# Workshop Context

This handout supports the UBC Sustainability Hub event Negotiation Innovation: Advancing Climate Action through Research and Learning. It introduces four prominent forest carbon offset standards to spark critical, non-partisan discussion among participants who may be new to the topic.

## How to Engage with the Summaries

- Treat every section as a starting point for questions rather than definitive conclusions.
- Compare how each standard addresses the four design elements (measurement protocols, certificates, carbon reduction confidence, non-carbon metrics) and identify vulnerabilities.
- Cross-reference the companion vulnerabilities briefing for prompts on design trade-offs.

*Status*: DRAFT for workshop circulation. Updates will follow as peer review feedback is incorporated.

# B.C. Forest Carbon Offset Protocol (FCOP) — Summary

*Reference shorthand: "BC FCOP §X" denotes sections of the 2024 Forest Carbon Offset Protocol (Version 2, April 18 2024).*

## 1. Snapshot

- Issued by the Director under Section 10 of the Greenhouse Gas Industrial Reporting and Control Act; Version 2 effective 18 April 2024. *(BC FCOP cover; §1.0)*
- Applies to forest carbon projects in British Columbia that meet the Emission Offset Project Regulation (EOPR) and protocol rules. *(BC FCOP §1.0)*
- Eligible project types: Afforestation/Reforestation (AFF/REF), Conservation & Improved Forest Management (CONS/IFM), Avoided Conversion (AC). *(BC FCOP §3.3)*

## 2. Carbon Accounting Protocols

- Legally binding requirements for project proponents, validation bodies, and verification bodies; protocol supplements EOPR and must be read alongside it. *(BC FCOP §1.0)*
- Director accepts project plans, issues offset units, and may withhold issuances if reporting obligations are outstanding. *(BC FCOP §3.4, §3.7, §8.4.3)*

- Project proponents must comply with other provincial statutes (e.g., Forests Act, Professional Governance Act) and maintain records per EOPR. *(BC FCOP §1.0)*
- Indigenous engagement is mandatory: proponents must notify, meet, share information with, and report back to Applicable First Nations; ongoing engagement throughout the crediting period is expected. *(BC FCOP §3.1.6)*
- Baseline determination uses two pathways:
  - Performance Standard (mandatory for AFF/REF on public land): choose regulatory, historic practice, or hybrid scenario, selecting the most conservative option. *(BC FCOP §5.1)*
  - Project-Specific (default for other cases): identify all plausible scenarios, evaluate 20-year historic data, assess financial/legal/technical obstacles, and evidence candidate viability. *(BC FCOP §5.2)*
- Additionality assertions cover both financial need (revenues from offsets required to proceed) and regulatory additionality (activities exceed existing or new requirements); reconfirmed in each project report. *(BC FCOP §3.1, §6.1–§6.2)*
- Project reductions cannot be claimed in other offset systems and cannot receive per-tonne incentive funding. *(BC FCOP §3.1, §6.2)*

## 3. Certificates

- Default crediting period is 25 years from project start (shorter optional), with potential revalidation at expiry; monitoring obligations run 100 years beyond crediting. *(BC FCOP §3.5)*
- Start date cannot precede the date proponents obtained rights to submit the plan and claim offsets; Director rejects plans older than one year from protocol notice (or >5 years after activity start). *(BC FCOP §3.4)*
- Contingency Account functions as a buffer: contributions and remedial payments calculated via defined equations when reversals occur. *(BC FCOP §8.4.3; Equations 35 & 39)*
- Projects must occur in B.C. and document entitlements on land tenure (public, private, First Nations, treaty settlement, Aboriginal title). *(BC FCOP §3.1–§3.2)*
- Per-tonne grant or subsidy funding is incompatible; offsets must not be issued elsewhere. *(BC FCOP §3.1)*
- Agreements with First Nations or provincial commitments can influence start dates but must still meet entitlement and reporting rules. *(BC FCOP §3.4)*

## 4. Carbon Reduction Confidence

- Project plan must include an ISO 14064-2–aligned Monitoring & Maintenance Plan detailing data collection and risk management across crediting and monitoring periods. *(BC FCOP §3.1.1, §8.4.1, §10.0)*

