

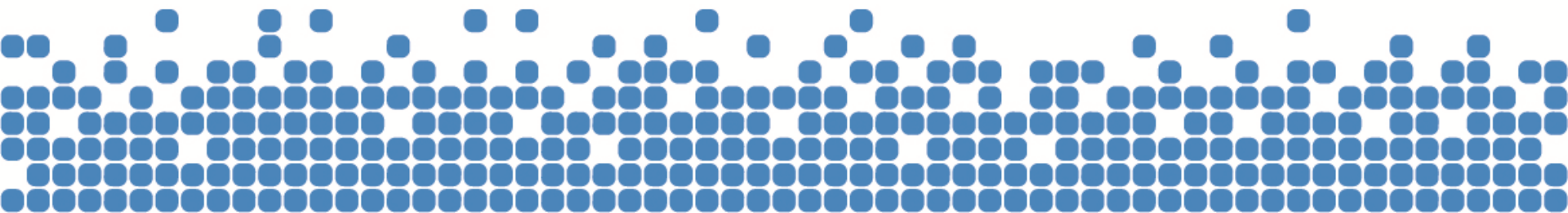


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Designing and Implementing a High Quality GHG Offset Program

Briefing for CPUC Staff

February 11, 2010





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Topics to be Covered

- Overview of the Climate Action Reserve
- Offset Quality and Integrity
- Role and Use of Offsets



Climate Action Reserve

- North American successor organization to the California Climate Action Registry
 - CCAR emission inventory program is concluding
 - TCR has taken CCAR model and expanded
 - Reserve's mission remains to encourage early voluntary actions to reduce emissions and to have such emissions reductions recognized
 - Now focused on emission reduction projects that generate emission reduction credits (offsets)

Key Principles



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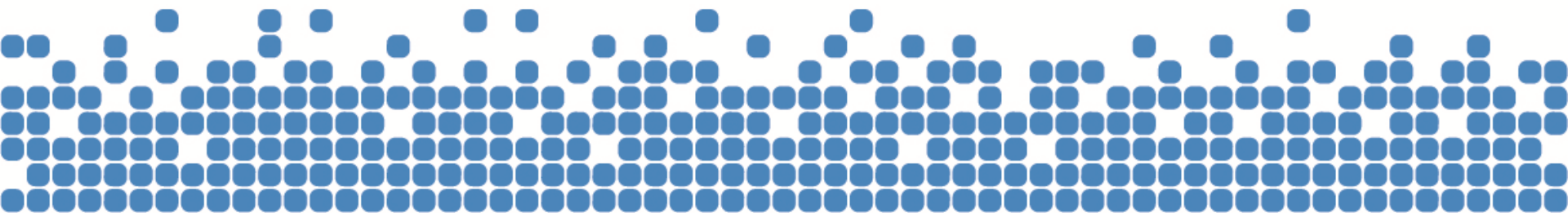
- **Accuracy**
 - Rely on best available science and complete accounting to quantify greenhouse gas effects of project activities.
- **Conservativeness**
 - Where there is uncertainty err on the side of conservative accounting to prevent over-crediting.
- **Transparency**
 - Provide open, public processes and information.
- **Practicality**
 - Ensure that the program can be used as broadly as possible to encourage activities to reduce emissions.



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What We Do

- **Develop High Quality Standards**
 - Convene stakeholders and lead development of standardized, performance-based protocols for carbon offset projects
- **Manage Independent Third-Party Verification**
 - Training and oversight of independent verification bodies
- **Operate a Transparent Registry System**
 - Maintain registry of approved projects
 - Issue and track serialized credits generated by projects



