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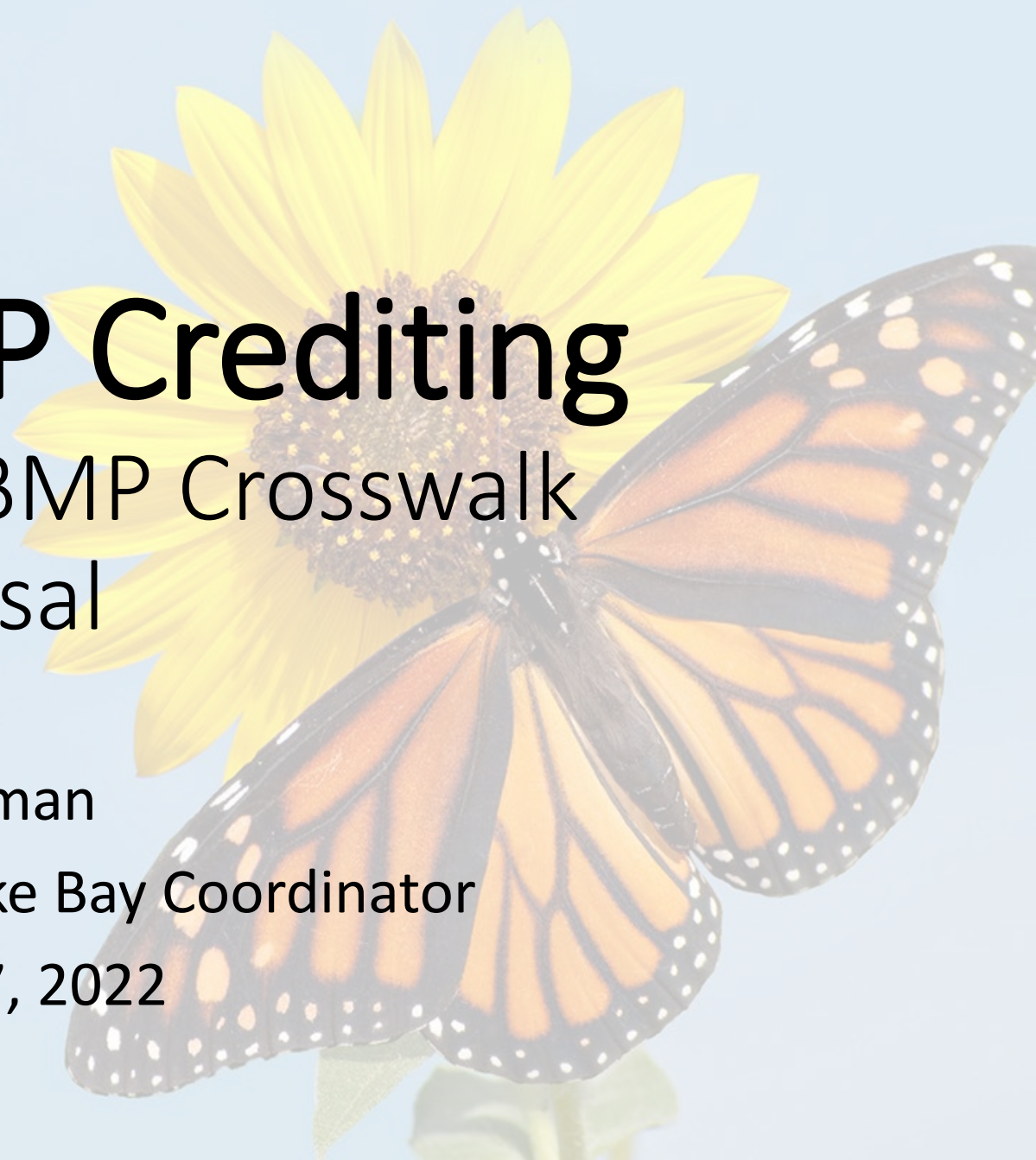
# NRCS Ag BMP Crediting