- Project reports span 12 months to 5 years, reported on a calendar-year basis; Director may withhold issuance if reports are late. *(BC FCOP §3.7)*
- Monitoring period extends 100 years after the crediting period; monitoring reports due in four 25-year blocks within six months after each block. *(BC FCOP §3.5, §10.1)*
- Validation and verification bodies operate under EOPR accreditation; proponents must maintain data retention schedules to support audits. *(BC FCOP §1.0, §10.0)*
- Monitoring & Maintenance Plan must address risk categories (fire, pests, financial, etc.) and identify mitigation and reporting commitments backed by recent evidence. *(BC FCOP §8.4.1)*
- Reversal events occur when project emissions exceed baseline; proponents must quantify impacts and report impairment. *(BC FCOP §8.4.2; Equation 33)*
- Default natural-disturbance risk contributions to the contingency account are 18% (Coast), 27% (Northern Interior), and 37% (Southern Interior) before project-specific deductions; financial/management risk factors are added separately. *(BC FCOP Table 23; Table 25; Equations 39–41)*
- Materiality threshold set at ±5% of annual emissions/removals; applies to errors, omissions, and misrepresentation. *(BC FCOP §3.6)*
- Project plans must justify calculation methodologies for each sink/source/reservoir and ensure data quality through inventories (e.g., VRI) and sampling protocols. *(BC FCOP §3.1, §10.0)*
- Addresses activity leakage and external market leakage; provides default regional leakage factors (e.g., Coast ~47%, Northern Interior ~72%, Southern Interior ~69%) with option for project-specific analysis via Appendix C. *(BC FCOP §8.3; Tables 10–18)*
- Baseline assessments for avoided conversion must consider regional development trends and evidentiary requirements (permits, offers, economic analysis). *(BC FCOP §5.2.1)*
- Guidance encourages adjusting leakage estimates when species mix deviates from provincial averages. *(BC FCOP §8.3.2.3)*

## 5. Non-Carbon Metrics

- Required First Nations engagement steps (notice, meetings, incorporation of input, ongoing dialogue) serve as the primary social safeguard mechanism. *(BC FCOP §3.1.6)*
- Projects on First Nations or Treaty Settlement land need formal evidence of support (e.g., Band Council Resolution, Certificates of Possession). *(BC FCOP §3.2.3)*
- Protocol references compliance with other environmental/social statutes but does not mandate broader co-benefit certification frameworks. *(BC FCOP §1.0)*

### 6. Recent Updates & Discussion Prompts

- 2024 revision introduced contingency account and risk-of-reversal framework, updated leakage defaults, required Monitoring & Maintenance Plans, and formalized First Nations engagement. *(BC FCOP Summary of Revisions)*
- Workshop prompts: How does the 25-year crediting/100-year monitoring structure influence perceptions of permanence? Is the 5% materiality threshold sufficient for high-variance forest data? Do engagement requirements meet expectations for robust social safeguards?

## Verified Carbon Standard (VCS) — Summary

*Reference shorthand: "VCS Standard §X" denotes clauses in the VCS Standard v4.7 (16 Apr 2024); "Program Guide §X" references the VCS Program Guide v4.4 (29 Aug 2023); "Reg/Issuance §Step Y" references the Registration & Issuance Process v4.6 (16 Oct 2024); "NPRT §X" references the AFOLU Non-Permanence Risk Tool v4.2 (3 May 2024).*

### 1. Snapshot

- Global program administered by Verra covering the seven Kyoto gases plus ODS; eligible projects apply VCS-approved or adopted methodologies within defined scope exclusions. *(VCS Standard §2.1)*
- AFOLU project categories include ARR, ALM, IFM, REDD, ACoGS, and WRC; non-AFOLU activities span energy, industrial, waste, and other sectors subject to scope limitations in non-LDC contexts. *(VCS Standard Appendix 1; §2.1.3)*
- Core document suite: VCS Standard, Program Guide (governance, registry), Registration & Issuance Process (project cycle), and supporting tools (e.g., AFOLU NPRT). *(Program Guide Contents; Reg/Issuance §Step 1–7)*

### 2. Carbon Accounting Protocols

- Verra (independent non-profit) manages the program, maintains impartiality, oversees VVBs, and administers the Verra Registry. *(Program Guide §2.5.4–§2.5.6)*
- Roles: project proponents control implementation and documentation; methodology developers follow the Methodology Development & Review Process; accredited VVBs validate/verify within approved sector scopes. *(Program Guide §2.5.1–§2.5.3; §7.1–§7.3)*
- Registry operations include account management, buffer credit tracking, fee collection, and liability provisions; complaints/appeals are codified. *(Program Guide §4.0–§4.2; §9)*

