



CLIMATE
ACTION
RESERVE

US Landfill Project Protocol v5.0

Public Scoping Webinar

October 10th, 2018

Agenda



CLIMATE
ACTION
RESERVE

1. Welcome & background
2. Update process overview
3. Summary of proposed changes
4. Questions & next steps

Reserve Staff

- Sami Osman, *Senior Policy Manager*
 - Project management and protocol development support
- Bety Zavariz, *Policy Associate*
 - Protocol development
- Heather Raven, *Senior Project Coordinator*
 - Project management and protocol development support

Expectations

- Staff will summarize key update concepts
- Stakeholders are encouraged to ask clarifying questions and provide feedback, but for in-depth comments, please submit in writing
- **We are seeking your input and ideas!**
- The presentation will be posted online
- The application period for workgroup participation is open until October 12th 2018

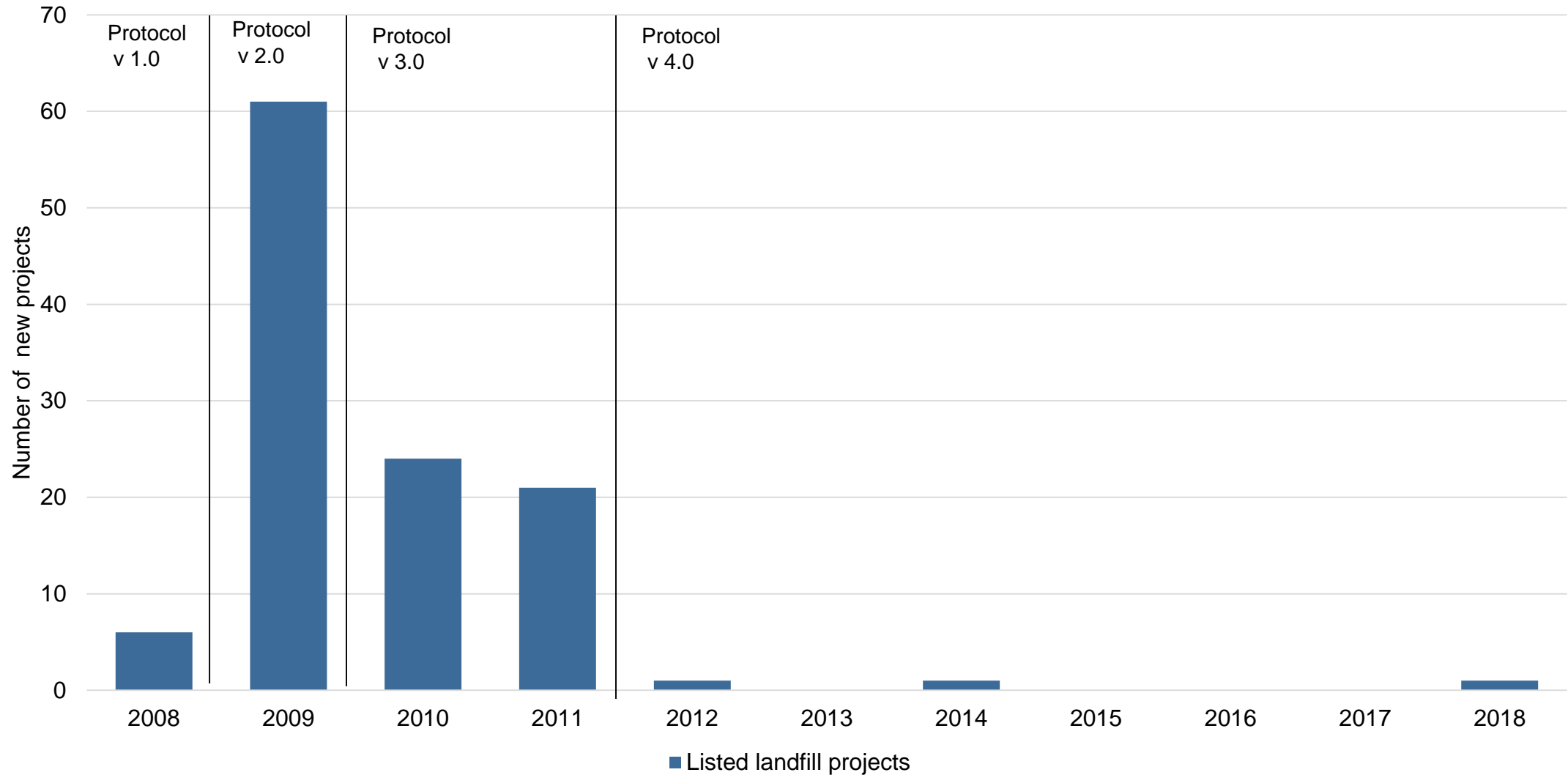
Landfill protocol development history

Version	Adoption Date	Notes
V1.0	Nov 29, 2007	Protocol adopted
V2.0	Nov 18, 2008	Improved accuracy and conservativeness in ER calculations and better guidance for MRV
V3.0	Dec 2, 2009	Eligibility for closed landfills with flares, updated definitions and QA/QC guidance
V4.0	June 29, 2011	Introduction of size threshold for LFG-to-energy projects in Performance Standard Test (PST)

