Columbia River Treaty and Columbia Basin Hydro Operations Resource Links List – November 2015

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Topic	Source
ABBREVIATIONS AND GLOSSARY	
Columbia Basin Trust Columbia River Treaty Glossary	http://www.cbt.org/crt/glossary.html
A glossary of terms used in the Columbia River Treaty and related to hydroelectric operations.	
COLUMBIA SYSTEM OVERVIEW	
Columbia River Overview	http://www.cbt.org/BasinHistory/RiverColumbia.html
An overview of the geography of the Columbia River system from the headwaters to the Pacific Ocean.	
Kootenay River Overview	http://www.cbt.org/BasinHistory/RiverKootenay.html
An overview of the geography of the Kootenay River system from the headwaters to the confluence with the Columbia River.	
HISTORY OF HYDROELECTRIC DEVELOPMENT	
Hydro Development Overview	http://www.cbt.org/BasinHistory/HydroDevelopment.html
The history of hydroelectric development in the Canadian portion of the Columbia River Basin from 1895 to present day.	
<u>History of Hydropower - US</u>	http://www.nwcouncil.org/history/Hydropower
The history of hydroelectric development in the American portion of the Columbia River Basin from 1895 to present day.	

Topic	Source
Maps	
Columbia River Treaty Review Maps Maps of the Columbia River Basin and the Columbia River Treaty Review area.	http://blog.gov.bc.ca/columbiarivertreaty/map/
Columbia Basin Trust Columbia River Treaty Map	http://www.cbt.org/crt/map.html
Interactive map that shows the dams and generating systems in the Columbia River Basin, the Columbia and Kootenay River systems and pre dam water levels.	
Pacific Northwest Power Supply Map	http://www.nwcouncil.org/energy/powersupply/map/
Interactive map that shows hydroelectric, natural gas, coal, biomass, wind, geothermal, solar and nuclear power projects in the Pacific Northwest states and Canadian hydro power projects.	
COLUMBIA RIVER TREATY	
BACKGROUND	
Columbia River Treaty Background	http://www.cbt.org/crt/
A portal to extensive information about the Treaty on the Columbia Basin Trust website.	
Columbia River Treaty Review History	http://blog.gov.bc.ca/columbiarivertreaty/history/
History of the Columbia River Treaty	
Columbia Basin Trust Columbia River Treaty brochure (5 pages)	http://www.cbt.org/crt/assets/pdfs/CRTbrochure.pdf
An overview of the CRT from Columbia Basin Trust (CBT) - includes map and timeline.	

Topic	Source
Columbia Basin Trust Columbia River Treaty tutorial Two video tutorials on the CRT, The Basics (15 min) or Deeper Understanding (25 min).	http://www.cbt.org/crt/tutorial/index.html
Columbia Basin Trust Columbia River Treaty Quick Facts A quick overview of the Columbia River Treaty with links to additional resources.	http://www.cbt.org/crt/CRTQuickFacts.html
Columbia Basin Trust Fact Sheets A collection of fact sheets on topics concerning the CRT and Basin residents	http://www.cbt.org/crt/resources.html Click on Publications and Fact Sheets will appear below
BC CRT REVIEW Provides current and historical information and maps, as well as a growing number of studies and reports that will be used to help inform decision makers on the future of the Treaty. Also find information from past sessions and where and when future community engagement opportunities will occur.	http://blog.gov.bc.ca/columbiarivertreaty/
Final Public Consultation Report 2013 (43 pages) Summary of the public consultations regarding the CRT in the Basin in 2013	http://blog.gov.bc.ca/columbiarivertreaty/files/2013/09/Columbia-River-Treaty-Review-Public-Consultation-Report-March-2014.pdf
BC Decision on the CRT (3 pages) The B.C. decision and principles reflect the outcomes of the British Columbia Treaty Review process. Any changes to the Treaty that may be pursued by the Province will be guided by these principles.	http://blog.gov.bc.ca/columbiarivertreaty/files/2012/03/BC Decision on Columbia River Treaty.pdf

