



# DISCUSSING THE FOCUS OF OUR GROUP

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# WHAT WE WILL BE DISCUSSING TODAY

- In Depth Discussion on:
  - **Issue 1: Credit Duration**
  - **Issue 2: Partial Credit**
- I have put questions throughout the presentation to facilitate the discussion. These questions appears as: “For the Group:”
  - Time will be given at the end of each section to have further open discussion.
- Summarizing Status on Additional Verification Concerns:
  - **Issue 3: Alternative Verification Methods**
  - **Issue 4: Impact of Verification on 2019 Progress**
  - **Issue 5: Understanding the intersection of credit duration and backout for land use change practices**
  - **Issue 6: Clarification of jurisdiction reporting and how they are credited for soil and water conservation plan credit**

# ISSUE 1: CREDIT DURATION

- **Breaking the section down:**
  - Why are we discussing credit durations?
    - Statements from the MB charge with available data or follow-up questions to address each statement.
  - BMPs of Concern from Stakeholders within the Group
  - What is our intention?
  - Proposed Actions moving Forward

# ISSUE 1: CREDIT DURATION

- **Why are we revisiting credit duration?**
- The initial justification per the January 2020 MB Charge:
  - “Credit Durations established some agricultural BMPs are based on NRCS specifications. The remaining credit durations were established by WQGIT source sector workgroups.”
    - Per the BMP Expert Panel source sector workgroups were responsible for all credit durations.
    - For Ag BMPs that did not have associated NRCS standards, contract duration, permit duration, design life, research publications and best professional judgement were utilized per the BMP Expert Panel.
- “There is debate as to whether these credit durations were based in available science.”
  - The BMP expert panel outlined consideration of 1) Permit/Contract Duration 2) Engineering Design Life 3) Practice Lifespan.
  - For the Group: Which available science was not considered during the development of credit durations?
- “Jurisdictions may want to consider a data collection exercise to draw some statistical conclusions.”
  - For the Group: Does anyone want to offer insight into which data collection exercises would be beneficial?

# ISSUE 1: CREDIT DURATION

BMPS OF CONCERN FROM STAKEHOLDERS WITHIN THE GROUP  
AGRICULTURE

- **Animal Waste Management Systems**
  - Credit Duration: 15 years
  - NRCS Practice Lifespan: 15 years
- **Barnyard Runoff Control**
  - Credit Duration: 10 years
  - NRCS Practice Lifespan 10-15 years
- **Loafing Lots**
  - Credit Duration: 10 years
  - NRCS Practice Lifespan: 10 years
- **Each of these BMP credit durations have associated NRCS Practice Standards.**
- **Ag Stream Restoration**
  - Credit Duration: 10 years
  - Related (not exact) NRCS Practices: 10 – 20 years
  - Currently utilizes Urban protocols which dictate a 5-year credit duration.

# ISSUE 1: CREDIT DURATION

BMPS OF CONCERN FROM STAKEHOLDERS WITHIN THE GROUP  
AGRICULTURE

- **From the AgWG Decision in 2015 on credit durations:**

“BMP Credit Durations are designed to reflect the maximum time that may elapse between the initial reported implementation of a BMP for CBP model credit, and when that BMP will be removed for credit. Future crediting of BMPs which exceed the credit duration period will require resubmission by the jurisdiction based upon follow-up inspections or maintenance activities for that BMP in order to receive credit in the Chesapeake Bay Watershed Model. BMP credit duration periods were primarily based on federal and state BMP contractual lifespans when specific BMP lifespans were not specified from BMP expert panel reports or existing modeling structure requirements. Contractual lifespans may differ by state and may be different from credit durations listed in this table. Please note that model BMP credit durations are not directly related to the requirement of jurisdictions to implement an annual BMP verification protocol, based on the approved CBP Agricultural BMP Verification Guidance, and consequently do not represent an alternative or substitution for the guidance for BMP verification.”

