

Lower Boise River Technical Advisory Committee for Water Quality Trading



March 1, 2016

Meeting #1:
Foundations for
Revising the
Lower Boise River
Water Quality
Trading
Framework

Roles and Responsibilities

Technical Advisory Committee

- Review concepts and provide direction on Framework content.
- Deliver a full Framework to the WAG for review and approval.

Willamette Partnership

- Meeting and process facilitation.
- Provide technical support, with program options needed to recommend Framework content.
- Draft and present Framework to TAC, WAG, DEQ for review.
- Assist DEQ Staff in responding to public comments.

Agenda

Morning (10am-noon)

- Introductions
- Review of Framework update process
- Overview of Framework Elements
- Elements of focus for revision

Afternoon (12:45 - 4pm)

- Who, where, what and how of trading
 - Appropriate Credit Generating Actions
- Eligibility
 - Buyer/Seller
- Meeting wrap up and action items

Meeting Objectives

- Reaffirm roles, responsibilities, process and timeline
- Introduce Framework concepts and develop common understanding and definition.
- Identify details of concepts that can be incorporated into draft Framework for meeting #2.



Process Objectives and Timeline

- Update the Lower Boise Water Quality Trading Framework (Framework) to support trading of Total Phosphorus in the watershed and help implement the Lower Boise Phosphorus TMDL
- Review Trading Framework concepts and provide direction on draft Framework content
 - Recommend any implementation actions needed to support trading in the Lower Boise Watershed
- Deliver a full draft Framework to the WAG for review and recommended approval to DEQ.

What is a Water Quality Trading Framework

- Trading Framework is a guiding document.
- Articulates the details of water quality trading in the context of the local watershed.
 - State Guidance provides general sideboards
- Provides the specific provisions of water quality trading that can be incorporated into regulatory instruments such as NPDES permits.



Overview: Framework Update

- 2015 Lower Boise River Total Phosphorus TMDL Addendum
- The Freshwater Trust *Lower Boise River Technical Analysis* (2015)
- Joint Regional Recommendations for the Pacific Northwest on Water Quality Trading (2014)
- National Network on Water Quality Trading *Building a Water Quality Trading Program: Options and Considerations* (2015)
- Willamette Partnership *Lower Boise Framework Update: Finds and Recommendations* (2015)

Guiding Principles for a Trading Framework

- Effectively accomplish regulatory and environmental goals;
- Be based on sound science;
- Provide sufficient accountability, transparency, accessibility, and public participation to ensure that promised water quality improvements are delivered;



Guiding Principles for a Trading Framework



- Produce no localized water quality problems;
- Be consistent with the Clean Water Act regulatory framework; and
- Include appropriate compliance and enforcement provisions to ensure long-term success.

Components of a Trading Framework

1. Establishing/identifying regulatory instruments to support trading
2. Trading Basics: *who, what, where, and how*
3. Eligibility
4. Quantifying water quality benefits
5. Trading ratios

Components of a Trading Framework

6. Defining credit characteristics
7. Project implementation and assurance guidelines
8. Procedures for project review, certification and tracking
9. Ensuring compliance and enforcement
10. Adaptive Management
11. Defining roles and responsibilities

Previously Identified Focus of Updates

- Baseline
- Credit Characteristics (credit life)
- BMPs and efficiency rates
- Credit Quantification
- Trading Ratios
- Use of Public Funds
- Updating and approving BMPs



Trading Basics: Who, What, Where, and How

Who can sell credits?

Who can buy credits?

What can be traded?

Where can trading occur?

How?

Trading Basics: Who, What, Where, and How

Who can sell credits: Both point and nonpoint sources are eligible

Who can buy credits: NPDES, MS4, 401Cert., voluntary

What can be traded: Total Phosphorus (TP)

Where can trading occur: Lower Boise River Watershed - TMDL delineated

How: Implementation of appropriate credit-generating actions

How is a credit generated

- Project site is “hydrologically connected” to the River System
- Projects use an approved BMP and updated Quality Standards
- Credits come from BMPs operational after a base year
- Projects are consistent with other laws (Federal, Tribe, State, Local)

Potential Credit-Generating BMPs

Proposed Eligible BMPs

| BMP Type | Design Criteria | Project Lifespan |
|-----------------------------------|-----------------|------------------|
| Sediment basin (field scale) | NRCS 350 | 20 years |
| Sediment basins (watershed scale) | NRCS 350 | 20 years |
| Filter strips | NRCS 393 | 1 season |
| Underground outlet (years 1-2) | NRCS 620 | 2 years |
| Underground outlet (after year 2) | NRCS 620 | 18 years |
| Straw in furrows | NRCS 484 | 1 season |
| Sprinkler irrigation | NRCS 442 | 15 years |
| Microirrigation | NRCS 441 | 10 years |
| Tailwater recovery | NRCS 447 | 15 years |
| Surge irrigation | NRCS 449 | 1 season |
| Constructed wetland (farm scale) | NRCS 656 | 15 years |
| Cover Cropping | NRCS 340 | 1 year |

- BMP list originally developed by Dr. David Carter and approved as part of 2010 Framework.
- Conservation crop rotation (NRCS 328) not recommended - degree of ambiguity in the length of time, number and type of rotations
- Nutrient Management (NRCS590) not recommended - efficiency is difficult to estimate
 - Not considered in original (2010) Framework
 - Recognized as a complementary practice to enhance outcomes of other BMPs.

