

Action Plan in Response to the Miami River Watershed Assessment and Analysis of ODF lands

Introduction

The Miami River Watershed Assessment and Analysis was developed in response to the Northwest Oregon State Forests Management Plan (FMP). The FMP includes specific strategies related to watershed assessment and analysis. First, ODF was to develop a process that is compatible with, but expands upon, the existing OWEB watershed assessment process. Second, watershed analysis is to be conducted on all priority watersheds within the initial ten-year implementation period. Finally, The State Forests program is to apply the results of watershed analysis at the appropriate planning level through the adaptive management process.

The first of these goals was accomplished with the production of the State Forest Program Watershed Analysis Manual in June 2004. The Miami River Watershed Analysis project was the first project completed under the process delineated in the manual. It is anticipated that lessons learned during project development and implementation will be used to further refine the ODF watershed analysis process.

The Miami watershed analysis project was performed in accordance with the second strategy. The Miami River watershed was identified as a priority watershed by ODF. This was largely because of its status as a Salmon Anchor Habitat (SAH) watershed, as well as the large amount of ODF ownership within the watershed.

Finally, this draft action plan is created to facilitate the third strategy for watershed analysis. It was created by a Watershed Analysis Implementation Team (WIT), which was formed specially to address the implementation of watershed analysis findings. This team closely examined these findings in the context of ODF policy, objectives, and operational considerations. As a result, the WIT made decisions regarding agreement with project findings, appropriate planning levels and methods to implement findings, and relative priority for implementation.

This document records the decisions made by the WIT. Additionally, reasons for these decisions are discussed. It is intended that this action plan be consulted during ODF planning. Additionally, it provides a record for the interested public of the decisions made in response to the Miami watershed analysis.

While this document addresses the recommendations listed in chapter 6 of the Miami watershed analysis report, it should be noted that these recommendations were based on the information documented in chapters 1-5 of that report. This information, which is summarized in chapter 7, provides the rationale for these recommendations. Further, it is anticipated that the report will provide a ready reference when designing projects to address the actions of this plan. In particular, the maps contained in the report will help with the preliminary screening and prioritization of potential project sites.

The recommendations, as listed below, come from Section 6.2, "Management Considerations", in the watershed analysis document. In certain cases, they have been paraphrased for the sake of clarity.

#1: Recommendation: Manage riparian areas to develop large conifers as future inputs of large wood¹.

Action 1. Conduct timber treatments to develop large conifers near streams.

Conifer areas in the basin will be targeted for partial cut or retention cut to encourage growth of larger diameter conifer adjacent to streams and in the upland areas of the basin.

Opportunities to implement this recommendation in the priority areas will be limited until 2013, when the SAH restrictions expire. Any conifer development treatments in these areas will need to occur independently of planned timber sales and will need to be performed consistent with SAH guidelines.

At this time, there are no specific targets for the amount of area to be treated.

Timeline. Activities to identify management opportunities will be on-going over the next 10 year period. Identified opportunities will be referred through the AOP planning process.

Responsibility: The Unit Forester and Unit Planner will be responsible for identifying opportunities and incorporating them into the AOP.

¹ Priority areas for consideration are shown as blue regions in Figure 48 of the Miami Watershed analysis document. (This recommendation deals with riparian areas, exclusive of debris flow processes. Debris-flow-prone channels are considered in Recommendation #5).

#2: Recommendation: Convert hardwood-dominated riparian areas to conifer or mixed conifer/hardwood stands².

Action 1. Review hardwood-dominated areas for treatment.

ODF field personnel will examine the watershed analysis report for priority areas for hardwood treatments. Candidate areas will include the priority areas of Figure 48. Prospective treatments include the following: a) conifer release, or b) establishing conifer by harvesting hardwood patches or gaps.

Comparison of the priority stream reaches (Figure 48) with riparian vegetation (Figure 9) indicates that most priority stream reaches are potentially dominated by hardwoods. However, there are currently no timber sales planned for these stream reaches. Thus, any treatments conducted along these reaches will need to be performed independently of timber sales.