# ISSUE 1: CREDIT DURATION

BMPS OF CONCERN FROM STAKEHOLDERS WITHIN THE GROUP  
FORESTRY

- **Forest Buffers**
  - Credit Duration: 10 years
  - NRCS Practice Standard: 15 years
- **Grass Buffers**
  - Credit Duration: 10 years
  - NRCS Practice Standards: 5-10 years
- **Each of these BMP credit durations have associated NRCS Practice Standards.**
- **Exclusion Fencing with Forest Buffers/Grass Buffers**
  - Credit Duration: 10 years
  - NRCS Practice Standard: 5-15 years
- **The Forestry WG has agreed to reevaluate Forest Buffers.**

# ISSUE 1: CREDIT DURATION

BMPS OF CONCERN FROM STAKEHOLDERS WITHIN THE GROUP  
FORESTRY

- **Urban Tree Planting**

- Credit Duration: 10 years
- Established by Tree Canopy Expert Panel.
- “Once new high-resolution imagery is updated in the model, the trees will be captured through the tree canopy land uses rather than annual BMP submissions.”
- **Urban Forest Planting**
  - Credit duration: 15 years

- **Ag Tree Planting**

- Credit Duration: 10 years
- Related NRCS Practices: 15 years
- CRP Contract Duration: 10-15 years

For the Group: Comments on the information above? Does the FWG see potential in reevaluating credit durations for these practices?



# ISSUE 1: CREDIT DURATION

## BMPS OF CONCERN FROM STAKEHOLDERS WITHIN THE GROUP URBAN STORMWATER

- Urban Stream Restoration
  - Credit Duration: 5 years
  - Protocols determined by 2014 Expert Panel.
  - Why? These projects are subject to catastrophic damage from extreme flood events and typically have requirements for 3 to 5 years of post-construction monitoring to satisfy permit conditions.
- The Urban Stormwater Group has stated that there is not new science to support the extension of the urban stream restoration BMP.

# ISSUE 1: CREDIT DURATION

- **Let's Discuss Intention.**

- Is it the group's intention to revisit all BMP credit durations?
- If so, what is the justification for allocating resources to revisit all BMP credit durations?
  - Are there objections to revisiting all credit durations?

# ISSUE 1: CREDIT DURATION

- Proposed Actions Moving Forward
  - From the BMPs brought to light and the discussions and literature dives done since, the Forestry BMPs have the strongest case for reevaluation.
  - The Forestry Workgroup has agreed to reevaluate the credit durations on Forest Buffers.
    - For the FWG representative: Are there other BMPs that the FWG would reevaluate? For those BMPs that the Forestry workgroup will not reevaluate, why will the FWG not reevaluate these credit durations?
  - If the Group would like to evaluate credit durations for all BMPs, Vanessa Van Note will research and present the amount of time the task will take, and the resources needed to accomplish this task to the Group.
  - For the Group: Are there other action items that need to be added?

# ISSUE 2: PARTIAL CREDIT

## Breaking the section down:

- Why are we considering partial credit?
- How has the group interpreted the concept of partial credit?
  - Reservations towards partial credit.
- BMPs of Concern from Stakeholders within the Group
  - Addressing both specific and broad categoric BMPs
    - What is our intention?
- Proposed Actions moving Forward

# ISSUE 2: PARTIAL CREDIT

## WHY ARE WE CONSIDERING PARTIAL CREDIT?

- **Why are we considering partial credit?**
- The initial justification per the January 2020 MB Charge:
  - “Can there be gradual or partial credit over a period of time as opposed to zero credit for those BMPs that cannot be verified?”
    - To discuss later: What time period is sufficient?
  - “Perhaps there is room for a compromise that’s acceptable, particularly for those BMPs that are NRCS practices.”
    - For the Group: Why is room for compromise needed for NRCS practices?
  - “A one-size fits all approach will not work for verification.”
    - For the Group: Outside of partial credit, what does “alternatives to an ‘all or nothing’ approach” encompass?

