++++++DRAFT VERSION 07/23/10++++++++++

CHAPTER X—LEGACY PROBLEM REMEDIATION

INTRODUCTION

The USFS Watershed Improvement Program (WIP) is a nationwide USFS program of assessment and restoration on a watershed scale. In accordance with the WIP, each National Forest identifies the priority watersheds for restoration, and the essential projects that will bring about improvement in watershed condition. The intent of the program is to focus watershed restoration activities in priority watersheds and progress through the priority watersheds in a stepwise manner, eventually providing assessment and restoration for all watersheds. As described in more detail below, priority watersheds receive heightened water quality protection under the USFS Guidance and are integral for maintaining sanctuary habitats for threatened and endangered species and unique plant and animal communities. Watershed restoration projects are not limited to priority watersheds, and are used to address watershed issues and water quality problems in lower priority watersheds also.

The primary components of the WIP are:

1. Priority Watershed Selection
2. Watershed Condition Assessments
3. Watershed Improvement Needs Inventories
4. Essential Project Identification
5. Watershed Restoration Plans
6. Annual Watershed Improvement Accomplishments Reporting

1. Priority Watershed Selection

The USFS has adopted a "priority watershed" approach in its watershed restoration program. As of 2001, each Forest in the Pacific Southwest Region identified priority watersheds where watershed improvement work would be focused. In 2001, priority watersheds were defined at the 5th field HUC scale (40,000 to 250,000 acres). According to the new draft Implementation Guide, priority watersheds will be redefined at the 6th field HUC scale (10,000 to 40,000 acres).

In 2001, priorities were defined based on (1) existing watershed conditions, (2) values, and (3) opportunities. *Existing watershed conditions* at the 5th field scale served as the primary criterion in priority setting. *Values* were typically tangible assets of importance to people and included: sources of domestic water, rare ecosystems, unique recreation areas, TES Species, rural communities, and soil productivity. *Opportunity* was defined by factors that enhance the likelihood that the desired outcome is achievable and could include: available infrastructure, ownership patterns, policy direction, partnerships, and sufficient financial and political support. In other words, Condition + Values + Opportunity = Priority.

Based on the draft 2009 "Implementation Guide", National Forests will identify an appropriate number of watersheds for improvement that correspond to a reasonable and achievable program of work over the next 5 years (the "planning cycle") within current budget levels. These watersheds will be the new "priority watersheds." The number of priority watersheds will vary by National Forest but is expected to range from 1 to 5 given current funding levels.

Forest will identify priority watersheds using an interdisciplinary process that includes representatives from soil, water, range, wildlife/fish, roads/trails, vegetation, planning, fuels and others as appropriate. In cases, where

Comment: The reference to Legacy problems is only made in the last paragraph of this document. First, Legacy" is not defined in this document. Secondly, the content of this chapter is much more than about Legacy problems…it is about all problems, including existing and legacy issues. I would suggest the title be revised to reflect the content of the chapter – Watershed Prioritization for Protection and Restoration.

Comment: The WIP (WHIP) Program is most commonly known to be a NRCS program (WHIP and EQIP) under the Department of Agriculture, not a USFS program. I looked on the web and found nothing about a USFS WIP program as they describe it here. Either it's really new (described and formulated here, in this document), or it is not really a functional program that is receiving regional or national attention, or it is an internal process that they are keeping free from outside view…

Comment: More on this later, I assume. But to only step through the watersheds means many high priority watersheds may have to wait until all work (even the low priority work) is completed in the high priority watersheds.

Comment: This is a problem. We'll have to see how this work is accomplished if high priority work remains uncompleted elsewhere because lower priority work is being accomplished elsewhere. One of the most serious flaws in previous and current USFS watershed work (and it still remains a real obstacle today) is that restoration funds are typically "spread" across the Districts so that everyone gets their "fair share" of the monies. This is politically motivated and not related to actually region-wide restoration priorities. This action ultimately li ... [1]

Comment: Three main things are missing from this list. The first is the actual restoration work! The list of planning and assessment activities does not include restoration. The WIP as described above is supposed to include *"assessment and restoration on a watershed scale"* The other two things missing from the list are implemen ... [2]

Comment: We have not seen this document.

