

# **Shared Strategy for Puget Sound Comments on April 2006 Three Year Work Plan Puyallup/White and Clover/Chambers Creek**

## **Introduction**

In April, 2006, watersheds submitted three-year work programs that would enable them to get on a recovery trajectory in the first three years of implementation. The work plans were reviewed by the Puget Sound Technical Recovery Team (TRT) and the Shared Strategy Interdisciplinary Policy Team.

This feedback is intended to assist your watershed as you refine your three-year work program and continue with implementation of your recovery plan. The feedback will also be used by the TRT and Shared Strategy Work Group to inform the development of the regional work program. A summary of the watersheds' work programs was developed by Shared Strategy staff to stimulate discussion on recovery objectives to determine what the best investments are for salmon recovery over the next three years.

## Objectives provided as guidance for the development of work programs

- Improve the level and certainty of protection for habitat
- Protect the twenty two existing Chinook populations by beginning to address the most immediate and potentially greatest threats that could cause populations to decline in this timeframe
- Preserve options for increasing ESU diversity
- Restore ecosystem processes for Chinook and other species by preserving options for habitat restoration, and by addressing the most immediate and potentially greatest threats in
  - estuarines
  - mainstem
  - upper watershed
  - freshwater tributaries and nearshore
  - water quality and quantity
- Advance the integrated management of harvest, hatchery and habitat to address the most immediate and potentially greatest threats
- Continue to expand and deepen individual and community support for key priorities
- Develop and implement adaptive management and monitoring program
  - monitoring
  - accountability system for evaluation and decision making
- Build capacity in each watershed to implement the full breadth of prioritized programs and projects needed to get on a recovery trajectory in the first three years
- Support multi-species

## **I. Puget Sound Technical Recovery Team Review**

The TRT reviewed fourteen individual watershed salmon recovery three-year work plans in May 2006. The first part of the TRT's feedback on the Puyallup/White plan relates to three review questions and how well the work program addresses objectives identified in the introduction above. The second part of the feedback considers the extent to which May 2005 Technical Gap Analysis comments were addressed in the work program narrative and associated list of projects that comprised the three year work plan submitted by the recovery planning group.

### **Questions and objectives**

*1. Is the work plan consistent with the hypotheses and strategy for the watershed? (The 'plan' includes hypotheses and strategies in the larger plan, including watershed plan, TRT review comments and NOAA Supplement comments).*

Overall, the work program appears to be consistent with the strategy and the TRT comments on the strategy. However, the lack of adopted recovery goals does limit the extent to which this can be evaluated at this time.

H-integration continues to be a priority need for this plan to direct the H's toward a common goal in a coordinated and efficient manner. The work program narrative demonstrates that the involved parties' technical workgroups are making significant progress in focusing actions on improving viability of the populations even though no specific recovery goals have been established as yet. The work program appears to be generally consistent with the watershed plan to the extent that can be determined at this time, with the exception of the missing key elements noted below.

It remains unclear whether some actions are fully consistent with the overall recovery plan with the information that has been provided to date. For example, the TRT technical review noted that the co-managers need to elaborate on how the harvest management objective for Puyallup Chinook will allow natural adaptation to occur. The work program does not provide any discussion of the objective or of any programmatic action to address this uncertainty. The discussion of H-integration acknowledges the value in directing the H's toward a common goal, but the work program does not always carry that through to explicit statements of the priority actions in all Hs.

*2. Is the sequencing and timing of the work plan appropriate for the first 3 years of implementation?*

The essential nature of key early actions necessary to secure future opportunity needs to be highlighted to distinguish these from actions that are fungible. The work program does not identify the priority actions needed to secure future opportunity to achieve recovery in the face of the rapid development in the watershed. The high priority to acquire riverine and estuarine floodplain corridors and screening of the Electron hydroelectric project cannot be over-emphasized. Protections to secure favorable flows in the lower White River and the need to develop and implement an indigenous stock protection strategy are two key gaps identified in the watershed plan technical review that need to be added to the work program as top priority immediate actions.