Ensuring Pollution Reductions Lead to Water Quality Improvements

Benefits of BMP Guidelines

- Creates confidence that BMPs are performing as anticipated
- Gives project developers a clear idea of how their project will be evaluated.
- Guidelines considered in Dr. Carter's 2002 review for the 2010 Framework
- Should be reviewed relative to *Joint Regional Recommendations* and *National Network Options and Considerations*.

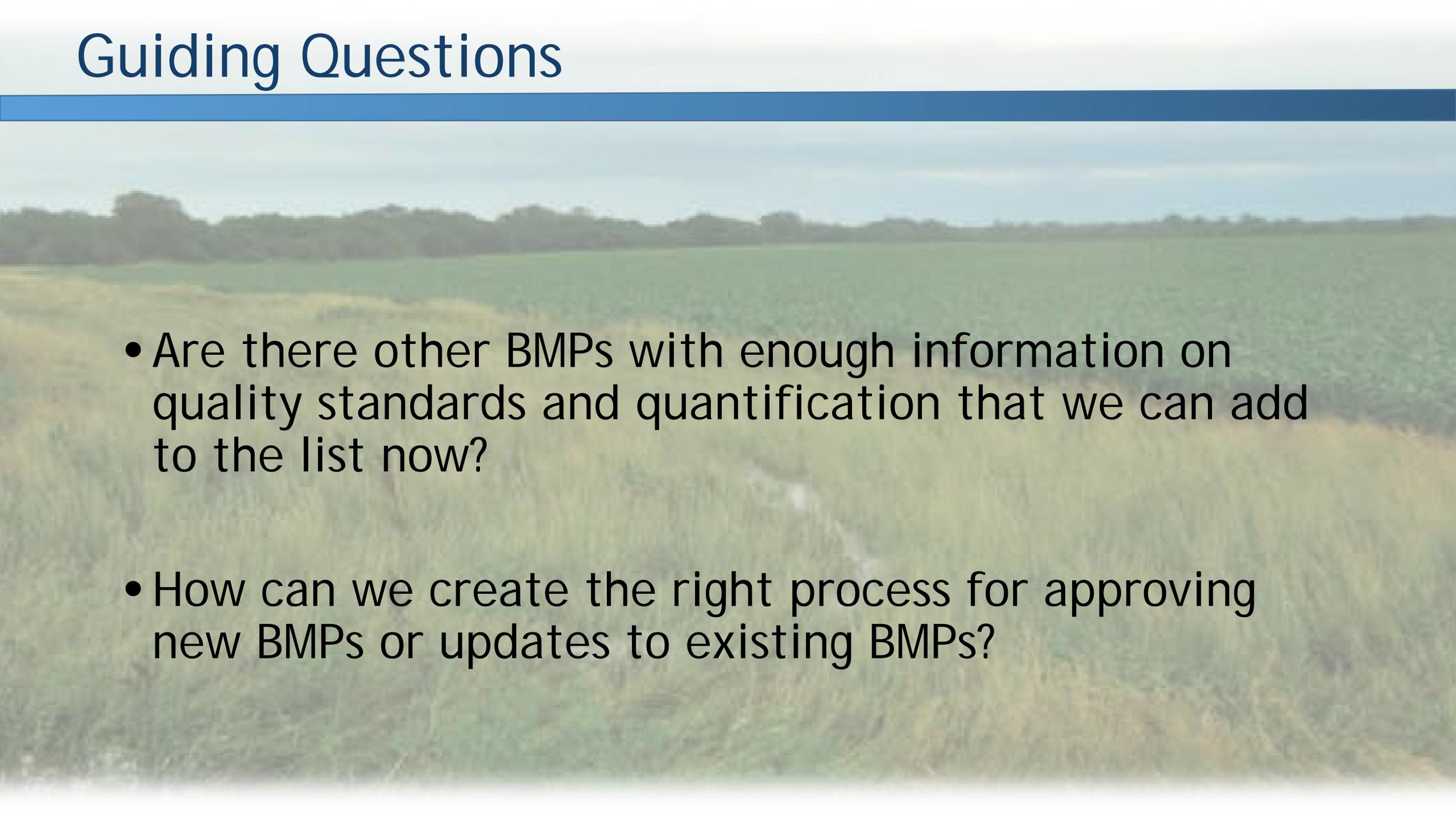


Adding or Updating BMPs

2010 State Guidance Process for adding new BMPs or improving existing design, measurement and calculation:

1. Prepare and submit a proposed BMP package to DEQ for review
2. Initial screening for completeness
3. Review for BMP consideration by BMP Technical Committee
4. DEQ concurrence, public notice and comment
5. Final Decision and update of BMP list in Framework