Standard Setting



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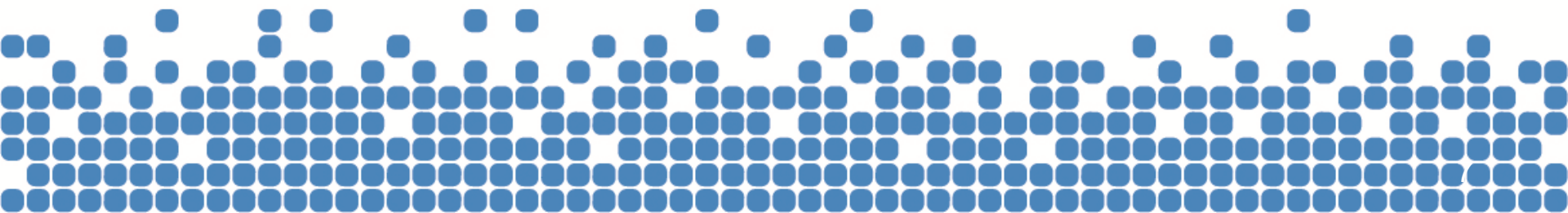
- Extension of CCAR expertise in GHG accounting from inventory protocols to project emission reduction protocols
- Performance based, standardized protocols by sector
 - Assess industry practice as a whole, rather than individual project activities
 - Less subjective determination to qualify
 - More certainty in amount of credits
 - Administrative efficiency/scalability

Protocol Development Process



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1. Literature review
2. Scoping/kick-off meeting
3. Multi-stakeholder workgroup formation
4. Draft protocol to workgroup
5. Revised draft released for public comment
6. Public workshop
7. Solicit public comments and respond
8. Adoption by Climate Action Reserve Board in public session
9. Possible adoption by California Air Resources Board or other government bodies





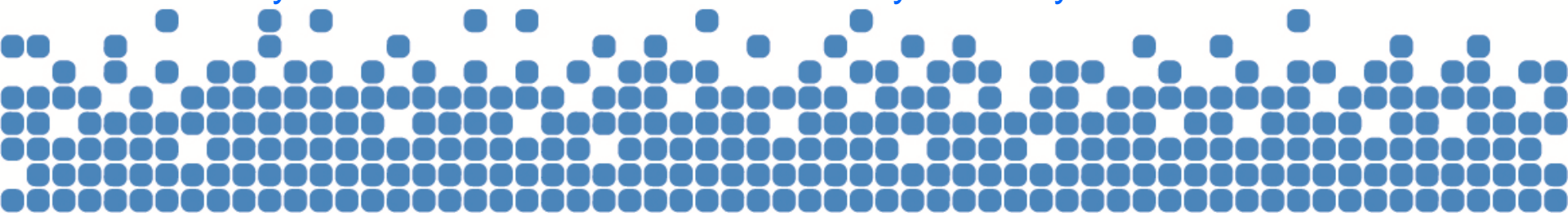
Verification

- The Reserve trains, accredits and oversees verifiers
 - Working with ANSI to ensure compliance with ISO
- Initial accreditation to ISO done by ANSI
 - Reserve provides second level training and accreditation
- Assiduous oversight of verifiers
 - Conflict of interest analysis on every project
 - Project documents, verification report and verification opinion reviewed and approved by the Reserve



Registry System

- Unique serial number for every CRT
 - Embeds information on location, vintage, project type
 - Allows transaction tracking, transfer, and retirement
- Open, publicly accessible web-based system
 - 24/7 operations, help-line
- System architecture is highly functional and scalable
 - Successfully launched in May 2008
 - Can accommodate growing numbers of users, protocols, transactions, and projects without any interruptions
- System Security
 - Fully documented audit trail of all activity within system



What makes the Reserve different?



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Recognition

- American Clean Energy & Security Act
- U.S. Government Certification Mark
- California Air Resources Board
- California Coastal Commission
- State of Pennsylvania
- Bay Area Air Quality Management District
- Voluntary Carbon Standard
- Leading environmental organizations:
 - Environment America
 - Sierra Club
 - Natural Resources Defense Council
 - Union of Concerned Scientists
 - Wilderness Society
 - Environmental Defense Fund



