

PIEVC Program Brief - July 2022



Since assumption of the program from Engineers Canada in early 2020, the PIEVC Alliance has continued to offer technical and administrative support for the PIEVC Program and its products. The Alliance has also continued to apply the primary tenets of the PIEVC Program, including free access to PIEVC products for public infrastructure assessments, and publication of climate vulnerability assessments. See www.pievc.ca for more detail.

PIEVC Program Activities (March 2020 to present)

Item	Notes
PIEVC Alliance - OFNTSC	Linkage with Ontario First Nations Technical Services Corporation (OFNTSC), including an MOU for continued integration of the PIEVC Protocol in the First Nations Asset Management Toolkit, and inclusion of OFNTSC as an associate in the PIEVC Program Partnership.
Communications/Administration	PIEVC.ca website rebuilt in 2021, CVIIP.ca (French language) released in May 2022, development of Term NDRA to ease administrative aspects of PIEVC protocol use.
Presentations	Presentations by the PIEVC Alliance at national and international conferences in 2021 and 2022, including: WFEO session at COP26; CSCE annual conference; Asset Management Ontario; World Winter Service and Road Resilience Congress; Group of 78 Annual Policy Conference; CSI Global Forum; CSA SCOPE; UNFCCC SB 56 Side Event.
International application	Widespread international application of the PIEVC Protocol as part of GIZ projects and GIZ-CSI collaborations.

PIEVC Program Climate Vulnerability and Risk Assessment Products and Services

Product	Description
PIEVC Protocol	Comprehensive climate change vulnerability assessment method, developed beginning in 2005 through a partnership between Engineers Canada and Natural Resources Canada. Divested to the PIEVC Alliance in 2020. Available at no charge for public infrastructure vulnerability assessment. Current version: 10.11 (June 2016).
PIEVC High Level Screening Guide*	The PIEVC High Level Screening Guide (HLSG), launched in February 2022, allows for expedited applications of the PIEVC Protocol process. The HLSG was developed to support screening assessments (across geographies and/or asset types) and expedited climate lens-type assessments. See https://pievc.ca/pievc-high-level-screening-guide/
CRI – PIEVC Training Course*	A 12-hour, web-based training course on the PIEVC Protocol and related products, including the HLSG, is available through CRI. As of June 2022, roughly 350 Canadian practitioners have received training on the PIEVC Protocol through this course. PIEVC Training (FR): First delivery of the PIEVC French language Training Course was offered by CRI, in partnership with Ouranos, in February/March, 2022, with more deliveries planned.
GIZ – “Climate Proofing” training for infrastructure	The GIZ Climate Proofing Course for infrastructure introduces approaches and methodologies for the climate proofing of infrastructure investments through the full infrastructure investment lifecycle. GIZ and CRI collaborated to integrate PIEVC materials and concepts into this course, which offers guidance on to integrate climate change considerations into policy formulation, project identification, preparation, resource mobilization, construction, and the operation and maintenance of new and existing infrastructure.
PIEVC Assessment Reports	To the extent possible, vulnerability assessment reports that have been developed using the PIEVC Protocol are published and made freely accessible via the www.pievc.ca website.
PIEVC Report Analysis Utility*	A report analysis utility was developed in 2021 to increase accessibility of PIEVC assessment report findings and key data inputs. The utility is publicly available at https://www.pievcanalysis.ca/
PIEVC Catalogue**	PIEVC Family of Resources Catalogue: A Guide for Selecting Climate Risk Assessment Methods, Data, and Supporting Materials.
Large Portfolio Manual**	Large Portfolio Assessment Manual: A Guide for Prioritizing a Large Portfolio based on Climate Vulnerability.

PIEVC Program Climate Vulnerability and Risk Assessment Products and Services Cont.

