



WRIA 1 Watershed Management Project

Final Scope of Work

March 27, 2000

**WRIA 1 Watershed Management Project
Scope of Work**

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¹ The following documents are referenced throughout this draft by their associated number. The purpose is to illustrate the relationship between the scope of work and regulatory/other requirements and agreements.

3/27/00

- 50 5. PU/IG direction
- 51 6. Presentation from Thomas Hardy
- 52 7. Existing draft SOW
- 53 8. Public Involvement and Education Conceptual Plan
- 54 9. Statewide Strategy to Recover Salmon: Extinction is not an Option

55 **Executive Summary**

56
57 Residents of Whatcom County are faced with an increasing number of challenges related to water
58 resources, despite what at times appears to be a seemingly abundant resource. These challenges
59 include limited water supplies to meet current and future needs, water quality degradation, and the
60 listing of Chinook salmon and bull trout as “threatened” under the Endangered Species Act (ESA).
61 Left unresolved, these issues will have a broad and far-reaching affect on the economic and
62 environmental health of the community.

63
64 In 1998 the State legislature passed Engrossed Substitute House Bill 2514, codified as RCW 90.82,
65 known as the Watershed Management Act. This Act included a grant-funding element requiring
66 completion of a Watershed Management Plan within four years of receipt of grant funding. The Act
67 provides a framework to better understand the nature and extent of water resource management issues
68 and to locally plan and implement solutions to identified problems.

69
70 Participation in the process is voluntary. In May 1998, Whatcom County, the City of Bellingham, and
71 the Public Utility District No. 1 of Whatcom County decided to engage in the process with the County
72 acting as lead agency. Pursuant to RCW 90.82, these three local governments invited the Lummi
73 Nation and the Nooksack Tribe to join the process. The Nooksack Tribe described their involvement
74 in the project through a July 1998 letter. After a Memorandum of Agreement (MOA) was signed by
75 the three local governments and the Lummi Nation in October 1998, both of the tribal governments
76 had joined the process. The MOA further defines the project objectives, participants, and the decision-
77 making process. Since May 1998, funding (grant and other) has been obtained, resources have been
78 allocated, and actions are underway based on requirements of the law, subsequently signed contracts
79 and agreements, and input from the local community. Together, the five Governments initiated public
80 involvement, water quantity, and instream flow work tasks, in parallel with the Planning Unit
81 formation work task. In May 1999 Planning Unit Caucuses were formed. In June 1999 the first
82 Planning Unit meeting was held.

83
84 The issues that will be addressed by the WRIA 1 Watershed Management Project include water
85 quantity, water quality, instream flows, and habitat. Project assessments and decision-making will
86 utilize best available science (3).

87
88 The purpose of this scope of work is to outline the general process, strategy, and actions necessary to
89 effectively manage water resources in WRIA 1. This scope of work includes actions taken to date. It
90 provides the framework from which more detailed work plans will be developed and approved by
91 appropriate entities. These work plans will include goals/objectives, specific tasks, budgets, who will
92 implement, work products, and schedules. Where appropriate, work plans will include design
93 parameters such as time step, probable error, and expected contribution to satisfying informational
94 needs. The standard established in the MOA is “best available science,” defined as objective and
95 repeatable analysis based on adequate empirical data collected with appropriate quality assurance/
96 quality control procedures in place.

97
98 In many cases, specific work plans will be developed and implemented under the guidance of
99 Technical Teams. Technical Teams will generally be composed of representatives from the Initiating
100 Governments and the Planning Unit or their designees, and other technical experts. The Technical
101 Teams will report to and receive direction from the Initiating Governments and Planning Unit.
102 Community members, private consultants, and/or local, state, tribal, federal government agencies may
103 be recommended by the Technical Teams to assist in developing and implementing work plans.

104
105 The approach taken with this scope of work reflects the requirements of the Watershed Management
106 Act, adopted agreements and contracts, recommendations from program participant (Initiating

107 Governments and Planning Unit), and the Guide to Watershed Planning and Management. This scope
 108 of work is designed to guide the development of a Watershed Management Plan for WRIA 1. The
 109 Plan may include elements deemed desirable by local planning participants that exceed the minimum
 110 requirements of the Act. This scope of work is a working document that may need to be refined as
 111 work progresses and more information is collected.

112

113 **1.0 Initiation**

114 **1.1 Background**

115 Beginning in 1998 and continuing over the next few years, decisions will be made and plans
 116 developed and implemented regarding the water resources of the Nooksack River watershed and
 117 certain adjacent streams (Water Resources Inventory Area 1 or WRIA 1). These decisions and plans
 118 will coordinate with the land use/resource management planning under the Growth Management Act,
 119 the Shorelines Management Act, and other similar Acts, along with planning/projects in response to
 120 the Endangered Species Act (ESA) listing for Chinook salmon and bull trout, and will largely
 121 determine the landscape, the environmental health, and the economic future of Whatcom County
 122 residents. Agencies of federal, tribal, state, and local governments are authorized to make these
 123 decisions. The state legislature, with agreements from federal agencies, provided an opportunity for
 124 watershed management decisions to be made locally.

125

126 In 1998 the State legislature passed Engrossed Substitute House Bill 2514, codified as RCW 90.82,
 127 known as the Watershed Management Act. The Act provides a framework to better understand the
 128 nature and extent of water resources issues and to locally plan and implement a variety of solutions to
 129 address those issues. More specifically, the Act requires the development and implementation of a
 130 Watershed Management Plan that:

131

- 132 • Balances the competing resource demands in the watershed;
- 133 • Provides for the economic well-being of the citizenry and community;
- 134 • Protects existing water rights;
- 135 • Is consistent with current law;
- 136 • Does not conflict with existing state statutes, federal laws including Endangered Species Act
- 137 (ESA) recovery actions, tribal laws, and tribal treaty rights; and
- 138 • Provides local citizens with the maximum possible input concerning their goals and objectives for
- 139 water resource management and development.

140

141 Participation in the process is voluntary. In May 1998, Whatcom County, the City of Bellingham, and
 142 the Public Utility District No. 1 of Whatcom County decided to engage in the process with the County
 143 acting as lead agency. Pursuant to RCW 90.82, these three local governments invited the Lummi
 144 Nation and the Nooksack Tribe to join the process. The Nooksack Tribe described their involvement
 145 in the project through a July 1998 letter. After a MOA was signed by the three local governments and
 146 the Lummi Nation in October 1998, both of the tribal governments had joined the process. The MOA
 147 further defines the project objectives, participants, and the decision-making process. Since May 1998,
 148 funding (grant and other) has been obtained, resources have been allocated, and actions are underway
 149 based on requirements of the law, subsequently signed contracts and agreements, and input from the
 150 local community. Together, the five Governments initiated public involvement, water quantity, and
 151 instream flow work tasks, in parallel with the Planning Unit formation work task. In May 1999
 152 Planning Unit Caucuses were formed. In June 1999 the first Planning Unit meeting was held.

153

154 The decision to engage in the Watershed Management Process was made because of the increasing
 155 number of water problems the community is facing. Competing demands for the finite water
 156 resources in WRIA 1 pose a host of interconnected, serious challenges that threaten to have a variety

157 of negative impacts to our environment and our economy. While these challenges have been
 158 recognized for years, the need to address them has now become imperative.

