CHAPTER VII. IMPLEMENTATION OVERSIGHT AND SUCCESS MONITORING

The implementation plan for the Wolf Run Watershed has numerous best management practices, responsible parties, timelines, objectives, and goals. Key to ensuring that the watershed goals are achieved is monitoring of the implementation activities and their success.   This section describes how the plan implementation will be evaluated.

A.   Organization

With the completion of this watershed based plan, the focus transitions from planning to implementation. Progress on the plan goals, objectives, and action items will need to be coordinated and monitored in order to ensure that the implementation moves according to schedule and achieves the expected level of success. The transition in focus must also be accompanied by a transition in organization.

The Wolf Run Watershed Council was formed for the purpose of providing input into the development of the Wolf Run Watershed Based Plan. Participation in the Council has been open to all interested stakeholders with input provided at quarterly meetings and technical committees. As the central organization involved in the development of the plan, the Wolf Run Watershed Council is the organization best suited to coordinate and monitor the implementation of the watershed based plan. However, to do so, the structure of the organization must change.

It is recommended that the Wolf Run Watershed Council establish a set of bylaws or organizational rules to determine how to proceed with decision making in the organization. It is also recommended that the Council secure commitments for key roles in the organization, including a Watershed Coordinator, Executive Team, Implementation Team, and Technical Team. Commitment to serve in these roles would be for a defined period, to allow for stakeholders to change with circumstances.

The Watershed Coordinator would provide a central contact for the watershed implementation. The responsibilities of this position would include coordination amongst various responsible parties, funding sources, stakeholders, partners, and technical resources, as well as tracking progress of implementation projects and scheduling Council meetings. It is recommended that this position be funded, at least in part, through program grants. The Watershed Coordinator would follow the proposals in the watershed based plan to ensure the Council remains on course in its implementation while also considering adaptive management as the watershed and desires of the stakeholders change.

The Executive Team would be responsible for making decisions between Council meetings and could increase the progress of the Council on watershed activities and documentation between meetings. This group would record Council meeting minutes, set agendas, and be responsible for coordinating watershed events. This team would replace the role fulfilled by the Wolf Run Project Team in development of the watershed based plan.

The Implementation Team would be responsible for reviewing progress of project implementation, including progress on funded projects or events, tracking outreach and support of stakeholders for BMP implementation, watching for new opportunities or strategy as they arise, and summarizing the progress and volunteer opportunities for the larger Council audience. This team would also be responsible for adjusting the milestones for individual BMPs and projects according to stakeholder support or opportunities. Members of this team should include representatives of key projects or landowners in the watershed, if possible.

The Technical Team would be responsible for evaluating the technical aspects of implementation as well as water quality monitoring data from pre- and post-construction. This team would include technical consultants as well as partnering organizations. The Technical Team would advise the Council on progress towards load reductions and on feasible implementation options for willing stakeholders. They would also report technically on BMP accomplishments or failures, such as meeting/not meeting pollutant reduction milestones, and recommend adapting implementation strategies based on the findings of the Implementation Team.

Together, through these roles and responsibilities the Wolf Run Watershed Council will ensure that the plan is a living document, responding to challenges and opportunities that may arise over time. Responsible parties listed in the implementation plan may form the base of many of these teams, but outreach to additional stakeholders may be necessary to achieve the project goals.

B.   Presentation and Outreach

The Wolf Run Watershed Council will work to present the objectives and recommendations of the Wolf Run Watershed Based Plan to the general public as well as key stakeholders within the watershed. The Watershed Based Plan will be published on the LFUCG and FOWR websites in order to increase its accessibility to the public. FOWR also has obtained funding, through the FY 2012 LFUCG Stormwater Quality Projects Incentive Grant Program, to recruit property owners in the Wolf Run Watershed to install BMPs or apply for grants to do so in the future. Such outreach efforts, as well as those listed in the implementation plan, will be necessary to ensure that BMPs are implemented.

Marketing of the Watershed Based Plan will remain a critical role of the Watershed Coordinator as well as the Implementation Team. For many of the BMPs, milestones were less concrete because landowner support for implementation had not been evaluated. One of the initial goals of the Wolf Run Watershed Council should be to outreach to the stakeholders identified in the Watershed Plan, evaluate the support for implementation, and then establish renewed milestones and priorities based upon the response.

Development of a brief summary of the Watershed Plan will also aid in the education and outreach efforts by condensing the findings of the plan for consumption by local leaders and important audiences. Additionally slideshow presentations of the plan findings will allow for outreach to local groups and meetings.

