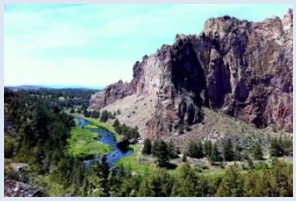
Place-Based Integrated Water Resources Planning

Initial Observations from the State of Oregon



March 10, 2014

Abstract:
This Discussion Paper examines regional or local water planning approaches from three western states – California's Integrated Regional Water Management, Texas' Regional Water Planning Program, and Washington's Watershed Planning process. The purpose of this paper is to highlight several key planning elements that could inform Oregon's approach to place-based, integrated water resources planning. Several questions are posed throughout the document, and serve as a starting point for discussion with stakeholders and the public. The state's objective is to develop guidelines that can facilitate place-based planning efforts within Oregon communities, with the ultimate goal of meeting current and future water needs – instream and out-of-stream, including water quality, and ecosystem needs.

For further information, contact:
Alyssa Mucken, Coordinator
Integrated Water Resources Strategy
Oregon Water Resources Department
725 Summer Street NE, Salem, OR 97301
alyssa.m.mucken@state.or.us
503-986-0911

– or –

Brenda Bateman, Administrator
Technical Services Division
Oregon Water Resources Department
725 Summer Street NE, Salem, OR 97301
brenda.o.bateman@state.or.us
503-986-0879

Cover photos, left to right:
South Fork McKenzie River, courtesy of Oregon State Archives; Oregon City bridge, courtesy of Oregon State Archives; Crooked River near Smith Rock State Park, courtesy of Melissa Wilmot; Harney County, courtesy of Oregon State Archives; and the Columbia River, courtesy of Oregon State Archives.

Table of Contents

The Case for Integrated Water Resources Planning 4
Defining Place-Based Integrated Water Resources Planning 4
Oregon's History with Basin Planning 5
Renewed Calls for Place-Based Planning in Oregon 8
Overview of Planning Programs in Other Western States 9
California's Integrated Regional Water Management 9
Texas' Regional Water Planning 10
Washington's Watershed Planning Approach 11
State Comparison of Planning Program Elements 11
Establishing Geographic Boundaries for Water Planning 11
Governance Agreements and Structure 12
Stakeholder and Public Involvement 13
Planning Content Requirements 15
Addressing Instream Needs 18
Addressing Water Quality Needs 19
Integration of Other Planning Efforts 21
Adoption of Plans at the Local Level 22
State Level Review Process 23
State Agency Roles 24
Funding for Planning and Projects 25
Place-Based Planning in Oregon, Commitments Made Thus Far 28
Appendix A: Comparison Table of California, Texas, and Washington 30
Appendix B: Resources for More Information 32
Appendix C: Acronyms 36
Appendix D: Summary of Discussion Questions 37
Appendix E: Draft Guidelines for Place-Based Planning in Oregon 39

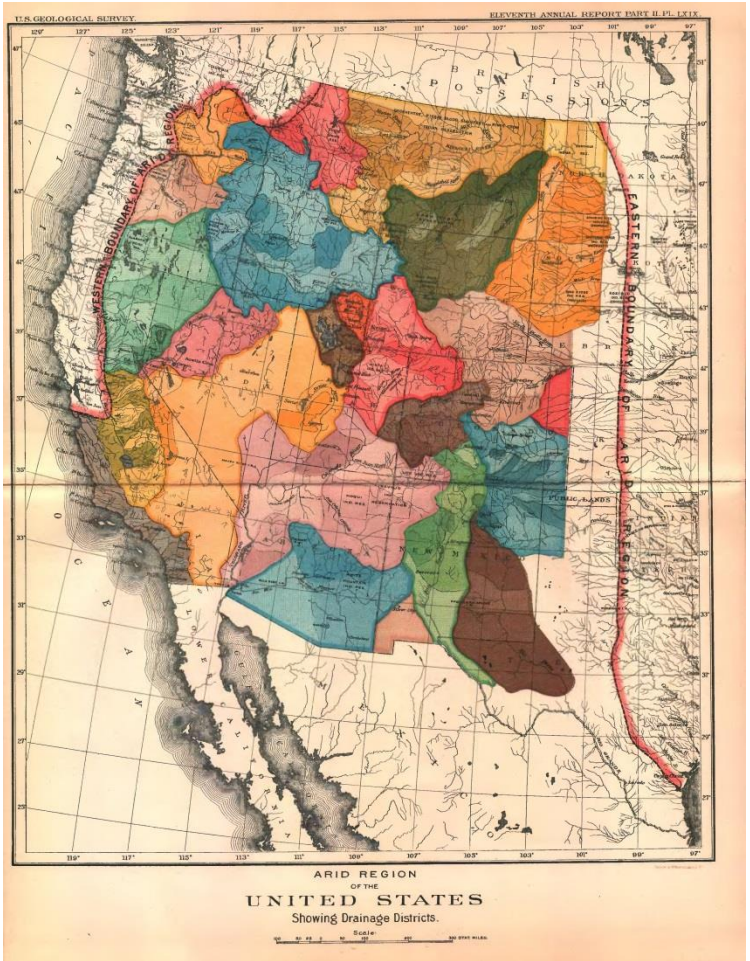
The Case for Integrated Water Resources Planning

The American Water Resources Association recommends that water resources management goals, policies and rules be organized around the concept of "place" (i.e., basins, watersheds, or aquifer systems), to promote hydrologic system-based planning and management.

John Wesley Powell, surveyor of the American West, argued that people settle the land in communities "linked by their common watercourse." He believed that water management should drive decisions throughout the arid west, and argued that drainage districts ("watersheds," in today's parlance) should be the way to organize "a homogeneous body of people, a people having one common interest."

Powell's 1890 map of the "Arid Regions of the United States" illustrates just how different political boundaries would look if early settlements had used rivers and streams as the centerpiece of communities, instead of political borders.

Figure 1: Arid Regions of the United States, *John Wesley Powell, 1890*



Today, governments are recognizing that decision-making could be improved by focusing the policies and programs of governments at all levels around watersheds, basins, and aquifers. When these hydrologic units become the common focus, local, state, tribal and federal governments and their partners are more likely to succeed in garnering the resources, information, science and management commitments needed to be good stewards while benefitting from the use of the resource.

Defining Place-Based Integrated Water Resources Planning

Place-based integrated water resources planning is a collaborative process that brings together various sectors and community interests to work toward the common purpose of maintaining healthy water resources to meet the needs of Oregonians and the environment. The plan itself should serve as a blueprint for meeting both instream and out-of-stream needs, taking into account water quantity, water quality, and ecosystems. Meeting water needs should be considered within the context of specific watersheds, accounting for the hydrological, geological, biological, climatic, socio-economic, cultural, legal, and political conditions of a community.

Place-based approaches are crucial for addressing both traditional water resource issues, such as flood- and drought-risk management, as well as emerging ones, such as climate change. With active state and federal participation, place-based planning can help a local community navigate the various governance structures and systems that influence the management of water.

Because every river basin is unique with widely varying ecological issues, community needs, and economic dynamics, place-based integrated water resources planning is vital for meeting today's water management challenges. Such planning will enable communities to engage in a thoughtful and inclusive process to determine how best to meet their unique instream and out-of-stream water needs. A place-based approach allows water users to address multiple needs and issues at once, to anticipate and mitigate unintended consequences, to pool financial and technical resources, and to design projects that can provide multiple benefits. Building trust and developing long-term relationships are benefits that can be realized through place-based planning, and are as important as the development of tangible water resources projects.

Today, policymakers are recognizing the value of coordinating their efforts as part of place-based planning. In many states, locally developed water plans "roll up" and inform a statewide water plan. Other western states are actively encouraging and facilitating regional or watershed-based approaches that bring local water users into the decision-making process. California, for example, has provided grants to facilitate integrated water management at a regional scale for more than ten years.

One of the recommended actions of Oregon's Integrated Water Resources Strategy is to facilitate integrated water resources planning within local communities. Oregon's natural resource agencies have committed to developing guidelines to help further "place-based" approaches to water resources management, planning, and implementation. To help shape guideline development, the Oregon Water Resources Department completed a review of three other western states – Washington, California, and Texas – all of which have been conducting some form of regional or locally-led water planning since the late 1990s or early 2000s.

This discussion paper provides an overview of the various states' planning approaches, focusing on a number of planning elements and posing a number of questions to readers. The purpose of these questions is to gather public and stakeholder input to help shape Oregon's framework for place-based planning.

Oregon's History with Basin Planning

Oregon is no stranger to basin-level planning. In 1955, the Oregon Legislature passed House Bill 25, establishing a foundation for basin planning. The Legislature created a new state agency, the State Water Resources Board (Board), vested with broad authority to establish state water policy and to carry out a statewide coordinated and integrated plan for water resources management. House Bill 25 provided various declarations of policy to guide the Board's efforts, including:

- Protection and preservation of existing water rights, established duties, and relative priorities;
- Preference for watershed development policies that preserve balanced multiple uses;
- Maintenance of minimum perennial streamflows sufficient to support aquatic life and to minimize pollution; and

- Promotion and encouragement of local development of watershed conservation.

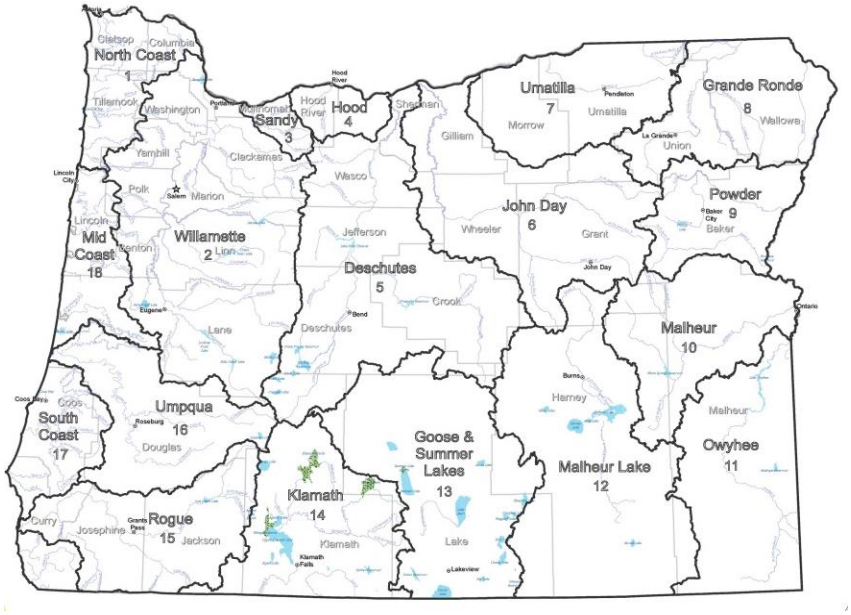
House Bill 25 authorized the Board to classify and re-classify any waters of the state for future allowable beneficial uses, to prescribe preferences for particular future uses over other uses and to withdraw streams from further appropriation when "necessary in the public interest to conserve the water resources of (the) state." In addition, certain actions by any "state agency or public corporation which would tend to derogate from or interfere with the state water resources policy" as adopted by the Board were declared unlawful.

Importantly, the Legislature directed the Board to promptly study the water resources of the state and to "progressively formulate an integrated, coordinated program for the use and control of all water resources of this state and issue statements thereof." Many of the policies, directives and authorizations provided for in HB 25 can be found essentially intact as originally codified in 1955 in ORS 536.220, 536.300, and 536.310.

Development of Oregon's Basin Programs

In carrying out its duties, the Board took a basin-by-basin approach, a choice driven in large part by the wide diversity of water resources, water uses, current water supply demands, and future water supply needs among the state's major river basins. The Board explicitly recognized in its First Biennial Report to the Oregon Legislature that "no plan or program…can succeed without the full support of those directly involved" and that it would base programs "to a considerable extent on local desires." The record indicates that the administrative basins chosen by the Board represented an attempt to align with the physical contours of the major river or drainage basins of the state (See Figure 2).