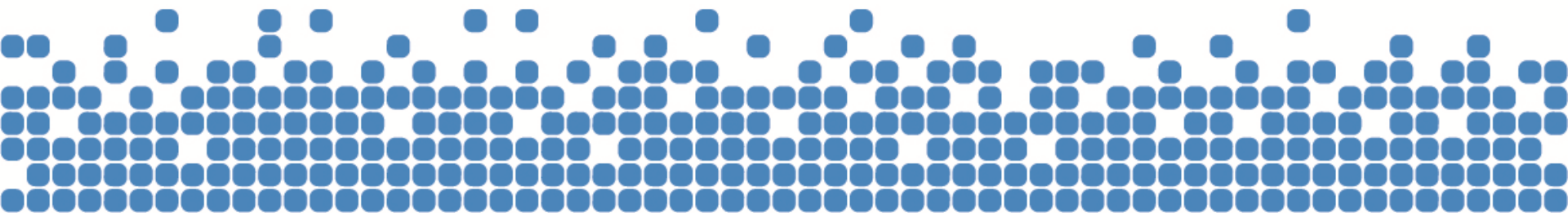
What makes the Reserve different?

Transparency



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- Unparalleled transparency makes the Reserve unique
- Public information and reports include:
 - All protocols and associated documents
 - List of all account-holders
 - List of all projects and all project documents
 - List of all issued CRTs for every project
 - All retired CRTs