Guiding Questions



- Are there other BMPs with enough information on quality standards and quantification that we can add to the list now?
- How can we create the right process for approving new BMPs or updates to existing BMPs?

Trading Eligibility

- CWA requires *point sources* to meet the more stringent of Technology-Based Effluent Limitations (TBELs) or Water Quality Based Effluent Limitations (WQGELs).
- Trading must avoid localized impacts
- Trades must be consistent with 40 CFR §131.12 (anti-degradation)
 - Cannot lower existing water quality
- Trades must be consistent with CWA §402(o) and 40 CFR §122.44(I) (anti-backsliding), and related state requirements.

Project Eligibility: Credit Baseline

- Trading Baseline is the threshold that must be met before selling credits.
- Credits are established by sources delivering additional pollutant reductions beyond a baseline level of reduction.
- Trading Baseline can have an effect on the trading program's viability.
 - Too high may make project costs too high and limit supply of credits
 - Too low may raise concerns regarding programs ability to achieve over-all water quality goals and penalize early implementers.

Credit Baseline: Sources

- For point sources baseline is defined by regulatory permit (e.g., NPDES, MS4) often TBELs and WQBELs.

Proposed Point Source Baseline for Framework update

| Seller Type | Baseline | Credit generating action | Timing | Source |
|------------------------|---------------------------------|--|-----------------------------|-------------------|
| Point source | Effluent limits in NPDES permit | Pollution reductions beyond permit effluent limits | Prior to generating credits | NPDES Permit |
| Hydroelectric facility | 401 license condition | Pollution reductions beyond license conditions | Prior to generating credits | 401 certification |

Credit Baseline: Nonpoint Sources

For nonpoint sources baseline can be derived from several sources:

- **Regulatory requirements:** Federal, state, tribal and local.
- **TMDL or other water quality obligations**
- **Trading program obligations**



Credit Baseline: Nonpoint Sources

Expressing baseline Requirements

| Source | Example | Considerations |
|---|--|--|
| Technology or practice-based Minimum set of BMPs | <i>State law requires riparian pastures to exclude animals from surface waters. Exclusion Fencing must be installed prior to generating credits.</i> | Seen as fair in that same level of effort is required. Environmental performance not guaranteed because of differing effectiveness. |
| Performance-based | <i>Agricultural operations must achieve an X% reduction consistent with the load allocation before trading can occur</i> | Provides flexibility in choice of BMPs TMDL must be detailed enough to derive thresholds for individual nonpoint sources |
| Standard contributions | <i>All projects to retire a percentage of all credits as part of trading</i> | Straightforward Likely to favor certain landowners and fail to reward early actors |

Credit Baseline: Nonpoint sources

- For Lower Boise River, TMDL provides Load Allocation for nonpoint sources
 - Difficult to establish individual landowner requirements based on allocation.
- TMDL acknowledges that it “may take decades” to achieve targets and therefore relies on a “staged implementation strategy” (section 5.5.1).

Proposed Nonpoint Source (on farm) Baseline for Framework update

| Baseline | Generating action | Timing | Source |
|---|---------------------------------------|-------------|---|
| Stage 1: 1. Complete conservation plan | All pre-approved BMPs | 2015-2025 | TMDL load allocation goals, state and local regulations |
| Stage 2: 1. Complete conservation plan 2. One BMP in area or field where credits are generated | All pre-approved BMPs | 2026 - 2035 | |
| Stage 3: 1. Complete conservation plan 2. BMPs to control surface runoff in the area or field where credits will be generated | BMPs that address groundwater loading | 2036-onward | |

