History of DRMT support of streamflow enhancement, storage, and aquifer recharge. August-Sept. 2018 (Key documents and strategies are in bold)

Existing plan or report	Relevant content	Year	DRMT involvement
Dungeness Off-Channel Reservoir (aka, River Road Reservoir) Project, Anchor QEA for Reservoir Work Group **Related: Video, graphics, and site tours** to illustrate broad support, multiple benefits, and reservoir operations	Executive Summary and Project Proposal provided basis for Work Group's funding pursuits and information sharing sessions with state agencies and other funders to generate support for: **Land acquisition** only: DNR Trust Land Transfer Program (2016, 2018) **Land acquisition and final design**: SRFB / PSAR (2016, 2018); FbD (2016); PSP Action Agenda (2014, 2018/includes construction phase); State Supplemental Capital Budget (2017-18) **Stormwater capture components**: FEMA Hazard Mitigation (2016)	2016-18	Various presentations to DRMT to generate support letters (attached) for funding applications; members also provide support letters
Benefit/Cost Analysis: Off-Stream Reservoir, Gray & Osborne	Methodology for Climate Resilient Mitigation Activities per Hazard Mitigation Grant Program (WA Dept. of Military & FEMA), includes analysis of impacts due to flooding, value of irrigation water, value of habitat, value of stored water, and FEMA damage frequency.	2016	Members indirectly involved
Climate Change Preparedness Plan for the North Olympic Peninsula, NOPRCD	Top 10 strategies: For Water Supplies: WS-6 "**Continue to study ways to enhance water storage and groundwater recharge**" including identifying locations for new structures, off-stream storage, active recharge such as infiltration wells, potential for "banking" water during high flow events for use in low flow times, noting that storage and recharge opportunities were studied in 2014 for the Dungeness area. For Ecosystems: ES-5 "**Increase regional capacity for water storage**" in particular for recharge, for mitigation, for irrigation, and exploration of innovative technologies for storage. For Critical Infrastructure: CI-10 "**Enhance stormwater retention in upstream areas**."	2015	Members directly involved in workshops
Dungeness River Flow Enhancement Project: Designs and Supporting Analyses, PGG & Anchor QEA for WWT	First evaluation of River Road off-channel reservoir site relative to other sites with streamflow enhancement potential for mitigation and/or restoration. Attachments D1-D4 provide preliminary reservoir design with size/ configuration options, geotechnical results, and probable costs.	2014	Members directly involved

Existing plan or report	Relevant content	Year	DRMT involvement
Climate Vulnerability Assessment and Adaptation Plan, JST	Lists salmonids as the highest ranking for priority and vulnerability; recommendations include "**Restore stream and streamside habitats and enhance instream survivability, likely in partnership.**"	2013	Observing
East WRIA 18 Instream Flow & Water Management Rule, Dept. of Ecology	Establishes **mitigation requirement for new uses**, **instream flow level for River and small streams**, and maximum allocations for diversions from the River during months it's not closed	2012	Members indirectly involved
Dungeness Water Exchange Mitigation Plan, WWT and LLWG	Establishes in-kind strategy for mitigating new uses of water, including: **Shallow aquifer recharge** with River water via irrigation ditches, **Build a large storage reservoir** (Atterberry or another location) for WUA	2012	Members directly involved in Local Leaders Work Group
Clallam County Comprehensive Flood Hazard Management Plan, Flood Hazard Advisory Committee	General stormwater management recommendations, infiltration facilities to be favored as a water supply management strategy.	2009	Members directly involved in making recommendations; provided updates and opportunities to comment
Aquifer Recharge Feasibility Study, Pacific Groundwater Group for Clallam Co.	Analyzes three scenarios including transient modeling and costs: using abandoned **irrigation ditches to recharge River water**, using an infiltration basin to recharge reclaimed water, using ASR (injection) to recharge River water	2009	Members directly involved
Watershed Plan Implementation Priorities, (Author uncertain)	Six "High" priority projects include: **#2, Study of off-channel storage potential**; #3 Implement Ag Water Cons Plan; **#4, Planning/ engineering for SAR**; **#6 Construction of Atterberry Reservoir**	2008	Direct DRMT involvement, given two "notes" at end
Protecting and Restoring the Waters of the Dungeness (CWA 319 Plan), JST	Goal of meeting flow recommendations for mainstem and side channels. **5.2.4 Regional Water Conservation Strategies listed in the WRIA 18 Plan, 5.2.5 Aquifer Storage and Recharge, 5.3 Salmon Recovery elements including (4) water conservation / instream flow protection, 5.4.3 encouraging infiltration for stormwater management**. Partner programs include **design and construct storage, Atterberry Road Reservoir, Eastside storage analysis and design, aquifer recharge analysis and design**. Salmon Recovery 3-year project list (2005) recommends implementing **irrigation water conservation plan** by piping ditches, fixing leaks.	2007	Indirect