## NEIEN Appendix BMP Crosswalk Proposal

Leon Tillman

USDA/ NRCS Chesapeake Bay Coordinator

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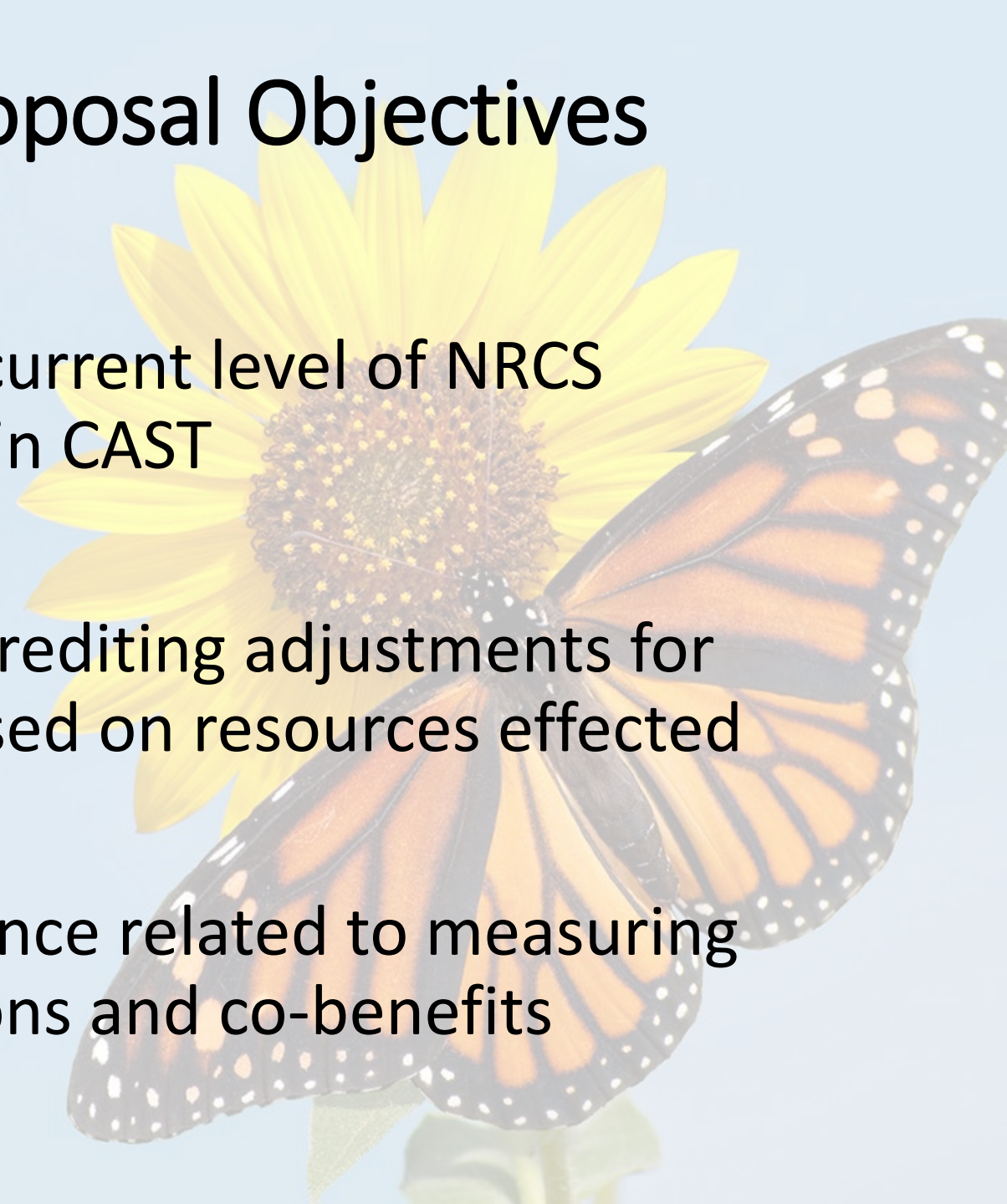


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# Crediting Proposal Objectives

- Communicating historical and current level of NRCS agricultural practices crediting in CAST
- Recommend NEIEN Appendix crediting adjustments for NRCS agricultural practices, based on resources effected
- Communicate practice importance related to measuring sediment and nutrient reductions and co-benefits







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# Hurdles to Load Reduction in the Ag Sector

- Presented via other committees/ GIT/ WG
  - Lag time between BMP implementation and water quality response
  - County scale BMP effectiveness reduced due to data aggregation
  - Loss of BMPs through credit duration/ not verified
- Additional Considerations:
  - Full counting/ crediting for agriculture practices/ BMPs
    - i.e., Conservation Stewardship Program (CSP) activities
  - NRCS Practices or enhancements in “Draft” status are not credited for sediment or nutrient reduction in CAST
    - Lacking NEIEN Appendix “Released” status