Figure 2: Map of Oregon's Administrative Basins



The state adopted its first basin program in 1959 (Umpqua River Basin). By 1970, basin programs had been adopted for 15 of the state's 18 administrative basins and for the Middle Snake River. Today, basin programs have been adopted for all of the Commission's 18 administrative basins except for the Klamath River Basin. The general approach taken by the Board to formulate basin programs during this period included the following three steps:

1) Conduct Studies. The specific subject matter of the studies to be conducted was identified in House Bill 25 to include: existing water resources and the means and methods of conserving and augmenting these water resources; existing and contemplated needs and uses of water for domestic, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish, and for

pollution abatement (all declared to be beneficial uses), and all other related subjects, including drainage and reclamation.

2) Develop a Basin Report (Plan). After concluding the necessary studies, the Board published a basin report which included analysis of the basin studies; data, research and other input from various federal, state and local agencies; and a summary of testimony received from the public at hearings held within the basin. The reports described the basin's physical features and the various factors (such as population, transportation, land use and ownership, agriculture, forestry, mining, commercial fishing, manufacturing and recreation) that contributed to the basin's economy. The reports also contained findings and conclusions regarding the quantity and quality of surface water and groundwater supplies; water use and control, including drainage and erosion; and an examination of the potential for water resources development in the basin.

3) Adopt Basin Programs. The general approach taken by the Board in the basin programs was to apportion or classify each basin's water for certain "designated uses," based upon present water supply uses and constraints and future water supply needs. These designated uses included domestic, livestock, municipal, irrigation, power development, industrial, mining, recreation, wildlife and fish, and pollution abatement. Basin programs, adopted through an administrative rulemaking process, are subject to review and comment by the public prior to adoption.

During the 1970s, the State Water Resources Board, and its successor, the Water Policy Review Board, began comprehensive revisions of the basin programs. Little progress was made due to reductions in federal and state funding support. By the early 1980s, work was proceeding on only one basin program. Significant reductions persisted and the pool of funds to conduct comprehensive basin program updates completely dried up by the early 1990s.

Evaluation of Oregon's Basin Programs

The basin programs, and the broader state water management program of which they are a part, continued to be among the priority issues periodically reviewed by Oregon's Legislature and the Water Resources Commission (Commission). Three review efforts of note include those conducted by: 1) the Strategic Water Management Group, created in 1983 via the passage of Senate Bill 523; 2) the Water Resources Commission in 1993-94; and 3) the Joint Task Force on Water Supply and Conservation, established in 1999 via the passage of Senate Bill 93.

A common conclusion reached as a result of all three of the reviews was that basin programs, conceptually and administratively, needed to be expanded beyond their primary focus of apportioning or "classifying" water to a broader range of water management issues. Basin plans and programs do not lay out a plan of action, such as identification of specific water supply projects and associated funding mechanisms. This was identified as an important shortcoming that warranted further improvement.

Finally, the requirement to modify basin programs through a formal hearing process and administrative rule change resulted in criticisms from stakeholders that the basin planning process is "inflexible" and "top heavy," managed from the "top down," with less accessibility to the public and to organizations interested in planning and managing water resources for water supply, water quality, and environmental benefits.

Renewed Calls for Place-Based Planning in Oregon

The basin planning approach is firmly supported by existing statutes in Oregon. Basin plans and subsequent administrative rules have been developed at the major river-basin scale and formulated in consideration of the unique water resources and socio-economic conditions of each basin. The authorizing statutes called for an integrated approach to water resources management, calling out the value of water supply, water quality, and protection of streamflows, and the ecosystem at the watershed level. Relative to other states' water planning, Oregon's basin plans were forward-thinking for their time.

Since adoption of the basin plans, many other plans, rules, and regulations—from state and federal agencies—have also been created. Some examples include Oregon's efforts under the Endangered Species Act, the Clean Water Act, Safe Drinking Water Act, and Oregon Forest Practices Act. It is necessary to find a way to help communities take into account and reconcile all of the requirements related to water.

Oregon's 2012 Integrated Water Resources Strategy

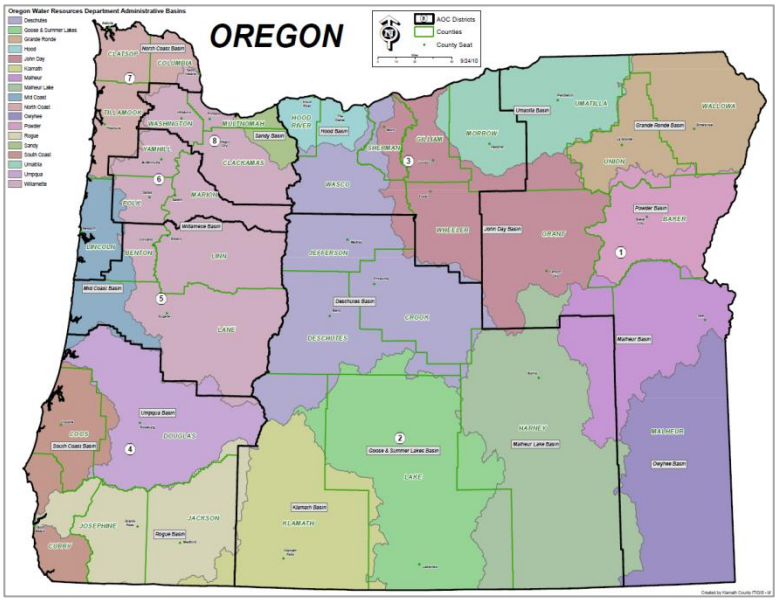
During development of Oregon's Integrated Water Resources Strategy, communities specifically asked for help in the following areas: gathering and paying for critical surface water and groundwater data; modeling future water resources scenarios; counting projects toward multiple state and federal requirements; partnering with the state to develop new water resource management techniques; leveraging additional funding sources; and streamlining regulations for complicated projects.

The current mechanism of a "basin plan" is not nimble enough to address these emerging needs. However, the way it organizes information at the basin level, and the content that it lays out for consideration, is precisely the type of approach the state should continue to pursue in its quest for place-based integrated water resources planning.

The Association of Oregon Counties combined the state's map of administrative drainage basins with an overlay of county districts (multiple counties per district) in order to compare how well jurisdictional boundaries line up with watersheds in Oregon.

Administrative basins are shaded in color, while counties are outlined in green, and county districts are outlined in black, as shown in Figure 3. Figures 3 and 4 have striking similarities that could serve as the basis of place-based planning in Oregon.

Figure 3: County Districts and Basin Maps, combined

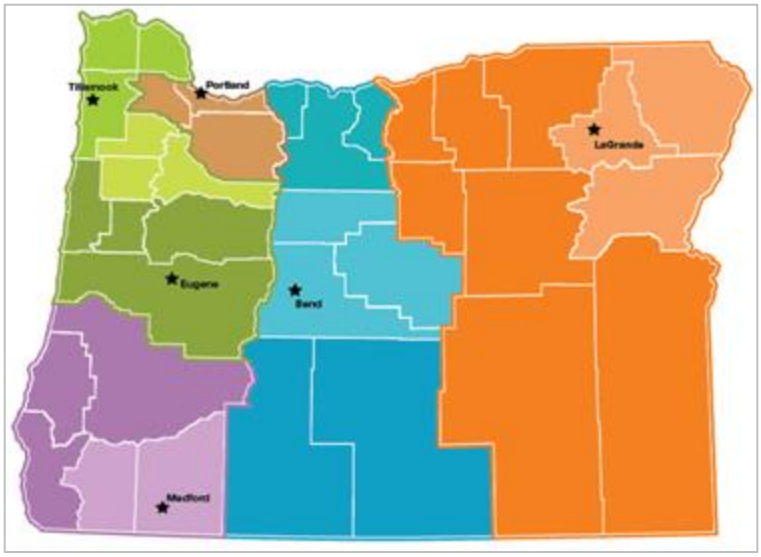


Oregon's 2013 Regional Solutions Legislation

"Regional Solutions" is a place-based approach for building innovative and collaborative community and economic development projects in Oregon. The state has established 11 Regional Solutions Centers, housed in public universities throughout Oregon (See Figure 4).

Each region takes a bottom-up approach to developing projects—working at the local level to identify priorities, solve problems, and seize opportunities to complete projects. These centers are meant to integrate state agency activities and funding to ensure that projects are completed in the most economical and streamlined process as possible.

Figure 4: Oregon's Regional Solutions Centers



The 2013 Oregon Legislature passed House Bill 2620 to develop a plan to align state agency economic and community development programs, in accordance with the regional priorities established in each region. In December 2013, the Oregon Solutions Network summarized the priorities by region, as identified by various Regional Advisory Committees.

Five out of eleven regions identify water among their list of priorities, describing the priorities as water conservation and stream restoration; water management and development; waste water infrastructure; drinking water; water availability, and water storage

Overview of Planning Programs in Other Western States

Other western states have invested heavily in regional-level water planning in recent years, believing this approach yields better overall results, multiple benefits, and strong partnerships. The states of California, Washington, and Texas, in particular, provide strong examples of regional or locally-driven water supply planning approaches. The following sections provide an overview of each state's planning program, followed by a description of several elements that may be useful for developing a place-based planning program for Oregon. These elements include: setting geographic boundaries, governance agreements, stakeholder and public involvement, requirements for addressing water-related issues, integration of other planning efforts, adoption of plans, state-level review processes and state agency roles, and lastly, funding incentives for planning and project development.

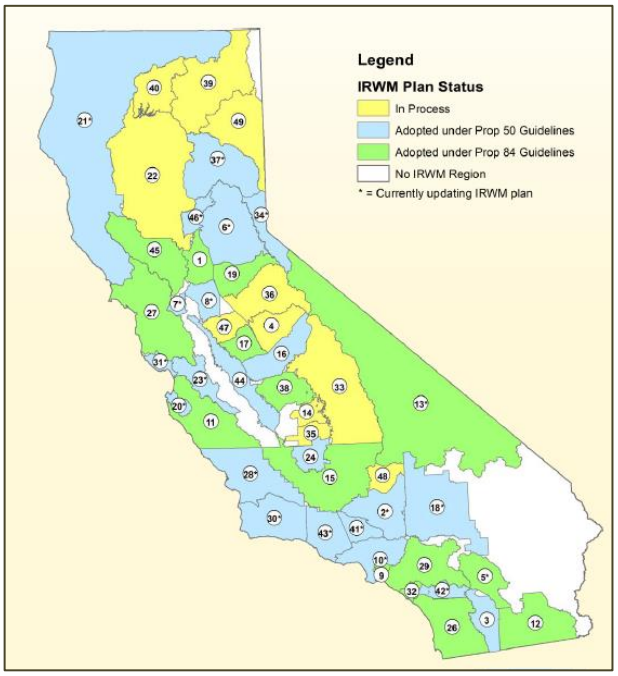
California's Integrated Regional Water Management

The Integrated Regional Water Management Act of 2002 (Senate Bill 1672) was passed to encourage local agencies to work cooperatively, in order to manage local and imported water supplies, improving the quality, quantity, and reliability of those supplies.

California's Department of Water Resources administers the state's Integrated Regional Water Management (IRWM) Program, describing it as a collaborative process used to manage all aspects of water resources in a particular region. IRWM is meant to cross jurisdictional, watershed, and political boundaries; involve multiple agencies, stakeholders, individuals, and groups; and address the issues and differing perspectives of all entities involved through mutually beneficial solutions.

