Washington State Department of Agriculture

Washington State Conservation Commission

Department of Ecology State of Washington

January 11, 2013

The Honorable Christine Gregoire
Governor, State of Washington
Legislative Building
Olympia, WA 98504

RE: Three Directors' Progress Report

Dear Governor Gregoire:

This letter is intended to update you on our agencies' progress to improve water quality on agricultural lands. You have been steadfast in your commitment to clean drinking water for people, and clean water for fish, shellfish, recreation, and other uses essential to Washington's quality of life. You have also been firm in your belief that the resource objectives can be met while maintaining a "robust agricultural way of life." We share that commitment and believe our work through the "Three Directors Talks" has achieved some important gains and laid the groundwork for future progress.

As Directors, we agreed in late 2010 to meet and address the question of how to better achieve our state water quality objectives in the context of overlapping responsibilities on agricultural lands in the voluntary and regulatory contexts. In our work, the three Directors were later joined by the US Environmental Protection Agency (EPA) and the Natural Resources Conservation Service (NRCS) in these discussions.

The Directors took on the overall water quality challenge within the context of existing law and authorities. While the three agencies share common cause, we have at times conflicting missions and cultures. We also share the reality of constrained resources. Therefore, working better together in a coordinated fashion is imperative.

The Directors' work was focused on a specific set of pollutants (i.e., nutrients, sediment, bacteria) with the rationale that we need to take manageable steps toward restoring and protecting water quality. This means other challenging issues, notably temperature, remain before us.

We focused a substantial portion of our discussions on reaching a series of mutually accepted understandings. These understandings clarify:

- The relationship between water quality protection efforts and the broader natural resource conservation system.
- The nature and applicability of state water quality requirements to land owner activities.
- The nature of state policy as it applies to the initial preference for land owners to meet state water quality requirements without requiring regulatory action.
- What is meant by "voluntary and regulatory activities on agricultural lands" in the context of water quality improvement efforts.
- The roles and responsibilities of the Washington State Conservation Commission (Commission), Washington Department of Agriculture (WSDA), and Washington Department of Ecology (Ecology) within this voluntary-regulatory natural resource conservation system.
- The Directors' objectives for an improved joint implementation program of best management practices.

Relationship building among the three agencies also has been an important focus of the overall work. While there is considerable – and understandable – interest in our most recent recommendations (attached), a significant amount of agency collaboration occurred and continues to occur in real time on key efforts such as the Clean Samish Initiative and the Yakima Groundwater Management Area. In addition, specific accomplishments include the following:

- **More clarity around inspections:** To enhance transparency and consistency of inspection practices and follow-up actions, Ecology created an inspector "leave behind form" based on input from WSDA, WSCC, Skagit Conservation District, and other interests in the Samish basin. This work will help provide clarity and consistency to landowners, and address questions around practices that have the potential to pollute waterways.
- **Improved understanding of monitoring tools**: In conjunction with EPA, as well as other state agencies, we assessed the strengths and weaknesses of Microbial Source Tracking (MST) techniques. The review identified distinct limitations in MST's current effectiveness and showed it not to be cost effective overall. Although holding some future promise, the agencies have concluded that MST will not support improved source identification and understanding in the near to mid-term.
- **Better data coordination and strategic use of GIS mapping**: A cross-agency team has been tasked with better coordination and more strategic use of GIS mapping, data management, and data analysis to improve mapping capabilities and data management.

A scope of work is being refined to further delineate areas of the state with nitrate groundwater contamination and that are at high risk of nitrate contamination.

- **Improved understanding of water quality investments**: The Three Directors undertook an initial assessment of existing state and federal water quality grant, loan, cost share, and easement programs related to water quality and agriculture. An estimated $70 million is invested annually. The agencies believe that there is considerable room for coordination and collaboration for more targeted investment.
- **Improved coordination and implementation**: WSDA and Ecology updated the Memorandum of Understanding (MOU) our agencies have with regard to the dairy program. Improvements to the MOU took the form of quicker deadlines and improved communication to improve program coordination and performance.

Additional work articulated in the attached report describes important mutually agreed upon actions such as cross-training of our respective field staff with partners such as Conservation Districts and NRCS, and better tracking and assessment of the effectiveness of Best Management Practices (BMP) implementation.

A major focus of our efforts during 2012 has been to address significant gaps in the state's programmatic approach under existing state law to addressing water quality impacts from agricultural operations. The state's program has been substantially hindered by the lack of a commonly understood and accepted articulation of how state water quality law applies to agricultural operations.

A key challenge is a common understanding of what "on-the-ground" conditions constitute "active pollution" and/or a "substantial potential to pollute" and the actions needed to correct such conditions in order to meet state water quality law. This gap has led to mixed messages to agricultural operators regarding obligations under state law, tensions among state agency staff regarding expectations for needed agricultural operator water quality-related actions, difficulty in establishing an integrated sense of roles and responsibilities among the state's regulatory and voluntary efforts, and a resulting inefficient focus of state and federal resources geared to improving water quality conditions.

In response to these critical programmatic deficiencies, the Three Directors established two staff-level teams and charged them to establish mutual understanding as to:

- What conditions constitute substantial potential to pollute; and
- What practices and agency approaches can be used in responding to substantial potential to pollute conditions to drive more consistent outcomes and greater assurances that state water quality requirements are met.

Additionally, the Three Directors charged team members to examine opportunities for, and reach mutual understanding about, how best to improve effectiveness tracking and accountability across all agency programs with a relationship to water quality impacts from agricultural operations.

As the Directors of the lead state agencies with water quality as part of our purview, we believed it was critical to find out if technical and programmatic experts from our respective organizations could reach mutual understandings on these topics and to establish a platform from which to move these concepts forward. We took great care to assemble teams that drew on highly competent and experienced staff, knowing this work has the potential to establish a substantially improved basis for program and landowner activities to protect water quality.

Attached are draft recommendations prepared by these teams for consideration by the Directors. These recommendations encompass the mutual agreement that was achieved by the staff of all three agencies. We believe this body of work meets our objective to establish among our agencies the initial understanding of how these decades-old challenges could be addressed. We recognize, however, that this body of work now requires a thorough and considered vetting with stakeholders and technical experts outside of our agencies. To that end, we have held the Teams 1 and 2 BMP Implementation Recommendations in their current draft form and recommend the Commission, Ecology, and WSDA initiate the following actions at the earliest possible date.

1. Team 2 should remain active during 2013 and be specifically charged to further develop the Team 2 draft recommendations. As part of these efforts, Team 2 should establish a stakeholder consultation process to further vet, in a systematic and transparent manner, the current Team 2 draft recommendations and use this input to complete effective recommendations.
2. The Commission, Ecology, and WSDA should structure and convene a technical workgroup charged to build upon the Team 1 body of work. That work included the practical articulation of substantial potential to pollute, identifying effective foundational water quality BMPs to address such conditions, and a start on developing the means to evaluate site and pollution conditions to support consistent, predictable outcomes. This technical workgroup effort should include a systematic and transparent stakeholder consultation process and be conducted in a formal manner to ensure thorough consideration of science and technical input. This group should complete its work by June 30, 2013.
3. The Commission, Ecology, and WSDA should move forward with efforts to cross train all field staff that support improved water quality outcomes associated with agricultural operations. The timing for cross training should coincide with the availability of technical products emerging from the technical workgroup process recommended under item 2 above.

4. We at Ecology and WSDA recognize the need for continued and better use of our current water quality enforcement authority, understanding that improvements in compliance practices may be identified and included in future draft recommendations.

Our work is far from complete and changes in actual water quality outcomes will take time. However, we believe our agencies have made significant gains that are foundational to improving water quality while maintaining viable agricultural activity. Both clean water and agricultural activities are important to this state; we can and should have both.

Sincerely,

Dan Newhouse	Mark Clark	Ted Sturdevant
Executive Director	Executive Director	Executive Director

cc: Keith Phillips, Governor's Executive Policy Office

3DT BMP Implementation Approach

Teams 1 and 2 Recommendations to the Directors

DRAFT: 01-11-13(V1)

Prepared by Teams 1 and 2 participants for consideration by the Three Directors to support improvements to voluntary and regulatory activities in support of agricultural water quality BMP Implementation.

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3DT BMP Implementation Approach

Teams 1 and 2 Recommendations to the Directors

DRAFT: 01-11-13(V1)

Executive Summary

The Conservation Commission (Commission), the Department of Agriculture (WSDA), and the Department of Ecology (Ecology) Directors (the 3DT), along with US Environmental Protection Agency's (EPA) Region 10 Director and the Natural Resources Conservation Service (NRCS) State Conservationist have been regularly meeting to identify responsibilities and relationships for implementing voluntary and regulatory activities on agricultural lands to achieve state water quality standards. These meetings have focused on achieving efficiency and effectiveness recommendations that provide greater clarity to stakeholders and agency staff on protocols, policies, programs, and obligations under Washington State water quality law. The primary objective has been to establish greater clarity among the Commission, Ecology, and WSDA as to respective roles, responsibilities, and expectations under existing law to provide for a more integrated system that is also more transparent and accountable.

This effort has been needed because the agencies carry out their responsibilities within a complex and challenging context:

- The state faces a challenge to meet Federal and State Clean Water Act water quality responsibilities, with a failure to meet Water Quality Standards in several geographic regions, as well as substantial pressures on a variety of endangered species;
- Water quality data and studies in Washington State mirror national reports indicating that pollution from agricultural lands can impair water bodies in some areas, impacting resources dependent on clean water;
- Non-point sources of water pollution associated with agricultural lands are highly diverse and diffuse, requiring local tailoring of management actions and creating substantial difficulties for identifying sources and tracking and ensuring progress, while there is a need to establish an effective basis for delivering consistent, predictable outcomes in response to polluting conditions;
- Finding resources to fully fund the programs that carry out water quality regulatory work, including the Dairy Nutrient Management Program and the non-dairy agricultural inspections has been difficult; and
- Coordination among Federal, State, and Local agencies charged with managing water quality impacts from agricultural lands has not been systematic or consistent in several regions of the state.

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In September 2012, the 3DT launched a joint agency process for addressing critical programmatic areas including better defining substantial potential to pollute, better articulating state water quality BMPs, establishing greater clarity and consistency for the roles and responsibilities of state and federal staff involved in local water quality improvement efforts, and enhancing the system of BMP implementation tracking. After careful consideration and while fully recognizing other significant water quality-related concerns exist (e.g., temperature and habitat impacts), the Directors specifically scoped this process to explore improvement opportunities within the context of *existing state law and deliberately focused on conventional pollutants (sediments, nutrients, and bacteria) associated with all agricultural operations in the state (dairy, livestock grazing, crop production, etc.).* The Directors established two teams to address these programmatic areas.

- Team 1 addressed preparing a practical definition of substantial potential to pollute and establishing clearer guidance for Washington State water quality BMPs. In response to the time constrained schedule, the scope of work for this team was narrowed to cover existing NRCS practices for manure application and riparian management associated with livestock operations. The core team consisted of Commission, WSDA, and Ecology staff specifically assembled based on their technical expertise and implementation experience with identifying agricultural polluting conditions and prescribing BMPs in response. Federal agencies, other state agencies, the Conservation Districts (CDs), and Tribes were also invited to designate technical advisors to further supplement the technical expertise of the core team. The Technical Advisory Group that formed in response to this invitation provided input to Team 1 on three separate occasions.
- Team 2 focused on local land owner engagement implementation activities conducted by CDs, WSDA, Ecology, NRCS, and EPA and addressed four programmatic areas: watershed strategy and local coordination; joint training; BMP implementation tracking; and on-going staff feedback. The team was comprised staff from the Commission, WSDA, Ecology, NRCS, and EPA specifically assembled based on their policy and programmatic expertise related to federal and state agricultural water quality policy, regulations, and programmatic initiatives.

The staff teams mutually adopted the eleven recommendations presented below.

- Team 1, Recommendation 1: Adopt, as mutually recognized by the Commission, Ecology, and WSDA, the Team 1 "Factors to Consider When Making Substantial Potential to Pollute and Active Pollution Determinations" and integrate them into guidance and training materials.
- Team 1, Recommendation 2: Create visual examples for communicating and informing substantial potential to pollute and active pollution determinations.
- Team 1, Recommendation 3: For purposes of providing clarity to all field staff and predictability to landowners regarding actions necessary to protect water quality (and thereby comply with state water quality requirements for sediment, nutrients and bacteria), the state should utilize a set of agreed to generally recognized as effective, foundational water quality BMPs. These generally recognized as effective practices ensure that active pollution or substantial potential to pollute conditions are corrected when installed and maintained properly. These

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foundational water quality BMPs require additional specificity and supporting practices to be identified. This should provide increased certainty to the landowner and ensure that active pollution or substantial potential to pollute conditions are corrected.

- Team 1, Recommendation 4: Establish a collaborative process between technical staff from the Commission, Ecology, WSDA, CDs, and NRCS to further develop the foundational water quality BMPs that are generally recognized as effective.
- Team 2, Recommendation 1: Ensure the continuity of 3/5DT implementation activities into 2013 and improve overall state-wide coordination of the regulatory and voluntary agricultural water quality improvement systems.
- Team 2, Recommendation 2: Build out a model watershed-scale assessment, characterization, and strategic adaptive management framework to improve existing and better enable future watershed improvement initiatives.
- Team2, Recommendation 3: Encourage an annual cycle of watershed-scale coordination among local field staff.
- Team 2, Recommendation 4: Establish a clear procedural framework and expectations for land-owner scale active pollution and substantial potential to pollute determinations and response actions.
- Team 2, Recommendation 5: Establish standard data definitions and reporting formats for a minimum core of BMP, site-specific implementation-related data.
- Team 2, Recommendation 6: Implement field staff cross training based on Team 1 substantial potential to pollute and water quality BMP recommendations and Team 2 operating procedure recommendations.
- Team 2, Recommendation 7: Establish mechanisms to gather staff-to-staff interactions feedback and staff-to-landowner interactions feedback.

The main body of this report provides substantially greater detail related to each of these recommendations, including driving greater clarity into the basis for making substantial potential to pollute determinations associated with agricultural operations and the BMP responses needed to protect water quality in Washington State (Team 1 recommendations). These two, fundamental building blocks for protecting water quality are further supported by the programmatic and procedural recommendations made by Team 2.

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3DT BMP Implementation Approach

Teams 1 and 2 Recommendations to the Directors

DRAFT: 01-11-13(V1)

Background

The Conservation Commission (Commission), the Department of Agriculture (WSDA), and the Department of Ecology (Ecology) Directors (the 3DT), along with US Environmental Protection Agency's (EPA) Region 10 Director and the Natural Resources Conservation Service (NRCS) State Conservationist have been regularly meeting to identify responsibilities and relationships for implementing voluntary and regulatory activities on agricultural lands to achieve state water quality standards. These meetings have focused on achieving efficiency and effectiveness recommendations that provide greater clarity to stakeholders and agency staff on protocols, policies, programs, and obligations under Washington State water quality law. The primary objective has been to establish greater clarity among the Commission, Ecology, and WSDA as to respective roles, responsibilities, and expectations under existing law to provide for a more integrated system that is also more transparent and accountable.