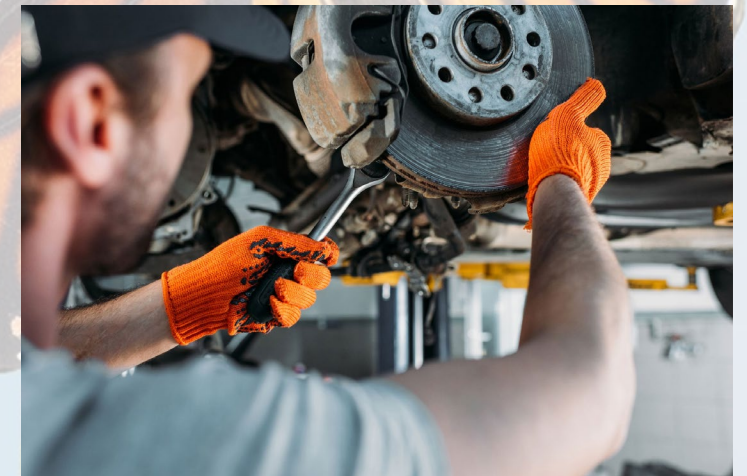
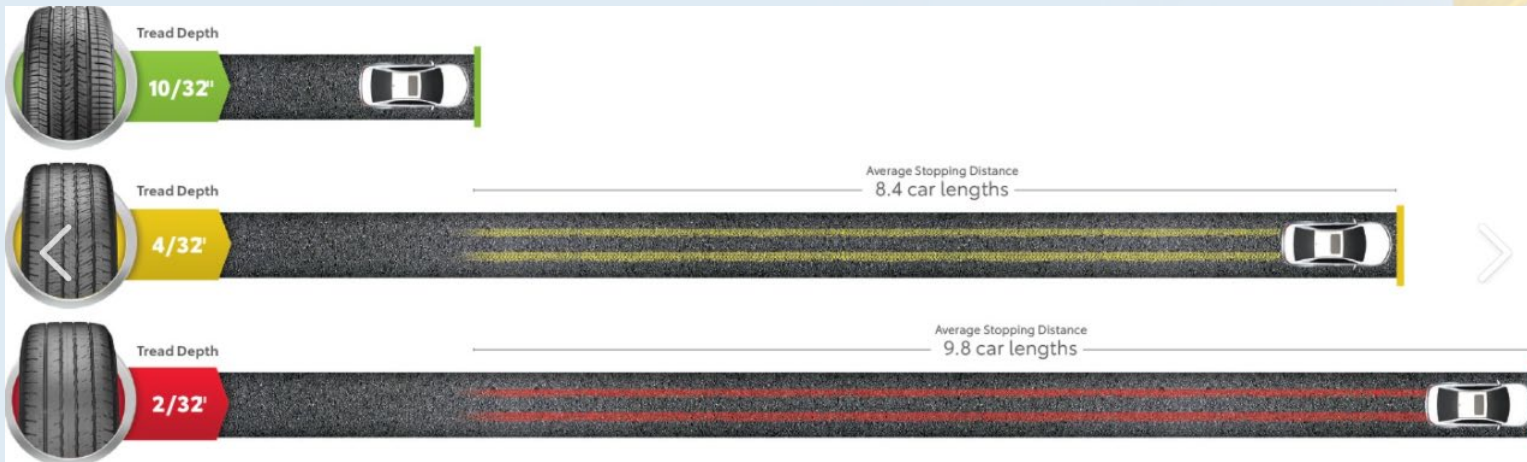


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# Conservation BMPs function as SYSTEMS

- It's like a car repair to improve stopping distance
  - Need new rotors, brake pads, brake fluid, and tires
  - Cannot only account for one component and expect a safe stopping distance (improvement)
  - BMP components can also improve the efficiency, performance, and lifespan of others
- Management and structural practices (BMPs) yield compound improvements
  - Cover crops implemented on acres with a water and sediment control basin
  - A diversion directing water through a grassed waterway or structure for water control





