|  |  |
| --- | --- |
|  | **Watershed-Based Plan Checklist** |
|  | **Watershed-Based Plan Basics** | Minimum required | Useful components  | Comments/Notes |
| 1 | Watershed-based plan lists author with contact information, draft/version date & planned revision date. | X |   |   |
| 2 | Watershed general information is included and mapped - state, county, incorporated & unincorporated areas, demographics, Tribes. | X | X  |   |
| 3 | Physical attributes are described - topography, geology, soils, hydrology, climate, biology, endangered species, etc. | X |   |   |
| 4 | Special districts are identified - park, school, conservancy, sewer, soil & water district, agricultural, regional planning agencies. | X |   |   |
| 5 | Special designations such as national, state or wild & scenic rivers & WHP areas are summarized in the Plan. | X |   |   |
| 6 | The Plan identifies watershed and sub-watershed HUCs, watershed size, waterbody identification, state 303(d) designations, use designation, use attainment.  | X |   |   |
| 7 | Previous watershed reconnaissance, inventories and data gaps, feasibility studies, or surveys are described in the Plan. |  X |   |   |
| 8 | If applicable, future watershed conditions are approximated based on comprehensive plans, zoning maps, population projections, etc. |   | X |   |
| 9 | Watershed group members, stakeholders, technical or leadership committee, and sponsors are identified. | X |   |   |
| 10 | All partners are identified such as watershed residents, landowners, local businesses/industries, local & state government agencies, nongovernmental organizations, educational institutions, etc. | X |   |   |
| 11 | A complete acronym list is included. |  X |  |   |
| 12 | Cited material is properly referenced and sources are included in appendices. | X |   |   |
|  |  |  |  |  |
|  | **Element A. Identification of causes of impairment and pollutant sources** | Minimum required | Useful components  | Comments/Notes |
| 1 | If applicable, the Plan should reference a TMDL in development or approved by EPA. | X |   |   |
| 2 | The causes and sources of impairment are identified and described.  | X |  |  |
| 3 | A description of how the causes and sources of NPS pollution were identified is included. | X |   |   |
| 4 | Causes and sources of the impairments are mapped in sufficient detail to guide implementation. (Land use, AFO, WWTF, septic systems, GW nitrates, etc.) | X |   |   |
| 5 | The sources of impairment are prioritized as primary and secondary, etc. |  X |   |   |
| 6 | Create watershed inventory of current BMPs on the landscape & impaired areas for both groundwater and surface water |  | X |  |
| 7 | Critical areas causing NPS pollution are identified and ranked for priority implementation.  | X |  |  |
| 8 | All permitted point sources are mapped and described including a list of their waste load allocations. | X |  |  |
| 9 | An assessment of future threats has been performed.  |   | X |   |
|  |  |  |  |  |
|  | **Element B. Estimated pollutant loadings and expected load reductions from management measures** | Minimum required | Useful components  | Comments/Notes |
| 1 | Watershed restoration and goals are clearly stated. | X |   |   |
| 2 | Watershed goals are realistic and achievable in both the short and long term. | X |   |   |
| 3 | The Plan provides present pollutant load, baseline level, or benchmark value.  | X |   |   |
| 4 | Load reductions are estimated for each type of management measure identified in the Plan.  | X |   |   |
| 5 | Load reductions achieve environmental goals set forth in the Plan.  | X |   |   |
| 6 | Load reductions presented are sufficient to meet designated uses and remove stream/water body from 303(d) list.  | X |   |   |
| 7 | Method(s) of estimating load reductions are included. | X |   |   |
| 8 | Data sources and/or modeling process are accurate and verifiable and assumptions can be reasonably justified.  | X |   |   |
| 9 | Any modeling limitations are discussed. All data sources, including input and output files used for modeling are available upon request. | X |   |   |
| 10 | The Plan discusses lag time, natural variability and the difficulty in precisely predicting the performance of management measures over time | X |   |   |
| 11 | A process is included for updating the Plan if load reduction estimates should change (additional data, new management measures, etc.). | X |   |   |
|  |  |  |  |  |
|  | **Element C. Describe management measures that will achieve load reductions and targeted critical areas** | Minimum required | Useful components  | Comments/Notes |
| 1 | The Plan identifies tangible and feasible potential management measures to be installed in critical areas. | X |   |   |
| 2 | Management measures chosen must maximize pollutant load reductions  | X |   |   |
| 3 | The rationale for the chosen management measures is presented and linked to the appropriate pollutant(s). | X |   |   |
| 4 | The Plan includes non-structural NPS management measures (plans, policies, programs, education & outreach). | X |   |   |
| 5 | Management measures to be implemented are quantified for each management measure (e.g. miles of stream bank fenced, acres converted to no-till…) | X |   |   |
| 6 | Priority areas are ranked and mapped.  | X |   |   |
| 7 | Management measures are prioritized by the extent of load reductions necessary to meet goals | X |   |   |
| 8 | Proposed management measures achieve load reduction goals. Ag BMP are in accordance with NRCS or state standards | X |   |   |
| 9 | An adaptive management process is in place to evaluate effectiveness of management measures where applicable. | X |   |   |
|  |   |   |   |  |
|  | **Element D. Estimate technical and financial assistance needed, associated costs, and the sources and authorities that will be relied upon to implement the plan** | Minimum required | Useful components  | Comments/Notes |
| 1 | The Plan identifies all technical and financial needed for implementation (planning, modeling, load reductions, monitoring, and annual maintenance). | X |   |   |
| 2 | Any potential federal, state, local, and private funding sources are identified. | X |   |   |
| 3 | Cost estimates are provided for each management measure. | X |   |  Per unit |