159
 160 The demands for water include the needs of fish for sufficient water in streams (known as instream
 161 flow) to enable migration and propagation. Since some local fish populations have been listed under
 162 the federal Endangered Species Act, we must find a means to ensure that there is sufficient water
 163 available for fish, or face federal sanctions. In addition, tribal treaty rights include the right to harvest
 164 fish at all usual and accustomed grounds and stations throughout WRIA1. Meanwhile, a growing
 165 human population means growing demands for water for farming, homes, businesses, and industries --
 166 demands that are largely going unmet, which in turn is limiting economic development.

167
 168 The quality of our water is also a problem. Human activities affect both surface and ground water
 169 quality and have lowered water quality below that necessary for people and for fish in some areas.

170
 171 The immediate challenge is to collect or generate sufficient information upon which to base rational
 172 water resource management decisions. We need to know how much water naturally occurs throughout
 173 the year, how much water is represented by both state and federal (including tribes) water rights and
 174 claims, how much water is already allocated, or how much additional water, if any, is available for
 175 other uses. In addition, the extent to which ground and surface are interconnected varies throughout
 176 the watershed and represents both a water resource management challenge and opportunity.

177
 178 Because all elements of the watershed management project -- quantity, quality, habitat, and instream
 179 flow -- are physically, chemically, and biologically interconnected throughout WRIA 1, any successful
 180 management plan needs to address all of these components.

181
 182 Because water resource issues and policies are both complex and contentious, a collaborative decision
 183 making model appears to hold the greatest promise for developing a water resource management plan
 184 that will be successful over time. This collaborative effort will be conducted in a manner that does not
 185 violate the government-to- government principles of the Indian Nation and Indian Tribe in WRIA 1.

186
 187 In March 1999, a preliminary draft scope of work was developed by the Initiating Governments. This
 188 initial draft identified a number of actions required by law that could be acted on while obtaining
 189 further input from the general public, Planning Unit, and others. The initial draft was presented to the
 190 public and Planning Unit when they began meeting in June. The Planning Unit recommended a
 191 number of modifications of the initial draft. This revised draft is much less detailed than the initial
 192 scope of work and is intended to provide a broader framework for the WRIA 1 Watershed
 193 Management Project. This revised scope of work incorporates those recommendations, adopted
 194 agreements and contracts, requirements of the Watershed Planning Act, and suggestions from the
 195 "Guide to Watershed Planning and Management." These documents are referenced throughout this
 196 draft and listed by a number as reference documents in the Table of Contents.

197
 198 1.2 Scope of the Watershed Planning Project

199 1.2.1 Geographic

200 The geographic scope of project is Water Resource Inventory Area 1 (figure to be added) and certain
 201 parts of Canada that drain to WRIA1. This area includes the drainage area of the Nooksack River and
 202 its tributaries, including portions of Skagit County which are drained by the South Fork of the
 203 Nooksack River. The area also includes the U.S. portions of the Abbotsford-Sumas Aquifer and the
 204 Sumas River drainage that extend into British Columbia. In addition, the study area includes several
 205 coastal drainages that drain water into marine waters along the coastline of Whatcom County. The
 206 study area includes the Lake Whatcom drainage.

207

208 1.2.2 Issues

209 The scope of issues to be addressed under the Act must include water quantity, but may also include
210 water quality, instream flows, and habitat. The Initiating Governments have chosen to address all four
211 issues/components in the WRIA 1 Watershed Management Project as they are inseparable. If, during
212 the course of their work, technical teams encounter new information which in their opinion, warrants a
213 modification of the Scope of Work to ensure their new information is adequately addressed, the
214 technical team shall propose an amendment to the Scope of Work for approval by the Planning Unit
215 and the Initiating Governments.

216

217 1.2.3 Time Frame

218 Under the Watershed Planning Act, a proposed plan that has been approved by the Planning Unit must
219 be submitted to the County within four years of the date that the Planning Unit first received funding.
220 For WRIA 1, the Watershed Plan must be submitted by June 30, 2002. Implementation, monitoring,
221 and evaluation of the Plan will continue indefinitely into the future.

222

223 1.2.4 Affected Parties

224 It is understood that all federal, tribal, state, and local governments with jurisdiction, as well as all
225 types of private water resource interests and their customers, clients, and members within WRIA1 and
226 hydrologically connected areas are affected parties. It has been determined, however, that it is in the
227 best interest of all affected parties that the membership of the WRIA 1 Planning Unit, as defined by
228 the Act, shall consist of the Initiating Governments (Whatcom County, City of Bellingham, PUD1,
229 Lummi Nation, and Nooksack Tribe), other governments (state agencies, federal agencies, small cities,
230 diking/drainage districts, and water districts), and Water Resource Interests caucuses (fishers,
231 agriculture, non-municipal water systems, forestry, environmental, land development, and private well
232 owners). It is extremely important that early on, and throughout this process, there is a clear
233 understanding of the extent to which the issues and interests of the governments and water resource
234 interests are addressed. Although the scope of work and goals/purposes have been written in a manner
235 that attempts to recognize those needs, each government and water interest will be responsible for
236 ensuring that as the Project progresses its interests are being addressed.

237

238 1.3 Implementation Strategy for Scope of Work

239 The purpose of this scope of work is to outline the general process, strategy, and actions necessary to
240 address water resource issues in WRIA 1, including the actions taken to date. It provides the
241 framework from which more detailed work plans will be developed and implemented. These work
242 plans will include goals/objectives, specific tasks, budgets, who will implement, work products, and
243 schedules. Specific tasks should be clearly linked to the requirements specified in the RCW, MOAs,
244 contracts, or other agreed upon documents (5). A distinction should be made if proposed actions
245 exceed the minimum requirements (5). Where appropriate, work plans will include design parameters
246 such as time step, probable error, and expected contribution to satisfying specific information needs
247 (5). Some of this may not be known until the work plans are implemented. The standard established in
248 the MOA is "best available science," defined as objective and repeatable analysis based on adequate
249 empirical data collected with appropriate quality assurance/ quality control procedures in place.

250

251 In many cases, Technical Teams will facilitate the development and implementation of specific work
252 plans. Technical Teams will generally be composed of representatives from the Initiating
253 Governments and Planning Unit or their designees, and other technical experts. Formation of the
254 Technical Teams must be approved by the PU and IGs. Representation on the Teams is determined by
255 each caucus/interest. The Technical Teams will report to and receive direction from the Initiating
256 Governments and Planning Unit. The Technical Teams may choose to develop and implement specific
257 work plans themselves or they may recommend that community members, private consultants and/or
258 government agencies assist. Once work plans are approved, consistent with the March 1999

259 “Administrative Decision-Makers and the Staff Team Roles and Operating Procedures,” updates will
260 be provided to both groups and the Planning Unit on a regular basis.

261

262 In some cases, actions and strategies may be developed without the use of Technical Teams. In those
263 situations, a similar review process will be followed with review and input provided by both the
264 Initiating Governments and the Planning Unit.

265

266 1.4 Planning Unit

267 Under the Watershed Planning Act, the Initiating Governments are charged with, among other things,
268 defining the composition of the Planning Unit. In March 1999, the Planning Unit composition was
269 defined in the administratively adopted “Structure and Function” document. Since that time the
270 Planning Unit has formed with water resource interests and other participants identified.