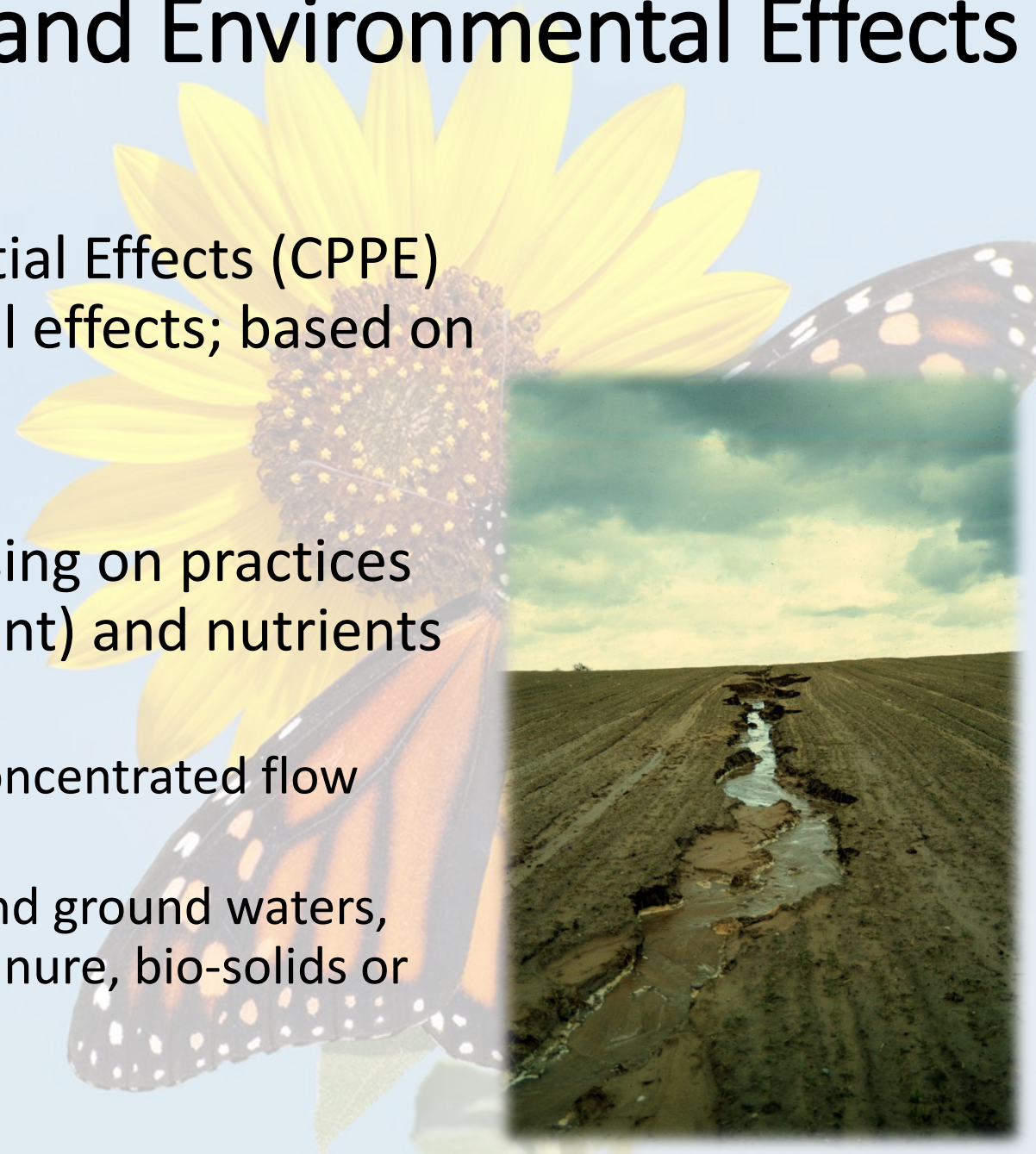


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# NRCS Practices and Environmental Effects

- NRCS used Conservation Practices Potential Effects (CPPE) to quantify each practices' environmental effects; based on research and science
  - Evaluates 170 Practices
- For Ches Bay Program CAST Model, focusing on practices that positively effect soil erosion (sediment) and nutrients in surface and ground water
  - Soil Erosion: Sheet, rill, and wind erosion; concentrated flow erosion, excessive bank erosion
  - Water Quality: Excess nutrients in surface and ground waters, excessive pathogens and chemicals from manure, bio-solids or compost applications