Timeline. Activities to identify opportunities for riparian hardwood treatments will be ongoing over the next ten years. As opportunities are identified, they will be referred to the AOP planning process.

Responsibility: Unit Forester and Planner.

Action 2. Release suppressed conifer.

Conifer release will likely be accomplished by girdling the alders overtopping the conifer. Because this is a non-commercial activity, methods will be sought that minimize cost. South Fork crews or volunteers may be available to perform release activities.

Timeline. Conduct conifer release activities between 2006-2011.

Responsibility: Unit Forester and Planner.

Action 3. Establish conifer by harvesting hardwood patches or gaps.

Decisions to implement this action will be performed in consultation with an ODFW biologist. The biologist will help to prioritize areas for conversion. Additionally, the biologist will offer advice regarding the best conversion objective (mixed vs. conifer) to accomplish fish and wildlife objectives at a given site. Hardwood conversion projects may be incorporated with larger timber sales, or may be sold independently as small district sales.

Hardwood conversion projects will need some level of maintenance to be successful. Thus, these areas must be accessible.

Timeline. Tillamook District staff will look for hardwood conversion opportunities to be incorporated into the 2008 and subsequent AOPs.

Because of SAH requirements, there will be no sales within the priority areas through 2013. Thus, any hardwood riparian area treatments will need to occur independently of planned timber sales. At this time, there are no specific targets for the amount of area to be treated.

Responsibility: Unit Forester and Planner working with ODFW Biologist.

² Priority areas for consideration include the blue regions displayed in Figure 48 of the Miami Watershed analysis document.

#3: Recommendation: Look for potential opportunities to manage stands to encourage growth of larger diameter conifer on steep and very steep slopes, and adjacent to debris flow prone channels³.

Action 1. Develop large conifers in steep areas currently dominated by small trees.

ODF will continue to manage to develop large conifers in areas currently dominated by small timber. Priority areas for these activities include steep slopes along the upper reaches of the South Fork, North Fork, and main stem of the Miami River. Tillamook District personnel will target these priority areas for conifer thinning where they are accessible to conventional harvest methods. These activities will be conducted when the opportunities arise and where a positive value can be generated from the sale.

In riparian areas which are inaccessible to harvest, operations will be performed to create snags and down wood for FMP requirements and to release trees on the landscape. This can be done either with a service contract or with an adjacent timber sale contract.

Timeline: Sales in 2004 AOP, 2005 AOP, and 2006 AOP contain sales in these areas. Current and proposed sales (through 2007 AOP) apply either partial cut or retention cut prescriptions to upslope areas. The focus is on developing a conifer mixed-species stand with two or more cohorts. These harvests encourage large diameter growth in the residual conifer. Opportunities in the priority areas will be limited until 2013, when the SAH restrictions expire.

Responsibility: Unit Forester and Unit Planner will be responsible for identifying opportunities and incorporating them into the AOP.

Action 2. Develop large conifers adjacent to existing stands of large conifer.

ODF will thin conifer in upper headwaters of Moss Creek, Diamond Creek and Bluff Creek in areas accessible to conventional harvest methods. Priority will be given to locations where a positive value can be generated from the sale.

Areas in the basin have already been identified in the Implementation Plan (IP) as candidates for complex forest structure (layered and older forest structure) and will be moved toward these structures as the opportunity arises to access these areas. Locations can be reviewed when the IP is revised.

Timeline: Sales in 2004 AOP, 2005 AOP, and 2006 AOP contain sales in these areas. Current and proposed sales (through 2007 AOP) apply either partial cut or retention cut prescriptions to upslope areas. The focus is on developing a conifer mixed-species stand with two or more cohorts. These harvests encourage large diameter growth in the residual conifer.

Responsibility: Unit Forester and Unit Planner will be responsible for identifying opportunities and incorporating them into the AOP.

³ (These opportunities are displayed in figure 48. Opportunities along steep slopes are displayed in yellow, green and black, while opportunities along debris-flow-prone channels are displayed in red and orange.)

#4: Recommendation: Explore opportunities to add logs to streams. Priority areas include the Miami River, North Fork Miami River, South Fork Miami River, Stuart Creek, Minich Creek and portions of Moss Creek⁴.