271

272 Implementation Strategy/Status

273 *The Planning Unit has been meeting on a regular basis since June 1999. Through these*
274 *meetings and other discussions it has become apparent that clarity is needed regarding the*
275 *role of the Planning Unit. More specifically, the Structure and Function document contains a*
276 *organization diagram that describes the composition and roles/functions of the various*
277 *players in the process. These descriptions have generated some confusion regarding the role*
278 *of the Planning Unit. Clarification to the organization diagrams needed to reflect the*
279 *combined understanding of the Initiating Governments and Planning Unit.*

280

281 *The Initiating Governments are developing a new organization diagram that will clarify the*
282 *role of the Planning Unit. The organization diagram will be brought to the Planning Unit for*
283 *input after the revised version is completed.*

284

285 **2.0 Organization of the Watershed Planning Project (Phase 1)**

286 The organizational phase outlines the general information and actions needed to support the technical
287 assessment, solutions evaluation, plan development, and implementation strategy.

288

289 2.1 Goal/ Purpose of the Watershed Management Project

290 The goals/purposes of the WRIA 1 Watershed Management Project are defined by the RCW and other
291 legal agreements such as the intergovernmental MOA signed in October 1998. In addition, the local
292 interests and needs of the public participating in the project have also shaped the project goals. As the
293 project evolves and new information is obtained, these interests/needs may be modified. A summary
294 of the public interests is provided in Appendix G.

295

296 2.1.1 General Purpose/Goals of the Watershed Management Project

297 In general, the goal of the WRIA 1 Watershed Management Project is to have water of sufficient
298 quantity and quality to meet the needs of current and future human generations, including the
299 restoration of salmon, steelhead, and trout populations to healthy and harvestable levels and the
300 improvement of habitats on which fish rely (9)².

301

302 2.1.2 Goals of the Watershed Management Project Components

² The WRIA 1 Planning Unit interprets that char and shellfish are also included in this goal, that improvement to habitat will focus on degraded habitats, and the term “fish” refers back to the groups listed earlier. This language is meant to be consistent with the goals and mandates of the 2496 process and the objectives of the salmon co-managers. Salmon co-management is defined in The Puget sound Salmon Management Plan, implemented under a 1985 Court order under U.S. v. Washington 384 F. Supp. 312 (W.D. Wash. 1974). The co-managers of the fisheries resources are defined as the State of Washington, Western Washington Treaty Tribes, and the federal government. For WRIA 1, the salmon co-managers are the Washington Department of Fish and Wildlife, Nooksack Tribe, and Lummi Nation.

303 More specifically, the Project will address the following specific goals/purposes for each of the four
 304 components identified in the Watershed Management Act and the intergovernmental MOA:

- 305
- 306 • Water Quantity: The goal of the water quantity component is to assess water supply and use and to
 307 develop strategies to meet current and future needs (1). The strategies should retain or provide
 308 adequate amounts of water to protect and restore fish habitat (9)², provide water for future out-of-
 309 stream uses and to ensure that adequate water supplies are available for agriculture, energy
 310 production, and population and economic growth under the requirements of the state's growth
 311 management act (1).
 - 312 • Water Quality: The goal of the water quality component is to ensure that the quality of our water is
 313 sufficient for current and future uses, including restoring and protecting water quality to meet the
 314 needs of salmon and shellfish (9)², contact recreational uses, cultural uses, protection of wildlife,
 315 providing affordable, safe domestic water supplies, and other beneficial uses. The initial objectives
 316 of the water quality management strategy will be to meet the water quality standards (3).
 - 317 • Instream Flow: The goal of the instream flow component is to supply water in sufficient quantities
 318 to restore salmon, steelhead, and trout populations to healthy and harvestable levels and improve
 319 habitats on which fish rely (9)².
 - 320 • Fish Habitat: The goal of the fish habitat component is to protect or enhance fish habitat in the
 321 management area (1) and to restore salmon, steelhead, and trout populations to healthy and
 322 harvestable levels and improve habitats on which fish rely (9)².

323

324 The approach used in this project will explicitly recognize that the four project components are
 325 interconnected to a high degree. Actions intended to affect change in one component may affect one or
 326 more of the components. The approach will capitalize on the interrelationships between the four
 327 identified project components by systematically integrating the data collection and analysis efforts.
 328 The effort will be coordinated with other resource management efforts such as land use/resource
 329 planning, flood management, Salmon Recovery Project (NEAT/2496), and a myriad of other similar
 330 efforts.

332 2.2 Criteria for Evaluating Proposed Solutions

333 In order to achieve the above goals, the WRIA 1 Watershed Management Project will initially develop
 334 a watershed management plan that identifies specific actions to address the water resource problems
 335 identified. It is anticipated that during the plan development, specific alternatives and
 336 recommendations will be considered. Specific criteria will be developed to assist in selecting the best
 337 alternatives. The following criteria are provided by the Guidance Manual and should be considered
 338 when establishing the criteria:

339 Effectiveness Criteria

- 341 • Overall Effectiveness – Among the alternatives considered, which do the best job of addressing
 342 the issue at hand?
- 343 • Cost Effectiveness – Which alternatives deliver “the most bang for the buck”, even if they do not
 344 completely address the issues of interest?
- 345 • Flexibility Over Time – Which solutions offer the ability to be readily modified over time, in
 346 response to changing conditions and new information?
- 347 • Potential Side Effects – Do some of the potential solutions appear to create new problems, or
 348 exacerbate existing problems?
- 349 • Equity Considerations – What are the differing effects on various groups and economic activities in
 350 the Management Area?

351

352 Feasibility Criteria

- 353 • Legal Authority – Do the implementing organizations have the authority to implement the
- 354 proposed solution? If not, can ordinances or rules be adopted to provide that authority?
- 355 • Approvals/permits – What approvals or permits will be required, especially by organizations not
- 356 represented on the Planning Unit. Are those approvals or permits likely to be granted?
- 357 • Cost and Funding Sources –How expensive is each alternative, and who will bear the cost? Will
- 358 funding sources be available, both in the short-term and long-term?
- 359 • Administration and Staffing –What organization will administer each solution? Do they have the
- 360 capabilities to do the job? Will additional staff be required?
- 361 • Integration with Related Program –How will each solution fit in with related programs and plans?
- 362 • Acceptability – Are solutions acceptable to participants, elected officials, and key outside
- 363 organizations (e.g., NMFS)?

364
365
366 *Implementation Strategy/Status*

367 *A Technical Team will be established to help develop specific criteria.*

368
369 2.3 Sub-basin Delineation and Prioritization

370 The Watershed Management Act requires that watershed planning be conducted for management areas

371 consisting of one or more WRIAs. This does not require, however, that equal resources or focus be

372 devoted to all areas within the management area. Within each WRIA, there may be sub-basins that

373 have differing priorities for technical assistance and management actions (7).

374
375 The entire WRIA is being evaluated in the WRIA 1 Watershed Management Project. Consistent with

376 basic principals of effective watershed management, sub-basins are being delineated within the WRIA.

377 The sub-basins will serve as geographic areas to gather and analyze information, solutions, and

378 management actions. Prioritization of work by sub-basins will be considered as the planning process

379 progresses and more information is obtained.

380
381 Many different sub-basin delineations have been completed previously by different organizations and

382 planning efforts in WRIA 1. The USGS is developing a sub-basin map of WRIA 1 as part of their

383 Phase I contract. The USGS delineations will be the foundation for defining appropriate sub-basins.

384 The delineations will allow for changes and flexibility in designations as field verifications are

385 completed and management implications are considered.