Today, there were 48 Regional Water Management Groups (RWMGs) that encompass 87 percent of the state's geographic area and 99 percent of the state's population. The California Department of Water Resources has provided competitive planning grants to most of these regions. Thirty-seven IRWM plans have been adopted by the Regional Water Management Groups.

Figure 5: California's IRWM Regions



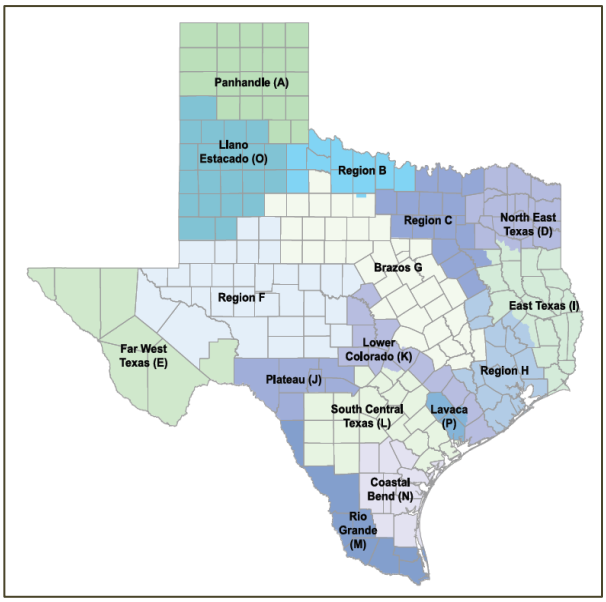
Source: California DWR, ACWA 2013 Fall Conference Presentation

California describes the primary focus of IRWM planning as diversification of each region's water portfolio so that multiple resource management strategies are employed to meet future water quantity and water quality needs of all sectors.

Texas' Regional Water Planning

In response to drought in the 1950s and in recognition of the need to plan for the future, the Texas Legislature created the Texas Water Development Board (TWDB) to develop water supplies and prepare plans to meet the state's future water needs. Senate Bill 1 of the 75th Texas Legislature was passed in 1997 to set the process for developing a comprehensive state water plan. To accomplish this task, the state was divided into 16 regional water planning groups.

Figure 6: Texas' Water Planning Regions



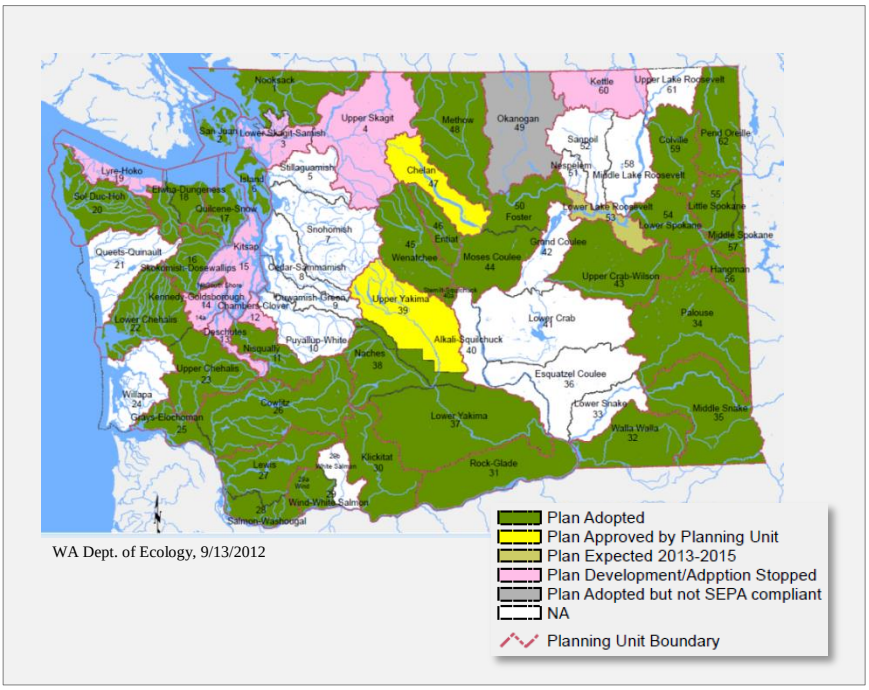
Regional water plans are developed every five years. The Texas Water Development Board creates guidelines for each planning cycle to incorporate new statutory or rule requirements. The guidelines are also helpful to TWDB staff during review of regional water plans. Planning groups are now entering their fourth round of updating their respective regional plans. Those plans will be due in 2016. At the end of each five-year regional water planning cycle, agency staff compile information from the approved regional

water plans and other sources to develop the state water plan, which is presented to TWDB's governing board for adoption. The next state water plan is due in 2017.

Washington's Watershed Planning Approach

In 1998, the Washington Legislature set a framework for developing solutions to watershed issues on a watershed basis (Revised Code of Washington, Chapter 90.82). The Washington Legislature felt that local development of watershed plans for managing water resources and protecting existing water rights was vital.

Figure 7: Washington's Watershed Planning Areas



The law provides a process to allow citizens in a watershed to join together to assess the status of the water resources in their watershed and determine how best to manage them. The plans must balance competing resource demands and require an assessment of water supply and use within the watershed. This includes recommending long-term strategies for providing water in sufficient quantities to satisfy minimum instream flows and to provide water for future out-of-stream needs. Optional elements that may be addressed in the plan include additional instream flows, water quality, and habitat.

Discussion Question #1

- **What can place-based planning accomplish in Oregon that cannot already be accomplished today?**

State Comparison of Planning Program Elements

Establishing Geographic Boundaries for Water Planning

CA Although there are state guidelines for defining the region and completing the approval process, California allows local groups to self-select, delineating the borders of their own planning region, and determining their own governance structure. At a minimum, a region shall be a contiguous geographic area encompassing the service areas of multiple local agencies, and shall be defined to maximize opportunities for integration of water management activities.

There is no size criteria mandated for an IRWM region. Once a regional water management group has defined its boundaries and composition of its planning body, it must submit an application to California DWR under its "Region Acceptance Process" (RAP) in order to be eligible for IRWM grant funding. The procedure for official acceptance of an IRWM region did not become law until March 2009.

California evaluates an IRWM region application based on a description of its composition (e.g., diversity of membership, statutory authority over water supply, etc.), stakeholder inclusiveness, public involvement process, various governance features, criteria for establishing the regional boundary, and history of water management in the region, such as past IRWM efforts, and a balance of water issues addressed. Appendix F of DWR's November 2012 Guidelines contains additional information on California's Region Acceptance Process.

TX The state of Texas' 16 regional water planning areas were delineated by the Texas Water Development Board. These boundaries were developed by considering river basin and aquifer boundaries, water utility development patterns, socioeconomic characteristics, existing regional planning areas, political subdivisions, and public comments. Although boundaries may be reviewed and updated every five years, they have not been changed.

WA Washington has developed 62 "Water Resources Inventory Areas" (WRIAs), which are based on major watersheds. WRIA's were authorized in 1971 and formalized in Washington's Administrative Code. The original WRIA boundary delineations were developed jointly by Washington's Departments of Ecology, Natural Resources, and Fish and Wildlife in 1970 and were updated in 1998 and again in 2000. Planning units must utilize the WRIA boundaries, constituting one or more WRIAs. Today, there are 36 planning units operating under the Watershed Planning Program.

Discussion Question #2

- **How prescriptive should the state of Oregon be in organizing the borders and composition of groups?**
- **Should the entire state be partitioned into state-defined regions, similar to Texas and Washington, or should Oregon allow self-selection, similar to California?**
- **Should the state approve / accept the establishment of each region? If yes, how so?**

Governance Agreements and Structure

In California and Washington, water planning at the local level is voluntary, and as such, provides a greater level of flexibility in terms of defining a governance approach. By contrast, regional water planning in Texas is mandated for each planning region.

CA A Regional Water Management Group in California must meet the definition provided in CWC §10539 in order to be designated and eligible for IRWM grants. An RWMG must include three or more local agencies, two of which must have authority over water supply or management. Participating local agencies must sign a written agreement that is approved by the governing bodies of the local agencies involved in the RWMG.

California's Department of Water Resources does not advocate for any one governance structure or mechanism, but allows each RWMG to decide how to govern itself. The most common form of

governance for California's RWMGs is in the form of a memorandum of understanding (MOU) or a letter of mutual understanding (LOMU).

TX In Texas, each planning group approves bylaws, by two-thirds vote, to govern its methods of conducting business. The bylaws must be consistent with Texas Administrative Code, Chapter 357, and at a minimum, include a definition of a quorum; approval methods for adoption and amendment of the regional plan; a method for naming additional members; terms and conditions of membership, methods for recording minutes as part of the public records; and the method for resolving disputes between members.

Each regional water planning group must designate a political subdivision—such as a river authority, groundwater conservation district, or council of governments—to administer the planning process and manage any contracts related to developing regional water plans.

WA Washington requires a group of "initiating governments" to make the first move to organize and apply for Washington's watershed planning funds. Initiating governments are defined as: (1) all counties within the planning WRIA, (2) the largest city or town within the WRIA, (3) the largest water supply utility within the WRIA, and (4) all tribes with reservation land within the WRIA. Watershed planning cannot be initiated without the concurrence of all of the initiating governments, except the Indian tribes. Washington law requires the county, city, and utility initiating governments to invite tribes to join the planning process, but their participation as an initiating government is not required to proceed.

Discussion Question #3

- **What is the best way to structure governance agreements with potential participants / group members? (MOUs, LOMUs, etc.)**
- **How should Oregon planning groups make decisions? (consensus, majority, etc.)**
- **Who should chair the discussion?**
- **Who should serve as initiators and voting members of a place-based planning effort?**

Stakeholder and Public Involvement

CA California requires that the development and implementation of an IRWM plan include a public process that provides an opportunity to participate in plan development and implementation, as well as outreach to local agencies and stakeholders, including all of the following:

1. Wholesale and retail water purveyors
2. Wastewater agencies
3. Flood control agencies
4. Municipal and county governments and special districts
5. Electrical corporations
6. Native American tribes that have lands within the region
7. Self-supplied water users, including agricultural, industrial, residential, park districts, school districts, colleges and universities, and others
8. Environmental stewardship organizations, including watershed groups, fishing groups, land conservancies, and environmental groups
9. Community organizations, including landowners, taxpayer groups, and recreational interests
10. Industry organizations representing agriculture, developers, and other industries

11. State, federal, and regional agencies or universities
12. Disadvantaged community members and representatives, including environmental justice organizations, neighborhood councils, and social justice organizations
13. Any other interested groups appropriate to the region

TX The Texas Administrative Code (TAC, Chapter 357) contains very specific requirements that Regional Water Planning Groups (RWPGs) include at least one representative from 12 interest group categories to serve as voting members. These interest groups include:

1. Public
2. Counties
3. Municipalities
4. Industries
5. Agricultural Interests
6. Environmental Interests
7. Small Businesses
8. Electric Generating Utilities
9. River Authorities
10. Water Districts
11. Water Utilities
12. Groundwater Management Area representative

The public representative is defined as a person or entity with no economic interest in the eleven other categories noted above. The rules also require these planning groups to include non-voting members, who must receive meeting notifications and information in the same manner as voting members. Non-voting members must include the following five representatives:

1. Texas Water Development Board staff member
2. Texas Parks and Wildlife Department staff member
3. Texas Department of Agriculture staff member
4. A liaison from an adjacent RWPG
5. Representation from entities that hold contracts (either to receive or deliver) to surface water of 1,000 acre-feet a year or more.

Regional water planning groups in Texas are required to keep decision-making open to and accountable to the public, in accordance with various administrative rules, statutes, and bylaws of the planning groups. The public has an opportunity to participate at different stages of the planning process. The public notice and comment periods required at each step are somewhat complex. See Texas' "Regional Water Planning Public Notice Quick Reference Guide" for a summary of the requirements.