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# Federal BMP Inclusion Process

- USGS requests federal implementation data from NRCS & FSA
- USGS receives and aggregates data from NRCS & FSA
- USGS provides aggregated data sets to jurisdictions with data separated into categories.
  - NRCS: Land BMPs, Animal BMPs, Land BMPs CTA, Animal BMPs CTA
  - FSA: Aggregated together
- Jurisdictions review data for duplication and inclusion in NEIEN
  - Check for unit conversion issues, etc.
  - Only cross walked BMPs will receive reduction credit in NEIEN
- BMPs submitted by the jurisdiction, and that have a released equivalent NEIEN BMP, receive credit in CAST Model.







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# Section 1619 & Data Aggregation

## Affects to NRCS Data:

- Where five or more producers reported a practice in a county, then the data are provided at the county scale.
- Where less than five producers reported a practice in a county, then the data are provided at the state scale. You may see some data aggregated at both the county and state scale, but not duplicated.
- Where less than five producers reported that practice in the state. The data cannot be shared in unaggregated form and are not included.





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# History of NEIEN Appendix- Crosswalk

- Establishment date of NEIEN Appendix- Crosswalk: Phase 5 in 2011
- Change of select NRCS practices from “released” to “draft” in CAST: Phase 6 in 2018
  - Some of these practices were part of the Soil Conservation and Water Quality Plans BMP Category
- Appendix- Crosswalk Implementation: Phase 6 in 2018 – Present (updated annually)
- NEIEN Appendix BMP Statuses: Release, Draft, Retired, No Status/Blank







# CAST Phases & NEIEN Appendix

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- The NEIEN Appendix status must be marked as “released” to get credit in the Model
- The practices included in the NEIEN Appendix is not an exhaustive list
  - There may be other practices or activities that benefit sediment and nutrients reductions

**Today's Issue:**  
Some practices that were  
“release” in Phase 5 are  
“draft” in Phase 6

Reporting BMPs (NEIEN)	Assessing TMDL Progress (CBP BMP Names) in the CBP Watershed Model
<b>Phase 5:</b> <ul style="list-style-type: none"><li>• All known fed &amp; state names for BMPs available</li><li>• NRCS Practice Codes <b>included</b></li></ul>	<b>Phase 5:</b> Scenario Builder (SB) BMP Name
<b>Phase 6:</b> <ul style="list-style-type: none"><li>• All known fed &amp; state names for BMPs available</li><li>• NRCS Practice Codes <b>excluded</b> (use “USDA Practices, NEIEN, and CAST BMPs” guide as cross-reference)</li></ul>	<b>Phase 6:</b> CAST BMP Name
“Release” status	“Official” status → progress towards TMDL
“Draft” status	N/A → not available for progress



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# CAST Phase 6: NRCS to NEIEN Appendix-Crosswalk

- During the change to CAST Phase 6, 38 BMPs were changed from “Released” to “Draft” status
- There isn’t any CBP record of a vote regarding this change that could be found
- Some of the removed practices include:
  - Conservation crop rotation, contour buffer strips, diversion, grade stabilization structure, lined waterway or outlet, water and sediment control basin and others.







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# CAST Phase 6: NRCS to NEIEN Appendix-Crosswalk

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- CAST/ NEIEN currently only counts limited NRCS EQIP Practices codes
  - Conservation Stewardship Program (CSP) Activities/ Enhancements are not captured in CAST Model
- 556 NRCS practices and enhancements currently eligible for crosswalk (includes CSP Enhancements)
  - Only 28 practices are currently in “Released” status
  - Need for additional practice crosswalks to capture co-benefits for climate, PFAS, and others.