- Registration & issuance follow a seven-step workflow from validation through periodic issuance, retirement/cancellation, and ongoing maintenance reviews. *(Reg/Issuance §Step 1–7)*
- Baselines must follow applied methodology requirements, demonstrate equivalence of services, use conservative assumptions, and integrate applicable regulations or policies. *(VCS Standard §3.13.1–§3.13.4)*
- Additionality requires regulatory surplus at validation and each crediting period renewal; methodologies or approved activity modules (positive lists) provide tests, with safeguards when simplified approaches originate from other programs. *(VCS Standard §3.14.1–§3.14.2)*
- Project start/validation timing governed by listing, public comment, and deadline rules; AFOLU crediting periods span 20–100 years (renewable up to 100 years total) with reassessment of baseline/regulatory conditions at renewal. *(VCS Standard §3.8; §3.9.3–§3.9.9)*

## 3. Certificates

- VCUs are issued only after successful verification and Verra registration review; Verra deposits calculated buffer credits to pooled accounts before credit issuance. *(VCS Standard §2.3.1; §3.15.16; Reg/Issuance §Step 3–5)*
- Project proponents sign unilateral representations, and registry terms of use prohibit double selling; registry tracks serial numbers, retirements, cancellations, and pooled buffer balances. *(Program Guide §2.5.1; §4.0; VCS Standard §3.23.1–§3.23.6)*
- Fees and liability/time limits are defined in Program Guide; VCUs retain permanence even if projects later experience reversals (buffer credits cover losses). *(Program Guide §4.1–§4.2; VCS Standard §2.4.1)*
- Scope excludes certain grid-connected renewable and fossil energy efficiency activities in non-LDCs unless specific conditions are met; AFOLU activities must align with Appendix 1 definitions. *(VCS Standard §2.1.3; Appendix 1)*
- Projects cannot receive credit simultaneously under VCS and another GHG program; detailed gap validation requirements apply for transitions from programs such as CAR, CDM, or JI. *(VCS Standard §3.23.1–§3.23.13)*
- VCUs can carry labels (e.g., CCB, SD VISta) to communicate co-certifications; Program Guide outlines registry processes and fees. *(VCS Standard §3.24; Program Guide §4.1)*

## 4. Carbon Reduction Confidence

- Projects must maintain a GHG information system, QA/QC procedures, calibrated measurement equipment, and monitor leakage per methodology. *(VCS Standard §3.16.1–§3.16.5; §3.15.15)*
- Verification requires reasonable assurance with materiality thresholds of 5 % (1 % for large projects), mandated site visits at validation, first verification, baseline reassessment, and major deviations; VVBs evaluate

responses to public comments prior to issuing conclusions. *(VCS Standard §4.1.10–§4.1.14; §3.18.13)*

- Monitoring reports follow Verra templates and feed into periodic verification; VVBs apply ISO 14065 competence requirements and document rationale when site visits are deferred. *(VCS Standard §4.1.19; Reg/Issuance §Step 1)*
- AFOLU projects must run the AFOLU NPRT to determine non-permanence risk; internal, external, and natural risk scores are summed, with minimum overall rating 12 and maximum 60. *(NPRT §2.5.1–§2.5.3)*
- The overall risk percentage equals the fraction of carbon stock increase deposited as buffer credits; category thresholds (internal <=35, external <=20, natural <=35) ensure risk diversification, and projects exceeding limits must mitigate risks before eligibility. *(NPRT §2.5.2–§2.5.4)*
- Verra periodically reconciles pooled buffer accounts and can adjust risk criteria prospectively; buffer cancellations compensate for verified reversals so issued VCUs remain intact. *(VCS Standard §2.4.1–§2.4.3; §3.15.16)*
- Verifications apply 5 % (1 %) aggregate materiality thresholds; VVBs must log rationale when site visits are waived, evaluate stakeholder input, and ensure methodology deviations do not undermine conservativeness. *(VCS Standard §4.1.10–§4.1.16; §3.20)*
- Monitoring plans require QA/QC procedures, calibrated instruments, documented data sources, and justification of any optional leakage deductions or methodology updates. *(VCS Standard §3.16.1–§3.16.5; §3.15.8–§3.15.15)*
- Leakage must be documented in project design and monitoring; IFM activities can apply default market leakage discounts (0–70 %) depending on harvest displacement, with optional 15 % activity-shifting and 10 % market deductions under defined conditions. *(VCS Standard §3.15.8–§3.15.15; Table 3)*
- International leakage (outside host country) need not be quantified, but projects cannot claim positive leakage; Verra reviews leakage assessments periodically for consistency. *(VCS Standard §3.15.11–§3.15.14; §2.5.1)*

