Aaron Hahn is a multi-disciplinary engineer (Mech/Civil) who specializes in dams, flood protection, hydrology, and hydraulics. Aaron is an experienced engineer with over a decade of professional practice experience working on dams, dikes, and flood hazard mitigation projects throughout British Columbia. Aaron's knowledge of BC regulations (water sustainability act, dam safety regulation, dike maintenance act, etcetera) and dedication to keeping current with industry best practices makes him a valuable asset for any project. Aaron is a founding member of Interior Dams and an active member of the Association of State Dam Safety Officials (ASDSO), the Canadian Dam Association (CDA), the British Columbia Water Supply Association (BC WSA), and the Engineers and Geoscientists of British Columbia.

RELEVANT EXPERIENCE

City of Armstrong Flood Bypass. Aaron is the lead project engineer and designer for the City of Armstrong Flood Bypass Project. The project just receive approval from all stages of government and is scheduled for construction in 2023. [Armstrong, in progress]

Derenzy Lake Dam Construction. Aaron is the project manager and lead design engineer and engineer of record (EOR) for the Derenzy Lake Dam. The dam construction is scheduled for 2023. [Penticton, in progress]

2023 Dam Safety Webinars and Workshops. Aaron is the lead project manager, resource developer, and trainer of the BC Dam Safety Section's (DSS) 2023 webinar and workshop training. [BC, in progress]

Rose Valley Dam DSR. For the City of West Kelowna, Aaron is acting as the project manager, dam safety review engineer, and lead hydrotechnical engineer for an extreme consequence dam. The scope includes a comprehensive assessment of the dams and Aaron is responsible for the safety review of the dam. Aaron is also using the new meteorological data and methodologies outlined by the 2022 BC Flood Project [West Kelowna, 2022]

McCuddy Creek Dams DSR. For the McCuddy Creek Water Users Community, Aaron acted as the dam safety review engineer for three (3) High to Very High consequence dams. The scope of work includes comprehensive assessment of the dams. [Oliver, 2022]

Esk'Etem First Nation Hydrological Analysis. For the Esk'Etem First Nation (EFN), Aaron acted as the lead hydrologist to determine appropriate inflow design flood (IDF) estimates for critical infrastructure near Alkali Lake, BC. [Alkali Lake, 2022]

Valley Pond Dam. For the Williams Lake First Nation (WLFN), Aaron acted as the lead engineer and hydrologist to complete a dam break inundation study and consequence determination of the Valley Pond Dam. [Williams Lake, 2022]

Naramata Geotechnical Stability Assessment. Following the discovery of a boil, Interior Dams was retained to complete a geotechnical stability assessment of the Naramata Lake Dam. Aaron acted as the project manager for the project and the work included invasive investigation, drilling, and in-house geotechnical testing and analysis [Naramata, 2022]

McCulloch Lake Dams DSR. For the City of Kelowna, Aaron acted as the the dam safety review engineer (DSRE) for the five (5) dams on McCulloch Lake. The work includes an invasive investigation of the dams and a comprehensive hydrological assessment of the inflow design flood per the new 2021 BC guidance. [Kelowna, 2022]

Turtle Lake Dams DSR. For the City of Kelowna, Aaron acted as the the dam safety review engineer (DSRE) for the 2022 dam safety review project, as well as the hydrotechnical lead engineer. The work included an invasive investigation of the dam which included geotechnical boring and sampling [Kelowna, 2022]

2022 Dam Safety Webinars. For the Province of BC, Aaron was retained to prepare provincial dam safety training webinars for dam owners. The webinar series was designed and successfully executed using Zoom software. The webinars are now available on-demand via the BC dam safety website. [Province of BC, 2022]

Hydraulic Creek Intake Dam Inundation Study. For the City of Kelowna, Aaron completed a dam break inundation study to determine the appropriate consequence of the dam. Provided inundation mapping was used to support dam emergency planning documents. [Kelowna, 2022]