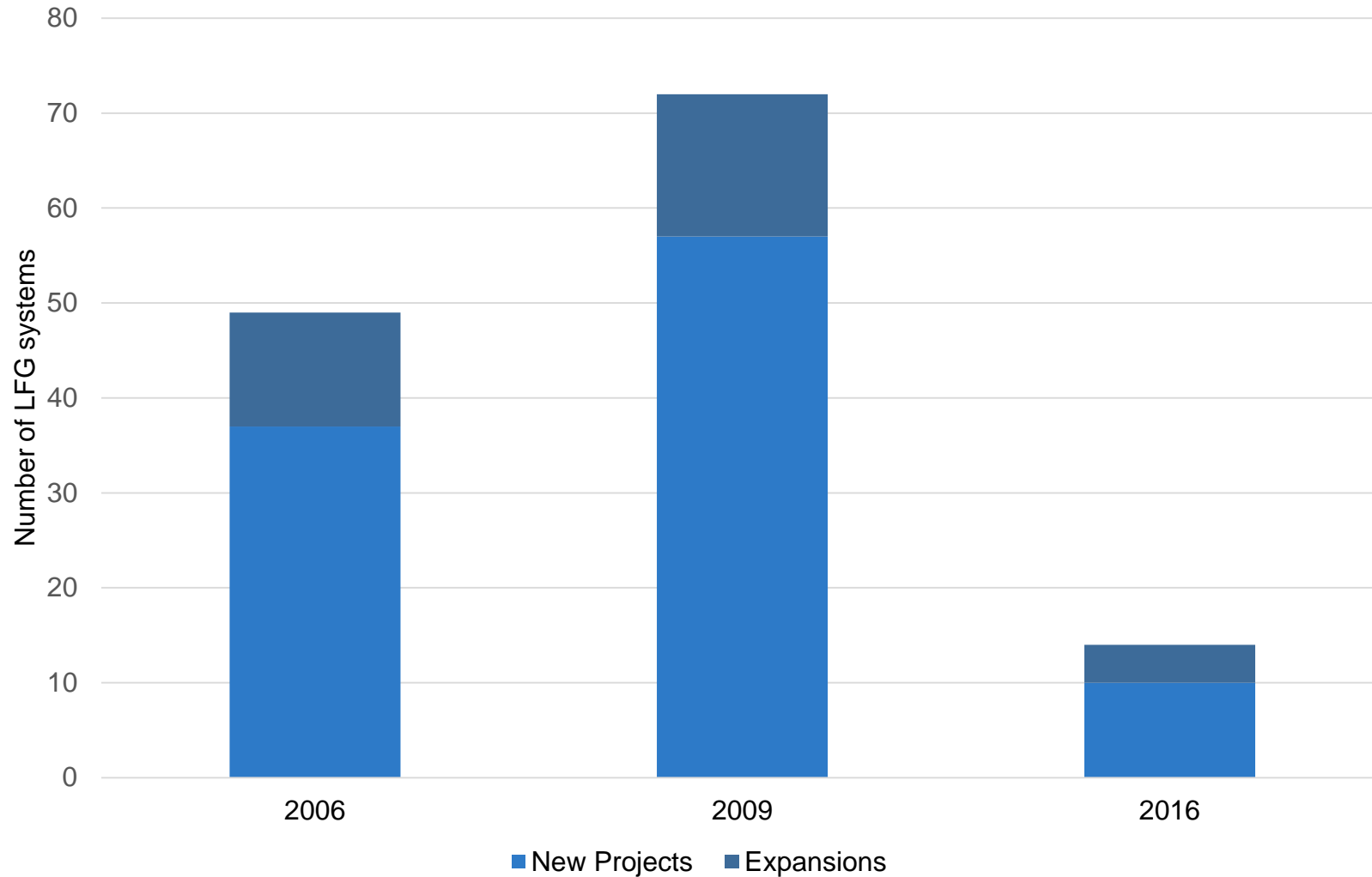
Why are we considering a protocol update?

