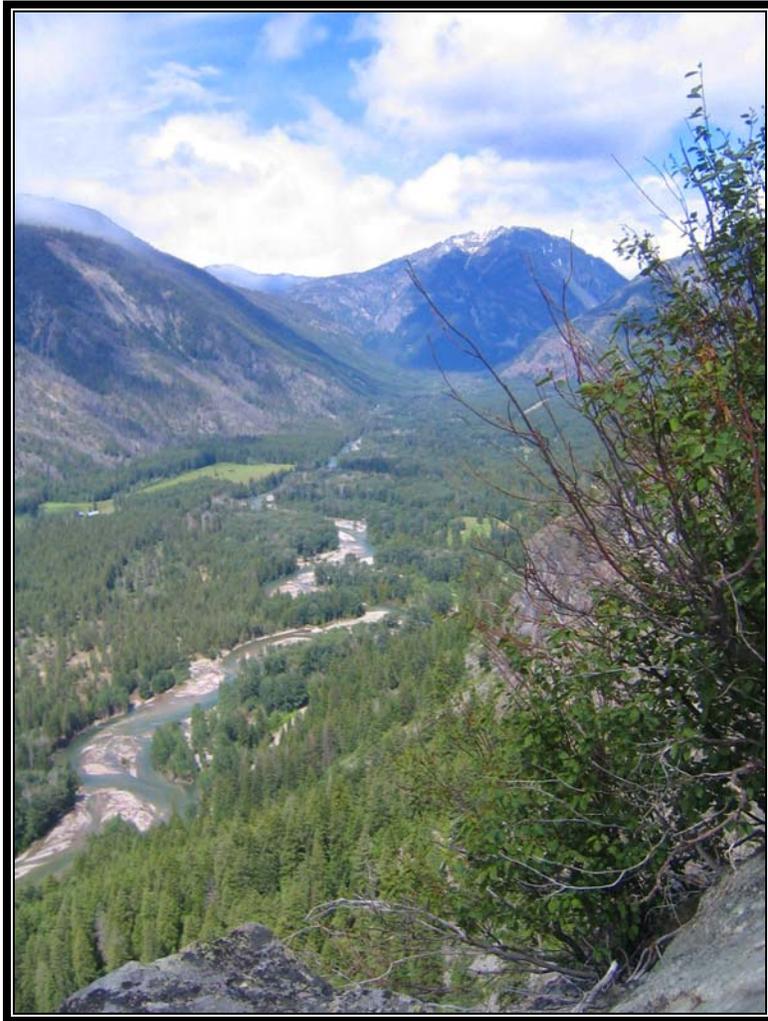


**FINAL**  
**DETAILED IMPLEMENTATION PLAN**  
**Methow River Basin (WRIA 48)**  
**Methow Watershed Council**

**October 29, 2009**

**Project Funded through Ecology Watershed Planning Grant No. G0900100**



**Prepared with the assistance of Aspect Consulting, LLC**

# Contents

<b>Acronyms .....</b>	<b>iv</b>
<b>1 Introduction and Overview .....</b>	<b>1</b>
1.1 Purpose .....	1
1.2 Watershed Setting.....	1
1.3 Instream Flow Rule .....	2
1.4 Legislative Authority .....	3
1.5 WRIA 48 Watershed Planning Background .....	3
<b>2 Updates Since Watershed Plan Approval .....</b>	<b>4</b>
2.1 SEPA Review of Watershed Plan .....	4
2.2 Formation of the Methow Watershed Council.....	4
2.3 New Studies and Data .....	6
2.3.1 Land Use and Population Growth .....	6
2.3.2 Water Quantity .....	6
2.3.3 Out-of-Basin Transfer of Existing Water Rights .....	6
2.3.4 Mechanisms to Facilitate the Transfer of Existing Water Rights.....	7
2.4 Changes in Programs, Policies, and Regulations.....	7
2.4.1 Columbia River Basin Water Supply Act.....	7
2.4.2 Water Supply Development Account .....	8
2.4.3 Statewide Water Banking Legislation.....	9
2.4.4 Municipal Water Law.....	9
2.4.5 State Water Quality Standards .....	10
2.4.6 Changes in Programs Managed Through Conservation Districts and/or NRCS.....	10
2.4.7 Fish Recovery Plans .....	11
2.4.8 Okanogan County Programs .....	11
2.5 Synergy with Other Watershed Planning Efforts.....	12
2.6 Summary of Progress on Implementation Actions in WRIA 48 .....	12
<b>3 Framework for Implementation .....</b>	<b>13</b>
3.1 Requirements for Phase IV (Chapter 90.82 RCW).....	13
3.2 Major Objectives of Watershed Planning.....	14
3.3 Adaptive Management .....	14
3.4 Procedures to Update DIP .....	15
3.5 Public Outreach Program.....	15

- 4 Prioritization.....16**
- 5 DIP Development .....18**
  - 5.1 Participants ..... 18
  - 5.2 Coordination with Municipal Water Right Holders or Group A Water Systems ..... 18
  - 5.3 Approval Process.....20
- 6 Strategies and Actions to Implement.....20**
  - 6.1 Modify Chapter 173-548 WAC.....21
    - 6.1.1 Implementation Actions..... 22
    - 6.1.2 Implementation Responsibilities ..... 24
    - 6.1.3 Implementation Schedule ..... 25
  - 6.2 Preserve Agricultural Lands and Uses .....26
    - 6.2.1 Implementation Actions..... 26
    - 6.2.2 Implementation Responsibilities ..... 27
    - 6.2.3 Implementation Schedule ..... 27
  - 6.3 Facilitate Transfer of Existing Water Rights .....28
    - 6.3.1 Implementation Actions..... 28
    - 6.3.2 Implementation Responsibilities ..... 29
    - 6.3.3 Implementation Schedule ..... 29
  - 6.4 Water Storage and Groundwater Recharge .....29
    - 6.4.1 Implementation Actions..... 30
    - 6.4.2 Implementation Responsibilities ..... 31
    - 6.4.3 Implementation Schedule ..... 31
  - 6.5 Statutory and Policy Changes .....31
    - 6.5.1 Implementation Responsibilities ..... 32
    - 6.5.2 Implementation Schedule ..... 32
  - 6.6 Management Tools .....32
    - 6.6.1 Canal Management Plans..... 32
    - 6.6.2 Forest Management Plans..... 33
    - 6.6.3 Floodplain Management Plan ..... 34
    - 6.6.4 Drought Response Plan..... 35
- 7 Funding .....36**
  - 7.1 Phase IV Watershed Planning..... 36
  - 7.2 Other Funding Sources..... 36
- 8 References .....37**

**List of Tables**

---

1 Methow Watershed Council Prioritization List ..... 16

**List of Appendices**

---

A Invitation Letter to Group A Water Systems  
B Table 12 - Watershed Management Plan (June 20, 2005)

## Acronyms

afy	acre-feet/year
Aspect	Aspect Consulting, LLC
BMPs	best management practices
Bureau	United States Bureau of Reclamation
cfs	cubic feet per second
CIG	Conservation Innovation Grants
Columbia River Account	Columbia River Basin Water Supply Development Account
Commissioners PAG	Commissioners Policy Advisory Group
CRP	Conservation Reserve Program
CSP	Conservation Security Program
CSRIA	Columbia Snake River Irrigators Associations
DIP	Detailed Implementation Plan
DOH	Washington State Department of Health
DS	determination of significance
Ecology	Washington State Department of Ecology
EIS	environmental impact statement
EQIP	Environmental Quality Incentives Program
FRPP	Farm and Ranchland Protection Program
gpd	gallons per day
GRP	Grassland Reserve Program
MBPU	Methow Basin Planning Unit
MOA	memorandum of agreement
MRC	Methow Restoration Council
MVID	Methow Valley Irrigation District
MWC	Methow Watershed Council
RCW	Revised Code of Washington

SEPA	State Environmental Policy Act
Study Plan	Water Withdrawal Study Plan
SWRP	Small Watershed Rehabilitation Program
TLAC	Twin Lakes Aquifer Coalition
UCSRB	Upper Columbia Salmon Recovery Board
USFS	United States Forest Service
USGS	United States Geological Survey
VRAs	Voluntary Regional Agreements
WAC	Washington Administrative Code
WDFW	Washington State Department of Fish and Wildlife
WHIP	Wildlife Habitat Incentives Program
WMP	Watershed Management Plan
WRIA	Water Resource Inventory Area
WRP	Wetlands Reserve Program

# 1 Introduction and Overview

The Detailed Implementation Plan (DIP) represents the beginning of the Phase 4 implementation process under Chapter 90.82 of the Revised Code of Washington (RCW) by providing a framework for scheduling and executing specific actions to achieve the prioritized objectives described in the Water Resource Inventory Area (WRIA) 48 Methow Watershed Management Plan (Methow Basin Planning Unit, 2005). Following a public notice and hearing in accordance with RCW 90.82.130, the Methow Watershed Management Plan (WMP) was approved by the Okanogan County Board of County Commissioners on June 20, 2005.

The Methow WMP addressed the mandatory water quantity component of watershed planning and the water storage assessment. The Methow Basin Planning Unit (MBPU) opted not to include the optional habitat component that is now being addressed by the Methow Restoration Council (the Watershed Action Team for the Methow Subbasin). The key water resources issues and associated strategies to address each issue, as identified in the Methow WMP, are the basis for development of the DIP.

The DIP was developed by the Methow Watershed Council (MWC) – known as the Methow Basin Planning Unit (MBPU) during previous phases of watershed planning – with assistance from Aspect Consulting, LLC (Aspect). The work is funded by the Washington State Department of Ecology (Ecology) Watershed Planning Grant No. G0900100.

Additional information on the MWC and the watershed planning process in the Methow River Basin is available on the MWC's web site at <http://www.methowwatershed.com/> or by phoning (509) 997-0640 extension 3.

## 1.1 Purpose

---

The DIP provides the framework for how to implement the recommended strategies to achieve the water quantity objectives identified in the Methow WMP. It further prioritizes actions presented in the Methow WMP, identifies the entities that have agreed to implement the prioritized actions, and defines schedule milestones based on those priorities as well as possible funding mechanisms. Submittal of a DIP to Ecology is a condition of receiving grants for the second and all subsequent years of Phase 4 implementation.

## 1.2 Watershed Setting

---

The Methow River Basin (WRIA 48) is located in Okanogan County in north central Washington. The Methow River occupies a deep valley draining the eastern slope of the north Cascade Mountains and forms an important tributary to the Columbia River. Tributaries to the Methow River include Lost, Chewuch, and Twisp Rivers, Early Winters Creek and numerous smaller streams. Seven WRIA 48 sub-basins were delineated by Ecology (Kauffman and Bucknell, 1976) and each sub-basin contains a

control station for monitoring base flows. An eighth sub-basin was delineated in the *Phase II-Level 1 Watershed Technical Assessment for the Methow River Basin* (Golder Associates, 2002) by splitting the Lower Methow sub-basin into eastern and western halves.

Approximately 84 percent of WRIA 48 is owned by the Federal Government, primarily managed by the United States Forest Service (USFS Winthrop Office – personal communication, 2009). Approximately 5 percent of WRIA 48 is owned by Washington State including about 35,000 acres owned by the Department of Natural Resources and Department of Fish and Wildlife (Golder Associates, 2002), and approximately 11 percent of WRIA 48 is private lands. Private lands are primarily located in alluvial valleys of the Methow and lower Twisp and Chewuch Rivers. Land use is primarily forest and range land in the uplands and residential and agriculture in the lowlands. Incorporated municipalities include the Towns of Twisp and Winthrop and City of Pateros. The Washington State Department of Health (DOH) public water system database identifies over 200 water systems in WRIA 48, including a total of 50 which are classified by DOH as Group A and 164 classified by DOH as Group B. These existing water systems primarily obtain water supply from groundwater sources.

Of the 50 Group A water systems, 8 are classified as active Group A Community systems and 24 as active Group A Non-Community systems. The DOH Group A Community category includes 3 municipal providers - Town of Winthrop, Town of Twisp, and City of Pateros.

