Oregon
John A. Kitzhaber, MD, Governor

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MEMORANDUM

March 31, 2015

TO: Kate Brown, Governor
Peter Courtney, President of the Senate
Tina Kotek, Speaker of the House
Oregon Water Resources Commission

FROM: Director Thomas Byler

SUBJECT: Report of the Senate Bill 839 Task Force on Governance

c: Representative Brian Clem, Chair, House Committee on Rural Communities, Land Use and Water
Senator Chris Edwards, Chair, Senate Committee on Environment and Natural Resources
Legislative Administration
Beth Reiley, Committee Administrator
Beth Patrino, Committee Administrator

Executive Summary
Report of the Senate Bill 839 Task Force on Governance

Background

In 2013, the Oregon Legislature passed Senate Bill 839 establishing a Water Supply Development Account to provide loans and grants for water resources projects that have economic, environmental, and community benefits.

SB 839 required the Governor, in consultation with Legislative leadership, to appoint a "Governance Task Force" that would create and submit a report to the Oregon Legislature and Governor. This memo is intended to serve as the report required by SB 839 in accordance with ORS 192.245.

Purpose

The role of the Governance Task Force was to look at the structure for water development project loans and grants under SB 839 and develop any proposals for changing the structure that the Task Force determines are warranted. The review may also include, but need not be limited to: (1) possible changes in the long-term structure of the role of the state in providing loan and grant funding for water resources development under SB 839; and (2) the decision-making process for the allocation of newly developed water from projects whose uses of water were not specified in the funding application.

Governance Task Force Members

The Governance Task Force met between August 2014 and March 2015. The Task Force strove to reach agreement on all items; however the Task Force was not required to achieve consensus. The following are the individuals who participated on the Task Force:

Katie Fast, Oregon Farm Bureau
David Filippi, Stoel Rives
Patrick Griffiths, City of Bend
Teresa Huntsinger, Oregon Environmental Council
Mark Landauer, Special Districts Association of Oregon
Janet Neuman, Tonkon Torp, LLP
Kimberley Priestley, WaterWatch of Oregon
Chris Taylor, West Coast Infrastructure Exchange
Eric Quaempts, Confederated Tribes of the Umatilla Indian Reservation
Amanda Rich, The Nature Conservancy
Gil Riddell, Association of Oregon Counties
Tracy Rutten, League of Oregon Cities
April Snell, Oregon Water Resources Congress
Jeff Stone, Oregon Association of Nurseries
Brad Taylor, Eugene Water and Electric Board
Joe Furia, The Freshwater Trust

Report Overview

The Governance Task Force Report summarizes some of the key issues that the task force discussed including the state's role in water resources development and the structure of Senate Bill 839.

In regards to the state's role in water resources development, the task force considered the state's funding structure to meet instream and out-of-stream needs, as well as the state's role in project finance. Discussions around the funding structure included: steps to identify and fund water resources solutions, the structure of funding programs, and the long-term needs for program evaluation and adaptation.

The task force also reviewed the structure of the grant and loan process as outlined in SB 839, exploring issues around legislative adjustments, scoring and ranking, and the funding and timelines for developing seasonally varying flows (SVF). A copy of the report can be obtained online or by emailing Racquel Rancier at racquel.r.rancier@state.or.us.

Task Force Report - Recommendations

The Governance Task Force Report contains seven recommendations:

- Recommendation 1 – To help meet instream and out-of-stream needs, the state should support funding for each of the three functions; (1) planning, (2) project feasibility analysis, and (3) project implementation.[1]
- Recommendation 2 – Encourage and support voluntary planning efforts. Address the gap in funding for planning.[2]
- Recommendation 3 – Evaluate the existing SB 1069 (2008) feasibility study grants program and align it with SB 839. Develop guidance on when SB 1069 should be used instead of SB 839.
- Recommendation 4 – Establish an Advisory Committee to advise on implementation of SB 839 and other water resources development programs to ensure that the state can effectively support efforts to meet Oregon's instream and out-of-stream needs.
- Recommendation 5 – Develop funding and financing technical expertise at the state level to facilitate knowledge of other funding programs and financing opportunities.
- Recommendation 6 – Adjust legislative timelines for SB 839 implementation and address conditioning of certain storage projects that receive a water permit or license prior to applying for funding (see amendment to HB 2400).
- Recommendation 7 – SVF establishment should be funded primarily through SB 839 funds. The process and timelines of establishing a SVF need to be piloted.[3]

Conclusion

The rulemaking to implement SB 839 has begun with the rules expected to be brought to the Water Resources Commission for consideration later in the year. In addition, the Governor's Office has submitted legislation (HB 2400), which is consistent with Recommendation 6 of this task force report.

[1] Inclusion of this recommendation does not indicate Task Force members' positions on specific budget requests or legislative proposals. Some members agreed to this recommendation with the goal of funding the types of projects envisioned under Senate Bill 839.

[2] See footnote 1.

[3] Seasonally Varying Flows (SVF) referenced in this report are the flows that must remain instream for the purposes of determining conditions for a new or expanded storage project that receives funding under SB 839 and is required by SB 839 to have an SVF. See SB 839 (2013) for the definition.

Report of the Senate Bill 839 Governance Task Force

March 31, 2015

This report was prepared on behalf of the task force by:
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I. Introduction

In 2012, the Water Resources Commission adopted the state's first Integrated Water Resources Strategy (IWRS), which recommended actions for the state to better understand its water resources, and meet current and future instream and out-of-stream water needs. Water is essential for economic growth and development, job creation, and the livelihoods of many farmers, ranchers, Oregon Tribes, and communities across the state. In addition, water is necessary to support fish and wildlife, recreation, water quality, and other instream uses that are important to Oregonians. Water challenges if left unaddressed, will likely increase in the future. Failing to address these challenges will impact the quality of life for Oregonians and prevent communities and the state from reaching their economic, social, and environmental vision for the future. Therefore, as called for in IWRS Recommended Action 10E (authorize and fund a water supply development program), it is important for the state to have an active role in supporting water resources projects that provide water for instream and out-of-stream purposes.

To help implement Recommended Action 10E and support a subset of other IWRS recommended actions to meet Oregon's water needs, the Oregon Legislature passed Senate Bill 839 (2013), providing the Water Resources Department with the ability to support the development of water resources projects that provide social, economic, and environmental benefits to meet instream and out-of-stream needs.