The Directors focused a substantial portion of their 2012 discussions on reaching a series of mutually accepted understandings regarding responsibilities and relationships for implementing voluntary and regulatory activities on agricultural lands. These understandings clarify:

- The relationship between water quality protection efforts and the broader natural resource conservation system.
- The nature and applicability of state water quality requirements to land owner activities.
- The nature of state policy as it applies to the initial preference for land owners to meet state water quality requirements without requiring regulatory action.
- What is meant by "voluntary and regulatory activities on agricultural lands" in the context of water quality improvement efforts.
- The basic roles and responsibilities of the Commission, WSDA, and Ecology within this voluntary-regulatory natural resource conservation system.
- The Directors' objectives for an improved Best Management Practices (BMP) implementation program approach.

This work is needed because the agencies carry out their responsibilities within a complex and challenging context:

- The state continues to face challenges in meeting Federal and State Clean Water Act water quality responsibilities. Currently there exists a failure to meet Water Quality Standards in several geographic regions. These failures create substantial pressures on a variety of endangered species;

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- Water quality data and studies in Washington State mirror national reports indicating that pollution from agricultural lands can impair water bodies in some areas, impacting resources dependent on clean water;
- Non-point sources of water pollution associated with agricultural lands are highly diverse and diffuse, requiring local tailoring of management actions and creating substantial difficulties for identifying sources and tracking and ensuring progress, while there is a need to establish an effective basis for delivering consistent, predictable outcomes in response to polluting conditions;
- Finding resources to fully fund the programs that carry out water quality regulatory work, including the Dairy Nutrient Management Program and the non-dairy agricultural inspections has been difficult; and
- Coordination among Federal, State, and Local agencies charged with managing water quality impacts from agricultural lands has not been systematic or consistent in several regions of the state.

In September 2012, the 3DT launched a joint agency process for addressing critical programmatic areas including better defining substantial potential to pollute, better articulating state water quality BMPs, establishing greater clarity and consistency for the roles and responsibilities of state and federal staff involved in local water quality improvement efforts, and enhancing the system of BMP implementation tracking. After careful consideration and while fully recognizing other significant water quality-related concerns exist (e.g., temperature and habitat impacts), the Directors specifically scoped this process to explore improvement opportunities within the context of *existing state law and deliberately focused on conventional pollutants (sediments, nutrients, and bacteria) associated with all agricultural operations in the state (dairy, livestock grazing, crop production, etc.).* The Directors established two teams to address these programmatic areas.

- Team 1 addressed preparing a practical definition of substantial potential to pollute and establishing clearer guidance for Washington State water quality BMPs. In response to the time constrained schedule, the scope of work for this team was narrowed to cover existing NRCS practices for manure application and riparian management associated with livestock operations. The core team consisted of Commission, WSDA, and Ecology staff specifically assembled based on their technical expertise and implementation experience with identifying agricultural polluting conditions and prescribing BMPs in response. Federal agencies, other state agencies, the Conservation Districts (CDs), and Tribes were also invited to designate technical advisors to further supplement the technical expertise of the core team. The Technical Advisory Group that formed in response to this invitation provided input to Team 1 on three separate occasions.
- Team 2 focused on local land owner engagement implementation activities conducted by CDs, WSDA, Ecology, NRCS, and EPA and addressed four programmatic areas: watershed strategy and local coordination; joint training; BMP implementation tracking; and on-going staff feedback. The team was comprised of staff from the Commission, WSDA, Ecology, NRCS, and

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EPA specifically assembled based on their policy and programmatic expertise related to federal and state agricultural water quality policy, regulations, and programmatic initiatives.

Presented below are the recommendations prepared by Team 1 and Team 2 core participants on a mutually agreed to basis.

Team 1 Recommendations

The Directors charged Team 1 to address two topics: practical definition of substantial potential to pollute; and clearer design specifications for agricultural water quality BMPs for purposes of meeting compliance with state water quality requirements. Within this context, Team 1 participants established the following understandings to provide the foundation for their recommendations.

- Consistent with state water quality law, the site-specific substantial potential to pollute and active pollution determinations are made independent of the amount and duration of polluting activity and of ambient water quality conditions. Substantial potential to pollute is created by site-specific conditions that allow polluting material (in this case, given the scope of the Team 1 efforts, sediment, pathogens, or nutrients) to move into waters of the state, and these conditions require correction to achieve compliance with state water quality law. Conditions informing this determination include evidence of past pollution, presence of a source of pollution, proximity to waters of the state, pathways or practices that move pollution into waters of the state, or inadequate best management practices to stop the movement of pollution to waters of the state.
- The response to substantial potential to pollute conditions is informed by a variety of factors such as the severity of conditions observed. As a practical matter, the type, timing, scope, and intensity of the site-specific control response will differ depending on the conditions observed and the potential of those conditions to degrade water quality.
- Land owner motivation is critical to the successful implementation, maintenance, and on-going effectiveness of all BMPs, including those used to respond to water quality obligations. In this context, efforts to educate land owners about water quality problems, engage land owners in water quality problem solving, and align BMP recommendations with overall land owner resource objectives are important to supporting water quality improvement.
- Team 1 participants discussed the reality that their scope of work addressed a relatively narrow set of opportunities for improvement within the context of an overall BMP implementation system where additional opportunities for improvement reside. These additional opportunity areas are important to achieving more substantial water quality improvements, related equally to the regulatory and voluntary systems, and include the following.
    - The voluntary conservation planning process yields good alternatives for addressing water quality concerns, but landowners choose not to implement them.
    - Incomplete joint understanding between field staff participants in the regulatory and voluntary systems of each others' roles, responsibilities, expectations, and obligations

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hinders more effectively leveraging the strengths of the two systems and enabling them to operate in a more seamless manner and deliver consistent messages and recommendations regarding water quality concerns.

- Inadequate attention is given to preparing and implementing a strategic approach within sub-watersheds to target enough agricultural operations to make a difference in water quality. Even if effective planning takes place at the land owner scale, water quality problems need to be addressed throughout a larger (sub-watershed) area to be successful.
- Ongoing maintenance and monitoring of NRCS practices has not, in the past, been funded. Monitoring is not only important for assurance, but also greatly aids in the training process for planners.
- Adaptive management is needed when environmental objectives are not being met even after installation of BMPs.

Team 1, Recommendation 1: Adopt, as mutually recognized by the Commission, Ecology, and WSDA, the Team 1 "Factors to Consider When Making Substantial Potential to Pollute and Active Pollution Determinations" and integrate them into guidance and training materials.

Attachment A provides general considerations and a set of specific factors that Team 1 participants recommend for use when making active pollution and substantial potential to pollute determinations. Team I participants further recommend that the material in Attachment A be refined into a fact sheet to be co-released by the Commission, Ecology, and WSDA, used in the context of field staff training materials (such as a guide), and used to update current active pollution and substantial potential to pollute determination materials as necessary to ensure consistency. **Attachment B** provides an example of how the factors in Attachment A can be combined in a manure application context to provide an indication of substantial potential to pollute conditions that might exist in any given site specific context.

Team 1, Recommendation 2: Create visual examples for communicating and informing substantial potential to pollute and active pollution determinations.

Attachment C provides 14 photographs that Team 1 participants have used to reach mutual agreement on their understanding of the types of site-specific conditions that can constitute active pollution and substantial potential to pollute in livestock operations and manure applications. Twelve of the photographs provide examples of what likely constitute substantial potential to pollute conditions, while two photographs (numbers 13 and 14) depict conditions that either likely do not constitute substantial potential to pollute or would require additional information to make such a determination. Each photograph has listed the "key basis" for making (or not) the substantial potential to pollute determination, and the items listed as the basis relate back to factors contained in the Attachment A document.

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Team I participants recommend that these photographs be used as the starting point for the preparation of substantial potential to pollute and active pollution guidance and training materials to be co-released by the Commission, Ecology, and WSDA. Team 1 participants believe that using pictures, checklists, and inspection reports to identify active pollution and substantial potential to pollute conditions will be useful for training and educational/outreach purposes. Such pictures and checklists along with discussions would also provide clarification and consistency in identifying active pollution and substantial potential to pollute conditions.

Although the attached photographs begin to provide written text indicating the nature of the pollution conditions depicted, Team 1 participants believe further fleshing out of these descriptions will be helpful and believe additional photographs, including those depicting well managed operating conditions, are necessary to provide a more complete characterization for field staff and land owners. Additional, or further refined, information to include with each photograph includes the following.

- A specific statement of the nature of the substantial potential to pollute depicted (e.g., active pollution requiring immediate control).
- A listing of the most relevant considerations and factors leading to the substantial potential to pollute determination (specifically drawn from the materials in Attachment A). For example, manure can be seen as present in or near surface water.
- In the event that the photograph deliberately presents an ambiguous indication of active pollution or substantial potential to pollute (see pictures 13 and 14), a list of questions (based on the Attachment A considerations and factors) for field staff to ask should be presented for making an effective determination. These questions could serve as the basis of an interactive training session helping field staff to develop a more nuanced understanding of substantial potential to pollute conditions and the use of the considerations and factors provided in Attachment A.

Team 1, Recommendation 3: For purposes of providing clarity to all field staff and predictability to landowners regarding actions necessary to protect water quality (and thereby comply with state water quality requirements for sediment, nutrients and bacteria), the state should utilize a set of agreed to generally recognized as effective, foundational water quality BMPs. These generally recognized as effective practices ensure that active pollution or substantial potential to pollute conditions are corrected when installed and maintained properly. These foundational water quality BMPs require additional specificity and supporting practices to be identified. This should provide increased certainty to the landowner and ensure that active pollution or substantial potential to pollute conditions are corrected.

Team 1, based on review of NRCS practices in Washington State and technical literature regarding BMP effectiveness, has identified the following practices, *generally recognized as effective,* from the online NRCS Field Office Technical Guide (eFOTG) as foundational water quality BMPs (water quality BMPs) in the state of Washington.

- For livestock riparian protection purposes:
    - 391 Riparian Forest Buffer
    - 382 Fence
    - 614 Watering Facility

These *foundational water quality BMPs* for livestock riparian protection that are *generally recognized as effective* are built around the Riparian Forest Buffer used as the primary means to act as a barrier to reduce delivery of sediments, pathogens, and nutrients to waters of the state. The Fence and off-stream Watering Facility are needed to support the permanent exclusion of animals from surface waters and the riparian buffer zone.

- For manure application purposes:
    - 590 Nutrient Management (Utilizing P Index Rating)
    - 393 Filter Strip (Utilizing RUSLE2)
    - 449 Irrigation Water Management

These *foundational water quality BMPs* for manure application that are *generally recognized as effective*, work as a system to reduce delivery of pollutants to surface and ground waters of the state. The primary practice is to develop a nutrient budget for each field that specifies source, rate, timing, and application method for each field (Nutrient Management). Surface water is protected through a barrier (Filter Strip), and groundwater is further protected through developing a crop water use monitoring system that will allow irrigations to meet crop needs without moving contaminants beyond cropping system effective rooting zone(s) (Irrigation Water Management). To ensure that the water quality protectiveness of the Filter Strip is maintained, livestock grazing within the strip would not be allowed.

Further, Team 1 recognizes that the *foundational water quality BMPs* that are *generally recognized as effective* need additional criteria to ensure that active pollution or substantial potential to pollute conditions are corrected. In response, as included in Team 1 Recommendation 4 below, Team 1 participants believe a collaborative process with CD and NRCS field staff for identifying the additional criteria and specificity is needed.

Additionally, these six water quality BMPs are the starting point for correcting active pollution or substantial potential to pollute conditions. Team 1 recognizes that the eFOTG contains an array of additional practices (supporting practices—e.g., heavy use area protection and waste storage facility siting and design) that may be needed in conjunction with the *foundational water quality BMPs* to protect water quality depending on site specific conditions. Again, in Recommendation 4 below, Team 1 participants propose a collaborative process with CD and NRCS field staff to identify the supporting practices and appropriate additional criteria.

Finally, Team 1 expects that the *foundational water quality BMPs* that are *generally recognized as effective* will be used by a landowner when a site-specific substantial potential to pollute or active

pollution regulatory determination is made. However, Team 1 also understands the eFOTG contains an array of additional practices that can protect water quality. Therefore, Team 1 recognizes the need for the landowner to have a process for proposing alternative BMPs at a landowner scale when operating within a regulatory context. The criteria which the regulatory agencies will use to evaluate alternative BMPs when proposed by landowners to address site specific conditions is needed and is also captured in Team 1, Recommendation 4.

Team 1, Recommendation 4: Establish a collaborative process between technical staff from the Commission, Ecology, WSDA, CDs, and NRCS to further develop the foundational water quality BMPs that are generally recognized as effective.

This recommendation reflects several needs of and interests expressed by Team 1 participants.

- Team 1 participants recognize that agricultural operations benefit from a "resource management system" review by CD and NRCS technical service providers and that water quality BMPs that fit with and nest within an overall land owner resource management plan have stronger potential for land owner implementation and maintenance attentiveness. This leads to Team 1 support for a water quality BMP approach anchored by systems of BMPs *that are generally recognized as effective* and providing the flexibility to utilize alternative approaches.
- Team 1 participants, while supportive of the resource management system approach, believe it must be communicated to land owners that, when substantial potential to pollute conditions are identified, correction of these conditions must be a priority under any natural resource management plan they adopt.
- Team 1 participants want to make clear that, while land owners have an obligation under state law to correct substantial potential to pollute conditions, the ground rules for recommending control responses differ between the compliance assurance system (operated by WSDA and Ecology) and the natural resource technical assistance system (operated by CDs and NRCS). Under CD and NRCS technical assistance, recommendations are made for implementation on a strictly voluntary basis, and when these recommendations do not derive from a compliance assurance referral, they are not subject to review or approval by WSDA or Ecology. Ecology and WSDA recognize that conservation districts can serve neither as agents for regulatory agencies nor shields to protect landowners and operators from their obligations to protect water quality. While technical assistance recommendations made to landowners for voluntary implementation are not regulatory or mandatory, the recommendations should fully address substantial potential to pollute or active pollution conditions and provide the landowner the opportunity to proactively comply (within RMS planning) with state water quality requirements by providing clarity regarding Ecology and WSDA expectations for the use of the generally recognized as effective, foundational water quality BMPs. When landowners are operating under a compliance assurance referral, it is their responsibility to demonstrate compliance with water quality law. Technical assistance providers would support the option to use *foundational water quality BMPs* with supporting practices to address identified substantial potential to

pollute conditions. Any use of alternative BMPs proposed for use by the land owner would be subject to WSDA or Ecology review and approval if compliance with state water quality requirements is to be met.