Discussion Question #4

- **In Oregon, should specific interest group categories have required seats at the table, or should group membership be more flexible?**
- **Should neighboring planning groups and governmental entities be required planning members?**
- **What is the best way to ensure communication and collaboration with stakeholders and partners?**

WA In Washington, the development of the watershed plan is the responsibility of the initiating governments, and the Washington law provides broad latitude in this manner. Washington's Watershed Planning program also emphasizes citizen involvement, but provides considerable flexibility in developing the public involvement process. Each planning unit can develop its own plan for public involvement. The Watershed Management Act states that planning units "shall develop a process to assure that water resource user interests and directly involved interest groups at

the local level have the opportunity, in a fair and equitable manner, to give input and direction to the process."

Planning Content Requirements

CA California's IRWM Plans must consider each of the Resource Management Strategies (RMS) contained in the 2009 California Water Plan. The 2009 Water Plan includes 27 Resource Management Strategies that fit within six management objectives aimed at reducing demand, improving operational efficiency and transfers, increasing water supply, improving water quality, practicing resource stewardship, and improving flood management (see Figure 9).

Figure 9:
California's Resource Management Strategies

Reduce Water Demand
1. Agricultural water use efficiency
2. Urban water use efficiency

Improve Operational Efficiency & Transfers
3. Conveyance – delta
4. Conveyance – regional
5. System reoperation
6. Water transfers

Increase Water Supply
7. Conjunctive management & groundwater storage
8. Desalination – brackish & seawater
9. Precipitation enhancement
10. Recycled municipal water
11. Surface storage - CALFED
12. Surface storage – regional/local

Improve Water Quality
13. Drinking water treatment & distribution
14. Groundwater/aquifer remediation
15. Matching quality to use
16. Pollution prevention
17. Salt & salinity management
18. Urban runoff management

Practice Resource Stewardship
19. Agricultural lands stewardship
20. Economic incentives (loans, grants, water pricing)
21. Ecosystem restoration
22. Forest management
23. Land use planning and management
24. Recharge area protection
25. Water-dependent recreation
26. Watershed management

Improve Flood Management
27. Flood risk management

Along with these requirements, California's IRWM guidelines state that all Integrated Regional Water Management plans must address seven resource issues (challenges).

1. Water Supply
   Protect and improve water supply reliability; develop feasible agricultural and urban water use efficiency strategies.

2. Drinking Water
   Identify and consider the drinking water quality of communities.

3. Water Quality
   Protect and improve water quality, consistent with the relevant basin plan.

4. Groundwater Supply
   Identify threats to groundwater resources from over-drafting.

5. Environment
   Protect, restore, and improve stewardship of aquatic, riparian, and watershed resources with the region.

6. Groundwater Quality
   Protect groundwater resources from contamination.

7. Disadvantaged Communities
   Identify and consider water-related needs of disadvantaged communities.

California's IRWM guidelines contain 16 plan standards that must be included in an IRWM Plan. These standards can be used by the Department as criteria for evaluating grant applications for project implementation grants. California's IRWM standards cover the following topics:

1. Governance
2. Region Description
3. Objectives
4. Resource Management Strategies
5. Integration
6. Project Review Process
7. Impact and Benefit
8. Plan Performance and Monitoring
9. Data Management
10. Finance
11. Technical Analysis
12. Relation to Local Water Planning
13. Relation to Local Land-Use Planning
14. Stakeholder Involvement
15. Coordination
16. Climate change

TX Texas Regional Water Planning can be broken down into ten major tasks, as summarized below. The Texas Water Development Board provides extensive regional planning guidelines, with much of its content directly based on provisions within the Texas Administrative Code. The *First Amended General Guidelines for Regional Water Plan Development,* dated October 2012, are available online and included in Appendix B.

1. Region Description
   Describe the regional water planning area.

2. Current and Future Water Demands
   Quantify current and projected population and water demand over a 50-year planning horizon. TWDB staff, in conjunction with the Texas Department of Environmental Quality, Texas Parks and Wildlife Department, and the Texas Department of Agriculture prepare population and water demand projections for municipal, "county-other," mining, manufacturing, irrigation, steam-electric power, and livestock. Projections are provided to the regional planning groups for review and input.

3. Water Supplies
   Describe the amount of water available during the drought of record, regardless of whether the supply is physically or legally accessible, and also describe the water supply that is obtainable (existing infrastructure, contracts, water rights, etc.). Under the regional planning process, regional planning groups are strictly prohibited from over-allocating a water source.

4. Surpluses and Needs
   Determine when and where there is a surplus of water supply or a need for additional supplies.

5. Water Management Strategies
   Evaluate water management strategies and prepare plans to meet needs. Texas Administrative Code requires regional water planning groups to consider the following water management strategies:
   - Conservation
   - Drought management
   - Reuse
   - Reallocation/management of existing supplies
   - Voluntary transfers

- Conjunctive use
- Acquisition of available supplies
- Development of new supplies
- Development of regional water supply or regional management of water supply facilities
- Voluntary transfer of water (e.g., banks, sales, leases, agreements)
- Emergency water use transfers

Texas' amended guidelines also suggest other water management strategies, such as aquifer storage and recovery, desalination, and rainwater harvesting that regional water planning groups may wish to consider during plan development.

6. Water Quality
   Evaluate impacts of water management strategies on water quality.

7. Plan Consistency
   Describe how the plan is consistent with long-term protection of the state's water, agricultural, and natural resources.

8. Recommendations
   Recommend regulatory, administrative, and legislative changes.

9. Financing
   Describe how sponsors of water management strategies will finance projects.

10. Plan Adoption
    Adopt the plan, including the required level of public participation.

Discussion Question #5

- **The ability to find and cull data from local plans will help the state, as it develops future iterations of the IWRS: which data elements should be optional vs. mandatory?**
- **Oregon's 2012 IWRS clearly lays out a set of water-related challenges (i.e., critical issues) facing Oregon communities. Should planning groups follow this same outline in the construction of local plans?**

WA The Watershed Management Act requires planning units to address water quantity, and states that the objectives of the planning process is to supply water in sufficient quantities to satisfy the minimum instream flows for fish and to provide water for future out-of-stream uses, and to ensure that adequate water supplies are available for agriculture, energy production, population and economic growth. In completing the water quantity component required by the Act, watershed plans must address groundwater and surface water resources and develop estimates of present and available water, considering seasonal and other variations; water authorized within water right claims, permits, certificated rights, existing minimum instream flow rules, federally reserved rights, and any other rights to water; and lastly, current and future water use. The Act also requires the identification of recharge areas from groundwater to surface water, and vice versa. Watershed plans should also provide an estimate of the surface and groundwater available for further appropriation, taking into account the minimum instream flows adopted in rule or to be adopted for streams in the management area.

The Act also requires certain water management strategies to be considered within the Watershed Planning process. Those include conservation, reuse, use of reclaimed water, voluntary water

transfers, aquifer recharge and recovery, additional water allocations, and additional storage and storage enhancements. The law provides additional guidance to local planning units on the types of recommendations that can be included in a watershed plan. Planning units can:

- Make recommendations for actions by local, state, and federal agencies, tribes, private property owners, private organizations, and individual citizens.
- Recommend changes to local or state ordinances or rules (the plan itself cannot change these).
- Identify projects that warrant immediate financial assistance from state, federal or local government.
- Rank and schedule the implementation of projects.

Addressing Instream Needs

CA As mentioned earlier, IRWM plans must consider the Resource Management Strategies (RMS) described in the California Water Plan. "Ecosystem Restoration" is one such RMS in the 2009 Plan and it includes a recommendation "to identify instream flow needs, perform the necessary studies, and make scientifically defensible recommendations for instream flows to protect fish and wildlife." The 2010 California IRWM Plan guidelines state that regional water management groups, in their description of water supplies and demands, "must include a discussion of important ecological processes and environmental resources within their regional boundary and the associated water demands to support environmental needs."

State law directs the California Department of Fish and Wildlife to develop proposed instream flow requirements to ensure the continued viability of stream-related fish and wildlife resources. CDFW's Instream Flow Program was established in 2008. At that time, the Department committed to developing and transmitting one instream flow recommendation to the State Water Resources Control Board by 2010, and on average, to develop and transmit one flow recommendation per year after 2010 to the extent funds are available (CDFW, 2012).

TX Texas regional water planning guidelines require use of available site-specific studies or the Texas Commission on Environmental Quality's environmental flow standards to address instream needs in the design of water supply projects. If such studies are not available, then regional and state water planners should use the pass-through flows required by the 1997 *Consensus Criteria for Environmental Flow Needs* (CCEFN); these criteria are composed of multi-stage rules for environmentally safe operation of impoundments and diversions during above normal conditions, below normal conditions, and drought.

Regional planning groups may also consider establishing a "unique stream segment" based upon unique ecological values. Planning groups must forward a recommendation to the Texas Parks and Wildlife Department, which provides a written evaluation of the proposed stream segment. If the Texas Legislature or a regional planning group designates a stream or river segment as unique, the planning group must quantitatively assess how water management strategies in their respective regional water plan would affect flows to the stream or river segment in question. Similar to designating unique stream segments, planning groups also have the option of designating unique reservoir sites for construction.

WA Local planning units in Washington are given the option of addressing instream flows as part of their watershed plans. If planning units recommend flow numbers or other instream protections, state law directs the Department of Ecology to adopt the instream flows in rule when the local jurisdictions adopt the plan.

> *Discussion Question #6*
>
> - **To what extent should place-based plans and their implementation work plans address Oregon's instream flow needs?**
> - **What technical resources and capacity should be made available to planning groups for addressing instream issues and needs?**

According to an instream flow progress report to the 2011 Washington Legislature, of the 34 watershed planning units working under the Watershed Planning Act, 27 planning units chose to examine instream flows as part of their plan development. Ecology reports that a broad range of progress has been made within these watersheds, varying from preliminary scientific studies to rule adoption and implementation.

The Act also reaffirms Ecology's authority to adopt instream flows by rule in basins where watershed planning units could not reach consensus on flow recommendations or where there was no formal watershed planning.

Addressing Water Quality Needs

CA As part of the "Region Description" standard, planning groups in California must describe the current and future (or proposed) water quality conditions in the region, describing any protection and improvement of water quality within the area of the IRWM Plan. Water quality conditions must be described for groundwater, imported water, and water from storage facilities, both within and outside the region. Groups must describe any water quality basin plans or watershed management initiatives, and the associated water quality goals and objectives for watersheds within the region. Groups must also describe any projects or examples of matching water quality to water use.

IRWM plans must describe how water management input is considered during the course of land use decisions, and vice-versa. For example, the 2010 guidelines ask groups to consider whether water managers provided input to council and cities regarding project or land-use decisions that may impact water quality (or water supply).

California also provides a preference for IRWM plans and project proposals that address critical water supply or water quality needs of disadvantaged communities within the region.

When selecting projects for inclusion in an IRWM Plan, the RWMG must include, among other things, the economic feasibility of a project, including water quality and water supply benefits and other expected benefits and costs. Projects that affect water quality must include a monitoring component that can be integrated into statewide monitoring efforts, including the state's Surface Water Ambient Monitoring Program.

As mentioned earlier, each RWMG must consider the resource management strategies laid out in the California Water Plan. The 2009 Plan contain 6 strategies aimed at improving water quality: (1) drinking water treatment and distribution, (2) groundwater and aquifer remediation, (3) matching water quality to use, (4) pollution prevention, (5) salt and salinity management, and (6) urban runoff

management. California's RWMGs must review each strategy and decide how applicable it is in meeting their IRWM Plan objectives.