2021 Merritt Dike Inspections. For the City of Merritt, Aaron inspected the Coldwater River and Nicola River dikes. [Merritt, 2021]

Elinor Lake North and South Dam Geotechnical Drilling and Invasive Investigation. For the Regional District of Okanagan Similkameen (RDOS), Aaron acted as the lead engineer to plan and execute the invasive investigation of the dams. The scope included drilling several boreholes, installation of piezometers, and geotechnical laboratory analysis. [Penticton, 2021]

LLO Inspection of Avocet Dam. For the City of Kelowna, Aaron completed an inspection and CCTV inspection of the LLO works on the Avocet Dam. [Kelowna, 2021]

Naramata Lake Dam Geotechnical Drilling and Invasive Investigation. For the Regional District of Okanagan Similkameen (RDOS), Aaron acted as the lead engineer to plan and execute the invasive investigation of the Naramata Lake Dam. The scope included drilling several boreholes, installation of piezometers, and geotechnical laboratory analysis. [Naramata, 2021]

Inspection of City of Kelowna Dams. Aaron compelted formal annual inspections of all of the City of Kelowna dams, including: Browne Lake Dams (2), Hydraulic Creek Intake Dam, McCulloch Dams (5), and the Turtle Lake Dams (2). The scope of work included CCTV LLO inspection of the McCulloch dam. [Kelowna, 2021]

City of Enderby Flood Mapping and Risk Mitigation. Aaron is the project manager for the Armstrong Flood Mapping and Mitigation project and provides hydrotechnical specialization. The project includes flood mapping, assessment of mitigation options, risk assessment, and preliminary design of structural flood protection works (i.e., dikes, bypasses, etcetera). [Enderby, 2021]

Derenzy Lake Dam Detailed Design. Aaron is the project manager and lead design engineer for the detailed design and construction of a rural high-consequence dam. As the dam is only accessible by helicopter, the project and design are unique due to access constraints [Penticton, 2021]

Post-Debris Flood Hazard Investigation and Mitigation. Aaron was contracted to investigate the hazards associated with a site that experienced a large debris flood in 2020. The work involved the assessment of hydrological and geotechnical hazards at the site for structural risk mitigation [Dog Creek, 2021]

City of Merritt 2021 Dike Inspections. Aaron was contracted to complete required annual inspections for three Moderate consequence dikes for the City of Merritt. [Merritt, 2021]

McCulloch North Dam Low-level Outlet Inspection. Aaron was contracted to complete the 2021 CCTV inspection of the low-level outlet for an Extreme consequence dam [Kelowna, 2021]

Hadden and Stevens Reservoir Dams – Dam Break Analysis and Consequence Classification Review. Aaron was the project engineer and lead hydrotechnical engineer responsible for the dam break assessment of the two Very High consequence Hadden and Stevens Reservoir Dams. The project involved hydraulic modelling of the lower Mission Creek

and a review of the potential consequences of failing the Mission Creek Dike system [Kelowna, 2021]

Tower Ranch Dam – Inspection, Audit and Dam Break Assessment and Consequence Classification Review. Aaron was the project engineer and lead hydrotechnical engineer responsible for the dam break assessment, inspection, and audit of a Significant consequence dam [Kelowna, 2021]

Provincial Dam Safety Training Webinars. Aaron was the project manager and lead resource development engineer responsible for delivering a four-part online dam safety webinar series in partnership with members of the Canadian Dam Association and the University of British Columbia. The work was contracted by the Ministry of Forests, Lands, and Natural Resource Operations and Rural Development and funded by the Ministry of Agriculture and the federal government. [BC, 2021]

Highway 99 Debris Flood Risk Mitigation. In response to a series of tragic post-wildfire debris flow and debris flood events that occurred near Hat Creek in 2018 following the Elephant Hill fire, Interior Dams was contracted to complete a hazard assessment and design active risk mitigation with the assistance of UBC experts. [Cashe Creek, 2021]