Climate data DSS**	Decision support tool to assist PIEVC Protocol users with Step 2.
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*Products developed since the Program was assumed by the PIEVC Program Alliance

**Products under development and soon to be released by the PIEVC Program Alliance

Recent Uptake and Application of PIEVC Program Resources

Item	Notes
PIEVC Protocol	Applied to at least 150 infrastructure projects in Canada, including 59 new projects since March, 2020.
PIEVC High Level Screening	Multiple applications of PIEVC High Level Screening Guide in BC and Ontario; currently 192 registered users. Portfolio screening conducted in Brazil and Vietnam, based on full PIEVC Protocol.
Training	Integration of PIEVC content and course modules in Manitoba Climate Resilience Training, CRI’s Infrastructure Resilience Professional (IRP) Program, NFLD BRACE-funded program.
Adoption in guidelines, standards, frameworks	<ul style="list-style-type: none"> Canadian Council of Ministers of the Environment: Identified vulnerability assessment method in “Guidance on Good Practices in Climate Change Risk Assessment” https://ccme.ca/en/res/riskassessmentguidancesecured.pdf Reference/application of PIEVC Protocol in CSA S900.1:18 Climate change adaptation for wastewater treatment plants: https://www.csagroup.org/store/product/2426619/ Referenced in upcoming Ontario Low Impact Development Manual: https://prod-environmental-registry.s3.amazonaws.com/2022-01/Draft%20LID%20Stormwater%20Management%20Guidance%20Manual%202022.pdf Applied in “Developing Climate Change Resilient Designs for Highway Infrastructure un British Columbia” (EGBC, 2020): https://www.egbc.ca/getmedia/b60921fc-a820-41be-868f-02f0d3d92892/EGBC-BCMOTI-Climate-Resilient-Design-Highway-V2-0.pdf.aspx Climate Lens: PIEVC Protocol identified as an INFC Climate Lens resilience assessment method: https://www.infrastructure.gc.ca/pub/other-autre/cl-occ-eng.html Adoption of PIEVC Protocol by City of Calgary for multiple assessments (see: https://pievc.ca/2022/07/05/city-of-calgary-marda-loop-climate-change-risk-assessment/ and https://pievc.ca/2022/04/28/glenbow-museum-climate-lens-climate-change-resilience-assessment-final-report/) Creation of a Costa Rican methodology for climate risk assessments of infrastructure (Metodología de Evaluación del Riesgo Climático para Infraestructura – MERCI) by adapting and contextualising the PIEVC. The methodology is part of the National Adaptation Plan of Costa Rica.

Proposed Next Steps for the PIEVC Program (2022-2023+)

Item	Notes
PIEVC Protocol	Updating of full PIEVC Protocol, beginning in 2022: Responding to user experience and user needs, updating supporting information and terminology, providing a basis for further program updates and products.
PIEVC Green Protocol	Development of a “PIEVC Green Protocol” as a tool for climate risk assessments in the green-grey working context, based on systems thinking. The product will mainstream systems thinking and integrates Ecosystem-based Adaptation (EbA) concepts and impact chains into the existing PIEVC Protocol.
Supporting PIEVC Program Stakeholders	Understanding, and developing products for multiple PIEVC users and stakeholders: New users requiring introductory knowledge, skilled practitioners, and decision- and policymakers.
New PIEVC Resources	Developing sector-specific support tools, including PIEVC modules for green infrastructure and other sectors; new resources to support PIEVC Protocol application, including the PIEVC Family of Resources Catalogue, an online PIEVC Step 2 support tool, and the PIEVC Portfolio Assessment Manual.
Communities of Practice:	Development of Canadian and International PIEVC Practitioners Network.

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Proposed Next Steps for the PIEVC Program (2022-2023+) Cont.

Training Offerings for PIEVC Green and the PIEVC Large Portfolio Assessment Manual	As practitioner experience builds with these approaches and guides, training will be developed to convey key lessons learned.
Publication of Reports	Continuous publication of new PIEVC assessment reports, as they are submitted to the Partnership.
Assessment of PIEVC report application	Assessment of application of PIEVC findings and recommendations.