

# 2017 Environment Metrics Supplement

The Mosaic Company's 2017 Sustainability Disclosure has been prepared in accordance with the GRI Standards: core option. This supplement provides additional environmental metrics, not covered under the GRI framework, that some stakeholders request as part of their review of our performance. We encourage stakeholders to read this supplement in conjunction with our 2017 State of the Business Report and 2017 Sustainability Disclosure & GRI Index [need to add links].

### Water

**Total Water Withdrawals and Intensity by Business Segment** 

1,051

Total Water Used by Business Segment										
Megaliters (1,000 m³)										
Business Segment Municipal Reclaimed Water Groundwater Surface Water Total Total With Inc.										
Phosphate	958	3,563	70,118	219,149	293,788	0.0312				
Potash	0	330	6,465	13,244	20,040	0.0023				
International Distribution	93	5,536	2,263	0	7,892	0.0107				

2017 Global Water Withdrawals by Segment

Note: Phosphate surface water withdrawals include once through cooling water totals. Total water intensity value measured in megaliters per tonne of finished product. Values include all water withdrawals and differ from Mosaic's freshwater intensity reduction target, as reported in Mosaic's State of the Business Report.

78,846

232,394

321,721

0.0171

9,429

**Mosaic Total** 



## **Energy and Emissions**

**Energy per Tonne Finished Product by Business Segment** 

2017 Total Energy Intensity by Segment  GJ/Finished Product Tonnes							
Business Segment							
Phosphate		2.08					
Potash		2.68					
International Distribution		0.86					
Mosaic Total		2.31					
Note: Energy values in this table	are inclusive of energy generated through cogeneration.						

Purchased Electricity per Tonne Finished Product by Business Segment

2017 Energy Intensity by Segment GJ/Finished Product Tonnes							
Business Segment							
Phosphate	0.59						
Potash	0.50						
International Distribution	0.28						
Mosaic Total	0.53						
Note: Energy totals in this table in	clude purchased electricity only						



#### **GHG Intensity Metrics**

2017 GHG Intensity by Segment  Tonnes CO <sub>2</sub> e/Finished Product Tonnes											
Business Segment	Total Direct Indirect Total Direct CO <sub>2</sub> Indirect CO <sub>2</sub> CH <sub>4</sub> N <sub>2</sub> O										
Phosphate	0.245	0.159	0.086	0.244	0.158	0.086	0.00	0.00			
Potash	0.210	0.104	0.106	0.210	0.104	0.106	0.00	0.00			
International Distribution	0.070	0.044	0.026	0.069	0.043	0.026	0.00	0.00			
Mosaic Total	0.221	0.129	0.092	0.221	0.129	0.092	0.00	0.00			

Note: <sup>1</sup>Total, Direct and Indirect GHG values are measured in tonnes CO<sub>2</sub>e per tonne of finished product. Summation of parts may be different from total due to rounding.

#### **Absolute GHG Metrics**

<b>2017 Absolute GHGs by Segment</b> Million Tonnes CO <sub>2</sub> e, except CH <sub>4</sub> and N <sub>2</sub> O											
Business Segment	Total GHG <sup>1</sup>	CH, No									
Phosphate	2.30	1.50	0.81	2.3	1.50	0.81	2371	3120			
Potash	1.81	0.90	0.91	1.81	0.90	0.91	1,996	5105			
International Distribution	0.05	0.03	0.02	0.05	0.03	0.02	58	239			
Mosaic Total	4.17	2.43	1.74	4.17	2.43	1.74	3848	8868			

Note: <sup>1</sup>Total, Direct and Indirect GHG values are measured in million tonnes CO<sub>2</sub>e; CH<sub>4</sub> and N<sub>2</sub>O are presented in tonnes. Summation of parts may be different from total due to rounding.



#### **Other Emissions**

2016 Other Emissions by Segment Tonnes										
Business Segment NO <sub>x</sub> CO PM SO <sub>2</sub> VOC NH <sub>3</sub> FL H <sub>2</sub> S SAM HF										
Phosphate	1589	872	1070	16552	158	1838	110	11	159	127
Potash	1682	554	4975	0	80	0	0	0	0	0
International Distribution	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mosaic Total	3271	1426	6045	16552	238	1838	110	11	159	127

Note: Values are measured in tonnes.