Thirsk Arch Dam Crack Investigation and Surveillance Monitoring. Aaron was the project manager responsible for investigating a large crack that had developed on an Extreme consequence concrete arch dam. The project included background investigation and the collection and review of crack mapping and survey monument data. Crack mapping data collection used high-definition cameras to map and archive the downstream dam faces [Summerland, 2021]

Black Mountain Irrigation District Inundation Studies. Aaron acted as the lead engineer responsible for the completion of three dam break inundation mapping projects. The dams are located above the City of Kelowna and are key pieces of infrastructure required to deliver water to >30,000 residential and agricultural connections. The work includes an assessment of the consequence classification of the dams (currently High and Very High consequence). [Graystokes, 2021]

2021 Dam Safety Webinars. For the Province of BC, Aaron was retained to prepare provincial dam safety training webinars for dam owners. The webinar series was designed and successfully executed using Zoom software. The webinars are now available on-demand via the BC dam safety website.

Borland Creek Rapid Flood Hazard Assessment and Active Mitigation Design. In early 2020, Borland Creek overflowed its banks and inundated several residential properties. The flood was estimated to be >1/200-year flood and transported and deposited over 3 m (10 ft) of gravels onto and around a primary residence. Aaron was contracted by the private land owner to assess the existing flood hazard and feasibility of constructing a private dike system. [150 Mile House, 2020]

Industry Brook Dam Stability Upgrades. Aaron was the lead design and project engineer on the seismic retrofit upgrades for a Significant consequence earthfill dam located in the Okanagan Valley. [Kelowna, 2020]

Gaspard Lake Dam Spillway Design and Construction. Aaron was contracted to support True Engineering to provide hydrotechnical specialization to the Gaspard Lake Dam spillway design and reconstruction project. The scope of work includes various hydrotechnical and geotechnical components and construction phases of the work are scheduled for fall of 2020. [Kelowna, 2020]

Rapid Dam Safety Assessment & Remedial Design. In support of a land purchase by the Province of BC, a series of nine (9) unauthorized dams were discovered having dam safety consequences varying from Low to Significant. Aaron acted as the lead dam safety engineer responsible for conducting a dam safety assessment of several of the Significant consequence dams that will not be decommissioned. The scope of work also includes design-build services to bring these dams into compliance. [Williams Lake, 2020]

Incident Response and Emergency Blanket Filter Construction. An active boil (actively forming internal erosion "pipe") was discovered at the toe of a Very High consequence earthfill dam. As the acting project engineer for Interior Dams, Aaron directed the installation of temporary measurement and stabilization works, monitoring of the works, and rapid repair by constructing a sand and gravel blanket filter. [Summerland, 2020]

Meadow Lake Dam No. 1 and 2 Invasive Investigation and Geotechnical Assessment. Aaron was the lead project and field sampling engineer responsible for the completion of the invasive investigation and geotechnical assessment of the Meadow Lake Dam 1 and 2. The project involved the completion of six (6) boreholes and installation of five (5) piezometers, a laboratory testing program, and 2D geotechnical modeling of the dam under various design criteria. [Williams Lake, 2020]

Swan Lake Dam Emergency Culvert Removal. Under a provincial emergency order, Aaron acted as the engineer of record for the RDNO and directed the removal of culverts from lower BX Creek directly below the Swan Lake Dam. [Vernon, 2020]

McCulloch Lake Low-level Outlet Assessment and CCTV Inspection. Aaron completed a condition assessment of the extreme consequence McCulloch Lake Dam low-level outlet for the City of Kelowna. [Kelowna, 2020]

Asahal Lake Dam Safety Review. For the Williams Lake Indian Band, Aaron acted as the dam safety review engineer (DSRE) for the 2020 Asahal Lake dam safety review project. The work included an invasive investigation of the dam which included geotechnical boring and sampling, and the installation of piezometers. [Williams Lake, 2020]

Industry Brook Dam Assessment. Aaron was the lead engineer responsible for assessing issues identified in a DSR. The scope of work included a re-calculation of the inflow design flood (IDF) and a stability analysis. The work included an invasive investigation of the dam which included geotechnical boring and sampling, and the installation of piezometers. [Kelowna, 2020]