The balance of the population not connected to a public water system obtains water from single domestic sources primarily comprised of water right permit-exempt wells (exempt wells). There are approximately 27 irrigation water purveyors in WRIA 48 that obtain water from a combination of groundwater and surface water sources.

### 1.3 Instream Flow Rule

---

The Water Resources Program in the Methow River Basin, WRIA 48 (Chapter 173-548 Washington Administrative Code [WAC]) establishes base flows for the seven sub-basins delineated by Kauffman and Bucknell (1976): the Lower Methow, Middle Methow, Upper Methow, Methow Headwaters, Early Winters Creek, Chewuch River and Twisp River. The Rule designates base flows for the first and fifteenth days of each month of the year with base flows for days not specifically listed to be defined by the base flow hydrographs in Kauffman and Bucknell (1976). The Rule designates control station locations near the lowest point of each sub-basin to be used for monitoring base flows. Streamflow gages operated by the United States Geological Survey (USGS) and having various periods of record are present at or near these locations. All water rights established after the December 28, 1976 Rule implementation are subject to base flows established in the Rule, except a reservation of surface water for single domestic and stock watering uses equal to 2 cubic feet per second (cfs) was set aside in each of the seven Methow River reaches to meet future needs. Rights to groundwater developed after 1976 are subject to the base flows, if it is determined that groundwater withdrawals will affect surface waters.

## 1.4 Legislative Authority

---

In 1998, the Washington State Legislature passed the Watershed Planning Act (Chapter 90.82 RCW) to facilitate local development of watershed plans to manage water resources and protect existing water rights in each of the State's 62 Water Resource Inventory Areas (WRIAs). The Act acknowledges that watershed plans best serve vital local interests when they are developed by people "*Who have the greatest knowledge of both the resources and the aspirations of those who live and work in the watershed; and who have the greatest stake in the proper, long-term management of the resources*". To accomplish this, the Act designates the establishment of a "Planning Unit" comprised of public and private stakeholders including local, state and federal entities and community representatives most familiar with instream and out-of-stream water needs. The Act allocates grant funding through the Legislature to accomplish development and implementation of a watershed management plan in four phases:

**Phase 1: Planning Unit Organization**

**Phase 2: Technical Assessments**

**Phase 3: Watershed Management Plan Development**

**Phase 4: Detailed Implementation Plan Development and Implementation**

Implementation of an approved Methow WMP is intended to proceed over 5 years during Phase 4. A DIP is required to be completed during the first year as a condition to receive grant funding over the 4 subsequent years.

## 1.5 WRIA 48 Watershed Planning Background

---

As Initiating Governments in accordance with RCW 90.82, Okanogan County (acting as Lead Entity), Town of Twisp, and Methow Valley Irrigation District (MVID) initiated the WRIA 48 watershed planning process in 2000 with the formation of the MBPU comprised of 17 members representing local public and private interests. Over the following 5 years, MBPU initiated studies intended to fulfill the technical requirements of RCW 90.82 including the *Phase II- Level 1 Watershed Technical Assessment for the Methow River Basin* (Golder Associates, 2002) addressing the mandatory water quantity and optional water quality components, the *Gains and Losses in Streamflow in the Methow River* study (USGS, 2002), the *Hydrogeology of the Unconsolidated Sediments, Water Quality and Ground-Water/Surface-Water Exchanges in the Methow River Basin* study (Konrad, et al., 2003) and the *Methow Basin (WRIA 48) Storage Assessment* (Golder Associates, 2003). The MBPU completed a first draft of the Methow WMP in June 2003. Following a public hearing, the Methow WMP was approved by the Okanogan County Board of Commissioners in accordance with Chapter 90.82.130, RCW in June 2005.

## 2 Updates Since Watershed Plan Approval

This section provides a brief update of changes that have occurred since preparation and approval of the WRIA 48 Methow WMP in 2005. These include status of State Environmental Policy Act (SEPA) review of the Methow WMP; formation of the MWC; new information relevant to basin water quantity (including water storage) and water quality; changes in regulatory programs or policies; examples of watershed planning progress in other WRIs having similar water resource interests as WRIA 48; and progress on early implementation actions recommended in the Methow WMP.

### 2.1 SEPA Review of Watershed Plan

---

The MBPU determined that actions in the Methow WMP requiring SEPA review fall within the scope of and are covered by the statewide final environmental impact statement (EIS) for Watershed Planning (Ecology, 2003). The programmatic Watershed Planning EIS evaluates the impacts and identifies mitigation measures for various types of recommended actions that may be included in Methow WMPs prepared in accordance with Chapter 90.82 RCW. Recommended actions in a Methow WMP that are consistent with alternatives in the statewide Watershed Planning EIS do not require supplemental information for SEPA compliance, nor do they require enumeration of alternatives and potential impacts in the standard SEPA format. However, adoption of the programmatic Watershed Planning EIS does not relieve the lead SEPA agency from doing a separate review and determination on the WRIA 48 Methow WMP on issues and items not covered in the programmatic EIS including individual projects to implement the Methow WMP.

The Methow WMP recommended that Okanogan County, as lead SEPA agency, issue a determination of significance (DS) and adopt the programmatic watershed planning EIS. Upon completing SEPA review of the Methow WMP, Okanogan County adopted the programmatic EIS, issuing an addendum to the programmatic EIS and a DS dated May 31, 2005.

### 2.2 Formation of the Methow Watershed Council

---

The Methow WMP recommended formation of a local, publicly-controlled body to supersede the MBPU and oversee implementation of the Methow WMP. This implementation action has been partially completed since Methow WMP approval. The current MWC functions as an interim implementation body to facilitate Methow WMP implementation actions. These actions include attaining the structure and function of the MWC as envisioned in the Methow WMP. The current MWC is a nine-member board with membership appointed by the Initiating Governments. Three of the seats on MWC are held by representatives from each

Initiating Government. The other six seats are comprised of community representatives. The MWC held its first meeting in 2007. Current MWC membership consists of:

Okanogan County	Nathan Wehmeyer
Town of Twisp	Tom Gehring
Methow Valley Irrigation District	Tim Johnson
North Methow	Katharine Bill (Chair)
Middle Methow	Vicky Welch
South Methow	Ray Campbell
Member At-Large	Mike Fort (Vice Chair)
Member At-Large	Greg Knott
Member At-Large	Marty Williams

Consistent with practices during development of the Methow WMP, MWC adopted Robert's Rules of Order. The Lead Entity was changed from Okanogan County to Town of Twisp for Phase 4 watershed planning. Since its formation, the MWC has applied for grant funding to address issues and obligations in the Methow WMP Table 12 (Appendix B) including administrative support and data gathering and analysis to address data gaps for revision to the instream flow rule (WAC 173-548); and for Phase 4 watershed plan implementation. This funding has been used to assist in the organization of MWC, to examine the numbers of parcels developed since 1976 in each sub-basin (Highlands Associates, 2008), and to initiate Phase 4 watershed planning in November, 2008. Other MWC accomplishments include:

- Established a public website including watershed planning documents and an electronic bibliography;
- Hosted a water rights workshop in conjunction with Washington Rivers Conservancy;
- Initiated a process for obtaining well data from Okanogan County for use in annual water use reports;
- Initiated a process clarifying Methow sub-basin reach boundaries where reach delineation requires greater specificity than is contained in WAC 173-548;
- Initiated a process creating an annual Water Use Report to inform timely and locally-based adaptive water management; and
- Contracted with Lee Hatcher of Optimal Niche in a watershed coordinator role to assist in grant administration and coordination, and Aspect to assist with development of the DIP and technical support during implementation.

## 2.3 New Studies and Data

---

### 2.3.1 *Land Use and Population Growth*

Recognizing that a revision to the instream flow rule (WAC 173-548), as recommended in the Methow WMP, will require an accounting of water uses occurring after 1976, MWC initiated a study in 2007 to inventory new developments in each Methow sub-basin reach identified in WAC 173-548. The work completed by Highlands Associates (2008) primarily includes estimates for numbers of parcels in each sub-basin developed prior to 1977, total numbers of developed parcels as of 2008, numbers of remaining developable parcels, developed parcels having access to irrigation water from an irrigation district or ditch company, parcels having conservation easements and developed parcels in sub-basins that are closed to further consumptive water appropriations per WAC 173-548.

An update to the existing Okanogan County Comprehensive Plan (see section 2.4.8) documents existing land use conditions.

### 2.3.2 *Water Quantity*

In 2008, MWC received grant funding to develop a study plan outlining a methodology to estimate single domestic (residential) water use in WRIA 48 served by water right permit-exempt wells. The *Water Withdrawal Study Plan* (Study Plan) was approved by MWC in July 2009 (Aspect, 2009). This Study Plan will be used to refine the previous estimate of single domestic water use assumed in the Methow WMP that was based solely on water use data from the Town of Twisp. Estimated withdrawals and return flows will be used to determine the consumptive use of single domestic users associated with exempt well withdrawals in each of the seven reaches. An estimate of consumptive use together with Okanogan County land use data will be used to quantify the allocated portion of the 2 cfs reservation for each reach and support revisions of the 1976 Instream Flow Rule for the Methow River (Chapter 173-548 WAC). This information will also be used to track future allocation of the established reserve and assess any remaining quantity beyond full build-out, as recommended in the Methow WMP. In June 2009, MWC received a grant to implement the water withdrawal study and to develop a Study Plan for estimating return flows that are assumed to primarily come from on-site sewage systems.

### 2.3.3 *Out-of-Basin Transfer of Existing Water Rights*

Impacts resulting from out-of-basin water right transfers were investigated for five northeastern Washington counties including Okanogan County in a report submitted to the Washington State Legislature (MacDonnell, 2008). This report also includes Legislative options to minimize disproportionate economic, agricultural and environmental impacts to regions experiencing a loss of water rights resulting from voluntary agreements that transfer water rights for use downstream and/or where water rights have undergone substantial change of use. These impacts are currently not required to be considered prior to approval of a water right transfer or change in use. Recommended legislative changes to address the impacts of such transfers include requirements for weed control on formerly irrigated lands, impose a fee or annual

payment to offset the impacts of lost tax revenue on local governments, and a public interest test to evaluate impacts on local economies.

### **2.3.4 Mechanisms to Facilitate the Transfer of Existing Water Rights**

In 2008, MWC received grant funding (Grant No. G0800385) to clarify proposed changes to the 1976 Instream Flow Rule for the Methow River (Chapter 173-548 WAC) involving water transfer and water right issues associated with the established reserve as recommended in the Methow WMP and to meet obligations in the Methow WMP Table 12 (Appendix B). The MWC with the assistance of Aspect is currently evaluating mechanisms to facilitate water right transfers within the basin, promote beneficial use and preservation of existing rights, and reduce or eliminate the need for out of basin transfers. The results of that study will provide a menu of options, opportunities to support and coordinate with existing organizations offering water right related services within WRIA 48, and recommendations for implementation by the MWC. Facilitating the efficient transfer of existing water rights through assisting with buy-seller agreements, was identified in the Methow WMP as a key issue and is further discussed in Section 6.

## **2.4 Changes in Programs, Policies, and Regulations**

---

The following section provides an overview and status of recent water resource related programs, policies, and regulations that may be relevant to the implementation strategies and funding of actions outlined in Section 6 of this document.

### **2.4.1 Columbia River Basin Water Supply Act**

In 2006, the Washington State Legislature enacted Engrossed Second Substitute House Bill 2860 (codified in Chapter 90.90 RCW) to develop new water supplies benefiting economic and community development and needs of fish in the Columbia River basin. The Law directs Ecology to pursue development of water supplies for instream and out-of-stream uses through storage, conservation and voluntary regional water management agreements. To meet this requirement, Ecology established the Columbia River Basin Water Management Program to oversee implementation of the Law and a Columbia River Basin Water Supply Development Account. Although the Columbia River is not a significant source of water supply for WRIA 48, water resource management policies and programs are relevant to WRIA 48 because the Methow is an important tributary to the Columbia River.

In cooperation with the Washington State Association of Counties, Ecology sponsors a County Commissioners Policy Advisory Group (Commissioners PAG) to advise Ecology on implementation of Columbia River Basin Water Supply Act. The Commissioners PAG includes a watershed planning forum that enables watershed planning coordinators to participate in the dialogue on water resources issues with Ecology staff and county commissioners from across Eastern Washington. As an extension of this forum, the watershed planners and Ecology staff also meet regularly to focus on more watershed planning specific issues and share information.