TX Regional planning groups in Texas must describe how water quality problems affect water supplies within the region, and describe how implementing recommended and alternative water management strategies could affect key parameters of water quality in Texas. The planning groups are required to base water quality impacts on parameters important to water uses in each region. Generally, planning groups are required to consider the U.S. Clean Water Act when formulating their regional plans. When considering designating a unique stream segment, as mentioned earlier, high water quality is one of several criteria that must be met.

WA Addressing water quality is optional under Washington's Watershed Planning Act. However, if the initiating governments choose to include a water quality component, the watershed plan must examine the following[1]:

1. Existing studies (from local, state, or federal agencies) that describe the degree to which legally established water quality standards are being met in the management area.

2. Existing studies (from local, state, or federal agencies) of the causes of water quality violations in the management area, including information regarding pollutants, point and nonpoint sources of pollution, and pollution-carrying capacities of water bodies in the management area. The analysis shall take into account seasonal stream flow or level variations, natural events, and pollution from natural sources that occurs independent of human activities.

3. The legally established characteristic uses of each of the non-marine bodies of water in the management area.

4. Any Total Maximum Daily Load (TMDL) established for non-marine bodies of water in the management area, unless a TMDL process has begun in the management area as of the date the watershed planning process is initiated under RCW 90.82.060.

5. Existing data related to the impact of freshwater on marine water quality.

Discussion Question #7

- **To what extent should place-based plans address water quality challenges, data, or legal requirements?**
- **What technical resources and capacity should be made available to planning groups for addressing water quality issues and needs?**

Watershed plans addressing water quality must provide a recommended approach for implementing the TMDL to achieve water quality standards within the planning area. Plans must also describe how agency monitoring activities will be used to assess actions for improving water quality and achieve compliance with water quality standards. Lastly, the Watershed Planning program does not authorize any planning unit, lead agency, or local government to adopt water quality standards or total maximum daily loads.

[1] Refer to RCW 90.82.090 for specific language regarding the water quality component.

Integration of Other Planning Efforts

One of the major challenges of taking on a regional, more integrated approach to water planning is that in any given basin, there are multiple parties and interests to convene. These include irrigation districts, municipal water providers, conservation districts, watershed councils, drainage districts, wastewater and stormwater utilities, local governments (counties/cities), recreation, and environmental groups. In addition to this list are the state, federal, and tribal natural resource agencies with water, land, or fish management responsibilities, and other public, private, and non-profit organizations with an interest in water management and resource issues.

Within a basin or sub-basin, multiple planning documents that involve water management, directly or indirectly, may exist. A few examples include: water management and conservation plans (by a municipal water provider, or irrigation district); conservation and recovery plans for ESA-listed species, basin plans for water allocation; TMDL plans for improving water quality and associated implementation plans. There are also local land-use plans; watershed restoration action plans; and locally developed agricultural water quality management plans. Taken together, these plans and their respective strategies engage a number of agencies and entities at every level. Each plan has its own goals and objectives, with varying expectations and outcomes, making it challenging for a group of basin stakeholders to conduct their own planning and to implement projects strategically that meet multiple water quantity, water quality, and ecosystem needs.

In envisioning a place-based approach to meeting water needs, these existing plans and programs do not go away, but instead provide a baseline of information, history, and rules that must be considered, coordinated, and built upon. A place-based approach could help reconcile and implement these programs and plans more effectively.

CA California's guidelines provide that regional water management groups intentionally create a system where integration with other planning processes can occur. California's guidelines focus on three different types of integration: stakeholder/institutional, resource, and project implementation.

Regional Plans are required to document the list of local water plans used in the IRWM plan and how the IRWM plan relates to local planning documents and programs, including a description of the dynamics between the IRWM Plan and local planning documents. Plans must contain processes that foster communication between land use managers and RWMGs; they must document the current relationship, regional water issues, and water management objectives, along with future plans to further a collaborative, proactive relationship.

TX In Texas, regional water planning groups are required to consider existing local, regional, and state water planning efforts, including water plans, information collected, and relevant governmental programs and goals. In formulating regional plans, Texas Administrative Code (357.22) specifically requires planning groups to consider:

1. Water conservation plans
2. Drought management and contingency plans
3. Water loss audit information (compiled by the Texas Water Development Board)
4. Major plans from agricultural, municipal, manufacturing, and commercial water users
5. Local and regional water management plans
6. Water availability in groundwater management areas
7. Texas Clean Rivers Program

8. U.S. Clean Water Act
9. Water management plans
10. Other planning goals, including but not limited to, regionalization of water and wastewater services
11. Approved Groundwater Conservation District management plans
12. Approved groundwater regulatory plans
13. Any other information available from existing local or regional water planning studies.

WA Washington's Watershed Management Act recognizes that cities and counties, special districts, utilities, and others plan under a variety of existing authorities that relate to water resources. To take advantage of that work, avoid duplication, and reduce the potential expense of creating a watershed-scale plan, planning units are required to consider existing plans and related planning activities as they determine the scope of their own planning.

If a planning unit chooses to address the "Habitat Element" in watershed planning, the Act requires consideration of existing laws, rules, or ordinances that relate to salmon recovery. Laws such as the Shoreline Management Act, the Growth Management Act, and the Forest Practices Act are applicable to watershed planning. The Watershed Management Act specifically directs planning units to integrate planning with other processes that address threatened and endangered fish species.

Discussion Question #8

- **Other planning efforts in Oregon already have separate institutional structures, requirements, and funding sources. What is the best way to collaborate and coordinate with these efforts most efficiently?**

Planning units are also required to consider Washington's State Environmental Policy Act (SEPA). This is largely because adoption of a watershed plan constitutes an action under SEPA for cities, counties, and other agencies subject to SEPA.

Adoption of Plans at the Local Level

CA California requires the governing bodies of each member agency that is part of the RWMG to adopt the Plan. At a minimum, each project proponent named in an IRWM grant application must also adopt the IRWM Plan. Project proponents are permitted to adopt the Plan after it has been adopted by the RWMG.

A RWMG proposing to prepare or update an IRWM Plan shall publish a notice of intent to prepare the Plan in accordance with California's Government Code (§6066). Upon completion of the IRWM Plan, the RWMG is required to publish a notice of intention to adopt the Plan, and to adopt the Plan in a public meeting of the RWMG governing board.

TX In Texas, regional planning groups conduct all functions during public meetings in an open and participatory manner. They are required to hold public meetings when developing their scopes of work and before adopting their regional water plans. Public involvement helps to direct planning and determine which water management strategies to recommend. Planning group members adopt plans by vote at open meetings in accordance with each group's respective bylaws.

WA The Watershed Management Act requires planning units to approve the watershed plan, using either of the following procedures:

- Consensus of all of the members of the planning unit; or
- Consensus among the members of the planning unit appointed to represent units of government and a majority vote of the nongovernmental members of the planning unit.

If a planning unit approves its watershed plan, it is submitted to the initiating county governments for final review and approval. The legislative authorities of each of the counties (boards of commissioners) must hold at least one public hearing and then meet in a joint session to consider the plan. The plan must be submitted to the counties within four years of the date the planning unit first spends Phase 2 assessment funds, discussed later in this document. Following joint session approval, the Watershed Management Act requires each county in the management area and each state agency that accepted obligations under the plan to undertake implementing actions.

> *Discussion Question #9*
>
> - **Should the local governing bodies of planning groups adopt these plans as well? Would such an adoption take place before or after the planning unit's adoption?**
> - **How should planning units adopt future amendments / iterations?**

State Level Review Process

CA California's Department of Water Resources has yet to formally review IRWM plans for content. In December 2013, the agency created a "Plan Review Process" to evaluate IRWM plans against the plan standards contained in the state's guidelines. IRWM planning regions must have an IRWM Plan that has been reviewed and deemed consistent with the IRWM Plan Standards in order to be eligible for the third round of grant funding.

California DWR has stated it will conduct evaluations using a pass/fail assessment. No numeric scoring or grading of individual IRWM Plans will occur. For each IRWM Plan reviewed, a review team of 2 technical reviewers will be assigned. One reviewer will be the regional service representative from the specific IRWM Region; the other technical reviewer will be from DWR's financial assistance branch.

> *Discussion Question #10*
>
> - **What criteria should the state use to review and accept these plans?**
> - **What mechanism should the state use to accept the plans? Currently, WRD approves Water Management and Conservation Plans administratively, while the WRC approves actual funding awards.**

The agency will post draft IRWM Plan reviews online, providing the public 30-calendar days to submit comments. Any public comments received for a particular IRWM plan will be shared with the RWMG, which will determine whether the comments should be addressed in the plan. DWR will finalize a plan review following the public comment period and any related discussion with the applicable RWMG.

TX Once a planning group adopts its regional water plan, the plan is sent to the Texas Water Development Board for approval. Draft regional water plans (called "initially prepared plans") are developed and presented during a public hearing and submitted for TWDB review and comment. Both the draft and final regional water plans are reviewed by TWDB staff based on statute, regional water planning rules; requirements specified in the guidelines, and any other contract documents. The TWDB then compiles information from the approved regional water plans and other sources to develop the state water plan.

WA Washington Department of Ecology staff serve as active members of all but one watershed planning unit. The initiating governments of the various planning units made a formal request for state agency involvement in all cases. During plan development and review, agency staff offer suggestions along the way. Just prior to plan adoption, Ecology staff act as a liaison and seek comments and feedback from other natural resource state agencies. Ecology formally acknowledges approval of a watershed plan by letter, and will note any suggested revisions. Watershed planning units are given the option of incorporating suggested changes.

State Agency Roles

CA In California, state agencies are not required members of the planning groups; however, some planning groups have requested state agency staff to serve as ex-officio members. California Department of Water Resources administers the grant program for IRWM planning and implementation, and typically has 10-15 staff involved in reviewing, approving, and overseeing grant agreements. Additionally, agency staff help shape the planning process by developing guidelines for both planning and implementation that coincide with their grant funding cycles. Guidelines are developed and updated every few years.

TX The Texas Water Development Board maintains a Regional Water Planning Section that guides and supports planning of the state's water resources by administering and assisting in the development of the regional and state water plans. Staff provide direct technical and administrative assistance to the regional water planning groups, including:

1. Water planning data collection, analysis, and dissemination
2. Fund and manage regional planning contracts
3. Serve as liaisons (non-voting member) to regional water planning groups
4. Manage research and facility planning grant contracts
5. Review financial assistance loan applications

Texas' Regional Water Planning Program includes a director and six project managers. Project managers are responsible for 1-3 regions each.

The TWDB also has staff dedicated to water supply and strategy analysis, specifically charged with collecting and analyzing the data produced by the 16 regions and administering the Regional Water Planning Database. A Water Supply and Strategy Analysis team also conducts ad-hoc queries and reports from the water planning database. Staff are used to develop water use projections and population projections in support of regional planning, including conducting annual water use surveys of municipal and industrial users in the state. As mentioned earlier, three state agencies—the Texas Water Development Board, Texas Parks and Wildlife Department, and Texas Department of Agriculture—participate in regional water planning groups as non-voting members.

WA The 1998 Watershed Planning Act requires state agencies with regulatory or other interests in a watershed management planning area to assist in the local planning effort, within their resource limitations. The initiating governments must consult with the Governor's Office to determine the number of state agency representatives and their roles in the planning process. If a planning unit requests technical assistance from a state agency as part of its planning activities, the state agency is required to provide the technical assistance to the planning unit, within its resource limitations.

> *Discussion Question #11*
>
> - **What should be the extent of the role that WRD and other state agencies play in Salem and in the field, when it comes to place-based planning? (Convenor, Facilitator, Technical Assistance, Reviewer?)**

Twelve state natural resource agencies have agreed, in a joint memorandum of understanding, on a process to support planning units, ensure that agencies are represented during the planning process, and coordinate efforts to provide assistance to the planning units. The Washington Department of Ecology serves as the lead agency in a majority of the watersheds. The lead agency represents the other state agencies and provides assistance to the planning units. The Washington Department of Ecology has assigned eight staff to fulfill these roles.