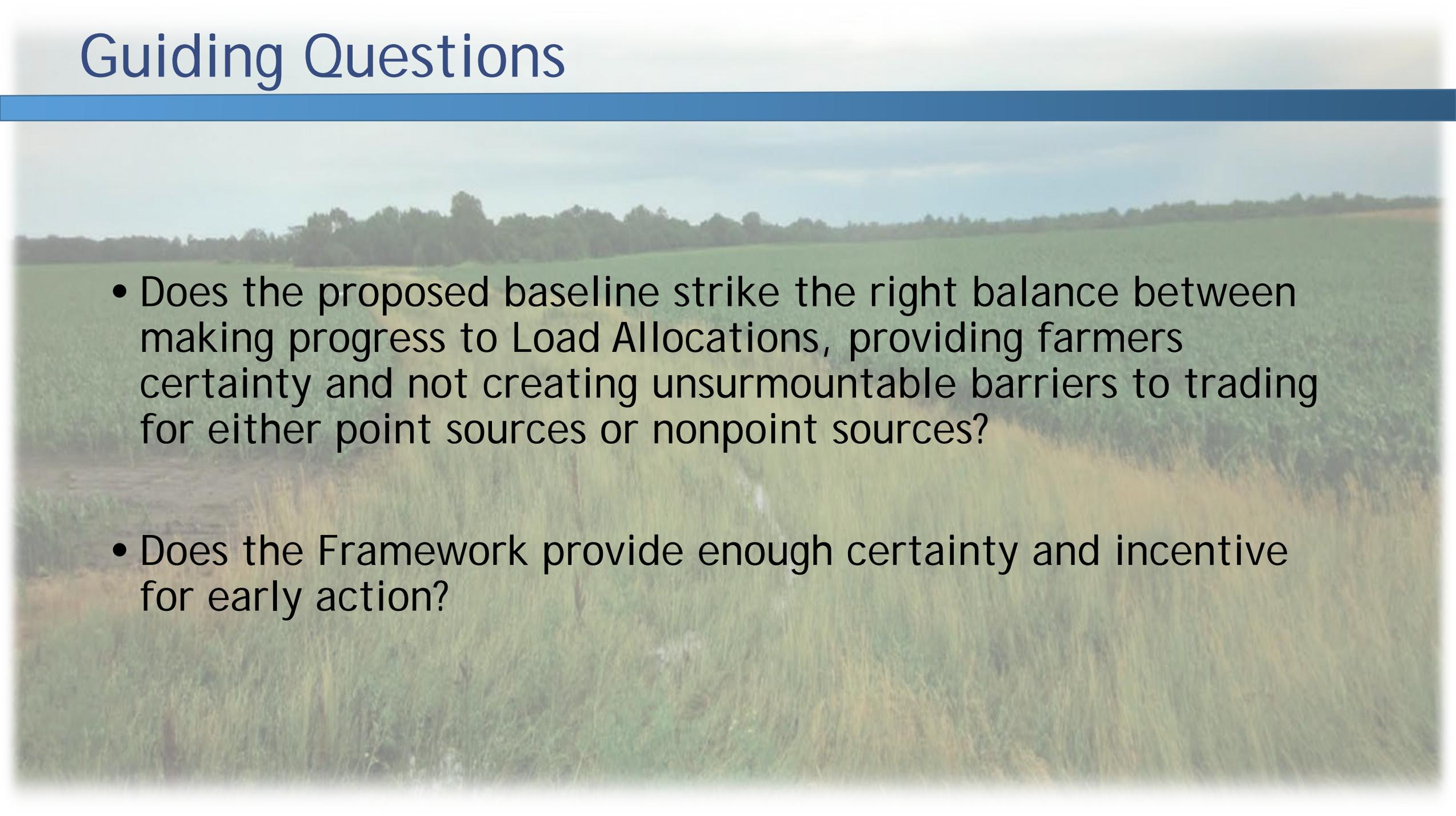
Credit Baseline: Nonpoint source

- Interest has been expressed by stakeholders in utilizing in-drain or in-stream treatment projects for which a BMP-based approach to baseline does not apply.

Proposed Nonpoint Source (in-drain) Baseline for Framework update

| Baseline | Generating action | Timing | Source |
|---|--|-------------|---|
| Stage 1: Develop and implement direct measurement plan to determine TP reductions. | All pollutant reductions | 2015-2025 | TMDL load allocation goals, state and local regulations |
| Stage 2: XX% of credits set aside based on ½ of load allocations | All pollutant reductions after baseline has been met | 2026 - 2035 | |
| Stage 3: YY% of credits set aside based on meeting load allocations | All pollutant reductions after baseline has been met | 2036-onward | |

Guiding Questions



- Does the proposed baseline strike the right balance between making progress to Load Allocations, providing farmers certainty and not creating unsurmountable barriers to trading for either point sources or nonpoint sources?
- Does the Framework provide enough certainty and incentive for early action?

Meeting Wrap-up and Action Items

- Summarize key recommendations or proposals
- Identify issues that required additional conversations/elevation to WAG
- Identify key action items and responsible parties



Next meeting

- March 28th 10am - 4pm

Items to discuss:

- Carry over items from March 1st meeting
- Update on action items
- Credit Quantification
- Trading Ratios

Thank You for Participating!