The legislation required the establishment of a task force ("Governance Task Force" or "Task Force") to look at the structure for water development project loans and grants under SB 839 and develop any proposals for changing the structure that the Governance Task Force determines warranted. The review could also include, but need not be limited to: (1) possible changes in the long-term structure of the role of the state in providing loan and grant funding for water resources development under SB 839; and (2) the decision-making process for the allocation of newly developed water from projects whose uses of water are not specified in the funding application. The Task Force strove to reach agreement on all items; however, the task force was not required to achieve consensus.

Richard Whitman, Governor Kitzhaber's Natural Resources Advisor, convened the Task Force. Members of the Task Force included:

Katie Fast
Oregon Farm Bureau

David Filippi
Stoel Rives LLP

Patrick Griffiths
City of Bend

Teresa Huntsinger
Oregon Environmental Council

Mark Landauer
Special Districts Association of Oregon

Janet Neuman
Tonkon Torp

Kimberley Priestley
WaterWatch of Oregon

Chris Taylor
West Coast Infrastructure Exchange

Eric Quaempts
Confederated Tribes of the Umatilla Indian Reservation

Amanda Rich
The Nature Conservancy

Gil Riddell
Association of Oregon Counties

Tracy Rutten
League of Oregon Cities

April Snell
Oregon Water Resources Congress

Jeff Stone
Oregon Association of Nurseries

Brad Taylor
Eugene Water and Electric Board

Joe Furia
The Freshwater Trust

The Task Force met between August 2014 and March 2015. Members of the Seasonally Varying Flows Task Force were invited to participate in the discussions. This report summarizes the findings and recommendations of the Task Force. The Task Force primarily focused on the state's role in water resources development and reviewing the structure of SB 839.

II. Summary of Recommendations

Recommendation 1

To help meet instream and out-of-stream needs, the state should support funding for each of the three functions: (1) planning, (2) project feasibility analysis, and (3) project implementation.[1]

Recommendation 2

Encourage and support voluntary planning efforts. Address the gap in funding for planning.[2]

Recommendation 3

Evaluate the existing SB 1069 (2008) feasibility study grants program and align it with SB 839. Develop guidance on when SB 1069 should be used instead of SB 839.

Recommendation 4

Establish an Advisory Committee to advise on implementation of SB 839 and other water resources development programs to ensure that the state can effectively support efforts to meet Oregon's instream and out-of-stream water needs.

Recommendation 5

Develop funding and financing technical expertise at the state level to facilitate knowledge of other funding programs and financing opportunities.

Recommendation 6

Adjust legislative timelines for SB 839 implementation and address conditioning of certain storage projects that receive a water permit or license prior to applying for funding (see amendment to HB 2400).

Recommendation 7

SVF establishment should be funded primarily through SB 839 funds. The process and timelines of establishing a SVF need to be piloted.[3]

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[3] Seasonally Varying Flows (SVF) referenced in this report are the flows that must remain instream for the purposes of determining conditions for a new or expanded storage project that receives funding under SB 839 and is required by SB 839 to have an SVF. See SB 839 (2013) for the definition.

III. The State's Role in Water Resources Development

The Governance Task Force members discussed the state's role in water resources development and the functions necessary in order to ensure that Oregon's instream and out-of-stream needs are addressed both now and into the future. In regard to the state's role, the Task Force discussed:

- The structure of how the state should fund water resources projects, aspirations for the funding structure, and what can be accomplished in the short and long-term to meet Oregon's instream and out-of-stream needs.
- The state's role in project finance.

Examples of Neighboring State Investments

Other states have been active in supporting place-based planning and water resources development efforts.

California Since 2002, the state has awarded over $40 million in Integrated Regional Water Management Planning grants and more than $750 million in grants to implement projects identified in those plans. In 2014, California voters passed Proposition 1, authorizing a $7.1 billion water bond.

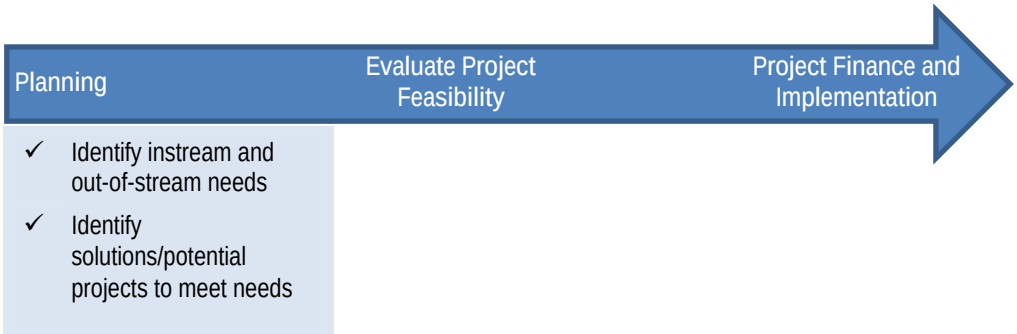
Washington In 1998, the Washington Legislature passed the Watershed Planning Act. It provides a framework for local citizens, in collaboration with local, state and tribal governments, to develop watershed plans that address the future water needs of their communities. The Washington Department of Ecology has provided over $100 million in funds to support local government watershed planning and management since the program's inception.

In 2006, the State of Washington secured $200 million in general obligation bonds for its Office of Columbia River to "aggressively pursue development of water supplies to benefit both instream and out-of-stream water uses."

A. The Funding Structure to Help Meet Instream and Out-of-Stream Needs

Steps to Identify and Fund Water Resources Solutions

The Task Force discussed steps in the project development process and reviewed other funding programs in order to understand the funding landscape for water resources projects, as well as identify funding gaps that could prevent successful identification and implementation of projects. This helped to inform discussions around the role of the state and Senate Bill 839 funds. The components of project development include planning, project feasibility, and project finance and implementation.



Planning

Understanding water needs and demands is a precursor to identifying projects that should be implemented to meet those needs; therefore, planning is an essential step in queuing up projects. Funding for planning, will ensure the state can facilitate the identification of solutions to meet instream and out-of-stream needs.

The nature of water makes addressing water resources challenges particularly difficult if done using a piecemeal, uncoordinated approach. To successfully address complex water resources issues, solutions should be holistic and coordinated so that various actions are not working in opposite directions. Stakeholders representing various interests should be at the table in order for viable solutions to be developed.