Ecology also sponsors a Columbia River Policy Advisory Group with a membership that includes four representatives from the Commissioners PAG, as well as representatives

from several tribes, state and federal agencies, and special interest associations. This group also advises Ecology on implementation of Columbia River Basin Water Supply Act.

## **2.4.2 Water Supply Development Account**

The Columbia River Basin Water Supply Act created the Columbia River Basin Water Supply Development Account (Columbia River Account) in the state treasury. Expenditures from this funding source may be used to develop new storage facilities, improve existing storage facilities, implement conservation projects, or other actions resulting in new water supplies within the Columbia River basin for both instream and out-of-stream uses. Although this funding source has focused largely on projects located along the mainstem of the Columbia River, it may represent a potential future funding source for projects in WRIA 48 where downstream benefits can be demonstrated.

### **2.4.2.1 Allocation and Development of Water Supplies**

Water supplies resulting from development of new storage facilities funded from the Columbia River Account are to be allocated as follows:

- Two-thirds of the storage must be available for appropriation for out-of-stream uses; and
- One-third of the storage must be available to augment instream flows and will be managed by Ecology.

The two-thirds/one-third allocation of water resources between out-of-stream and instream uses does not apply to applications for changes or transfers of existing water rights in the Columbia River basin.

Net water savings from water conservation projects must be placed in the state trust in proportion to the state funding provided to implement the project.

### **2.4.2.2 Voluntary Regional Agreements**

RCW 90.90.030 authorizes Ecology to enter into Voluntary Regional Agreements (VRAs) as a mechanism to provide new water for out-of-stream use, to streamline the water right application process, and to protect instream flows. VRAs must ensure that, for water rights issued from the “Columbia River mainstem”, there is no negative impact on Columbia River mainstem instream flows in the months of July and August as a result of the new appropriations issued under the agreement. VRAs shall ensure that efforts are made to harmonize the VRA with watershed plans adopted under chapter 90.82 RCW that are applicable to the area covered by the VRA. A 60-day consultation with county legislative authorities and watershed planning groups with jurisdiction over the area where the water rights included in the agreement are located, as well as with Washington State Department of Fish and Wildlife (WDFW), federal agencies, and affected tribal governments is required prior to execution of a VRA. The consultation satisfies all applicable consultation requirements under state law related to issuance of new water rights under RCW 90.90.030. The VRA section in the statute expires on June 30, 2012, but VRAs entered into by Ecology before that date can extend indefinitely.

To date, the Columbia Snake River Irrigators Associations (CSRIA) has proposed the only VRA. It would make available new sources of water by implementing new municipal and irrigation conservation measures (best management practices [BMPs]) and other measures. At the time of development of this DIP, the CSRIA VRA had not been finalized.

#### **2.4.2.3 Water Supply Inventory and Supply/Demand Forecast**

In response to RCW 90.90.040, Ecology produced the first Columbia River water supply inventory and long-term water supply and demand forecast (Golder Associates and Anchor Environmental, 2006). According to statute, the water supply inventory/demand forecast must include a list of potential water supply and storage projects in the Columbia River basin, including estimates of cost per acre-foot, benefit to fish and other instream needs, benefit to out-of-stream needs, and environmental impacts. The water supply inventory is to be updated annually, and the supply/demand forecast every 5 years. RCW 90.90.040(1) provides that Ecology shall work with interested watershed planning groups and other interested parties to develop the water supply inventory/demand forecast.

#### **2.4.3 Statewide Water Banking Legislation**

The Water Resources Management Act (Chapter 90.42, RCW) authorizes use of the State's Trust Water Rights Program for water banking purposes as a means to facilitate the voluntary transfer of water rights through "conservation, purchase, lease, or donation, to preserve water rights and provide water for presently unmet and future needs; and to achieve a variety of water resource management objectives throughout the state, including drought response, improving streamflows on a voluntary basis, providing water mitigation, or reserving water supply for future uses."

Trust water rights are water rights that have been placed into the State's Trust Water Rights Program. In 2003, the Legislature enacted provisions allowing Ecology to use the State's Trust Water Rights Program for water banking purposes in the Yakima River Basin (Chapter 90.38 RCW). In April 2009, the Washington State Legislature enacted Engrossed Second Substitute House Bill 2860 (modifying Chapter 90.42 RCW) to improve the effectiveness of water bank and exchange provisions statewide. Elements of the 2009 changes include:

- Application of the State's Trust Water Rights Program for water banking purposes statewide.
- Setting provisions for calculating annual consumptive quantity for trust water rights.
- Allowing Ecology to recover costs associated with water service contracts with federal agencies.

#### **2.4.4 Municipal Water Law**

In 2003 changes to Chapter 90.03 RCW, known as the Municipal Water Law, were passed by the legislature and signed into law. Changes to Chapter 90.03 RCW included expanding the definition of municipal water supply purpose of use to include public or private Group A water systems; specifically systems that provide supply for fifteen or more residential service connections, or for residential use of water for a nonresidential

population that is, on average, at least twenty-five people for at least sixty days a year. This expanded definition of municipal use provides protection from relinquishment of inchoate water rights that were not previously in place for private developments and water systems, homeowners associations, and water associations operating as Group A systems.

In June 2008, King County Superior Court struck portions of the Municipal Water Law on constitutional grounds, including the expanded definition of municipal water supply purpose. The State has appealed this decision, and a hearing in the State Supreme Court is pending.

#### **2.4.5 State Water Quality Standards**

The state's surface water quality standards were revised in November 2006. In the November 2006 revision to Chapter 173-201A WAC, Ecology designated certain WRIA 48 water bodies as requiring supplemental protection for salmon and trout spawning and rearing. The designation imposes a more stringent water temperature criterion (a 7-day average of daily maximum temperatures of 13°C or 55.8°F) during the salmon and trout spawning and incubation season, which is defined as different durations for different water bodies in the WRIA.

#### **2.4.6 Changes in Programs Managed Through Conservation Districts and/or NRCS**

In June, 2008, the United States Congress enacted the Food, Conservation and Energy Act of 2008 to replace the Farm Bill of May 2007, continuing agricultural programs through fiscal year 2012 and resulting in the following changes in the Farm Bill conservation programs:

- Extends funding for the Conservation Reserve Program (CRP).
- Renews and expands the Wetlands Reserve Program (WRP).
- Extends and increases funding for the Environmental Quality Incentives Program (EQIP), including promotion of forest management and energy conservation.
- Continues and funds Conservation Innovation Grants (CIG), which helps identify, test, and implement innovative environmental solutions.
- Extends and increases funding for Farm and Ranchland Protection Program (FRPP).
- Renews and funds the Small Watershed Rehabilitation Program (SWRP), which provides technical and financial assistance for the watershed rehabilitation, including upgrading or removing dams.
- Improves the structure of the Conservation Security Program (CSP), which provides financial incentives to encourage the continuation of farming practices that benefit soil, water, and air resources.
- Extends the Wildlife Habitat Incentives Program (WHIP), which helps landowners develop and improve fish and wildlife habitat.

- Continues and expands the Grassland Reserve Program (GRP), which helps landowners restore and protect grassland, rangeland, pastureland, shrubland, and certain other lands.
- Establishes a Cooperative Conservation Program initiative, which provides opportunities for governments and local owners to develop cooperative conservation programs.

### **2.4.7 Fish Recovery Plans**

The MBPU elected not to pursue the habitat and instream flow components of watershed planning. These issues are the primary focus of the Methow Restoration Council (MRC), a coordinating group of restoration implementation stakeholders including government, non-profit, and interested citizens as participants. The MRC was selected by the Upper Columbia Salmon Recovery Board (UCSRB) as the Watershed Action Team representing the Methow Watershed in salmon recovery implementation planning. The MRC is an active participant in MRC salmonid recovery project coordination.

There have been several salmon recovery efforts required by the Endangered Species Act since approval of the Methow WMP that are worth noting because they depend in part on water use management actions presently contemplated by the MRC. The Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan was completed by the UCSRB in August, 2007 (UCSRB, 2007). The recovery plan also addresses bull trout and contains over 300 recommended recovery actions for harvest, hatchery, hydro, and habitat sectors that affect populations of these fish in the Upper Columbia Basin. Populations in WRIA 48 are an integral part of this recovery plan. The State of Washington adopted a State-wide Steelhead Management Plan in March 2008 (WDFW, 2008).

As a requirement of the Federal Columbia River Power System Biological Opinion, the United States Bureau of Reclamation (Bureau) and Bonneville Power Administration are actively engaged in WRIA 48 providing funding and technical support for restoration actions involving fish screening, passage barrier removal, habitat and riparian area restoration, and instream flow restoration.

Instream flow restoration is directly related to MRC actions recommended in the Methow WMP and will be coordinated through the MRC with other similar activities.

### **2.4.8 Okanogan County Programs**

The following County programs are currently under revision and several drafts have been released:

**Okanogan County Comprehensive Plan.** An update to the existing Okanogan County Comprehensive Plan adopted in 1964 was initiated in 2007. In July 2009, the County issued a draft revised Comprehensive Plan.

**Shoreline Management Plan.** An update to the existing Okanogan County Shoreline Master program adopted in 1987 was initiated in 2006. In July 2009, the County issued a draft revised Shoreline Master Program.

**Critical Areas Comprehensive Plan.** Proposed amendments to the Critical Areas Ordinance are underway including a review of critical areas maps to ensure consistency with local code.

**Comprehensive Flood Hazard Mitigation Plan.** A memo from Okanogan County Office of Planning and Development dated January 12, 2009 indicates floodplain management will be integrated into the Critical Areas Ordinance as Chapter 15.08, Floodplain Management.

## 2.5 Synergy with Other Watershed Planning Efforts

---

Several local watersheds are addressing water resource issues similar to those identified in WRIA 48. Some examples are listed below.

The economic, agricultural, and environmental impacts related to out-of-basin water right transfers are similar in WRIA 49 (Okanogan) that is also located in Okanogan County. Out-of-basin water right transfers have the potential for county-wide impacts and therefore, these issues have gained the attention of WRIA 49 stakeholders and Okanogan County. In June 2009, State Senator Morton sponsored a forum on the impacts of out-of-basin water right transfers that included a summary of the MacDonnell (2008) Report to the Legislature and solicited input from stakeholders across the county and region.

Developing means to transfer water rights within a basin supporting economic, agricultural, and environmental interests has emerged as an important objective in watershed planning efforts throughout eastern Washington. In addition to watershed planning progress, recently-implemented legislation and increased participation by conservation organizations in north central Washington watersheds including WRIsAs 45, 46, and 49 have expanded the number of water right transfer options available to local stakeholders.

## 2.6 Summary of Progress on Implementation Actions in WRIA 48

---

Several early implementation efforts addressing or supporting actions recommended in the Methow WMP have occurred since the Methow WMP approval. The following summarizes these efforts that are described in greater detail in the preceding sections:

- Formation of the MWC as a continuation of the MBPU (see Section 2.2).
- Early Implementation Efforts Led by Methow Watershed Council:
  - Obtained grant funding and oversaw an inventory of development in Methow River sub-basins occurring since 1976 conducted by Highlands Associates (2008); (see Section 2.3.1);
  - Obtained grant funding and oversaw development of a Water Withdrawal Study Plan to estimate total water withdrawals on parcels served by exempt wells developed by Aspect (2009); (see Section 2.3.2);

- Obtained grant funding to undertake the Study Plan and to develop a study plan to estimate recharge to groundwater from on-site sewage systems (see Section 2.3.2);
- Obtained grant funding to outline mechanisms to facilitate water transfers within the basin (see Section 2.3.4);
- An effort is currently underway to delineate the boundaries of Methow River sub-basins with greater specificity than was done in RCW 173-548.
- Early Implementation Efforts Led by Okanogan County:
  - Developed a draft Critical Areas Ordinance containing a Floodplain Management Plan (see Section 2.4.8); and
  - Developed a map of locations of irrigation districts and ditch companies in WRIA 48 as part of the Okanogan County Comprehensive Plan update.