The proposed collaborative process would be used to:

- Create implementation guidance (e.g., additional numeric criteria for extending the Riparian Forest Buffer beyond the minimum required 35 feet, site-specific characteristics to further specify when Filter Strips will be extended) in addition to that currently available in NRCS Practice Standards and associated specifications, jobsheets, technical notes, and guidance to better ensure proper installation and maintenance of the *water quality BMPs.*
- Identify additional supporting practices to be applied based on site-specific conditions and operations recognizing that such supporting practices are needed to support the *identified water quality BMPs* and can help assure implementation would result in compliance with state water quality requirements.
- Identify the process under the regulatory referral context that land owners can use to recommend for approval by WSDA or Ecology alternative BMPs at a site-specific scale. Discussions will address how alternative BMPs will be considered and evaluated to demonstrate compliance with state water quality requirements. This alternatives process may be utilized in cases when CD and NRCS field staff, or other technical assistance provider employed by a land owner, are working with a land owner in a regulatory referral context (e.g., compliance assurance activities have identified site-specific substantial potential to pollute conditions and a CD or NRCS have accepted a referral from WSDA or Ecology). In these situations, CD or NRCS field staff would be expected to provide clarity to a land owner regarding the role played by the relevant *generally recognized as effective, foundational water quality BMPs* in achieving compliance with state water quality requirements as administered by Ecology and WSDA. . If the landowner prefers an alternative approach, CD or NRCS field staff can inform the land owner about the process land owners can use to gain approval through an equivalency analysis from WSDA or Ecology. Discussions related to this process would include exploration of a site review screening tool for use by field staff that could support consistent, predictable, and transparent outcomes for BMP practice recommendations.

Team 2 Recommendations

Team 2, Recommendation 1: Ensure the continuity of 3/5DT implementation activities into 2013 and improve overall state-wide coordination of the regulatory and voluntary agricultural water quality improvement systems.

Team 2, as part of working through its charge to consider watershed assessment and characterization processes, identified the potential need for a state-level forum to coordinate federal and state natural

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resource protection and enhancement activities. Team 2 participants further identified the need to "transition proof" the 3DT recommendations and related implementation activities. These findings generated three specific recommendations related to state-wide coordination.

State-Wide Coordination Recommendation 1: Maintain Team 2 through, at least, March of 2013. The 3/5DT has covered substantial ground during 2011 and 2012 and has generated momentum for an improved agricultural water quality system in the state. Maintaining Team 2 into 2013 will provide an important baseline of continuity for the 3recommendations and related implementation activities. In this role, Team 2 will meet monthly to review implementation status and prepare a status report, with recommendations as needed, to the five agency directors. Team 2 also will hold further discussions in support of the emergent Team 2, Recommendations 2 and 7, with the intent of providing final recommendations to the Commission, Ecology, and WSDA Directors by April 30, 2013.

State-Wide Coordination Recommendation 2: Convene a 5DT meeting during first quarter of 2013. In further support of continuity, Team 2 recommends that the Executive Director of the Washington State Conservation Commission make arrangements for this 5DT meeting to brief any new directors on the objectives and recommendations of the 2011 – 2012 5DT discussions, as well as conduct a status assessment of implementation actions. Any need for further 3/5DT meetings would be determined at that time. To ensure an effective transition to any successor directors, the current five directors will prepare a briefing note prior to January 15th describing their key objectives and expectations for BMP implementation activities in 2013.

State-Wide Coordination Recommendation 3: Commit to holding a State and Federal Program Manager level annual coordination meeting. This recommendation for establishing an annual meeting grows out of Team 2 participants' belief that additional, state-level coordination between federal and state agencies involved in natural resource protection and enhancement activities could improve the state's capability to effectively coordinate activities and adapt priorities and practice as conditions evolve. This annual meeting would seek to promote coordination between agencies, facilitate data exchange, and spur discussion about specific issues of statewide concern. The Commission, in its role compiling, presenting, and sharing BMP implementation tracking data, would organize this meeting and use the implementation tracking data to inform discussions. At minimum, the annual meeting agenda would address:

- Anticipated state-wide compliance assurance activities (e.g., number, type, location, as well as a sense of the potential level of referral activity) and anticipated voluntary technical assistance activities to inform coordination between the regulatory and voluntary agricultural water quality improvement systems;
- A review of BMP implementation progress and discussion regarding opportunities for improvement;
- A review of available water quality condition data to inform individual agency priorities and support collaboration where desirable; and

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- At the first annual meeting, an explicit review of the value generated by the meeting, suggestions for improvements to future meetings, and the desirability of maintaining the annual meeting commitment. The results of this discussion will be forwarded to the three directors for their consideration and explicit decision as to how or whether to continue with annual coordination meetings.

This annual meeting approach could also act as a first step to the creation of a more formal forum for coordination among agencies if annual meeting participants gain a better understanding of the potential purpose, need for, and appropriate scope of such a body. Team 2 discussions indicated that such a forum could be framed around the following attributes.

- The forum would have balanced participation allowing for "full mission representation" by participating organizations.
- The forum would have both technical and policy components.
- The forum would draw on the findings of the GIS/Mapping team to establish an on-going, integrated state capacity to monitor conditions, characterize problems, and indicate priority areas for engagement. The forum would also support field oriented technical staff discussions for identifying and addressing evolving on-the-ground issues.
- Forum participants could include: USGS, DOH, DFW, Commission, Ecology, WSDA, EPA, NRCS, NMFS, DNR, and as appropriate RCO, PSP, and individual counties.
- The forum would require sufficient staff and administrative support to be successful.
- Coordination opportunities that could be realized through the forum could include the following:
    - Coordinate agricultural natural resource assessment activity;
    - Coordinate agricultural natural resource assessment implementation activity;
    - Exchange information on BMP effectiveness, water quality ambient monitoring, and overall progress in watersheds in support of adaptive management capability; and
    - Encourage and incubate local watershed assessment and management teams.

Team 2, Recommendation 2: Build out a model watershed-scale assessment, characterization, and strategic adaptive management framework to improve existing and better enable future watershed improvement initiatives.

As depicted in Figure 1, Team 2 has prepared a model watershed-scale assessment, characterization, and adaptive management strategy framework. Team 2 recognizes that a variety of watershed scale assessment, characterization, and resource improvement efforts are underway in the state at any time, some of which do or can take place in the absence of formal regulatory agency initiatives such as TMDLs, Groundwater Management Area Planning, Pollution Identification and Correction Programs, and local shellfish districts. The purpose of this model is to provide a starting point for further Team 2 discussions to build out an example of a transparent, inclusive process to support watershed improvement initiatives when and where formal watershed-scale regulatory initiatives are absent that can:

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- Leverage the state's voluntary technical assistance resources to encourage proactive land owner resource improvement actions and investments, including those required to meet site-specific compliance obligations under Federal and State water quality laws;
- Shorten the timeliness for land owner resource improvement actions with lower dependence on up-front, intensive watershed scientific assessment and characterization;
- Communicate clearly to watershed participants the basic elements of effective watershed assessment, characterization, and improvement initiatives;
- Stress the need for meeting site- and watershed-level compliance obligations and providing a clear indication of the progression watershed participants can anticipate when resource concerns remain insufficiently addressed; and
- Establish the understanding that site-level compliance assurance and assistance activities by WSDA, Ecology, and other state and federal regulatory bodies will and can take place on an on-going basis in any watershed assessment, characterization, and improvement context.

The cornerstone of this model framework is an adaptive management component that is based on ambient water quality monitoring, BMP effectiveness monitoring, and BMP implementation tracking which can expand scientific understanding and improve implementation strategy over time. The framework reflects a four-level process that initially emphasizes use of the state's voluntary land owner technical assistance system and escalates use of the state's regulatory system in response to a lack of progress in achieving water quality improvements. The four levels are:

- Level 1: Watershed Assessment and Characterization
- Level 2: Watershed Improvement Team Established and Promotion of Proactive Water Quality BMP Adoption through Voluntary Technical Assistance
- Level 3: Escalated Regulatory Presence (if Level 2 actions fail to address concerns)
- Level 4: Watershed Wide Regulatory Action (if Level 3 actions fail to address concerns)

Importantly, this framework never precludes site-specific compliance assurance activities (e.g., Dairy Program inspection and compliance, and compliance activities related to water quality standards and state and federal water quality law) in a watershed and taking immediate regulatory action to correct active pollution or substantial potential to pollute conditions. Moreover, the framework operates with the understanding that Federal and State regulatory agencies retain their existing, full statutory authority to decide on the type, timing, and nature of needed watershed improvement initiatives when compliance with Federal or State Law is needed. The framework also supports immediately moving past Level 2 actions to Level 3 or Level 4 if water quality or other resource conditions dictate a more urgent or intensive response.

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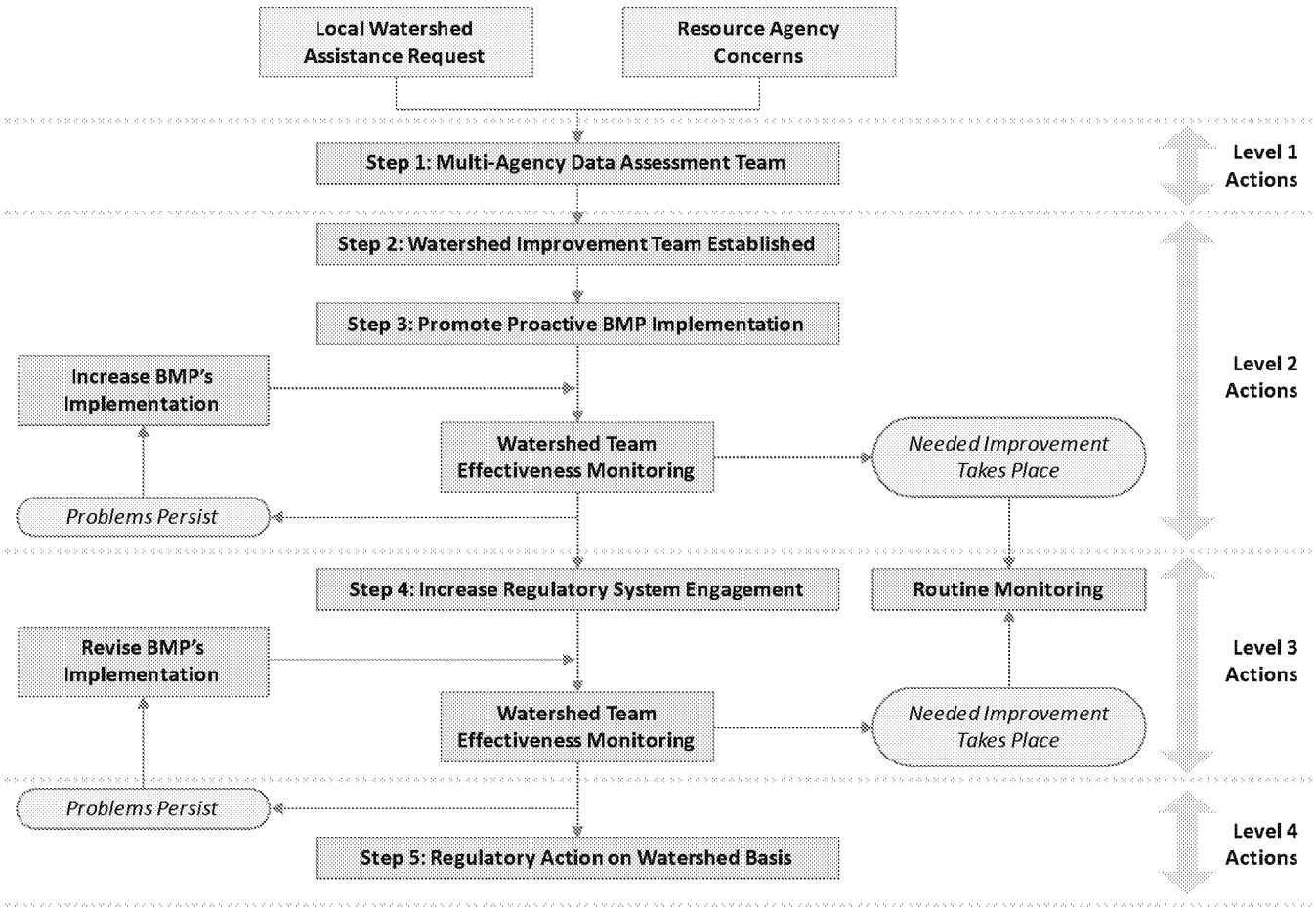
Figure 1: Example Watershed-Scale Model Water Quality Improvement Framework



Under this framework, a local watershed assistance request or resource agency concern may trigger the formation (see Step 1) of a Multi-Agency Data Assessment Team (subject to and consistent with capacity and resource availability). Participation in the Assessment Team would be responsive to the nature of the resource concern and could involve the Commission, Ecology, WSDA, DOH, DNR, DFW, EPA, NMFS, or others. The Assessment Team would:

- Collect all available data related to relevant watershed concerns (e.g., data from WSDA and Ecology inspections and studies, TMDL data, water quality assessments, shellfish protection program plans/data, salmon recovery plans, habitat restoration plans, NRCS state resource assessments, Ground Water Management Area plans and data, PIC programs data and plans);
- Identify the assessment scope (e.g., river segments to be addressed);
- Identify the causes and sources of water pollution in the assessment area (provide an initial assessment of the magnitude of problems and associated sources); and
- Provide recommendations for the formation of a Watershed Improvement Team (if deemed needed).

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A finding of resource impairment or prospective impairment results in the formation of a Watershed Improvement Team (see Step 2). This Improvement Team would:

- Assemble a stakeholder working group to evaluate applicability of BMPs (using the *foundational BMPs generally recognized as effective* along with any needed supporting practices when water quality is a priority resource concern);
- Compile descriptions of technical and financial assistance availability;
- Develop an information and education capability utilizing outreach materials and conducting initial watershed level education;
- Describe and recommend initial high priority land areas for BMP implementation; and
- Establish BMP implementation tracking, BMP effectiveness monitoring, and ambient water quality monitoring protocols to assess BMP implementation performance and effects (with any ambient water quality monitoring performed according to an Ecology-approved QAPP, with data entered into Ecology's EIM system).

In cases where the watershed assessment process was driven by a local watershed assistance request, an initial preference would be given to incubating and chartering a water quality focused Local Implementation Entity using a Coordinate Resource Management (CRM) process to prepare a watershed water quality improvement plan (See Attachment D for an example CRM process). Efforts to incubate the Local Implementation Entity would be strictly time bounded (e.g., three months to complete chartering) to avoid delays in addressing water quality concerns. As with all watershed improvement initiatives where water quality improvement is needed, the watershed improvement plan must include explicit objectives in full support of compliance with Federal and State water quality law and utilize the *foundational BMPs generally recognized as effective* along with any needed supporting practices.

Step 3 emerges from and would be guided by the Water Improvement Team's findings and local watershed strategy. Steps 2 and 3, along with the initial monitoring efforts, comprise Level 2 of the framework where BMP implementation efforts emphasize the use of the state's voluntary technical assistance system. Under this system, land owners always have the obligation under state law to correct active pollution or substantial potential to pollute conditions, while resource improvement recommendations (including those directly related to water quality) made to land owners by CD and NRCS planners are adopted strictly on a voluntary basis. This initial emphasis on the state's voluntary technical assistance system provides an opportunity to improve both water quality and broader natural resource conditions and embed land owner water quality improvement actions in a longer term relationship with the state's natural resource planners. This approach also can potentially better link water quality BMP implementation to a broader set of land owner objectives and natural resource improvement actions to increase land owner motivation to implement BMPs correctly and maintain them effectively over time.