Funding for Planning and Projects

CA California's Integrated Regional Water Management Act provided the authority for IRWM plans, but gave little guidance or incentive for IRWM planning or implementation. California took the next step of providing state-issued grants to both incentivize regional integration and leverage local financial investment.

In November 2002, California voters passed Proposition 50, the "Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002," which provided $500 million to fund competitive grants for projects consistent with an adopted IRWM plan. The grant program was administered jointly between the Department of Water Resources and the State Water Resources Control Board to provide both planning and implementation grants to IRWM efforts.

The incentive provided by this funding, as well as the direction provided in grant program guidelines, were major drivers for progress in IRWM program. The release of the California Water Plan Update in 2005 also recognized integrated regional water management as a key initiative to ensure reliable water supplies.

In November 2006, California voters passed Proposition 84, the "Safe Drinking Water, Water Quality, and Supply, Flood Control, River and Coastal Protection Bond Act." Proposition 84 provided $1 billion for IRWM planning and implementation. At the same time, California voters also passed Proposition 1E, the "Disaster Preparedness and Flood Prevention Bond Act of 2006," which provides, among other things, $300 million for stormwater projects that reduce flood damage and are consistent with an IRWM plan.

California limits IRWM planning grant awards to a maximum of $1 million for each IRWM planning region. IRWM groups must also comply with other requirements in state law in order to be eligible

for planning grants. Examples include the state's surface water diversion reporting requirements (CWC 5100 et seq.) and groundwater monitoring (CWC 10927).

To implement projects from an IRWM plan, the minimum funding match is 25 percent of the total proposal cost. This funding match can be higher for certain types of grants. Stormwater Flood Management (SWFM) grants under Proposition 1E require a minimum funding match of 50 percent of the total cost of each project (California DWR, Round 2 PSP, 2012). For projects that address the needs of a disadvantaged community, the funding match may be waived.

In February 2014, California's IRWM Implementation Grant Program awarded more than $131 million as part of the second round of Proposition 84 IRWM grant funding. The funding went toward 138 projects in 21 IRWM regions. California Governor Jerry Brown's 2014-15 proposed budget includes an additional $473 million in one-time bonds to fund projects developed through the Integrated Regional Water Management program.

To be eligible for Proposition 84 grant funds, projects must yield multiple benefits and include one or more of the following:

- Water supply reliability, water conservation and water use efficiency
- Stormwater capture, storage, clean-up, treatment, and management
- Removal of invasive non-native species, the creation and enhancement of wetlands, and the acquisition, protection, and restoration of open space and watershed lands
- Non-point source pollution reduction, management and monitoring
- Groundwater recharge and management projects
- Contaminant and salt removal through reclamation, desalting, and other treatment technologies and conveyance of reclaimed water for distribution to users
- Water banking, exchange, reclamation and improvement of water quality
- Planning and implementation of multipurpose flood management programs
- Watershed protection and management
- Drinking water treatment and distribution
- Ecosystem and fisheries restoration and protection

TX Texas is entering its fourth cycle of regional water supply planning and has committed more than $13 million in planning grants to its 16 regional planning groups. Not all planning groups receive an equal amount of planning funds. TWDB allocates funds to each planning group primarily based on the relative share of water users and water providers in the region. In this most recent planning cycle, allocations ranged from as low as $241,000 for one region to as high as $1,997,000 for a highly populated region.

The Texas Water Development Board administers the state's Water Infrastructure Fund (WIF) that provides financial assistance for planning, design, and construction of water resources projects. In order to be eligible for WIF project funding, projects must be a "recommended water management strategy" identified in the most recent TWDB-approved regional water plan and approved State Water Plan (2012 Texas Water Plan). When evaluating whether a regional plan project should be included in the Texas State Water Plan, several factors are considered, such as (1) the quantity of water that could be produced, (2) capital and annual costs, (3) potential impacts on water quality, water supply, and agricultural and natural resources, and (4) the reliability of the project during times of drought. Due to limitations within statute, the Water Infrastructure Fund provides loans only,

although they are offered at a subsidized interest rate. Repayment periods are a maximum of twenty years.

In addition, Texas voters approved Proposition 6 on November 5, 2013, enabling the state to create two funds—the State Water Implementation Fund for Texas (SWIFT) and the State Water Implementation Revenue Fund for Texas (SWIRFT)—that will help finance the implementation of projects in the State Water Plan. The SWIFT was exclusively created to support projects in the State Water Plan. Regional planning groups recently underwent a process for prioritizing projects, developing a set of uniform standards. In September 2014, regional planning groups will submit a list of prioritized projects for SWIFT funding.

As a result of Proposition 6, a one-time $2 billion transfer was authorized from the state's Rainy Day Fund to the SWIFT. These funds are designed to make the financing of water projects more affordable and to provide consistent, ongoing state financial assistance for water supplies. SWIFT is a financing program; grants are expressly prohibited. At least 20 percent of SWIFT must support water conservation and reuse projects, and another 10 percent of the funding must support projects serving rural communities and Texas farmers. Before the funds are made available, TWDB must develop a point system for evaluating projects and develop rules on how the funds will operate.

WA Washington's Watershed Planning Program allocates watershed planning funds based upon different stages of the planning and implementation process:

Phase 1: Organizational Phase
Up to $50,000 per WRIA or up to $75,000 for multi-WRIA planning units.

Phase 2: Assessment Phase
Up to $200,000 for each WRIA in the management area to fund watershed assessments after the organizational phase is completed.

Phase 3: Planning Phase
Up to $250,000 for each WRIA in the management area for watershed plan development, planning unit approval and county board adoption.

Phase 4: Implementation Phase
Up to $100,000 per WRIA each year, for the first three years of implementation activity, and then up to $50,000 per WRIA for the fourth and fifth years of implementation. A 10 percent local match is required for all five years. For management areas including more than one WRIA, up to $25,000 may be granted for the first three years then up to $12,500 may be granted for years four and five. This implementation funding was added to the Watershed Planning Program in 2003 by the Washington Legislature, which recognized the need to support implementation of approved plans.

In January 2014, thirteen grants totaling $7.9 million were awarded by the Washington Department of Ecology to improve local and regional water supplies in basins with watershed plans. The grants ranged in size from $36,000 to $2 million. These grant-funded projects were developed by local watershed planning groups. The source of the funding comes from Washington's "Watershed Plan Implementation and Flow Achievement" Capital Grant Program. This grant program was part of a budget provision that has continued in recent years to enable water conservation, infrastructure or

efficiency improvements, fish barrier removal and habitat enhancements, metering, installation of groundwater monitoring equipment, and development of water banks or exchanges, including trust water program development.

Grant or loans for projects aimed at collecting environmental monitoring data must be submitted in a format compatible with the state's database.

Discussion Question #12

- **Should the state provide funding for projects included in an adopted place-based plan?**
- **How should such funding be structured?**
- **Should existing funding programs require an approved placed-based plan as a prerequisite?**

Place-Based Planning in Oregon, Commitments Made Thus Far

In August 2012, Oregon's first Integrated Water Resources Strategy was adopted. It contained specific recommendations related to place-based integrated water resources planning, which is reproduced here in Figure 10, and in the text below.

Oregon's Integrated Water Resources Strategy states that in order to successfully take a place-based approach to water resources management, the state should develop guidelines to ensure that plans are integrated, taking into account instream and out-of-stream needs, water quantity, water quality, and ecosystems. Plans should account for the interaction between groundwater and surface water. Plans should also delineate and describe local population centers, key industries, and listed fish species, among other factors that influence the use and management of water.

Figure 10: IWRS Recommended Action 9.A

Undertake Place-Based Integrated Water Resources Planning

- **Develop guidelines for place-based integrated water resources strategies.**
- **Provide technical assistance and other incentives to communities undertaking place-based IWRM planning.**
- **Compile relevant and readily-available water-related information to support place-based IWRM planning.**

At a minimum, the State must ensure that any place-based plan seeking state funding and/or state approval under the Strategy must recognize the public interest in water, and have a meaningful process for public involvement, with public meetings, and a balanced representation of all interests.

Inherent in any place-based plan is the recognition and commitment to the State's authority and responsibility for management of water resources. A place-based planning effort will need to comply with existing state laws and requirements. Having full participation by state and federal agencies, tribes, and non-governmental organizations will be important for achieving this; their expertise will help guide stakeholders through the planning process.

The State, working primarily through the four agencies involved with development of the Strategy, will develop guidelines and seek further grant funding and other incentives to assist with local

planning efforts. The Integrated Water Resources Strategy describes a basic outline of components that should be included in a place-based IWRM plan.

- A description—quantity and quality—of current water resources (surface water, groundwater, storage, wastewater, stormwater), as well as a description of current and future water needs, both instream (ecological and biological needs, recreation, navigation) and out-of-stream (agricultural, municipal, industrial, including energy). Plans should note any specific data gaps, and any difficulties meeting instream and out-of-stream needs.

- A description of areas served by irrigation districts, and drinking water, wastewater, and stormwater utilities (include service area, status of infrastructure, status of contracts). This description should also note any difficulties meeting needs.

- Provisions for drought management and climate change adaptation and analysis of potential effects on quantity and quality of surface water and groundwater, as well as potential effects on demand/need.

- A discussion of other water plans (TMDLs, recovery plans, forestry plan, etc.) to the extent that data are available and provide direction for decision-making.

- Potential options to match future demands with supplies; the status of and opportunities related to water management and development tools in the basin, particularly water right transfers, water storage (both built storage and natural storage), water-use efficiency and conservation, water reuse, and restoration. This approach is meant to develop and evaluate water-resource scenarios.

The State should consider formally establishing the guidelines, specifying the details of place-based integrated water resources strategies, including ample public notice and comment prior to the approval process. The State already provides guidelines for other planning efforts, such as water management and conservation planning, which could be used as an example for developing guidelines for place-based planning.

The Strategy recognizes that state assistance and other incentives may be needed to help communities undertake this type of water resources planning. Potential incentives could include access to state and federal technical resources, including hydrologic modeling; bundling state and federal water-resources funds to facilitate implementation of plans; a long-term commitment by the State to coordinate/implement other plans; recognition of place-based water resources plans by multiple state agencies; and facilitated permitting.

The following appendices provide an at-a-glance comparison of key planning elements from the states of California, Texas, and Washington (Appendix A). In addition to reference materials (Appendix B) and acronyms (Appendix C), the reader will also find the questions posed throughout the discussion paper listed in Appendix D. These questions will be used to help shape and fill in the remaining details of the draft guidelines contained in Appendix E.