### 3 Framework for Implementation

This section outlines a framework for implementation of the WRIA 48 Methow WMP, including requirements of the DIP, adaptive management, procedures to update the DIP, and public outreach. Legislative authority regarding watershed planning and Phase 4 DIP development are discussed in Section 1.4. The make-up of MWC is described in Section 2.2.

#### 3.1 Requirements for Phase IV (Chapter 90.82 RCW)

---

Pursuant to 90.82.043 RCW and 90.82.048 RCW, a DIP is to be developed within 1 year of accepting funding under RCW 90.82.040(2)(e) for implementing the recommendations of the Methow WMP. Submittal of the DIP to Ecology is a required condition of receiving grants for the second and all subsequent years of the Phase 4 grant.

As per RCW 90.82.043, the DIP must include the following elements at a minimum:

- Strategies to provide for sufficient water for production agriculture; commercial, industrial, and residential uses; and instream flows;
- Timelines to achieve these strategies (subject to funding constraints);
- Interim milestones to measure progress;
- Coordination and oversight responsibilities;
- Needed interlocal agreements and administrative approvals; and
- Specific funding mechanisms.

In addition, RCW 90.82.048 requires that the DIP address the planned future use of municipal inchoate water rights. Fulfillment of each one of these required elements are described in the following sections.

Furthermore, the MWC must consult with other entities conducting related planning in the watershed and identify and seek to eliminate any activities or policies that are duplicate or inconsistent. Measures taken to eliminate duplication include:

- Formation of the MWC that represents various water resource stakeholders in WRIA 48 including Okanogan County, Town of Twisp and Methow Valley Irrigation District to lead DIP development and Methow WMP implementation;
- Ongoing coordination between members of MWC and the Methow Restoration Council. As the Watershed Action Team for the Methow Basin, the Methow Restoration Council coordinates aquatic habitat preservation/enhancement efforts undertaken by various public and private conservation and environmental groups in WRIA 48 to align these efforts with Upper Columbia River Salmon Recovery Board fish recovery plans;
- Engagement of the Twin Lakes Aquifer Coalition (TLAC) to increase understanding of TLAC's project objectives and provide input to proposed storage enhancement; and
- Inviting municipal and other Group A Community water systems to participate in DIP development and requesting information regarding their water use and projected water needs.

## 3.2 Major Objectives of Watershed Planning

---

Most implementation actions in the watershed plan fall into three general categories. These priorities and their relative importance were confirmed through the DIP development process, and are listed below in order of importance:

- Modify WAC 173-548
- Develop Mechanisms for Transfer of Water Rights
- Increase Water Storage

## 3.3 Adaptive Management

---

The Methow WMP specifies that MWC will develop an adaptive management approach to implementation to account for learning occurring during the implementation process resulting from completion of projects, changing priorities and new data and to make changes if warranted. Monitoring the results of actions taken determines the effectiveness of the action in achieving its objective. This and other types of information obtained during implementation may indicate a need to modify a recommended action or other element of the Methow WMP or the DIP.

A key element of adaptive management is to review progress and recommend changes as necessary. During the implementation process, MWC will annually review the implementation results to determine if the Methow WMP objectives are being met. During the course of regular reviews, the MWC can recommend that either the Methow WMP or the DIP be amended if new information indicates that changes are necessary. Such recommendations will be submitted to the MWC for review and approval following the procedures in the following section.

### 3.4 Procedures to Update DIP

---

Amendments to the Methow WMP can only be made following the same process under which the plan was originally approved. The decision making process guiding Methow WMP approval is stated on Page 2 of the Methow WMP. Modifications to the DIP including adding or deleting implementation actions and changing implementation priorities contained in the DIP can only be made following the same process under which the DIP was approved. The decision making process for DIP approval is outlined in Section 5.3.

### 3.5 Public Outreach Program

---

The state watershed planning process is a public process, and involvement of the local community is an important component of the Methow WMP and its implementation. Since forming in 2007, MWC has undertaken several public outreach efforts. Examples of public outreach during implementation of the WRIA 48 Methow WMP include:

- Regular meetings of the MWC, which are open to the public;
- Sending an information request letter to municipal and other Group A Community water system purveyors, as described in Section 5.2;
- Completion of a public hearing prior to county adoption of the DIP;
- Engagement of public water system and irrigation water purveyors to obtain water use data supporting studies;
- Coordination with local volunteer land owners to request property access and/or other voluntary assistance in carrying out recommended actions of the Methow WMP. An example of this is accessing properties to obtain voluntary assistance such as water use and/or recharge data as necessary; and
- Additional public informational meetings or other outreach activities (news articles, fliers, etc.), as warranted throughout implementation.

Public education and outreach is a component of all of the strategies to be implemented in this DIP. Public education and outreach can include periodic updates on studies conducted, key findings, actions taken and other pertinent information. The form of these updates may take the form of news releases, flyers, public meetings, or other means of dissemination of information. MWC will continue to undertake a robust public outreach effort with the scope of these efforts during implementation dependent upon the types and amount of new information that has become available.

In addition to the general public education, care will be taken to ensure that data collection efforts are coordinated with affected landowners. Information regarding the purpose of the data collection effort, the types of data to be collected, the study schedule, and dissemination of information will be provided. Sampling will be limited to locations where landowners are willing to cooperate with the study.

## 4 Prioritization

The Methow WMP did not specifically address prioritization of recommended implementation actions, essentially leaving this task for the DIP development process. One of the first actions of MWC during DIP development was to identify a framework to accomplish prioritization of the 20 implementation actions recommended in the Methow WMP. The MWC evaluated several potential prioritization schemes and selected a tiered-approach designating priorities within each tier. The MWC determined that all 20 implementation actions fit into three general tiers (1 through 3). Only those implementation actions within the highest priority tier, Tier 1, were prioritized (A through C). Results of prioritization are shown in Table 1. In addition to the actions listed below in Table 1, the Methow WMP also envisioned that the current MWC would be superseded by a self-sustaining publicly controlled entity, such as a special purpose district, capable of overseeing local water management programs in the basin. Because formation of the MWC in accordance with the Methow WMP is considered to be an ongoing effort, this implementation action was not prioritized with the others. This action will proceed concurrently with actions listed in Table 1.

**Table 1. Methow Watershed Council Prioritization List**

Methow WMP Recommended Strategies		Prioritization	
	Methow WMP Ref Page	Tier (1, 2, or 3)	Priority within Tier (1 to n)
1. <b>Modify WAC 173-548</b> (Revise Use Priorities and Monitor Water)	Pg 18-21	1	A
2. <b>Preserve Agricultural Lands and Uses</b> (combine with <b>Buyer Seller Water Agreements</b> )	Pg 18	1	B
3. <b>Buyer Seller Water Agreements</b> (exchanges, trusts, leases, purchases, banking) (combine with <b>Preserve Agricultural Lands and Uses</b> )	Pg 24	1	B
4. <b>Develop Water Storage</b> (and groundwater recharge)	Pg 16	1	C
5. <b>Artificial Groundwater Recharge</b> (existing unlined canals and possible use of unused canals)	Pg 17	1	C
6. <b>Protect Artificial Recharge and Existing Unlined Irrigation Canals</b> (restoration of beneficial groundwater recharge through formerly open canals)	Pg 17	1	C
7. <b>Enhance Artificial Recharge Using Unused Unlined Irrigation Canals</b> (diverting water to canals during high flow periods)	Pg 18	1	C
8. <b>Environmental Benefits of Unlined Irrigation Canals</b> (proposed law [RCW] specifically recognizing environmental benefits of these canals)	Pg 23	1	C

Methow WMP Recommended Strategies	Prioritization		
	Methow WMP Ref Page	Tier (1, 2, or 3)	Priority within Tier (1 to n)
9. <b>Groundwater Recharge from Unlined Irrigation Canals for ASR Projects</b>	Pg 23	1	C
10. <b>Habitat</b> (balance fish habitat with unlined irrigation canal benefits)	Pg 24	1	C
11. <b>Closed Basins</b> (water rights in closed basins under certain conditions)	Pg 22	2	
12. <b>“Use It Or Lose It”</b> (change time period without beneficial use)	Pg 22	2	
13. <b>Tentative Determination</b> (change time period)	Pg 22	2	
14. <b>Re-appropriation of water use</b>	Pg 22	2	
15. <b>Water Claim Amnesty</b> (proposed law [RCW] for ‘amnesty clause’)	Pg 23	2	
16. <b>Water Allocation and Economic Impacts</b> (land retirement, small scale sustainable agriculture)	Pg 23	2	
17. <b>Canal Management Plans</b> (documentation of multiple benefits)	Pg 23	3	
18. <b>Forest Management Plans</b> (MWC participation in Okanogan Forest Management Planning)	Pg 24	3	
19. <b>Floodplain Management Plan</b> (floodplain & habitat functions, water storage, high flow diversion to side channels for groundwater storage)	Pg 26	3	
20. <b>Drought Management Plan</b> (climate change, drought early warning, strategies)	Pg 26	3	

Note: Methow WMP Ref Page numbers refer to the location of implementation actions in the Methow WMP.

It is recognized that higher priority implementation actions may not be pursued first in all cases. There may be circumstances when it is prudent in light of available funding opportunities to commit resources to lower priority projects that are smaller in scope, more easily implementable and/or possess a higher degree of readiness to proceed. Additionally, some implementation actions may be sequential, requiring components of lower priority actions be completed first to support completion of higher priority actions.

## 5 DIP Development

Development of the DIP was the first task undertaken by the MWC following receipt of Phase 4 funding in November 2008. Meetings of the MWC were held to review and prioritize the recommendations described in the Methow WMP. The following sections describe efforts undertaken during development of the DIP.

### 5.1 Participants

---

Development of the DIP was led by MWC, representing local stakeholders (see Section 2.2) with assistance from Aspect and the Methow Watershed Coordinator.

### 5.2 Coordination with Municipal Water Right Holders or Group A Water Systems

---

A key component of the DIP, as per 90.82.048 RCW, is addressing the planned future use of inchoate municipal water rights, including how these rights will be used to meet the projected future needs identified in the Methow WMP. Under current law, municipal water rights are not subject to relinquishment (per RCW 90.14.140(2)(d)). An inchoate municipal water right is that portion of a municipal water right that has not been put to beneficial use but is in good standing (in accordance with RCW 90.03.330).

In order to facilitate this, a letter was prepared and sent out to the three municipal systems (Winthrop, Twisp, Pateros) and the 5 other active Group A Community water system operators. The letter requests their assistance in helping MWC gather specific information about their water system, including:

- Current water rights, including identification number and authorized amounts (instantaneous flow rate and annual volumes);
- Annual usage over the last 5 years; and
- Projected demand to meet future needs.

This information will enable MWC to quantify the inchoate water rights within WRIA 48, and assess the future water supply needs of these water systems relative to their existing rights. A copy of the letter is included as Appendix A. In December 2008, the following public water systems were notified:

Alta Lake Golf Course  
Edelweiss Maintenance Commission  
Methow Water Systems, Inc.  
Pateros Water Department  
Pine Forest Water System  
Town of Twisp\*  
Town of Winthrop  
Wolf Creek Property Owners Association

\*The Town of Twisp holds a seat on MWC and sponsored the invitation letter.

Responses were received from two municipal water systems (Town of Winthrop and Town of Twisp) and two other Group A Community water systems (Edelweiss Maintenance Commission, and Wolf Creek Property Owners Association). The Town of Twisp provided a copy of their most recent Water System Plan, dated June 2008, which has been approved by the Washington State Department of Health. The Town of Winthrop indicated that it is currently in the process of updating its Comprehensive Water System Plan and provided some preliminary information. Edelweiss and Wolf Creek submitted letters that provided information regarding water rights, water use, and water need projections as requested.

The following provides a summary of the current status of water rights held by the municipal and other Group A Community water systems in WRIA 48.