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Steps 3, 4, and 5 (coinciding with Levels 2, 3, and 4) are connected through on-going BMP and ambient monitoring and assessment activity. Figure 1 depicts a process where a failure to produce needed improvements results in an escalation of the regulatory presence and type of actions. For instance, under Step 4, regulatory agencies might move to mandate certain BMP implementation, while under Step 5, regulatory agencies might consider, for example, implementing nutrient application restrictions or prohibitions, or seek and gain land use modifications. As a Watershed Team works through this process, it can address parcel specific active pollution and substantial potential to pollute conditions on a regulatory basis. Addressing these site-specific conditions will allow the watershed process to focus on those issues that cannot be easily identified and may be more elusive but continue to cause degradation of water quality within the watershed.

Team 2 participants see value in the underlying concepts and basic structure provided in this model framework while recognizing that it requires further exploration, articulation, and development to nest it effectively within the existing efforts of watershed participants and other Federal, State, and Local implementing agencies. In this context, Team 2, as part of its 2013 efforts, will prepare an integrated picture of watershed-level initiatives (e.g., NRCS Local Working Groups, emergent VSP initiative, etc.) and seek to refine the model framework to ensure it works in support of these efforts and avoids creating redundant expectations or activities.

Team2, Recommendation 3: Encourage an annual cycle of watershed-scale coordination among local field staff.

Team 2's recommendation for the conduct of an annual cycle of watershed-scale coordination reflects an acknowledgement that, although state law gives Ecology and WSDA authority to determine and respond to pollution of the waters of the state, how Ecology and WSDA take action in an agricultural setting is important. When willing cooperation among WSDA, Ecology, Conservation Districts, NRCS, and land owners exists, compliance is more easily achieved and can produce better and more enduring results.

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Figure 2: Annual Watershed-Scale Operations Cycle

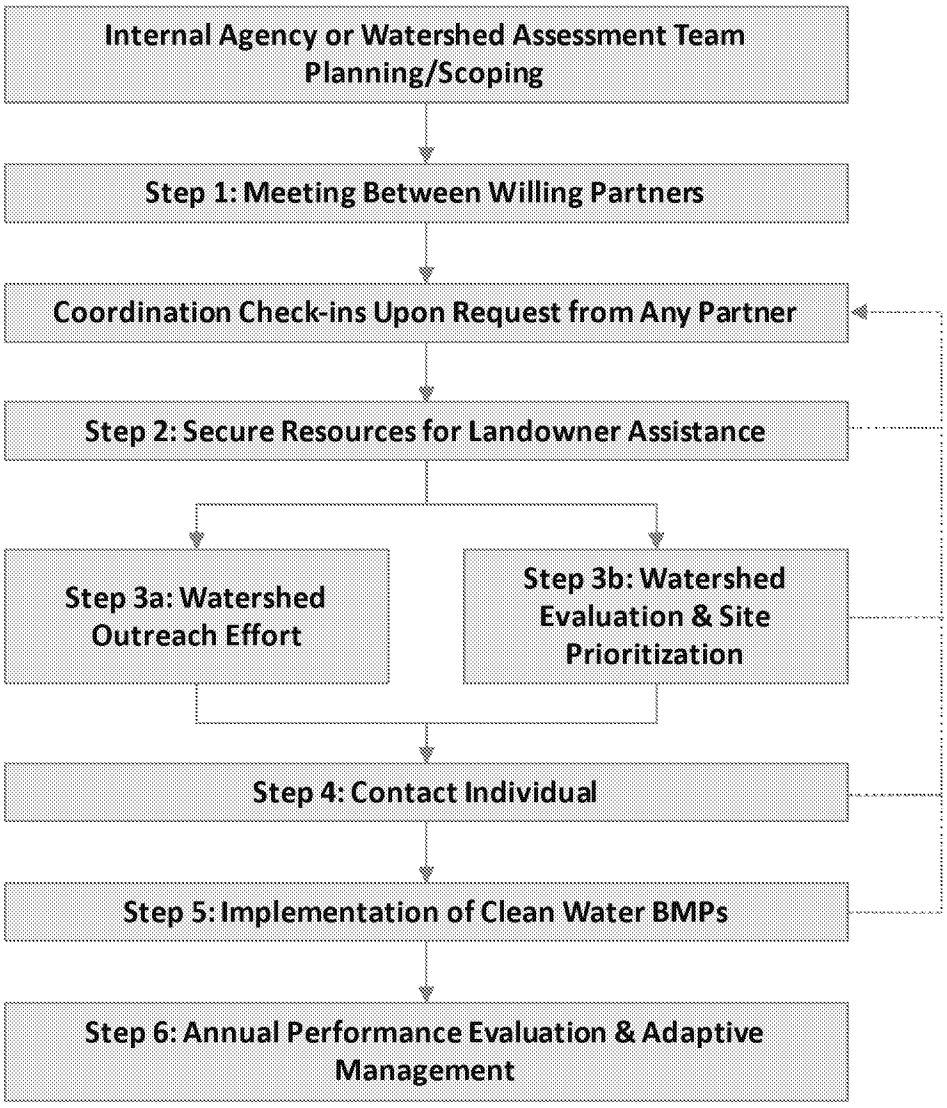

Figure 2 (Annual Watershed-Scale Operations Cycle) depicts Team 2 participant-recommended example process steps associated with an annual operations cycle. These steps should be viewed as building blocks for how watershed-level, field staff coordination can take place rather than a rigid set up steps to be followed precisely. The annual cycle of watershed-level coordination can be implemented without a watershed characterization process or concurrently with such a process. Additionally, although this process is specifically designed to enhance coordination, communication, and collaboration among all field staff**, this process will not constrain the ability of individual agencies to fulfill their obligations under federal or state law.** Activities undertaken during the annual operations cycle reflect collaboration among "willing partners." This operations model reflects a strong commitment to:

- Education and outreach activities to land owners to both convey water quality-related information (e.g., nature of substantial potential to pollute, state water quality requirements, etc.) and understand land owner perspectives on the most effective means to address water quality problems (this emphasis reflects a recognition on the part of Team 2 participants that the "willing land owner" is critical to effective BMP implementation and maintenance);
- A strong compliance assurance presence from WSDA and Ecology in the form of on-going activities such as windshield and aerial surveys and on-site inspections and complaint response activities (this represents a shift from the emphasis on a complaint-driven system as reflected in the 1989 Commission, Districts, and Ecology MOA);
- Securing and coordinating resources for land owner BMP implementation assistance among Commission, Conservation Districts, Ecology, WSDA, NRCS, and EPA; and
- The monitoring and tracking needed to understand implementation and water quality progress to enable adaptive (management) responses as conditions evolve.

As reflected in the model, each year would kick off with a meeting among field staff from CDs, NRCS, WSDA, Ecology, and other locally engaged agencies (e.g., county staff) (see Step 1) to discuss a full range of items relative to effective watershed-level water quality management and targeting of priority water resource concern areas. Discussions would include:

- Agriculture and water quality issues;
- Areas of focus for additional watershed evaluations;
- Progress related to prior year efforts;
- On-going work and coordination relative to complaint response, inspections, technical assistance activities, grant and cost share administration, and monitoring and data collection; and
- Review of progress on previously identified sites.

The annual meeting would establish the specifics of the remaining steps in the annual watershed-scale operations cycle. Potential key elements of the remaining steps include the following items.

- Step 2 (Secure Resources for Landowner Assistance) would focus on securing state and federal grants and cost-share monies, discussing the use of the Washington Conservation Corps, and discussing the capacity of compliance assurance and technical assistance providers and the targets for land owner contacts during the year.
- Step 3a (Watershed Outreach Effort) would reflect agreements on the type and number of meetings, workshops, and mailings, the strategy for engaging with local land owner groups, and how to use BMP and substantial potential to pollute materials.
- Step 3b (Watershed Evaluation and Site Prioritization) would focus on the nature of compliance assurance activities such as windshield surveys, flyovers, and direct site inspections to prioritize sites for land owner contact.
- Step 4 (Contact Individual Land Owners) would be undertaken consistent with the roles, responsibilities, and relationships decided upon at the annual meeting.

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- Step 5 (Implementation of Clean Water BMPs) covers land owner actions in response to recommendations made by compliance assurance or technical assistance providers.
- Step 6 (Annual Performance Evaluation and Adaptive Management) would involve assessing BMP implementation tracking data, grant and cost share expenditures, water quality monitoring data, education and outreach activities, and regulatory agency and technical assistance capacity to inform watershed strategy and implementation actions going forward.

The degree of on-going collaboration and direct partnering of staff would be tailored and directed at the local watershed level consistent with capacity and desire to collaborate among local field staff. However, there would be an expectation that, at minimum, local/regional field staff from each of the agencies commit to meeting annually to prioritize resource concerns and activities (possibly in conjunction with a CD's annual planning meeting). Commission staff would make available neutral, third party facilitation support to these annual meetings if requested by partners already actively engaged in an established watershed collaboration. Additionally, Commission staff would actively promote and provide neutral, third party facilitation support to annual coordination meetings in those areas of the state that currently lack an established collaborative process.

Team 2, Recommendation 4: Establish a clear procedural framework and expectations for land-owner scale active pollution and substantial potential to pollute determinations and response actions.

Figure 3 depicts the operational roles, responsibilities, and procedures Team 2 participants recommend as a set of basic building blocks to assist field staff structure their relationships for determining and responding to land-owner scale existing pollution and substantial potential to pollute conditions. The procedures reflect the understanding that identification of existing pollution and substantial potential to pollute situations arise in a variety of ways:

- Ecology/WSDA inspection staff – when conducting site inspections, when they observe a potential problem, or when a potential problem is reported to Ecology/WSDA.
- Conservation district staff – when asked by the landowner for technical assistance, or when communicating proactively with a landowner about resource concerns in the area.
- County staff – when conducting inspections or assisting landowners as part of their critical areas or permitting work. (Note: the model as currently depicted does not specifically address county staff.)
- Federal agency staff – when federal agency staff provide technical assistance to landowners (NRCS) or when they are responding to identified problems or issues (EPA).

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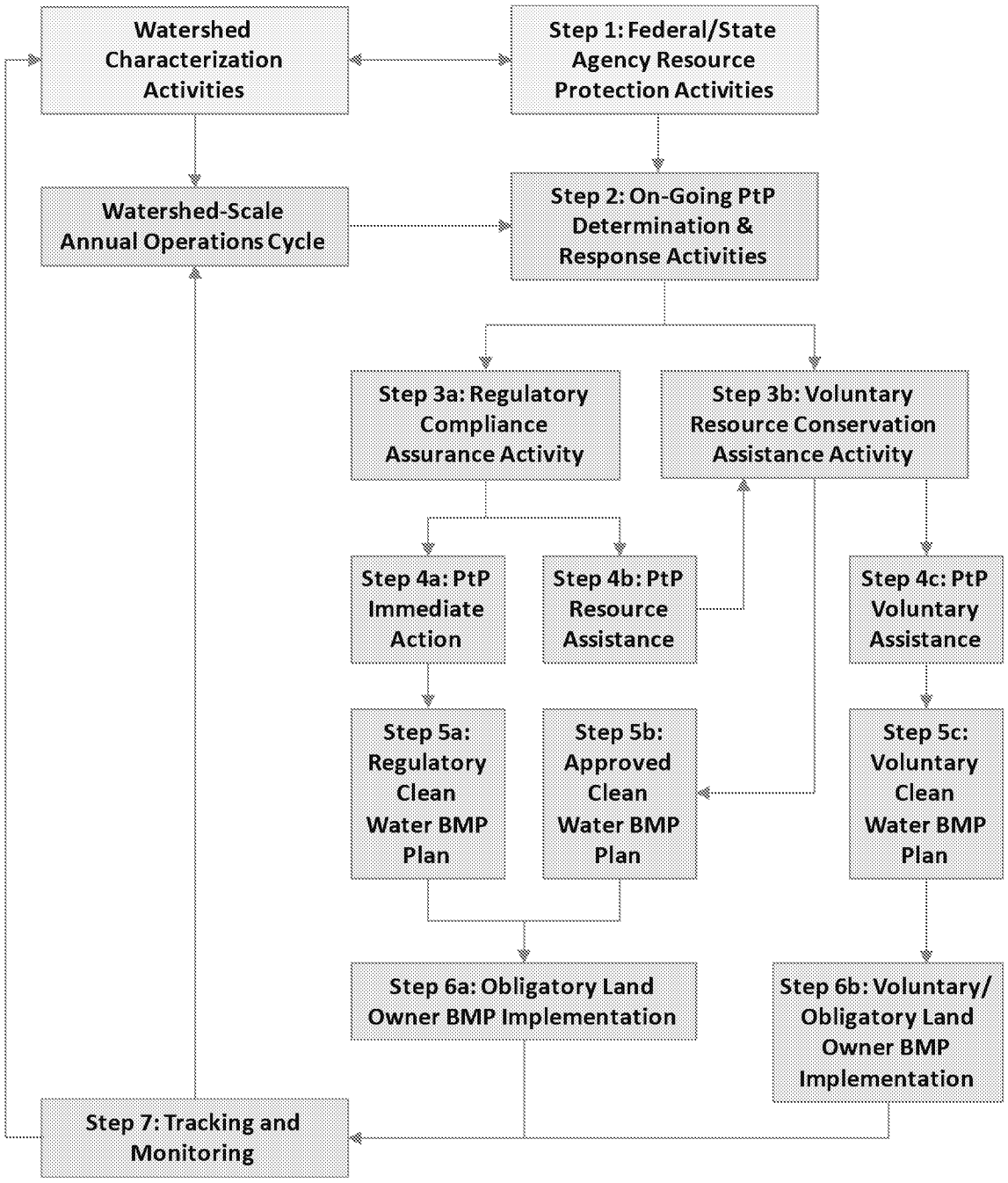
Figure 3: Land Owner-Scale Substantial Potential to Pollute Determination and Response Procedures



A description of each process step follows below.

Figure 3, Step 1: this box represents the full range of on-going activities for Washington State-based federal and state agencies that have as their purview some aspect of natural resource protection or management, including the Conservation Commission, Department of Ecology, Department of Agriculture, Environmental Protection Agency, and Natural Resources Conservation Service.

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Figure 3, Step 2: this box reflects that it is not necessary (even as it may be desirable) to create new watershed-scale plans or go through watershed characterization processes prior to undertaking work to identify land-owner scale sites with existing pollution or substantial potential to pollute conditions and implementing known and effective BMPs to bring land owners into compliance with state and federal water quality laws and regulations. This box, and all associated action steps contained below it, would be informed by watershed-level annual planning and coordination activity to the extent that it exists. All activities below this box would be conducted consistent with the Team 1 recommended products for determining and responding to existing pollution or substantial potential to pollute conditions.