Action 1: Conduct wood placement projects.

ODF will continue to place wood, with priority given to those areas where probability of success is greatest. While a tentative timeline is provided for these projects, actual timelines will vary according to available funding.

Based on the reconnaissance surveys, wood placement operations will be conducted according to the following priority:

Short-term sites.

Minich Creek: Potential LWD sites in 0.4 miles of stream from downstream property boundary to the first bridge. This site has good access for ground-based machinery.

Timeline: LWD placement is included in the 2007 AOP Minich Ridge timber sale

SF Miami: Potential LWD sites from mouth approximately 1.1 miles upstream to where the stream becomes constrained by hill slope. Only the lowest 0.25 miles is accessible for ground-based equipment. Evaluate with Engineers to determine access needs and potential problems. Identify whether to accomplish by attaching to a future sale, a service contract, or by district personnel.

Timeline: Address this in the next 3 years (AOP2008-2011).

Long-term sites : These sites pose additional logistical difficulties. They will be delayed pending changes in the RGP or development of additional opportunities.

Diamond Creek: Potential LWD sites from mouth to the forks approximately 0.35 miles. This site has poor access for most ground-based machinery. A "spider" may be suitable for this site as there are conifers fairly close to the stream.

Stuart Creek: Potential LWD sites in 0.6 miles of stream from downstream property boundary to the first bridge. This site needs additional examination for access options.

Stuart Creek is close to the road but has a steep hillslope between the road and the creek. Wood could still be placed in any of these streams using a cable yarder if they were hanging over the stream or by helicopter. Another option might be to use a "spider".

NF Miami: In most locations, wood placement cannot be performed under the current RGP due to size and slope of stream. Future revisions in the RGP may create additional opportunities. Alternatively, a special permit could be sought for wood placement along this stream.

Miami River mainstem. Wood placement cannot be performed under the current RGP because of stream width. Future revisions in the RGP may create additional opportunities. Alternatively, a special permit could be sought for wood placement along this stream.

⁴ These areas were shown on Map 48. (These also correspond to reaches from the ODFW 2005 habitat survey report.)

Timeline: Evaluate all long-term sites for opportunities in the next 5 years (AOPs 2008 through 2013).

Among the priority sites mentioned in the watershed analysis, the following were considered to be unsuitable for wood placement:

Moss Creek: Limited ODF ownership and potential impacts to chum salmon. (Restoration projects could result in gravel scour from chum spawning areas. These projects could also create barriers to chum passage.)

Additional opportunities may become available with future revisions of the RGP. Revisions allowing restoration projects on streams exceeding 42 feet width and use of nearstream trees would be especially valuable. Both ODF and ODFW are pursuing avenues to expand these opportunities.

Responsibility. Unit forester, ODFW Biologist.

The Unit Forester will work with sale-prep foresters to add the priority sites to planned and future timber sales. Also, the Unit Forester will identify other opportunities and have these evaluated by the ODFW Biologist.

The ODFW Biologist has already supplied input for the above areas but may be called upon to identify other areas which will benefit from in-stream structures especially if harvest operations are occurring in the area.

#5: Recommendation: Explore partnering with watershed councils, ODFW, and OWRD to address conditions downstream of ODF lands.

Potential conditions to be addressed under this recommendation included the following:

- Improving habitat complexity
- Restoring wetlands at mouth of Miami, Doty, and Vaughn
- Hardwood “conversion” to conifer or mixed.
- Restoration of low flows

Action 1. Continue current partnerships to address watershed issues.

ODF will continue to work with the Tillamook Bay Watershed Council, other watershed groups, and state agencies to improve habitat conditions throughout the project area.

While ODF actively supports watershed restoration, it has no authority to implement watershed restoration projects on Non-ODF land. ODF, however, is available to provide information and, in some cases, matching funds to interested watershed groups.

Timeline: Participation in activities of the Tillamook Bay Watershed Council and Tillamook Estuaries Partnership is ongoing. Participation with other watershed groups will be considered as requests are received.