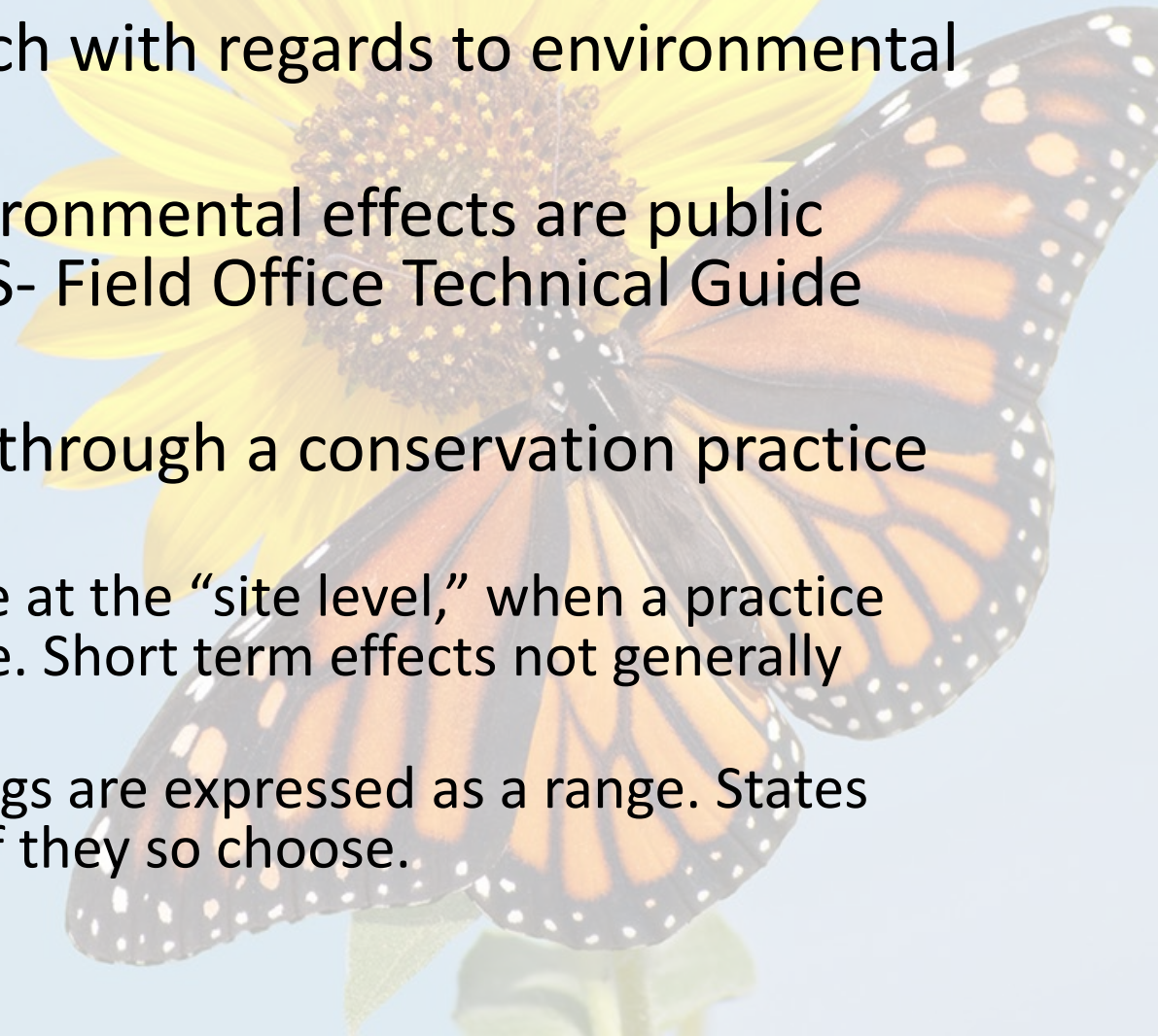


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# Documentation of Environmental Effects

- USDA/ NRCS uses science and research with regards to environmental benefit of conservation practices.
- Conservation practices and their environmental effects are public record and can be found via the NRCS- Field Office Technical Guide (eFOTG).
- Environmental effects are quantified through a conservation practice physical effects matrix.
  - Provide effects for an individual practice at the “site level,” when a practice has reached a designed, functional state. Short term effects not generally rated.
  - Due to national applicability, some ratings are expressed as a range. States can refine ratings to improve accuracy if they so choose.







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# NEIEN Appendix- Crosswalk Recommendation/ Proposal

- See “NRCS to NEIEN Status Update Proposal\_02172022\_Final” document (excel file)
- These practices have a benefit in sediment and nutrient reduction.
  - Many also provide co-benefits of importance to the CBP, i.e. climate resiliency, wildlife habitat improvement, reducing pesticides, reducing water use, etc.
- These practices use the CAST BMP Category “Soil Conservation and Water Quality Plans” for lack of a more accurate reduction efficiency in CAST