Appendix A: Comparison Table of California, Texas, and Washington

	California Integrated Regional Water Management (IRWM)	**Texas** Regional Water Planning	**Washington** Watershed Planning
Established	2002; SB 1672	1997; SB 1	1998; Watershed Management Act
Primary Governing Statute & Rules	California Water Code: 10540-10543	Title 31 of Texas Administrative Code, Chapter 357: Regional Water Planning	Revised Code of Washington (RCW) Chapter 90.82
Guidance Documents for Planning Groups	Yes - updated to correspond with funding grant cycles	Yes - updated to correspond with 5-year regional planning schedule.	Yes – developed in 1999.
Voluntary/Mandatory	Voluntary	Mandatory; updated every 5 years.	Voluntary
Protection of Existing Water Rights	Not specifically. Water rights are administered by a different state agency (State Water Resources Control Board), not California DWR.	YES A regional water plan does not change existing water law, existing water rights or contracts, and does not force a water management strategy on an entity. "Existing water rights, water contracts, and option agreements shall be protected."	YES The planning unit does not have the authority to change existing laws, alter water rights or treaty rights, change treaties, or require any party to take an action unless that party agrees.
Timeline Requirements	State Water Plan updated on a 5-year cycle. None specified for IRWM plans.	Regional plans must be updated every 5 years. Fold into the State Water Plan.	4 years to complete and adopt a watershed plan.
Geographic Boundaries	CWC only states, "a region shall be a contiguous geographic area encompassing the service areas of multiple local agencies." Mix of watershed/jurisdictional	16 regional water planning groups (RWPGs), delineated by the state's Texas Water Development Board. Mostly jurisdictional boundaries	62 Water Resource Inventory Areas (WRIAs); planning must include either an entire WRIA, or more than one entire WRIA. Roughly correspond with boundaries of drainage basins in Washington.
Governance Agreements and Structure	3 or more local agencies, signing MOUs, LOMUs, JPAs.	Administered by political subdivisions.	Initiating governments must organize and apply for funds; form a planning unit
Stakeholder and Public Involvement	Requires outreach to 12 specific kinds of interest groups.	Requires voting membership for 12 interest group categories plus non-voting status for five additional groups. Requires public notice and opportunity for comment.	Emphasizes citizen involvement, but approach is flexible. Planning unit must represent a wide diversity of interests.
Water-Related Components of the Plan	7 resource issues 27 resource mgt. strategies 16 plan standards	10 defined tasks	Water quantity is required; Instream flows (optional) Water quality (optional) Habitat (optional)
Addressing Instream Needs	YES Must discuss associated water demands to support environmental needs.	YES Must consider environmental flow standards or site-specific studies, where available.	Optional; but most planning units choose to address instream flows.

	California Integrated Regional Water Management (IRWM)	**Texas** Regional Water Planning	**Washington** Watershed Planning
Addressing Water Quality Needs	YES; must address drinking water quality CWC 10540 (2); consider plans/strategies to meet water quality standards CWC10541(2).	YES, must consider impacts to water quality from recommended water management strategies in a regional plan. Can also designate "unique stream segments" for protection, based in part, on high water quality functions.	Optional; must provide a recommended approach for implementing a TMDL to achieve water quality standards.
Integration of Other Planning Efforts	YES	YES	YES e.g. Salmon Recovery Act, SEPA
Adoption of Plans at Local Level	YES, governing bodies of each member agency must adopt to be eligible for grant funding	YES, plans are adopted by the regional group, by vote.	YES, plans are approved by local planning unit, then sent to local governments on planning unit for adoption.
State Review Process	DEVELOPING. A formal plan review process was created in December 2013. Pass/Fail assessment, IWRM plans must pass to be eligible for Round 3 grant funding.	Regional plans are approved by the Texas Water Development Board	Yes; Ecology staff sit at the table on 35 out of 36 planning groups, offering input and review along the way. Ecology also coordinates comments from other agencies and will send an approval letter to units upon plan completion.
State Agency Roles within the planning groups	4 regional offices provide technical assistance	Act as non-voting members and provide technical assistance. Agency staff sit on each planning group from the following agencies: TWDB, Parks & Wildlife, Agriculture	8 watershed lead staff from Dept. of Ecology assigned to WRIA's. Planning groups can request state assistance via request to Governor's office.
Financial Incentives	November 2002 – Prop. 50, $500 million to fund competitive grants for projects consistent with an adopted IRWM plan. November 2006 – Prop. 84, $1 billion for IRWM planning and implementation. November 2006 – Prop. 1E, provided $300 million for IRWM Stormwater Flood Management.	Planning funds range from $13-$15 million per 5 year planning cycle. Covers all but administrative costs; amount depends on size of region (number of water users and water providers). SWIFT & SWIRFT funds, passed by voters in Nov. 2013. Funds State Water Plan projects. Regional planning groups developing a list of priority projects.	Watershed planning and associated state funding is completed in 4 phases: Phase 1 - Organizational Phase – Up to $50,000 per WRIA or up to $75,000 for multi-WRIA planning units. Phase 2 - Assessment Phase - Up to $200,000 for each WRIA Phase 3 - Planning Phase - Up to $250,000 for each Phase 4 – Implementation Phase – Up to $100,000 per WRIA for the first three years of implementation activity, and then up to $50,000 per WRIA for the fourth and fifth years of implementation.

Appendix B: Resources for More Information

California Integrated Regional Water Management Resources

California Department of Fish and Game (now Fish and Wildlife). February 2012. Instream Flow Program 2011 Annual Report. http://www.dfg.ca.gov/water/instream_flow.html

California Department of Water Resources. December 2013. Appendix H: Plan Review Process. Addendum to November 2012 Guidelines. http://www.water.ca.gov/irwm/grants/docs/PlanReviewProcess/PRP_Final.pdf

California Department of Water Resources. California Water Plan Update 2009. Chapter 22: Ecosystem Restoration. http://www.waterplan.water.ca.gov/docs/cwpu2009/0310final/v2c22_ecorestoration_cwp2009.pdf

California Department of Water Resources. March 2012. Integrated Regional Water Management Factsheet. http://www.water.ca.gov/irwm/grants/docs/Brochures/IRWM6.Background_120306.pdf

California Department of Water Resources. November 2012. Integrated Regional Water Management Guidelines. http://www.water.ca.gov/irwm/grants/docs/Guidelines/GL_2012_FINAL.pdf

California Department of Water Resources. December 2011. Integrated Regional Water Management Program – Proposal Solicitation Package (PSP) for IRWM Planning Grants. http://www.water.ca.gov/irwm/grants/docs/Archives/Prop84/Guidelines_PSPs/Rnd2_PlPSP_122211_Fnl.pdf

California Department of Water Resources. November 2012. Proposal Solicitation Package (PSP) for Stormwater Flood Management Proposition 1E Round 2 IRWM Grant Funding. http://www.water.ca.gov/irwm/grants/docs/StormwaterFloodManagementGrants/SWFM_PSP_Round2_2012_FINAL.pdf

California Department of Water Resources. September 2012. Strategic Plan for the Future of Integrated Regional Water Management. http://www.water.ca.gov/irwm/stratplan/documents/IRWM%20Fact%20Sheet.pdf

California Department of Water Resources. September 2013. Strategic Plan for the Future of IRWM – Project Update. ACWA 2013 Fall Conference Presentation by Michael P. Floyd. http://www.water.ca.gov/irwm/stratplan/documents/ACWA%20Dec%202013-3.pdf

California Department of Water Resources. February 2014. Water Plan eNews. http://www.waterplan.water.ca.gov/docs/enews/2014/cwp_e-news021914.pdf

California Natural Resources Agency, California Department of Food & Agriculture, and California Environmental Protection Agency. January 2014. California Water Action Plan. http://resources.ca.gov/california_water_action_plan/docs/Final_California_Water_Action_Plan.pdf

Governor's 2014-2015 Budget Summary to the California Legislature, Regular Session
http://www.ebudget.ca.gov/FullBudgetSummary.pdf

Oregon-Related Resources

Oregon Department of Administrative Services. November 2013. A Concise Summary of HB2620: Improving Outcomes in Oregon Communities – Realigning Economic and Community Development Programs. http://www.oregon.gov/COO/ELT/Documents/HB2620_Summary.pdf

Oregon Department of Environmental Quality. May 2007. TMDL Implementation Plan Guidance – for State and Local Government Designated Management Agencies.
http://www.deq.state.or.us/wq/tmdls/docs/impl/07wq004tmdlimplplan.pdf

Oregon Regional Solutions. About Us. Website.
http://www.oregon.gov/GOV/ERT/Pages/index.aspx

Oregon Solutions Network. December 2013. Priorities Identified By Regional Advisory Committees.
http://www.oregon.gov/gov/ERT/docs/Regional%20Priorties%20List%20as%20of%202013.12.pdf

Oregon Water Resources Department. August 2012. Oregon's Integrated Water Resources Strategy
http://www.oregon.gov/OWRD/pages/law/integrated_water_supply_strategy.aspx

Oregon Water Resources Department. February 2013. Implementation Update: Oregon's Integrated Water Resources Strategy. Attachment 1: The Intersection between WRD's Basin Plans and Place-Based Planning. Report to the Water Resources Commission.
http://www.oregon.gov/owrd/LAW/docs/IWRS/Feb_08_2013_Staff_Report.pdf

Texas Regional Planning Resources

Nelson, Matt. October 2012. Memo to the Texas Water Development Board Requesting Regional Planning Grants Funds.
http://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2016/doc/board_memos/20121010_contractamend_author.pdf

Texas Water Development Board. Facility Planning & Water Planning Grants Overview (website).
http://www.twdb.texas.gov/waterplanning/rwp/grants/

Texas Water Development Board. Regional Water Plans/Planning Group Grants (website).
http://www.twdb.texas.gov/financial/programs/RWPG/index.asp

Texas Water Development Board. January 2012. State Loan Program, Texas Water Development Fund (DFund) and WIF, Water Supply and Water Quality Projects.
http://www.twdb.texas.gov/financial/instructions/doc/TWDB-0140.pdf

Texas Water Development Board. January 2012. 2012 Texas Water Plan, Chapter 9: Financing Needs. http://www.twdb.texas.gov/publications/state_water_plan/2012/09.pdf

Texas Water Development Board. January 2012. 2012 Texas Water Plan.
http://www.twdb.state.tx.us/waterplanning/swp/2012/index.asp

Texas Water Development Board. January 2013. Regional Water Planning Fact Sheet.
https://www.twdb.texas.gov/publications/shells/RegionalWaterPlanning.pdf

Texas Water Development Board. October 2012. First Amended General Guidelines for Regional Water Plan Development.
http://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2016/doc/current_docs/contract_docs/2012_exhC_1st_amended_gen_guidelines.pdf

Texas Water Development Board. October 2012. Water Planning Rules (31 TAC) and Texas Statute Reference Pamphlet for Regional Water Planning.
http://www.twdb.texas.gov/waterplanning/rwp/planningdocu/2016/doc/current_docs/administrative_docs/20121108_rulespamphlet.pdf

Texas Water Development Board. State Water Implementation Fund for Texas (SWIFT). Presentation by Carlos Rubenstein, Chair, Texas Water Development Board.
http://www.twdb.texas.gov/swift/doc/TWDB_SWIFT_presentation.pdf

Texas Water Development Board. SWIFT Frequently Asked Questions Factsheet.
http://www.twdb.texas.gov/swift/doc/SWIFT_FAQ.pdf

Texas Water Development Board. Texas Regional Water Planning Data. Website.
https://www.twdb.state.tx.us/waterplanning/data/rwp-database/

Washington Watershed Planning Resources

Washington Department of Ecology. Instream Flows in Washington. Website. Accessed December 13, 2012. http://www.ecy.wa.gov/programs/wr/instream-flows/isfhm.html

Washington Department of Ecology. July 2003. Final Environmental Impact Statement for Watershed Planning under Chapter 90.82 RCW.
https://fortress.wa.gov/ecy/publications/publications/0306013.pdf

Washington Department of Ecology. December 2009. 2009 Report to the Legislature. Statewide Progress on Setting Instream Flows.
https://fortress.wa.gov/ecy/publications/publications/0911033.pdf

Washington Department of Ecology. May 2012. 2011 Report to the Legislature: Statewide Progress on Setting Instream Flows. https://fortress.wa.gov/ecy/publications/publications/1211002.pdf

Washington Department of Ecology. January 2004. Focus on Finishing and Using Local Watershed Plans. Publication 04-06-002.

