and maintenance of ongoing conservation activities and to new adoption. We have been in communication with NRCS program staff about this matter and will continue to engage with them on it, so will not belabor our concerns here, other than to stress this is of utmost and extreme urgency.

**Additional Conservation Activity** (530.305(A)(2) – page Q.9 and 530.305(E)(3) – page Q.12) – Subparagraph (ii) of paragraph (A)(2) states that every participant must schedule and implement at least one additional conservation activity on each land use included in the contract. As we stated on page 18 of our IFR comments: “There is no statutory basis and no valid conservation or environmental reason for this restriction in the rule. It is completely biased against the best stewards and it must be removed.”

We cannot emphasize the point enough. It makes no sense to restrict eligibility or payment to farmers who exceed the ST on all PRCs at the time of the contract on a particular land use or to force them to necessarily find an enhancement to add - not because it makes sense for their operation and for the resource concern - but just because it qualifies them for the program. Let those producers concentrate their new enhancements on the land uses that require or can benefit from additional conservation activity rather than creating a purely artificial constraint on participation or a waste of program resources to pay for an unneeded, non-site-specific enhancement solely to “farm the program.” We urge you to make this change in the Manual and the Rule without delay.

The same holds true for renewal contracts. Subparagraph (3) of paragraph (E)(3) states “This requirement means that the participant must implement conservation activities on each land use, but not necessarily on every acre.” This requirement should be stricken. The farmer can demonstrate continual improvement without implementing unnecessary and ineffectual conservation enhancements on land uses that already exceed the ST on all resource concerns.

A corresponding change is also needed at 530.306(1)(i), in the final bullet point.

**Scheduling Bundles** (530.305(A)(2)(vi) – page Q.9) – We very much appreciate the clarification in the second bullet point in this subparagraph noting the applicants may select bundles if they will be newly implementing more than 50 percent of the enhancement included in the bundle.

**Renewal Contracts and Early Start Waivers** (530.305(E)(5) – page Q.12) – The Manual prohibits any waivers from even being considered in the case of renewal applications and contracts. We can understand not allowing them at the time of applications but fail to see any

reason for not allowing the waiver option once a contract has been approved but before the start of the next contract period. What possible reason could there be to impede a conservation activity from being planned and implemented without delay? Surely this is a decision best left to the field staff based on the site-specific circumstances. We urge you to limit the prohibition to only the period of time when the renewal application is pending, but not after the time the application has been accepted and the contract written.

**Conservation Practice Payment Rate** (530.306(1)(ii) – page Q.14) – Paying for adoption of conservation practices necessary for meeting or exceeding the STs for PRCs at just 10 percent of the normal rate is completely unreasonable, no less so now than when it was put in place during the 2017 reinvention. Are the costs and forgone income of a CSP adopter starkly different than an EQIP adopter? The answer to that is obviously no. This huge discrepancy in payment rates reveals a stunning programmatic bias on the part of the agency. We urge you to remove this bias without delay.

**Multiple Contracts** (530.306(6)(i), 3<sup>rd</sup> bullet point – page Q.15) – We continue to be perplexed by references in the Rule and Manual to participants with multiple contracts held at the same time. Participants by definition must enroll all eligible land on the entirety of the agricultural operation in a contract, so holding two contracts at the same time is not possible. We urge you to clarify this issue and to delete references to a participant holding multiple contracts at the same time.

**Doubling Payments** (530.306(6)(ii) – page Q.16) – We refer you to page 21 and 22 our IFR comment letter and, once again, strenuously object to the agency's decision to double the statutory payment limit to assist large general partnership farms. Artificially favoring a particular form of business organization is bad public policy to begin with but doing so when CSP resources have been cut and when the beneficiaries of the loophole are some of the largest and wealthiest farms in the country is abhorrent.