386
387 *Implementation Strategy/Status*

388 *A Technical Team has been established to support the sub-basin delineation effort. The Team*

389 *has developed a detailed work plan with products and a schedule. It is anticipated that a*

390 *preliminary map will be available by the end of April 2000.*

391
392 2.4 Linkage/Coordination with Existing and Potential Programs

393 A critical and required element of the watershed planning effort is to effectively use limited resources.

394 To preclude a “reinvention of the wheel” and to avoid potential conflicts, the project participants will

395 review, build upon, and coordinate with historic and current data, regulations, and programs (1,2).

396 Tracking and providing input to potential new local, state, tribal, or federal regulations and programs

397 that could affect the planning effort will also occur.

398
399 Historic, current, and potential new data, regulations, and programs should be considered in order to

400 (7):

- 401 • Coordinate data collection efforts – data collection is occurring through many different programs.
- 402 The quality (accuracy) of these data need to be evaluated and this information should be used

- 403 wherever possible prior to collecting additional data. When additional data are collected, efforts
 404 should be made to ensure that all parties needing the data are involved in the design of the data
 405 collection efforts and in ensuring that the quality is acceptable for all anticipated uses.
- 406 • Understand potential constraints on management options that may exist due to local, state, tribal,
 407 and federal requirements. The watershed plan developed under the Watershed Management Act
 408 does not supersede other federal, tribal, state, or local requirements. However, a well-done
 409 watershed plan can provide a framework for federal, tribal, state, or local agencies to modify
 410 existing or pending actions.
 - 411 • Coordinate potential funding. In some cases one or more programs may need the same
 412 information that is needed for the watershed planning effort. Costs may be significantly reduced
 413 by adequate coordination with other programs.
 - 414 • Consider appropriate implementation tools. In some cases, solutions may be best achieved by
 415 modifications to existing programs.
 - 416 • Determine how to handle proposed new actions that could affect the watershed plan. During the
 417 course of the watershed planning effort new local, state, tribal, or federal actions may be proposed.
 418 A strategy for ensuring that these potential new actions are coordinated with the WRIA 1
 419 Watershed Management Project.

420
 421 Some examples of the many programs and activities that need to be considered in developing a
 422 coordination strategy include: County-wide Planning Policies; Comprehensive Plans; Coordinated
 423 Water System Plans; Drinking Water Source Protection Plans; Shoreline Programs; Shellfish
 424 Protection Plans; Storm Water Programs; Ground Water Management; education and technical
 425 assistance programs, Salmon Recovery Plans; Instream Flow regulations; Critical Area regulations,
 426 and Flood Hazard Management Strategies.

427

428

Implementation Strategy/Status

429

*Initial efforts were taken in 1999 to develop a strategy to ensure coordination and linkage
 430 between programs and actions. These efforts were placed on hold for several months for a
 431 number of reasons including pending revisions to the initial draft scope of work and the
 432 Whatcom Creek fire. Recently, a group has been meeting to discuss how to best coordinate
 433 these efforts. The group is not an official Technical Team under the Watershed Management
 434 Project however, their work may be used to help develop a strategy to ensure adequate
 435 linkage and coordination.*

436

437 **2.5 Information/ Data Management Program**

438

An important part of the Watershed Management Project is to establish a program to assist in the
 439 collection, storage, maintenance, retrieval, analysis, distribution, and display (e.g., maps and charts) of
 440 the information obtained. A Geographic Information System (GIS) will be a fundamental tool for
 441 organizing and displaying collected data. Additional elements that will be considered in developing
 442 the data management program include:

443

444

- 444 • Hardware requirements and availability as in-kind contributions (4)
- 445 • Software requirements (4)
- 446 • Staffing needs and availability as in-kind contributions (4)
- 447 • Techniques for providing remote access via Internet or other means (4)
- 448 • Quality Assurance/Quality Control
- 449 • Glossary (5)
- 450 • Coordination as appropriate with other data bases
- 451 • Consistency with Ecology requirements as noted in contract (2)

452

453

Implementation Strategy/Status

454 *A Data and Information Management Technical Team will be formed to develop a*
 455 *comprehensive strategy to deal with the considerable data that will be compiled, generated,*
 456 *and analyzed in the Watershed Management Project and similar efforts. It will likely be*
 457 *necessary that a designated data management staff person be assigned for this project.*
 458

459 2.6 Public Education/Involvement Program

460 One of the purposes of the Watershed Management Act is to provide local citizens with the
 461 opportunity for maximum possible input concerning their goals and objectives for water resource
 462 management and development. (1) In order to achieve this purpose it is necessary to provide a
 463 mechanism for citizens to understand the process, translate technical documents into layperson terms,
 464 help citizens to understand the complex technical and policy issues that will be addressed through the
 465 planning effort, and provide opportunities for meaningful and substantive input. One of those
 466 opportunities is through participation on the Planning Unit, but others are needed as well.

467
 468 In recognition of the critical importance of public involvement and education in the process, the
 469 Initiating Governments early in the process endorsed a conceptual plan for public involvement and
 470 education (8). The adopted goal of the plan was to:

- 471 • Provide numerous opportunities for constructive public participation in the Watershed
 472 Management Project;
- 473 • Assist and support the public involvement process under NEPA and SEPA;
- 474 • Build incremental understanding of issues and throughout each of the phases of the planning
 475 process and, through this understanding, foster widespread community understanding of the final
 476 watershed management plan.

477

478 Implementation Strategy/Status

479 *A technical team was formed during the summer of 1999 to help develop and implement*
 480 *actions related to public involvement and education. The team is developing a long-range*
 481 *plan to meet the goals noted above, however many education/information related actions have*
 482 *been needed in the interim. Some of the interim methods that have been and are being used to*
 483 *meet these goals include:*

- 484 • *Establishing and maintaining a Website for the project*
- 485 • *Setting up a telephone hotline*
- 486 • *Providing support for caucus formation and function*
- 487 • *Providing facilitation for the Planning Unit and consistent interaction/communication*
 488 *with the caucuses*
- 489 • *Hiring a staff person to provide lead support to the Public Involvement and Education*
 490 *program*
- 491 • *Providing monthly public forums (these were placed on hold due to low attendance)*
- 492 • *Inviting the public to suggest participants for a 3-day Instream Flow Methods conference,*
 493 *attending the 3-day conference, and providing for public comment on the draft report.*
- 494 • *Developing a resource kit on instream flows for the media and general public, holding*
 495 *open houses*
- 496 • *Establishing a long-term education plan which includes a needs assessment of the major*
 497 *anticipated audiences (caucuses, general public, decision makers, etc), articulation of*
 498 *educational goals, the development and implementation of audience appropriate*
 499 *educational methods and products, and the use of evaluative tools to measure*
 500 *achievement of the stated educational goals. The long-range plan will also identify other*
 501 *elements of the scope of work where public input is needed, as well as opportunities for*
 502 *general public outreach*

503

504 2.7 Process Flow Control Protocol

505 The WRIA 1 watershed planning process, and the implementation of the action elements thereof, shall
 506 be executed in a specific sequence of steps that have been established in order to maximize the
 507 chances of the plan's success. The sequence embodies and employs the principles of adaptive
 508 management. The sequence shall apply to each plan section for each sub-basin and each plan
 509 component.

510 511 2.7.1 Planning Process Flow Control Protocol

512 The planning process shall consist of the execution of each task within each section in this Scope of
 513 Work, in a sequence to be determined by the decision making logic set forth below. The planning
 514 process applies to each plan component (water quantity, water quality, instream flow, and fish habitat)
 515 within each sub-basin.