Responsibility: The District Forester functions as primary liaison to public groups and appoints the representatives to these groups.

#6: Recommendation: Conduct activities to minimize road related risks to aquatic and riparian resources⁵.

The ODF watershed implementation team evaluated the road-related recommendations identified on pages 130-131 of the Miami watershed analysis report. Based on this evaluation, ten action items were identified. The specific recommendations addressed by each action item may be identified by counting down the bulleted roads recommendation list, beginning at page 130 of the watershed analysis report.

Action 1. Conduct inspections to confirm problems identified in RIMS.

ODF will inspect each of the road-related problems identified in Figure 49 of the Miami watershed analysis report. The inspections will be used to confirm the existence and magnitude of the problem. The roads specialist will determine whether the problem will remain if corrective action is not taken. Using the *Miami Repair or Review.xls* spreadsheet, the specialist will make one of the three following determinations: a) Condition corrected already (including where road specialist can fix on site by removing debris; b) Maintenance crew needed to clean structure, grade or add drainage; or c) structure replacement or fill pullback required (add to project work).

Bullet(s): 4, 5, 6, 7, 8, 9,10, 11, 12, 13, 16

Timeline Inspections were conducted during Fall 2005. Where problems were confirmed, they were repaired or scheduled for repair/replacement.

Responsibility: road specialist

Action 2. Correct faulty drainage structures.

ODF will clean, correct, and/or repair remaining non-functioning culverts. At unculverted sites, the maintenance crew will add waterbars when necessary for drainage.

Bullet(s): 15

Timeline: The most urgent drainage structures were corrected during Fall 2005. Others are scheduled for corrective action.

Responsibility: Road maintenance crew

Action 3. Inspect potential fish barriers identified through the RIMS process.

ODF will ask ODFW personnel to inspect stream crossings on all blocks on F or Likely F streams, except at Buehner Creek. Inspectors will make and prioritize a list of structures needing improvement or replacement.

Bullet(s): 16

Timeline: Spring, 2006, with completion in 2007.

Responsibility: Dave Plawman, ODFW

Action 4. Improve unstable fill slopes.

ODF maintenance crew will review these 10 road segments with Prism Code 1 or 2 (most between 100 and 400 feet long) on site. If unstable fill remains in these sections, they will conduct sidecast pullback and haul material to a stable location. If there are questions as to stability of these sites, they will bring the geotechnical specialist to the site.

⁵ (A list of these opportunities is listed on pages 130-131 of the Miami River Watershed Analysis.)

Bullet(s): 4, 5, 6, 7, 8, 9,10, 11, 12, 13, 16

Timeline: Review was completed in Fall 2005. The most urgent work was completed. Other sites have been scheduled for repair.

Responsibility: maintenance crew

Action 5. Implement fish passage improvements.

Bullet(s): 16

Timeline: Improvements are planned over 5 years and are expected to be completed in 2010

Responsibility: District Engineer

Action 6. Replace damaged culverts and stream crossings.

Bullet(s): 8, 15, 16

Timeline: Replacements are scheduled over next 5 years with expected completion in 2010

Responsibility: District Engineer

Action 7. Disconnect road drainage to streams.

Prior to road improvement projects, ODF roads specialists will evaluate the degree of drainage connection between roads and streams. If high connectivity is found⁶, drainage disconnection activities will be conducted as part of the road improvement project.

Using this criteria, Electric Creek Road was considered to be a high priority for drainage disconnection.

Bullet(s): 8, 15

Timeline: This action will be performed concurrently with road-related project work

Responsibility: road specialists

Action 8. Evaluate Buehner Creek Road for vacation.

Tillamook District personnel will evaluate whether the forest can be efficiently managed from roads branching off of the Foley Peak road. If it is determined that the Buehner Creek Road is not needed, the road will be vacated.

Bullet(s): 1

Timeline: 2010

Responsibility: Unit Forester and District Engineer

Action 9. Vacate Miami Forest Road above South Fork Confluence and improve FB 3 road as major collector for area.

