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## Memorandum

**From:** John Storey-Bishoff  
Acting Section Head  
Climate Change Regulatory and Mitigation Policy  
Director under the *Climate Change and Emissions  
Management Act*

**Date** March 04, 2015

**Subject: Carbon Offset Emission Factors Handbook**

Alberta Environment and Sustainable Resource Development (ESRD) has published Version 1.0 of the Carbon Offset Emission Factors Handbook (the Handbook). The Carbon Offset Emission Factors Handbook contains a listing of common emission factors used in the Alberta carbon offset system as well as common quantification methodologies.

The Handbook will be updated periodically to reflect changes in methodologies and emission factors. The release of this Handbook will affect all of the protocols in the Alberta carbon offsets system. The affected protocols will be updated as a minor revision to include a reference to the Handbook. In the event of a discrepancy between the Handbook and a protocol, the Handbook will be considered the most current. All new projects will be required to use values and methodologies provided in the handbook, and current projects will be required to transfer to updated factors when they receive a crediting period extension. The project developer is responsible for ensuring the most current factors and methodologies are being used.

Common emission factors, provided in Section 1, are intended as inputs to formulae provided in approved quantification protocols. Factors include updates to global warming potential values, anticipated updates to grid electricity factors in Alberta, and adjustments to common fuel emission factors (to align with Canadian National Inventory Report updates). Common quantification methods, provided in Section 2, are commonly used formulae/methods for quantification of greenhouse gas offsets in Alberta. The Quantification of Avoided Landfill and Stockpile Methane Emissions methodology is included in Section 2.1 of the Handbook. This methodology was posted for public comment from November 25, 2014 – January 15, 2015. A summary of stakeholder comments and ESRD responses is posted on the Alberta carbon offsets webpage. The Handbook is considered the final publication of this methodology and there are six related protocols that will be affected including:

- Energy Generation from the Combustion of Biomass;
- Aerobic Composting Projects (minor revision forthcoming);
- Aerobic Landfill Bioreactor Projects (minor revision forthcoming);
- Biofuel Production and Usage;
- Anaerobic Decomposition of Agricultural Materials (minor revision forthcoming); and
- Non-Incineration of Thermal Waste Conversion (minor revision forthcoming).

If you have any questions related to the Carbon Offset Emission Factors Handbook please contact Amanda Bambrick via email: [Amanda.bambrick@gov.ab.ca](mailto:Amanda.bambrick@gov.ab.ca).

Sincerely,

Original signed by: \_\_\_\_\_

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