Boot Lake Dam Break Studies. Aaron was the lead engineer responsible for completing a dam safety consequence classification review of the Boot Lake Dams. The dams were registered as high consequence earthfill zoned structures with inundation areas on both Canadian and United States soil. [Osoyoos, 2020]

Minton Lake Dam Construction. Interior Dams was contracted by the engineering firm of record, Evergreen Geotechnical Inc., to provide support engineer, resident on-site services for the construction of the Minton Lake Dam. Aaron acted as the project engineer for the Interior Dams team. [Williams Lake, 2019]

District of Summerland Dam Safety Inspections. Aaron conducted annual dam safety inspections for twelve (12) of the District of Summerland Dams. [Summerland, 2019]

NSSL and SSSL Lake Dams OMS Updates. Aaron was responsible for updating the OMS manuals for the City of Armstrong dams in accordance with regulatory requirements. The scope included the development of preliminary plans for the implementation of remote instrumentation and monitoring. [Armstrong, 2019]

Gaspard Spillway Failure Emergency Response. Aaron conducted an emergency inspection of the Gaspard Lake Dam following the failure of a concrete spillway following an event that exceeded the 1/200-year flood (>150 cms). Aaron coordinated a response plan and facilitated a coordinated effort between contractor, regulator, owner, and third-party consultants. [Gang Ranch, 2019]

Valley (Upper) Dam Emergency Spillway Construction. Aaron responded to an emergency condition with the spillway on the Valley (Upper) Dam. The project included in-field design and coordination with available contractors to quickly rectify and re-construct the spillway. [150 Mile House, 2019]

Canadian Dam Association Workshop. Aaron acted as an organizing member and training presenter for the dam owners training workshop. Aaron was instrumental in developing the active participation field inspection exercises. [Calgary, 2019]

Alkali Lake Dam Valve Repair. Aaron responded to an emergency request from the Esk'etemc First Nation Band to assess the Alkali Lake Dam's vertical gate. The work involved CCTV inspection of the low-level outlet (LLO), UAV submarine inspection of the upstream trash rack, field-fabrication of custom equipment, and re-commissioning of the valve [Alkali Lake, 2019]

Lena Lake Dam Watershed Hydrology Assessment. Aaron was the project engineer responsible for completing a hydrology assessment of the Lena Lake Dam watershed. [Egmont, 2019]

Derenzy Lake Dam Inspection and Preliminary Design. Aaron completed emergency response inspection and assessment of the Derenzy Lake Dam. The work involved the completion of a formal annual inspection and inclusion of prescriptive recommendations for the implementation of temporary emergency works and conceptual next steps for decommissioning or reconstruction. [Okanagan Falls, 2019]

Williams Lake Indian Band (WLIB) Dam Inspections. Aaron completed formal inspections of the WLIB's dams. The work involved the field inspection of the Asahal Lake Dam, the Five Mile Creek 1 Dam, the Valley Creek Dam, and the Valley Pond (Upper) Dam. [Williams Lake, 2019]

Smith Lake Dam Safety Review. Aaron acted as the project engineer and provided hydrotechnical and geotechnical engineering to the Smith Lake DSR. The DSR scope of work includes a hydrotechnical analysis, embankment stability analysis, and re-redetermination of the consequence of classification of the dam. [Darfield, 2019]

Meighan Creek Emergency Bypass Design. Aaron was the project engineer responsible for the detailed design of a diversion bypass to mitigate flooding from Meighan Creek in Armstrong, BC [City of Armstrong, 2019]

City of Armstrong Flood Mapping, Mitigation and Risk Assessment. Aaron acted as the project manager for the Armstrong Flood Mapping and Mitigation project. The project included flood mapping, assessment of mitigation options, risk assessment, and preliminary design of structural flood protection works (i.e., dikes, bypasses, etcetera). [City of Armstrong, 2019]

Elliott Creek Dam Upgrades. Aaron acted as the lead project engineer to design and construct upgrades to the Elliott Creek Dam. Upgrades include crest raising, spillway lining, filter and drain design, and installation of piezometers. [District of Lake Country, 2019]

Sandhill Mine Drainage Plan and Preliminary Sediment Pond Design. Aaron was the lead project engineer responsible for developing the Sandhill Mine's Surface Water Management Plan. This project involves the hydrological assessment of the mine, determination of design flow events, design of standard drainage ditches, and preliminary design of a sedimentation pond and impoundment structure. [Kitimat, 2019]

Boot Lake Dam Safety Review. Aaron provided hydrotechnical specialization to the Boot Lake Dam DSR project. The DSR scope of work includes a dam break analysis and re-redetermination of the consequence of classification of the dam. [Osoyoos, 2019]

Williams lake Indian Band Dam Safety Training. Aaron delivered dam safety training to the Williams Lake Indian Band. Training was focused on equipping dam owners on the understanding of failure modes and how to detect and respond to emergencies. [Williams Lake, 2019]

Dam Safety Review for the Peachland Lake Dam. Aaron was the project manager for the Interior Dams team which completed the geotechnical assessment and dam safety auditing of the Peachland Lake Dam. [Peachland, 2018].

Park Rill Dam Auxiliary Spillway Construction. Aaron was the lead project engineer responsible for the design and construction of a new auxiliary spillway for the Park Rill Dam. [Oliver, 2018]

BX Creek Dam Dredging and Spillway Modification. Aaron acted as the lead design engineer for the BX Creek Dam Dredging and Spillway Modification project. The project involved the temporary diversion of BX Creek, minor modification to a drop spillway, and the installation of a service bypass ditch and culvert. [Vernon/RDNO, 2018]

Merritt Dike Inspections. Aaron was contracted by the City of Merritt to assess three dike systems following the flood of 2018. [City of Merritt, 2018]

Elliot Creek Dam Safety Review. Aaron acted as the lead project engineer to assess a High consequence dam for safety under order of FLNRO. Work included a dam break analysis, re-determination of the consequence classification, survey and inventory of the dam and appurtenant structures, and assessment and preliminary planning to address deficiencies. [Lake Country, 2018]

Woodsdale Dam Failure Consequence Review & Inundation Mapping. Aaron acted as the project manager and lead hydrotechnical engineer to conduct a dam failure consequence classification review for the Woodsdale Dam. The project includes inundation mapping. [Lake Country, 2018]

BC OGC Regulator Support. Aaron was contracted to support the BC Oil & Gas Commission with their new role in regulating dams related to oil and gas projects in north-east BC. Aaron's role was to internally review and assess dam failure consequence classification reports (DFCC), operations maintenance and surveillance manuals (OMS), and dam emergency plans (DEP) for conformance to BC regulatory requirements. [Kelowna, 2018]

FLNRO Workshops. Aaron lead the preparation and design of dam safety workshops delivered via the Ministry of Lands, Forests, and Natural Resource Operations and Rural Development (FLNRO). Training was focused on equipping dam owners on how to implement a robust dam safety management system. Content included practical examples on how to re-determine the consequence classification of a dam and how to hire qualified professionals. [Various Locations, 2018]

Emergency Dam Decommissioning. Aaron acted as the lead design and project engineer on an emergency dam decommissioning for the provincial government. [South Okanagan, 2017]

Canadian Dam Association AGM Organizer, Moderator, and Workshop Developer. Aaron acted as a key member of the 2017 CDA organizing committee for the 2017 AGM in Kelowna, BC. Aaron also lead the development and organization of the Dam Safety Management workshop. [Calgary, 2019]

Strohmann Dam Spillway Design and Construction. Aaron acted as the project manager and lead design engineer on the design and construction of a 15 m wide concrete spillway structure. [South Okanagan, 2017]

Dam Break Analysis. Aaron was the lead hydrotechnical engineer for the North and South Silverstar Lakes dam break analysis project. [Armstrong, 2017]