- v4.0 additionality screen is potentially overly conservative
 - Development of v4.0 PST was driven by additionality concerns
 - Market conditions led to surge in LFG and LFGE projects
 - **Development of new LFG capture systems has stalled, with or without offsets**
- High transaction costs relative to revenues
 - Average project size has come down
 - Credit prices are significantly lower
 - Reserve approach to MRV has evolved in ways that could lower costs

Landfill projects



LFG Systems – New and expansion projects



Update Process & Timeline

Milestone/Task	Timeline
Public Scoping Meeting	Oct 2018
Convene Work Group & staff commences update analysis	Oct 2018
1 st WG meeting (webinar)	Early Nov 2018
Staff begins drafting – working with WG	Nov 2018
2 nd WG meeting to review draft (webinar)	Late Dec 2018 – early Jan 2019
Staff revises draft, incorporating WG feedback	Jan 2019
Public Comment period	Jan – Feb 2019
Public Comment Meeting (webinar)	Feb 2019
Staff revises draft, incorporating public feedback	Feb – Mar 2019
Final protocol adoption by Reserve Board	Apr 2019

Summary of Proposed Updates

Protocol Element	Proposed change
Project definition	Consider defining projects on cell by cell basis, thus allowing for expansion into new cells to be considered new project, with a new crediting period.
Performance Standard Test	Reassess the PST for LFG-to-energy projects. Consider allowing new projects at landfills where previous project has shut down.
Verification	Consider allowing for multiple reporting periods in a single verification



CLIMATE
ACTION
RESERVE

PROJECT DEFINITION

- Existing protocols focus on the installation of a GCCS at a landfill
- Stakeholder feedback:
 - Not many new landfills, but continued expansion of existing landfills
 - Costs to expand existing GCCS are high
 - Argument can be made for financial additionality of GCCS expansion to new cells
- **Potential change:**
 - Create option to define the project in relation to the collection of LFG from individual landfill cells
 - A single project could still encompass multiple cells, and existing projects may always simply expand, rather than create new projects



CLIMATE
ACTION
RESERVE

PERFORMANCE STANDARD TEST

V4.0 Performance Standard Test (PST)

- Developed due to high level of LFG capture activity outside of the carbon market
- No size threshold for flare projects
- LFG-to-energy projects must be below size threshold based on annual waste in place (WIP):
 - 2.17 MMT for “arid” counties
 - 0.72 MMT for “non-arid” counties
- Almost no project activity under v4.0

Rationale for PST update

- Landfill gas market has shifted significantly
 - New LFG capture activity is almost nonexistent
- Federal LFG regulations have tightened, lessening additionality concerns
 - Larger, gassier landfills will now be regulated earlier than before
- Increased market opportunities in project expansions

Potential changes

- Similar analysis to V4.0 may not be feasible, given the significant decline in new LFG capture activity

OPTIONS:

1. Attempt to reanalyze LMOP database to refine the thresholds
 2. Identify an alternative metric as a proxy for financial additionality (e.g., average NG prices, presence of state incentives, etc.)
 3. Remove threshold and consider all non-regulated LFG capture to be eligible for crediting (i.e., “additional”)
- *We request feedback on these options, as well as any others not identified here*

Performance standard test

- Existing protocol discounts for all prior LFG destruction
- Stakeholder feedback:
 - In some cases a GCCS may be shut down for a significant period of time, with no incentive to begin collecting gas again
- Livestock Project Protocol v4.0 introduced a fixed lookback period for setting the baseline scenario (5 years)
- **Potential change:**
 - Define a lookback period for identifying the baseline LFG destruction rate
 - Potentially bundle this with a requirement for a certain level of new equipment or wells



CLIMATE
ACTION
RESERVE

VERIFICATION

Current verification cycle

- Reporting periods (RPs) for Landfill projects may not exceed 12 months
- Verification periods (VPs) may not include more than one RP
- Verification reports are due 12 months following the end of the RP
- Projects may apply for a Zero Credit Reporting Period (ZCRP) if they will miss a verification deadline

Rationale for change

- Average landfill project size has dropped somewhat
- Carbon market prices have dropped significantly
 - Many projects struggle to cover verification costs through carbon revenue
- Many landfill projects are giving up or continually filing ZCRPs
- Other protocols (e.g., Livestock, Forest, Grassland) allow for verification of multiple RPs at once
- Stakeholder feedback:
 - There is market demand for current landfill vintages, but prices are still weak when compared to costs

OPTIONS:

1. Adopt ARB regulatory approach
 - If RP will generate <25k credits, verification may be deferred for one year, allowing verification of two RPs at once
2. Adopt Reserve's Livestock protocol approach
 - Option 1: 12-month verification period (same as current)
 - Option 2: 12-month verification periods, but site visits in alternate years
 - Option 3: 24-month verification period
3. Consider other potential arrangements

ANY POTENTIAL CHANGE MUST BALANCE FLEXIBILITY WITH THE RIGOR OF VERIFICATION



CLIMATE
ACTION
RESERVE

QUESTIONS?

Next Steps

- Application period for workgroup participation closes on October 12th 2018
 - [Landfill Workgroup Statement of Interest](#)
- 1st WG meeting November
- Public Comment Period likely to commence late Jan 2019
- Public Comment Webinar – approx. mid Feb 2019

Contact Information

- **Bety Zavariz**, *Policy Associate*
 - bzavariz@climateactionreserve.org
 - (213) 542-0298
- **Heather Raven**, *Senior Project Coordinator*
 - heather@climateactionreserve.org
 - (213) 542-0282
- **Sami Osman**, *Senior Policy Manager*
 - sosman@climateactionreserve.org
 - (213) 542-0294