# ISSUE 2: PARTIAL CREDIT

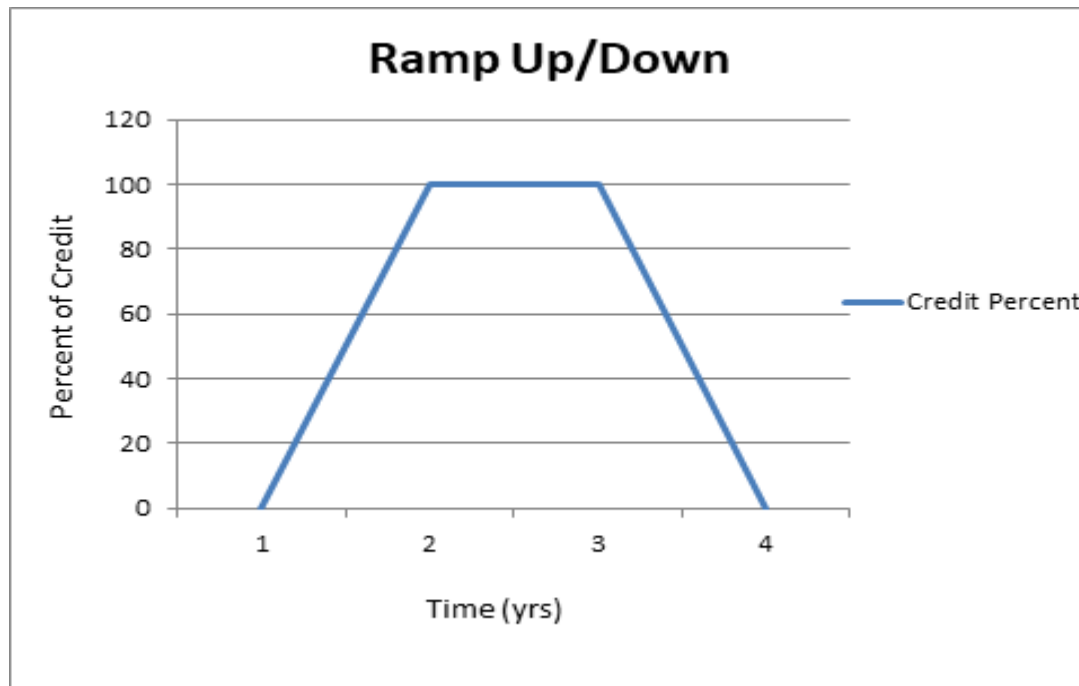
- **How has the group interpreted the concept of partial credit?**
- “Partial Credit of a BMP could be looked at practice by practice and considered as an alternative to the all or nothing approach that is currently in place. For example, for structural BMPs with multiple components in which one or more components need to be maintained in order for the practice to function at full performance, the model credit should phase out over some period of time. Maybe 20% per year would be enough to draw attention for the need to reinspect the practice but also continue to simulate a reasonable level of performance.”

# ISSUE 2: PARTIAL CREDIT

- **How has the group interpreted the concept of partial credit?**
- “Unless the operation ceases to operate there should be a partial variable credit. This information should be captured with land use data. It is reasonable to allow diminishing credit and past credit duration for model stability. It is a yes or no decision on the ground if the operation is running and meeting state requirements. State verification ability should be part of this discussion, especially if we can incorporate remote sensing or inspection extrapolation to perform verification.”

# ISSUE 2: PARTIAL CREDIT

- **How has the group interpreted the concept of partial credit?**
- “Suggestion on alternative terminology to facilitate clear conversations as they are discussed in our meetings. For BMPs like tree planting, where functionality increases or decreases over time, it may be helpful to label them as BMPs with a “ramp up/down schedule” or “phase in/out schedule”.