Dam Safety Review. Aaron was the project engineer who directly supported the DSRE for the North and South Silverstar Lakes' dam safety reviews. Aaron also acted as the lead hydrotechnical engineer on the project. [City of Armstrong, 2017]

Dam Break Analysis. Aaron was the lead hydrotechnical engineer for the Park Rill Dam dam break analysis. [Oliver, 2017]

Canadian Dam Association Workshop. Aaron was the main coordinator for the Advanced Operations, Maintenance, and Surveillance Dam Safety Workshop at the 2017 Canadian Dam Association conference in Kelowna. Aaron acted as one of the five training professionals. [Kelowna, 2017]

Dam Emergency Dam Assessment and Remedial Works. By regulatory order, Aaron acted as the project engineer to conduct field investigation of the Park Rill Dam and conduct a CCTV inspection of the outlet works. Inspection included a bathymetric survey and reservoir volume estimate. Emergency works and preliminary planning to address deficiencies was conducted. [Oliver, 2017]

Flooding and Debris Flow Assessment. Under the requirements of bylaw 830 of the Columbia Shuswap Regional District, Aaron lead a multi-disciplinary hazard assessment of the flooding and debris flow potential of Hudson Creek. [Shuswap Earth FX Inc, 2017]

BC Dam Safety Knowledge Transfer Workshops. Under the funding of the federal-provincial-territorial initiative Growing Forward 2 and with coordination with MFLNRO, Aaron lead the preparation of dam safety workshops. The workshops were designed to aid dam owners in "fulfilling the Water Sustainability Act and Dam Safety Regulation". The work developed a universal Dam Safety Management System framework for BC and the workshops focused on dam owner responsibilities, regulatory requirements, operational/maintenance best practices, field inspection/surveillance, and the importance of record keeping. [BC Climate Action, 2016/2017]

W.A.C. Bennett Dam – CrossArm1 Casing Clearing. Acting as the Project Manager of the Interior Dams team, Aaron lead a team of engineers and environmental consultants responsible for the dam safety management and hazard mitigation for the clearing and re-commissioning of the CA-1 instrument casing design. The project involved a complex drilling plan consisting of various custom tooling and detailed work plan & mitigation plan. [BC Hydro, 2016]

Hydrotechnical Review of the Dragon Lake Dam. Acting as the Project Manager and Lead hydrotechnical Engineer, Aaron performed a comprehensive hydrotechnical review of the Dragon Lake Dam [City of Quesnel, 2016]

Inundation Study and Dam Failure Consequence Classification Review. As Project Manager for the Dragon Lake Inundation Study, Aaron authoured and completed an unsteady state inundation study using HEC-RAS at the request of the City of Quesnel. [City of Quesnel, 2015]

Springfield Dam Hydrotechnical Report. As the lead Hydrotechnical Engineer, Aaron provided support to Evergreen Geotechnical in the completion of the Springfield Dam Safety Review. [Springfield Ranch, 2015].

Dam Safety Review. Aaron provided supported Golder Associates in the Dam Safety Review of the South East Kelowna Irrigation District's McCulloch Lake dams. [Southeast Kelowna Irrigation District, 2013]

Falcon Ridge System Upgrades Design Report., Conducted site investigations regarding the feasibility of creek intake options and other system upgrades. Provided design engineering services for an infiltration gallery on Mission Creek [Regional District of Central Okanagan, 2014]

BMID 1050mm Watermain System Extension. Aaron provided engineering design, tendering, and resident engineering services for the Black Mountain Irrigation District. The total project included four (4) phases of work including almost 4000m of 1050mm diameter potable pressure pipe, 750m of road re-construction, and auxiliary works such as valve stations and other appurtenant structures. Aaron was the designated project engineer and contract administrator on behalf of BMID. Aaron was directly responsible for the design, tendering, and construction administration of phase 1 and 2 of the project totaling approximately $2M. [Black Mountain Irrigation District, 2011-2013]