516
517 From time to time the planning process will likely be carried on simultaneously within more than one
 518 section. The process flow control protocol shall apply independently to each activity within each
 519 section; provided, however, that prior to the completion of Section 4.2, Select Best Solutions, all tasks
 520 in all prior sections shall be completed.

521
522 The planning sequence shall follow the decision making logic below. It is also depicted in the WRIA
 523 1 Watershed Planning Process Flow Sequence diagram (Figure 2).

524
525 Update the status of the planning process and collect any relevant new information (upper left box in
 526 Figure 2). New information could arise from any or all of the following sources: changes in statutes,
 527 contracts, agreements, court cases, initiatives and referenda; new developments in related projects
 528 public input; new discoveries from relevant science and engineering fields, including new modeling
 529 and simulation methodologies.

530
531 If any tasks within the pending section remain incomplete, or need to be updated based upon new
 532 information, then the pending section shall be addressed. After completing a section, return to the
 533 update (upper left box in Figure 2) process. If it is determined that there is no need to address the
 534 pending section, then the same decision making process shall be undertaken for each subsequent
 535 section, until Section 5.0, Approval, is reached.

536
537 If approval (upper right triangle in Figure 2) is achieved, implementation can begin. If approval is not
 538 achieved, return to the update process (upper left box in Figure 2).

539 540 2.7.2 Management/Implementation Process Flow Control Protocol

541 Provisions for adaptive management within the implementation phase (upper right shaded box of
 542 Figure 2) are discussed below. Adaptive management provisions are also depicted in the WRIA 1
 543 Watershed Management Process Flow Sequence diagram (Figure 3).

544
545 During the implementation phase, for each project within each plan component, the implementing
 546 action shall be carried out, meanwhile data will be collected via established monitoring protocols to
 547 enable evaluation of the success of the project. The collected data will be analyzed by comparing
 548 actual results with expected results for the point in time at which the data are analyzed (middle
 549 diamond – "Objectives Achieved" – from Figure 3).

550
551 If the comparison is favorable, the project (and data collection) will continue without modification. If
 552 the project is failing to achieve its objectives, the question needs to be answered, is the project being
 553 done properly, that is, according to the specifications provided in the plan?

554
555 If the answer is no, then corrective action shall be taken by the implementing party(ies) to bring
 556 actions on the ground in line with project specifications. If the answer is yes, it implies that the project

557 specifications themselves, hence the plan element, has a flaw that shall be corrected by returning to the
558 planning process and amending the plan, based upon the results of the data analysis. The party(ies)
559 responsible for reviewing and amending the plan shall be specified by the plan prior to its completion.
560

561 2.7.3 Process Flow Protocols

562 The intent of these Process Flow Control Protocols and their accompanying diagrams is to portray
563 only general process flow. Specific, detailed process flow control protocols will be established, when
564 and if needed, for particular sections or sub-sections of the planning and/or implementation process.
565

566 2.7.4 Implementation Strategy/Status Files

567 In order to provide a clear and easily accessible record of the progress of each planning activity within
568 each section of this Scope of Work, project managers shall create and maintain files in a suitable and
569 uniform electronic format that describe the current implementation status of each such activity.
570

571 2.7.4.1 Content

572 The content of each such status file shall contain at least the following:

- 573 ▪ File title: general format: sub-basin xyz water quality planning status.
- 574 ▪ Project personnel: list manager, other staff, roles; provide hot links to data such as: by whom
575 employed; contact data.
- 576 ▪ Sub-basin Name, Number (as/if applicable).
- 577 ▪ Component: (water quantity, water quality, instream flow, fish habitat).
- 578 ▪ Sub-component: (as/if applicable ; example: water rights study).
- 579 ▪ Sub-sub-component: (as/if applicable ; example: paper rights investigation).
- 580 ▪ Current Status: For each SOW section, sub-section, sub-sub-section, as applicable, display section,
581 sub-section, sub-sub-section number(s) and title(s), pass number (i.e., number of times subject
582 activity has undertaken that Section, sub-section, sub-sub-section); title of activity; product(s)
583 file(s) title, type, hot links to locations (if applicable and appropriate) and contents summary.
584

585 2.7.4.2 File Types

586 There shall be two such file types: Current Files, as described in Section 2.7.4.1, and Archive Files,
587 which shall consist of the accumulation of previous Current Status Files, structured as a Last-in, First
588 Out stack.
589

590 2.7.4.3 Implementation Strategy/Status Files Procedure

- 591 ▪ Each project manager of each planning activity shall update each activity's Current File at least
592 each time one of the sections of this Scope of Work is completed for that activity, and may update
593 the file more often as warranted.
- 594 ▪ Each time a project manager updates a Current File, authorized personnel shall update the
595 associated Archive File.
- 596 ▪ In order to provide public access to the implementation status of each planning activity, both the
597 Current and Archive Files will be made accessible on the WRIA 1 Watershed Management Project
598 web site.
599

600 **3.0 Technical Assessment/Analysis of Water Quantity, Quality, Instream Flows, and** 601 **Fish Habitat (Phase 2)**

602 3.1 Problem Definition/Analysis

603 3.1.1 Purpose

604 The purpose of the technical assessment phase is to gather, analyze, and evaluate data to clearly
605 understand the nature, conditions, and extent of problems and/or desired outcomes for each project
606 component.
607
608

609 3.1.2 General Approach

610 The assessment results will be the foundation for knowledge-based decision-making that will be used
611 to develop the most effective solutions that meet the project goals and address the bulleted items in
612 Section 1.1. Data will be collected that are necessary to enable an assessment of current conditions
613 and an understanding of the causal factors underlying these conditions. The collected data and
614 analysis will enable direct action to manage those factors to achieve desired outcomes.
615

616 3.1.2.1 Data Validity and Reliability

617 Following the definition of “best available science” (3), in order to ensure that the results of the data
618 collection, analysis and modeling processes are of maximum utility to this planning process, for each
619 set of data collected, each analysis performed, and any modeling undertaken, parameters shall be
620 specified for measurement of validity and reliability. Validity measures include acceptable level of
621 probable error and expected percentage contribution to total result.
622

623 In order to ensure that the results of data collection, analysis and modeling are reliable (i.e., repeatable
624 over time), the types of data collected and the methodologies used for analysis and modeling shall be
625 functionally consistent and well documented.
626

627 3.1.3 Tools and Methods

628 The best available science, including state-of-the-art analytical methodologies, will be employed in the
629 WRIA 1 Watershed Management Project(3). Mathematical models and computer simulations will
630 likely play a key role in the assessment and evaluation of information.
631

632 3.1.4 Data Collection

633 3.1.4.1 Existing Data

634 Information gathering for each of the program components will be an iterative process starting with
635 the collection and assessment of what is already known through existing studies, programs, and input
636 from individuals and groups.
637

638 3.1.4.2 Field Research

639 As data gaps and new information needs are identified they will be collected, assessed, and evaluated.
640 Data gathering will extend over a number of years and will continue beyond the adoption of
641 the Watershed Management Plan.
642

643 3.1.4.3 Routine Monitoring

644 Long-term routine monitoring and analysis will be needed to evaluate project success and ensure that
645 goals are met (4).
646