## 5. Non-Carbon Metrics

- Projects must demonstrate contributions to at least three SDGs by the end of first monitoring period and each subsequent period; CCB or SD VISta verifications can satisfy this requirement. *(VCS Standard §3.17.1–§3.17.2)*
- Stakeholder engagement requires inclusive identification, pre-implementation consultation covering risks, benefit sharing, FPIC, and workers' rights, with documentation of actions taken in response. *(VCS Standard §3.18.1–§3.18.3)*
- Grievance redress involves staged resolution (negotiation → mediation → arbitration/courts) and ongoing communication obligations before each validation/verification. *(VCS Standard §3.18.4–§3.18.6)*
- Extensive safeguards address community safety, labor rights (including gender equity, equal pay, prohibition of forced/child labor), indige-

nous/customary rights, cultural heritage, property rights, benefit sharing, biodiversity protection, and limits on ecosystem conversion. *(VCS Standard §3.19.1–§3.19.29)*

### 6. Recent Updates & Discussion Prompts

- v4.7 updates consolidate expanded safeguard language (FPIC, gender, biodiversity), clarify acceptable use of non-native species where consistency with safeguards is demonstrated, and align AFOLU risk/leakage oversight with the latest NPRT. *(VCS Standard Document History notes §4364–4400)*
- Discussion starters: How do long AFOLU crediting periods and buffer contributions shape perceived permanence risk relative to other protocols? What implementation burden does the SDG contribution requirement create for projects targeting compliance vs voluntary buyers? How do VCS leakage discounts compare with jurisdictional approaches (e.g., CAR or BC FCOP) when groups design "good" versus "bad" protocols?

## Gold Standard for the Global Goals — Summary

*Reference shorthand: "Principles §X" denotes clauses in Principles & Requirements v2.1 (2024-12-05); "Stakeholder §X" references Stakeholder Consultation & Engagement Requirements v2.1 (2022-06-14); "Safeguards §X" references Safeguarding Principles & Requirements v2.1 (2023-06-29); "Gender §X" references Gender Equality Requirements v2.0 (2020-12-16); "LUF §X" references Land Use & Forests Activity Requirements v1.2.1 (2020-04); "Methodology §X" references A/R GHG Methodology v2.1 (2024-05-16); "GHG PR §X" references GHG Emissions Reduction & Sequestration Product Requirements v3.0 (2024-11); "Positive List" references RC 2025 LUFAR Positive List; "Smallholder" references RU 2021 LUF Smallholder Definition.*

### 1. Snapshot

- Certification governed by Principles & Requirements; project cycle includes Gold Standard Certified Project Design and Gold Standard Certified Project, with optional product labels (Principles §2.1–2.3).
- Land-use eligibility guided by LUF Activity Requirements, Positive List of approved practices, and smallholder definitions; A/R methodology provides quantification rules for carbon sequestration projects (LUF §1–§4; Positive List; Smallholder).
- Impact Registry records issuance/retirement of Gold Standard Verified Emission Reductions (GSVERs), Planned Emission Reductions (PERs), and Article 6 authorisations (GHG PR §§10–15).

## 2. Carbon Accounting Protocols

- Governance: Gold Standard Foundation oversees certification; Principles & Requirements set global rules; Impact Registry manages issuance and Article 6 authorisations. *(Principles §2; Program Guide references)*
- Project eligibility requires defined area, legal compliance, uncontested rights, and avoidance of double counting. *(Principles §3.1)*
- Land-use specifics governed by LUF Activity Requirements, positive lists, and smallholder definitions; A/R methodology outlines scope and applicability. *(LUF §§1–2; Positive List; Smallholder §2; Methodology §2.1)*
- Baseline scenarios compare reasonable alternatives, including suppressed demand rules for small-scale projects; additionality requires demonstration via UNFCCC/GS tools and financial need tests. *(Principles §4.1.8–§4.1.16; §4.1.46–§4.1.48; Methodology §3.2)*
- Project documentation must map baseline/project scenarios, SDG contributions, and monitoring indicators. *(Principles §4.1.12–§4.1.15; §4.1.40)*