Place-based integrated water resources planning is one possible collaborative approach to planning that could help identify solutions to Oregon's instream and out-of-stream water needs. Projects identified through a collaborative process are more likely to have broad support and be well-vetted, which means that they will likely be more competitive for feasibility and implementation funding. [4]

Place-Based Integrated Water Resources Planning[5]

The 2012 Integrated Water Resources Strategy recommends that the state support efforts to undertake place-based integrated water resources planning. Place-based planning is intended to empower communities and stakeholders to work collaboratively in partnership with the state to better understand their water resources needs and challenges, and identify how they plan to meet those water needs. The state, as a partner, can help to ensure that the public's interest is protected and proposed solutions are in accordance with state laws and policies.

In 2014, the Water Resources Department began taking steps to launch this new voluntary planning tool. Staff developed a white paper, held workshops, and took public comment on draft guidelines. Based on the feedback received, pilot guidelines for place-based planning were developed and are available for piloting in 2015.

Project Feasibility Analysis

Prior to implementing a project, a number of feasibility studies and environmental analyses are typically conducted. Such studies help determine the environmental, engineering, economic, and social implications of proposed water supply projects. Analysis of a potential project's feasibility is an essential step in project development, allowing the assessment of a project's viability before further resources are expended on project implementation.

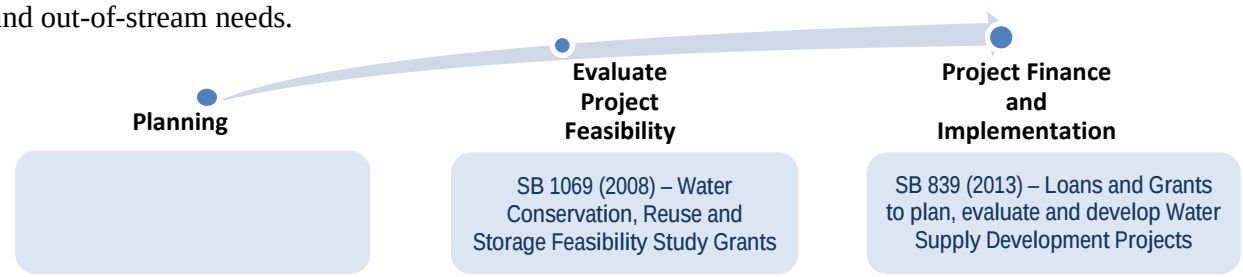
In the past, individuals and communities found it difficult to secure feasibility study funding as part of their project development. To address this challenge, the Oregon Legislature passed Senate Bill 1069 (2008), establishing the Water Conservation, Reuse and Storage Feasibility Grant Program. The program provides match funding for project planning studies performed to evaluate the feasibility of developing a water conservation, reuse or storage project (see Appendix A for the types of projects that may be eligible for funding under SB 1069).

Since its inception, 54 grants have been awarded, totaling more than $3.2 million.

Project Finance and Implementation

Project implementation funding is necessary to allow the state to partner with others to carry out projects that meet identified instream and out-of-stream needs.

In 2013, the Oregon Legislature passed SB 839, which will allow the state to fund instream and out-of-stream water resources development projects that have social, economic, and environmental benefits. SB 839 authorizes the state to provide loans and grants to plan, evaluate and develop projects to meet instream and out-of-stream needs.



[4] Place-based planning is included for informational purposes. Inclusion in this report is not intended to indicate Task Force members' positions on place-based planning budget or legislative proposals.
[5] See footnote 4.
[6] See footnote 4.

Structure of Funding Programs

In order to understand project development funding gaps, the Task Force discussed what could be funded by SB 839 and how SB 839 fits in with other funding programs and needs. SB 839 allows the Department to provide loans and grants to "plan, evaluate and develop" water resources development projects. The legislation also lists examples of projects that could be funded under the program, all of which involve a water quantity component. The list however, is not intended to be exhaustive. To parse out what could be funded under SB 839, Task Force members reviewed and discussed various types of example projects and attempted to evaluate whether the project could be eligible for funding under SB 839.

The Task Force was reluctant to narrow the definition of eligible projects beyond the bill language. In the short-term, the Task Force recommended that SB 839 be interpreted broadly pursuant to the statutory language, as it is important not to exclude projects in order to have the flexibility to respond to opportunities. As the program matures and there is an opportunity to align various funding opportunities (planning and feasibility), the program should be periodically evaluated to ensure that it is meeting the state's objectives.

The Task Force felt that it was important to have funding programs for planning, feasibility analysis, and project implementation. While they recognized the benefits of having separate funding programs for each one, they also expressed a desire to allow the Department to have flexibility to move money between funding programs. This would allow the state to seize opportunities if one program is undersubscribed, while the other is oversubscribed. The Task Force, however, cautioned against the use of funds from bonds to pay for planning activities, as bonds are typically issued for construction and not planning projects.

> **Recommendation 1**
> To help meet instream and out-of-stream needs, the state should support funding for each of the three functions (1) planning, (2) project feasibility analysis, and (3) project implementation.[7]

Funding for Planning

The group discussed whether either of the existing funding programs (SB 839 and SB 1069) could fund place-based planning. While some thought that place-based planning could be eligible for funding under SB 839, others noted that SB 839 is not ideal to fund broader-scale planning efforts such as place-based planning. The noted exceptions were Bureau of Reclamation WaterSMART studies and the US Army Corps of Engineers' Reservoir Reallocation study, which are explicitly authorized under the bill. Similarly, SB 1069 is more focused on evaluating the feasibility of specific projects and not for broader planning efforts; therefore, there is not a dedicated source of funding for planning.

In order to identify solutions to meet instream and out-of-stream needs, additional collaborative planning is necessary to build trust within communities, as well as identify solutions that will have broad support, improving their chance of success. This is a gap in funding that needs to be addressed. A process should be setup to fund planning efforts.

> **Recommendation 2**
> Encourage and support voluntary planning efforts. Address the gap in funding for planning.[8]

[7] Inclusion of this recommendation does not indicate Task Force members' positions on specific budget requests or legislative proposals. Some members agreed to this recommendation with the goal of funding the types of projects envisioned under Senate Bill 839.

[8] See footnote 7.

Alignment of SB 1069 and SB 839

The Task Force reviewed a comparison table of SB 1069 and SB 839. Discussions centered on how the two grant programs could work to address elements of project development and implementation including, but not limited to, feasibility, design, and construction. There is some overlap between the programs, as both SB 839 and SB 1069 can fund feasibility analyses for water conservation, storage, and reuse projects (see Appendix A for the types of projects that may be eligible for funding under SB 1069 and SB 839). However, it was noted that planning projects or projects that have not undertaken some planning and feasibility analyses may not score well under SB 839. The scoring and ranking criteria for SB 839 are more outcome-based, targeted at projects that provide specific public benefits. SB 1069 scoring has a greater emphasis on determining the ability to execute and undertake a study within a timely manner. In addition, it requires a higher cost match of 50 percent and has a cap of $500,000.