## **CSP Activity List Conservation Practices**

The current CSP activity list includes 84 practices in total and many but not all of the management and vegetative practices. We urge you to amend the activity list to include all such practices. Should you choose not to do so across the board, then we would urge you to at least include the following 11 most important missing conservation practices:

- CP 317 -- Composting
- CP 330 -- Contour Farming
- CP 331 -- Contour Orchard and other Perennial Crops
- CP 332 -- Contour Buffer Strips
- CP 379 -- Multi-Story Cropping
- CP 420 -- Wildlife Habitat Planting
- CP 585 -- Stripcropping
- CP 589c -- Cross Wind Trap Strips
- CP 592 -- Feed Management
- CP 601 -- Vegetative Barriers
- CP 640 -- Water Spreading

We note that practices designed to intercept runoff or wind, thereby reducing water and wind erosion losses, respectively are underrepresented in the CSP conservation practice list. These include: CP 330, 331, 332, 585, 589C, and 601.

Several key practices that diversify the cropping system and benefit multiple RCs should be added to this list, including CPS 331, 332, 379, and 585.

There are many wildlife habitat practices and perennial (forage, tree, shrub) planting practices in the 2019 CSP list, so the addition of CP 420 Habitat Planting would seem to be in keeping with the agency's thinking.

Finally, CP 640 Water Spreading can be vital in lower-rainfall regions, especially in this era of climate change. Not only can it reduce flooding / gully wash damage during the sporadic, intense rainfalls and snowmelt in these regions, but it also puts that water to good use, recharging cropland soils and/or aquifers.

We urge you to make these additions in time for the 2020 enrollments.

## **CSP Activity List Conservation Enhancements**

We greatly appreciate that beginning in 2020 a single Enhancement can address more than one Resource Concern (RC) or more than one cause ("micro-concern") within a RC. This de-fragmentation more accurately reflects the multiple benefits of conservation activities, and can help program participants understand, select, and implement the best Enhancement activities for their

operations. The enhancements used from 2017 through 2019 were confusing to the participant, cumbersome, redundant, and not based on a sound understanding of multiple benefits. The new system is a great improvement.

The State supplemental information column is also new in 2020, and very helpful, in that it provides region-specific information such as crop species best suited to the purposes of the Enhancement in each State. As a result, site-specific CSP implementation has been facilitated and strengthened.

We also appreciate the wider and growing range of Enhancement strategies to address grazing-related RCs, including the re-introduction of management-intensive rotational grazing (as we have been asking for each year) and three other new enhancements in 2020. Advanced Grazing Management and the supplemental payment that goes with it needs to be clearly and proactively promoted and delivered during the 2020 signup.

We are alarmed that comprehensive conservation planning, which is central to optimizing CSP efficacy, appears nowhere in the 2020 Activities list. As stated in our comments on the Manual above, payment for comprehensive conservation planning should be proactively promoted and delivered in the 2020 CSP and added to the activity list.

We provide detailed comments on select enhancements below. We picked out several suites of enhancements to review, so this is by no means all-inclusive. We hope to review others, as well as the bundles, as time allows and will forward any comments we may have at that time.

## **Cover Crops**

- Cover crop enhancements include nothing about legume N fixation and N provision to the following crop – a glaring omission that merits at least one additional Enhancement. We urge you to develop and include such an enhancement without delay.
- Harvest and grazing restrictions for the cover crop enhancements appear inconsistent. Grazing may be beneficial for some enhancement objectives and counterproductive for others – NRCS should review this carefully and update grazing enhancements accordingly.
  - On the one hand, a cover crop is generally defined as a crop not harvested for sale, and harvest or burning would remove much of the beneficial biomass and soil surface protection. Thus, it would make sense to prohibit these activities on cover crops for erosion control (E340A), multispecies cover cropping to build SOM (E340C), soil health assessment-based cover crop mix (E340E), and biological strip till cover (E340I).
  - On the other hand, carefully managed flash-grazing a cover crop can be done with far less harm to the conservation objectives of cover cropping than either harvest or burning. Grazing cover crops makes the practice more economically feasible for many farmers – thus allowing grazing so long as it remains compatible with conservation objectives may facilitate wider adoption.