#### ***Town of Twisp***

The Town of Twisp's current water system plan (Gray & Osborne, 2008), includes water use information through 2006, which for that year was 351 acre-feet/year (afy). The Town currently holds water rights authorizing a maximum year-round withdrawal of 224 afy from groundwater sources. In addition, the Town of Twisp has secured through lease, additional water rights authorizing seasonal use of up to 400 afy. The combined water rights are adequate to meet the Town of Twisp's current demand, however, the seasonal use restriction on the leased water rights constrains the Town's ability to meet projected future demand. The current water system plan projects a future water right deficit even with full use of the leased quantity. In recent years, the Town has implemented water conservation and system improvements (e.g., leak repairs) to reduce the current usage, which has allowed it to lift a moratorium on new connections for the short-term. It is also evaluating alternatives to secure future water rights/supply to meet projected growth.

#### ***Town of Winthrop***

The Town of Winthrop currently holds a water right authorizing 469 afy from a groundwater source which is adequate to satisfy current demand. The Town of Winthrop is currently updating its water system plan, including evaluating the adequacy of the existing system in terms of source capacity, water rights, and storage. Based on this analysis, the Town has indicated that it does not have adequate water rights to meet projected future growth needs.

#### ***Pateros Water Department***

Information not provided.

#### ***Other Group A Water Systems***

Information was provided by the Edelweiss Water System (Maintenance Commission) indicating that they hold a water right authorizing a maximum annual volume of 142 afy. Their current level of use is approximately 60 afy and their water use continues to increase as build-out continues. While they currently hold approximately 82 afy of inchoate water rights, they project fully exercising their maximum annual quantity within the next 20 years as build-out occurs.

Information was provided by the Wolf Creek Property Owners Association indicating that they hold a year round water right totaling 50 afy which they project will be fully

exercised over the next 20-year period. They have only recently begun metering of their source and compiling annual water use data for the year round water right. The Wolf Creek Property Owners Association also holds and utilizes a seasonal irrigation water right, authorizing 1.2 cfs, 228.6 afy, from April 1 to September 30 of each year.

Information for the other Group A Systems listed above is still pending or not available.

### 5.3 Approval Process

---

Chapter 90.82 RCW does not define a process for approval of the DIP. MWC adopted a process to approve the DIP that calls for a simple majority among voting members (see Section 2.2). The MWC will develop a memorandum of agreement (MOA) with any entity accepting an obligation identified in this DIP that is consistent with but not defined in the Methow WMP. Chapter 90.82.130 (Plan Approval – Public Hearing – Revisions) defines an approval process under which the planning unit can add an element to its watershed management plan that creates an obligation. Upon approval of the DIP by MWC, the MWC will submit the final DIP to Ecology and request acknowledgement of receipt and fulfillment of the requirements under Chapter 90.82.043 RCW.

An outline for the DIP was developed in early 2009 and reviewed during several MWC meetings. A draft DIP was submitted to MWC in August 2009 and reviewed at the August 20th MWC meeting. A final draft DIP was submitted in September and approved by MWC on September 29, 2009. Following MWC approval of the final draft DIP, the Town of Twisp made the document available for a 21-day public review and comment period in accordance with Chapter 90.82, RCW. The MWC reviewed public comments on the draft final DIP and agreed upon changes to finalize the document. The final DIP was approved by the MWC on October 29, 2009.

## 6 Strategies and Actions to Implement

This section outlines the planned implementation of strategies and actions included in the Methow WMP. Strategies and actions identified in the Methow WMP were prioritized by the MWC, as discussed in Section 4 of this DIP, and are presented below in order of priority. The implementation strategies, including revision of WAC 173-548, mechanisms for facilitating the transfer of existing water rights, actions to promote the preservation of agricultural lands, and water storage all address means to increase water available to satisfy production agriculture, commercial, industrial, and residential needs.

Each strategy outlined below includes an overview of the background and purpose of the strategy, summarizes actions to implement the strategy, identifies responsibilities among the various watershed planning entities for implementation, and presents an implementation schedule. Implementation and scheduling of planned actions are subject to resource constraints (e.g., funding and staff availability). By prioritizing actions, the MWC recognizes such constraints and places emphasis on focusing the available resources on the higher priority actions. The schedules for implementation of actions reflect this uncertainty, especially for those actions associated with issues deemed by the MWC to be of lower priority.

## 6.1 Modify Chapter 173-548 WAC

---

The Methow WMP outlines proposed modifications of the authorized uses of water allocated under the established 2 cfs surface water reservations specified in Chapter 173-548 WAC (Rule). Based on consideration of future development scenarios and the best available information on water use in the basin, the Methow WMP concludes that there is sufficient water reserved under the 2 cfs reservation that could be allocated to a broader range of uses if the existing Rule were modified. The Methow WMP recommends changes to the Rule that will be consistent with Okanogan County zoning, which encourages that greater development densities occur within existing towns. Modification of the Rule is identified as the highest priority for implementation by the MWC. The purposes of the proposed Rule modifications are to:

- make water available to a broader range of uses than the single domestic and stockwater uses currently allowed;
- accommodate growth of municipal and other Group A water systems and Group B water systems; and
- allow greater flexibility in managing available water resources.

The Rule identifies seven surface water sub-basins of the Methow River Basin. For each sub-basin, the Rule establishes minimum base flow requirements; allocates an uninterruptible 2 cfs reservation for single domestic and stockwater use; and defines maximum quantities of water available for future, interruptible appropriations for all other uses. Currently, the uninterruptible reservation is not available to other uses including Group A and B water supply systems or for other water right permit-exempt uses beyond single domestic and stockwater. Under the existing Rule, any future appropriation for these other uses would be interruptible and limited to flows in excess of the combined 2 cfs reservation and the specified in-stream base flows.

By restricting access to future uninterruptible water supply under the 2 cfs reservation to single domestic and stock watering, the Rule, in effect, favors growth utilizing exempt wells. Additionally, the Rule does not accommodate growth within existing municipal or other public water system service areas beyond the limits of their currently available water rights, which in some cases – such as the Town of Twisp – are insufficient to meet projected future growth. Growth limited to exempt wells users encourages population growth and associated development pressure in traditionally agricultural lands, contrary to broader watershed and land use planning goals.

The Methow WMP concluded that, under current and future development scenarios and the best available information on water use, there is sufficient water available under the 2 cfs reservations to meet current and projected single domestic and stockwater needs (MBPU, 2005, p.18). This conclusion was based on available estimates of residential water use and the number of currently or potentially developable parcels subject to the Rule as of 2003. Section 6.1.1 of this DIP includes specific actions to establish a methodology to quantify water use in the basin, as allowed for under the existing Rule, to account for both the existing and future level of build-out consistent with current land use zoning. Implementation of these actions will be used as the basis for establishing the allocated and unallocated portions of the 2 cfs reserve within each of the seven reaches,

and for purposes of implementing recommendation in the Methow WMP pertaining to proposed Rule revisions (MBPU, 2005, p.19).

Consistent with the recommendations contained in the Methow WMP, the following changes to the Rule will be considered by the MWC in coordination with Ecology during the rule making process. These changes will allow for a broader range of uses than currently authorized and improve water resource management in the basin:

- Allow all permit-exempt uses defined in statute RCW 90.44.050 to access the reservation, provided individual withdrawals (with the exception of stock watering purposes) do not exceed the statutory exempt quantity of 5,000 gallons per day (gpd). Currently authorized uses under the Rule are limited to single domestic and stockwater only. The proposed Rule revision would expand the uses to include both single and group domestic, irrigation of up to ½ acre of noncommercial garden or lawn, stock watering, and industrial uses.
- Provide for the downstream transfer of a portion of the unallocated 2 cfs reservation from the Early Winters reach for use by the Town of Winthrop and Town of Twisp municipal water systems to meet future growth needs.
- Clarify the opportunity for making water available to public water systems from the unallocated portion of the reserve.
- Create a mechanism by which unallocated portions of the reserve may be transferred to downstream reaches where there would be over-riding public benefit and neutral habitat impacts.

In addition, to assist in achieving the Methow WMP's objective of improving the availability of future water supplies in the basin, inclusion of the following provisions will be further considered by the MWC and Ecology during the rule making process:

- Expedited processing of applications for appropriations of new water rights for water storage projects in the basin; and
- Expedited processing of trust water right applications, and new water right applications or determination of water budget neutrality associated with trust water rights.

### 6.1.1 **Implementation Actions**

Implementing the proposed Rule changes will require Ecology to go through a formal Rule making process under Chapter 34.05 of the RCW. Prior to implementing the Rule making process, evaluations of current and projected water use in the basin will need to be updated. These updates will follow the same general approach used in Appendix E of the Methow WMP, but will incorporate new data and results of additional studies.

Planned actions include:

- **Water withdrawal study.** Conduct a water withdrawal study to establish a representative estimate of peak single domestic water withdrawal and revise, as necessary, the current assumption of 1,200 gpd cited in the Methow WMP. The water withdrawal study will provide estimates of timing and

quantity of indoor and outdoor water withdrawals for residences served by exempt wells. A *Water Withdrawal Study Plan* (Aspect, 2009) detailing the study methodology was approved by the MWC in July 2009.

- **Return flow study.** Develop and implement a return flow study plan to quantify return flow and support the evaluation of consumptive use associated with single domestic exempt wells in the basin. The return flow study will be designed to estimate the proportion of water withdrawn for indoor and outdoor use that is returned to groundwater as irrigation return flows or infiltration from septic systems, or discharged directly to surface water (e.g., from wastewater treatment facilities). The return flow study plan will assess the timing of return flow recharge in the basin. Separate estimates of return flows for indoor use will be developed for residences served by individual on-site septic systems and for those served by combined wastewater treatment facilities.
- **Quantify peak consumptive use.** Once the water withdrawal and return flow studies are complete, the results will be used to quantify peak consumptive use associated with exempt well withdrawals. Exempt well consumptive use estimates will take into consideration residences with and without access to irrigation district water for outdoor uses, and residences served by on-site septic systems and those served by wastewater treatment facilities. The estimates of consumptive use will form the basis for quantifying debits to the surface water reservations associated with exempt well use.
- **Determine remaining reservation quantities.** The peak consumptive use estimates will be combined with revised estimates of existing and potential future developable parcels in each reach subject to the Rule (Highland Associates, 2008) to estimate remaining reservation quantities in each reach under current and future full build-out conditions.
- **Update water demand projections for Twisp and Winthrop.** Projected water demand by the Town of Twisp and Town of Winthrop water supply systems will be updated consistent with the most recent water system plans and projected demand to meet future growth needs. The updated projections will be used to determine the quantity of unallocated water available from the Early Winters reach in excess of water demand at full build-out needed to meet projected demand by these downstream municipalities.
- **Evaluate other exempt-well uses.** The water withdrawal and return flow studies listed above are focused on single domestic exempt well water use. The proposed Rule changes would expand the allowable exempt well uses to include irrigation of a lawn or noncommercial garden up to ½ acre and industrial uses, consistent with the exempt well statute (RCW 90.44.050). The potential consumptive use associated with these additional permit-exempt uses will also need to be evaluated as part of the Rule change. This could involve projecting future permit-exempt irrigation and industrial uses to determine whether sufficient water is available under the reservations.

- **Establish reservation tracking system.** A key element of managing future use of the established reservation is tracking water withdrawals and use. A database will be developed to track the amount of water remaining under the reservation in each reach. This database would be used both to support the rule making process and to track debits to the reservations after the revised Rule is adopted.

The MWC in cooperation with Ecology will develop an MOA to reach agreement on the water use assumptions to be used for purposes of quantifying the current allocation and tracking the future allocation of water from the reservation. It is envisioned that MOA will provide the basis for including in the revised Rule: 1) specific assumptions for quantifying indoor and outdoor water withdrawals and return flows based on the studies listed above; and 2) an adaptive management provision for updating these assumptions based on new information, documenting future changes in water withdrawal and use.

### **6.1.2 Implementation Responsibilities**

The MWC, Ecology, and Okanogan County will each have specific responsibilities for implementing changes to WAC 173-548. These responsibilities are outlined below.

The MWC will coordinate with Ecology in developing modifications of the Rule, and will lead the planned studies to estimate consumptive water use, quantify the current and expected future exempt well water demands in each reach, and obtain updated water demand projections from the Town of Twisp and the Town of Winthrop. The MWC will also coordinate and lead any necessary public outreach and education programs.