⁶ As a rule of thumb, 20% hydrologic connection on roads (excluding short spur roads) is considered to constitute high connectivity. The amount of hydrologic connection may be derived using the RIMS GIS layer by dividing the length of hydrologically connected segments along a given road by the total length of that road.

Bullet(s): 1

Timeline: 2015

Responsibility: Unit Forester and District Engineer

Action 10. Relocate stream-parallel roads during reconstruction.

If roads parallel to stream are eroded or washed out by floods, Tillamook District personnel will evaluate relocation options for that road. Where feasible alternatives exist, the road will be relocated to a more stable location, preferably outside of the RMA.

Bullet(s): 2, 3, 14

Timeline: After flood events

Responsibility: District Engineer and road specialists

Data Gaps and Monitoring

In section 6.3 of the Miami watershed assessment report, a number of recommendations were made for filling data gaps. The recommendations and ODF responses to these recommendations are provided in the following pages.

For each of the recommended data gaps, ODF considered the need for data collection based on the following criteria:

- (a) Insufficient data were available to answer the questions posed by the watershed analysis; or
- (b) Increased data would facilitate our ability to make management or restoration decisions.

Based on these criteria, this section describes proposed actions and priority/timelines for completing these data acquisition activities.

Please note that this list is tentative. Final implementation will depend on available resources.

Stream temperature and water quality monitoring.

Recommendation: ODF should consider two types of water quality monitoring:

1. A temperature monitoring program that stratifies ODF lands at confluences with major tributaries as well as ownership boundaries.
2. Water quality monitoring at Moss Creek Bridge for fecal coliform, total suspended solids, and nutrients.

Action 1. Continue the RIPSTREAM study

ODF will continue to address the program-level need for temperature monitoring through the existing Riparian and Stream Temperature Study. While this study does not include sites within the Miami project area, it is expected to yield results that will be applicable to the Miami.

Timeline. This study is ongoing, with completion expected by 2010. A preliminary report will be available in 2006.

Responsibility: Salem monitoring unit.

Action 2. Continue efforts to institute the Watershed Scale Effectiveness Study

ODF will pursue funding and partnerships to conduct a watershed-scale effectiveness study. This study is designed to provide insights regarding potential effects of current forest practices upon water quality and fish populations. This project may include a subwatershed within the Miami project area.

Timeline: Project design and funding efforts for the watershed-scale effectiveness study are ongoing.

Responsibility: State Forests Aquatic and Riparian Specialist.

Actions not taken.

ODF does not presently intend to conduct water quality monitoring specific to the Miami watershed. It will, however, re-evaluate monitoring needs if new information suggests this is needed to make management decisions.

As a corollary to the above point, ODF does not intend to conduct water quality monitoring at Moss Creek. This site is well off ODF land and is not indicative of ODF activities. Additionally, the types of monitoring suggested at this site are commonly associated with non-forest land uses.

Aquatic habitat surveys

Recommendation: ODF should consider resurveying those ODFW habitat survey reaches that have not been surveyed since 1996. Additionally, ODF should consider expanding the surveys to include other fish bearing streams not yet surveyed.

Action 1. Clarify needs relative to aquatic habitat surveys

ODF will conduct discussions to clarify its needs from aquatic habitat surveys. As part of this, ODF will work with ODFW to generate effective surveys that meet the needs of both agencies. Discussion will focus on the following points:

1. What questions need to be answered through habitat survey?
2. What survey methods are needed to answer those questions?
3. Where should surveys take place?

If the standard habitat survey protocols meets mutual needs, then any future surveys will be done according to that protocol. If it is found that modifications are needed to meet ODF monitoring needs, then they will discuss appropriate modifications.

Examples of potential modifications include the following:

1. Expansion of riparian data to answer questions regarding the function of hardwood dominated riparian areas.
2. Protocol modification for compatibility with ODF effectiveness monitoring protocols on the Trask.

Over the course of this process, it may be found that no surveys need to be done in the Miami. This might occur if it were found that ODF needs were better served by performing surveys in nearby watersheds, then extrapolating the results to the Miami.

Timeline: A needs clarification process is currently (2006) taking place in the connection with the Wilson watershed analysis project. It is anticipated that the results of this process will be applicable to the Miami.