Ideally, SB 1069 feasibility grants would be used as a precursor to assess a project's viability prior to obtaining funding from SB 839. Currently, SB 1069 can only be used to fund feasibility studies for conservation, reuse and storage projects, whereas SB 839 can be used for a broader portfolio of projects, including the protection and restoration of streamflows. The Task Force recommended conducting an evaluation of SB 1069 and streamlining the two programs so that SB 1069 would align with the broader objectives of SB 839. The stakeholders generally like the SB 1069 program and want to ensure that the program remains viable.

In the meantime, the Task Force recommended that guidance be developed to help the Department and applicants determine when use of SB 839 funds is appropriate versus SB 1069. Specifically, the Task Force recommended four factors for consideration when determining whether an applicant should apply for SB 839 funding instead of SB 1069:

- The exceedance of the cap on SB 1069 of $500,000.
- Projects that have high public benefits, which would warrant the lower cost match of SB 839, instead of SB 1069.
- Projects that are closer to implementation that are likely to be feasible; thereby, having lower risk that may warrant a lower cost match. Speculative projects should go into SB 1069.
- Projects that are not eligible for funding under SB 1069.

The Task Force also recommended that if practicable, the SB 1069 and SB 839 funding decisions should be made around the same time. This will help to make it apparent as to which applications should be utilizing SB 1069 versus SB 839.

Recommendation 3

Evaluate the existing SB 1069 (2008) feasibility study grants program and align it with SB 839. Develop guidance on when SB 1069 should be used instead of SB 839.

Long-term Program Evaluation and Adaptation

Depending on the type and complexity of a project, it could take years for a project to progress from conception to feasibility analysis, and then through permitting and implementation. The establishment of a funding program for water resources development to meet instream and out-of-stream needs is an important undertaking for the state and stakeholders.

The Task Force members acknowledged that the program is still in its infancy and would need to be adjusted over time, requiring long-term dedication of the Department and stakeholders to ensure successful

implementation. The Department will need to establish monitoring procedures and processes to report on implementation of the program to allow for it to be improved over time. Task force members noted that realistically, an iterative process is needed implement lessons learned after the first few SB 839 grant cycles.

Other Water Policy Issues

The 2012 Integrated Water Resources Strategy identifies a number of tools to help understand and meet Oregon's water needs. Mitigation banking is one such tool that was discussed by the Task Force that needs to be further explored in the future.

The Task Force recommended the establishment of an advisory committee to provide advice and guidance on the setup of not just SB 839, but the broader efforts to meet Oregon's instream and out-of-stream needs. The advisory committee would identify issues and improvements to help the state succeed in supporting water resources projects and provide recommendations to the Water Resources Commission and Legislature.

> **Recommendation 4**
> Establish an Advisory Committee to advise on implementation of SB 839 and other water resources development programs to ensure that the state can effectively support efforts to meet Oregon's instream and out-of-stream water needs.

B. The State's Role in Project Finance

Depending on the project type and size, water resources projects involving infrastructure can be costly, often ranging from several million to hundreds of millions of dollars. The state will not be able to fully finance all water projects, but rather will have the capacity to provide funds to partner with other entities. Therefore, identifying opportunities for innovative project financing opportunities is important, along with identifying opportunities to leverage other funding programs and sources, while ensuring that project proponents have some vested financial interest.

The Task Force discussed the possibility that SB 839 funds might be used as gap or match funding in conjunction with other funding programs that have different requirements. While the Department must apply the requirements in statute for SB 839, the Rules Advisory Committee should consider how additional SB 839 funding requirements developed during rulemaking could be consistent with other funding programs' requirements. To the extent that the Department can provide technical assistance and streamline funding program requirements, the Department should undertake efforts to do so.

> **Recommendation 5**
> Develop funding and financing technical expertise at the state level to facilitate knowledge of other funding programs and financing opportunities.

IV. Review of the Structure of SB 839

The primary purpose of the Task Force was to review the structure of SB 839 and make any recommendations on changes. The Task Force reviewed the entire bill, made some recommendations for adjustments, and then focused on scoring and ranking, as well as the process for Seasonally Varying Flows (SVF) establishment.

A. Legislative Adjustments to SB 839

The Task Force recommended two changes: (1) adjust timelines to be more consistent with the pace undertaken by the Governance and SVF Task Forces; and (2) address the applicability of the SVF so that it applies to new projects that have received a permit or license prior to applying for funding, not just projects that have not yet received a water right permit.

The timelines for the Task Forces and implementing SB 839 have not been met; therefore, there is a need to adjust those timelines.

Under the current statutory language, if an applicant seeks funding, but already has a storage permit, the Department has no authority to condition that permit to protect the SVF, even though the project has not been built. This creates an unintended loophole for new projects and new expansions of projects that does not meet the intent of the bill. In order to ensure that SVF requirements are consistently applied, regardless of whether the water right permit is obtained before or after applying for funding, the task force recommended that the statute be amended so that new or existing water storage permits can be conditioned (for storage projects that receive funding under SB 839 and meet the three criteria for needing an SVF).

> ### Recommendation 6
> Adjust legislative timelines for SB 839 implementation and address conditioning of certain storage projects that receive a water permit or license prior to applying for funding (see amendment to HB 2400).

B. Scoring, Ranking and Other Items for the RAC

Task force members reviewed the scoring and ranking process outlined in SB 839 and discussed a number of issues that will need to be addressed by the rules advisory committee (RAC). In developing the rules, the RAC should seek to develop a scoring and ranking system that ensures that only good projects are funded. Issues considered by the Task Force for further discussion by the RAC include, but are not limited to:

- Whether a cost/benefit analysis should be required for projects.
- Components of a project that can be considered when analyzing public benefits.
- Level of analysis and information that needs to be provided by the applicant in order to determine public benefits; whether the quantity and quality of analysis should be accounted for in scoring.
- Project readiness as a factor in the review process.
- Whether there should be use of an advisory group to review projects.
- Factors the Technical Review Team might evaluate such as public benefit criteria; type of projects; geographical distribution of projects; security for loans; project readiness; level of cost share; past experience with applicant; and quality of application materials.
- Scoring scale, including potential use of likert scale and negative values.
- Project feasibility and ability to repay as a factor in scoring and ranking.
- Requirement for a financial analysis for loans.
- Consideration of the recommendations in the Economic Task Force Subgroup Report.
- Creating a pre-proposal process.