Ecology will lead the rule making effort and will coordinate with the MWC to develop modifications to the existing Rule and specific language to be contained in the revised Rule. Successful implementation of the proposed changes to the Rule with regard to the 2 cfs reservation will require development and maintenance of a reservation accounting system to track the status of water allocation. Development of accounting system will require a cooperative effort between the MWC, Okanogan County, and Ecology. Similar reservation accounting systems are being developed in other watersheds with future reservations established as part of the instream flow rule process. The responsible party for developing and administering the reservation accounting system varies by watershed, but is either Ecology or a local watershed entity, such as the County government, with assistance from Ecology. For example, in WRIA 45 – Wenatchee Basin, the Chelan County Department of Natural Resources, with the assistance of Ecology, will track water availability in the Wenatchee Basin water reservation.

The MWC, with assistance by Okanogan County and Ecology, will take the lead role in developing the water reservation database and reach agreement on who will take the lead role in its long-term maintenance. Assuming it can secure the necessary long-term funding, the MWC envisions taking the lead in maintaining the reservations accounting system, with the support of Okanogan County and Ecology. In the event that the necessary funding is not available, the MWC will request that Ecology maintain the database and track debits to the surface water reservations. The MWC and Ecology will develop an MOA for maintaining the database and tracking allocations from the reserve. Ecology will work with the MWC and Okanogan County to notify residents if actual water use approaches 90 percent of total allocation in a given reach. The roles of

different agencies in maintaining the database tracking system is subject to funding and resource constraints.

Okanogan County will work with Ecology and MWC to develop the MOA, and provide Ecology and the MWC with data collected as part of the building permit process. Okanogan County will also periodically provide Ecology and the MWC with any zoning changes. For new building permit applications, Okanogan County will:

- Identify user, sub-basin reach location, and water source (e.g., exempt well or existing water system);
- Provide the applicant with a fact sheet explaining the exempt well statute and requirements for exempt well use in the Methow River Basin;
- Encourage users of new exempt wells to voluntarily measure and report monthly average and annual water usage to MWC; and
- Periodically provide Ecology and MWC with new building permit data collected as described above.

### **6.1.3 Implementation Schedule**

As outlined above, technical studies are planned to estimate current and future exempt well withdrawals, associated consumptive use, and unallocated quantities under the 2 cfs reservations. These studies will need to be completed prior to undertaking the Rule making process. The following MWC proposed schedule includes completion of the water withdrawal and return flow studies in 2010 and establishing quantities of water remaining under the reservations and a database to track debits to the reservations in 2011. It is expected that Ecology and the MWC will work together throughout this period to ensure that results of the technical studies are suitable to support revisions to the Rule.

**Year 2010 – Water Withdrawal and Return Flow Studies.** A water withdrawal study plan to estimate average and peak monthly groundwater withdrawals by exempt wells and the proportion of water withdrawn for indoor and outdoor uses was approved by the MWC in July 2009. Completion of this study is planned for 2010. Development of the return flow study plan to estimate the percentage of indoor and outdoor water use that returns to groundwater is planned for early 2010. Completion of the return flow study is anticipated in early 2011. Results of these studies will be used to quantify peak consumptive use associated with exempt well withdrawals.

**Year 2011 – Estimate Remaining Reservation Quantities and Develop Tracking System.** In 2011, the estimated peak consumptive use will be combined with estimates of existing and potential future developable parcels in each reach subject to the Rule to estimate remaining reservation quantities in each reach under current and future full build-out conditions. Results of these studies will be reviewed to determine whether additional data collection and adaptive management (e.g., metering of new withdrawals) is warranted. A database will also be developed and updated on a periodic basis to track new debits to the reservations, based on building permit data from Okanogan County. This will require development of the MOA between Ecology, MWC, and Okanogan County, specifying building permit data to be provided by the County.

**Undertake Rule Making Process.** It is the intent that the Rule making process to institute changes to Chapter 173-548 WAC occur following completion of the technical studies, determination of the quantities of water remaining in the reservations, and development of the reservation tracking database. The MWC will develop an MOA with Ecology outlining roles and responsibilities, establish a schedule, and address any outstanding issues or constraints to moving forward with rule making. The Methow WMP (Table 12 obligates Ecology to issue a CR 101 within 30 days after resolution of the specific issues associated with the proposed Rule change identified in Table 12 – Element #5 (see Appendix B). The Rule making processes will include issuing a Pre-Proposal Statement of Inquiry notifying the public about Ecology’s intent to amend or repeal the existing rule and the public review processes required by the Administrative Procedures Act for revision of WAC 173-548.

## 6.2 Preserve Agricultural Lands and Uses

---

The Methow WMP identified the preservation of agricultural lands as an important issue which is ranked as a high priority for implementation by the MWC. Preservation of agricultural lands provides positive economic, social, and environmental benefits. Land taken out of agricultural use, subdivided, and sold as smaller parcels are nearly impossible to recover, especially if the associated water right is lost through relinquishment or transferred to other nonagricultural uses.

There are two primary components of preserving agricultural lands. The first component is to discourage zoning and land use changes that allow agricultural lands to be subdivided and sold for development. The second component is preservation of existing agricultural water rights required to keep land in production. Zoning and land use changes are outside the mandate of the MWC. Instead, the MWC intends to address preservation of agricultural lands through preservation of agricultural water rights, specifically avoiding relinquishment and discouraging out-of-basin transfer of water rights. Additional actions planned in this DIP, including changes to WAC 173-548 discussed in Section 6.1, will also encourage growth in towns rather than on agricultural lands by ensuring sufficient water is available to meet projected growth in water system demand.

### 6.2.1 *Implementation Actions*

The following actions are planned by the MWC to address the water right component of agricultural land preservation:

- Preserve the future beneficial use of existing irrigation water rights from relinquishment due to nonuse of all or part of a water right, including nonuse of a portion of a water right resulting from implementation of conservation practices or changes in crop types. This action will include public outreach and education on existing exemptions to the relinquishment law (Chapter 90.14 RCW) and options for preserving water rights, such as placing them into the state trust water right program. Additional information on water trusts, leases, and transfers that could be used to preserve agricultural water rights is presented in Section 6.3.

- Identify existing Family Farm Act water rights within the basin. Irrigation water rights established under the Family Farm Act (Chapter 90.66 RCW) cannot be transferred outside of the WRIA in which they are located. Additionally, the purpose of use of these rights cannot be changed from irrigation use, except under limited circumstances.
- Encourage residential development served by towns and water system service areas rather than by exempt wells on agricultural lands through the proposed revisions to WAC 173-548 discussed in Section 6.1.

Other actions to limit out-of-basin transfer of agricultural water rights would require action by the State Legislature, and are beyond the authority of the MWC to implement. A 2008 report to the legislature concerning the impact to local economies from downstream and out-of-basin water right transfers provided the following three recommended legislative changes to address the impacts of such transfers (MacDonnell, 2008):

- Require revegetation or restoration of formerly irrigated lands, with the primary objective of weed control.
- Require that lost tax revenue due to decreased value of agricultural land without water rights be offset by a one-time fee or annual payments to the local affected governments. The fee or payments could be tied to either the change in land value or assessed on per acre-foot of transferred water basis.
- Add a public interest test to the regulatory evaluation of water right transfers, allowing consideration of whether the transfer, including impacts to the local economy, is in the public interest.

### **6.2.2 Implementation Responsibilities**

The MWC will serve as the lead for public education and outreach efforts to preserve existing water rights from relinquishment. This effort will be part of the MWC's effort to facilitate a range of water right exchanges, leases, trusts, and transfers presented in Section 6.3. The MWC will also serve as the lead for identifying Family Farm Act water rights that cannot be transferred out of the WRIA.

Responsibilities of the MWC, Ecology, and Okanogan County for changes to WAC 173-548 are presented in Section 6.1.

Other changes to address out-of-basin water right transfers would require action by the Washington State Legislature.

### **6.2.3 Implementation Schedule**

The implementation schedule for MWC's public education and outreach efforts is presented in Section 6.3. The implementation schedule for changes to WAC 173-548 is presented in Section 6.1.

## 6.3 Facilitate Transfer of Existing Water Rights

---

The MWC is strongly committed to preserving and putting to beneficial use the inventory of existing water rights within WRIA 48. Developing a mechanism to preserve, manage, and facilitate the efficient transfer of existing water rights within the basin is identified as a high priority issue by the MWC. Given the barriers to securing new water right appropriations in the basin, it is important to encourage the efficient use and preservation of existing water rights to benefit both future instream and out-of-stream uses. There are defined regulatory processes in the State of Washington for changing/transferring existing water rights, however, the process is generally time consuming and costly, and the outcome is often uncertain. In addition, many water right holders are wary of disclosing information in a regulatory environment for fear of losing all or a portion of their right. Often there is a general lack of knowledge concerning water rights and what is required to avoid relinquishment of all or a portion of an existing right.

The Methow WMP recommended providing a local resource to assist both holders (“sellers” or “lessors”) of existing water rights and those interesting in acquiring an existing water right (“buyers” or “lessees”). In addition to facilitating buyer-seller (lessor-lessee) agreements, the MWC aims to promote the use of local resources and existing programs already available to water users in the basin and provide additional services that are currently not available. Examples of existing resources available to water right holders in the basin include the Okanogan County Water Conservancy Board, Washington Rivers Conservancy, and the Washington Water Trust. In such a capacity, the MWC would function as a local “clearinghouse” for information and direct water right holders to existing resources and organizations, and potentially provide additional services currently not available. In partnership with existing resource organizations, the range of services could entail:

- providing education and functioning as an information clearinghouse or resource center,
- assisting in evaluating existing water rights (i.e., assessing the validity and extent of existing rights in a non-regulatory environment),
- assisting in water right transactions including acquisitions and leases,
- facilitating the placement of existing water rights into the State's Trust Water Rights Program,
- administering a local water bank to provide mitigation of new consumptive uses in the basin, and/or
- promote programs that provide incentives to prevent out of basin transfers.

### 6.3.1 *Implementation Actions*

The following actions are planned by the MWC to address this issue:

- Identify available mechanisms to facilitate the transfer and efficient use of existing water rights, including use of the State's Trust Water Rights Program, local mitigation water bank, or water exchange. Develop

recommendations for the menu of services applicable to WRIA 48 that could be offered through a local water exchange program.

- Secure physical office space in the basin as a resource center and clearinghouse to facilitate water right transfers.
- Support and encourage State legislative efforts looking at options to protect rural communities from disproportionate economic, agricultural, and environmental impacts associated with out of basin transfers. It is difficult to address this issue at the local level through watershed planning.

Ecology has provided funds to the MWC under Grant No. G0800385 to evaluate water transfer mechanisms applicable to WRIA 48, as well as cover initial administrative costs to establish a resource center in the basin.

### **6.3.2 Implementation Responsibilities**

The MWC will be the lead entity to implement the recommendations resulting from the evaluation of water transfer mechanisms, including establishing a local presence “resource center” in the watershed. The MWC will partner with other organizations currently providing water right related services within the basin to avoid duplication and promote coordination of available resources.

### **6.3.3 Implementation Schedule**

Development of recommendations for water transfer support services that could be offered through a local water exchange program is ongoing, and planned for completion by the MWC in 2009. Following completion of the water transfer recommendations, the MWC will work with Okanogan County Water Conservancy Board, Washington Rivers Conservancy, and the Washington Water Trust to identify partnership opportunities to promote public outreach and education, provide water right support services, and facilitate the efficient use and preservation of existing water rights to benefit both future in-stream and out-of-stream uses.

## **6.4 Water Storage and Groundwater Recharge**

---

A range of surface water storage and groundwater recharge actions are recommended in the Methow WMP to increase water availability. Implementation of these actions is ranked as a high priority by the MWC. Capturing excess surface water during high flows and applying it to increased surface water storage and/or groundwater recharge could provide more reliable irrigation water supplies and increase late-season base flows. Potential storage and groundwater recharge actions in the Methow WMP include:

- Potential surface storage projects at Patterson Lake, Pearrygin Lake, Elbow Coulee (tributary to the Twisp River), Lost River, Black Lake, Chewuch River, and the Twin Lakes. The Methow WMP notes that the storage assessment identifying these potential projects did not provide sufficient detail to prioritize the projects or initiate a preliminary permitting or environmental analysis.
- Other small-scale surface storage projects, such as small irrigation impoundments and encouraging the reintroduction of beavers.