While the plan acknowledges estuary restoration as a key strategy, there is not a clear and transparent description of the rationale and justification for prioritization of estuary restoration projects. How do we know these are the most effective projects of their type? The treatment of estuary protection and restoration in the work program makes it very difficult to determine if all estuary issues are being addressed. Also, as some actions are included in floodplain strategy and estuarine issues are not discussed, it is difficult to interpret the local planning entities' expectations. If the upper estuarine connectivity issues are to be addressed as part of flood plain work, it will be important to address all issues, especially those of critical importance to recovery success as identified in the submitted plan documents such as the watershed assessment.

Concerning the harvest management objective for Puyallup Chinook, it is not clear that all priority actions to allow natural adaptation to occur are being addressed within the 3 year work program. Actions to reduce hatchery origin stray rates are presented, but the corresponding harvest management actions, a significant adjustment to the escapement objective up to current habitat capacity and corresponding adjustments in harvest rates to achieve that objective, are not presented.

*3. Are there significant components missing from the work plan? If so, what are these and what can be done about them in the 3-year work program?*

The TRT identified two major technical gaps in the overall strategy for the Puyallup-White watershed recovery plan and noted them as key issues in the overall approach: adoption of population recovery targets, and achieving H-Integration. Addressing these two issues will dramatically improve the certainty of an effective overall recovery strategy in the near-term plan:

- Adoption of population recovery targets - Identification and adoption of population recovery targets (at least interim recovery goals) are missing and needed. Goals are reported for TRT, co-manager escapement, and Shared Strategy targets, but none of these have been proposed for adoption. The involved parties' technical workgroups have made some progress on better defining some informal objectives. A defined non-capital action item for local planning entities (including the co-managers, Pierce County, and the

federal Services) to adopt of a specific set of interim recovery goals needs to be included in the 3 year work plan.

- H-integration The continuing need for H-integration is discussed above. The work plan needs to add a programmatic action to identify this as a priority action for the first three year period.

An indigenous stock protection strategy, identified as a key gap in the May 2005 TRT review, is missing from the work program. It is an immediate action item that affects all Hs. The stock management question for late returning fish in the White River is a focal point for this issue. In particular, a management strategy is needed for the White River to guide operations at the trap to manage population(s) structure and adapt management as better information is acquired. However, the question of whether the current broodstock at the Puyallup hatchery is an appropriate broodstock for recovery of the historical Puyallup population is an associated issue that also needs to be explored and resolved. How do the co-managers propose to resolve the management of returns to the White River to 1) maintain separation of the White and Puyallup stocks, or 2) manage for only White River stock and exclude Puyallup stock strays, or 3) replace existing (supplanted?) Puyallup stock with indigenous White stock and manage to recover two independent populations from it? Better information on genetic relationships among Chinook in the basin would substantially help guide management and these tasks should also be an identified action for the 3 year work plan.

### **Habitat strategy**

White River flows Actions to secure favorable flows in the lower White River, one of the key threats to the White population, are not included in the work program. In spite of the identification of this action as a priority for recovery, the work program does not propose any actions to resolve uncertainties for recovery associated with current ongoing proposals for consumptive use and removal of water from the White River. The use agreement that is proposed to divert flow from the White River at the Buckley Diversion Dam will have impacts on flows in the lower White and Puyallup Rivers that are expected to adversely impact both the White and Puyallup Chinook populations. To our knowledge, the effects of this proposed use and withdrawal have not yet been evaluated. Changes in flow management at Mud Mountain Dam and at the PSE diversion to simulate a more natural flow regime have been identified as actions that would be highly effective in restoring productivity, abundance, and life history diversity. Addressing a flow management regime that is favorable to Chinook recovery as a high priority action in the three- year work program would dramatically improve the certainty of an effective habitat strategy in the near-term plan.