- In many cases, letting the cover crop regrow after flash grazing can enhance living root sloughing and regrowth, weed suppression, and even total biomass production as well as nutrient cycling. Grazing is not specifically prohibited for intensive cover cropping on *annual* cropland (E340B) but is prohibited for orchard/vineyard (E340D) – where livestock integration at the right time (timed to avoid soil or fruit crop damage as well as food safety concerns) can enhance pest and weed control and/or nutrient cycling and provision to the crop.
- It might make sense to allow grazing with the requirement that it be managed to maintain cover crop conservation benefits and avoid compaction for intensive, multispecies, soil health assessment, and weed / pest suppression (E340B-E and H). Where the cover crops are grown to relieve existing compaction (E340F) or where maximum aboveground biomass is desired for erosion control (E340A), between-row mulch (E340I), or post-termination weed suppression (some applications of E340H), it might make sense to disallow grazing.
- In the case of nutrient recovery to protect surface and groundwater (E340G) grazing or even harvest might be allowed or even encouraged as a means to remove the nutrient surplus (note that E328I crop rotation enhancement includes forage harvest to remove nutrients). Although some nutrients will come out the backend of animals, flash grazing will affect some net removal (too long grazing will defeat the purpose by overgrazing the cover crop and converting it all to animal waste with unstable N). Also, harvesting a N-scavenging cover crop like rye or sorghum-sudangrass to use as forage / hay or mulch on another field might be a good way to remove excess N. Strongly P-scavenging cover crops like vetch might also be cut and removed (for use by animals or in a field testing low in P) to reduce surplus soil P.
- Note that either flash-grazing or above ground harvest leaves the root mass intact in the soil profile and will continue or enhance living-root benefits if the cover crop regrows for several weeks or longer after top growth removal.

## Nutrient Management

Nutrient management enhancements fail to include legume cover crops, active soil organic matter, and biologically based nutrient cycling, in nutrient budgeting and management. This is a major missed opportunity for soil health, water quality, and greenhouse gas mitigation that should be fixed.

## Pest Management

E595116Z2 an enhancement offered in 2019 to eliminate the use of neonicotinoid seed treatments to protect surface water, was not included in 2020. However, the 2020 enhancement list includes E595A, B, D, and E, but not E595C, which suggests that this Enhancement was accidentally omitted from the 2020 activity list. In any case, it should be reinstated. Furthermore, eliminating neonicotinoids to protect pollinators should also be noted as an Enhancement purpose.

## Tillage

- Enhancements for no till (CPS 329) and reduced tillage (CPS 345) can be further consolidated, since wind erosion (included in E329A and E345A) and airborne particulates (E329B and E345B) are one and the same phenomenon and should be combined into a single Enhancement for each Practice. Enhancements for soil moisture conservation and irrigation efficiency (E329C and E345C) and for SOM and soil health (E329D and E345D) can be combined, since SOM, aggregation, and soil life are integrally involved in moisture retention. The 60% coverage is critical for soil health as well as moisture retention, and should be a criterion for the combined enhancement.
- Energy use assessment for E329E and E345E should include embodied energy in fertilizer and pesticide/herbicide inputs as well as direct field operation fuel use. Reducing or eliminating tillage can entail some increase in fertilizer or herbicide inputs, so the 25% reduction should include direct + embodied energy.

## Grazing

- NRCS has taken significant steps toward simplifying and de-fragmenting the menu of grazing management Enhancements.
- The 2020 Activities list includes the new grazing enhancement E528R, management intensive rotational grazing, but without any state supplemental information noted. This would appear to be an oversight, as the CSP IFR clearly mandates state offices to determine the suite of “advanced grazing management” practices suited to the State and its sub regions.
- It seems that E528D and E528E – managing grazing land so that plant community structure benefits wildlife (food, cover) – are so similar that they can be integrated into a single Enhancement. The “parent” enhancements differ in language but not in substance other than the minimum WHEG rating required. Two possibilities for simplifying and clarifying this are: to integrate them into a single Enhancement with an intermediate to high WHEG threshold (e.g. 0.70) or offer a “basic” and an “advanced” grazing management enhancement (0.60 and 0.75) for plant community structure for wildlife. In either “solution” the Enhancement(s) should address both animal/wildlife and plant community RCs and causes.
- E528G (pasture plant condition) and E528K (pasture compaction) have the exact same descriptive language, including monitoring and pasture condition score (PCS), and should be offered as a single Enhancement that addresses both soil and plant RCs. Grazing management that improves plant vigor will tend to reduce compaction and vice versa – so the PCS is a clear example of a holistic assessment of both. Furthermore, the soil RC should be extended to cover several causes – erosion, SOM, aggregation, biology, as well as compaction. This would make the new pasture / PCS enhancement more fully complementary with E528N, the rangeland monitoring for multiple causes related to the soil and plant RCs.