C. SVF Funding and Timing

There was much discussion about who pays for SVF funding. The Task Force believes that the SVF analysis will contribute to the scientific understanding of the state's watershed functions. Therefore, there is some public interest and benefit obtained from conducting these studies. The Department has the

authority under SB 839 to spend funds directly on the development of an SVF for applications that it has received.

SB 1069 includes some provisions that could allow for some of the initial SVF work to be undertaken. However, the Task Force recommends that SB 839 primarily be used to establish SVFs for projects funded under SB 839, and that generally, SB 1069 funding should not be used to establish an SVF to prevent dilution of that program. However, to maximize the use of resources and allow some initial information to be developed, work undertaken as required by the SB 1069 funding program for storage projects should provide information that is consistent with the SB 839 requirements and methods, in case SB 839 funding is pursued.

Concerns were expressed that projects waiting on the establishment of SVFs would tie up funds; therefore, projects may need to undergo a phased approach to funding under SB 839, if the SVF is expected to take a longer time to establish. Thus, some projects may need to apply to have the SVF established prior to moving forward with further requests for funding, whereas other projects with less complex SVFs may be able to apply for implementation and SVF funding at the same time.

The interplay between the water right permit application process and SB 839 funding were also discussed. The Task Force reviewed how that could potentially work; there may be a need to review this in the future if opportunities for improvement are identified.

The Task Force also discussed the SVF methodology and that the statute requires the need for storing water be given “due regard”, as well as the best available science. Pilots of the SVF methodology will be helpful to ensure that the proposed matrix methodology does not preclude storage projects everywhere. It was suggested that the Water Resources Commission could have the Department perform a few SVF pilots, which would provide reassurance to all parties that the methodology will allow some projects to move forward, while protecting the needed SVFs. The results of those pilots would not become official SVFs until reviewed by the Commission. In the meantime, this would not prevent projects from moving forward under the SVF methodology adopted in rule by the Commission.

Recommendation 7

SVF establishment should be funded primarily through SB 839 funds. The process and timelines of establishing a SVF need to be piloted.

Appendix A. Types of Activities Funded by SB 1069 and SB 839

SB 1069	SB 839
Research and planning performed to evaluate the feasibility of developing a water conservation, reuse, or storage project: • Analyses of hydrological refill capacity; • Water needs analyses; • Refined hydrological analyses; • Engineering and financial feasibility studies; • Geologic analyses; • Water exchange studies; • Analyses of bypass, optimum peak, flushing and other ecological flows of the affected stream; • Comparative analyses of alternative means of supplying water; • Analyses of environmental harm or impacts; • Analyses of public benefits; • Fiscal analyses including estimated project costs, financing for the project and projected financial returns from the project; • Hydrological analyses of a project, including the anticipated effects of climate change on hydrological refill capacity; and • Analyses of potential water quality impacts.	Plan, develop and evaluate water development projects that: • increase water use efficiency • develop new or expanded storage • allocate federally stored water • promote water reuse or conservation • protect or restore streamflows Plan, develop and evaluate water development projects that are developed in connection with the new increment of water (newly developed water): (a) for new or expanded storage; (b) allocated to a use under a secondary water right USACE reallocation; or (c) conserved as part of an allocation of conserved water project that: • improve operations of existing storage facilities • create new or improved water distribution, conveyance or delivery systems • provide for water management or measurement • determine seasonally varying flows Fund Bureau of Reclamation comprehensive basin studies, or ongoing studies by US Army Corps of Engineers to allocate stored water

Oregon
John A. Kitzhaber, MD, Governor

Water Resources Department
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MEMORANDUM

January 30, 2015

TO: John Kitzhaber, Governor
Peter Courtney, President of the Senate
Tina Kotek, Speaker of the House
Representative Brian Clem, Chair, House Committee on Rural Communities, Land Use and Water
Senator Chris Edwards, Chair, Senate Committee on Environment and Natural Resources
Oregon Water Resources Commission

FROM: Tom Byler, Director

SUBJECT: Report of the Senate Bill 839 Task Force on Seasonally Varying Flows

Attached is the executive summary of the report of the Senate Bill 839 (2013) Task Force on Seasonally Varying Flows. A copy of the full report (matrix and narrative) has also been included for your convenience.

If you have questions, please contact Racquel Rancier, Senior Policy Coordinator, at racquel.r.rancier@state.or.us or 503-986-0828.

cc: 78th Legislative Assembly
Legislative Administrator
Beth Reiley, Committee Administrator
Beth Patrino, Committee Administrator
Richard Whitman, Governor's Natural Resources Policy Advisor

Executive Summary
Report of the Senate Bill 839 Task Force on Seasonally Varying Flows

Background

In 2013, the Oregon Legislature passed Senate Bill 839 establishing a Water Supply Development Account to provide loans and grants for water resource projects that have economic, environmental, and community benefits.

Before the Water Resources Department and Commission can begin developing rules and issuing grants and loans, SB 839 required the Governor, in consultation with Legislative leadership, to appoint a "Seasonally Varying Flows Task Force" that would create and submit a report to the Oregon Legislature, Governor, and Water Resources Commission. This memo serves as the report required by SB 839 in accordance with ORS 192.245.

Purpose

The role of the task force was to recommend a method to determine which flows are appropriate for storage and which are necessary to leave in the stream to fulfill an instream purpose.

As defined in Section 1 of the bill, "seasonally varying flows," means:

> The duration, timing, frequency and volume of flows, identified for the purposes of determining conditions for a new or expanded storage project, that must remain instream outside of the official irrigation season in order to protect and maintain the biological, ecological, and physical functions of the watershed downstream of the point of diversion, with due regard given to the need for balancing the functions against the need to store water for multiple purposes.