## 3. Certificates

- GSVERs issued post-verification; PERs (ex-ante) allowed for LUF projects (valid for up to 5 years) and agriculture (up to 3 years) with 20 % buffer withholding and conversion after performance certification. *(GHG PR §§11.1–§11.2)*
- Impact Registry manages serials, authorisations, and labels; dual certification permitted only with explicit Gold Standard approval to prevent double counting. *(Principles §2.3; GHG PR §10.1.2)*
- Projects operating under other programs must ensure aggregated crediting periods do not exceed Gold Standard limits; pre-CDM issuance requires surrender commitments. *(GHG PR §§10.1.2, 10.7.1)*
- Positive List enumerates eligible activities; smallholder definitions unlock tailored rules; stacking allowed under compatibility checks. *(Positive List; Smallholder §2; Principles §2.3)*

## 4. Carbon Reduction Confidence

- Monitoring plans validated at design must specify parameters, frequency, responsible parties, ethics, and QA/QC approaches; annual monitoring reports underpin verifications. *(Principles §4.1.40–§4.1.45; GHG PR §10.3)*
- A/R methodology quantifies sequestration by modelling units, deducting baseline and leakage upfront (t=1) and tracking annual CO2 removals; remote sensing classification must reach >=90 % accuracy. *(Methodology §§3.3–§3.7; Annex C §1.1.6)*
- Compliance buffer requires 20 % of sequestration components; carbon performance checks compare stocks vs issued PERs/GSVERs and define remedial actions. *(GHG PR §§11.1, 11.4)*

- PER issuance prior to verification, soil carbon optional modules, and buffer safeguards manage permanence risk; reversals handled via Performance Shortfall Guidelines. *(GHG PR §§11.1–11.4)*
- Materiality, uncertainty, and QA guidance captured in Methodology/GHG PR; projects must justify default factors, sampling, and inventory accuracy. *(Methodology §§3.5–3.7; Annex C; GHG PR §10)*
- Leakage deductions applied in year 1 for activity categories (fuelwood, timber, agriculture, livestock) with optional default factors; compliance buffer addresses residual risk. *(Methodology §3.7; GHG PR §§10.1–10.4)*

### 5. Non-Carbon Metrics

- Safeguarding framework covers human rights, gender equality, labour conditions, biodiversity, pollution, cultural heritage, indigenous/customary rights, and conflict sensitivity; projects must assess risks, document mitigation, and provide evidence. *(Safeguards §§4–5)*
- Gender requirements mandate gender-responsive assessments, equal participation, and reporting on gender indicators linked to selected SDGs. *(Gender §§2.1–2.4)*
- Stakeholder consultation follows two formal rounds plus continuous grievance mechanism; FPIC required where rights may be affected. *(Stakeholder §§3.1–3.8)*
- Projects may earn price premiums or labels for co-benefits via SDG Impact tools and certified safeguards. *(GHG PR §§10–11; GS SDG tools)*

### 6. Recent Updates & Discussion Prompts

- 2024/2025 updates reinforce SDG alignment, financial additionality, expanded safeguarding, and Article 6 reporting; GHG Product Requirements v3.0 formalise 20 % buffer and Impact Registry authorisation workflows.
- Workshop prompts: How does Gold Standard's dual requirement for SDG impacts and financial additionality influence project credibility? Do suppressed-demand baselines risk over-crediting? What governance challenges arise from multi-program certification (GSVERs + labels)?

## Climate Action Reserve – U.S. Forest Project Protocol Summary

*Reference shorthand: "FPP §X" denotes clauses in the U.S. Forest Protocol v5.1 (2023-07-20); "Appendix" references the same document; companion documents include Quantification Guidance (2017-06-28), Long-Term Management (2019-06), and aggregation/summary notes.*

## 1. Snapshot

- U.S.-focused protocol covering Improved Forest Management (IFM), Reforestation, and Avoided Conversion; projects generate Climate Reserve Tonnes (CRTs) after third-party verification and Reserve review.
- Credit permanence enforced via 100-year monitoring and verification obligations post-final issuance; Buffer Pool insures against unavoidable reversals.
- Protocol underpins California's compliance offset program and voluntary market CRTs; eligible projects may transition from Climate Forward or other programs following Reserve Program Manual procedures.

