

Framework for a Summerfallow Reduction Protocol: Part 2

ClimateCHECK
SET THE STANDARD™



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Presented To:

**Developing a Summerfallow
Reduction Protocol: Science
at Work**

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KEY MESSAGES

Science well established to quantify GHG removals from reduced summerfallow.

- **Based on empirical data.**
- **Implemented in National Inventory Report.**

Protocol development focus on implementation of science.

- **Project condition — determine relationship of proposed Summerfallow Protocol to existing Tillage System Protocol.**
- **Baseline scenario — determine spatial scale and temporal period.**

An aerial photograph of a rural landscape featuring rolling green hills. A farmstead with several buildings is situated in the middle ground. The valleys between the hills are filled with a thick layer of white mist or fog, creating a dramatic and atmospheric scene. The fields are lush green, and the surrounding forests are dense and dark green.

**Tillage Management
System Protocol**

**Canada's National
Inventory Report**

**ISO 14064-2 Standard
Alberta Offset System, Canada's Offset System,
Voluntary Carbon Standard**

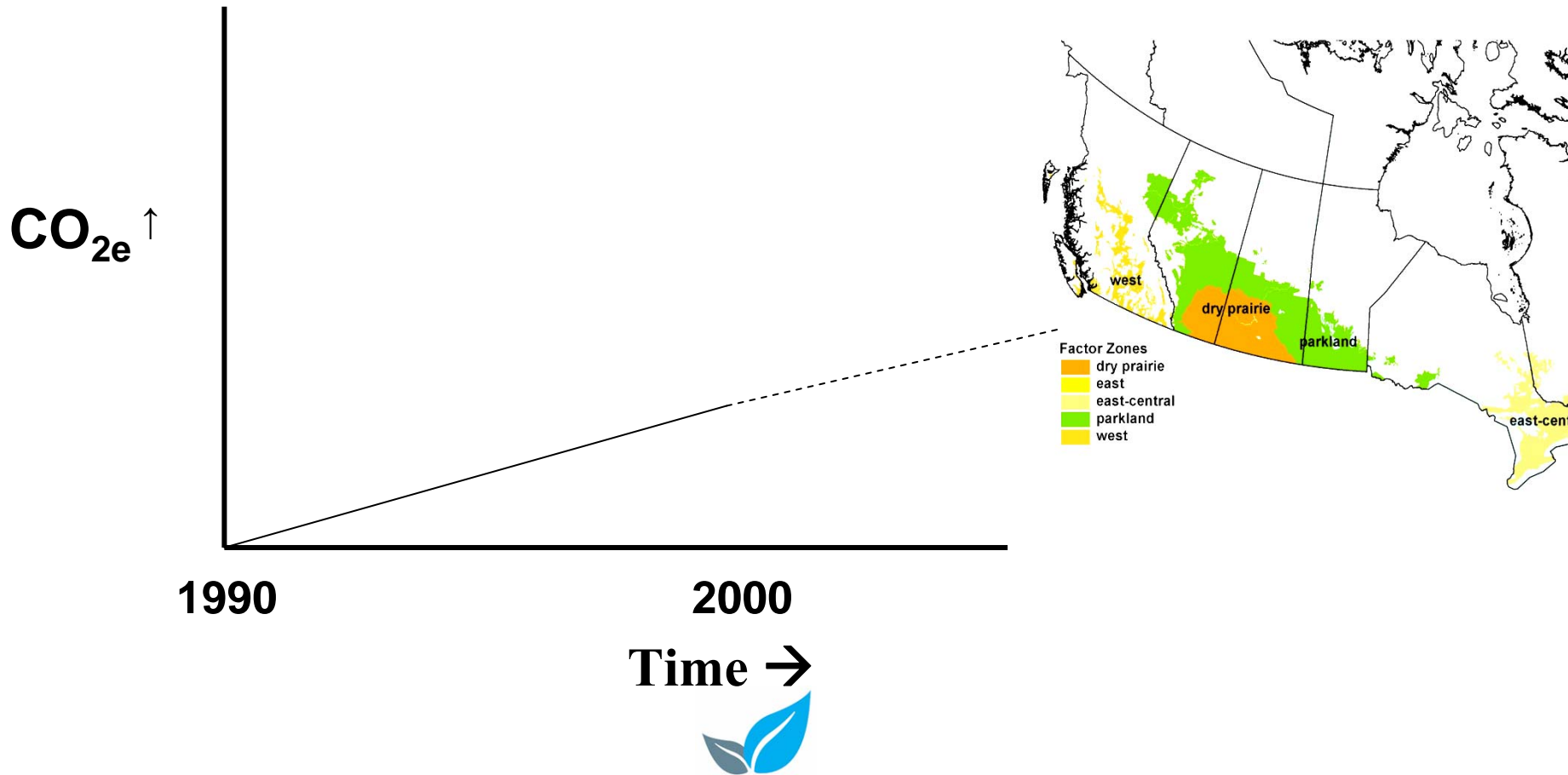
Tillage System Protocol Approach

Adjusting the Baseline Coefficients – ensures only incremental carbon is rewarded

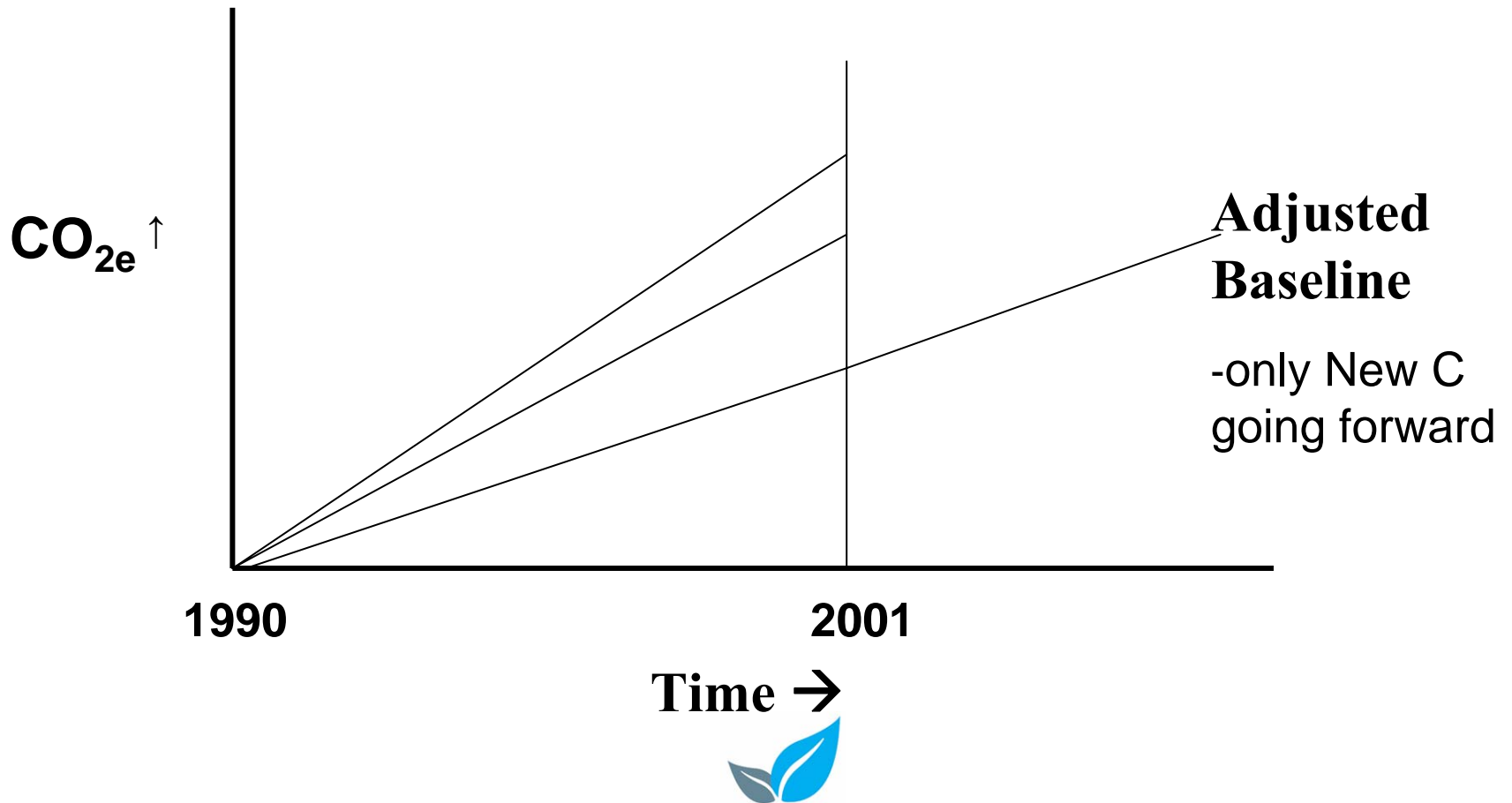
- The quantification science uses a discounted or ‘adjusted baseline’ to subtract out carbon accrued to date (2002 start year)
- Focus is on the new C removals, not the new activities – only exception to the rule (maintaining the sink is important)
- The coefficients in some regions are nearly zero due to high rates of adoption, or discounted by 40 to 60% in others.
- Allows early adopters to gain credit and maintain the sink, alleviating a perverse incentive to till soil to enter the Offset system.