Topic	Source
A Review of Range of Impacts and Benefits of the CRT on Basin Communities, the Region and the Province Summary (15 pages) Full Report (87 pages) This report provides an overview of the impacts and benefits of the Columbia River Treaty to the Columbia Basin in Canada and to the Province of B.C.	Summary - http://blog.gov.bc.ca/columbiarivertreaty/files/2012/07/CRT- Impact-Benefits-Report-Exec-Summary1.pdf Full report - http://blog.gov.bc.ca/columbiarivertreaty/files/2012/07/A- Review-of-the-Range-of-Impacts-and-Benefits-of-the- Columbia-River-Treaty6.pdf
U.S. Benefits from the Columbia River Treaty – Past, Present and Future: A Province of British Columbia Perspective (21 pages) As both Canada and the U.S. continue to review options regarding the future of the Treaty, it is important that citizens on both sides of the border understand how the Treaty is beneficial, who benefits, how further cooperation can enhance or create new benefits, and what is at risk of being lost if the Treaty is terminated.	http://blog.gov.bc.ca/columbiarivertreaty/files/2012/07/US-Benefits-from-CRT-June-20-13-2.pdf
CRT LOCAL GOVERNMENTS' COMMITTEE Main page for Committee documents and information links	http://akblg.ca/content/columbia-river-treaty
Terms of Reference/Conflict and Confidentiality Appendix Terms of reference and conflict of interest and confidentiality policy for the Columbia River Treaty Local Governments Committee	http://akblg.civicweb.net/document/204/CRT Local Governments Committee Terms of Reference.pdf
Current members Updated list of members of the CRT Local Governments Committee	https://akblg.civicweb.net/document/252/LGC%20Committe e%20Members%202015.pdf?handle=438DA2512C2C49FF9AC 92CDC24E4BB85
BC Columbia Basin Residents CRT Interests Some of the key interests of Canadian residents related to the CRT	https://akblg.civicweb.net/FileStorage/3050A2C882134DDD9 0DC95CE40B35820-BasinResidentsCRTInterests.pdf

Topic	Source
Summary of Canadian Dam and Reservoir Issues March 2014 (16 pages) This document is a summary of the issues raised most frequently by Basin residents at 38 community-level CRT Information Sessions— hosted by Columbia Basin Trust, the Columbia River Treaty Local Governments' Committee and the Provincial Columbia River Treaty Review Team, between fall 2011 and fall 2013.	https://akblg.civicweb.net/FileStorage/5991AE9AB9B246D7B 3033AC6FBDA91F3- Summary%20of%20Dam%20and%20Reservoir%20Issues%20F INAL%20March%2020.pdf
Recommendations to Government December 2013 (7 pages) The BC Columbia River Treaty Local Governments' Committee has prepared these Recommendations in response to the Columbia River Treaty-related interests and issues raised by Columbia River Basin residents in Canada.	https://akblg.civicweb.net/FileStorage/D2819FEBEED24A268 A345B7A585D2919- CRT%20LGC%20Dec%202013%20Recommendations%20FINA L.pdf
U.S. 2014/2024 CRT REVIEW This multi-year effort is working to provide information critical to the U.S. Entity recommendation in December 2013, through evaluation of the value of Treaty benefits to the region and consideration of contemporary concerns that reach beyond flood risk management and power generation.	http://www.crt2014-2024review.gov/
U.S. Regional Recommendation The U.S. Entity developed this recommendation in collaboration and consultation with the region through the extensive, multi-year Columbia River Treaty Review.	http://www.crt2014-2024review.gov/RegionalDraft.aspx