Responsibility: Salem Watershed specialist, aquatic riparian specialist, Tillamook Unit Forester, ODFW aquatic biologist.

Action 2. Conduct aquatic habitat surveys, as determined to be needed through Action 1.

Based on the results of Action 1, ODF will determine the extent of aquatic habitat surveys necessary to fill its needs and will seek funding to perform these surveys. ODF will seek funding for these aquatic habitat surveys.

Timeline: Surveys will be conducted as funding allows and based upon decision made through Action 1.

Responsibility: ODFW survey staff, Tillamook Unit Forester

Noxious weeds inventory and control plan

Recommendation: Create a noxious weeds inventory and control plan (specifically knotweed): No explicit data exist on the species, location or density of competing and unwanted vegetation. This effort would include both upland and riparian area conditions.

Action 1. Consult with the Oregon Department of Agriculture
ODF will consult with the Oregon Department of Agriculture (ODA) to determine whether ODA's program for monitoring invasive species and noxious weeds can address state forest needs.

Timeline: 2006.

Responsibility:

Action 2. Continue the informal inventory of noxious weeds.
While ODF agrees that it is desirable to control noxious weeds, these weeds have had a minor effect on ODF land to date. For this reason, weeds have been controlled on a site-specific basis and a formal, systematic survey has not been considered a high priority. However, ODF is maintaining an informal survey of weed occurrences. This information is not formally stored in one particular location.

In the current biennium, it would be desirable to start a database to record locations of noxious weeds. A potentially suitable database for storage of this information is found at the following website: www.weedmapper.org. ODF will consider the suitability of this website for long-term storage of information.

Timeline: Ongoing.

Responsibility: Tillamook field foresters, maintenance personnel.

Amphibian surveys

Recommendation: No amphibian surveys have been conducted in the Miami River Watershed. Inferences regarding habitat requirements were used to map potential habitat in this analysis. ODF should consider conducting amphibian surveys, targeting Columbia torrent salamander and tailed frogs.

Action 1. Clarify needs relative to amphibian surveys.

ODF will conduct an internal discussion to determine its needs from amphibian surveys. Based on this, ODF will determine the appropriate scope and methodology of these surveys. Based on past interest, it is likely that these surveys will focus on the population characteristics and distribution of tailed frogs and torrent salamanders. This, however, will not necessarily result in surveys within every watershed. Surveys on the Miami may or may not be necessary to address ODF needs.

Timeline: Program-level discussions have been initiated.

Responsibility: Salem Wildlife biologists, NWOA biologist, Salem watershed coordinator.

Action 2. Conduct amphibian surveys, as warranted by the results of Action 1.

Timeline: To be determined.

Responsibility: Surveys to be performed by contractors. Oversight to be determined.

Hydrologic units

Recommendation: Delineate existing subwatersheds further into 7th-field hydrologic units according to USGS protocol.

Action 1. Use existing subwatershed delineations.

ODF will continue to use existing subwatershed delineations. These will be reviewed periodically for consistency with management objectives and existing protocols.

ODF finds that the present watershed delineations to be adequate to its purposes. The 5th- and 6th-field delineations are useful for summarizing overall conditions, while management at a smaller scale is commonly performed on a reach-specific basis.

Additionally, ODF does have a GIS layer with 7th-field hydrologic units. There is no reason to alter this layer to fit in with a “standardized” USGS 7th-field delineation, since a standardized delineation does not exist at this time.

Timeline: No timeline is needed, as current actions are being continued.

Responsibility: Not applicable.

Digital stream coverage

Recommendation: Improve the current streams GIS layer to provide consistent densification and improve accuracy.

Action 1. Explore opportunities to replace or refine the existing streams layer.

ODF will conduct internal discussions to formulate and evaluate alternatives. Intended participants include the State Forests Watershed Program, the State Forests Monitoring Section, and representatives from the Private and Community Forests Program. Further actions will depend on the result of these discussions.

Timeline: Initial discussions began in the Spring of 2006 and are ongoing. To date, no acceptable replacement has been found.

Responsibility: Salem aquatic-riparian specialist.