- Protection and enhancement of artificial groundwater recharge through unlined irrigation canals. Options include maintaining existing irrigation system practices, diverting peak flows and charging canals outside the irrigation season, and the use of currently unused irrigation canals.

The Methow WMP recognizes the need to balance the instream habitat needs for fish with the environmental benefits of unlined irrigation canals, and also acknowledges the challenge in achieving this balance.

There is an ongoing water storage project evaluating seasonal diversion from the Methow River (via a groundwater source in continuity with the river) with surface storage in Big Twin and Barnsley Lakes and direct groundwater recharge using infiltration galleries in the Twin Lakes area. The project objective is to divert peak flows, restore lake levels for recreational use, and enhance late season base flows in the Methow River. One concept being considered is creation of a mitigation water bank utilizing the lag time of return flows associated with storage during the irrigation season to mitigate out of season diversion. This would provide one mechanism for converting existing seasonal (irrigation) water rights to year round use.

Another concept for increasing groundwater recharge is to divert peak surface water flows occurring outside the irrigation season to the existing network of unlined irrigation canals. This water would not be used for irrigation purposes, but would instead be allowed to infiltrate and recharge the groundwater system. Recharged groundwater would ultimately discharge to surface water bodies, maintaining base flows.

### **6.4.1 Implementation Actions**

Currently no specific surface water storage or groundwater recharge project has been identified by the MWC for further evaluation and implementation. The first implementation action should be to obtain funding and perform screening level studies of potential surface water storage projects and potential groundwater recharge projects.

It is expected that separate screening studies would be performed for large-scale surface storage and groundwater recharge projects. A set of surface storage projects was identified in the Methow WMP, and it is expected that some or all of these would be carried forward to the screening study. Evaluation of groundwater recharge through unlined irrigation canals will first require an evaluation of the status of existing canal systems (e.g., lined or unlined), and identifying a subset of the canal systems to carry forward to the screening study. This evaluation could be combined with the development of Canal Management Plans discussed in Section 6.6. Use of unlined canals for enhanced recharge will also require evaluation of legal constraints relating to existing water rights for this purpose. The MWC will work with Ecology to identify legal mechanisms necessary to formalize the use of unlined canals and other storage structures to facilitate groundwater recharge where the use is determined to be environmentally beneficial and in the public's best interest.

These screening studies should have sufficient detail to prioritize potential projects based on:

- Availability and timing of excess water during high flows, water demand that could be met by the project, and potential storage or groundwater recharge capacity.
- An evaluation of potential constraints, such as the need for water rights, in implementing specific projects.
- Conceptual evaluation of environmental benefits and impacts.
- Relative costs of implementation.
- Available funding sources for different types of storage and recharge projects.

Once a priority project or projects are identified, funding would be secured to complete the feasibility studies necessary to determine if the projects should advance to a design phase.

#### **6.4.2 Implementation Responsibilities**

The MWC will serve as the lead for identifying and securing funding and implementing the surface water storage and groundwater recharge screening studies.

#### **6.4.3 Implementation Schedule**

Currently funding has not been identified to implement surface water storage and groundwater recharge actions. Tracking of potential funding sources is ongoing, and screening studies would be implemented once funding is secured.

### **6.5 Statutory and Policy Changes**

---

The MWC identified a list of second tier priorities from the Methow WMP that can be categorized as statutory or policy changes. Implementation of these actions would require the Washington State Legislature to enact changes to the RCW or policy changes by Ecology. Recommended actions from the Methow WMP include:

- **Allow for water storage in closed basins where significant public and habitat benefit exist.** The Methow WMP recommends that Ecology issue interruptible water rights in closed basins under certain conditions. Potential conditions could include limiting removal of water during periods of high flows; require that the water use include environmental enhancements or storage; and that the intent of the water right is to increase water availability.
- **Use it or lose it (relinquishment).** The Methow WMP recommends that the period of nonuse that triggers relinquishment should be increased. The Methow WMP also stresses the importance of public outreach and education on existing exemptions to the relinquishment law and options for preserving water rights (see Section 6.2).

- **Tentative determinations of beneficial use.** The Methow WMP recommends that irrigation ditch and ditch/canal companies should be able to establish their customary use within the limits of their water right certificate or claim over the last 20 years, rather than be subject to a tentative use determination when pursuing a change to their water right claims.
- **Re-appropriation of water use.** The Methow WMP recommends that water rights lost through relinquishment should be available for re-appropriation. The quantity available for re-appropriation could be used to convert existing interruptible water rights subject to the base flow requirements of WAC 173-548 to non-interruptible rights in order of priority date.
- **Water claim amnesty.** The Methow WMP recommends that the legislature enact a law recognizing the current use of water right claims for surface water that were not perfected as of 1933. This would only affect currently exercised claims.
- **Water allocation and economic impacts.** The Methow WMP identified a desire for State agencies to help identify and preserve the benefits of agricultural practices and groundwater recharge from unlined irrigation canals, and for the State to examine how water allocation policies and retirement of agricultural lands create direct and indirect economic costs. The local economic impacts of lost agricultural lands were evaluated in the MacDonnell report submitted to the Washington State Legislature and was the subject of a forum sponsored by State Senator Morton (see Sections 2.3.3 and 2.5).

### **6.5.1 Implementation Responsibilities**

The MWC and interested participating members will contact their Legislators recommending that the Legislature take action to address the above issues.

### **6.5.2 Implementation Schedule**

Begin coordination with Legislators so that action can be initiated during the 2010 Legislative session.

## **6.6 Management Tools**

---

A range of management tools and resources are identified in the Methow WMP that could be used to improve water management in the watershed. These are rated as a third tier priority by the MWC.

### **6.6.1 Canal Management Plans**

The Methow WMP recommends that Canal Management Plans be used to document recharge areas and environmental enhancements associated with recharge from unlined irrigation canals that need to be preserved for water storage (groundwater recharge), and fish and wildlife benefit. The Methow WMP recommends canal plans identify existing areas in canal operations where these secondary benefits already occur and identify opportunities for operational changes to expand and enhance future benefits. One example of such a benefit is the use of canals to enhance riparian vegetation for habitat.

Implementation strategies for the use of currently operating and unused unlined irrigation canals as means to increase groundwater bank storage are addressed in Section 6.4, *Water Storage and Groundwater Recharge*.

The Methow WMP recommends irrigation water purveyors using canals or ditches for conveyance develop individual Canal Management Plans using guidance provided by the Bureau.

#### **6.6.1.1 Implementation Actions**

The MWC should coordinate with local irrigation water purveyors and the Bureau to encourage development of Canal Management Plans and provide guidance for development of plans. MWC should include information regarding Canal Management Plans in public education and outreach efforts. Enhancing groundwater bank storage is also addressed in Section 6.4.

#### **6.6.1.2 Implementation Responsibilities**

The MWC will coordinate with the Bureau and local irrigation water purveyors to encourage development of Canal Management Plans and incorporate information regarding Canal Management Plans into public education and outreach efforts.

#### **6.6.1.3 Implementation Schedule**

The MWC should coordinate with the Bureau regarding Canal Management Plan development efforts during the second year of implementation to minimize duplication of efforts. Information regarding Canal Management Plans should be integrated into public education and outreach efforts during the second year of implementation and should be periodically updated as new information becomes available. Coordination with the Bureau and local irrigation water purveyors should occur throughout implementation.

### **6.6.2 Forest Management Plans**

The Methow WMP identifies evapotranspiration from forest vegetation on public land as the greatest consumptive use in WRIA 48. The Methow WMP emphasizes the potential effect of forest management practices in the Okanogan National Forest on water resources in the basin.

The National Forest Management Act of 1976 requires each national forest to have a forest plan. The existing Okanogan Forest Plan was approved in 1989. Forest management plan revisions occur every 10 to 15 years. In 2002, the United States Forest Service (USFS) initiated a revision of the Okanogan Forest Plan. A public meeting regarding the Okanogan Forest Plan revision was held in the Methow Valley in November 2003. Public comments received at this meeting do not include water resource issues. Following an injunction putting on hold public participation in the revision process in 2007, the National 2008 Planning Rule was enacted to allow public involvement in the planning process to continue. Collaboration during forest plan revision includes the federally-chartered Eastern Washington Cascades Provincial Advisory Committee with membership including Okanogan County. A draft plan is scheduled to be released for public review in March 2010 and the final plan is expected in April 2011.

The Methow WMP places a high priority on MWC participation in a forest plan revision as a means to incorporate local stakeholder input to water resources issues. The Methow WMP recommends USFS adapt its Forest Management Plan revision process to include water resource management input from local stakeholders. The MWC recommends that the forest plan revision should include a policy/goal statement that directs USFS to “manage forest lands to extend the hydrograph and increase streamflows during low streamflow periods”.

#### **6.6.2.1 Implementation Actions**

If sufficient resources exist, the MWC will participate in ongoing review and update of the Okanogan National Forest Plan to reflect best-possible watershed management information. The MWC should also coordinate with Okanogan County that to provide input through the Eastern Washington Cascades Provincial Advisory Committee.

#### **6.6.2.2 Implementation Responsibilities**

If sufficient resources exist, the MWC will participate in ongoing review and update of the Okanogan National Forest Plan to reflect best-possible watershed management information.

#### **6.6.2.3 Implementation Schedule**

The implementation schedule will depend on the availability of resources for participation by MWC and the Forest Service’s planning process. If resources are available, the MWC will review and provide comments on the draft Okanogan Forest Plan scheduled for release in March 2010.

### **6.6.3 Floodplain Management Plan**

The Methow WMP acknowledges the importance of floodplains in watershed management and water availability. The Methow WMP recommends Okanogan County develop a Floodplain Management Plan. The Methow WMP also recommends integrating floodplain and habitat function into selection and prioritization processes for water storage projects with special emphasis on projects that restore or enhance stream function and habitat and projects that increase bank storage by dispersing floodwaters into side channels. At the time the Methow WMP was approved, Okanogan County did not have a Floodplain Management Plan.

#### **6.6.3.1 Implementation Actions**

Okanogan County is currently revising its Comprehensive Plan including its Critical Areas Ordinance to include a Floodplain Management Plan (see Section 2.4.7). The MWC should consider the floodplain functions listed in the Methow WMP when implementing the storage enhancement projects described in Section 6.4 and when deciding whether to support water storage projects proposed by others.

#### **6.6.3.2 Implementation Responsibilities**

Okanogan County has already indicated a Floodplain Management subsection will be added to the Critical Areas Ordinance. MWC will consider floodplain functions when developing and/or supporting proposed water storage projects.

### 6.6.3.3 Implementation Schedule

This implementation strategy is ongoing.

## 6.6.4 Drought Response Plan

The Methow WMP recognizes that the Methow hydrologic system is sensitive to change and therefore, drought conditions and the potential for climate change require a proactive approach. The Methow WMP recommends a local drought response plan be developed around drought indicators that are relevant to the hydrology and economy of WRIA 48. The drought plan should:

- outline baseline drought response issues;
- identify specific drought features;
- develop specific recommendations and responses; and
- prioritizes actions.

And, the plan should specifically address:

- Early warning systems for each type of drought;
- Risks and impact from droughts; and
- Mitigation and response strategies.

### 6.6.4.1 Implementation Actions

To develop a drought response plan, the MWC should coordinate with agencies in the region involved in water supply planning/forecasting including Natural Resources Conservation Service, USGS, the Bureau, and local public utilities districts to identify available information and data gaps and to minimize duplication of efforts. A review of relevant existing hydrologic studies and data should be undertaken to define drought conditions and identify early warning systems for droughts. The MWC should coordinate with Ecology, Okanogan County Conservation District, Washington State Department of Agriculture, irrigation water purveyors and representatives from other drought-sensitive industries including recreation and forestry. Upon defining conditions that characterize drought and its impacts, planning should focus on developing priorities, recommendations, mitigation, and response strategies.

### 6.6.4.2 Implementation Responsibilities

If sufficient resources exist, the MWC will partner with public agencies and private landowners to develop an adaptive drought response plan.