Estuary restoration. Opportunities to implement large scale restoration actions are limited and are disappearing rapidly. This is recognized as a key gap in the ability to achieve recovery of the populations. The TRT review suggested targeting the plan's management actions for each of the Hs at a specific recovery outcome. The review notes, "the certainty that a strategy will result in the desired outcome is expected to increase as the plan's linkages between working hypotheses, strategies, resulting sets of actions, and predicted population responses are strengthened (see

TRT Watershed Guidance document).” There are no explicit actions provided in the work plan to identify and adopt an estuary restoration action plan linked to existing assessments of the priorities for securing opportunities to restore a functional estuarine corridor consistent with recovery of the populations. For example, a study of alternatives for cross-delta reconnectors (e.g. Hylebos distributary channel corridor effectiveness and acquisition) as a priority action could be a helpful addition to the three year work plan.

River floodplain restoration. As with the estuary, opportunities to implement large scale restoration actions to restore the river floodplain corridor are recognized as a key gap in the ability to achieve recovery of the populations.

Explicit actions need to be added to the work plan to identify and adopt a river floodplain restoration corridor action plan linked to existing assessments of the priorities for securing opportunities to restore a functional estuarine corridor consistent with recovery of the populations. Levee setback projects effectiveness and prioritization studies that are currently ongoing need to be recognized and projected to their completion and recommendations.

Programmatic technical support The work program would benefit from further analytical work to reduce the uncertainty in the analytical support for both protection and restoration actions and adding actions to explicitly address improvements to be made in the first three years. For example, the level of documentation and empirical support for the assumptions on land use changes was identified in the TRT review as a significance technical gap that needs further analytical work.

## **Hatchery and Harvest Management Strategies**

Programmatic technical support documentation and empirical support for the harvest and hatchery strategies and actions is missing and needs to be added as a programmatic technical support action to provide this information to the broader audience of parties interested in implementation of the recovery plan. A detailed technical work plan to reduce analytical uncertainties for each of the Hs, as identified in the TRT review, could be a useful first product of the action item. For example, it is not clear whether the populations have sufficient productivity to sustain the exploitation rates. The need for documentation of the basis for a strategy that is integrated with an overall recovery strategy should be another identified action for the 3 year work plan. The action should detail the identification and implementation of the appropriate actions to fill existing gaps in a means for quantifying the population’s abundance and exploitation rates.

## **B. The extent to which May 2005 Technical Gap Analysis (TGA) comments were addressed in the work program narrative and associated list of projects**

This section of the work program feedback considers how the Puget Sound Technical Recovery Team’s May 2005 Technical Gap Analysis (TGA) comments were addressed in the narrative and associated list of projects that comprised the three year work plan submitted by the recovery planning group. Comments are limited to those that seemed most important to identifying a suite of projects that best address Chinook recovery rather than producing a recovery plan per se.

The TGA raised two major technical gaps associated with the overall strategy of the recovery plan: 1) lack of agreed upon (stakeholders) recovery goals, and 2: lack of H-integration. The planning group work program narrative identifies an ongoing process (all H integration process) to address these two major TRT comments. In particular the narrative states that the outcome will be to identify goals for habitat, harvest and hatchery management (what about Hydro?) and to develop a robust adaptive management plan to assess recovery, at least in the Puyallup River. The planning group has not expressed a need for programmatic funding to help expedite the all H integration or the adaptive management process, although there is a \$70,000 request for technical support that would provide access to state and local agencies to better coordinate than integrate plan components. Given the nature of the TRT comments, the recovery planners might benefit from more programmatic funding to address these issues. This need may be especially critical for White River Spring Chinook since, as stated in the narrative, all H-integration has not been initiated for that subpopulation.

It is impossible to know how well the work plan *integrates activities across the Hs* because the analysis that would inform that process in the recovery planning documents is currently lacking (but forthcoming). It appears that the planning group needs to provide much more detail on this group of projects since this group is most likely to change as a result of the all H integration. Furthermore, given the cost of adaptive management and the potential list of things to monitor/measure, the adaptive management projects should be better defined and justified (in narrative) in light of a forthcoming all H integration.