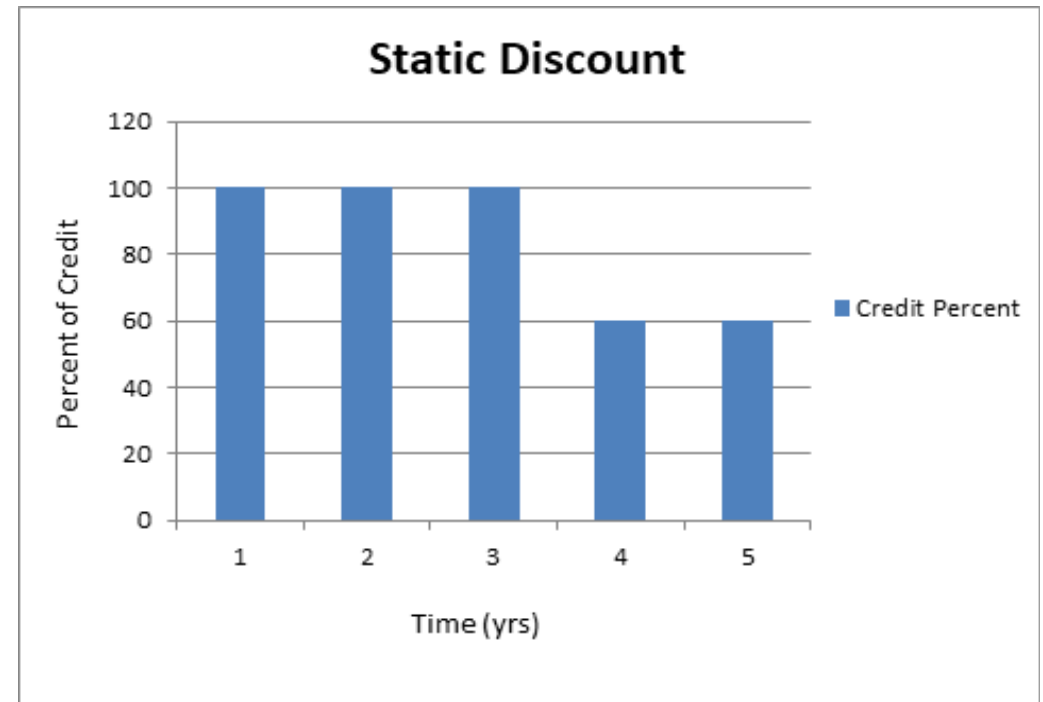
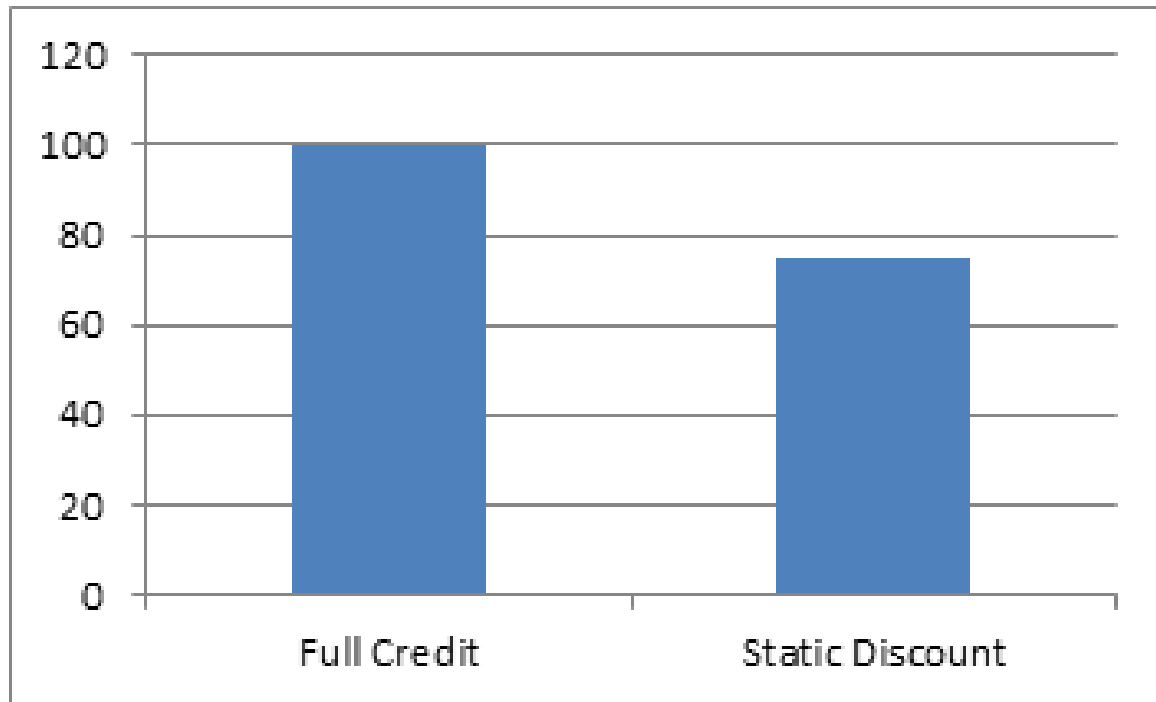


- **“An alternative to the linear ramp up/down approach is a stepped approach.”**



# ISSUE 2: PARTIAL CREDIT

- **How has the group interpreted the concept of partial credit?**
- “The BMPs to which a “ramp up/down schedule” or “phase in/out schedule” (like Tree Planting) may be differentiated from BMPs that receive a single static value that is less than 100%”.