### 6.6.4.3 Implementation Schedule

Development of a drought response plan for WRIA 48 will begin in the second year of implementation (2010) by identifying and applying for potential funding sources. Coordination with agencies involved in water supply planning/forecasting and a review of relevant existing information will begin in the third year of implementation (2011). An assessment of the economic and environmental impacts of drought will begin in the fourth year of implementation. These actions will support development of a drought response plan beginning in the fifth year of implementation.

## 7 Funding

### 7.1 Phase IV Watershed Planning

---

A DIP is required to be completed during the first year as a condition to receive grant funding over the four subsequent years of the implementation phase. Potential grant funding supporting implementation is listed below.

- Year 1 \$100,000
- Year 2 \$100,000
- Year 3 \$100,000
- Year 4 \$50,000
- Year 5 \$50,000

Additionally, Ecology's Watershed Planning Implementation Grant program is available to watershed planning groups to implement local projects based on completed detailed implementation plans. These competitive grants are made available on a 2-year cycle to fund implementation of operational, capital and stream gauging projects. In December, 2008, the MWC submitted applications for operational project grants to fund a continuation of the instream flow rule revision and groundwater recharge.

### 7.2 Other Funding Sources

---

The Columbia River Account funds are available for design and construction of new storage projects; feasibility studies, environmental review, design and construction of modifications to existing storage facilities; and design and construction of conservation or storage projects that are ready to construct within 1 year of the grant award.

The MWC has partnered with the USGS on quantity related studies within the basin and will continue to pursue joint activities in the future. The USGS, in coordination with the MWC, is pursuing internal funding for developing a series of linked models as a resource management and decision tool to forecast the physical, biological, and socioeconomic impacts of climate change in the Columbia River Basin. The study will focus on several watersheds within the Columbia River Basin, including the Yakima and Methow River watersheds.

Many watershed implementation projects are traditionally funded based on their habitat or water quality benefits. To expand funding opportunities, MWC should seek to coordinate funding with other implementation processes in WRIA 48 to identify projects that have mutual water quantity and habitat/water quality benefits. The MWC will coordinate with the Methow Restoration Council on actions that would result in a direct instream flow benefit. Additionally, funding is available for projects promoting irrigation or agricultural improvements through capital projects and public education that result in water conservation and improved water use efficiencies.

## 8 References

- Aspect Consulting, LLC, 2009, Water Withdrawal Study Plan, Water Resources Management Area 48. Bainbridge Island, Washington. Unpublished Work. July 16, 2009.
- Golder Associates, Inc., 2002, Phase II-Level 1 Watershed Technical Assessment for the Methow River Basin, Final Draft. June 26, 2002.
- Golder Associates, Inc., 2003, Methow Basin (WRIA 48) Storage Assessment. Golder Associates, Inc. October 8, 2003.
- Golder Associates, Inc. and Anchor Environmental, 2006, Water Supply Inventory and Long-Term Water Supply and Demand Forecast. Washington Department of Ecology Publication No. 06-11-043. November 15, 2006.
- Gray & Osborne, Inc., 2008, Town of Twisp Water System Plan Update. June 2008.
- Highlands Associates, 2008, Reserve Use Since 1976, Final Report.
- Kauffman, K.G. and Bucknell, J.R., 1976, Water Resources Management Program Report of the Methow River Basin. Washington Department of Ecology River Basin Program Series Publication No. 4, December 1976.
- Konrad, C.P., Drost, B.W., and Wagner, R.J., 2003, Hydrogeology of the Unconsolidated Sediments, Water Quality and Ground-Water/Surface-Water Exchanges in the Methow River Basin, Okanogan County, Washington. United States Geological Survey Water Resources Investigations Report 01-4198.
- MacDonnell, L. J., 2008, Protecting Local Economies; Legislative Options to Protect Rural Communities in Northeastern Washington from Disproportionate Economic, Agricultural, and Environmental Impacts when Upstream Water Rights are Purchased and Transferred for Use, or Idled and Used as Mitigation, in a Downstream Watershed or County. Report to the Washington State Legislature, November 30, 2008.
- Methow Basin Planning Unit (MBPU), 2005, Methow Watershed Plan (WRIA 48). June 20, 2005.
- United States Forest Service (USFS) Winthrop Office – personal communication, 2009.
- United States Geological Survey (USGS), 2002, Gains and Losses in Streamflow in the Methow River, United States Geological Survey Study Number 442 and 445, Provisional Data, March 11, 2002.
- Upper Columbia Salmon Recovery Board (UCSRB), 2007, Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan. August 2007.

**FINAL WRIA 48 DIP**

Washington State Department of Ecology (Ecology), 2003, Final Environmental Impact Statement for Watershed Planning under Chapter 90.82 RCW. Washington Department of Ecology Publication No. 03-06-013. July 18, 2003.

Washington State Department of Fish and Wildlife (WDFW), 2008, Statewide Steelhead Recovery Plan, Statewide Policies, Strategies and Actions. February 29, 2008.

W:\080180 WRIA 48\Deliverables\DIP\Final\WRIA 48 DIP Final.doc

## **APPENDIX A**

### **Invitation Letter to Group A Water Systems**

April 9, 2009

Randy Johnson  
Town of Twisp  
PO Box 278  
Twisp WA 98856

**Re: Water System Data Request  
WRIA 48 Detailed Implementation Plan**

Dear Water System Operator:

The Town of Twisp, serving as lead agency and the Methow Watershed Council (MWC) are currently involved in a State watershed planning process for your local watershed. The Methow watershed, or formally known as Water Resource Inventory Area (WRIA) 48, consists of the Methow River basin.

Enacted in 1998 by the Washington State Legislature, the Watershed Planning Act provides a framework for developing local solutions to issues facing individual watersheds – including water quantity. The Watershed Planning effort in the watershed to date has included completion of technical studies and a Watershed Management Plan, which summarizes the current status of the watershed and outlines recommendations for future water resource management. The WRIA 48 Watershed Management Plan was formally adopted in June 2005. A copy of the adopted plan, along with other technical studies and documents, may be found on MWC's website (<http://www.methowwatershed.com/>).

The next step following adoption of the Watershed Management Plan is implementation of the plan's recommendations, which entails preparing a Detailed Implementation Plan (DIP). The DIP defines a schedule and specific actions and milestones to be taken to achieve the recommendations outlined in the Watershed Management Plan. This document is currently in development by Aspect Consulting – the lead technical consultant to the MWC.

Key to the DIP development is notification and involvement from the community, especially entities that possess municipal water rights, as required by State Law – Chapter 90.82.048 Revised Code of Washington (RCW). This ensures that all existing water rights, including inchoate water, are accounted for in developing strategies to meet projected future water needs. The statute specifically requires consideration of how the use of inchoate rights will be addressed when implementing instream flow strategies in WRIA 48. Inchoate rights are defined as that portion of a water right that has not been put to beneficial use (perfected), and is *not* subject to relinquishment because it is legally defined as *Municipal*, per Chapter 90.03.015 RCW.

Therefore, we request your assistance in helping us gather specific information about your water system to meet the statutory requirements of DIP. This information should already be publicly available in your Water System Plan. The information we are requesting includes:

- Current Water Rights, including identification number and authorized amounts (instantaneous flow rate and annual volumes);
- Annual usage over the last five years; and
- Projected demand over the next 20 years, or similar planning horizon.

We request you email, fax, or mail this information to Aspect Consulting – the MWC’s technical consultant. Aspect’s contact information is:

**Aspect Consulting, LLC**

Attn: Bill Sullivan  
23 S Mission Avenue  
Wenatchee, Washington 98801

Email: [bsullivan@aspectconsulting.com](mailto:bsullivan@aspectconsulting.com)

Fax (888) 840-3317  
Phone (509) 888-5766

We appreciate your assistance in gathering this information. If there are any questions or comments, please don’t hesitate to contact myself, Lee Hatcher (509-341-4260), or Rusty Post with the Washington State Department of Ecology (509-997-4081).

Sincerely,

Lee Hatcher  
Watershed Coordinator  
[lee.hatcher@optimalniche.com](mailto:lee.hatcher@optimalniche.com)

cc: Rusty Post, Washington State Department of Ecology  
Bill Sullivan, Aspect Consulting, LLC

## **APPENDIX B**

### **Table 12 - Watershed Management Plan (June 20, 2005)**

***Note: MWC recommends metering of  
exempt uses be on a voluntary basis.***

TABLE 12  
Watershed Plan Obligations

Any suggested obligations in the body of the plan not specifically detailed below are not an obligation

ITEM	Obligations for Implementing Entity	Plan Reference	Action
<b>Okanogan County</b>			
1	Contingent of receiving phase IV implementation funding, Okanogan County agrees to implement the MWC by recognizing the present structure and membership of the Planning Unit as an interim implementation body until the MWC adopts its final form.	P. 16 line 29ff	A
2	The County shall be obligated to administer phase IV funding with the cooperation of the MWC.	P. 16 line 34	A
3	As a part of the present planning process for Methow Valley residents to obtain a Building Permit, require new water users. 1) To identify user, sub-basin location, and water system type, 2) If a Single Domestic system, to a) Provide user with a copy of RCW 90.44.050 b) Require user to select a choice, to operate without reporting OR to measure and report monthly average and annual water usage to Ecology in January of each year on Ecology's standard data input form.	P. 20 line 47	A
4	Provide Ecology with new building permit data collected in Item 3-1) and zoning change data periodically in a form and on a schedule to be mutually agreed upon.	P. 20 line 48	A
5	Cease issuance of water adequacy certificate for a sub-basin dependant on the 2 cfs reservation as a source of water if notified that the sub-basin limit has been reached	P. 21 line 27	A
6	Require measurement and reporting for new exempt building permits if agreed statistical analysis method cannot be validated.	unknown	A

ITEM	Obligations for Implementing Entity	Plan Reference	Action
<b>Washington Department of Ecology</b>			
1	Add Exempt monthly average and annual total water usage data to the data collection system already being developed by Ecology to track permitted water usage data using the same data formats and procedures.	P.21 line 1	A
2	Develop Memorandum of Understanding defining data exchange content, format, and schedule with Okanogan County.	P. 20 line 34ff	A
3	Review database for each user category and sub-basin to compare actual vs. planned usage rates.	P. 20 line 40ff	A
4	Notify Methow Valley residents when Group B Domestic, Industrial/Commercial, and Single Domestic usage reaches 90% of any 2 cfs limit by publication in local newspapers.	P. 20 line 26ff	A
5	<p>The Department of Ecology agrees to work with the Methow Basin Planning Unit within the one-year detailed implementation phase to clarify how specific revisions to Chapter 173-548 WAC will be proposed. The following list identifies the areas that require clarification:</p> <ul style="list-style-type: none"> <li>● Additional clarification related to uses that are eligible for 2 cfs reservation</li> <li>● How are closures proposed to be addressed?</li> <li>● Clarification of roles and responsibilities of Methow Watershed Council and Ecology</li> <li>● Clarification on transferring portions of the reserve to other subbasins.</li> <li>● Additional detail related to monitoring and measurement of water use under the reservation</li> <li>● Additional information related to determinations of existing water use under the reservation</li> <li>● Additional information related to determinations of future water use under the reservation</li> </ul> <p>Revise current WAC 173-548 Rule using the public review process to:</p> <p>A. Allow all exempt uses designated under RCW 90.44.050, provided that withdrawal does not exceed 5,000 gallons per day.</p> <p>B. Reserve the unallocated portion of the Early Winters 2 cfs for ground water withdrawals per Table A4.</p> <p>C. Group A and B systems not falling under exempt use to be taken from 2 cfs Reservations.</p> <p>D. Permit unused portions of the 2 cfs reservation in any sub-basin to be moved downstream to off set higher use areas, providing that any losing sub-basin needs have first been met. Maximum sub-basin parcel counts at full build out are based on current zoning densities with monthly average, and peak monthly water usage applied to that number to determine what amount of the 2 cfs reservation is necessary to reserve to assure all potential parcels will have water available at the time of need.</p> <p>DOE will issue a CR 101 within thirty (30) days after the resolution of these issues.</p>	WAC 173-548-100	Statutory requirement

A: Obligation is completed by an agreement between Agencies