The narrative does include habitat related issues that appear to address those areas identified by EDT as limiting to one or more VSP criteria, i.e., mainstem river stability, and diversity and quantity of habitat, estuary restoration, etc. However, it is unclear how these projects were identified and how project suitability (i.e., the cost/benefit with other similar potential types) was addressed both within and among projects groups.

In conversations with the planning group, Debbie Hyde and Hal Michael indicated that much of harvest and, to a lesser degree, hatchery strategies are currently being discussed by the planning work group. While this represents a good step towards addressing the two major critiques of the TRT, it is important to help reviewers of the project list in the work program understand which, if any, of the project types or individual projects this is likely to change. It appears that the nearshore/estuary and lower mainstem restoration projects are least likely to change as a result of future discussion/negotiations. Some discussion of this process might be helpful. Whether there are projects so important that they need to proceed despite future development of the plan could also be addressed.

### **Habitat Strategy: Key Technical Gaps**

The TGA suggested that the process and rationale for raising habitat projects or issues not identified by EDT were unclear. Specifically, the TGA identified the following key technical gaps in the habitat strategy proposed by the recovery group:

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1) The 3 year work plan does not address the issue of normative flows below Buckley. Consistent with the TRT comments that on the recovery plan “ the work plan does not appear to address or propose any actions to resolve the uncertainties for recovery associated with current ongoing proposals for consumptive use and removal of water from the White River.”

2) The Electron Dam Hydroelectric Project (i.e., screening installation at diversion) is included in the 3 year work-plan. It does not address the issue raised by the TRT regarding the operation of the Electron Project, i.e., “there is remaining uncertainty on the actions needed ....” It is impossible to know if the recovery planning group has addressed the TRT comments, however, the narrative states that EDT scenario modeling demonstrate that improvements of the diversion screen was the top ranked action for Chinook population performance. The recovery group is proposing \$1.5 million to install fish screens at the Electron diversion. I am unclear why there is a disconnect between the TRT and the planning group.

3) Floodplain management program in the White/Puyallup should focus on the lower river (which is experiencing rapid build-out) to take advantage of opportunities that may be lost later due to human population pressures. The work plan has two major requests for setback levee programs on the Puyallup/White/Carbon mainstems. It is unclear how these requests and the narrative will address the critique by the TRT to specifically focus on the lower mainstem rivers. In other words, to the uninitiated, the names of projects do not reveal where the projects are located. It is notable that a study funded by the SRFB is underway to evaluate the best places to do levee setback and floodplain channel restoration, where “best” is defined as feasibility (land ownership, costs) and benefit to salmon.

4) Better information on the genetic relationship among Chinook in the basin would substantially help guide management. There is a \$70,000 placeholder for technical support, i.e., providing access to state and local agency resources. There is no way to determine if this would result in a focus on genetic issues, and appears that there are not any other projects that address genetic issues. Has the TRT comment that genetic issues are important already been addressed?

5) Estuary Restoration. There are 14 estuary restoration projects identified on the 3 year project list. It is impossible to know how important these projects are relative to all possible projects in the estuary or to each other (those listed). Further, one project called estuary monitoring – Expansion of the Go-Gle-Hi-Te, is by name a monitoring project (at least in part) that is impossible to evaluate since there are no details related to this project.

More general gaps:

The TRT identified a number of general gaps in the recovery plan including:

- a lack of documentation related to data assumptions and models used to describe population VSP characteristics
- the need for a synthesis of empirical support relating ecological processes to VSP responses; a need for watershed data documenting the relationship between ecological process and VSP criteria
- the need for an adaptive management plan

- the need for a better empirical relationship between protection and restoration actions and recovery objectives, and
- the need for integrating a strategy for protecting and restoring the nearshore with the all-H strategy.

While it clear that salmon recovery is an evolving, iterative process, the benefits of stating the strategy, assumptions, and hypotheses is clear. Unless the planning group documents these components of the plan, there is no way to assess accountability or even to measure success. As mentioned above, perhaps there is a need for programmatic support (technical writer/analyst) that can help meet the needs of the group.