Topic	Source
CRT PLANS	
Assured Operations Plans Links to Assured Operating Plans and Determination of Downstream Power Benefits for Operating Years 1967 - 2019	http://www.nwd-wc.usace.army.mil/PB/PEB_08/docAOP.htm
Detailed Operating Plans Links to Detailed Operating Plans for Columbia River Treaty Storage 1969 – 2016	http://www.nwd-wc.usace.army.mil/PB/PEB_08/docDOP.htm
LIBBY COORDINATION AGREEMENT	
Columbia River Treaty and Libby Dam CBT Fact Sheet	http://www.cbt.org/crt/assets/pdfs/CRT_LibbyDam_2012.pdf
Libby Coordination Agreement Overview CRT Review frequently asked question response	https://www.enewsletters.gov.bc.ca/Columbia River_Treaty_ Review eNewsletter/October 2012/October Question Libby_ Agreement/article
Libby Coordination Agreement – Record of Decision (8 pages) This Record of Decision (ROD), outlines the factors considered by the United States (U.S.) Entity to decide to sign a Libby Coordination Agreement (LCA) with the Canadian Entity to resolve an existing difference between the Entities regarding Libby coordination and operations for non-power requirements (NPRs). (15 February 2000)	http://www.cbt.org/uploads/pdf/LibbyCoordinationAgreement.pdf

Topic	Source
PLANNING	
INTERNATIONAL JOINT COMMISSION – KOOTENAY LAKE ORDER	
International Kootenay Lake Board of Control	http://ijc.org/en_/iklbc/home
Web page for the Board of Control, established on November 11, 1938 as part of the decision to permit the West Kootenay Power and Light Company to operate Corra Linn dam at Granite, B.C. to store six feet of water in Kootenay Lake and also to excavate the outlet of the lake at Grohman Narrows.	
International Boundary Waters Treaty, International Joint Commission and The Kootenay Lake Order presentation	http://cbt.org/crt/assets/pdfs/GRAHAM GWYN Environment Canada March 13 2013.pdf
Presentation on the relationship among the International Boundary Waters Treaty, International Joint Commission and the Kootenay Lake Order (March 2013)	
International Joint Commission History – The Northwest Power and Conservation Council Webpage explaining the Commission In the Boundary Waters Treaty of 1909, the United States and Canada created the International Joint Commission (IJC) to address disputes regarding the use and quality of water on the international boundary.	http://www.nwcouncil.org/history/InternationalJointCommission/
INTEGRATED RESOURCE PLAN	
Integrated Resource Plan BC Hydro's Integrated Resource Plan (IRP) is a 20-year plan that describes how the agency proposes to meet future growth in demand for electricity through energy conservation and clean energy generation.	https://www.bchydro.com/energy-in- bc/meeting_demand_growth/irp/about_irp.html

Topic	Source
COLUMBIA WATER USE PLAN	
Columbia River Water Use Planning Webpage with links to plans, annual reports, project studies and monitoring information. Approved in 2007, the plan calls for a large number of monitoring programs and physical works projects to be implemented on the mainstem Columbia River from Kinbasket Reservoir in the north downstream to the Canada - United States border over 12 years.	http://www.bchydro.com/about/sustainability/conservation/water_use_planning/southern_interior/columbia_river.html
Columbia River Water Use Plan Update May 2015 (8 pages) Highlights from the Columbia River Water Use Plan activities in the past year.	https://www.bchydro.com/content/dam/BCHydro/customer-portal/documents/corporate/environment-sustainability/water-use-planning/southern-interior/columbia-wup-newsletter-may-2015.pdf
DUNCAN DAM WATER USE PLAN	
Duncan Water Use Planning Webpage with links to plans, annual reports and project studies	http://www.bchydro.com/about/sustainability/conservation/water_use_planning/southern_interior/duncan_dam.html
NON-TREATY STORAGE AGREEMENT (NTSA)	
NTSA Background Documents Background documents to the development of the NTSA which is a commercial agreement between BC Hydro and the Bonneville Power Administration (BPA) relating to the management of reservoir and power plant operations on the Columbia River in Canada and the U.S.	https://www.bchydro.com/energy-in- bc/our_system/generation/our_facilities/columbia/ntsa.html
Non-Treaty Storage Agreement Fact Sheet	https://www.bchydro.com/content/dam/BCHydro/customer- portal/documents/corporate/community/ntsa/ntsa-fact- sheet-april-2012.pdf