Task Force Members

The Seasonally Varying Flows Task Force met eight times throughout 2014 to develop and recommend a methodology. The following are the individuals who were appointed to the Task Force:

Dr. Leslie Bach, The Nature Conservancy
Mr. JR Cook, Northeast Oregon Water Association
Ms. Katie Fast, Oregon Farm Bureau
Dr. Tim Hardin, Oregon Department of Fish and Wildlife
Ms. Teresa Huntsinger, Oregon Environmental Council
Dr. Bill Jaeger, College of Agricultural Sciences – Applied Economics, Oregon State University
Dr. Valerie Kelly, Oregon Water Science Center, U.S. Geological Survey (Retired)
Mr. Richard Kosesan, Water for Life
Mr. Mark Landauer, Special Districts Association of Oregon
Mr. Curtis Martin, Oregon Cattlemen Association
Mr. Paul Matthews, Tualatin Valley Water District
Ms. Kimberley Priestley, WaterWatch of Oregon
Mr. Eric Quaempts, Confederated Tribes of the Umatilla Indian Reservation
Mr. Gil Riddell, Association of Oregon Counties
Ms. Tracy Rutten, League of Oregon Cities
Ms. April Snell, Oregon Water Resources Congress
Mr. Jeff Stone, Oregon Association of Nurseries

Ms. Dawn Wiedmeier, U.S. Bureau of Reclamation
Mr. Joe Whitworth, The Freshwater Trust

Task Force Report – Decision Matrix and Narrative

The types of water resources projects that are the focus of this work are certain water storage projects that are seeking public funding under SB 839. The report that resulted from the Seasonally Varying Flows Task Force revolves around a decision matrix, intended to help funding applicants and the state determine: (1) how much of an impact a project may have on its surroundings, and (2) how much information already exists about the hydrological, biological, and hydraulic / physical conditions of the proposed location.

Once these two factors have been determined, the decision matrix helps identify what additional information is needed, if any, and the methods for data collection and data analysis necessary to establish seasonally varying flows for each water storage project. An accompanying narrative provides background, definitions and instructions to help the applicant and state understand how the matrix is to be used. The narrative and matrix were approved by the task force without opposition.

The decision matrix and accompanying narrative are available online. Copies can also be obtained by emailing Racquel Rancier at racquel.r.rancier@state.or.us.

Conclusion

The Water Resources Commission must now consider the Seasonally Varying Flows Task Force's recommendations in adopting rules that establish the seasonally varying flows methodology. SB 839 directs the Commission to adopt Seasonally Varying Flows rules in time for them to take effect on January 1, 2015. Since it is not possible to meet this timeframe, the Governor's Office has submitted 2015 legislation (HB 2400) to modify the timelines to reflect the delivery of the task force report and to allow time for the rules to be developed. The rulemaking is expected to start early in 2015 with the rules being brought to the Water Resources Commission for consideration later in the year.

SB 839 Matrix to Select Methods for Development of Seasonally Varying Flow Prescriptions

When Is a Seasonally Varying Flow Prescription Required?

FOR above and below ground water storage projects that require a water right authorization and are seeking SB 839 funding, AND that are: impounding on a perennial stream, or diverting from a stream supporting STE species, or ≥ 500 acre feet…

The project will need a **Seasonally Varying Flow Prescription**, determining the duration, timing, frequency and volume of flows, (including ecological baseflow) necessary for protection and maintenance of biological, ecological, and physical functions. Note that this flow prescription does not replace other environmental review required by rule (e.g. Division 33).

How Hard Would One Have to Work to Develop an Seasonally Varying Flow Prescription?

Methods and effort necessary to develop flow prescriptions are related to the level of impact of the project and the availability of information. Use the two sets of questions below to determine the effort one would expend to determine a flow prescription. Projects with lesser ecological impacts and more available information will require less intensive study approaches than those with greater ecological impacts and less available information.

Step 1: What Is the Ecological Impact of the Proposed Project?

Questions to Discern Ecological Impact of Project (Circle Yes or No for each question)	
Is this project diverting from a stream supporting sensitive, threatened, or endangered species?	Yes or No
Is the impoundment located in-channel?	Yes or No
Does the impoundment or proposed project have an impact on sensitive habitat/process?	Yes or No
Of the remaining available water in the basin, is the project proposing to divert more than half?	Yes or No
Is a majority of available water already developed in the basin?	Yes or No

Impact of Project Score	
If Yes to any questions = Significant If No for all questions = Minimal	Significant or Minimal

Step 2: What Information about Streamflow Functions Is Already Available?

Functional Bands	Questions to Discern Availability of Information about Streamflow Functions (Circle Yes or No for each question)		Availability of Information Score (Yes = Sufficient, No = Insufficient)
Hydrological Band	Are there sufficient long-term data* to understand the natural hydrograph?	Yes or No	Sufficient or Insufficient
	Is there sufficient information* to understand climate driven shifts to the flow regime?	Yes or No	Sufficient or Insufficient
	Is there sufficient information* about water availability?	Yes or No	Sufficient or Insufficient
Biological Band	Is there sufficient information* about all species present at/below the point of diversion and their lifecycle needs?	Yes or No	Sufficient or Insufficient
Hydraulic / Physical Processes Band	Are there habitat studies that provide sufficient information* to understand the relationship between selected habitat features and streamflow?	Yes or No	Sufficient or Insufficient
	Are there geomorphological studies or data that provide sufficient information* to understand the relationship between sediment transport and streamflow?	Yes or No	Sufficient or Insufficient
	Are sufficient* stream data available to describe stream complexity and floodplain connectivity?	Yes or No	Sufficient or Insufficient
	Are sufficient* water quality data available, particularly related to temperature?	Yes or No	Sufficient or Insufficient

* "Sufficient" information means enough scientific information collected using standard biological, hydrologic, or hydraulic methods to develop the recommended flow prescription. Level of effort creating a flow prescription should correspond to how the project relates to its biological and physical setting. As the proposed project increases in water requested relative to water available, risk to ecosystem functions, and complexity, so too will the level of detail necessary to develop a flow prescription. This approach responds to the economic feasibility realities noted in SB 839.

Step 3: Combine Scores of Steps 1 and 2

Combined Scores from Steps 1 and 2 for Each Question (e.g. Minimal, Sufficient)

Step 4: Determine Which Study Methods to Use to Address Each of the Functional Band Questions

Resulting "Impact of Project" and "Availability of Information" Scores	Resulting SVF Study Methods Used to Develop Flow Prescription (see narrative for a description of data sources and a description of study methods)
Minimal, Sufficient	**Data Collection**: Field visits, and/or literature and expert review **Analysis:** Existing models and/or calculations
Minimal, Insufficient	**Data Collection:** Field work, field visit, and/or literature and expert review **Analysis:** Develop models, scientific expert workshop, existing models and/or calculations
Significant, Sufficient	**Data Collection**: Field work, field visits, and/or literature and expert review **Analysis:** Develop models, scientific expert workshop, existing models and/or calculations
Significant, Insufficient	**Data Collection**: Field investigations/study, scientific expert workshop, field work, field visits, and/or literature and expert review **Analysis:** Develop models, scientific expert workshop, existing models and/or calculations

SVF Task Force December 15th, 2014

SB 839 Matrix to Select Methods for Development of SVF Flow Prescriptions
Description and Implementation

Introduction

Senate Bill 839 (2013) established a Water Supply Development Account in order to provide a public cost match to Oregonians seeking to develop water resources projects.