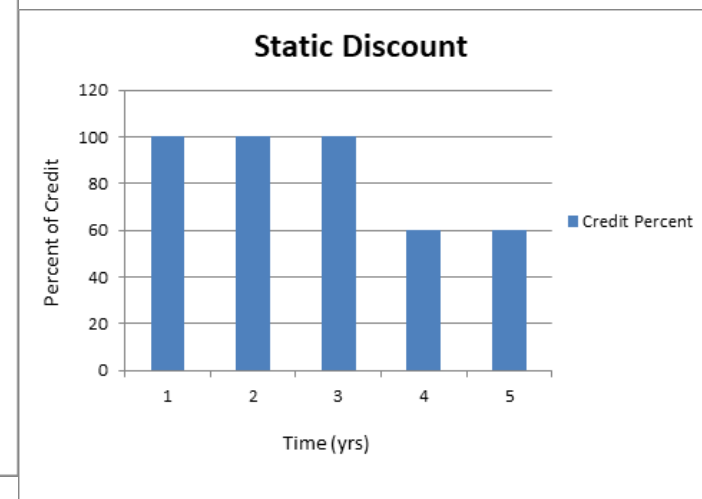
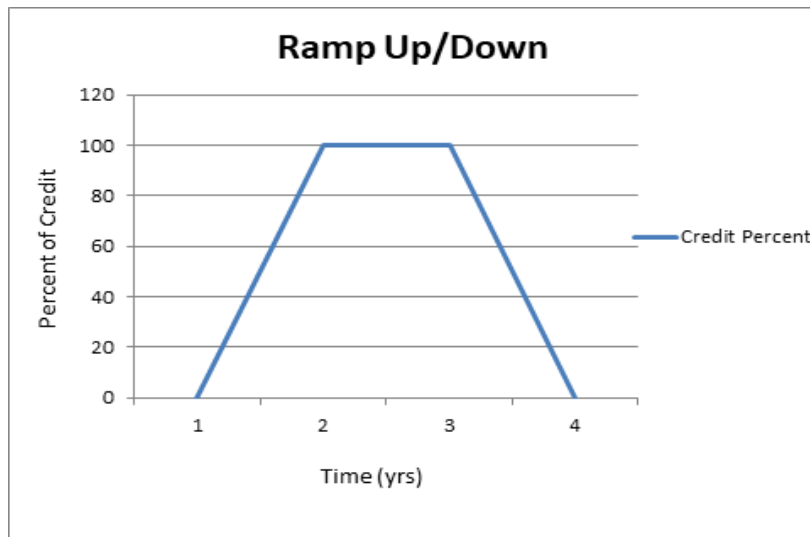
- “Someone offered the term “discounted” credit to describe this scenario.”

# ISSUE 2: PARTIAL CREDIT

## HOW HAS THE GROUP INTERPRETED THE CONCEPT OF PARTIAL CREDIT?

- **In Review:**

- Phase In/Phase Out or Ramp Up/Ramp Down Option
- Stepped Approach
- Static Discount
- Unless the operation ceases to operate there should be a partial variable credit



- For the Group: Did anyone interpret partial credit differently?
- For the Group: Are there other Partial Credit approaches that should be considered?

# ISSUE 2: PARTIAL CREDIT

## RESERVATIONS TOWARDS PARTIAL CREDIT

- “Partial credit may impact co-benefits. Partial credit may be reasonable for nutrient or sediment reductions but have significant impacts on other co-benefits. There are ripples beyond the core reduction benefits.”
  - For example, “Forested buffers impact stream temperature which has a significant impact on aquatic habitat.”
- “What is the scientific justification behind partial credit?”
- For the Group: Would anyone like to voice any reservations towards or considerations that should be taken when developing partial credit?

# ISSUE 2: PARTIAL CREDIT

BMPS OF CONCERN FROM STAKEHOLDERS WITHIN THE GROUP

- Specific BMPs:

- For Ag:

- Animal Waste Management Systems
  - Barnyard Runoff Control
    - Loafing Lots

- For Forestry:

- Forest Buffers
- Grass Buffers
- Forest Buffers with Exclusion Fencing
- Grass Buffers with Exclusion Fencing

- For the Group: Does anyone have any additional (specific) practices to add?
  - Does anyone have any reservations towards the practices listed above?