647 3.1.4.4 Catalog of Project Actions

648 All watershed projects, including those underway prior to the adoption of the WRIA 1 Watershed
649 Management Plan, will be cataloged and incorporated into the WRIA 1 watershed management
650 database.
651

652 3.1.4.5 Water Quantity

653 At a minimum the following information and analyses will be collected and evaluated for water
654 quantity:
655

- 656 • Estimate the amount of surface and groundwater present (1);
- 657 • Estimate the amount of surface and groundwater actually being used in the WRIA (1);
- 658 • Conduct a depletion analysis to accurately estimate the spatial and temporal uses of water in the
659 WRIA throughout the year (2,3);

- 660 • Estimate the amount of water represented by claims in the water rights claims registry, water use
- 661 permits, certificated rights, existing minimum instream flow rules, federally reserved rights, and
- 662 any other rights to water (1); Use the best available science to make reliable estimates of the
- 663 Lummi Nation water rights for both instream and out-of-stream uses (2,3);
- 664 • Identify the most senior instream and out-of-stream water rights in the WRIA and the next most
- 665 senior rights in turn based on the priority date of existing water right holders (3);
- 666 • Estimate future water needs (1);
- 667 • Estimate the amount of surface and ground water available taking into consideration seasonal and
- 668 other variations (1,2,3);
- 669 • Estimate the amount of surface and ground water available [to junior users and (3)] for further
- 670 appropriation taking into account [seasonal and other variations (1,2,3)] and the minimum
- 671 instream flows adopted by rule or to be adopted by rule under the RCW for streams in the
- 672 management area including the data necessary to evaluate necessary flows for fish (1,2,3);
- 673 • Estimate the total amount of water available in an undepleted condition (3);
- 674 • Identify location of areas where aquifers are known to recharge surface bodies of water and areas
- 675 known to provide for the recharge of aquifers from the surface (1);
- 676 • Contract with USGS to collect streamflow data throughout the watershed for the multi-year [10
- 677 year (3)] effort (2);
- 678 • Measure and/or estimate climate data (precipitation, evapotranspiration) at representative
- 679 locations in the WRIA (2,3);
- 680 • Evaluate existing land use/land cover data for its suitability in making water resource related
- 681 decisions (2,3).

682 Implementation Strategy/Status

683 *The following actions have been taken to date to implement part of the initial data needs*

684 *assessment for the water quantity component:*

- 686 • *The United States Geological Survey was hired to conduct a “Phase I Data Assessment”*
- 687 *in the summer of 1999. Their draft report was delivered on January 31, 2000. Among*
- 688 *other information, the report provides information on evapotranspiration, precipitation,*
- 689 *hydrogeologic information, streamflow discharge measurements, soil survey reports/data,*
- 690 *current and historical land use and cover, facilities with NPDES permits, irrigation water*
- 691 *use, current and historical water use,, and a sub-basin delineation..*
- 692 • *An evaluation of existing state water rights, claims, applications, certificates, and permits*
- 693 *has been initiated under the supervision of the Public Utility District. Two full-time staff*
- 694 *have been hired to assist. As noted in Section 3.3, sub-basin delineations are being*
- 695 *critically evaluated and defined as part of that process.*
- 696 • *Streamflow measurements are being collected under an interagency agreement between*
- 697 *the BIA, USGS, the Lummi Nation, and the Nooksack Tribe. Staff support from the*
- 698 *Initiating Governments is also being provided for the actual data collection.*
- 699 • *Aerial and bathymetric studies of Lake Whatcom are being completed through an*
- 700 *agreement with the Bureau of Reclamation.*

701

702 *Using the above information, a Water Quantity Technical Team should be formed and*

703 *charged with developing a detailed work plan to meet the component goal and address the*

704 *informational needs specified previously. The strategy should include an initial compilation*

705 *and assessment of existing data (much of which has been done). The Team should start with*

706 *the approach detailed in the previous draft scope of work and the comments/concerns*

707 *submitted by the Non-municipal Water System Caucus (including definitions/interpretations*

708 *of key terms, and specific recommendations, interpretations, questions, etc.).*

709 3.1.4.6 Water Quality

710

711 Water quality will be assessed in two sections, surface and ground water (5), where appropriate.
712 Information collected and analyzed must include:

713

- 714 • Legally established/designated characteristic uses of each of the nonmarine water bodies in the
715 management area (1);
- 716 • An examination based on existing studies of the degree to which legally established water quality
717 standards are being met (1);
- 718 • An examination based on existing studies of the causes of water quality exceedences, including an
719 examination of information regarding pollutants, point and nonpoint sources of pollution, and
720 pollution-carrying capacities of water bodies in the management area. The analysis should take
721 into account seasonal stream flow or level variations, natural events, and pollution from natural
722 sources that occurs independent of human activities (1);
- 723 • An examination of any total maximum daily load established for nonmarine bodies of water in the
724 management area, unless a total maximum daily load process has begun in the management area
725 as of the date the watershed planning process is initiated under RCW.82.060 (1);
- 726 • Conduct the necessary data collection and analysis to estimate TMDLs for fecal coliform (in
727 progress), temperature, [BOD (3)], sediment, and other water quality attributes of concern in order
728 to ensure water quality standards are being achieved (2); and
- 729 • An examination of existing data related to the impact of fresh water on marine water quality (1).

730

731 Implementation Strategy/Status

732 *Using the above information a Water Quality Technical Team should be formed and charged*
733 *with developing a detailed work plan to meet the component goal and address the*
734 *informational needs specified previously. The strategy should include an initial compilation*
735 *and assessment of existing data. The Team should start with the approach detailed in the*
736 *previous draft scope of work and the comments/concerns submitted by the Non-municipal*
737 *Water System Caucus (including definitions/interpretations of key terms, and specific*
738 *recommendations, interpretations, questions, etc.).*

739

740

741 3.1.4.7 Instream Flows

742 Instream flows were established for WRIA 1 by the Department of Ecology in 1986. Over the years
743 many questions have been raised as to whether the methods used to establish those flows adequately
744 do so – particularly in light of advances in science over subsequent years. The Watershed
745 Management Act provides an opportunity for modifications to established instream flows if agreed to
746 by the parties specified in the act.

747

748 The Initiating Governments agreed that instream flow needs will be examined as part of the WRIA 1
749 Watershed Management Project. The MOA further states that an analysis will be conducted to
750 estimate optimal instream flows for fisheries resources in the WRIA throughout the year (3).
751 Consistent with the agreement to base decisions on best available science, the purpose of the analysis
752 is to evaluate the method used to establish current instream flows relative to advances in methodology.

753

754 Implementation Strategy/Status

755 *The analysis is currently evaluating the various approaches to estimating streamflow levels*
756 *needed to optimize fish habitat quality and quantity. The recommended ‘state-of-the-art’*
757 *method(s) will be used during 2000-2001 in order to provide the information needed to*
758 *develop a watershed management plan by June 30, 2002. In order to modify existing flows, a*
759 *unanimous vote by parties specified in the Act will be required – if a unanimous vote is not*
760 *achieved, flows will not be modified as part of this process (1).*

761

762 *A 3-day Instream Flow Methods conference was held in September 1999. The purpose of the*
763 *conference was to evaluate the different methods available for estimating the relationship*
764 *between streamflow and fish, and to help determine the best methods to use to reevaluate*
765 *existing instream flows. A draft report was written by the conference chairperson (Dr.*
766 *Thomas Hardy) and has been presented to the public and Planning Unit for review.*

767
768 *A Technical Team will be established to develop a recommendation for how to proceed with*
769 *respect to instream flows.*

770

771 3.1.4.8 Fish Habitat

772 Coordinate with salmon recovery efforts to 1) develop information that summarizes current and
773 historic fish habitat and populations 2) evaluates physical, biological, and chemical processes in terms
774 of good habitat, and 3) evaluates factors limiting current finfish and shellfish populations throughout
775 WRIA 1.