For water storage projects (above and below ground) that require a water right authorization and are seeking public funding under SB 839, the bill sets forth specific requirements. These requirements are triggered by water storage projects that are: impounding surface water on a perennial stream, or diverting from a stream supporting sensitive, threatened, or endangered (STE) fish species, or diverting more than 500 acre-feet of surface water annually. (Sect. 13(1)).

The bill specifies that for such storage projects, the state must determine whether seasonally varying flows (SVFs) have been established for the stream. If SVFs have not been established, the state must establish SVFs before awarding public funding. (Sect. 13(2)).

It is important to note that before a flow prescription study method is identified, the project will be scoped using standard OWRD storage application criteria and that all projects will adhere to existing rules and regulations (e.g., Division 33). Every proposed project that does not yet hold a water right will be initiated using the standard OWRD application process. The applications include information about the storage project (e.g., source of water, dam height/ composition, primary outlet works, etc.) and information about how the stored water will be used (e.g., place of use, type of use, water management, etc.). The review of these applications will include an analysis of available water according to the 50 percent exceedence criteria.

Seasonally Varying Flows (SVFs) – as defined in Senate Bill 839 – mean the duration, timing, frequency and volume of flows, identified for the purpose of determining conditions for a new or expanded storage project, that must remain instream[1]... in order to protect and maintain the biological, ecological and physical functions of the watershed downstream of the point of diversion, with due regard given to the need for balancing these functions against the need to store water for multiple purposes. (Sect. 1(2)).

More specifically, the functions that must be protected, according to the bill, include but are not limited to: stream channel development and maintenance; connectivity to floodplains; sediment transport and deposition; migration triggers for upstream

[1] The ellipses [...] refer to text removed at the recommendation of the task force. The phrase "outside of the official irrigation season" should be deleted. Instead, the methodology described here specifies that the approval process for these projects should rely on the Department's determination of "when water is available for storage" in order to be consistent with the methods the state uses to evaluate and permit water storage projects.

movement of adult fish and downstream movement of fry and juvenile fish; fish spawning and incubation; juvenile fish rearing; and adult fish passage. (Sect. 19(4)).

The following narrative describes the methods the SVF Task Force recommends that the Water Resources Commission approve for the development of SVFs. The narrative focuses on the methods that will be used to develop a flow prescription that describes the necessary duration, timing, frequency and volume of flows, including the necessary floor flow, (i.e., ecological baseflow), that must be protected instream to protect and maintain biological, ecological, and physical functions.

The fundamental drivers for choosing an appropriate SVF method are the likely ecological impact to the site (i.e., attributes of the project relative to the attributes of the site), and how much information already exists about the ecological flow functions of proposed stream.[2]

Note that this approach responds to the economic feasibility realities noted in SB 839 (i.e., Many of the functional benefits to watersheds from water storage will not occur unless a new water storage project is financially feasible; and new water storage will not be appropriate or feasible in many locations).

SB 839 Matrix and Narrative: Determination of Flow Prescription Methods

The worksheet titled the "SB 839 Matrix to Select Methods for Development of SVF Prescriptions" and its supporting narrative (SB 839 Matrix), were compiled in order to identify the level of effort and subsequent study methods necessary for the SB 839 SVF prescription process. The SB 839 Matrix uses a series of questions to scope a given project's likely ecological impact and assess the quantity and quality of available information about ecological flow functions. The answers to these questions direct the user to the recommended study method (i.e., data collection and analysis) for a given project.

The SB 839 Matrix also relates questions about specific ecological data and analysis to streamflow functional bands discussed within the bill: Biological, Hydrological, and Hydraulic/Physical Processes. These bands are the basis for the development of a flow prescription and relate directly to the streamflow functions listed in the bill (Sect. 19(4)). Table 1 identifies the specific streamflow functions and where they will be addressed within each of the streamflow function bands. Ultimately, the completed studies and analyses for each band will be used to determine the necessary flow prescription.

[2] The level of effort required to create a flow prescription should correspond to how the project relates to its biological and physical setting. As the proposed project increases in water requested relative to water available, risk to ecosystem functions, and complexity, so too will the level of detail necessary to develop a flow prescription.

Streamflow Function Bands	Streamflow Functions Listed in SB 839							
	stream channel development and maintenance	connectivity to floodplains	sediment transport and deposition	migration triggers for upstream movement of adult fish	migration triggers for downstream movement of fry and juvenile fish	fish spawning and incubation	juvenile fish rearing	adult fish passage
Biological Band				x	x	x	x	x
Hydrological Band	x	x	x	x	x	x	x	x
Hydraulic / Physical Processes Band	x	x	x			x	x	x

Table 1. Comparison of streamflow functions listed in SB 839 and the streamflow function bands. The "X" under each streamflow function indicates which streamflow function bands will provide analysis or information for the streamflow needs of that function.

Application of the SB 839 Matrix

The following steps are used to implement the SB 839 Matrix:

Step 1) What is the Level of Ecological Impact of the Proposed Project?
Start at the column titled, "Questions to Discern Impact of Project." These questions are intended to identify proposed projects that are more likely to interfere with the biological, ecological, and physical functions protected by SB 839. Answers to the following questions will help determine whether the project is likely to have minimal or significant impact at the project site and what level of effort should go into creating an SVF flow prescription[3]:

- Is this project diverting from a stream with sensitive, threatened, or endangered species?
- Is the impoundment located in-channel?
- Does the impoundment or proposed project have an impact on sensitive habitat/process?
- Of the remaining available water in the basin, is the project proposing to divert more than half?
- Is a majority of available water already developed in the basin?

Once each question in the column "Questions to Discern Ecological Impact of Project" has been answered Yes ("Y") or No("N"), move to the box titled, "Impact of Project Score." Here, if any of the above questions were answered "Yes," then circle "Significant." If all answers to the above questions were "No," then circle "Minimal." This is the impact score for the project.