Existing plan or report	Relevant content	Year	DRMT involvement
Hydrogeologic Screening for Sequim Pilot Infiltration Test, PGG	Identification and analysis of five sites suitable for shallow aquifer recharge with good access to recharge water sources—reclaimed water from the WRF and/or River diversions via irrigation ditches	2007	Members directly involved; memo report presented to DRMT
Puget Sound Chinook ESU Recovery Plan, NMFS	The Dungeness Chapter incorporates "10 Strategic Restoration Elements of the Dungeness Watershed", which includes: "**Water Conservation/Instream Flow Protection and Water Quality Improvement/Protection.**"	2007	DRMT members directly involved in Shared Strategy process (and formally endorsed approach) to develop Recovery Plan
Comprehensive Irrigation District Management Plan, Draft (Final but never approved by all WUA members), HDR and others for the WUA	Primary Habitat Conservation Measure (HCM-1) involves reducing diversions through actions in the Water Conservation Plan (1999) and **construction of storage capacity**.	2003-06	Members directly involved
Shared Strategy / Dungeness Watershed Salmonid Recovery Notebook (precursor to Dungeness Chapter of Puget Sound Chinook Recovery Plan), DRMT	Addresses 6 questions posed by Shared Strategy for Puget Sound and incorporates "10 Strategic Restoration Elements of the Dungeness Watershed." Expected results from the Water Conservation element include: **Increased stream flow, Fewer side channels cut off due to low flow, Easier migration of adult salmonid during higher flows, Reduced likelihood of thalweg spawning, Increased water quality (temp and DO);** Specific recommendations: Implement CIDMP projects, Implement other domestic/municipal water conservation projects found in WRIA 18 Plan	2005	DRMT directly involved in producing Dungeness Watershed Salmon Recovery Notebook and submitting to Shared Strategy for Puget Sound Development Committee
Elwha-Dungeness (WRIA 18) Water Management Plan, DRMT and EMMT	Recommends multiple actions for water resource and water quality protection and improvement: most relevant include **seasonal instream flow levels, shallow aquifer recharge, pursuit of storage including off-channel reservoirs**.	2005	DRMT approved
Ecosystem Diagnostic and Treatment (EDT) Model/ Analysis of Actions for Dungeness Chinook, Mobrand Biometrics, Inc.	Models and ranks restoration/protection actions on Dungeness Chinook salmon. "**Water Conservation Projects**" listed as one of the actions; specifically, "**Implementing the CIDMP recommendations" ranked #1 out of 31 actions**. From EDT Analysis: "This action is predicted to produce the highest increase in both productivity and life history diversity among all actions"	2004	River Restoration Work Group directly involved, as well as some "policy reps of DRMT" (per Shared Strategy Notebook)

Existing plan or report	Relevant content	Year	DRMT involvement
Restoring the Dungeness, JSKT	"10 Strategic Restoration Elements of the Dungeness Watershed" (an update of the "7 Pillars") includes "**Water Conservation/Instream Flow Protection**" and "**Water Quality Improvement/Protection**"	2003	Endorsed by DRMT; members directly involved
Survey of instream flow and side channels, JSKT/ BOR	Establishes side channels as critical habitat, and describes mainstem flow ranges needed in order to meet specific side channel habitat criteria for specified fish species.	2003	Presented to DRMT
Aquifer Storage and Recovery Evaluation Report, Tetra-Tech/Foster-Wheeler	Modeling of ASR provided typical annual River volume available, benefits may extend deeper than the shallow aquifer, benefits may extend to surface streams if recharge is in vicinity. Study was done to support the state EIS for the 1999 WUA Water Conservation Plan.	2003	Members involved
Physical Processes, Human Impacts, and Restoration Issues of the Lower Dungeness River, BOR	Recommends specific habitat restoration projects not including water conservation	2002	Members directly involved
Limiting Factors Analysis, Haring (WA Cons Comm)	Establishes flow as a limiting factor	1999	Members directly involved
Comprehensive Agricultural Water Conservation Plan, Montgomery Water Group for the WUA	Key recommendations: Piping ditches; **Artificial storage of high flows**; Re-regulating reservoir (for eastern ag lands – built off Port Williams Rd.); and more	1999	Members directly involved
Recommended Restoration Projects for the Dungeness River ("Blue Book"), River Restoration Work Group	Low stream flow conditions is one of three limiting factors. **Conserve instream flows** is one of "Seven Pillars of River Restoration."	1997	Authored by DRMT subcommittee