Figure 3, Step 3a: this box captures the on-going compliance assurance activities (e.g., windshield surveys, on-site inspections, etc.) conducted by WSDA, Ecology, and EPA. These activities may be conducted in partnership with each other or with other willing technical assistance partners (e.g., Conservation District or NRCS field staff) depending on the arrangements and plans emerging from the annual watershed-scale operations cycle. (Note: inclusion of this emphasis represents a shift away from the complaint-driven system supported in the 1989 MOA.)

Figure 3, Step 3b: this box captures the on-going voluntary resource management assistance provided by the Conservation Districts and NRCS. These activities are undertaken under a business model where a strictly voluntary relationship exists between land owner and the service provider. All recommendations to land owners made in this context, including those related to correcting active pollution and substantial potential to pollute conditions, are voluntary, even as the land owner has an obligation to comply with state water quality requirements. Note that an obligation to implement practices recommended by CDs or NRCS can emerge in this context when a contract is signed with the land owner for federal or state cost share monies.

Figure 3, Steps 4a and 5a: these boxes represent the regulatory pathway that Ecology or WSDA may need to pursue in instances where site, water quality, or other conditions dictate a strictly regulatory approach. This pathway is triggered either by regulatory agency inspection activity or complaint response activity that results in a determination of active pollution or substantial potential to pollute conditions (as guided by Team 1 recommendations) with sufficient urgency to necessitate a strictly regulatory approach. This pathway results in a Regulatory Water Quality BMP Implementation Plan.

Figure 3, Steps 4b and 5b: these boxes represent pathways initiated by regulatory compliance assurance activities or complaint response but include a referral to CDs for a voluntary, but structured, technical assistance approach that seeks to result in an "Approved Clean Water BMP Plan." Once a referral is accepted by a CD from Ecology or WSDA, the process proceeds along a voluntary technical assistance path as long as land owner cooperation emerges in response to the voluntary assistance. Referrals are made with the recognition that a conservation district may have limitations as to how it can assist a landowner who is under enforcement scrutiny due to lack of resources, a focus on natural

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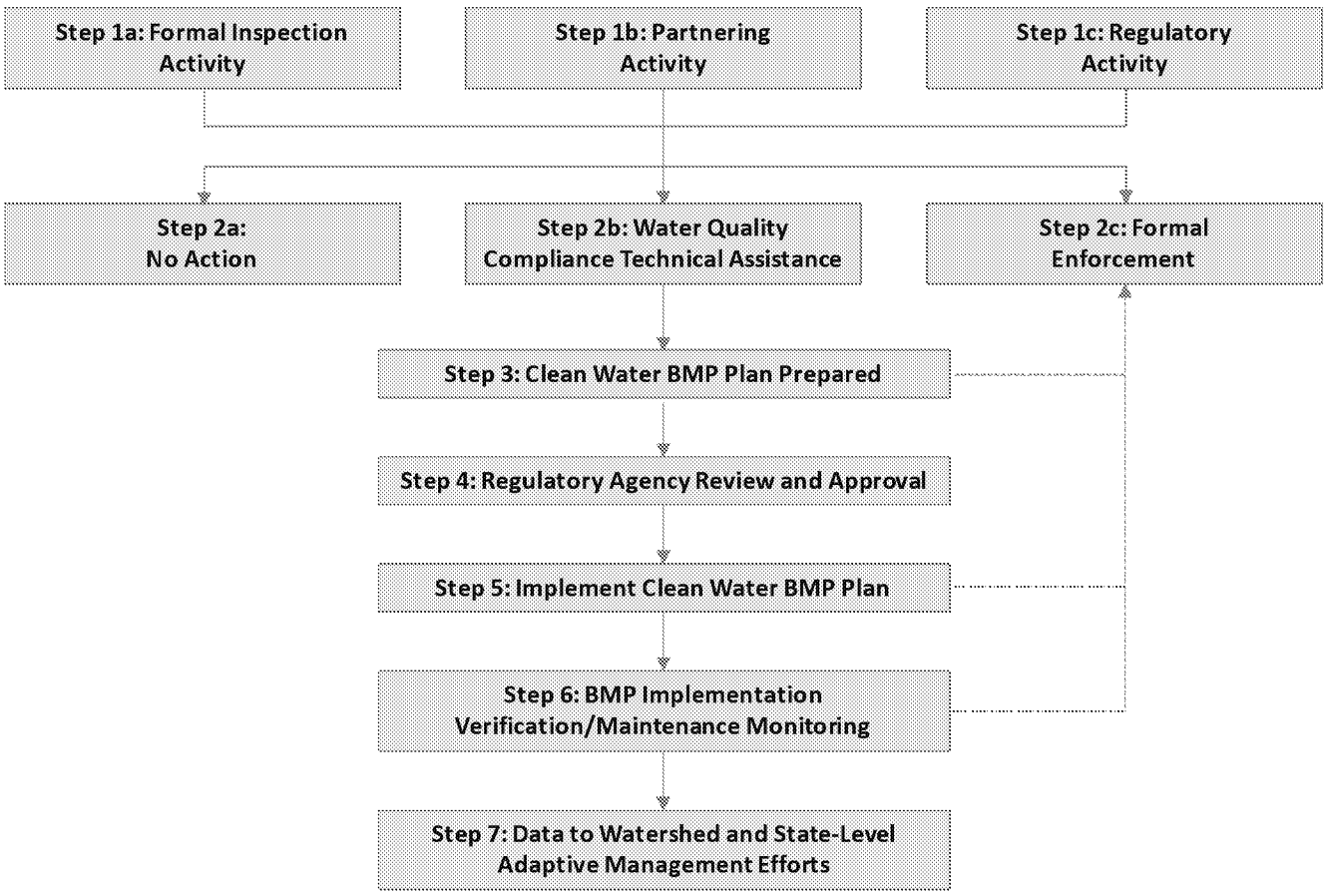
resource concerns of a higher priority, or specific funding source(s)' resource targets or restrictions. These limitations would be managed for as part of annual, watershed-level coordination or at the time of any individual referral. The CD will be expected to coordinate with WSDA or Ecology and provide updates on progress. In the event that land owner cooperation does not emerge in the timeline jointly agreed to by the CD and Ecology or WSDA, the CD will make a referral back to the initiating regulatory agency to complete the process of establishing and ensuring the implementation of the Approved Clean Water BMP Plan. Unless an alternative timeframe has been established, a 30-day default time period would be used for communication from the CD back to the referring agency regarding the state of land owner contact, problem evaluation, and land owner cooperation. **Figure 4** (Regulatory and Regulatory Referral Pathways) depicts three activity types (Formal Inspection Activity, Partnering Activity, and Regulatory Activity) that can lead to no action when active pollution or substantial potential to pollute conditions do not exist (Step 2a), a water quality technical assistance referral (Step 2b), or a formal enforcement action (Step 2c). Figure 4 provides a further breakdown of the technical assistance referral process resulting in either a successful technical assistance intervention or a referral back to the regulatory agency for formal enforcement action. To increase accountability for meeting expectations within the technical assistance referral process, the Commission, as part of its CD evaluation efforts, will include examination of referral activity, associated timeframes, and resulting outcomes.

Figure 4: Regulatory and Regulatory Referral Pathways



Attachment E provides four detailed process flow maps related to activities initiated by either WSDA or Ecology: Partnering Pathway; Formal Inspection Pathway; Regulatory Pathway; and Complaint Response Pathway. These more detailed process depictions are provided to give greater clarity to all field staff regarding steps and expectations for undertaking land owner efforts to correct active pollution and substantial potential to pollute conditions. These process steps can be utilized flexibly or strictly by field staff as conditions dictate and as mutually agreed to when, for example, when a referral is accepted from the regulatory system by the voluntary technical assistance system.

Figure 3, Steps 4c and 5c: these boxes represent the "pure voluntary" pathway provided by CDs and NRCS during their normal course of natural resource assistance and planning activities AND when regulatory agencies have not identified or referred potential to pollute conditions to them. This pathway results in a "Voluntary Clean Water BMP Plan" as recommended by a CD or NRCS and (hopefully) adopted voluntarily by the land owner. This pathway reflects an expectation that CD and NRCS field staff will endeavor to make potential to pollute determinations (consistent with Team 1 recommendations) and advise land owners of the full range of state water quality BMPs (consistent with Team 1 recommendations) available for correcting conditions. This pathway also reflects that CDs have an option to refer potential to pollute conditions to the water quality regulatory agencies even as there is no expectation or requirement that they do so. **Figure 5** (Direct Technical Assistance Pathway) depicts the specific process steps associated with this pathway.

Figure 5: Direct Technical Assistance Pathway

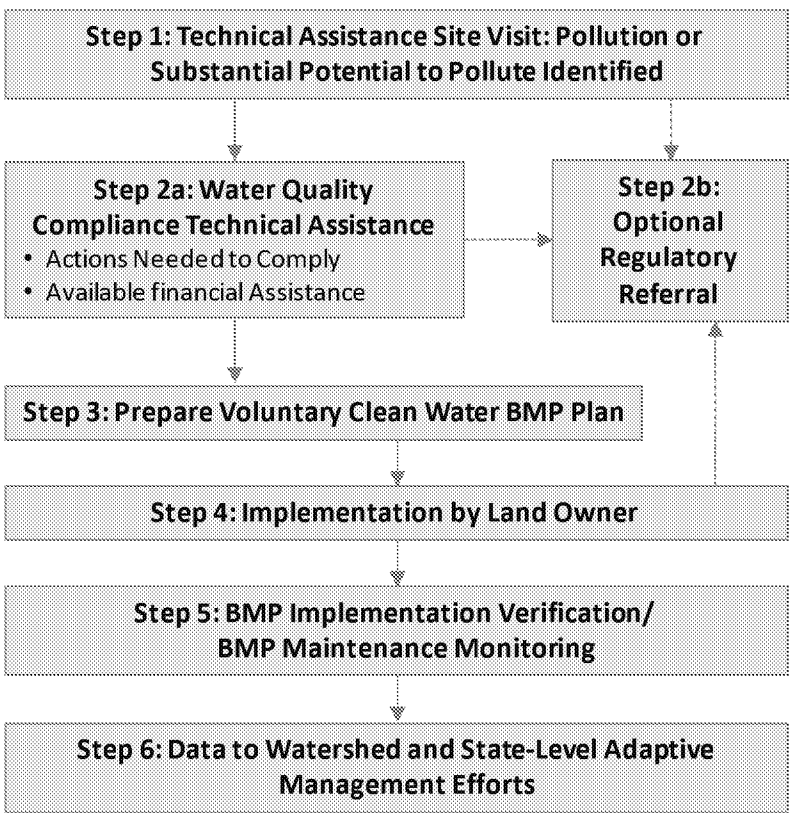


Figure 3, Step 6a: this box reflects obligatory land owner implementation of either a Regulatory or Approved Clean Water BMP Plan. Obligatory implementation emerges from the regulatory compliance relationship that has been established when Ecology or WSDA have made the active pollution or substantial potential to pollute determination that has initiated process steps guided by the regulatory system. The land owner may have further implementation obligations associated with any contractual arrangements made to receive state or federal cost share monies.

Figure 3, Step 6b: this box reflects the voluntary nature of recommendations made by CDs or NRCS to correct active pollution or substantial potential to pollute conditions unless a land owner contractual obligation emerges in association with the provision of federal or state cost share monies. Thus the box is labeled "Voluntary/Obligatory" implementation.

Figure 3, Step 7: this box captures the expectation that all water quality BMP implementation activity will be documented in a standard format (as derived from Team 2 BMP Implementation Tracking recommendations), and that follow-up implementation and maintenance verification activity will be undertaken and documented consistent with available resources. This information would be provided into any watershed-scale annual operations meetings or overall watershed assessment and characterization activities.

Team 2, Recommendation 5: Establish standard data definitions and reporting formats for a minimum core of BMP, site-specific implementation-related data.

Team 2 participants recommend the Commission, WSDA, and Ecology in collaboration with EPA and NRCS establish standard data definitions and reporting formats for a minimum core of BMP, site-specific, implementation-related data. This will involve modifying existing tracking and reporting mechanisms to ensure consistency of collection of this minimum core tracking data. The Conservation Commission would act to integrate and make accessible these data as collected through the existing tracking and reporting processes conducted by the Commission, Ecology, WSDA, EPA, and NRCS as modified to ensure consistency for the core data elements. Public release of these data would be undertaken consistent with all current land-owner data disclosure constraints. These data, as listed below, are designed to provide the state with enhanced capability to answer the following questions.

- What is the scope of coverage of BMPs in key water quality impacted areas?
- What is the rate and type of BMP implementation statewide?
- How much money has been provided to what type of BMPs statewide?
- What type of water quality improvements have been targeted by the BMPs implemented?
- Is there continuity of coverage emerging among land owners within targeted watersheds?
- Do the design and maintenance specifications of individual BMPs coincide well with the desired water quality improvements?

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The Team 2 recommended minimum core BMP implementation tracking data are as follows:

- Date of initial BMP recommendation
- Date of BMP installation completion
- State/Federal $ provided (amount and type, e.g., $20K 319 Centennial Funds)
- BMP type(s) (NRCS conservation practice code)
- Location (Lat/Long)
- Water quality concern addressed (check all that apply – fecals, sediment, etc.)
- Land use characteristics (check all that apply - grazing, crop production, etc.?)
- Area-wide strategy in place (Y/N – to indicate whether or not this implementation is part of an overall watershed improvement strategy)
- Implementation contiguous with other land owner efforts (Y/N – to indicate whether or not a patchwork of efforts is resulting)
- Result of any follow-up contact (on-site visit, windshield survey, etc.):
    - Previously installed BMPs maintained consistent with design and O&M recommendations (Y/N)
    - Anticipated BMPs still not installed (identify which ones)
    - Installed BMPs structure and management appear to be functioning effectively (Y/N)

Note that Team 2 participants recognize that more BMP design specific data may be needed to support any BMP-specific effectiveness monitoring called for under watershed assessment and characterization recommendations. However, the data identified above represent the minimum core for supporting basic BMP implementation tracking purposes.

Team 2 participants recommend that statewide data collection and integration take place as follows.

- Establish State-Federal guidance on core data collection protocols.
    - Consistent reporting formats
    - Consistent data definitions
- Utilize existing Conservation District site visit and BMP implementation reporting efforts as the core reporting mechanism – these efforts provide the overall broadest existing coverage to act as the base from which to build a complete tracking data set. The Commission would be the "nexus point" for state-wide BMP implementation tracking data.
    - The Conservation Commission currently stores implementation tracking data about practices as they are installed.
    - Data are kept in a centralized data system that was built to be compatible with others (PRISM and Habitat Work Schedule).
    - Create capacity to merge other data sources (e.g., inspection data, grant data) into CD statewide reporting data.
- Utilize Ecology and WSDA inspection data to supplement the CD data set. Ecology and WSDA would continue current practice but make their data available to the Commission for overall state-wide integration.

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- These data sources would be further supplemented by utilizing existing state and federal grant reporting mechanisms (covers initial implementation, but not continued maintenance or on-going nutrient management activity).
- To cover existing gaps (e.g., BMP maintenance data), explore land-owner self reporting as a condition of grant award. Alternatively (or in addition to), seek additional operating budget to support follow-up site visits.