[3] Scoping must be done at the outset in collaboration with the technical review team and at other decision points along the way, so that money and resources can be focused on projects that are going to be successful.

Step 2) <u>What Type of Information is Already Available?</u>

Next, move to the column titled, "Questions to Discern Availability of Information about Streamflow Functions." "Sufficient" information means enough scientific information collected using standard biological, hydrologic, or hydraulic methods to develop the recommended flow prescription. Answers to the following questions are used to summarize the availability of scientific data sets and analysis:

Hydrological Band:

① Are there sufficient long-term data to understand the natural hydrograph?
② Is there sufficient information to understand climate driven shifts to the flow regime?
③ Is there sufficient information about water availability?

Biological Band:

④ Is there sufficient information about all species present at/below the point of diversion and their lifecycle needs?

Hydraulic / Physical Processes Band:

⑤ Are there habitat studies that provide sufficient information to understand the relationship between selected habitat features and streamflow?
⑥ Are there geomorphological studies or data that provide sufficient information to understand the relationship between sediment transport and streamflow?
⑦ Are sufficient stream data available to describe stream complexity and floodplain connectivity?
⑧ Are sufficient water quality data available, particularly related to temperature?

Acceptable scientific data sets and analysis collected using standard biological, hydrologic, or hydraulic methods may come from public, private, and non-profit sources and should meet appropriate quality assurance standards. Reliable sources of publically available information include:

- Hydrological Band: Oregon Water Resources Department, US Geologic Survey Oregon Water Center, US Army Corps of Engineers, National Weather Service, Oregon Climate Service, Northwest River Forecast Center, Bureau of Reclamation, University System of Oregon.

- Biological Band: Oregon Department of Fish and Wildlife, US Fish and Wildlife, National Oceanic and Atmospheric Administration, Oregon Watershed Enhancement Board/Watershed Councils of Oregon, University System of Oregon.

- Hydraulic / Physical Processes Band: Oregon Department of Fish and Wildlife, Oregon Department of Environmental Quality, Oregon Department of Gems and Mineral Industries, Oregon Department of State Lands, Oregon Department of Forestry, US Army Corps of Engineers, US Geologic Survey Oregon Water Center, Federal Emergency Management Administration,

Oregon Watershed Enhancement Board/Watershed Councils of Oregon, University System of Oregon.

Once each question has been answered Yes ("Y") or No ("N"), move to the column titled, "Availability of Information Score." Here, mark for each question whether the availability of information is sufficient or insufficient. If "Yes" was circled in "Questions to Discern Availability of Information," then circle "Sufficient." If "No" was circled, then circle "Insufficient."

Step 3) Combine Scores of Steps 1 and 2

Next, move to the column in the main matrix titled, "Combined Scores from Steps 1 and 2." Here, combine the "Availability of Information Score" and the "Impact of Project Score" into a single box. For example, if the "Impact of Project Score" was "Minimal," and the "Availability of Information Score" was "Sufficient", then write "Minimal, Sufficient." There will be a total of eight combined scores. A description of the meaning of these combined scores can be found in Table 2 of this narrative.

Step 4) Determine Which Study Methods to Use

Once the combined scores for each question have been identified, the table to the right of the main matrix can be used to identify likely "Resulting SVF Study Methods Used to Develop Flow Prescription" (also see Table 2). These study methods consist of two categories: 1) Data Collection Methods, and 2) Analysis Methods. Each study method category consists of a spectrum from simplest to most complicated method and each method is inclusive of all simpler methods listed before it. The two Resulting SVF Study Methods categories are as follows:

Data Collection Methods (listed in order from simplest to most complicated; each entry is inclusive of all simpler methods):

- *Literature and expert review*: collection of information and data from existing scientific literature and opinions from science subject experts;
- *Field visits (3-30 days)*: collection of additional data; likely used to supplement existing data, though not enough for extensive model development;
- *Field work (1-6 months)*: collection of additional data; likely used to supplement existing data and may be enough to build/calibrate site specific models;
- *Scientific expert workshop (6-12 months)*: a workshop consisting of scientific experts may be used to derive a best professional opinion relating data to streamflow functions and identifying additional data sources;
- *Field investigation/study (1-3 years)*: a scientific study related to the monitoring and/or measurement of a flow function in order to determine the necessary flow prescription.

Analysis (listed in order from simplest to most complicated; each entry is inclusive of all simpler methods):

- *Calculations*: application of basic analytical approaches; gives general understanding of flow function needs;
- *Existing models*: utilization of existing models (e.g. PHABSIM) that may require inputs of field or other data;
- *Scientific expert workshops*: peer-reviewed, group assessment of flow function needs and development of flow prescriptions;
- *Develop and run models*: creation and utilization of a model for a specific site or basin.

With study methods identified, a study plan can be determined and executed at a level acceptable to OWRD. Once complete, a flow prescription can be developed. OWRD, in consultation with the Oregon Department of Fish and Wildlife and affected Tribes, may approve the flow prescription or determine that water cannot be diverted from the channel in a method consistent with the language from SB 839. (Sect. 13(3)).

Resulting "Impact of Project" and "Availability of Information" Scores	**Combined Score Descriptions**	**Resulting SVF Study Methods** (see narrative Step 6 for details)
Sufficient, Minimal	Data are available and impact is limited. Simplest approach; minimal field visits and general analysis	**Data Collection**: Field visit, and/or literature and expert review **Analysis:** Existing models and/or calculations
Insufficient, Minimal	Impact remains small, however data is unavailable. Additional site-based data collection is necessary, though analysis remains general.	**Data Collection:** Field work, field visit, and/or literature and expert review **Analysis:** Develop models, scientific expert workshop, existing models and/or calculations
Sufficient, Significant	Despite sufficient data, significance of impact requires careful review and analysis. Supplementary data collection and detailed analysis.	**Data Collection**: Field work, field visits, and/or literature and expert review **Analysis:** Develop models, scientific expert workshop, existing models and/or calculations
Insufficient, Significant	Data is not available and the project will likely have a large impact on ecosystem functions. Most complicated approach; significant data collection and field work and detailed analysis.	**Data Collection**: Field investigations/study, scientific expert workshop, field work, field visits, and/or literature and expert review **Analysis:** Develop models, scientific expert workshop, existing models and/or calculations

Table 2. This table expands on "Step 4: Determine Which Study Methods to Use to Address Each of the Functional Band Questions," presented in the SB 839 Matrix. The additional column, "Combined Score Descriptions," offers a simple description of the score and the effort required to collect and analyze the relevant scientific data.