Aeneas Creek Capacity Review. Aaron drafted a technical memorandum which investigated the existing flow capacity of Aeneas Creek and provided recommendations which would mitigate the risk of flooding to the Summerland downtown. [District of Summerland, 2012]

Inundation Report & Dam Failure Consequence Classification Review. Provided hydrotechnical engineering services to support the dam break analysis of the Garnet Dam above Summerland, BC. [District of Summerland, 2012]

GEID Glenmore Road Upgrade. Aaron provided design, tendering, and construction administration services for the Glenmore Road watermain extension. Aaron acted as the project engineer and contract administrator for the project. Contract value $250,000 [Glenmore Irrigation District, 2012]

Inundation Report & Dam Failure Consequence Classification Review. Provided hydrotechnical engineering services to support the dam break analysis of the Isintok Dam above Summerland, BC [District of Summerland, 2011]

Whitehead Dam Low Level Outlet Headwall Repair. Provided as-built CAD services related to the Whitehead Dam Low Level Outlet Headwall Repair. [District of Summerland, 2011]

Thirsk Dam Trash Rack Installation. Was responsible for the role of Project Engineer on the Thirsk Dam Modifications. The project consisted of draining Thirsk Lake and installing three new trash racks, a maintenance bypass main, a flotis valve enclosure, and new operational equipment [District of Summerland, 2010]

Water Rate Study. Was responsible for all the research and calculations included in the Glenmore Ellison Improvement District's Water Rate Study. [Glenmore Irrigation District, 2010]

Pierson Creek Weir Design. Designed and drafted a compound measurement weir for Pearson Creek in Black Mountain, BC. [Agua Consulting, 2010]

Capital Asset Reporting. Performed all cost calculations and data collection for the 2009 Tangible Capital Asset reporting as required by the Ministry of Finance. [Glenmore Ellison Irrigation District, 2010]

Renewal and Risk Assessment Review. Created an age-based asset management failure prediction model for the GEID using a geospatial database. The GIS database included all assets owned and operated, and was used to determine the optimal annual reserve contributions for renewal. [Glenmore Ellison Irrigation District, 2009]

Drought Analysis. Developed and managed a storage retention model trending spring freshet and the determination of risk and severity of drought. This tool is used to determine demand management strategies. [Glenmore Ellison Irrigation District, 2009]

Glenmore Irrigation District Dam Surveillance and Reservoir Rule Curve Development. Aaron was responsible for developing in-house water budget tools for valve operation and rule curve development. The developed rule curve was used to optimize reservoir storage for water conservation and flood management. Aaron also conducted routine surveillance and monitoring of the South Lake Dam, Postil Lake Dam, and the Bullman Lake Dam. [Kelowna, 2008]

EDUCATION

BA.Sc. Degree, Civil Engineering, University of British Columbia, Kelowna, British Columbia, Canada

Diploma, Mechanical Engineering Technology Program, Institute of Advanced Learning, Brampton, Ontario, Canada

Post Secondary English Studies, Blythe Exchange - St. Catharines College, Oxford, United Kingdom

COURSES

Drilling Plans and Hazard Evaluation for Dams and Levees, Association of State Dam Safety Officials, Seattle, Washington, United States

Inspection and Dams and Spillways, Canadian Dam Association, Calgary, Alberta, Canada

Internal Erosion and Emergency Response, Association of State Dam Safety Officials, Seattle, Washington, United States

Dam Safety Management, Canadian Dam Association, Kelowna, Canada

PROFESSIONAL MEMBERSHIPS AND COMMITTEES

P.Eng, Association of Professional Engineers and Geoscientists of BC (Civil Engineering), BC, Canada

AScT, Applied Science Technologists and Technicians of BC (Mechanical Engineering), BC, Canada

Committee Member, Canadian Dam Safety Association (CDA), Canada

Member, Association of State Dam Safety Officials, United States

Member, International Committee of Large Dams, Worldwide (base in France)

Member, BC Water Supply Association, Canada

Member, CSCE Canadian Society for Civil Engineering