Comment: A key component of the priority setting is not related to "improvement" but rather to "protection." The first goal of this type of prioritization program is to secure and protect the highest quality watersheds first, regardless of the factors or elements that go into defining which resources comprise the priority listing. **Only** ... [3]

Comment: It is unclear how this was determined. Some of the best and highest priority watersheds may require very little work, other than to commit to staying out of them, or to treat the threats that currently exist within them!

one or more Forests share watersheds, the affected Forests/Regions will need to work together to assure that the selection of priority watersheds is coordinated.

The State and Regional Boards and other partners (local, state, Tribal, other federal agencies or interest groups) may be included in the priority watershed identification process. The public will be given opportunities to provide suggestions for the selection of priority watersheds during the development of Forest Plans.

Comment: This should read "will be included…" The public being given "opportunities to comment" is not the same as actually being included and involved in the selection process.

While the task of identifying priority watersheds is largely left to the discretion of National Forests, three factors along with local issues, needs, and opportunities must be considered:

1. A rapid assessment of resource value,
2. A rapid assessment of the estimated costs, and
3. National and Regional watershed condition policy, direction, and guidance.

Comment: Add the following: …"and the approval of the Water Resources Control Board." The task is at the discretion of the USFS, but the final list of priority watersheds should only occur with the approval of the Water Board.

Comment: This is a nebulous statement that lacks specificity or clarity about how this will affect the process. What does this mean? Is it a simple statement that is being made to indicate that, in the end, the USFS will select the watersheds they want, regardless of the other factors listed above?

2. Watershed Condition Assessment

The USFS conducted watershed condition assessments in 2000 at the 5th field Hydrologic Unit Code (HUC) scale. This is equivalent to a 40,000 to 250,000 acre watershed. These watershed condition assessments are expected to be revised or replaced in the immediate future at a finer scale and with revised indicators or factors.

The Forest Service is in the process of developing a new watershed condition assessment tool. A draft "Implementation Guide for Assessing and Tracking Changes to Watershed Condition" was completed in 2009 and is currently under review. The assessment strategy includes the following twelve indicators:

Comment: I have not reviewed this nor have I heard of it.

- Water Quality Condition
- Water Quantity Condition
- Stream and Habitat Condition
- Aquatic Biota Condition
- Riparian Vegetation Condition
- Road and Trail Condition
- Soil Condition
- Fire Effects and Regime Condition
- Forest Cover Condition
- Rangeland, Grasslands, and Open Area Condition
- Terrestrial Non-native Invasive Species Condition
- Forest Health Condition

Comment: Here are 12 conditions assessment. However, where is the element that speaks to the threat to water quality in the watershed? A watershed could have good conditions now but have a high level of threat. Perhaps it is included in the conditions assessment, but there is no detail provided here about how each condition assessment is evaluated or what is included.

When the assessment tool is completed, approved, and adopted on a national basis, it will be implemented at the 6th field Hydrologic Unit Code (HUC) scale. This scale is equivalent to 10,000 – 40,000 acre subwatersheds. It is expected that this revised watershed condition assessment will be conducted in FY2011.

3. Watershed Improvement Needs Inventories

Comment: This paragraph only contains the bare and rudimentary outline of what is entailed. There is not really enough here to review the process, methods (protocols) or criteria involved in a WIN inventory.

The USFS Watershed Improvement Program includes as a component a Forest-level inventory of watershed improvement needs (WIN). This is an ongoing process that is integrated with the Forest program of work and subject to available funding. The degree of progress in these inventories varies considerably by Forests depending on available resources and capabilities. Significant progress is being made in inventories of road-related watershed improvement needs.

The existing WIN inventories are in a combination of forms including hardcopy files of field inventory forms, local spreadsheet and/or GIS data, and in a national database (Watershed Improvement Tracking database or WIT). Few Forests in the Region have yet transitioned to the WIT database, but national training in the database is currently being provided.