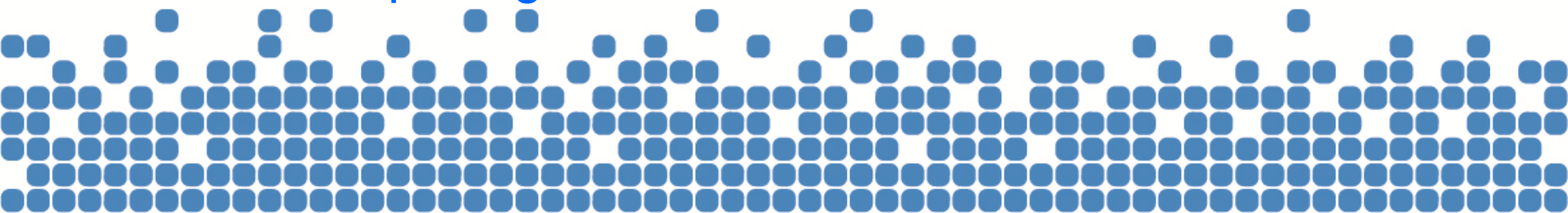


Existing Protocols



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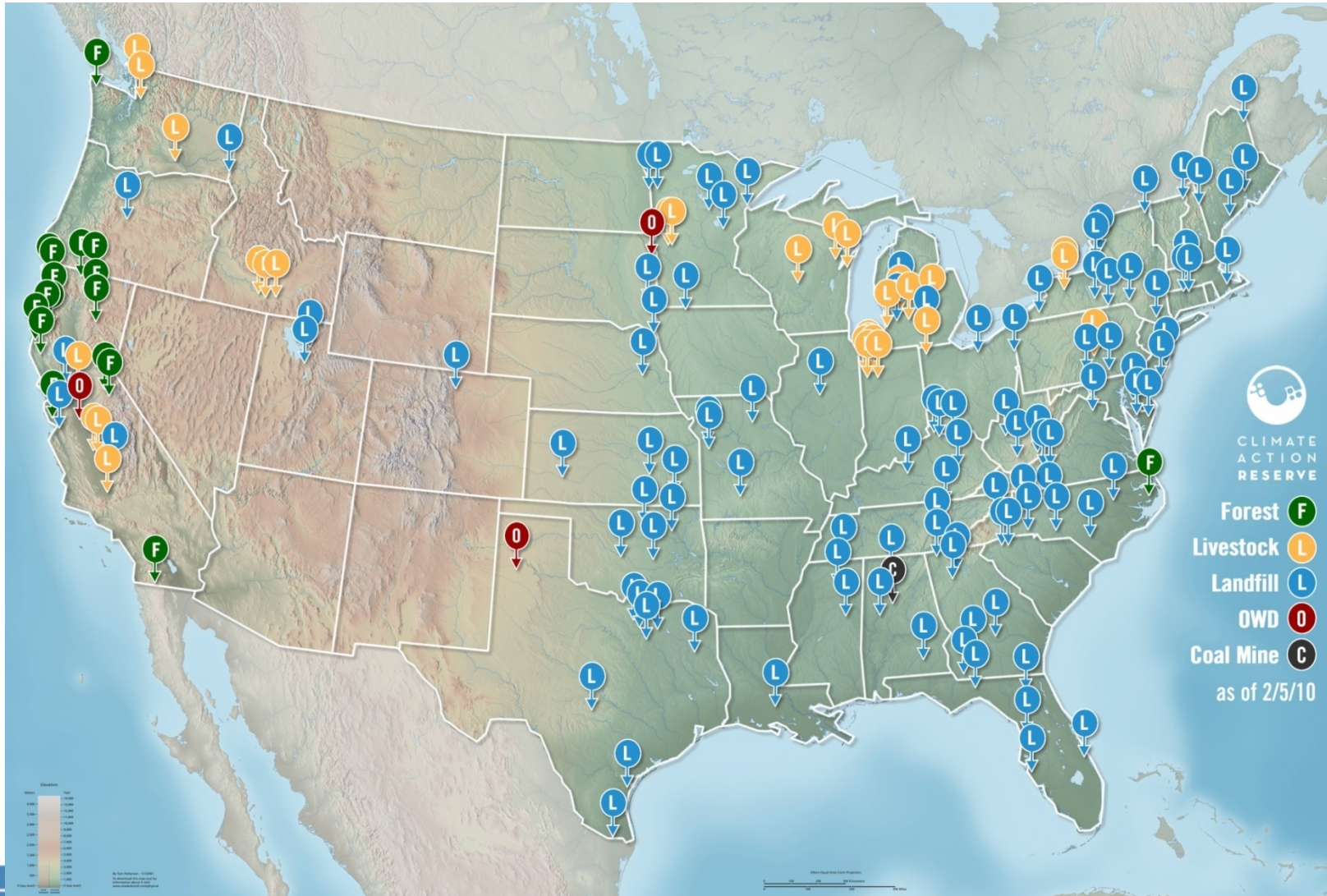
- Forestry
 - Improved forest management
 - Avoided conversion
 - Reforestation
- Urban forestry
- Landfill gas capture (US & Mexico)
- Livestock methane capture (US & Mexico)
- Organic waste digestion
- Coal mine methane
- Nitric Acid Production
- Ozone Depleting Substances