Topic	Source
What is the Relationship Between the Non-Treaty Storage Agreement (NTSA) and the Columbia River Treaty? - Columbia River Treaty Review CRT Review response to a frequently asked question.	https://www.enewsletters.gov.bc.ca/Columbia River Treaty Review eNewsletter/September 2012/September Question of the Month/article
COLUMBIA BASIN REGIONAL ADVISORY COMMITTEE Webpage for the Committee, initiated by the Province, the Columbia River Treaty Local Governments' Committee and BC Hydro with a diverse Basin- wide group representing a broad range of perspectives, interests and geography, which will help inform hydroelectric operations in the Columbia Basin and potential future improvements to the Columbia River Treaty.	http://blog.gov.bc.ca/columbiarivertreaty/regional-advisory- committee/
Terms of reference (5 pages) Terms of reference for the Committee.	http://blog.gov.bc.ca/columbiarivertreaty/files/2013/04/Columbia-Basin-Regional-Advisory-Committee-Terms-of-Reference.pdf
Columbia Basin Regional Advisory Committee Code of Conduct The purpose of this Code of Conduct is to ensure that members of the Committee have a clear understanding of proper practices, and appropriate individual and collective behavior for the Committee.	http://blog.gov.bc.ca/columbiarivertreaty/files/2014/05/201 5-07-21-CBRAC-Code-of-Conduct-FINAL.pdf
Member list List of CBRAC members	http://blog.gov.bc.ca/columbiarivertreaty/files/2014/05/CBR AC-Member-List2.pdf

Topic	Source
COLUMBIA RIVER DAMS AND RESERVOIR OPERATIONS	
BACKGROUND	
CBT Dams and Reservoirs website Learn more about Columbia River Treaty dams and reservoirs. Plus, find out what Basin residents said at information sessions.	http://cbt.org/crt/resources-DamsAndReservoirs.html
KOOTENAY RIVER SYSTEM	
Kootenay Lake levels (FortisBC) Real-time graph and statistics on the elevation of Kootenay Lake at Queen's Bay.	http://webapp.fortisbc.com/lakelevel/lakes.jsp
Kootenai River Basin Reservoir information (USACoE) Links to water level stations on the Kootenay River (US and Canada)	http://www.nwd- wc.usace.army.mil/nws/hh/www/index.html Click on link in left hand side for Kootenai River Basin (Libby Dam)
Kootenay System Operations Overview of the Kootenay River system, administered by several different jurisdictions and the hydroelectric facilities owned by different agencies/companies.	http://blog.gov.bc.ca/columbiarivertreaty/files/2012/07/App endix-C-Kootenay-System-Operations-FINAL.pdf
COLUMBIA RIVER SYSTEM INFORMATION	
Current Water Levels Map An interactive water levels map features real-time updates of water levels from across the Columbia Basin in Canada.	http://www.cbt.org/powerandwater/water-levels-map.html