776

777 Implementation Strategy/Status

778 *Initial efforts occurred in 1999 to develop a strategy to ensure coordination and linkage*
779 *between WRIA 1 Watershed Management Project and salmon recovery as well as other*
780 *related programs. These efforts were placed on hold for several months for a number of*
781 *reasons including pending revisions to the initial draft scope of work and the Whatcom Creek*
782 *fire. Recently, a group has been meeting to discuss how to best coordinate salmon recovery*
783 *with the Watershed Management Project. A coordination strategy is being developed.*
784 *Quarterly updates on this coordination effort will be provided to the Planning Unit with*
785 *additional updates as needed.*

786

787 3.2 Assessment

788 For each plan component within each sub-basin, an assessment of conditions and extent of problems
789 shall be undertaken once sufficient data have been collected to enable such assessment. The end
790 product of the assessment phase is the identification of the specific locations where corrective actions
791 are needed, and the type and extent of the problems that need such corrective action.

792

793 3.2.1 Establish Criteria for Evaluation of Success

794 For each component and within each sub-basin, specific measurable objectives shall be established.
795 The purpose of the objectives is to define the measure of whether the plan goals have been achieved.
796 If the achievement of any objectives does not result in the achievement of associated goals, new
797 objectives will be defined through the adaptive management process.

798

799 3.2.2 Define Monitoring Protocols

800 Protocols shall be established during the assessment phase to provide specific guidance for collecting
801 information that shall be used to monitor and evaluate the effectiveness of corrective actions.

802

803 **4.0 Develop/Revise Watershed Management Plan**

804

805 4.1 Develop and Evaluate Solutions/Alternatives

806 As with the assessment phase of the project, the identification and evaluation of solutions will be an
807 incremental/iterative process building upon recommendations from previous planning efforts and
808 considering existing laws, programs, and other efforts. Information obtained under Section 2.4 –
809 Linkage and Coordination, will be used to help identify existing/previous efforts. Solutions shall not
810 be added that obligate a particular government unless that government has at least one representative
811 on the Planning Unit and the respective members appointed to represent the obligated government
812 agree to adding the element that creates the obligation (1).

813
814 At a minimum the following alternatives/solutions will be considered:

815
816 Water Quantity:

817 Increasing water availability through strategies that include but are not limited to:
818 conservation, water reclamation and reuse, voluntary water transfers, additional water
819 allocations, and additional water storage and water storage enhancements including aquifer
820 recharge and recovery (1).

821
822 Water Quality:

823 Developing a recommended approach for implementing the TMDL established for achieving
824 compliance with water quality standards unless a TMDL process has begun in the WRIA as of
825 the date the watershed planning process is initiated under RCW 90.82.060 (1). In addition,
826 explore options to manage groundwater quality.

827
828 Instream Flow:

829 Aside from establishing or modifying existing instream flows, no specific strategies are
830 specified in the Act for meeting the goal of ensuring that water is available in sufficient
831 quantities to satisfy the minimum instream flows for fish. This is an area where there is
832 tremendous opportunity for creative solutions.

833
834 Fish Habitat:

835 Coordinate and integrate analysis and assessment with other salmon recovery and
836 management efforts.

837
838 Information collected in Section 2.4 – Linkage/Coordination will be used to assist in identifying
839 alternatives. Criteria developed in Section 2.2 – Criteria for Evaluating Proposed Solutions will be
840 used to help identify recommended solutions.

841
842 Implementation Strategy/Status

843 *Because solutions are dependent on obtaining a better understanding of the problems through*
844 *the assessment phase, it is recommended that immediate actions related to solutions will be*
845 *limited to compiling suggestions and recommendations from recent planning and management*
846 *efforts. On a regular basis the Initiating Governments should review overall progress and*
847 *determine when to initiate further action for solution identification. This does not preclude*
848 *the need to move forward with early action activities.*

850
851 **4.2 Select Best Solutions**

852 For each component within each sub-basin, using the criteria developed in Section 2.2, the various
853 solutions developed in 4.1 shall be sorted and those solutions with the most promise shall be selected
854 for incorporation into the Watershed Management Plan.

855
856 **4.3 Assemble Plan**

857 The Watershed Planning Act requires that a watershed management plan be written, however, it does
 858 not prescribe the exact contents or form of the plan (4). The outline below will be followed for
 859 general format, although it may be modified as the project progresses. The outline follows the one
 860 recommended in the Guidance Manual with some modifications.

861

862 Cover letter-recommending plan to various legislative authorities and others as needed

863

Executive Summary

864

Introduction and Background

865

- Goals/objectives of the WRIA1 Watershed Management Project

866

- Scope

867

- Key issues addressed

868

- Relationship to other programs and planning

869

- Conformance with SEPA/NEPA

870

Planning Process

871

- Initiating Governments

872

- Planning Unit participants

873

- Public involvement process and documentation of SEPA/NEPA integration

874

- Problem and issue definition

875

- Method of decision-making

876

Technical Assessment and Findings

877

- Historical context

878

- Existing data

879

- New studies performed

880

- Summary of key findings

881

- Overview of technical validation process

882

- Reference to complete studies or reports in appendices or elsewhere

883

Alternatives Analysis

884

- Water Quantity

885

- Description of alternatives

886

- Criteria applied

887

- Recommended alternatives (ordinances, rules, technical assistance, education, funding, formal agreements, etc.)

888

- Environmental Impact Analysis (SEPA/NEPA linkage)

889

- Water Quality

890

- Description of alternatives

891

- Criteria applied

892

- Recommended alternatives (ordinances, rules, technical assistance, education, funding, formal agreements, etc.)

893

- Environmental Impact Analysis (SEPA/NEPA linkage)

894

- Instream Flows

895

- Description of alternatives

896

- Criteria applied

897

- Recommended alternatives (ordinances, rules, technical assistance, education, funding, formal agreements, etc.)

898

- Environmental Impact Analysis (SEPA/NEPA linkage)

899

- Fish Habitat

900

- Description of alternatives

901

- Criteria applied

902

- Recommended alternatives (ordinances, rules, technical assistance, education, funding, formal agreements, etc.)

903

- Environmental Impact Analysis (SEPA/NEPA linkage)

904

- Description of alternatives

905

- Criteria applied

906

- Recommended alternatives (ordinances, rules, technical assistance, education, funding, formal agreements, etc.)

- Environmental Impact Analysis (SEPA/NEPA linkage)

Recommended Implementation Strategy

- For each recommendation include who will implement action and why, integration with related programs/processes, funding and other resources needs including sources of funds, methods to implement and ensure compliance, and schedule;
- Long-term data collection;
- Long-term organized institutional structure to ensure implementation, review progress, take corrective action, involve public, report to entities, and respond to new needs or information;
- Contingencies and process for cases where an organization designated for implementing a plan recommendation is unable or unwilling to do so; and
- Monitoring and other measures to evaluate success.

Conclusion

- Recommendation of plan to legislative bodies and others as appropriate.