It would be useful to know what species/stocks the projects are intended to address since there is a possibility that funding will be limited and could be prioritized on the basis of the consequences to listed species such as Chinook.

There is concern about mixing research with restoring habitat outside of a formal adaptive management process. For example, the nearshore eelgrass project appears to have both a research component and a restoration component. How much money is allocated to each? For the purposes of funding, it would be helpful to separate the components into two related but separate projects.

The lack of prioritization among projects types and among projects within a specific type is a cause for concern. It is understood, from a logistic standpoint, that queuing up a laundry list of projects is necessary in order to get something accomplished in a given amount of time. The concern, however, is that projects should not simply be taken from a list of “what is currently possible” but ideally from an analysis of what is needed. A reality filter needs to be applied to the “list” ; but, this process is important both in terms of practicing good science and in terms of accountability (i.e., if you need a component that is outside the possible, then that helps inform the overall decisions about recover. This is related to the TRT comments. One alternative is to bin projects by their expected benefits to recovery (high, higher, and highest).

There is confusion about the adaptive management (AM) activities related to the recovery plan in general and specifically as related to the projects. It appears that the planning group is conducting or will conduct some project effectiveness monitoring on eel grass. Is there an overall adaptive management proposal for the recovery plan per se? Is the planning group relying on the monitoring forum or the SRFB to develop a monitoring program to feed into AM? Is AM part of the ongoing discussion within the planning group?

There is a need to clarify the role that regulatory programs and/or planning forums (alternative futures) will play in the recovery process. In discussions with planning group, reviewers were reminded that the planning group may have little authority or influence over community based plans. Nonetheless, it seems that some programmatic support for consistent use of best management practices or best available science could be part of a strategy that includes education and outreach. Has the planning group talked about this?

Finally, reviewers appreciate the work that the planning group has done. The amount of information the planning group has relative to the project list, the shared understanding among planning group members, and the leadership within the planning group is impressive. It is unfortunate that not much of this is evident during the process of reading and commenting on the three- year work program.

## **II. Policy Review Comments**

The Shared Strategy Interdisciplinary Policy Team evaluated each of the fourteen watershed work plans. The following questions guided the evaluation of the work plans.

1. Is the work program consistent with the policy feedback and recommendations from the 2004 documents (“Watershed Policy Feedback Summaries”; Recovery Plan December 2005, Volume I, Watershed Profiles results sections; and NOAA’s federal supplement published in the Federal Register on Dec. 16, 2005)?
2. Is the work program tied to the objectives identified at a pace sufficient to achieve the watershed’s ten-year goals?
3. Are there significant elements missing and how might these be addressed?

The interdisciplinary policy review team noted strengths of the Puyallup/White three-year work program as well as gaps and special issues warranting attention. Specific comments are provided below, followed by a short discussion of elements common to all watersheds.

### **Comments and special issues**

The three-year work program reflects projects that address the need to preserve options to restore the lower river system.

The work program would benefit from prioritizing actions in the estuary.

There is a need to increase watershed capacity and support for the recovery plan refinement and implementation and for the development of an organizational structure to build agreement on overall plan framework, goals and priorities, with continued work on adaptive management plan and H-Integration.

### **Elements in common with other watershed work programs**

All Puget Sound watersheds’ work program refinements and recovery plan implementation activities will benefit from additional efforts to achieve H-Integration and the development of an adaptive management plan. Protecting and restoring ecosystem processes for Chinook and other species by preserving options and addressing threats is a critical component of recovery planning both at the local and regional scale. Strengthening the capacity to implement needed actions and to expand and deepen support for recovery program objectives is an important need in all Puget Sound watersheds. Recommendations to stimulate discussions on how to achieve these

objectives are contained in a Shared Strategy document entitled “Watershed Work Plans related to Key Puget Sound Recovery Objectives”, available on the Shared Strategy web site.