# ISSUE 2: PARTIAL CREDIT

## BMPS OF CONCERN FROM STAKEHOLDERS WITHIN THE GROUP

- Additional broad concerns:
  - 1) Structural practices that are integral to the operation and natural system practices that are captured by land cover/land use updates.
  - 2) Management Action BMPs (plans) or annual practices
    - Justification provided is that these practices “can phase out without a significant impact because they are readily replaced.”
- For the Group: Does anyone have any additional practices to add or comments on the practices outlined in the past two slides?
  - Does anyone have any reservations towards the practices listed?

# ISSUE 2: PARTIAL CREDIT INTENTION

- **Let's Discuss Intention.**

- Is it the group's intention to develop a partial credit for every BMP?
- If not, which BMPs should be considered for partial credit?

- **Questions to consider moving forward:**

- How should we determine the period of time to phase out a BMP following its credit duration expiration?
- How should we determine the percentage the BMP phases out by following its credit duration expiration?
- How will a jurisdiction track BMPs that are receiving partial credit and develop plans for reinspection before the BMP phases out?

# ISSUE 2: PARTIAL CREDIT

- **Proposed Actions Moving Forward**

- Determine what partial credit refers to.
- Determine which BMPs are eligible for partial credit.
- Work with source sector workgroups to discuss available science supporting the usage of partial credit; for example, where the functionality for a BMP like tree planting increase or decreases over time.
- Determine the specifics of the partial credit policy, such as duration following credit duration expiration, percent credit received for each following year, etc.
- Work with the CAST development team to determine what technical work needs to be accomplished on the backend to achieve a crediting system that enables BMPs to stay in the model following their credit duration expiration.
- For the Group: Does anyone propose different or additional action items?

# ISSUE 3: ADDITIONAL VERIFICATION CONCERNS

## ALTERNATIVE VERIFICATION METHODS

- **Jurisdictions have faced resistance from the CBP to incorporate remote sensing, statistically representative sub-sampling, or other alternative methods in their verification plans even though these alternatives have been identified as possible options for jurisdictions by the CBP.**
- Extrapolated inspection information and surveys have been requested for consideration.
  - For the Group: Do any representatives from jurisdictions have an example to provide of this resistance? Would any member like to expand upon the applications of statistically representative sub-sampling or remote sensing that have been met with resistance?
- **Jurisdictions do not know the locations of federally funded BMPs. Often jurisdictions must make strong assumptions on the location of these BMPs for verification.**
  - Action: Vanessa Van Note will pursue this issue and provide updates to the group on progress.



# ISSUE 4: ADDITIONAL VERIFICATION CONCERNS

## IMPACT OF VERIFICATION ON 2019 PROGRESS

- **Request:** A presentation summarizing the BMPs that were removed from reporting due to not being verified and the credit duration expiring and estimating the original load reduction if all practices were credited.
- Jeff will be presenting on this issue today.
- We will provide follow up data where needed.
- This data will also be used to further inform Issues 1 and Issue 2.

# ISSUE 5: ADDITIONAL VERIFICATION CONCERNS

## UNDERSTANDING THE INTERSECTION OF CREDIT DURATION AND BACKOUT FOR LAND USE CHANGE PRACTICES

- **Request: A presentation laying out the details of credit duration for land use change practices and walk us through examples of BMP processing for land use change practices, specifically how practice credit duration and back out are applied.**
- Recommendation: Need to include buffer opportunity layer with change from BMP to land use change.
- Further questions: *When credit duration is first in this process, should BMPs removed due to credit duration to be allowed to offset backed out BMPs?*
- *What is the value re-verifying 10-year-old buffers if they are already included in updated land use mapping?*
- *Are there differences between the land use change and upland treatment portions of these practices as it relates to back out?*
- *Jeff, Cassandra, and Alana have discussed this topic in the WTWG in September and October. This topic is currently charged to the WTWG by the MB.*
- Action: Vanessa Van Note is currently working on collecting information to answer all the questions she has received. She will be requesting further questions that need answering from jurisdictions with the intention of presenting information in November.

# ISSUE 6: ADDITIONAL VERIFICATION CONCERNS

CLARIFICATION OF JURISDICTION REPORTING AND HOW THEY ARE CREDITED FOR SOIL AND WATER CONSERVATION PLAN CREDIT

- For the Group: Will anyone like to provide further background or clarification to this concern/request?

ANY ADDITIONAL COMMENTS?