Concept – Dry Prairie



Adjusted Baseline



Baseline Condition

- **Spatial Scale**
 - **Soil Zone**
 - **Less project development effort required**
 - **Increases likelihood of criticism concerning additionality**
 - **Single Farm**
- **Increases project development effort**
- **Minimizes criticism concerning additionality**



Baseline Condition

- **Default / Discount Approach**
 - **Less project development effort required**
 - **Increases likelihood of criticism regarding magnitude of coefficients.**
 - **Increases likelihood of criticism concerning additionality.**
- **Farm-specific / Proof of Practice Change**
- **Increases project development effort .**
- **Minimizes criticism concerning additionality.**



Baseline Condition

- **Temporal Scale**
- **Single Year**
- **Average of Several Years**
- **Past (single year or average to match with 2001 baseline of other Alberta protocols)**
- **Recent (single year or average capture new practice change)**



Permanence / Reversibility

- **Must ensure carbon stays in the ground**
- **Federal context:**
 - **Reversal coefficients**
 - **Permanent Offset Credit (20 to 25 year liability period) – producer liable**
 - **Temporary Credit (expires after 1 year) – buyer liable**



Tillage System Protocol -- Permanence / Reversibility

- **Government backs the liability with Assurance Factor**
 - Based on expert opinion
 - Risk Assessments - frequency of reversal of tillage practices in Dry Prairie and Parkland
 - Reversal risk – shaves off C for every tonne created – into Reserve-Holdback enabled by government policy
 - Backs the liability of a reversal of Soil C
 - Farmers must disclose reversal of practice - no credits earned for that year (no liability on farmer/project developer)



Summerfallow Reduction Protocol -- Permanence / Reversibility

- **Assessing Reversal Risk**
- **No equipment investment .**
- **Market and Weather factors influence practice.**
- **Link to Tillage System Management practice.**
- **Addressing Reversal Risk**
- **Government assurance factors.**
- **Pooled reserve, buffer, etc.**



Summerfallow Reduction Protocol is “additional/incremental”, but practical.

- Farm-specific.
 - Discount/default approaches please no one.
 - Farm-specific baseline and practice change is justifiable and verifiable.
 - Anticipates increasingly rigorous requirements of markets — carbon, as well as ecosystem services.





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