4. Essential Project Identification

Identification of “Essential Projects” is introduced as a new component of the Watershed Improvement Program in the draft Implementation Guide. Essential Projects are being defined as projects that “prevent or remedy a problem that impairs the physical, chemical or biologic function of the watershed and, when implemented, sustain or move a watershed to a better condition class”.

Comment: What is the “Draft Implementation Guide?” This was not available for our review.

Comment: Good, but it would be useful to see the details.

Essential projects may be individual projects or a group of projects which cumulatively require work or action to maintain or improve watershed condition class. A watershed may have only one essential project (e.g., head cut stabilization) or a suite of essential projects (for example, decommission five roads, upgrade 15 culverts, change a grazing system, remove three check dams, remove hazardous fuels from 30 acres of riparian area, and restore native riparian vegetation). In most cases, integrated suites of projects would need to be implemented.

Essential projects will address all resources and may be funded from many budget accounts. While emphasis is on on-the-ground work, essential projects can also include planning aspects. Essential projects are identified by National Forest personnel in the context of an interdisciplinary team and are agreed to by the appropriate line officer as needed to sustain or improve watershed condition.

Work or actions that are not necessary to improve physical, chemical, or biologic conditions at a watershed scale are considered “non-essential”. The determination of whether a project or group of projects is considered essential vs. non-essential will be made at a local level. Examples of non-essential projects include eradication of non-native fish, vegetation manipulation that does not improve or reduce risk to watershed condition, or replacement of an undersized culvert in a stream where the crossing is stable and aquatic passage is not a concern.

Comment: Add here: …conserve, protect or… You need to have the protection component in place, not just the improvement element.

Comment: This might be essential and the main limiting factor to native fish recovery in some watersheds, so it might actually be “essential.”

Comment: A “stable” crossing can still be a threat to failure and therefore an essential project. Just because it is stable doesn’t mean it would not fail under peak or design flows, or it wouldn’t plug or divert during even a moderate sized storm.

5. Watershed Restoration Plans

For each of the priority watersheds, National Forests will identify the specific projects necessary to improve watershed condition class and develop a Watershed Action Plan. The action plans will be based on a detailed assessment of each priority watershed. The assessment should document specific problems affecting ecological conditions; identify appropriate projects that address these problems; propose an implementation schedule, project sequencing, potential partners, and funding sources.

Acceptable watershed assessment methods must be used to analyze watershed condition and make general recommendations for any needed improvement. Examples of accepted methods include: Ecosystem Analysis at the Watershed Scale (EWAS), Hydrologic Condition Analysis (HCA), Total Maximum Daily Load assessments (TMDLs), Watershed Improvement Needs (WIN) inventories and large-scale NEPA. National Forests may use other accepted methods provided their assessment method has sufficient information about watershed function and processes to determine specific problems, current and desired watershed condition, and provides information which can be used to identify restoration objectives.

Comment: Again, it is Critical that PROTECTION be included and actually take precedence over restoration at the watershed scale

Comment: protect and

Comment: add: “and potential problems”

Comment: add: “or threatening”

Comment: Most of these assessment methodologies do not provide sufficient site-specific information necessary to actually identify and prescribe restoration projects at the site level. For example, the TMDL process is only generally good at pointing out classes of projects which might be fruitful. Additional inventories and prescriptions will need to be developed to actually identify and prioritize projects for implementation at the watershed and site scale.

The watershed condition assessment should result in development of a Watershed Action Plan (also known as a restoration plan or strategy) that synthesizes problems, actions and timelines. These plans provide details on maintenance and restoration objectives for the watershed. Potential partners and funding sources may also be listed. The goal of these assessments is to identify Essential Projects.