Team 2, Recommendation 6: Implement field staff cross training based on Team 1 substantial potential to pollute and water quality BMP recommendations and Team 2 operating procedure recommendations.

Cross training for field staff has been repeatedly affirmed through Team 1 and Team 2 discussions as essential to improving active pollution and substantial potential to pollute determinations and BMP implementation in support of improving state water quality conditions. In this context, Team 2 participants make the following recommendations.

Prepare for and execute an initial field training implemented at a regional or state-wide scale depending on the availability of existing venues to leverage. The training format should be as interactive as possible (question and answer and give and take format), and linked to a field visit to create a direct experience learning environment. The agenda items for the cross training would include, at a minimum, the following:

- Overall State/Federal Clean Water Policy and Regulations
- Making Active Pollution and Substantial Potential to Pollute Determinations (Based on Team 1 Material)
- State Water Quality BMPs (Based on Team I Material)
- Opportunities and Approaches for Integrating Water Quality BMPs into An Overall Land Owner Natural Resource Management System
- Substantial Potential to Pollute Determination and Response Procedures (Based on Team 2 Procedural Recommendations)
- Opportunities for and Approaches to Watershed Level Collaboration (Based on Team 2 Annual Operations Cycle Recommendations)
- BMP Grant and Cost Share Programs (including, but not limited to water quality $$)
- BMP Implementation Tracking Expectations and Procedures

Team 2 participants further recommend that the Commission, Ecology, and WSDA request that the Washington Association of Conservation Districts and NRCS act as the conveners of this initial cross training. These organizations are connected to the largest portion of field staff presence in the state and maintain the networks and relationships necessary to engender strong participation and lend critical credibility to the training content. It is expected that the Commission, Ecology, and WSDA will have critical roles in preparing training materials and presenting during cross-training sessions.

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Finally, Team 2 recommends that the Commission, Ecology, and WSDA develop an overall cross-training strategy based on the experience of preparing for and executing the initial cross training session(s). This strategy would address: frequency and content of repeat regional or state-wide training; new staff training needs and approach; and opportunities for on-going cross training experiences such as joint site visits and land owner assistance provision during on-going annual field operations.

Team 2, Recommendation 7: Establish mechanisms to gather staff-to-staff interactions feedback and staff-to-landowner interactions feedback.

Team 2 addressed two aspects of feedback: staff-to-staff interactions; and field staff to land owner interactions. The Team prepared initial thinking relative to these topics but recognizes the need for further development prior to articulating specific recommendations in this area. In this context, it is recommended that Team 2, as part of its continued work in 2013, prepare more detailed recommendations in this area. Preliminary observations relative to these two feedback areas are provided below for further consideration by Team 2 during 2013. Team 2 participants envision the collected feedback data would be provided to the program manager level in each participating agency and reviewed jointly among the agencies on a quarterly basis.

Ideas for Further Development Related to a Staff-to-Staff Feedback System

Explore development of a tiered, staff-to-staff feedback system with reporting intervals evolving over time.

- Tier 1 – Field Staff: report monthly during the first year and quarterly thereafter.
- Tier 2 – Program Management Staff: quarterly during the first year and every six months thereafter.
- Tier 3 – Agency Directors: report every six months during the first year and annually thereafter.

Explore gathering feedback relative to the following questions and develop a standardized method of reporting (e.g., standardized spreadsheet) to facilitate consistent reporting.

- What is the state of collaborative efforts with your peers in the co-implementing agencies (collaboration not taking place, occasional collaboration taking place, routine collaboration taking place)? Please indicate the degree of collaboration for the following agencies:
    - Commission (please describe...)
    - EPA (please describe...)
    - Ecology (please describe...)
    - NRCS (please describe...)
    - WSDA (please describe...)
    - CDs (please describe...)

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- How productive have these collaborative efforts been (not productive, productive, highly productive)? Please indicate the degree of productivity for the following agencies:
    - Commission (please describe...)
    - EPA (please describe...)
    - Ecology (please describe...)
    - NRCS (please describe...)
    - WSDA (please describe...)
    - CDs (please describe...)
- To what degree do you believe there is a clear, shared understanding of and clarity of communication about the following among staff at the co-implementing agencies (questions answered for each co-implementing agency)? If you answer "low" or "medium" to any question below, please describe your understanding of the related topic(s) and your interpretation of the other staff understanding of the topic.
    - Federal and state clean water policy and regulations (low, medium, high)
    - Substantial potential to pollute conditions and the BMPs needed to correct such conditions (low, medium, high)
    - Substantial potential to pollute response procedures (low, medium, high)
    - BMP grant and cost share programs (low, medium, high)
- Have you experienced any conflict situations with staff from co-implementing agencies? (Y/N). If yes,
    - Have you been in conflict situations with staff from:
        - Commission (Y/N)? If yes, describe...
        - EPA (Y/N)? If yes, describe...
        - Ecology (Y/N)? If yes, describe...
        - NRCS (Y/N)? If yes, describe...
        - WSDA (Y/N)? If yes, describe...
        - CDs (Y/N)? If yes, describe...
    - For identified conflict situations,
        - At what level were they resolved (if at all)
            - Regional Level (Y/N)?
            - First Line Supervisor (Y/N)?
            - Program Manager (Y/N)?
            - Not resolved (Y/N)?
        - What could you, your first line supervisor, or program manager have done differently?
        - What suggestions do you have for avoiding or resolving such conflicts in the future?

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Ideas for Further Development Related to Land Owner-to-Staff Feedback System

Explore one or a combination of the following means to collect land owner feedback:

- Use of a leave behind comment card to be completed by the land owner after a site visit;
- Use of a bi-annual, representative, random sampling of land owner site visit experiences (mode to include both mail out-in – possibly email based, and telephone).
- Use of a centralized, 1-800 suggestions and comments number listed on all land owner-oriented educational and technical assistance materials.

The scope of the land owner feedback would include all field staff activities: regulatory system compliance assurance and follow-up activities; and voluntary system natural resource system planning and regulatory referral activity. Areas of land owner feedback for consideration include:

- Date, agency, staff name, time on the site (pre-filled in for either a leave behind form or follow up survey)
- Type of site visit (pre-filled in for either a leave behind form or follow up survey):
    - Routine inspection (check box)
    - Complaint investigation (check box)
    - Technical assistance visit (check box)
    - Other (describe)
- Was the explanation for the purpose of the visit clear (very clear, clear, not clear)?
- Regarding land owner state water quality obligations:
    - Did the information (verbal and written materials) provided improve your understanding of:
        - Conditions that raise water quality concerns (i.e., substantial potential to pollute conditions) (no improvement, some improvement, substantial improvement)? List some examples of the type of site conditions that you now understand to raise water quality concerns.
        - The BMPs needed to address water quality concerns (i.e., correct substantial potential to pollute conditions) (no improvement, some improvement, substantial improvement)? List some examples of the type of BMPs that you now understand are needed to address water quality concerns.
    - Was the information provided similar to or consistent with information you may have received from other sources:
        - Yes, please identify the other sources:
        - No, please identify the other sources:
- Regarding the availability of federal and state grant and cost share monies:
    - Did the information provided enhance your ability to fund clean water BMP implementation (no enhancement, some enhancement, substantial enhancement)?

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- Was the information provided similar to or consistent with information you may have received from other sources:
    - Yes, please identify the other sources:
    - No, please identify the other sources:

- Were your questions answered satisfactorily (very satisfactory, satisfactory, not satisfactory)? If you answered not satisfactory, please describe your questions and how the questions were answered.
- Were you left with a clear understanding of next steps and expectations (very clear, clear, not clear)? Please describe what the next steps are based on your interactions.
- Did you receive documentation of the site visit (Y/N)? If yes, what was the title of the documentation?

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Keys to Identifying Nonpoint Water Pollution Issues

When determining whether there has been past pollution and/or the potential for future pollution to occur at a site many factors need to be considered. However, there are four overarching considerations that should be considered in conjunction with specific site conditions to make pollution and potential to pollute determinations:

- State Waters—Is there ground or surface water present at the site or in near proximity to the site?
- Source of pollution—Are there livestock or livestock waste present on the property?
- Pathway to state waters—Are there conditions or practices that can move the pollution into state waters?
- Source control and delivery reduction—Are there BMPs in place to prevent pollution from being produced or to act as a barrier to reduce the delivery of pollution to state waters?

Factors to Consider When Making Substantial Potential to Pollute and Active Pollution Determinations

While it is impossible to detail every situation where a substantial potential to pollute exists or define the exact distance or amount of a pollutant that it takes to move something from being a potential to a substantial potential to pollute, there are several easily identifiable site conditions and factors that can be used to identify when pollution has occurred in the past, is currently occurring, or will likely occur in the future. Before listing more specific site conditions/factors, a good rule of thumb is that the closer an agricultural activity is to water (surface or ground) the more likely pollution has or will occur. If an activity occurs in the water, pollution is either occurring, or there is a substantial potential to pollute. When activities occur on the water's edge or in the riparian corridor, it is very likely that pollution has or is occurring, or that there is a substantial potential for pollution to occur. Activities occurring farther from the water's edge may or may not create past or continuing pollution or a substantial potential to pollute water in the future.

The potential to pollute of a specific site and activity is identified as a substantial potential to pollute under several circumstances:

1. Pollutant is adjacent to state water and there is evidence that a discharge of pollutants has occurred in the past.
2. Pollutant is adjacent to state water with no barrier and it is obvious that gravity, ongoing disturbance activity (cows with access, equipment at work) or minimal precipitation will drive a pollutant into the water.
3. Pollutant is not adjacent to state water but a direct conduit exists (ditch, pipe, depression, other preferential pathway) with no barrier.
4. Pollutant is not adjacent to state water and there is no direct conduit but gravity and precipitation will move the pollutants towards the water, there is no proper treatment area to contain pollutants, and there is no barrier.

Stream corridor - Protecting stream corridors is often the biggest key to keeping waters of the state from being polluted. Proximity to state waters (surface and ground) is a key factor in determining

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whether pollution is occurring or has the potential to occur in the future. Signs that livestock are affecting the stream corridor include:

- Bare ground
- Slumping or eroding stream banks
- Animal access to surface water or stream banks
- Manure present in or near surface water
- Contaminated run-off (active or potential)
- Sheet or rill erosion
- Overgrazing/overutilization of grasses
- Livestock paths and trails along riparian areas
- Vegetation trampling
- Absence of woody vegetation
- Soil compaction
- Stream sedimentation
- Widening and shallowing of the stream
- Hoof prints

Confinement areas – Confinement and winter feeding areas can cause considerable pollution because animals and their impacts are being concentrated into small areas. Again, proximity to water (surface and ground) and a pathway to water are important to consider in conjunction with the following site conditions:

- Confinement areas close to surface water
- Polluted runoff or signs of polluted run-off leaving the area
- Polluted runoff or signs of polluted runoff from confinement area reaching surface water
- Poor stormwater management up gradient or adjacent to the confinement areas that causes polluted runoff to leave the site
- Sheet or rill erosion in or down gradient of the confinement area
- Overflow from watering tanks flowing through mud or manure toward surface waters
- Presence of mud and manure close to surface water
- Slope of the land adjacent to the area likely to carry contaminants to surface water
- Mud and standing water near watering tanks
- Stock tanks close to surface water

Upland pasture areas – Upland pasture can also cause impacts to surface water if not managed properly. Factors and site conditions to consider include:

- Manure accumulations
- Signs of overgrazing and bare ground
- Evidence of erosion on the pasture/upland
- Distance of setbacks from streams
- Seasonal variations
- No physical barrier
- Existing pathway to water

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Manure management – Proper collection, disposal, storage, and use of manure is very important to ensure water quality is protected. Considerations include:

- Manure storage close to surface water
- Polluted runoff or signs of polluted runoff leaving the collection or storage area
- Polluted runoff or signs of polluted runoff from the collection or storage areas reaching surface water
- Manure accumulation near surface waters
- Uncovered manure storage
- Insufficiently sized manure storage
- Improper manure storage
- Unlined lagoons or improperly designed or constructed lagoons
- Use of lagoons that have exceeded their design life
- Signs of overtopping of lagoons
- Signs of overtopping reaching surface water
- Application of manure above agronomic rates
- Application of manure in or near surface water
- Application of manure at improper times or during improper conditions
- Application of manure to saturated, frozen or snow covered soils
- Application of manure prior to precipitation events
- Application of manure in flood prone areas during seasons when flooding or inundation is likely
- Elevated soil nitrate below the root zone
- High post harvest soil nitrate levels
- Application of nutrients during times when plant growth is reduced or nutrients aren't utilized (for instance, in the winter)
- Application of manure improperly timed to plant need
- Improper application of manure over tile drainage lines – saturated conditions or times when pollutants will leach to tile lines
- Animal confinement or manure application adjacent to wells or other conduits to groundwater

Groundwater – Other factors & Considerations to Determine Potential to Pollute:

- Soil types - highly porous, well drained soils increase aquifer vulnerability
- Confined or unconfined aquifer
- Depth to groundwater - shallow groundwater is more vulnerable
- Precipitation and climate
- Irrigation/over irrigation
- Areas with a high density of animals per acre of available land – areas with limited land base to utilize manure produced

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Attachment B: Example Summary Sheet for Training Purposes – Land Application and Groundwater Impacts

Element - Land application of Nutrients	Indicators of Substantial Potential	Indicators of Low Potential
Source Manure or Commercial Fertilizer or Other nutrient source **NRCS PS 590**	Over applications of nutrient source. Elevated post harvest nutrient levels Land application records indicating over applications Application not timed to plant need	Application of nutrients credits all sources, are properly timed and based on realistic yield goals
Weather conditions	Applications during historical wet time of the year when leaching or runoff is likely.	Applications during historical dry times of the year, during the growing season, when precipitation isn't expected
Conveyance Irrigation inputs **NRCS PS 449**	Applying irrigation water above crop needs /ET	Irrigate to meet crop needs + ET
Operational Barrier Farm nutrient production versus land available for application not in balance	Too many animals, not enough land. Inadequate manure storage	Adequate land for animal inventory
Physical Barrier **NRCS PS 393/391**	Insufficient setbacks to prevent liquid from leaving fields where nutrients are applied	Adequate setbacks or Minimum buffers

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Picture 1

Manure Application: Substantial potential to pollute

Key Information:

- Application of manure in or near surface water – lack of adequate setback for manure application, and water in field ditch.
- Application of manure to saturated soils – saturated field conditions.

Picture 2

Manure Application: Substantial potential to pollute

Key Information:

- Application of manure in or near surface water – inadequate or no setback.
- Field tillage resulting in zero vegetative buffer.
- A direct conduit exists to waters of the state.

Picture 3

Manure Application: Substantial potential to pollute

Key Information:

- Application of manure in or near surface water – inadequate setback.
- Due to slope towards roadside ditch, gravity or minimal precipitation can drain pollution to water.
- Roadside ditch drains to a water of the state.