Washington Department of Ecology. Watershed Updates by Water Resource Inventory Areas. Website. Accessed September 16, 2013.
http://www.ecy.wa.gov/apps/watersheds/wriapages/index.html

Washington Department of Ecology. Obtaining State Agency Participation on Your Local Planning Unit. Website. Accessed September 16, 2013. http://www.ecy.wa.gov/watershed/misc/focus2.html

Washington Department of Ecology. January 2014. Ecology Watershed Grants Help Improve Water Supplies, Support Jobs and Population Growth in Eight Counties. Press Release. http://www.ecy.wa.gov/news/2014/001.html

Appendix C: Acronyms

BiOp	Biological Opinion
CA	California
CCEFN	Consensus Criteria for Environmental Flow Needs (TX)
CDFW	California Department of Fish and Wildlife
CWC	California Water Code
CWP	California Water Plan
DEQ	Department of Environmental Quality (OR)
DWR	Department of Water Resources (CA)
IRWM	Integrated Regional Water Management (CA)
IWRM	Integrated Water Resources Management
IWRS	Integrated Water Resources Strategy (OR)
JPA	Joint Powers Authority
LOMU	Letter of Mutual Understanding
MOU	Memorandum of Understanding
OR	Oregon
ORS	Oregon Revised Statutes
PSP	Proposed Solicitation Package (CA)
RAP	Region Acceptance Process (CA)
RCW	Revised Code of Washington
RMS	Resource Management Strategy (CA)
RWMG	Regional Water Management Group (CA)
RWPG	Regional Water Planning Group (TX)
SEPA	State Environmental Protection Act (WA)
SWIFT	State Water Implementation Fund for Texas
SWIRFT	State Water Implementation Revenue Fund for Texas
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TMDL	Total Maximum Daily Load
TWDB	Texas Water Development Board
TX	Texas
USGS	United States Geological Survey
WA	Washington
WIF	Water Infrastructure Fund (TX)
WRC	Water Resources Commission (OR)
WRD	Water Resources Department (OR)
WRIA	Water Resources Inventory Areas (WA)

Appendix D: Summary of Discussion Questions

Discussion Question #1: Defining the Value of Place-Based Planning

- What can place-based planning accomplish in Oregon that cannot already be accomplished today?

Discussion Question #2: Setting Boundaries

- How prescriptive should the state of Oregon be in organizing the borders and composition of groups?
- Should the entire state be partitioned into state-defined regions, similar to Texas and Washington, or should Oregon allow self-selection, similar to California?
- Should the state approve / accept the establishment of each region? If yes, how so?

Discussion Question #3: Governance Structures

- What is the best way to structure governance agreements with potential participants / group members? (MOUs, LOMUs, etc.)
- How should Oregon planning groups make decisions? (consensus, majority, etc.)
- Who should chair the discussion?
- Who should serve as initiators and voting members of a place-based planning effort?

Discussion Question #4: Stakeholder & Public Involvement

- In Oregon, should specific interest group categories have required seats at the table, or should group membership be more flexible?
- Should neighboring planning groups and governmental entities be required planning members?
- What is the best way to ensure communication and collaboration with stakeholders and partners?

Discussion Question #5: Data Management & Plan Outline

- The ability to find and cull data from local plans will help the state, as it develops future iterations of the IWRS: which data elements should be optional vs. mandatory?
- Oregon's 2012 IWRS clearly lays out a set of water-related challenges (i.e., critical issues) facing Oregon communities. Should planning groups follow this same outline in the construction of local plans?

Discussion Question #6: Addressing Instream Needs

- To what extent should place-based plans and their implementation work plans address Oregon's instream flow needs?
- What technical resources and capacity should be made available to planning groups for addressing instream issues and needs?

Discussion Question #7: Addressing Water Quality Needs

- To what extent should place-based plans address water quality challenges, data, or legal requirements?
- What technical resources and capacity should be made available to planning groups for addressing water quality issues and needs?

Discussion Question #8: Integration of Other Planning Efforts

- Other planning efforts in Oregon already have separate institutional structures, requirements, and funding sources. What is the best way to collaborate and coordinate with these efforts most efficiently?

Discussion Question #9: Plan Adoption

- Should the local governing bodies of planning groups adopt these plans as well? Would such an adoption take place before or after the planning unit's adoption?
- How should planning units adopt future amendments / iterations?

Discussion Question #10: State Level Review Process

- What criteria should the state use to review and accept these plans?
- What mechanism should the state use to accept the plans? Currently, WRD approves Water Management and Conservation Plans administratively, while the WRC approves actual funding awards.

Discussion Question #11: Role of State Agencies

- What should be the extent of the role that WRD and other state agencies play in Salem and in the field, when it comes to place-based planning? (Convenor, Facilitator, Technical Assistance, Reviewer?)

Discussion Question #12: Funding for Plans and Projects

- Should the state provide funding for projects included in an adopted place-based plan?
- How should such funding be structured?
- Should existing funding programs require an approved placed-based plan as a prerequisite?

Appendix E: Draft Guidelines for Place-Based Planning in Oregon

March 2014

Developing Oregon's Place-Based Approach to Integrated Water Resources Planning

Note to Reader: The Draft Guidelines you see here are a rough outline. These guidelines will evolve, growing with content, from public and stakeholder input over the next several months. During Spring 2014, the Oregon Water Resources Department and its partner agencies will seek feedback on the policy questions posed throughout the Discussion Paper, helping the state shape a framework for place-based planning in Oregon.

1. Governance Structure

a. **Define the Governance Structure.** An IWRM Plan must document the governance structure of the IWRM planning group. Identify a "convenor," or "initiator," who will be responsible for implementing and updating the plan on an on-going basis.

b. **A Representation of Diverse Interests.** IWRM planning groups should invite at least one representative from each of the following interest groups to participate: counties, municipalities, industry, agricultural interests, conservation groups, small businesses, power/electric companies, affected tribes, and major public water providers in the planning area (e.g. irrigation districts, drinking water providers, etc.). Each interest group should serve as a voting member of the IWRM planning group. Key state and federal agencies representing water quantity, water quality, fish and wildlife, and agricultural interests should serve as non-voting members as well.

c. **Public Involvement.** IWRM planning groups must include a public involvement process that allows members of the general public to be involved in plan development and implementation.

d. **Decision-Making Process.** An IWRM Plan must clearly identify and use a decision-making process that is inclusive and transparent.

2. Region Description

Include a description of the service areas of irrigation districts, water providers, wastewater and stormwater utilities, flood management agencies, and any other public water provider. This should include a description of the watershed and water systems.

[If planning groups are given flexibility to self-delineate their respective planning boundaries, this section will needed additional guidance]

3. Description of Water Supplies & Systems

A description—quantity and quality—of current water resources (surface water, groundwater, storage, wastewater, stormwater). Describe water delivery systems within the planning area, such as diversions, treatment and distribution facilities, and any water service contract agreements, or interconnections).

4. Description of Water Needs (Demands)

Include a description of existing water rights and current and future water needs, both instream needs (fish and wildlife, water quality, recreation, navigation, and hydropower) and out-of-stream needs (agriculture, irrigation, municipal, industrial, and energy development). IWRM Plans should use the most recent population / census data and should note any data gaps, any inability to meet instream or out-of-stream needs, and any potential conflicts / competition for water. Needs should be calculated over a 50-year planning horizon. Complete an assessment of whether water delivery entities can meet current and future needs.

5. IWRM Plan Objectives

The IWRM Plan must clearly present plan objectives and describe the process used to develop these objectives. These objectives must address any major water-related challenges and conflicts of the region. In addition, objectives must be measurable by some practical means so achievement of objectives can be monitored.

6. Analyze and Account for Coming Pressures

Oregon must anticipate and prepare for some of the most powerful changes that may affect both water resources and water needs into the future. The Oregon Legislature has expressed particular interest in preparing communities for the water-related implications of climate change, population growth, and changes in land use. The statewide Strategy addresses these three issues, as well as the connection between energy and water, the need to develop and upgrade water and wastewater infrastructure, and the need for education and outreach.

a) **Energy Development:** Describe opportunities to integrate and increase water and energy efficiencies. Examine the water resources impacts of proposed, water-intensive energy development.

b) **Climate Change:** Describe climate change risks and analysis of potential impact on water supplies (surface water, groundwater, and storage) as well as potential effects on demands (instream and out-of-stream). Describe the region's vulnerabilities to the effects of climate change and possible adaptation measures.

c) **Drought & Flood Preparation:** Describe provisions for drought and flood management and response. Describe any supply deficiencies caused by drought or other emergencies that have occurred in the last 10 years. Describe whether communities within the planning area have developed a hazard mitigation plan or contingency plan for dealing with drought or other water related hazards. Describe whether this region is vulnerable to drought or flood-related impacts. Describe any existing water curtailment measures in place today.

d) **Infrastructure Needs:** Describe any water-related infrastructure needs, including infrastructure that is aging or in need of repair or replacement; discuss whether dams and reservoirs have emergency action plans in place; and describe opportunities for taking regional approaches to water and wastewater systems (such as inter-connections).

e) **Population Growth:** (See #4, above).

f) Informed Public & Trained Workforce. Describe any plans to provide water-related education and training for Oregon's next generation of water experts, as well as education and outreach to the community. Include any key water resources messages and communication challenges.

7. Water Management Tools

Recommend potential water management tools to match future water needs and demands with water supplies. Describe how the planning group will employ water management and development tools in the basin. Such tools could include, but are not limited to:

- **Water Right Transfers.** Water right transfers can be used to support out-of-stream uses and restore streamflows. The program includes options for permanent transfers, temporary transfers, and instream leases.

- **Water Storage.** This includes retention of natural storage, such as wetlands, forests, and snowpack as well as built storage, such as reservoirs, artificial recharge, and aquifer storage and recovery.

- **Water-Use Efficiency and Conservation.** Place-based plans should show a path to improving water-use efficiencies among all water users, using the state's allocation of conserved water program where appropriate.

- **Water Reuse.** Place-based plans should consider recycled water projects (water reuse) as a water management tool.

- **Watershed Restoration.** Place-based plans should include a discussion of strategies to restore and protect fish and wildlife habitat, considering identified priorities from the Oregon Plan for Salmon and Watersheds, Oregon Conservation Strategy, and any relevant conservation and recovery plans.

- **Instream Protections.** Place-based plans should show a "path" to meeting flow requirements specified by instream water rights or scenic waterways, where they exist.

- **Public Health and Water Quality Protections.** Place-based plans should show a "path" to addressing water quality impairments.

8. Integration with Other Planning Activities

Place-based plans should include a description of other plans and planning activities occurring in the region, and note opportunities to address multiple requirements, meet multiple needs, leverage funding resources, and make progress on multiple fronts. At a minimum, place-based IWRM plans should address the following:

- TMDL implementation plans of designated management agencies within the planning area
- Agriculture Water Quality Management Plans (Senate Bill 1010)
- Oregon Plan for Salmon and Watersheds
- Forestry Program for Oregon
- Oregon Conservation Strategy
- Statewide Planning goals and any local comprehensive land-use plans
- Water Management and Conservation Plans of irrigation districts and municipalities within the planning area.

- Water System Master Plans for drinking water providers within the planning area.

[Question: are there other state, federal, or local plans that should also be considered?]

9. Monitoring Activities & Data Management

Identify any data collection, data processing, or data sharing efforts necessary to support the above activities. Monitoring activities and data management tools for both water quantity and water quality should be compatible with and available to the monitoring efforts of state agencies.

10. Funding of IWRM Plan Tools

IWRM Planning Groups who undertake the above process will receive preference from state agencies that provide granting or loaning project funds. *[Note: This would likely require state agency MOUs and merits additional discussion.]*

11. Other Requirements

Members of planning groups should be in compliance with existing state laws and requirements. For example, governmental entities that serve on the planning group should be in compliance with annual water use reporting requirements described in ORS 537.099 and OAR Chapter 690, Division 85. Likewise, entities required to complete a Water Management & Conservation Plan under OAR Chapter 690, Division 86 must have an approved plan on file with the Department.