6. Annual Watershed Improvements Accomplishments Reporting

Each National Forest annually reports its accomplishments for watershed improvements to the Regional Office. Accomplishments are reported in acres improved or linear feet of channel restored. Accomplishments are compared to annual targets assigned by the Regional Office to the National Forests to assess performance and allocate funding. The USFS is shifting nationally to targets based on improvements in overall watershed condition. This change is likely to be implemented in Fiscal Year 2011.

Comment: There is a big, undescribed gap between the last step: 6. Watershed Restoration Plans, and this step: 7. Reporting. Specfically, On-the-ground restoration, there are a lot of steps and methodologies to this process, and they have not been described in this Chapter.

PROJECT LEVEL RESTORATION

The USFS has current authority and direction to assess restoration needs and conduct restoration of legacy problems within the boundaries of timber sales (FSH 2409.19, FSM 2522.22), although restoration is limited by available funds generated by the sale of forest products. Ecological restoration has recently been identified as a responsibility for all USFS resource management programs (FSM 2020.3).

The North Coast Regional Water Quality Control Board waiver (Order No. R1-2010-0029) approved in June 2010 provides for an incentive-based approach to restoration of legacy problems on National Forest System lands. Under this waiver, projects conducted in watersheds with established watershed restoration plans do not have project-level legacy restoration requirements. Projects conducted in watersheds without watershed restoration plans are required to restore legacy problems within project boundaries. This approach is currently under consideration by the USFS for this WQMP.

DIRECTIVES

USFS documents that provide guidance for watershed-scale planning, restoration, and assessment include:

USFS Region 5 Forest Service Handbook (FSH) 2509.22 Soil and Water Conservation Handbook Chapter 20 (July 1988) that provides direction for assessing cumulative watershed effects.

USFS Manual (FSM) Chapter 2020 (March, 2010), Ecological Restoration and Resilience

USFS FSM Chapter 2520 (May 2004), Watershed Protection and Management

Comment: Add: … "Protection and" …

Comment: There are other USFS funding sources that are not dependent on Forest sales. For example, the Legacy Roads and Trails Program funded out of the Washington office. USFS should combine timber sales dollars, outside grant funding and other internal USFS funding sources to implement critical restoration.

Comment: Also, remember that there are existing problems that need to be addressed that may not fit the definition of "legacy yet still need to be treated. Only a small part of the problem, and threat, is related to "legacy" problems.

Comment: Where is the reference for the Watershed Improvement Program (WIP)? It is important to be able to see the details of the program that are not included in this summary description. We also would benefit from seeing what has been termed in this summary description as the "Draft Implementation Guide" to the WIP Program.

Page 1: [1] Comment **QVIR** **8/20/2010 10:35 AM**

This is a problem. We'll have to see how this work is accomplished if high priority work remains uncompleted elsewhere because lower priority work is being accomplished elsewhere. One of the most serious flaws in previous and current USFS watershed work (and it still remains a real obstacle today) is that restoration funds are typically "spread" across the Districts so that everyone gets their "fair share" of the monies. This is politically motivated and not related to actually region-wide restoration priorities. This action ultimately limits the biological effectiveness of the program, especially because funds available for such restoration activities are severely limited and completely inadequate to accomplish even the highest priority work that has been identified. Spreading those limited funds across the Forests and across the Districts further reduces program effectiveness.

Page 1: [2] Comment **QVIR** **8/20/2010 10:00 AM**

Three main things are missing from this list. The first is the actual restoration work! The list of planning and assessment activities does not include restoration. The WIP as described above is supposed to include "*assessment and restoration on a watershed scale"* The other two things missing from the list are implementation monitoring and effectiveness monitoring. These activities are essential activities in developing and implementing a cost-effective restoration strategy.

Page 1: [3] Comment **QVIR** **8/20/2010 10:01 AM**

A key component of the priority setting is not related to "improvement" but rather to "protection." The first goal of this type of prioritization program is to secure and protect the highest quality watersheds first, regardless of the factors or elements that go into defining which resources comprise the priority listing. **Only** after the best watersheds are protected should efforts be extended to restore or improve watersheds that may be in various states of degradation. This is fundamental to program success.