Listed & Registered Projects



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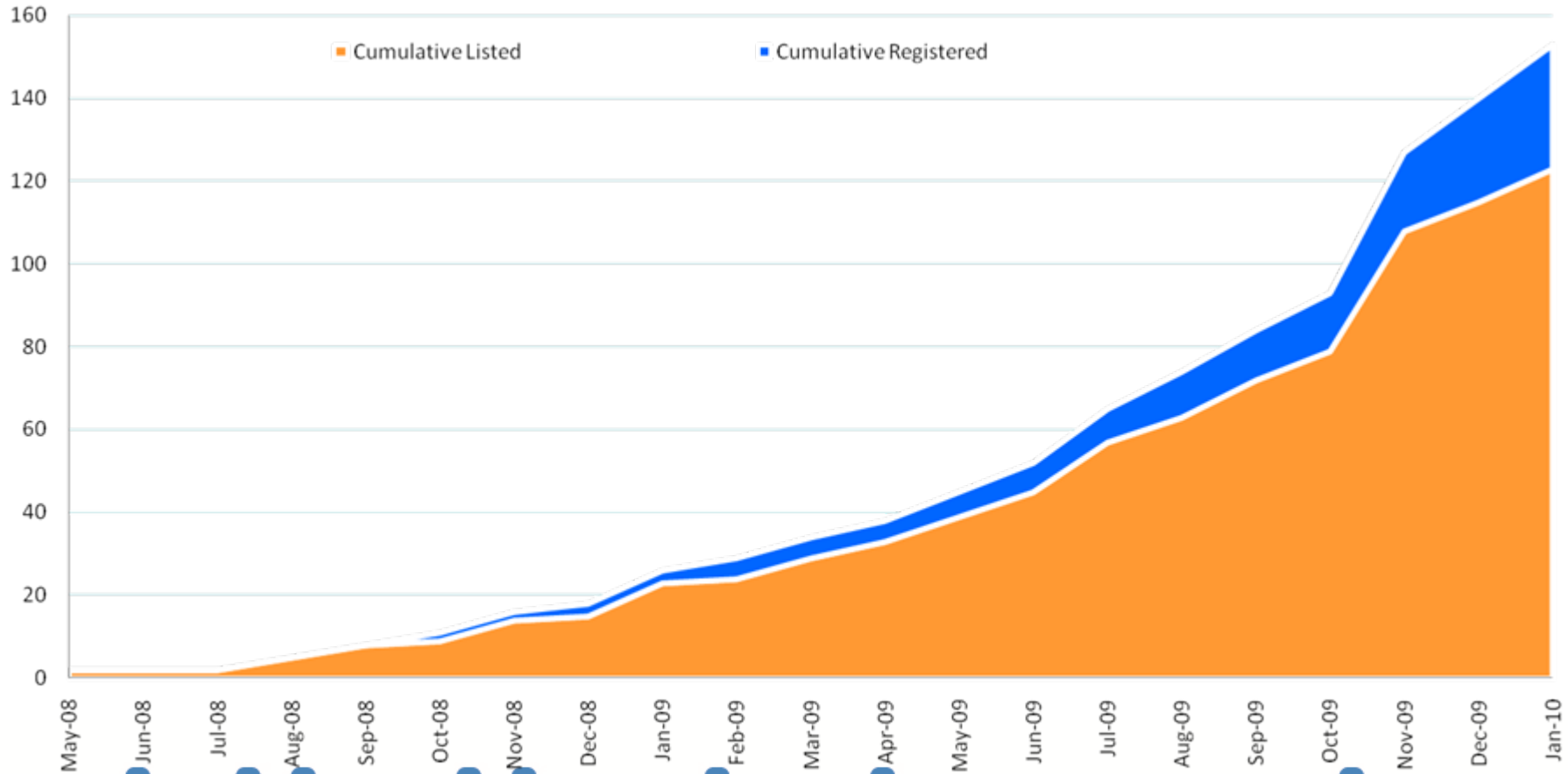
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- Forest **F**
 - Livestock **L**
 - Landfill **L**
 - OWD **O**
 - Coal Mine **C**
- as of 2/5/10

Offset Projects on the Reserve



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Possible Protocols for 2010

Agriculture and Biological Sequestration

- Composting*
- Soil sequestration
 - Cropland
 - Rangeland
 - Biochar
- Tidal wetlands restoration

* *In-progress*

Industrial Processes

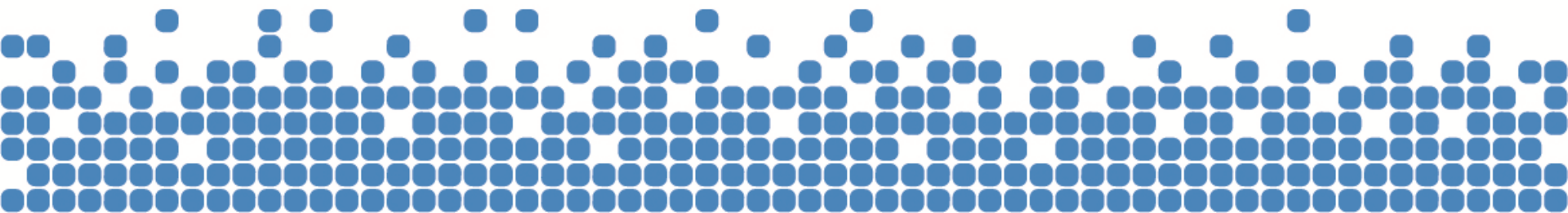
- Boiler efficiency
- Natural gas T&D systems