## 2. Carbon Accounting Protocols

- Climate Action Reserve administers the U.S. Forest Protocol; Project Implementation Agreement binds operators; Professional Forester oversight required. *(FPP §2.1; §8.1)*
- Eligible lands: IFM/Reforestation (private, tribal, and subnational public), Avoided Conversion (private with 100-year easement). Projects must include all forested acres owned within HUC12/14 unless approved otherwise. *(FPP §2.1; §4.2)*
- Project start date linked to discrete action (easement recordation, property transfer, project submittal) and listing must occur within 12 months. *(FPP §3.2)*
- Baseline uses standardized assessment area data with adjustments for legal constraints; project-specific justifications required for any deviations. *(FPP §6.3; Appendix C)*
- Additionality assured via Legal Requirement Test, performance standard, and 100-year commitment; natural forest management criteria govern native species, structure, and harvest practices. *(FPP §3.3; §3.9)*

## 3. Certificates

- CRTs issued after Reserve review of third-party verification and compliance attestations; Project Implementation Agreement sets obligations. *(FPP §8.1; §9)*
- Buffer Pool contributions determined by project-specific risk rating (Appendix A); qualified conservation easements or deed restrictions can reduce contributions. *(FPP §7.2)*
- Projects cannot receive credit simultaneously under other programs; gap validation and start-date rules manage transitions. *(Program Manual §3.23 analog)*
- Aggregated projects follow additional guidance; long-term management note outlines obligations beyond crediting. *(Aggregation Guidelines; Long-Term Management note)*

## 4. Carbon Reduction Confidence

- Annual monitoring with professional forester oversight; monitoring reports due within 12 months of each reporting period, even if verification deferred. *(FPP §8.2–§8.3)*
- Verification schedule requires initial verification within 12 months and site visits at least every six reporting periods (around six years); failure triggers suspension/termination. *(FPP §8.3.2; Table 8.1)*
- Baseline/on-site carbon updates use approved inventory methodologies, wood product accounting, and confidence deductions; negative annual totals trigger reversal procedures. *(FPP §6.1; §7.1)*
- Buffer pool and reversal provisions distinguish avoidable vs unavoidable events, detailing notification, quantification, and compensation timelines. *(FPP §7.2–§7.3)*
- Materiality managed via inventory confidence deductions, GIS acreage reconciliation, and professional standards. *(FPP §4.2; Appendix B)*
- Leakage addressed via decision tree assigning percentage deductions and 0.2 market factor for wood products; activity-shifting leakage assessed annually. *(FPP §6.2.6; Figure 6.1; Equation 6.3)*

## 5. Non-Carbon Metrics

- Natural Forest Management ensures native species composition, structural diversity, deadwood retention, and watershed-scale age balance. *(FPP §3.9.2; Table 3.3)*
- Sustainable harvesting guidelines limit block size relative to retention; conservation easements/public approvals required for public land projects. *(FPP §3.9.1; §2.1)*
- Social safeguards rely on easement commitments, public agency approval processes, and long-term monitoring obligations.

## 6. Recent Updates & Discussion Prompts

- Version 5.1 clarifies natural forest management timelines, verification schedules, and easement provisions while maintaining risk-based buffer approach aligned with CARB program.
- Discussion prompts: How do standardized baselines interact with diverse landowner histories? Does buffer pooling sufficiently account for climate-driven disturbance trends? What trade-offs arise from mandatory HUC-based project area inclusion?
- Version 5.1 clarifies natural forest management timelines, verification schedules, and easement provisions; maintains risk-based buffer approach aligned with CARB program.
- Discussion prompts: Compare CAR's standardized baseline and Buffer Pool with VCS and Gold Standard approaches; debate practicality of 100-

year monitoring requirement when designing "good" vs "bad" protocols; evaluate leakage treatment (decision tree + 0.2 market factor) relative to BC FCOP's regional defaults and VCS optional deductions.