C.   Monitoring Success

Success of the Watershed Plan should be monitored in terms of implementation progress, education and behavior change, as well as water quality sampling results. Review of these success indicators will allow the Council to evaluate whether changes in the implementation strategy or planning are necessary.

1.   Implementation Tracking

One measures of success is the evaluation of whether the implementation plan is actually being carried out. As such, the Council, and the Implementation Team in particular, should document progress on each of the 138 listed BMPs over time. Such tracking should include responses from responsible parties, funding updates, design and construction updates, impediments, and pending responses. In addition to tracking the status of the individual BMPs, specific measurable indicators of success should be tracked for each BMP. For instance, for the Neighborhood Association BMP Program, the number of outreach events should be recorded as well as the number of rain gardens and rain barrels installed and the length of riparian buffer

improved. For Trash and Debris BMPs, the pounds of trash collected and number of participating volunteers should be recorded. For numerous BMPs in which evaluation of the landowner support is the first step, such contacts should be documented. The latitude and longitude of each of the implemented BMPs should also be documented in order to aid future success monitoring.

2. Education and Outreach Tracking

For education and outreach activities, pre- and post-educational surveys should be utilized to document changes in perceptions and behaviors as a result of educational activities. These surveys may be used to refine and improve training workshops and outreach events based on the aspects of the programs view as most valuable. These activities should also be evaluated as to whether they are utilizing the most appropriate venues and addressing the desired audiences to accomplish the plan goals.

3. Water Quality Monitoring

The water quality monitoring should be performed, using the parameters listed in Table 40, page VI-1 through VI-2, in order to measure the progress made towards the watershed plan goals. A number of monitoring data sources should be used to evaluate the progress on water quality goals.

A number of agencies will continue to perform water quality monitoring for baseline conditions in the watershed areas. This includes MS4 permit compliance monitoring by LFUCG and University of Kentucky, volunteer monitoring by FOWR and Kentucky Watershed Watch, periodic surface water monitoring by KDOW, and quarterly monitoring of McConnell Springs by KDOW under the ambient groundwater monitoring network. These sources should be evaluated to determine how the water quality may be improving with BMP implementation.

Pre- and post-construction sampling should be utilized for projects which incorporate stream improvements or green infrastructure. The Technical Team should develop monitoring standards for each implementation activity type. The data should allow for statistical analysis and be sufficient to demonstrate improvement due to the project construction. If the project is funded under a 319 grant, then a quality assurance project plan will need to be developed.

Some monitoring will need to be implemented to further trace sources of bacteria and conductivity within the watershed. Volunteer monitoring as well as monitoring under the LFUCG or University of Kentucky MS4 illicit discharge detection and elimination programs will be utilized to trace the source of pollutants and propose remediation efforts to reduce these levels. These monitoring activities will be ongoing, but updates should be provided to the Council.

Because Wolf Run is an urban environment, future monitoring should be performed for benzene, toluene, ethylbenzene, and xylene volatile organic compounds (BTEX) as well as polycyclic aromatic hydrocarbons (PAHs). BTEX are typically found in petroleum products including gasoline and diesel fuel, and therefore roadway runoff and underground storage tank leachate. Commons sources of PAHs include ignition of petroleum products and wood, road asphalt surfaces, and parking lot sealants. Sampling has not been conducted for these pollutants, so monitoring in the watershed should evaluate whether these chemical are pollutants of concern in the watershed. Finally, a comprehensive watershed monitoring effort should be conducted after five years of implementation. This comprehensive monitoring should be similar in scope and effort as the monitoring plan developed for this watershed plan. The purpose of this sampling would be

to compare progress towards to the project goals over five years and evaluate how the plan may need to be adjusted to account for these changes.

D.   Evaluating and Updating the Plan

The goals, objectives, and recommended BMPs were based upon the best available information and projected needs of the community at the time of this plan development.   With time, the watershed changes as well as the people within it and their desires. The impacts to the watershed can also change with time and as new monitoring data is collected. Therefore, the Watershed Plan must have the flexibility to change with time.

As mentioned previously, some readjustment of project priorities may needed after the first year of implementation due to the large number of areas in which landowner support for BMP implementation was unknown. Once these landowners have been contacted to determine their support, the milestones and implementation schedules for individual BMPs should be clarified by the Watershed Council.

It is recommended that the Wolf Run Watershed Council update the plan on a five year basis, and consider significant changes in approaches on an annual basis. The five year evaluation corresponds with milestone time frames and allows sufficient time for improvements to occur between evaluation periods. It also corresponds with a comprehensive monitoring effort which should indicate the water quality progress achieved by the plan. Annual evaluations of changes in approach allow for sufficient flexibility to adjust to changes as they occur.