Topic	Source
Operations on the Columbia River - Relationship between Columbia River Treaty, Non Treaty Storage Agreement, and Water Use Plans (8 pages) The actual physical operations on the Columbia River are a result of a combination, or layering, of different agreements that fall within the Columbia River Treaty framework, plus some limited unilateral flexibility that Canada has to meet system and non-power needs.	http://blog.gov.bc.ca/columbiarivertreaty/files/2012/07/App endix-B-Operations-on-the-Columbia-River-Relationship- between-CRT-NTSA-and-WUPs-FINAL.pdf
BC HYDRO	
BC Hydro Columbia facilities website Overview of BC Hydro Columbia Region dams	http://www.bchydro.com/energy-in- bc/our_system/generation/our_facilities/columbia.html
BC Hydro overview presentation (19 pages) Presentation slides on the Columbia and Kootenay BC Hydro Operations, March 2013	http://www.cbt.org/crt/assets/pdfs/KELVIN_KETCHUM_BC_H YDRO_March_13_2013.pdf
BC Hydro Annual Columbia River Operations Summary (6 pages) An overview of BC Hydro's operation of hydro-electric projects and reservoirs on the Columbia River.	https://www.bchydro.com/content/dam/BCHydro/customer- portal/documents/corporate/community/columbia-river- operations-summary-sep2014.pdf
Duncan Dam and Reservoir	
Duncan Dam information Overview and history of the Duncan Dam	http://www.virtualmuseum.ca/sgc-cms/expositions- exhibitions/hydro/en/dams/index.php?action=duncan
Hugh Keenleyside Dam/Arrow Lakes Reservoir	

Topic	Source
Arrow Lakes Reservoir BC Hydro overview of the recreational opportunities in the Arrow Lakes Reservoir	http://www.bchydro.com/community/recreation_areas/arrowwlakes_reservoir.html
Hugh Keenleyside Dam Overview and history of the Hugh Keenleyside Dam	http://www.virtualmuseum.ca/sgc-cms/expositions- exhibitions/hydro/en/dams/index.php?action=hughkeenleysi de
Kootenay Canal	
Kootenay Canal BC Hydro overview of the Kootenay Canal and adjacent recreational area	https://www.bchydro.com/community/recreation_areas/koo tenay_canal.html
Kootenay Canal information Overview and history of the Kootenay Canal	http://www.virtualmuseum.ca/sgc-cms/expositions- exhibitions/hydro/en/dams/index.php?action=kootenaycanal
Mica Dam/Kinbasket Reservoir	
Mica Dam Overview and history of the Mica Dam	http://www.virtualmuseum.ca/sgc-cms/expositions- exhibitions/hydro/en/dams/index.php?action=mica
Mica Units 5 & 6 Projects Information about the new generating units being installed at the Mica Dam	http://www.bchydro.com/energy-in- bc/projects/mica_generating_station_upgrade.html
Revelstoke Dam/Lake Revelstoke	
Revelstoke Dam Overview and history of the Revelstoke Dam	http://www.virtualmuseum.ca/sgc-cms/expositions- exhibitions/hydro/en/dams/index.php?action=revelstoke

Topic	Source
Revelstoke Unit 6 Project Information about the installation of the sixth generating unit at the Revelstoke Dam	http://www.bchydro.com/energy-in-bc/projects/revelstoke- unit-6.html
Seven Mile Dam	
Seven Mile Dam Overview and history of the Seven Mile Dam	http://www.virtualmuseum.ca/sgc-cms/expositions- exhibitions/hydro/en/dams/?action=sevenmile
Pend D'Oreille Recreation Area Information about BC Hydro developed recreation site upstream from the Seven Mile Dam	https://www.bchydro.com/community/recreation_areas/pen_d_d_oreille_recreation_area.html
COLUMBIA POWER CORPORATION (CPC)	
<u>Columbia Power</u>	http://columbiapower.org
General information about the company, generating stations and projects.	
Arrow Lakes Generating Station	
Arrow Lakes Generating Station Overview and history of Arrow Lakes Generating Station located directly below Hugh Keenleyside Dam	http://columbiapower.org/projects/arrow-lakes-generating- station/
Brilliant Dam	
Brilliant Dam and Generating Station Overview of Brilliant Dam and Generating Station operations	http://columbiapower.org/projects/brilliant-dam-generating-station/
Brilliant Expansion Generating Station Overview of the Brilliant Expansion Project 2003-2007	http://columbiapower.org/projects/brilliant-expansion-generating-station/