Picture 4

Manure Application: Substantial potential to pollute

Key Information:

- Application of manure in or near surface water – roadside ditch at bottom of slope leading to waters of the state.
- Application of nutrients during times when plant growth is reduced or nutrients are not utilized – application to bare field.
- Given slope with lower field area saturated, gravity or minimal precipitation can drive pollution to water.

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Picture 5

Manure Application: Substantial potential to pollute

Key Information:

- Pollutant is adjacent to waters of the state (wetlands are identified by cattails).
- Application of nutrients during times when plant growth is reduced or nutrients are not utilized.

Picture 6

Manure Application: Substantial potential to pollute

Key Information:

- Application of manure to saturated, frozen, or snow covered soils.
- Roadside field ditch leads to waters of the state.

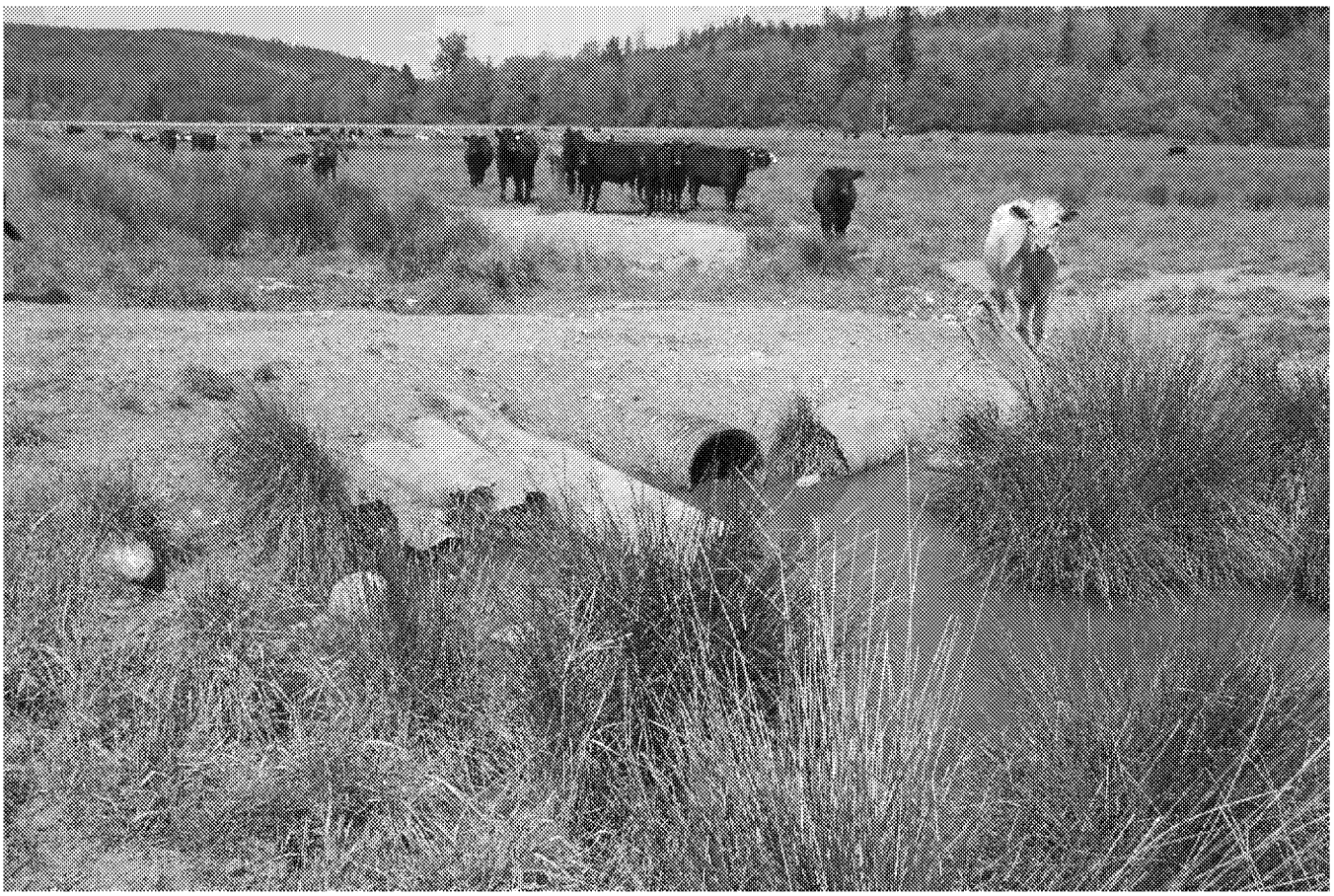
Picture 7

Livestock Operations/Riparian: Substantial potential to pollute

Key Information:

- Direct conduit exists (depression) to reach waters of the state.
- Manure and mud present in or near surface water.
- Livestock has direct access to water body.

Picture 8



Livestock Operations/Riparian: Substantial potential to pollute

Key Information:

- Livestock has direct access to waters of the state.
- Soil compaction along riparian area.
- Turbid water indicating stream sedimentation.

Picture 9

Livestock Operations/Riparian: Substantial potential to pollute

Key Information:

- Slumping and eroding streambanks.
- Animal access to surface water and streambanks.
- Manure present in or near surface water.
- Overgrazing.
- Livestock paths and trails along riparian areas.

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Picture 10

Livestock Operations/Riparian: Substantial potential to pollute (or active pollution)

Key Information:

- Slumping and eroding streambanks.
- Manure and mud present in or near surface water.
- Polluted runoff or signs of polluted runoff from confinement area reaching surface water.
- Sheet or rill erosion in or down gradient of the confinement area.

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Picture 11

Livestock Operations/Riparian: Substantial potential to pollute

Key Information:

- Animal access to surface water and streambanks.
- Slumping and eroding streambanks.
- Stream sedimentation.
- Manure near surface water.
- Overgrazing.
- Vegetation trampling.

Picture 12

Livestock Operations/Riparian: Substantial potential to pollute

Key Information:

- Slumping and eroding streambanks.
- Animal access to surface water and streambanks.
- Manure near or in surface water.
- Overgrazing.
- Livestock paths and trails along riparian areas.

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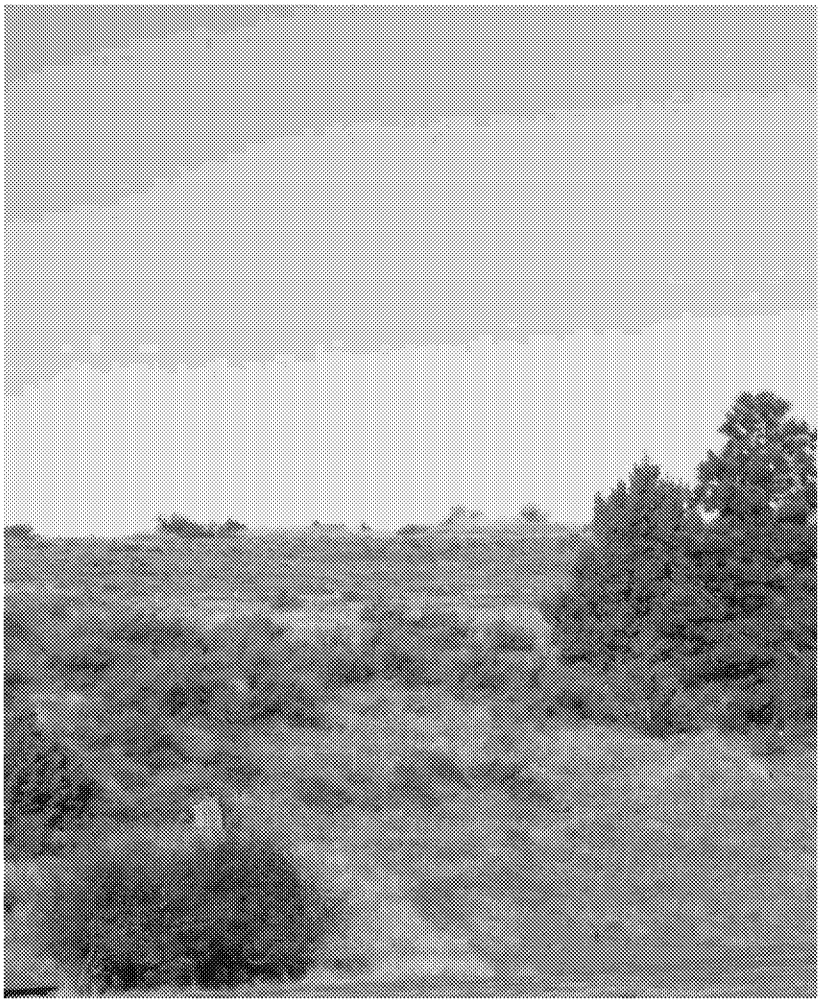
Picture 13



Livestock Operations/Upland Spring: Unclear substantial potential to pollute

Questions to Consider:

- Proximity to surface waters – how close is the spring to surface waters?
- Pollutant transport potential - does water from the spring drain to surface waters? Are their conditions such as compaction or preferential flow pathways that will increase the likelihood of drainage entering surface waters?
- Field conditions/pollutants – are there conditions such as bare ground, eroding soils and manure accumulations that could cause pollutants to be transported from the spring to surface waters? (Note: healthy vegetation surrounding spring indicates limited, infrequent livestock access.)
- Evidence of pollution movement to surface waters – is their evidence of past pollution reaching surface waters?
- Can drainage from the springs coupled with field conditions create a substantial potential for pollutants (sediment, manure) to enter surface waters?

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Picture 14

Livestock Operations/Riparian: Unclear substantial potential to pollute

Questions to Consider:

- Proximity to surface waters – how close are these conditions to surface water? (Note: heavy use area appears well removed from waters of the state [stream in the background]).
- Field conditions – are their field conditions such as impermeable soils or flooding that could cause pollutants to leave the confinement area and enter state waters? (Note: substantial vegetative buffer between heavy use area and waters of the state.)
- Pollution pathways – are their conduits to surface waters (ditches, pipes, tile drain lines, preferential flow pathways, swales, etc.) down gradient of the confinement area? (Note: livestock have heavy use in the watering area and manure is present, but no direct conduit to waters of the state is evident.)

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Attachment D: Example Coordinate Resource Management Process in Support of Local Implementation Entity

1. Recognize the opportunity for a collaborative problem-solving approach and get organized.
   - *Who* – preferably local citizens ask for a forum to discuss a natural resource need with a focus, in this context, on water quality improvement needs, and request assistance…but any organization can begin the process of connecting people with the resource need. The people engaged must have a direct connection to the natural resource and be able to make decisions.
   - *What* – a vision of what watershed health and the water quality improvement will look like once the conservation work is completed.
   - *When* – arrange for a facilitator and enough time for stakeholders to be invited to attend a first meeting

2. Conduct the first meeting; invite area land owners, resource managers, and others to participate.
   - *Who* - invite area land owners, resource managers, and others to participate.
   - *What* – a vision of what the watershed health and water quality improvement will look like once the conservation work is completed, geographic boundaries of the planning area, resource issues and needs, and scenarios of work to be completed.
   - *When* – arrange for a facilitator and enough time to prepare and for stakeholders to be invited to attend.

3. Define the geographic boundaries of the planning area.
   - *Who* – The planning group that attends the first meeting.
   - *What* – geographic boundaries defined (WRIA, other watershed areas, other geographic area, land uses).
   - *When* – begin discussion at first meeting and refine with data.

4. Consider key water quality and overall watershed health issues and collect existing data.
   - *Who* – technical advisors from agencies and organizations would assist local land owners and other stakeholders with discussion of water quality issues and related available data.
   - *What* – identification and use of existing data sets, modeling information, monitoring data, use of Google earth or similar technology to stimulate discussion of the planning group. If possible the group would tour the geographic area to see first-hand the water quality needs and issues.
   - *When* – 2nd meeting - 30 days after first meeting.

5. Identify state water quality requirements and individual participant's objectives and problems.
   - *Who* – planning group (local land owners, decision makers, and other stakeholders).
   - *What* – discussion by local land owners and decision makers of water quality issues, state water quality requirements, objectives for the conservation work in the watershed, and systems that would be effective at addressing the water quality objectives.
   - *When* –2nd meeting - 30 days after first meeting.

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6. Develop actions to achieve objectives.
   - *Who* - planning group (local land owners, decision makers, and other stakeholders)
   - *What* – discussion by local land owners, decision makers, and other stakeholders of water quality issues, objectives for the conservation work in the watershed, systems that would be effective at addressing the resource needs, then specific actions to achieve objectives.
   - *When* – start at 2nd meeting continue to discuss and refine.

7. Create and re-evaluate plans to ensure that all water quality problems and objectives are considered and addressed.
   - *Who* – planning group (local land owners, decision makers, and other stakeholders)
   - *What* – site specific conservation plans developed by local land owners based on the water quality objectives and discussions in the planning group to address water quality concerns.
   - *When* – Individual conservation planning, including a Clean Water BMP plan, occurs after 3rd or 4th meeting with assistance of trained conservation planners.

8. Devise a field monitoring system and schedule annual review sessions.
   - *Who* – technical advisors working with planning group (local land owners, decision makers, and other stakeholders)
   - *What* – development of a field monitoring protocol to be used in the geographic area to set a baseline condition, monitor changes in water quality conditions from the conservation systems installed, management of conservation systems, and participation.
   - *When* – at the same time that individual conservation plans, including a Clean Water BMP Plan, are being developed.

9. Implement the plan with field projects.
   - *Who* – local land owners.
   - *What* – conservation systems implemented that meet state water quality objectives along with land owner conservation objectives and are based on participation in the planning group.
   - *When* – Six to eight months after starting planning process and ongoing thereafter for several years of work.

10. Annually review monitoring data and progress, modify plan as needed.
    - *Who* – local land owners, decision makers, and other stakeholders working with technical advisors.
    - *What* – progress made toward water quality objectives identified by the planning group utilizing the monitoring system agreed to above.
    - *When* – annually.