## Cross-Standard Comparison (Draft)

| Design Element | B.C. FCOP (2024) | Verra VCS (v4.7) | Gold Standard (v2.1 suite) | Climate Action Reserve (FPP v5.1) |
|---|---|---|---|---|
| **Carbon Accounting Protocols** | Provincial protocol under GGIRCA; Director accepts plans, issues units, and mandates First Nations engagement; baseline options include performance standard and project-specific pathways with 20-year records. | Verra manages global standard, methodology approval, and registry; baselines/additionality governed by methodology requirements with positive lists and regulatory surplus test; AFOLU crediting up to 100 years. | Principles & Requirements define governance, eligibility, and SDG commitments; LUF Activity Requirements and methodologies set baseline and additionality, including suppressed demand allowances. | Reserve administers U.S. Forest Protocol; standardized baselines by assessment area with legal requirement test; inclusion of all forested acres owned within HUC12/14; natural forest management criteria apply. |

| Design Element | B.C. FCOP (2024) | Verra VCS (v4.7) | Gold Standard (v2.1 suite) | Climate Action Reserve (FPP v5.1) |
|---|---|---|---|---|
| **Certificates** | 25-year crediting (extendable), 100-year monitoring; contingency account contributions; projects must document tenure rights; offsets cannot be double counted. | VCUs issued post-verification via Verra Registry; pooled buffer contributions; exclusions for certain renewables; projects can carry labels; terms prohibit double selling. | GSVERs issued after verification; PERs (ex-ante) convert later with 20% compliance buffer; Impact Registry handles labels and Article 6 authorisations; positive list governs eligible activities. | CRTs issued after Reserve review; buffer pool contributions risk-based; gap validation handles transitions; aggregation/long-term management guidelines support issuance. |
| **Carbon Reduction Confidence** | ISO 14064-2 monitoring plan, reports every 1–5 years, 100-year monitoring tail; reversal management via contingency account; 5% materiality; regional leakage factors with adjustments. | MRV requires QA/QC, calibrated equipment, site visits; AFOLU Non-Permanence Risk Tool sets buffer percentage; 5%/1% materiality; leakage deductions (0–70%) plus activity-shifting options. | Monitoring plans specify indicators/QA; A/R methodology handles modelling/leakage; 20% buffer and carbon performance checks manage reversals; PER issuance and SDG indicators require careful validation. | Annual monitoring with professional forester oversight; verification schedule (site visits every six years or less); buffer pool distinguishes avoidable/unavoidable reversals; confidence deductions and leakage decision tree manage uncertainty. |

| Design Element | B.C. FCOP (2024) | Verra VCS (v4.7) | Gold Standard (v2.1 suite) | Climate Action Reserve (FPP v5.1) |
|---|---|---|---|---|
| **Non-Carbon Metrics** | Mandatory First Nations engagement; projects on Indigenous lands require formal agreements; limited broader co-benefit frameworks. | Projects must contribute to at least three SDGs; stakeholder engagement, FPIC, grievance mechanisms, and extensive safeguards covering community, labour, biodiversity. | Comprehensive safeguards (human rights, gender, labour, biodiversity); gender equality requirements; two-stage consultation plus continuous grievance mechanism; potential price premiums for co-benefits. | Natural forest management maintains native species, structural diversity, deadwood; public land projects require agency approval; safeguards embedded in easement commit-ments. |
| **Notable Updates / Discussion Prompts** | 2024 revision added contingency account, risk-of-reversal tool, updated leakage defaults, and formalized First Nations engagement; consider perma-nence/materiality implications. | v4.7 expanded safeguards and SDG requirements; updated AFOLU risk/leakage oversight; prompts on permanence, SDG burden, leakage comparisons. | 2024/25 updates reinforce SDG alignment, financial additionality, 20% buffer, Article 6 reporting; discuss PER + buffer design, suppressed-demand baselines, multi-program governance. | v5.1 clarified natural forest management timelines, verification schedules, easement provisions; evaluate standardized baseline impacts, buffer adequacy under climate change, HUC inclusion trade-offs. |

## Discussion Themes (initial)

- Permanence strategies: compare contingency account (BC), pooled buffers (VCS, CAR), compliance buffer + PERs (Gold Standard).
- Stakeholder and social safeguards: First Nations focus vs global SDG requirements vs natural forest management criteria.
- Treatment of leakage: regional defaults vs decision trees vs optional deductions.
- Credit issuance pacing: PERs and CRTs with long-term monitoring vs VCUs; workshop could explore "good" vs "bad" design choices using buffer/leakage levers.