- E528H (rangeland riparian function) and E528J (pasture riparian function) could be integrated into a single Enhancement applicable to both land uses. The descriptive language for both is the same, addressing multiple aspects of “riparian function” – reducing runoff, nutrient losses to surface water, improving infiltration, and improving fish and wildlife habitat. Yet, E528H is framed as addressing “elevated water temperature” while E528J is framed as addressing surface water RC and several causes (nutrients, pathogens, chemicals, sediment). Since the same activity on either pasture or range will address *all* of these, plus riparian fish and wildlife habitat (as stated in description) both RCs and all appropriate “causes” should be listed for both. If the different scales of pasture vs range merit different job sheets and payment schedules, the two enhancements should be entitled “Manage grazing to improve riparian function in pasture” and “... range” – and not confuse things by highlighting water temperature for range (E528H) and surface water pollution for pasture (E528J).
- E528I (nutrients to surface and ground water) and E528M (prevent gully erosion) actually have the same descriptive language: “...vegetative cover and density needed in the watershed in order to protect sensitive areas such as sinkholes, streams, highly erodible areas, or locations that cannot tolerate plant defoliation.” Both apply to pasture and rangeland. They can easily be combined into a single Enhancement to address all forms and degrees of erosion as well as nutrient pollution, and possible manure / pathogen / chemical pollution as well.

## **Conservation Cover**

E327A is for cover and shelter habitat for pollinators and beneficial insects. The description refers not just to conservation cover but also field borders, hedgerows, windbreaks, contour buffer strips, and riparian buffers. If the same pollinator/beneficial enhancement applies to all types of buffers, there should be a single enhancement with the same criteria, or perhaps one for herbaceous and one for woody perennial barriers. We also recommend adding pollinator habitat to the three filter strip (393) enhancements.

## **Prescribed Burning**

- E338A “strategically planned patch burning” lists plant pests and biomass/wildfire hazard RCs and PRF land uses. Yet the description is all about “patch burn grazing” and secondarily wildlife – not wildfire prevention. To make this Enhancement logical, the RCs should be revised to include livestock feed/forage imbalance, wildlife habitat, and plant community structure.
- E338B “short interval burns” is appropriately listed for forest land use only, with a lengthy description of its use for maintaining a healthy native fire-adapted herbaceous understory in a fire-adapted forest community, wildlife habitat, and preventing severe wildfire. RCs include wildlife and feed/forage imbalance, but nothing about plant community or excess biomass/fuel. To make this Enhancement logical, the RCs should be revised to include plant community, possibly plant pests, and definitely biomass/wildfire risk – but not feed and forage.

## Forage and Biomass Planting

- The 2020 list consolidates 17 enhancements into 10, but several additional consolidations are suggested below.
- Two of the cropland-to-grassland Enhancements (E512A for soil erosion, E512C SOM/soil life/aggregation) could easily be condensed into a single cropland to grassland conversion enhancement.
- Two forage plantings to reduce erosion (E512B, pasture only) and to check SOM depletion (E512D, confusingly assigned to both C and P land uses) can easily be consolidated into a single forage planting enhancement in existing pasture to check erosion and build all aspects of soil health (SOM, soil life, and aggregation).
- Two enhancements for native grass and legume planting into existing forage base for plant productivity, community structure, and wildlife habitat (E512F) and to address livestock feed and forage imbalance (E512G) have exactly the same description and could be consolidated into a single native planting enhancement. Furthermore, the enhancement should include other forbs in addition to legumes and grasses – the forbs confer biodiversity and multiple benefits to wildlife and forage / livestock nutrition.