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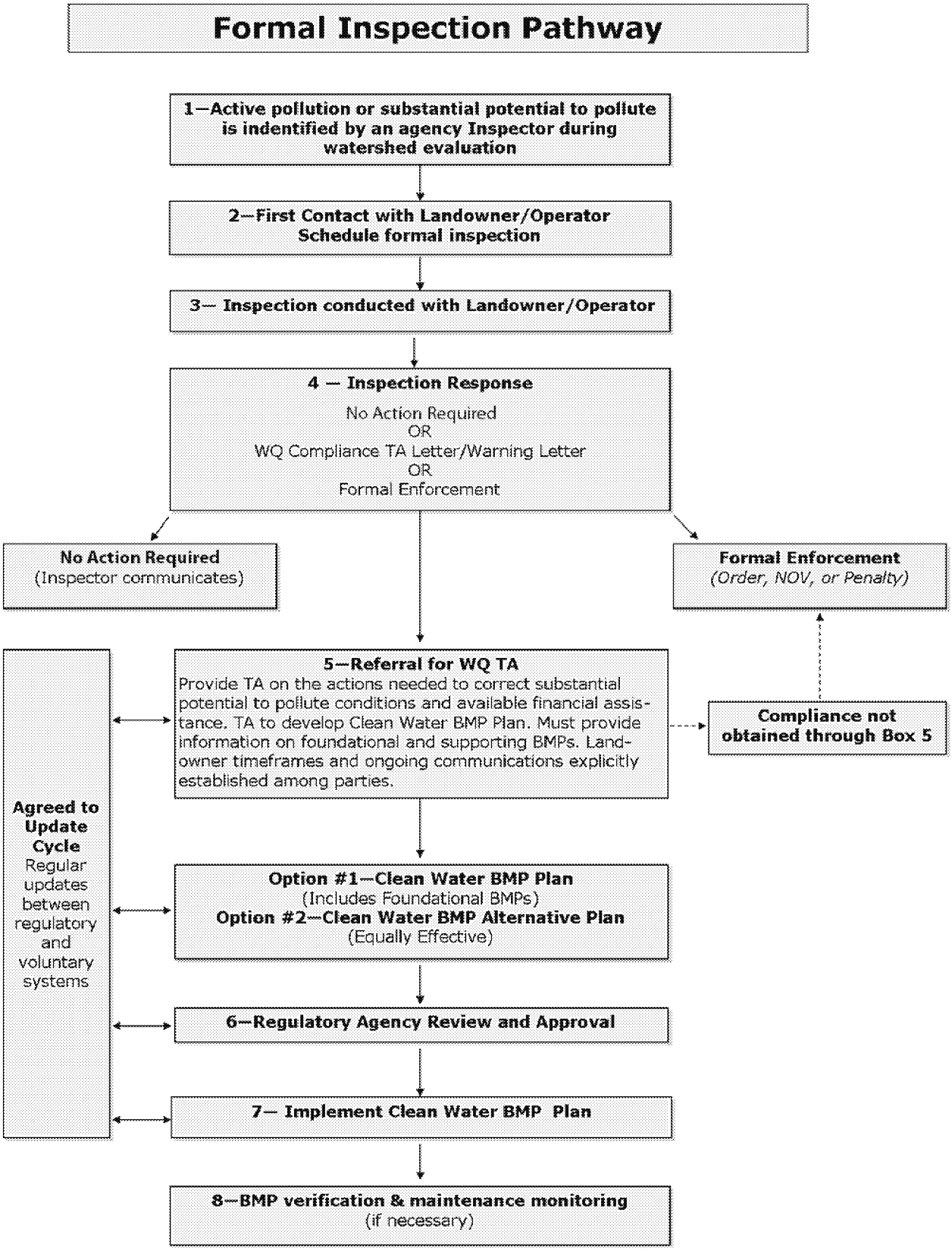
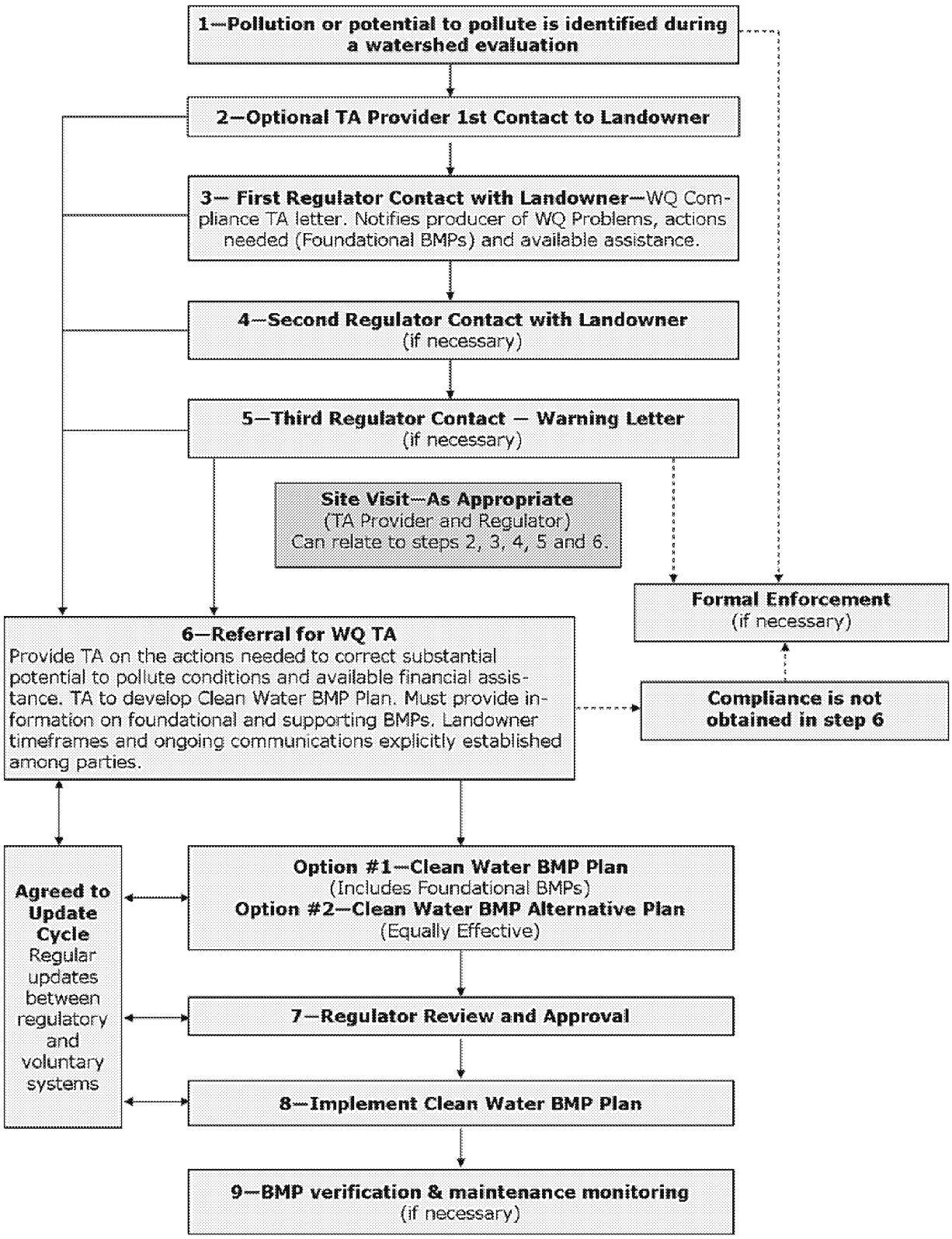
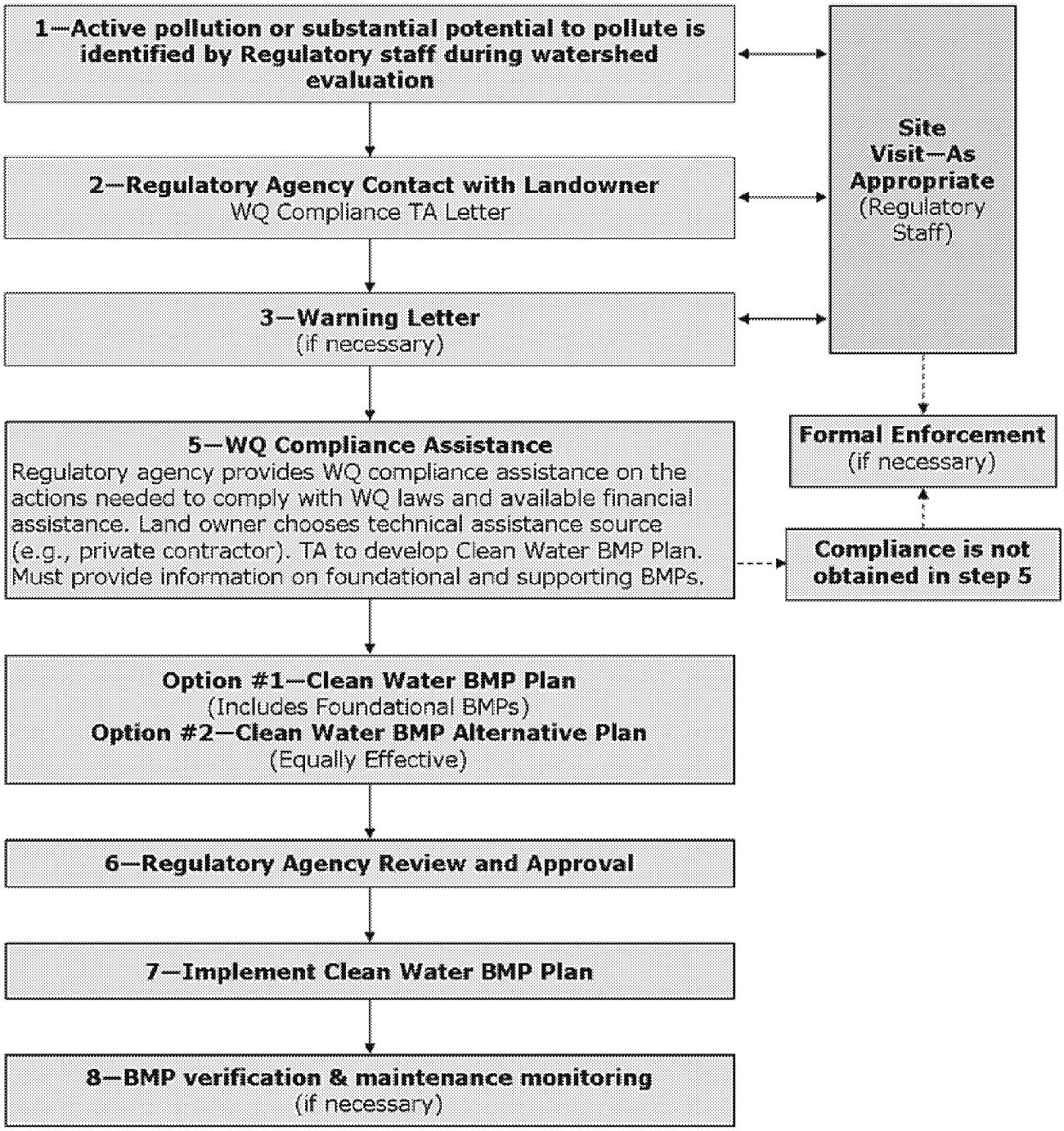

Formal Inspection Pathway
1—Active pollution or substantial potential to pollute is indentified by an agency Inspector during watershed evaluation
2—First Contact with Landowner/Operator Schedule formal inspection
3— Inspection conducted with Landowner/Operator
4 — Inspection Response
No Action Required
OR
WQ Compliance TA Letter/Warning Letter
OR
Formal Enforcement
No Action Required
(Inspector communicates)
Formal Enforcement
(Order, NOV, or Penalty)
5—Referral for WQ TA
Provide TA on the actions needed to correct substantial potential to pollute conditions and available financial assistance. TA to develop Clean Water BMP Plan. Must provide information on foundational and supporting BMPs. Landowner timeframes and ongoing communications explicitly established among parties.
Compliance not obtained through Box 5
Agreed to Update Cycle
Regular updates between regulatory and voluntary systems
Option #1—Clean Water BMP Plan
(Includes Foundational BMPs)
Option #2—Clean Water BMP Alternative Plan
(Equally Effective)
6—Regulatory Agency Review and Approval
7— Implement Clean Water BMP Plan
8—BMP verification & maintenance monitoring
(if necessary)

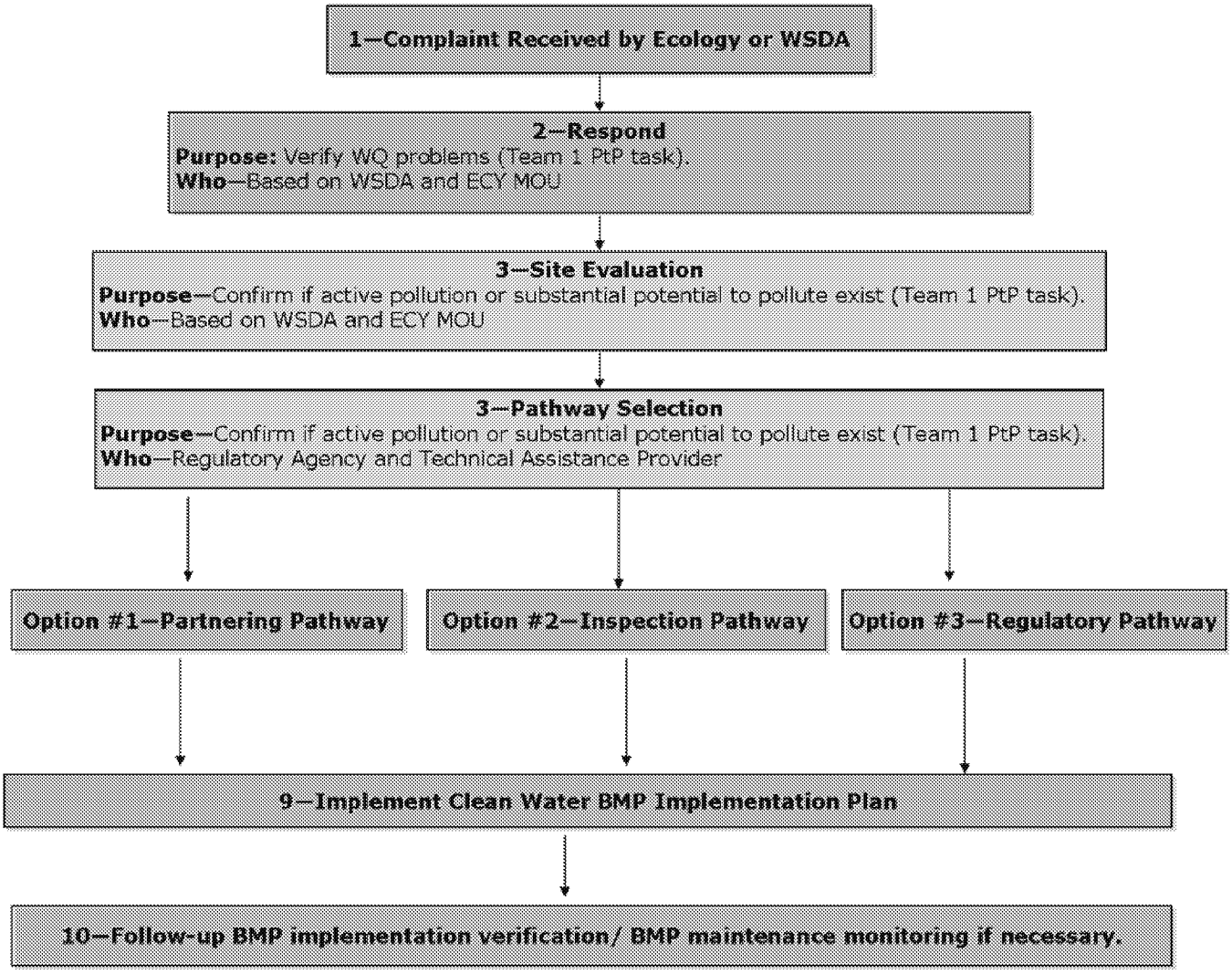
Partnering Pathway



Regulatory Pathway
(CD Referral Option Not Available)



Complaint Response Pathway



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