Transportation

- Truck stop electrification

International Expansion

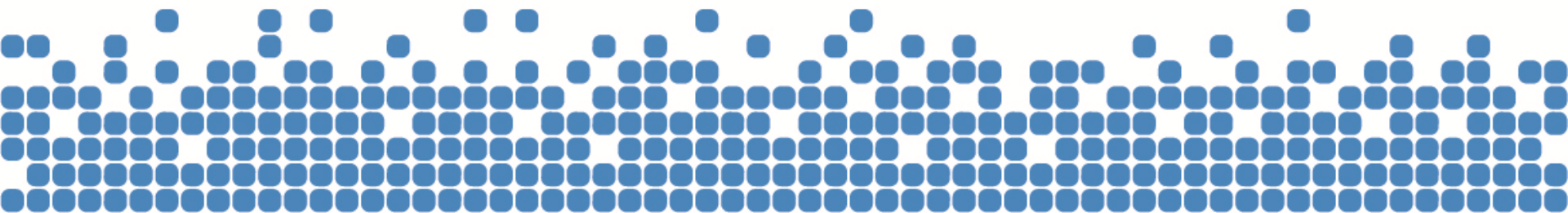
- Mexican Reforestation*
- Canadian protocols





What is an Offset?

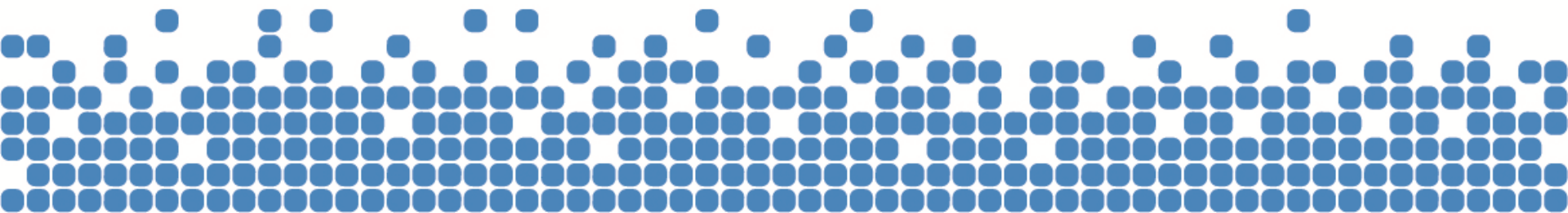
- An offset represents a reduction, avoidance, or removal (sequestration) of one metric ton of carbon dioxide equivalent emissions resulting from a specific project activity that is used to compensate for an equivalent emission occurring elsewhere.
- It is intangible, so its existence is determined by its ability to satisfy definitional tests.
- The Big 5 Tests:
 - *Real, Permanent, Additional, Verifiable, Enforceable*





Describing the Big Five – p. 1

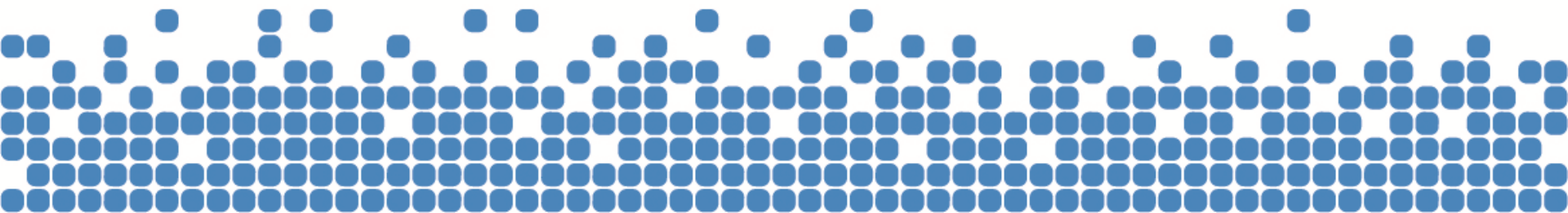
- **Real:** Quantified emissions reductions must have actually occurred (not be projected to occur) and are not merely artifacts of incomplete or inaccurate accounting.
- **Permanent:** Reductions (or removals, in the case of sequestration) should be permanently removed from the atmosphere, and/or be backed by replacement mechanisms if they are re-emitted to the atmosphere (i.e., are “reversed”).