| 4 | Cost estimates are organized by priority and time frame. | X |   |   |
| 5 | All funding sources are allocated to individual activities (e.g. NRCS funds for agricultural management measures cost share). | X |   |   |
| 6 | Any shortfalls in technical or financial assistance are identified. | X |   |   |
| 7 | Detailed budget provides clear itemization of project costs. | X |   |  |
| 8 | The Plan includes sources for cost figures, and describes the reasoning behind the estimates. | X |   |   |
| 9 | Any services or activities that must be competitively bid are identified. | X |   |   |
| 10 | Economic and environmental benefits are discussed and weighed against implementation costs. |   |  X |   |
|  |  |  |  |  |
|  | **Element E. Information and education component used to enhance public understanding of the project** | Minimum required | Useful components  | Comments/Notes |
| 1 | A community outreach strategy has been developed. | X |   |   |
| 2 | Public meetings and forums have been/are scheduled to be held. | X |   |   |
| 3 | Current and potential stakeholders in the watershed have been identified. | X |   |   |
| 4 | A strategy has been developed to keep stakeholders involved for the duration of the Plan. | X |   |   |
| 5 | The Plan describes information and education components to enhance public understanding of the project. | X |   |  educate the public on areas hydrologically connected |
| 6 | Education and outreach materials specific to the watershed will be developed (with the state's approval) and distributed. |   |   |   |
| 7 | An evaluation process to gauge educational success is included. | X |   |   |
|  |  |  |  |  |
|  | **Element F. Schedule for implementing the management measures identified in the plan** | Minimum required | Useful components  | Comments/Notes |
| 1 | The Plan describes the scheduled order of implementation including the planning process, implementation of management measures, and monitoring. | X |   |   |
| 2 | The schedule follows a logical and continuous sequence. | X |   |   |
| 3 | The schedule covers a reasonable time frame and is reasonably expeditious | X |   |   |
| 4 | Critical areas are prioritized in the schedule. | X |   |   |
| 5 | The schedule is stakeholder driven. |   |   |   |
| 6 | The schedule is organized into phases that can be broken into individual projects. |   |   |   |
| 7 | The schedule includes specific dates and expected accomplishments. If Plan start date is unsure, relative time frames are used. (year 1, first month, etc.) | X |   |   |
| 8 | Measurable milestones with expected completion dates or time frames are identified to evaluate progress. | X |   |   |
| 9 | The Plan states who will be responsible for ensuring the schedule is followed | X |   |   |
| 10 | The Plan states who will be responsible for each scheduled task. | X |   |    |
| 11 | Progress on scheduled tasks will be documented. | X |   |   |
|  |  |  |  |   |
|  | **Element G. Description of interim measurable milestones to determine whether NPS management measures are being implemented** | Minimum required | Useful components  | Comments/Notes |
| 1 | Interim, measurable milestones with expected completion dates or time frames are identified. | X |   |   |
| 2 | The Plan provides a list or description of interim milestones for determining whether management measures are being implemented. | X |   |   |
| 3 | Milestones are based on tangible, achievable actions. | X |   |   |
| 4 | A phased approach with interim milestones is used to ensure continuous implementation. | X |   |   |
| 5 | Milestones other than management measures are included (e.g. number of outreach events, meetings, hiring coordinator, etc.). | X |   |   |
| 6 | Plan outlines the responsible parties for implementing and reviewing milestones. | X |   |   |
| 7 | The Plan includes alternatives or revision options if interim milestones are not being achieved. | X |   |   |
|  |  |  |  |  |
|  | **Element H. Set of criteria that can be used to evaluate the Plans effectiveness over time** | Minimum required | Useful components  | Comments/Notes |
| 1 | The Plan has developed a set of criteria that will be used to determine whether load reductions and water quality goals are being met. | X |   |  |
| 2 | Plan has also developed criteria for other goals; for example improvements in fish diversity, water clarity, benthic community, reduction of nitrates in drinking water and communities under AO, number of beach closings, etc. where applicable. |  X |   |   |
| 3 | The proposed criteria include quantitative measures of implementation progress and pollution reduction; and qualitative measures of overall program success. | X |   |   |
| 4 | Short, mid, and long term criteria have been developed to measure project effectiveness. | X |   |   |
| 5 | The Plan identifies a course of action if project goals are not met. | X |   |   |
| 6 | The Plan describes an adaptive management approach with threshold criteria identified to trigger modifications | X |   |   |
| 7 | Criteria are provided for determining when the watershed-based plan (or NPS TMDL) goals need to be revised. | X |   |   |
|  |  |  |  |  |
|  | **Element I. Monitoring component to evaluate the effectiveness of the implementation efforts over time** | Minimum required | Useful components  | Comments/Notes |
| 1 | The Plan has a monitoring component that measures directly the success of all management measures. | X |   |  |
| 2 | The data from monitoring component can be used to determine if load reductions and water quality goals are being met. | X |   |   |
| 3 | The monitoring component will provide the data necessary to satisfy all Plan objectives (planning progress, outreach effectiveness, beach restoration, etc). | X |   |   |
| 4 | The monitoring should support the criteria defined in Element H. | X |   |   |
| 5 | The monitoring design has identified effective sites, parameters, and sampling frequencies. | X |   |   |
| 6 | The monitoring component identifies who is performing the sampling or data collection. | X |   |  QAPP |
| 7 | The monitoring plan has outlined procedures to be implemented, such as Plan revision, if criteria are not being achieved incrementally for the resources available/expended. | X |   |   |