Topic	Source
Waneta Dam	
Waneta Dam Overview and history of the Waneta Dam	http://www.virtualmuseum.ca/sgc-cms/expositions- exhibitions/hydro/en/dams/index.php?action=waneta
Waneta Expansion Project Overview of the Waneta Expansion Project undertaken by Fortis Inc. (51%), Columbia Power (32.5%), Columbia Basin Trust (16.5%)	http://columbiapower.org/projects/waneta-expansion- project/
FORTISBC	
Facilities and Operations Overview of FortisBC facilities on the Kootenay River	http://www.fortisbc.com/About/ProjectsPlanning/ElecUtility/ ElecFacilitiesOperations/Pages/default.aspx
US ARMY CORP OF ENGINEERS (USACE)	
Columbia River Basin Technical Management Committee	http://www.nwd-wc.usace.army.mil/tmt/
Information used by the Columbia River Basin Technical Management Team, an inter-agency technical group responsible for making recommendations on coordinated operations of Corps of Engineers' dams and reservoirs as part of the measures designed to halt and reverse the declines of threatened or endangered Columbia River Basin salmon and other declining fish species.	
Libby Dam/Koocanusa Reservoir	
Libby Dam General information about the Libby Dam including flow updates and links to elevation forecasts	http://www.nws.usace.army.mil/Missions/CivilWorks/LocksandDams/LibbyDam.aspx

Topic	Source
Libby Dam information Information and FAQs about the Libby Dam and its operations	http://www.nws.usace.army.mil/Missions/CivilWorks/Locksa ndDams/LibbyDam/Information.aspx
ECOSYSTEMS	
Fish and Wildlife Compensation Program The Fish & Wildlife Compensation Program (FWCP) compensates for the impacts to fish, wildlife and their supporting habitats affected by BC Hydro owned and operated generation facilities. Website includes actions plans, project reports and funding opportunities. Valuing Ecosystem Goods and Services in the Columbia River Basin (86 pages) This analysis clearly demonstrates the need for acknowledgment of nonmarket, ecosystem-based values connected to Treaty operations.	http://fwcp.ca/region/columbia-region/ http://act-adapt.org/valuing-ecosystem-goods-and-services-in-the-columbia-river-basin/
SALMON RESTORATION CBT CRT Fact sheet (2 pages) Salmon in the Columbia Basin fact sheet	http://www.cbt.org/crt/assets/pdfs/CRT_SalmonInTheColum biaBasin_2012.pdf
Canadian Columbia River Inter-Tribal Fisheries Commission webinar recording (1 hour) Webinar recording: History of salmon in the Basin and challenges for restoring salmon to the headwaters	http://kootenayconservation.ca/webinar-recording-history- of-salmon-in-the-basin-and-challenges-for-restoring-salmon- to-the-headwaters/

Topic	Source
Fish Passage and Reintroduction in the US and Canadian Upper Columbia River (23 pages)	http://www.ucut.org/Fish_Passage_and_Reintroduction_into_the_US_And_Canadian_Upper_Columbia_River3.pdf
The Columbia Basin tribes and First Nations jointly developed this paper to inform the U.S. and Canadian Entities, federal governments, and other regional sovereigns and stakeholders on how anadromous salmon and resident fish can be reintroduced into the upper Columbia River Basin.	
Upper Columbia United Tribes Fish Passage webpage The fish passage and reintroduction activities of the Upper Columbia United Tribes (UCUT) in the U.S. are profiled on this webpage.	http://www.ucut.org/fish_passage.ydev
TRANSBOUNDARY COOPERATION	
Universities Consortium on Columbia River Governance	http://www.columbiarivergovernance.org/
Webpage for the Consortium who convenes forums, provides information and inspires/prepares future leaders.	
Trans-boundary Cooperation in the International Columbia River Basin: A Preliminary Assessment of Existing Arrangements and Future Prospects	http://www.nwcouncil.org/media/7149524/transboundary-cooperation-report_9-1-15-final.pdf
This report is an assessment of the current state of transboundary cooperation between the United States and Canada within the international Columbia River basin on issues broadly related to water resource management.	