Describing the Big Five – p. 2

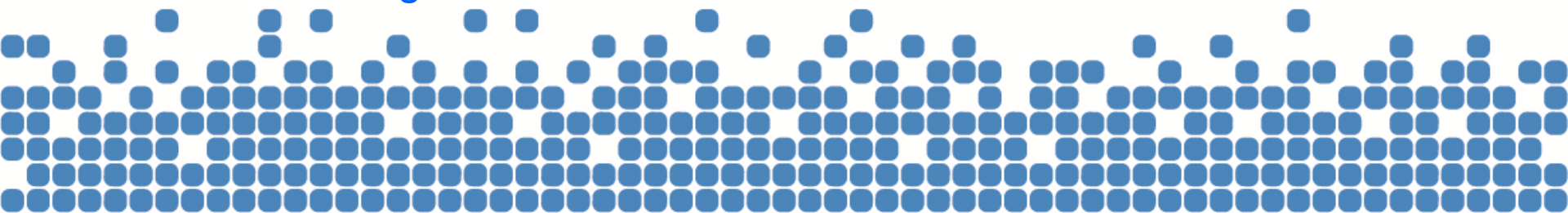
- **Additional:** Reductions should be the result of a response to the existence of a market for such reductions; that is, they should not be reductions that would have happened anyway (aka “surplus”).
 - Not required by regulation and not part of a capped sector.
- **Verifiable:** Reductions should result from projects that can be accurately monitored and verified.
- **Enforceable:** Reductions should be supported by legal instruments that define their creation, provide for transparency, and ensure exclusive ownership.





Standards for Emissions Reduction Programs

- Accounting Standards: *Real, Permanent, Additional*
 - Detailed protocols for quantifying baselines, boundaries, emissions reductions, establishing thresholds for determining additionality, addressing leakage and permanency.
- Procedural/Technical Standards: *Verifiable*
 - Methods for the validation, monitoring, and verification of offset projects, as well as the certification and crediting of GHG reductions.
- Legal Standards: *Enforceable*
 - Requirements for : the establishment and transfer of property rights related to offsets; information disclosure; and terms for addressing contractual violations.





Role of Offsets

- If from a credible, high quality program that ensures environmental integrity, offsets can be an effective part of a comprehensive climate change solution.
- Voluntary Market
 - Support climate friendly / climate neutral claims
- As Mitigation
 - Objective means of reducing impact of an action
 - Clear and consistent rules for measurement, verification, enforcement, monitoring
- In Cap & Trade Programs
 - Provide economic efficiency, price pressure relief
 - Reduce more emissions faster

CRTs as Mitigation



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- California Coastal Commission
 - Proposed as a requirement for the Poseidon desalination plant
- California Attorney General Settlement Agreement
 - SEP funds required to be used to implement offset project in accordance with Reserve protocols.
 - Separately, SEP funds directed to Reserve for program support.
- Bay Area AQMD
 - Analysis of criteria pollutant benefits for CRTs generated in air district for use as mitigation.



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Conclusion:

Why Offsets Make Good Mitigation

- Reductions would not have occurred otherwise .
 - There is real benefit to the environment.
- There are clear and consistent standards for measurement, verification, enforcement, and permanence.
 - These standards are public and are widely recognized.
 - Avoids disputes over quantification methods.
- Ownership and retirement can be tracked on a registry to prevent double counting.
 - Retirement is permanent and is publicly reported.
 - Monitoring of compliance is transparent.





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For More Information

Climate Action Reserve website:

www.climateactionreserve.org

or call us at: (213) 891-1444

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