Appendices

- MOAs or other agreements
- Criteria used to evaluate alternative action plans
- Dissenting opinions if applicable
- Coordination Plan
- Technical documentation
- Long-term data collection and management program
- Implementation structure and responsibilities
- Glossary of key terms (5)
- Public processes required for SEPA/NEPA and other items as needed
- Public written comments (including application to SEPA/NEPA)

Implementation Strategy/Status
To be determined.

5.0 Approval

In order for a watershed plan to draw on the authority granted by the Watershed Management Act, at a minimum it must be approved by county legislative authorities, using a specific process described in the Act.

Implementation Strategy/Status
The approval process should be reviewed to ensure that it is clear to all parties. When and how this will be done will need to be determined.

6.0 Implementation of the Watershed Management Plan

One of the most important elements that will be considered is the implementation strategy for plan recommendations. Issues related to actual implementation should be considered as the recommendations are being developed. The implementation strategy should consider the following.

- Who the party(ies) is(are) that will carry out each element of the management plan, and the responsible individuals in each case where the party is a corporate entity;
- Why each party was selected to perform that plan element;
- Integration with related programs and processes;

- 957 • Funding and other resource needs including whether funding is available and/or how the funding
- 958 will be provided for each element of the plan;
- 959 • What methods will be employed by each party to ensure their compliance with the requirements
- 960 of the plan element(s) for which they are responsible;
- 961 • What special relationships, rule changes, agreements, contracts, or other arrangements, if any,
- 962 shall be established by or among the various parties involved in implementing the
- 963 recommendation;
- 964 • Schedule for implementation recognizing actions that are time sensitive;
- 965 • Long-term data collection;
- 966 • Long-term organized institutional structure to ensure implementation, review progress, take
- 967 corrective action, involve public, report to entities, and respond to new needs or information;
- 968 • Contingencies and process for cases where an organization designated for implementing a plan
- 969 recommendation is unable or unwilling to do so; and
- 970 • Monitoring and other measures to evaluate success (1).

971
972 Implementation Strategy/Status

973 *A Technical Team will be formed to help guide development of the implementation strategy.*

974 **7.0 Early Action Projects and Activities**

975 The Watershed Management Act encourages the Planning Unit to identify projects and activities that
976 are likely to serve both short-term and long-term management goals and that warrant immediate
977 financial assistance from the state, federal, or local government. If there are multiple projects, the
978 Planning Unit shall give consideration to ranking projects that have the greatest benefit and schedule
979 those projects that should be implemented first (1).

980
981 Steps and Criteria:

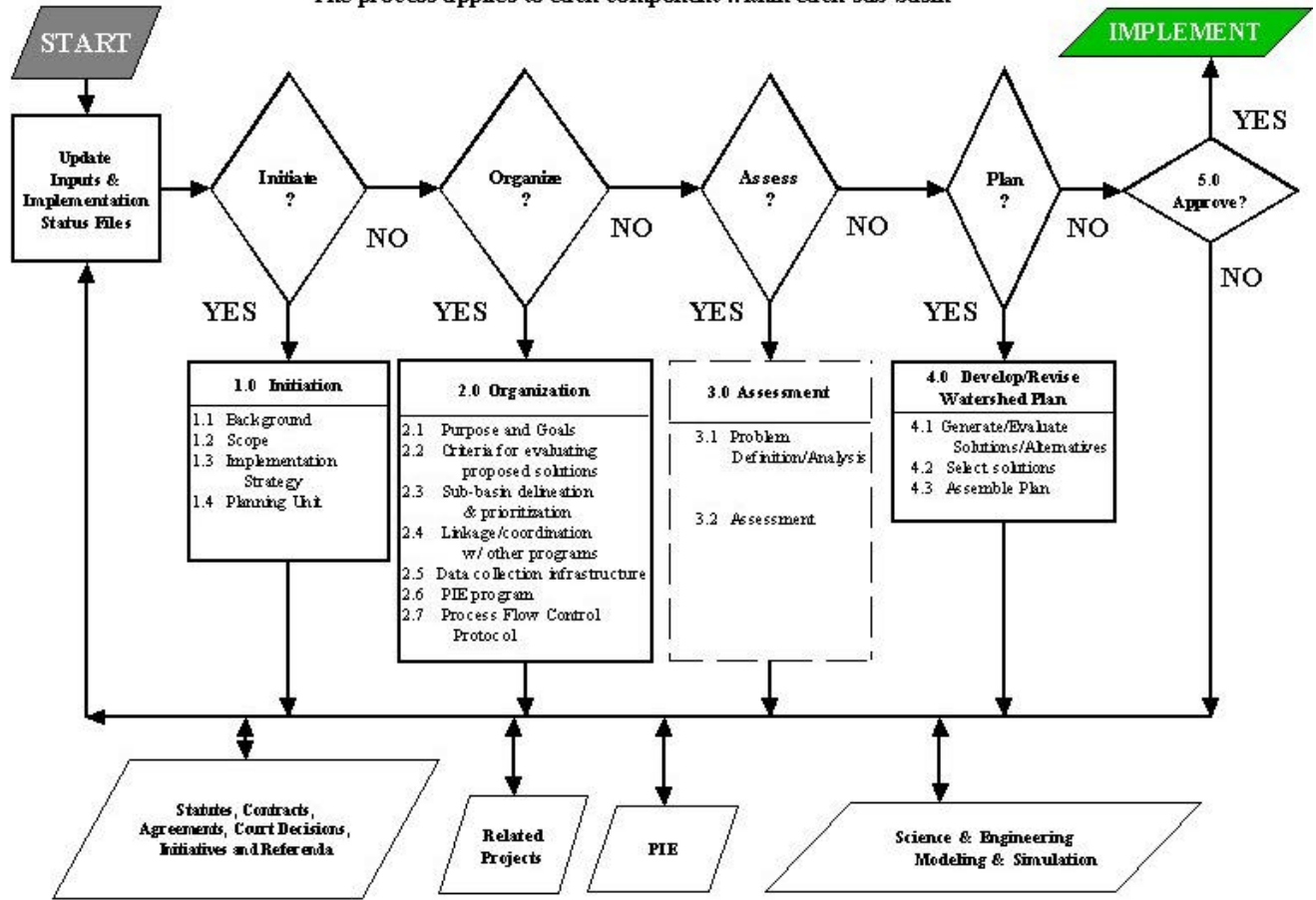
- 982 • Determine scope of problem: location(s), affected parties, impacts;
- 983 • Determine what, if anything, is being done to address the problem already, who is doing it, and
- 984 evaluate effectiveness;
- 985 • If there are multiple projects, rank projects that have the greatest benefit and schedule those
- 986 projects first;
- 987 • If existing action is working, Planning Unit simply issues recommendation of support;
- 988 • If existing process isn't working, or nothing is being done, explore means to get it done;
- 989 • Evaluate alternatives based upon criteria in Section 2.2 above;
- 990 • Chart location(s), details of actions taken, and;
- 991 • Monitor results.

992
993 Implementation Strategy/Status

994 *To be determined.*

995
996
997
998
999
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1002
1003
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1005
1006
1007

Figure 2: WRIA 1 Watershed Planning Process Flow Sequence V 1.0
 The process applies to each component within each sub-basin



Note: processes with dashed borders are shared between planning and management

Figure 3: WRIA 1 Watershed Management Process Flow Sequence V 1.0

The process applies to each component within each sub-basin.

