

Agricultural Sector Carbon Market Workgroup

Agricultural Carbon Management

Assumptions:

- 1) Carbon market mechanism treats N₂O emissions separately
- 2) Accepts some uncertainty
- 3) Has reasonable requirement for measurement and/or verification

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- Identify practices / systems / technologies for which there is currently sufficient baseline data and analysis capabilities to support carbon trading
 - ❖ Reduced Tillage Practices (dryland)
 - ❖ No Till Practices (dryland)
 - ❖ Direct Seed Practices (dryland)
 - ❖ Crop Rotation Strategies (dryland)

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- Identify practices / systems / technologies that are promising, but for which there are data gaps / analysis capabilities
 - ❖ Reduced tillage / no till / direct seed / crop rotation strategies for row / field crops (irrigated)
 - ❖ Perennial crop systems (i.e. orchards, vineyards, hay & pasture)
 - ❖ Land application of certain biomaterials (composts, manures, char)
 - ❖ Use of cover crops

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- Identify what data gaps exist
 - ❖ Baseline data for perennial crop systems
 - ❖ Baseline data for many irrigated crop rotations
 - ❖ Baseline data for most land-applied biomaterials
 - ❖ Baseline carbon data for use of cover crops

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- Identify those practices / systems / technologies that may need a “complementary” public policy to support implementation
 - ❖ Perennial crop
 - ❖ Use of cover crops or more expensive biomaterials
 - ❖ Reduced tillage / no-till / direct seed / crop rotation strategies – specifically in the lower rainfall regions where there remains substantial technical and financial hurdles

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■ Potential public policies to consider:

Research / Educational programming to facilitate transitions

Equipment cost-share programs

Conservation payment (i.e. green payment) programs

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- Identify those practices / systems / technologies that are important but unlikely to be marketable as they would need substantial “complimentary” public policy support to implement.

Reduced tillage / no-till / direct seed / crop rotations strategies for most of the state if the carbon mechanism:

- 1) Includes N_2O emissions as a debit against soil C gains
- 2) Does not accept uncertainty
- 3) Has unreasonable requirements for measurement and/or verification

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■ Potential public policies to consider:

Research / Educational programming to facilitate transitions

Equipment cost-share programs

Conservation payment (i.e. green payment) programs

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Preservation of Open Space / Agricultural Land

Assumptions:

Carbon market accepts the continuation of current “set-asides” as new offsets without additionally

Accepts some uncertainty

Has reasonable requirement for measurement and/or verification

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Preservation of Open Space / Agricultural Land

- Identify practices / systems / technologies for which there is currently sufficient baseline data and analysis capabilities to support carbon trading
 - ❖ Conservation “set aside” lands (CRP, CREP)
 - ❖ Vegetation Buffer Areas
 - ❖ Conversion lands (AG to grassland or forest)

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Preservation of Open Space / Agricultural Land

- Identify practices / systems / technologies that are promising, but for which there are data gaps / analysis capabilities

Managed grazing lands (CPGL)

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Preservation of Open Space / Agricultural Land

- Identify what data gaps exist

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Preservation of Open Space / Agricultural Land

- Identify those practices / systems / technologies that may need a “complementary” public policy to support implementation

Maintennce of agricultural land in favor of development

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- Potential public policies to consider:

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Preservation of Open Space / Agricultural Land

- Identify those practices / systems / technologies that are important but unlikely to be marketable as they would need substantial “complimentary” public policy support to implement.

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Preservation of Open Space / Agricultural Land

- Potential public policies to consider: