



Developer's Assessment Report  
Jay Project  
Attachment 8F5, Predicted Constituent Concentrations in  
Lac de Gras  
October 2014

## ATTACHMENT 8F5

# PREDICTED CONSTITUENT CONCENTRATIONS IN LAC DE GRAS



## Figures

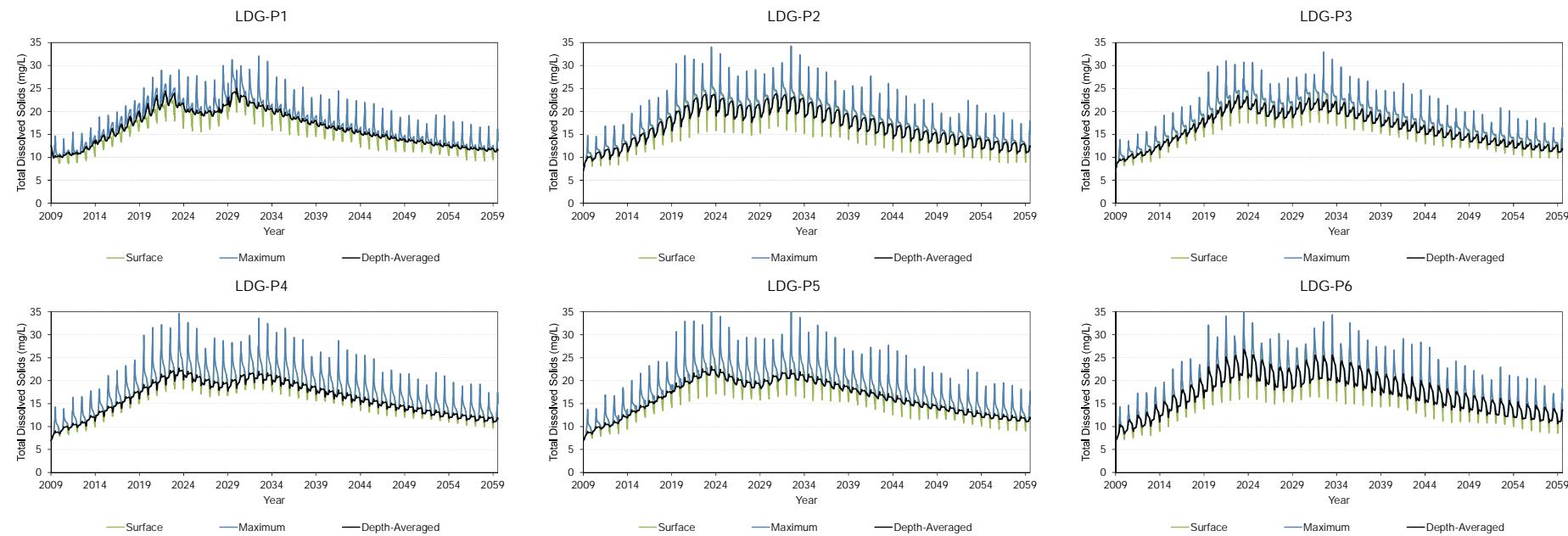
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## Units of Measure

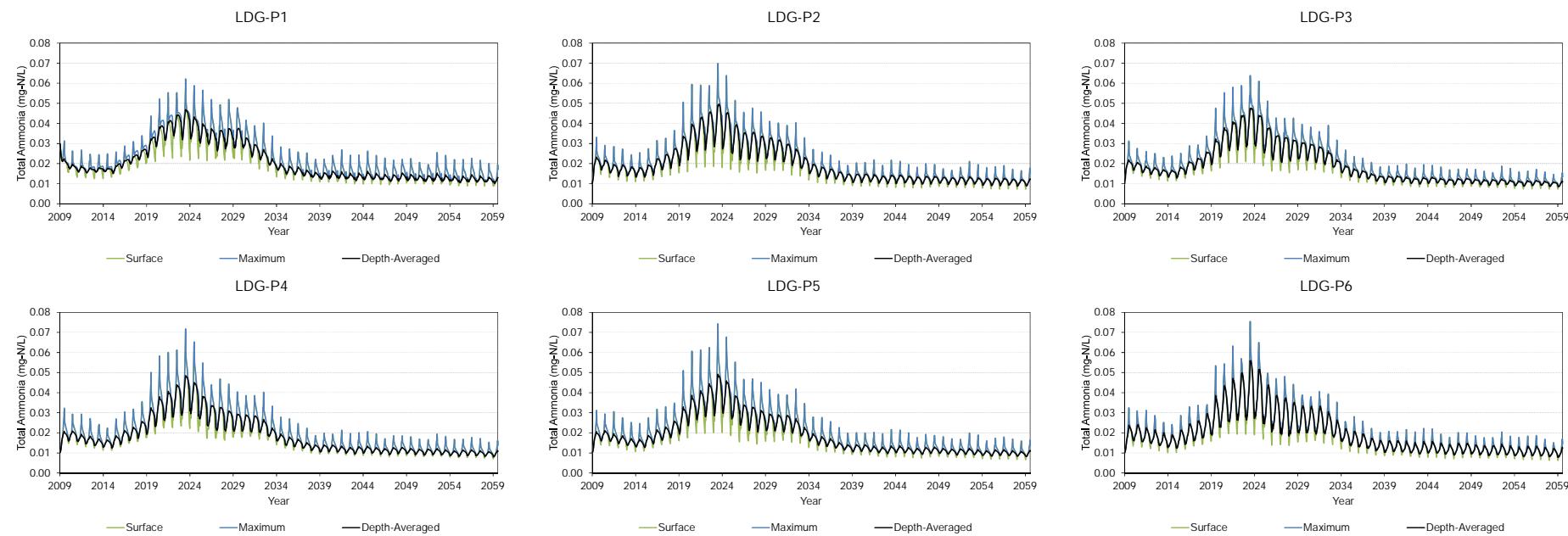
Unit	Definition
µg/L	micrograms per litre
mg/L	milligrams per litre
mg N/L	milligrams nitrogen per litre
mg P/L	milligrams phosphorus per litre

**Figure 8F5-1 Predicted Total Dissolved Solids Concentrations in Lac de Gras**

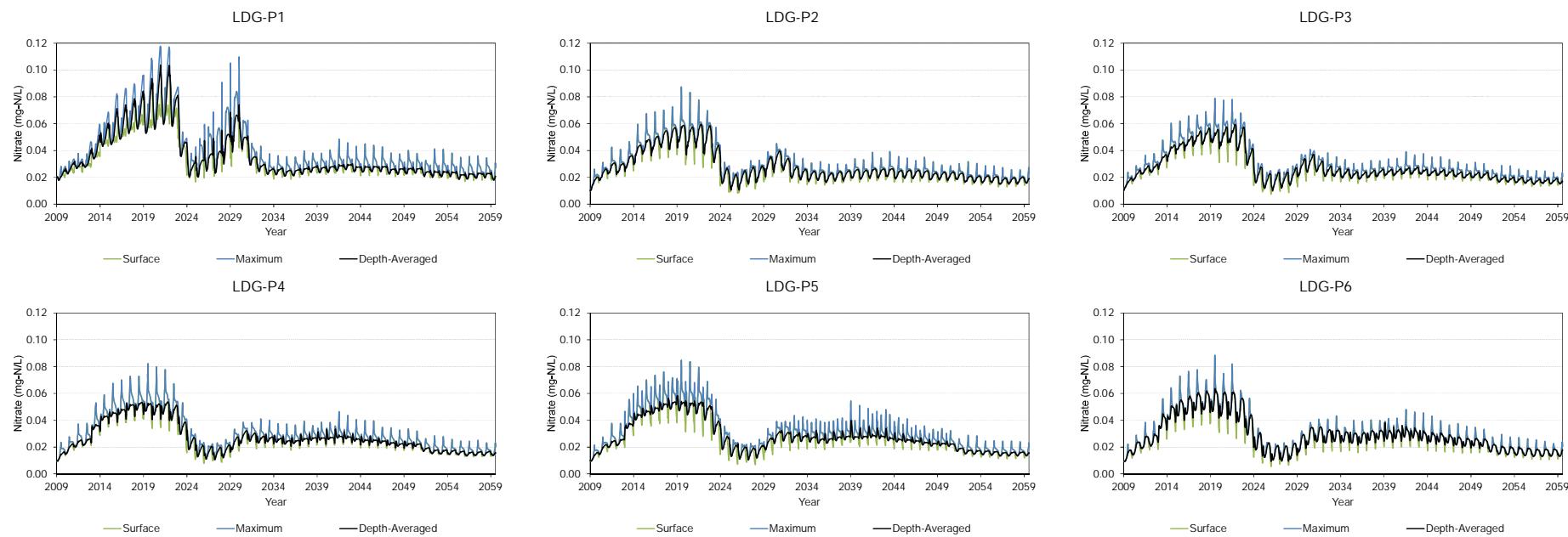


mg/L = milligrams per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

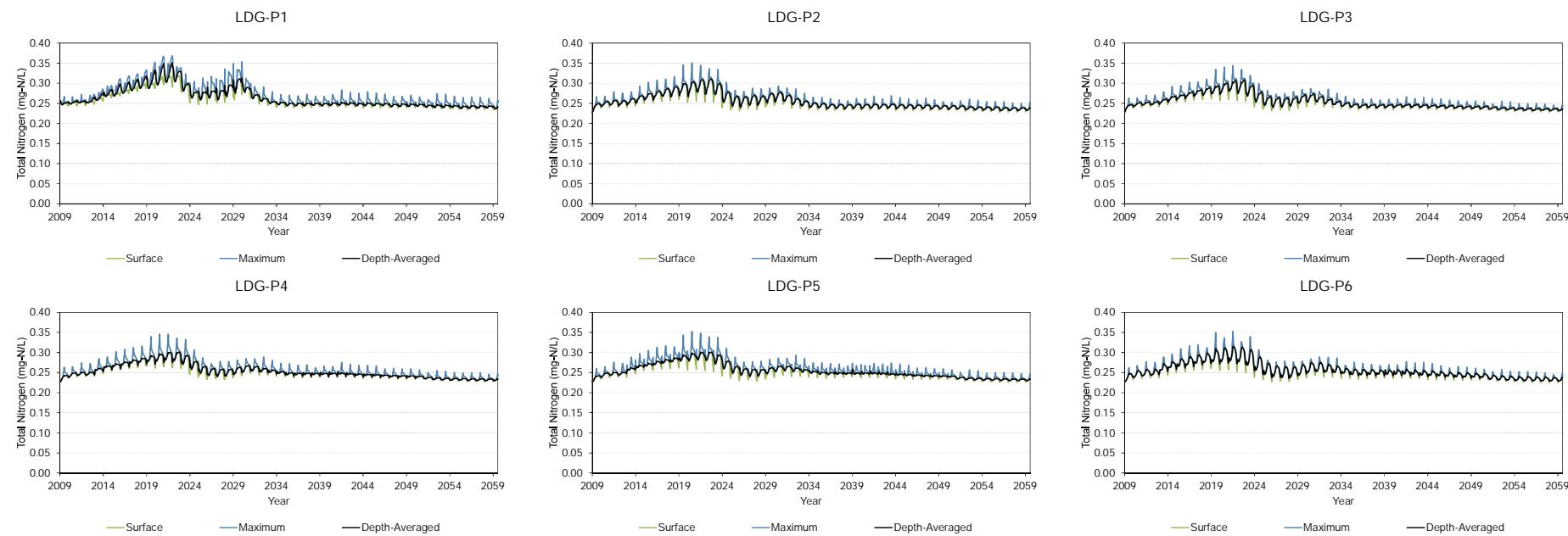
**Figure 8F5-2 Predicted Total Ammonia Concentrations in Lac de Gras**



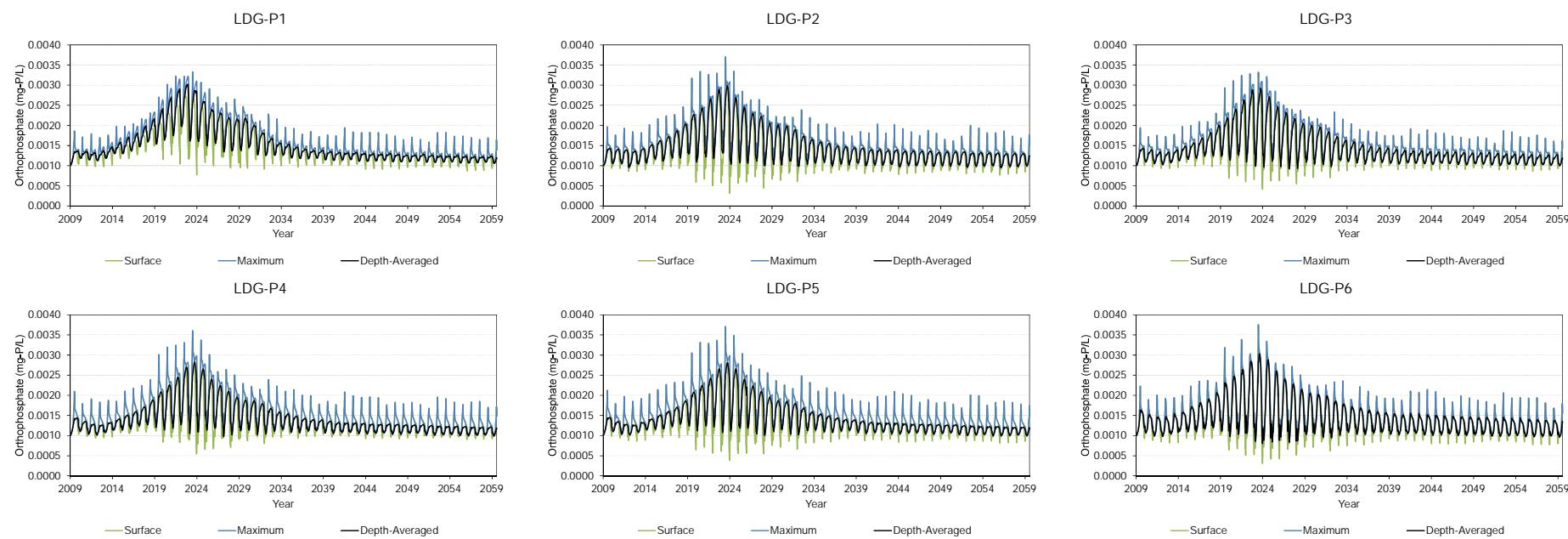
mg N/L = milligrams nitrogen per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-3** Predicted Nitrate Concentrations in Lac de Gras


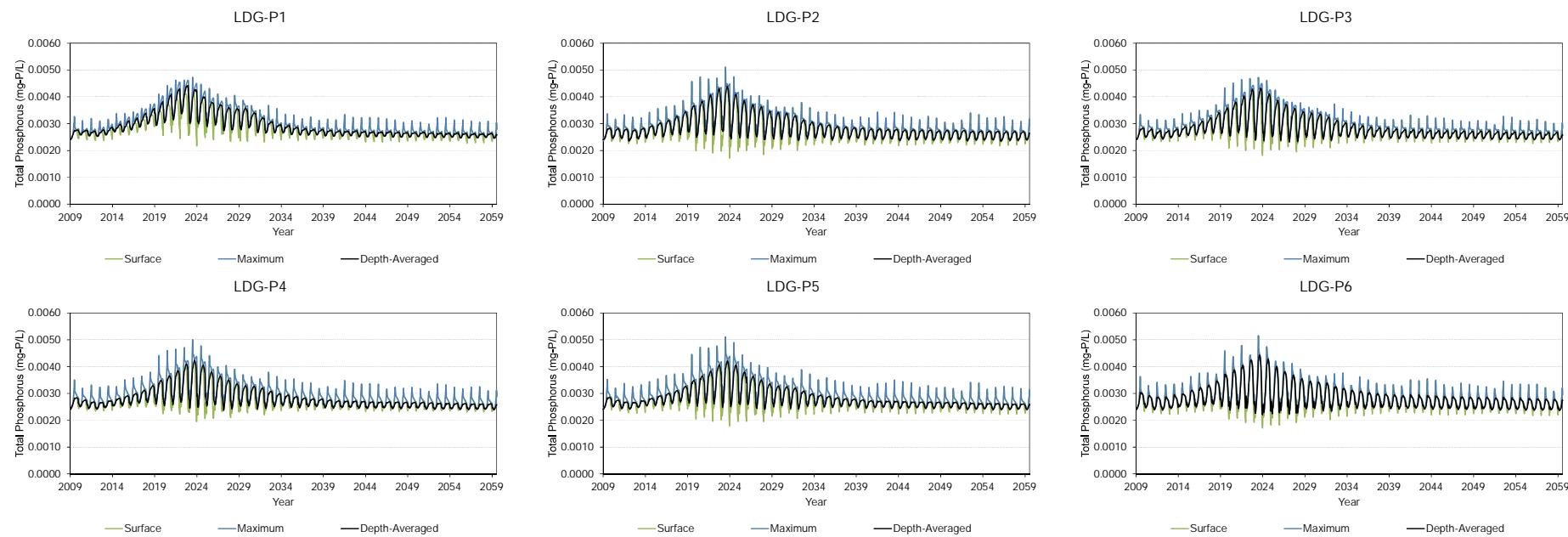
mg N/L = milligrams nitrogen per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-4** Predicted Total Nitrogen Concentrations in Lac de Gras


mg N/L = milligrams nitrogen per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

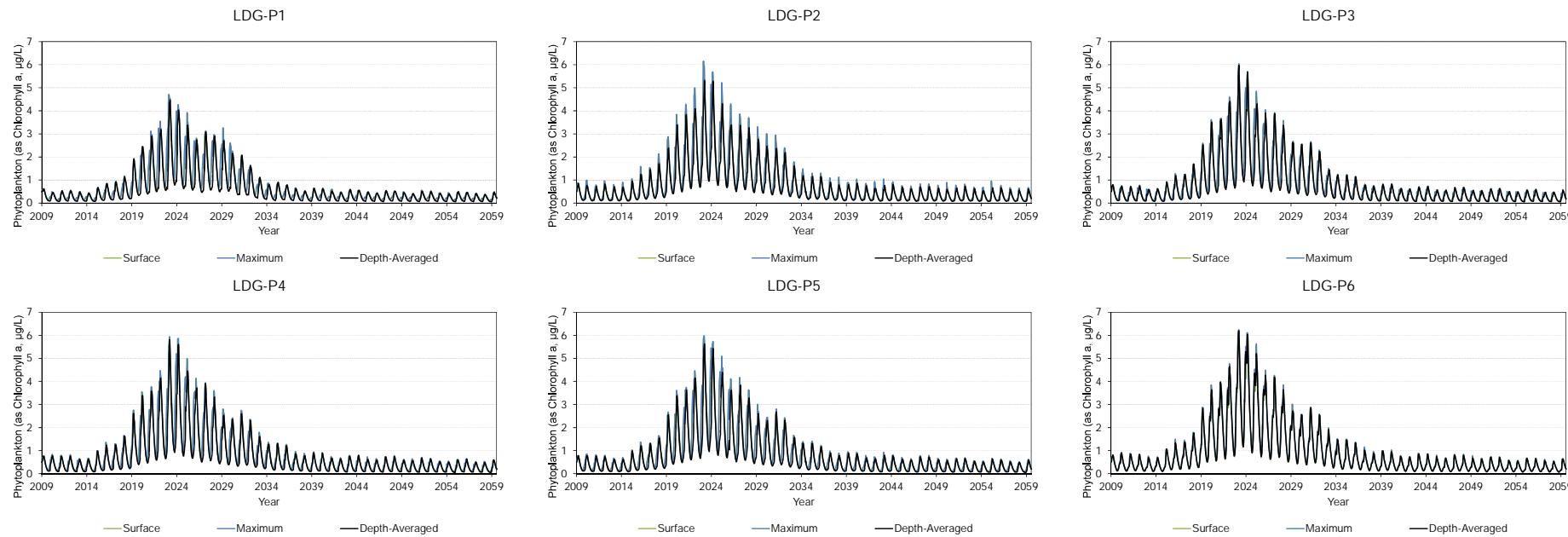
**Figure 8F5-5** Predicted Orthophosphate Concentrations in Lac de Gras


mg P/L = milligrams phosphorus per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

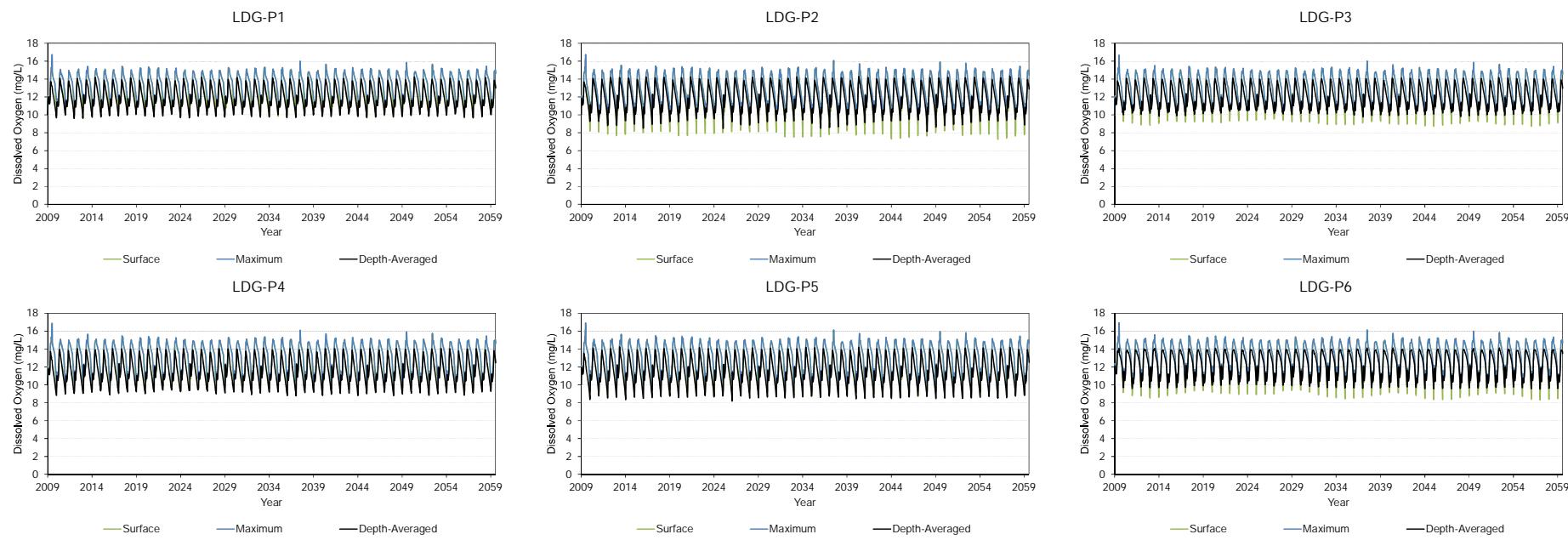
**Figure 8F5-6** Predicted Total Phosphorus Concentrations in Lac de Gras


mg P/L = milligrams phosphorus per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

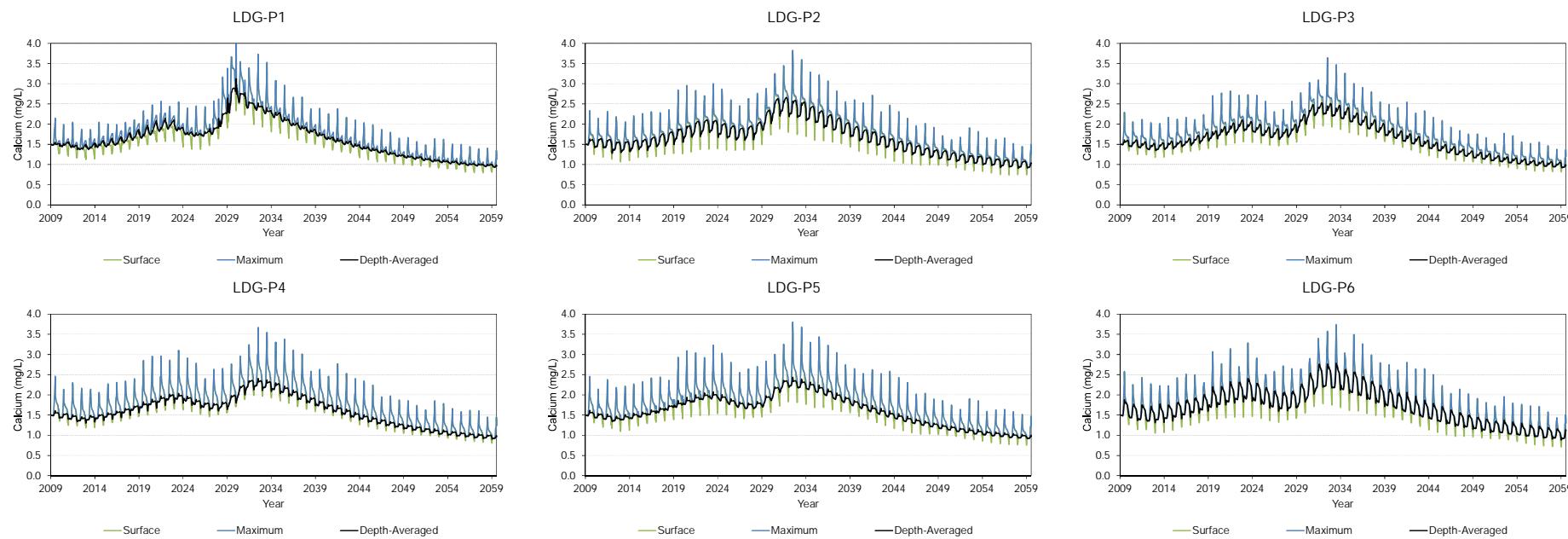
**Figure 8F5-7 Predicted Phytoplankton (as Chlorophyll a) Concentrations in Lac de Gras**



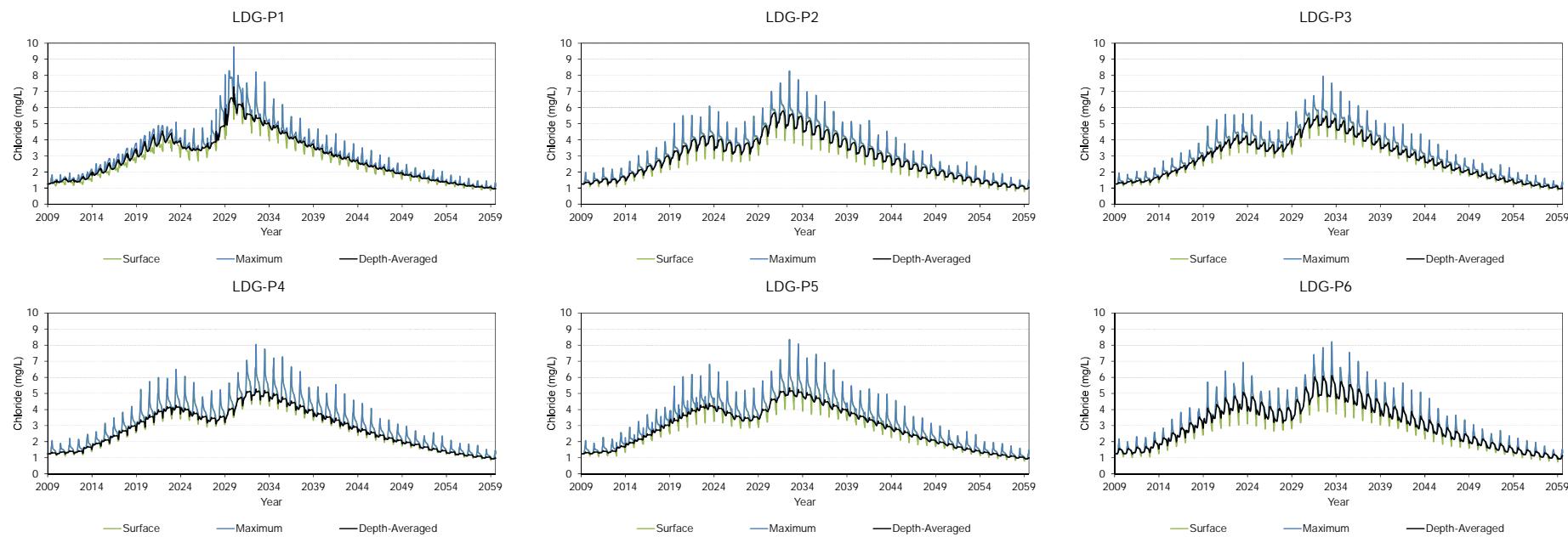
$\mu\text{g/L}$  = micrograms per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-8 Predicted Dissolved Oxygen Concentrations in Lac de Gras**


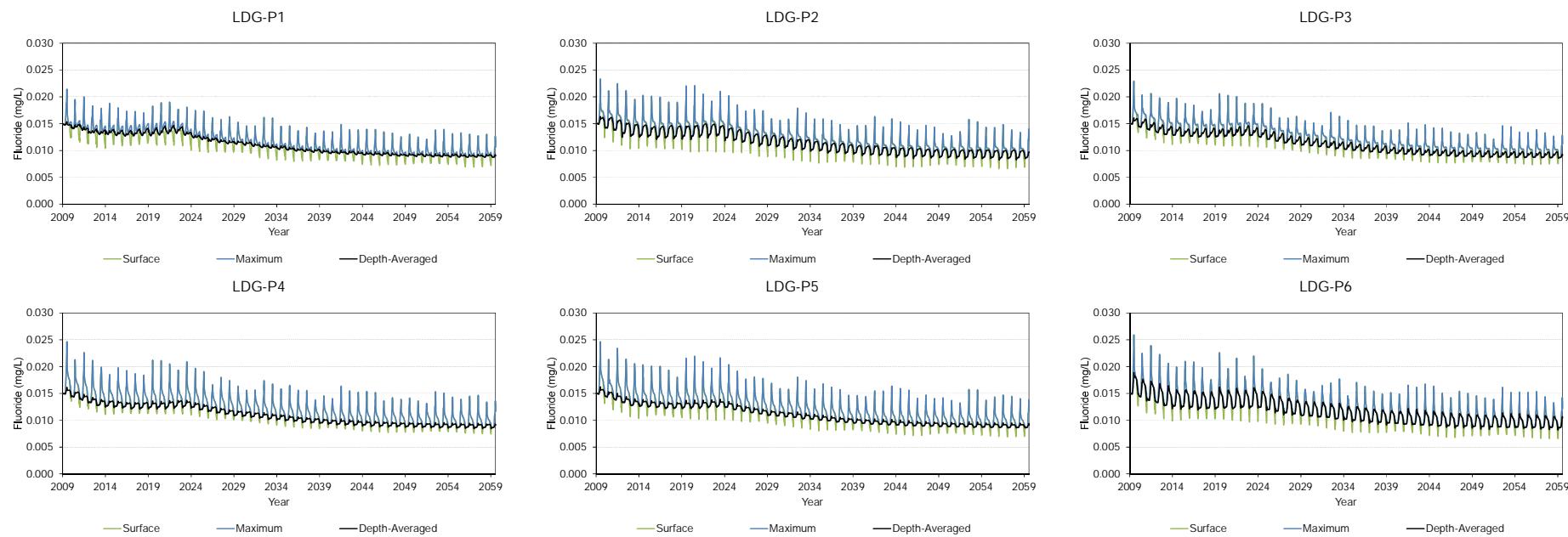
mg/L = milligrams per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-9** Predicted Calcium Concentrations in Lac de Gras


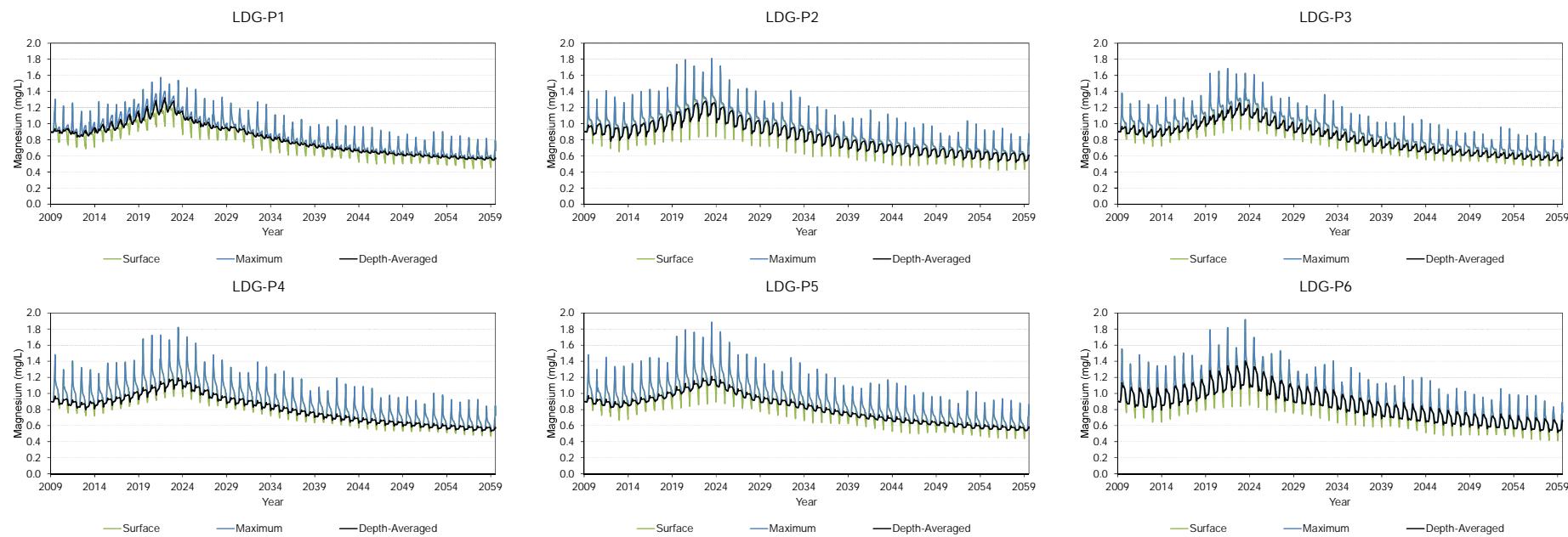
mg/L = milligrams per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-10** Predicted Chloride Concentrations in Lac de Gras


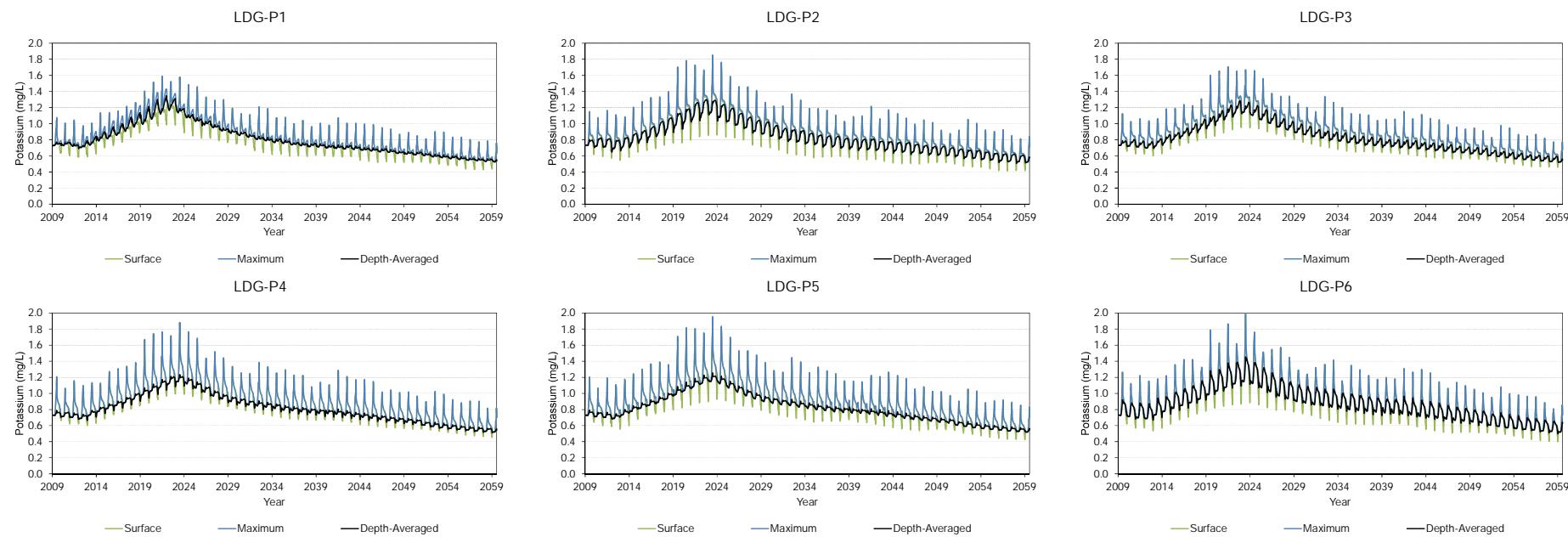
mg/L = milligrams per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-11** Predicted Fluoride Concentrations in Lac de Gras


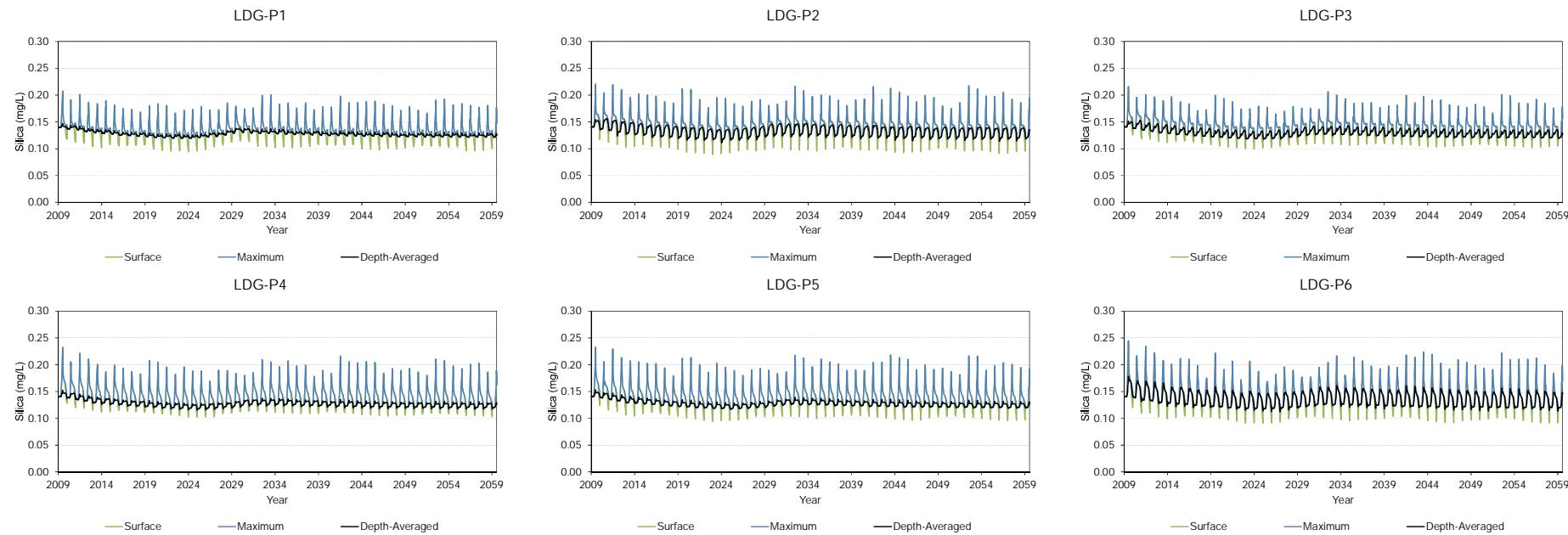
mg/L = milligrams per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-12** Predicted Magnesium Concentrations in Lac de Gras


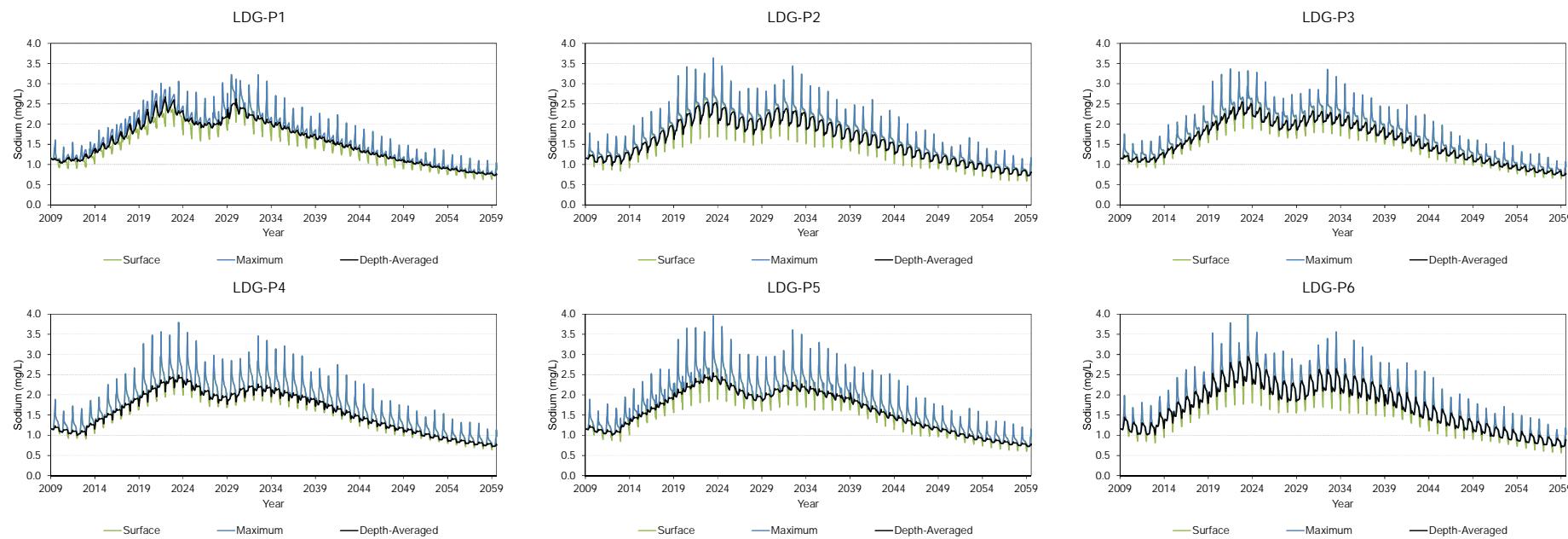
mg/L = milligrams per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-13** Predicted Potassium Concentrations in Lac de Gras


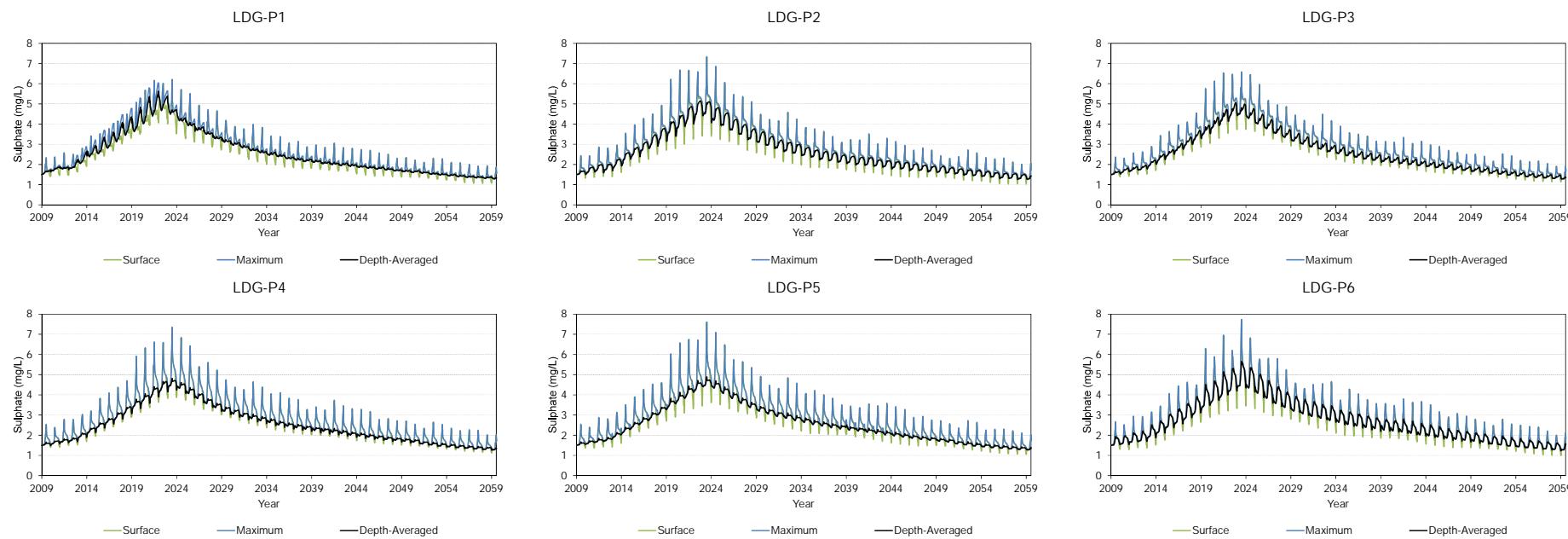
mg/L = milligrams per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-14** Predicted Reactive Silica Concentrations in Lac de Gras


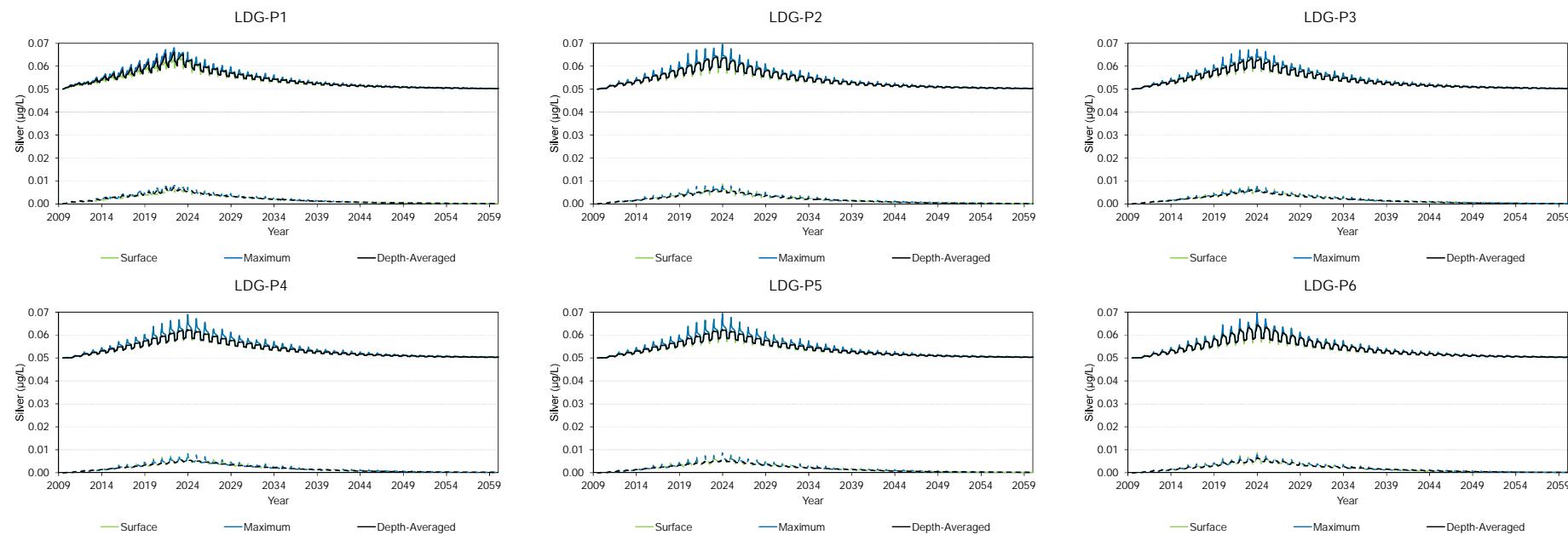
mg/L = milligrams per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-15** Predicted Sodium Concentrations in Lac de Gras


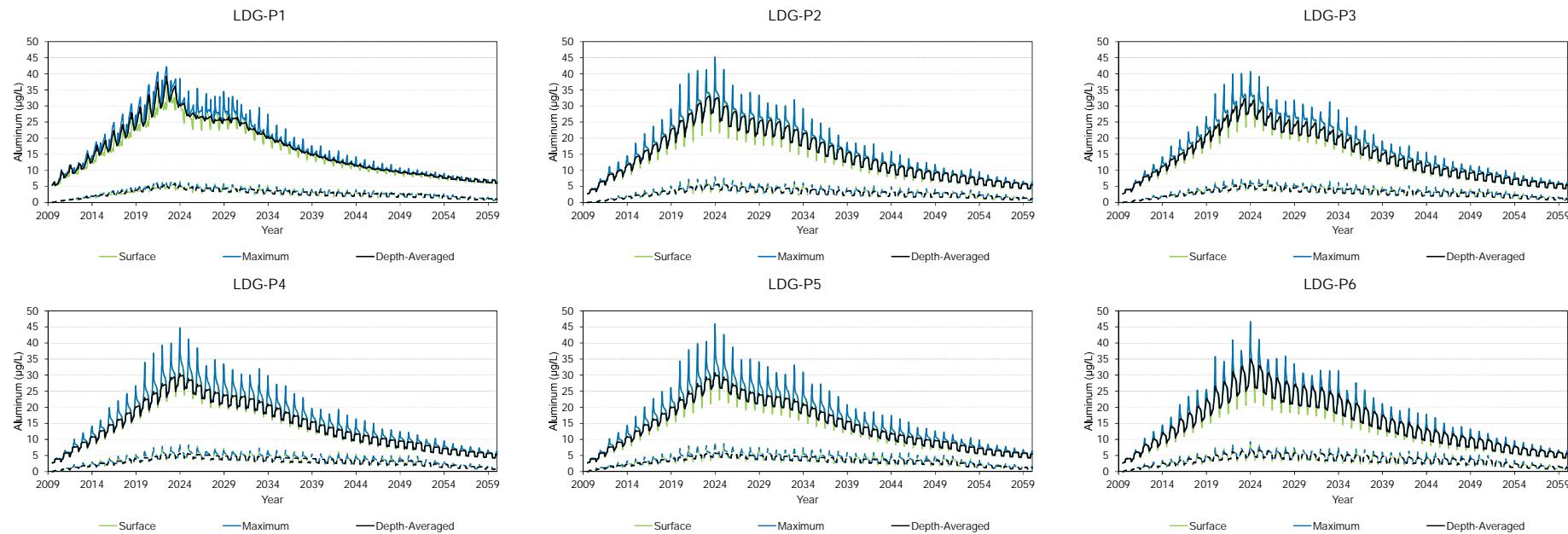
mg/L = milligrams per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-16** Predicted Sulphate Concentrations in Lac de Gras


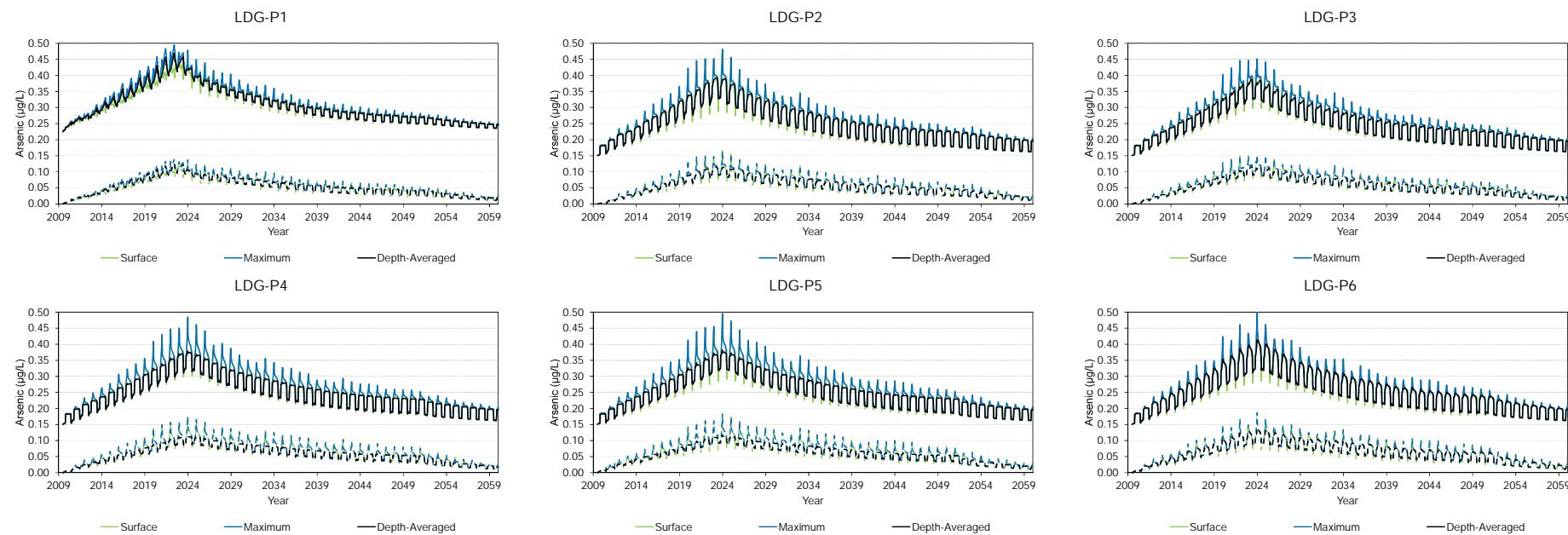
mg/L = milligrams per litre; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-17 Predicted Total and Dissolved Silver Concentrations in Lac de Gras**


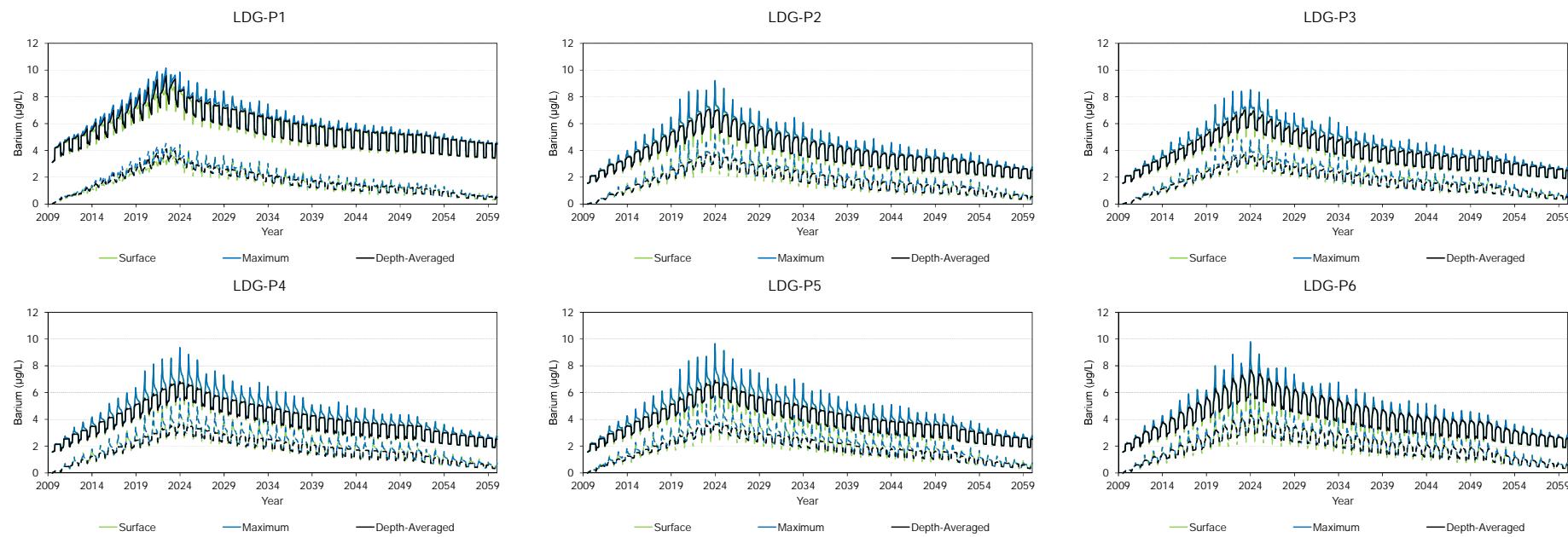
$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-18 Predicted Total and Dissolved Aluminum Concentrations in Lac de Gras**


$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

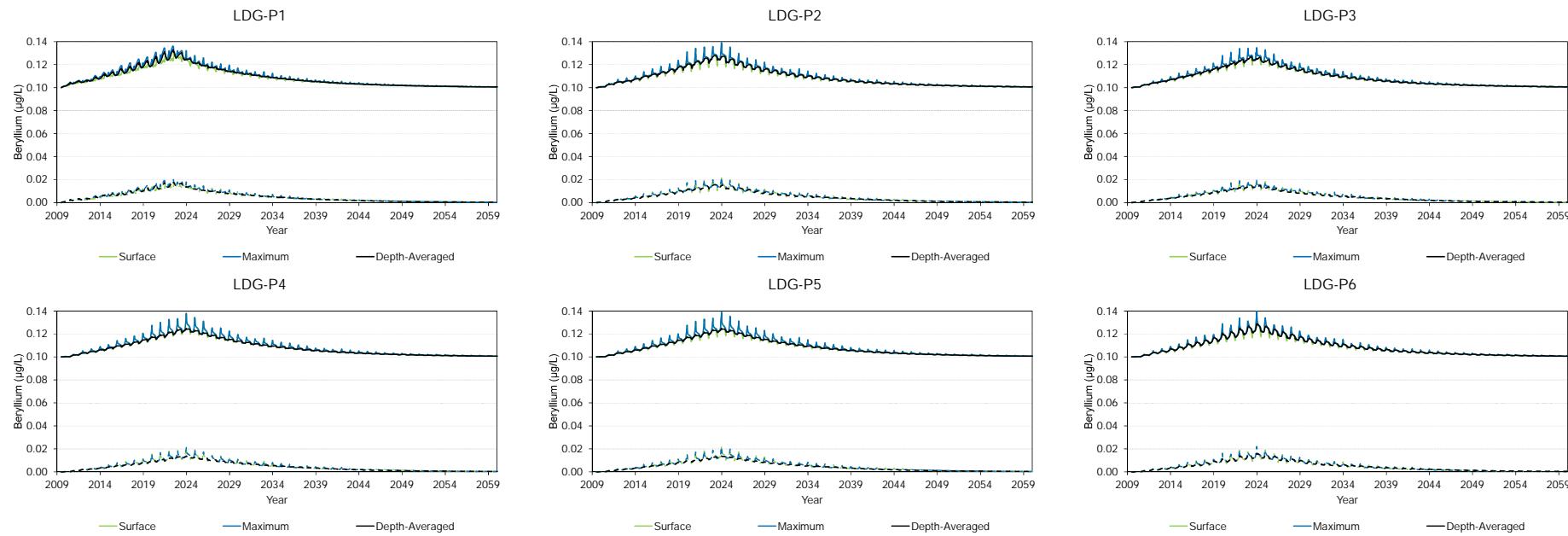
**Figure 8F5-19 Predicted Total and Dissolved Arsenic Concentrations in Lac de Gras**


µg/L = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

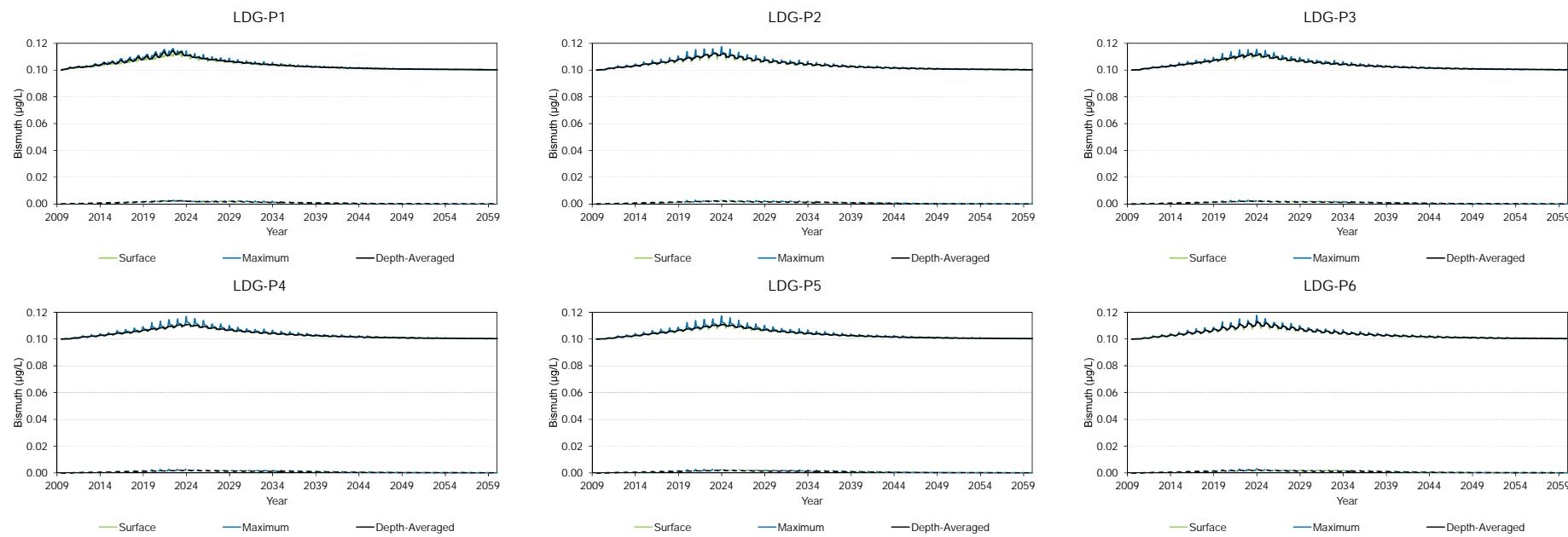
**Figure 8F5-20 Predicted Total and Dissolved Barium Concentrations in Lac de Gras**


$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

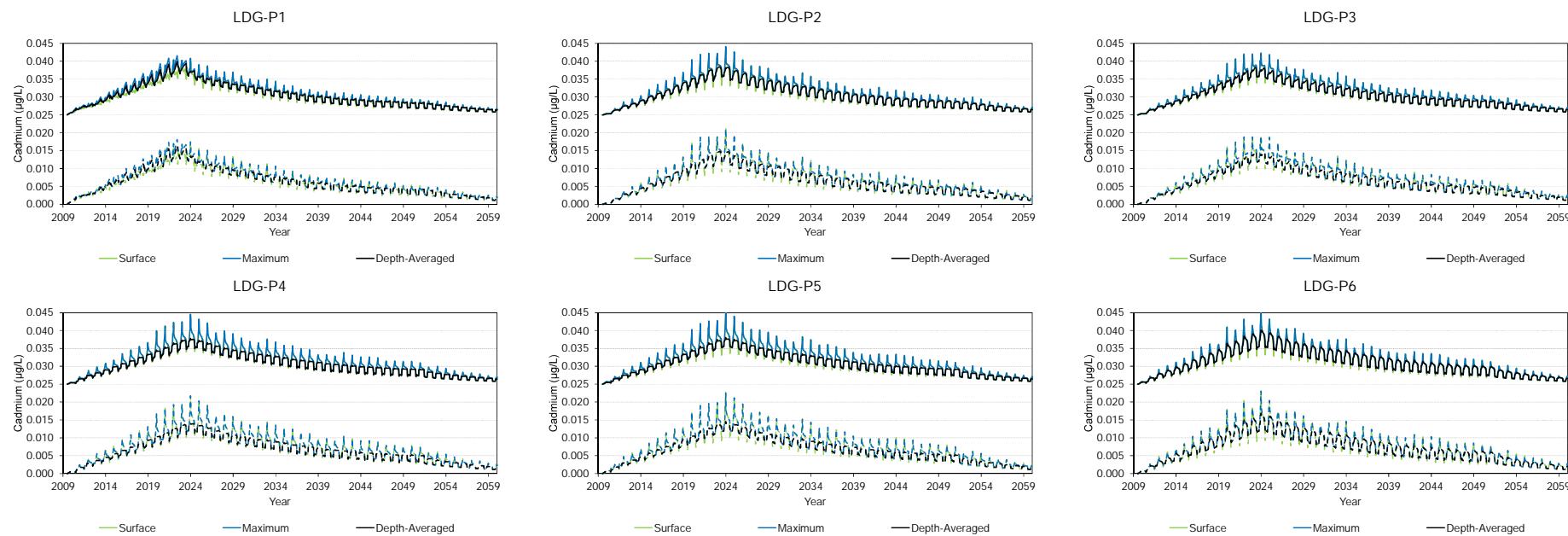
**Figure 8F5-21 Predicted Total and Dissolved Beryllium Concentrations in Lac de Gras**



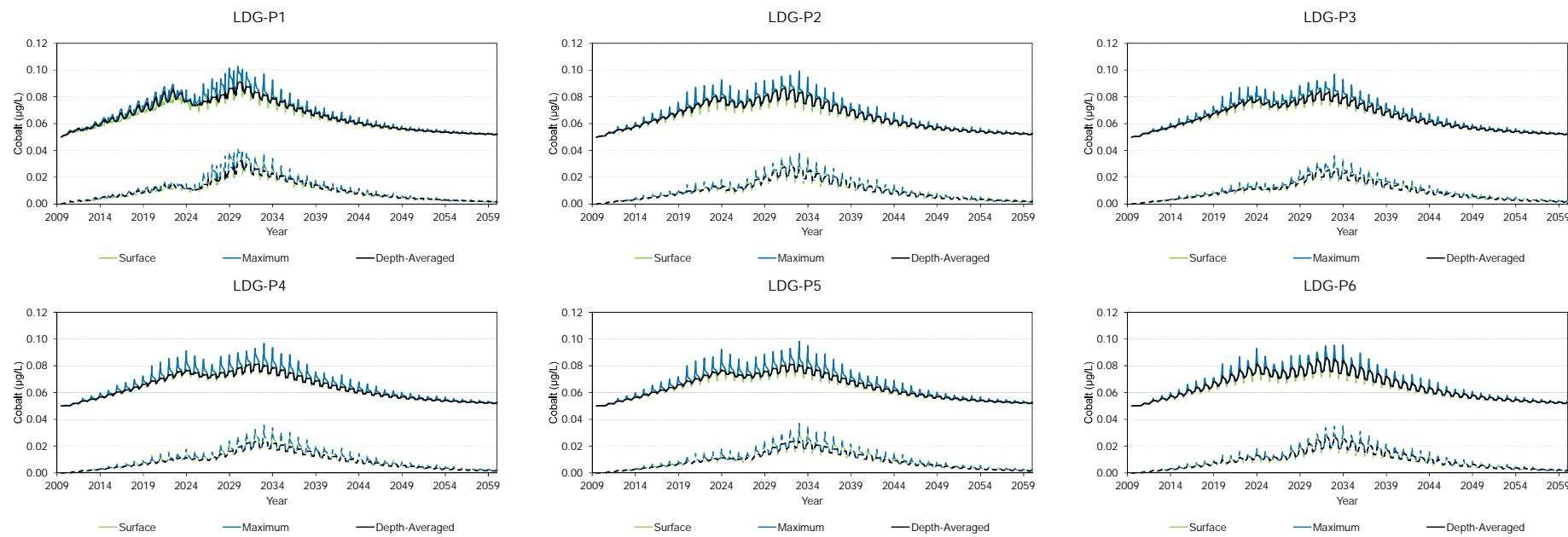
$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-22 Predicted Total and Dissolved Bismuth Concentrations in Lac de Gras**


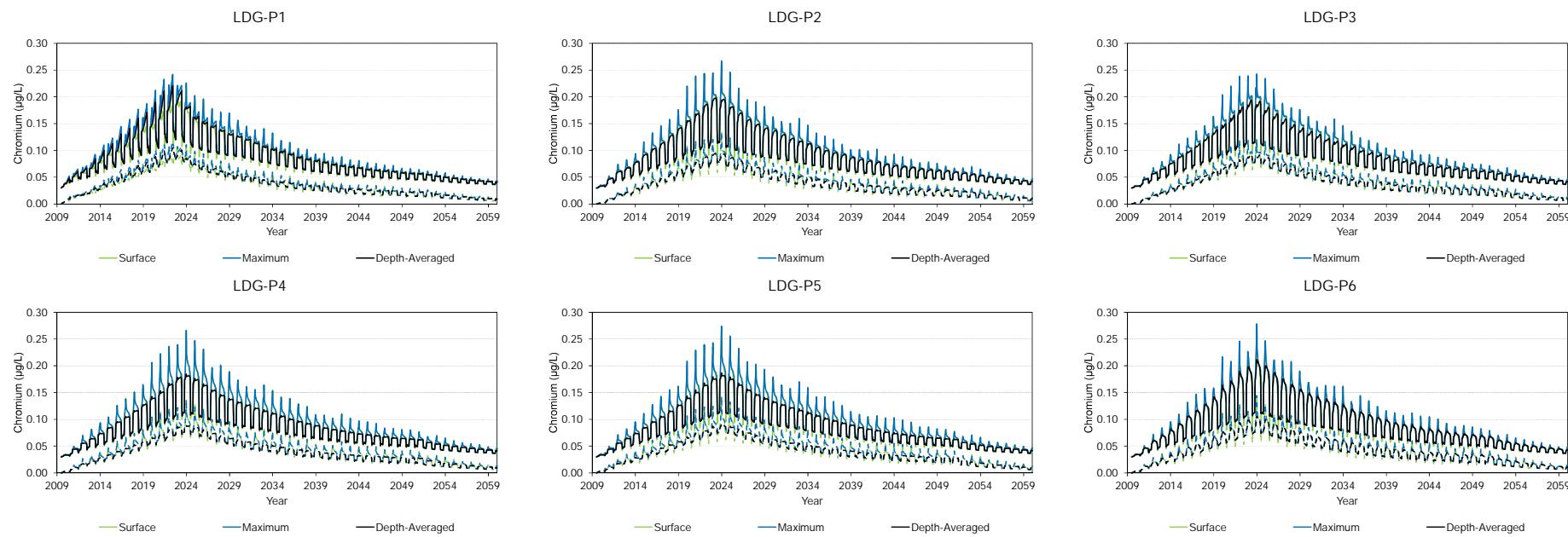
µg/L = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-23 Predicted Total and Dissolved Cadmium Concentrations in Lac de Gras**


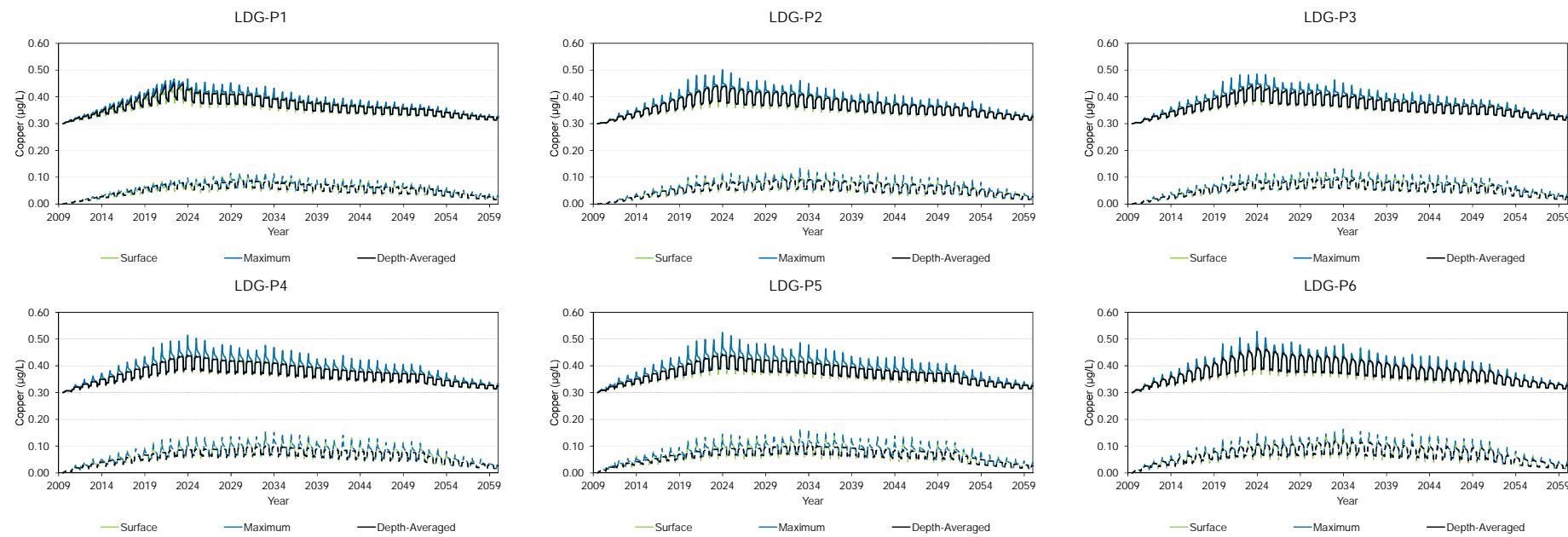
µg/L = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-24 Predicted Total and Dissolved Cobalt Concentrations in Lac de Gras**


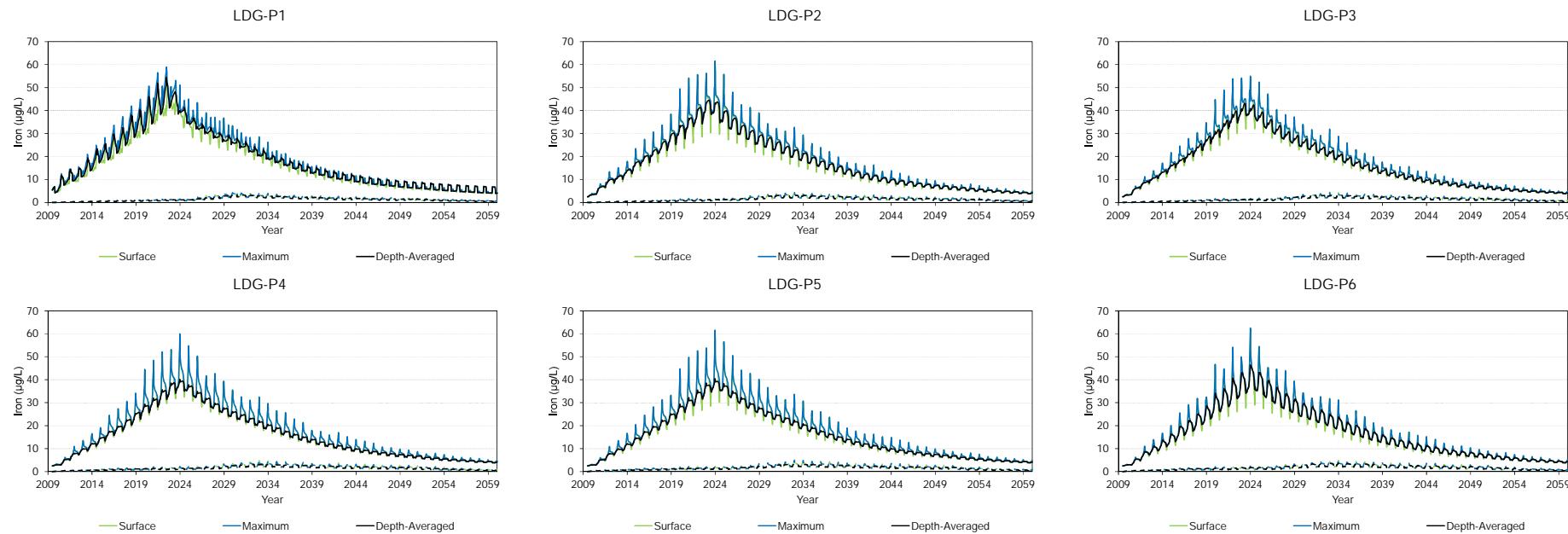
$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-25 Predicted Total and Dissolved Chromium Concentrations in Lac de Gras**


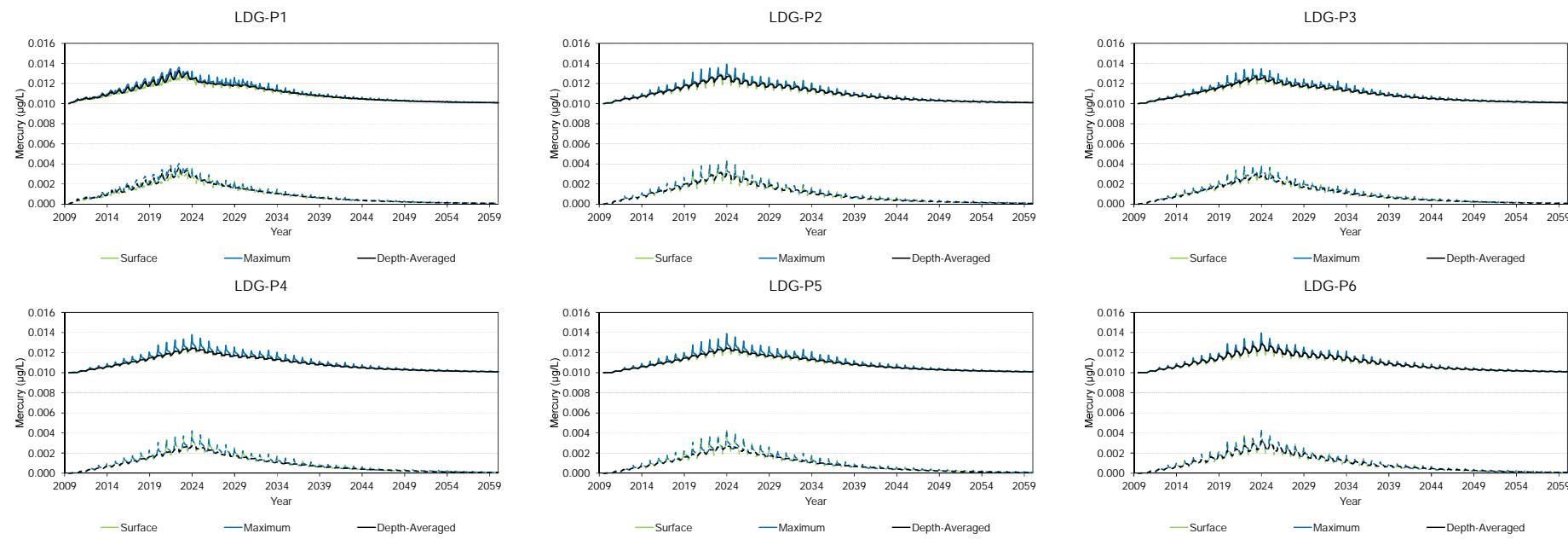
$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-26 Predicted Total and Dissolved Copper Concentrations in Lac de Gras**


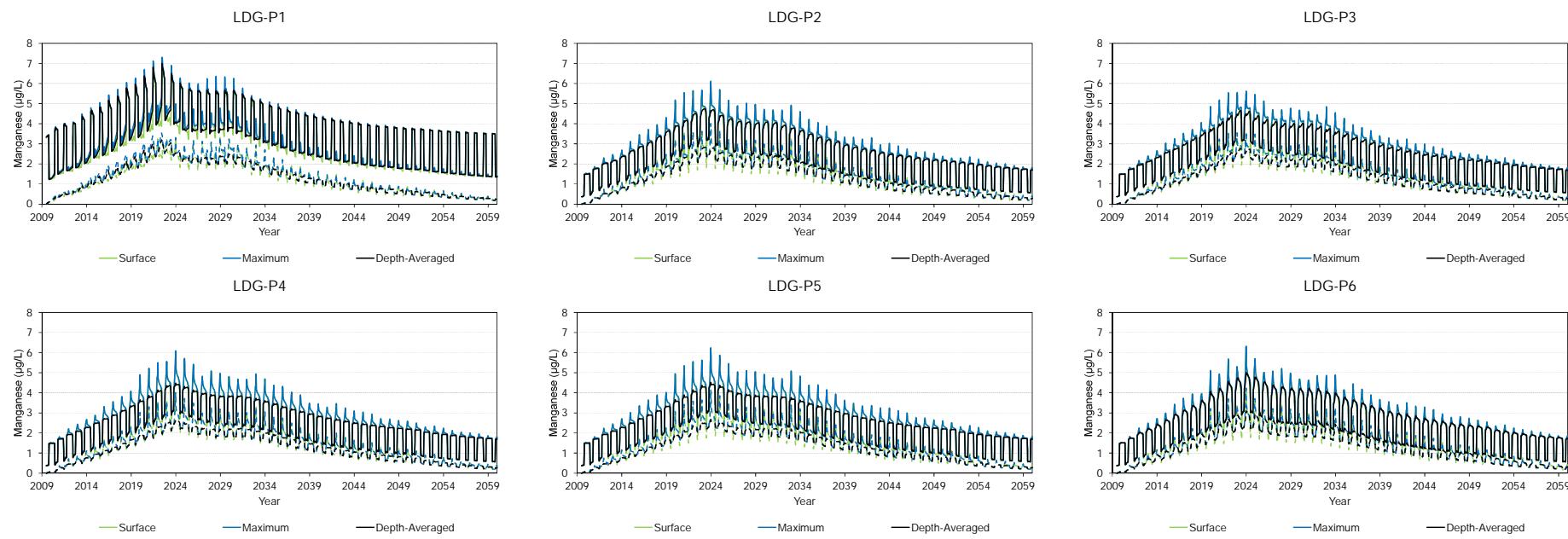
$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-27 Predicted Total and Dissolved Iron Concentrations in Lac de Gras**


µg/L = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

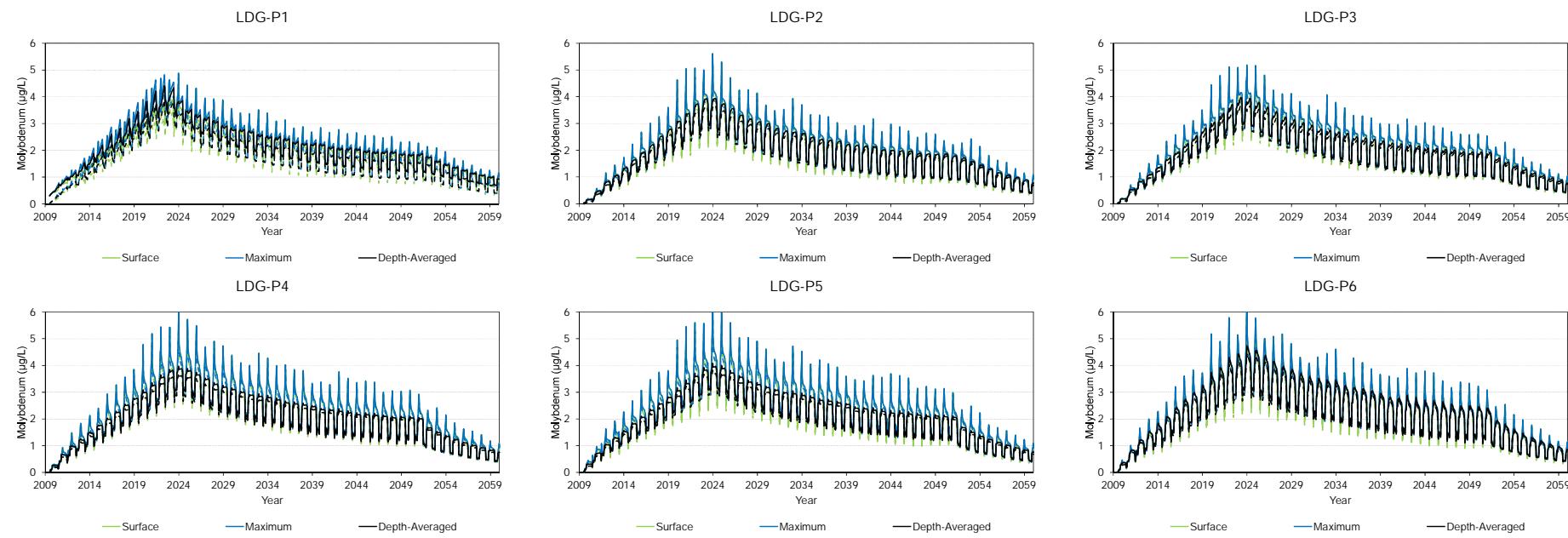
**Figure 8F5-28 Predicted Total and Dissolved Mercury Concentrations in Lac de Gras**


$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-29 Predicted Total and Dissolved Manganese Concentrations in Lac de Gras**


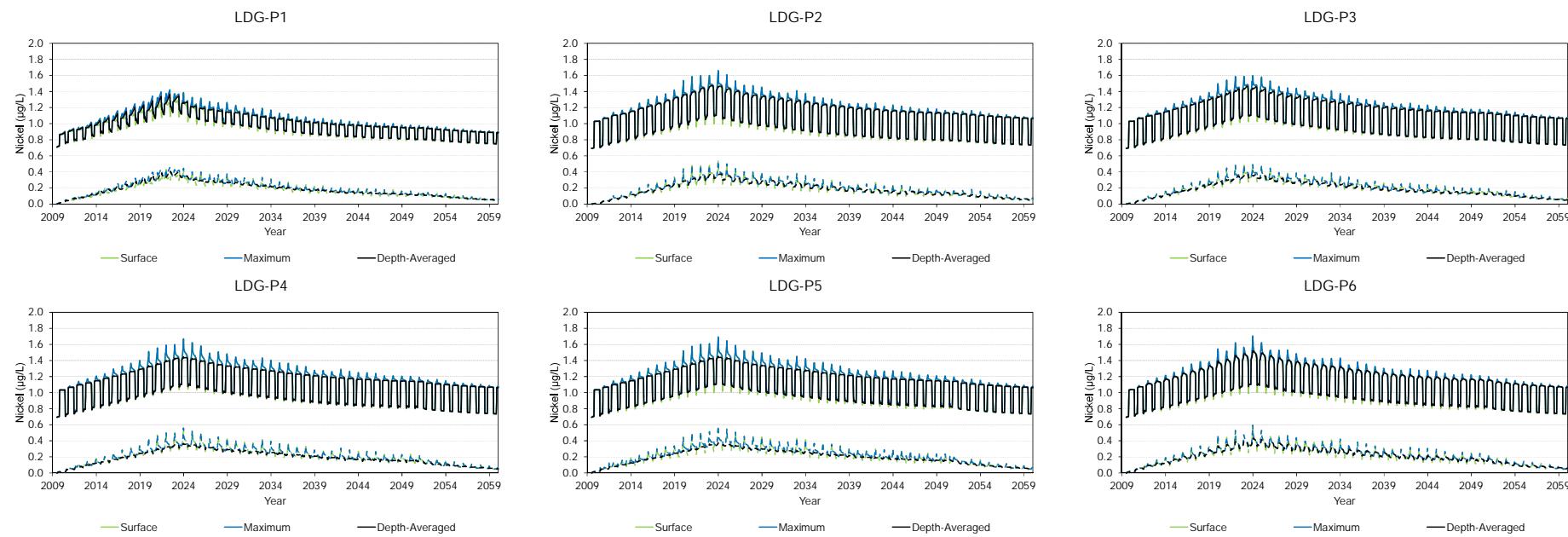
$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-30 Predicted Total and Dissolved Molybdenum Concentrations in Lac de Gras**

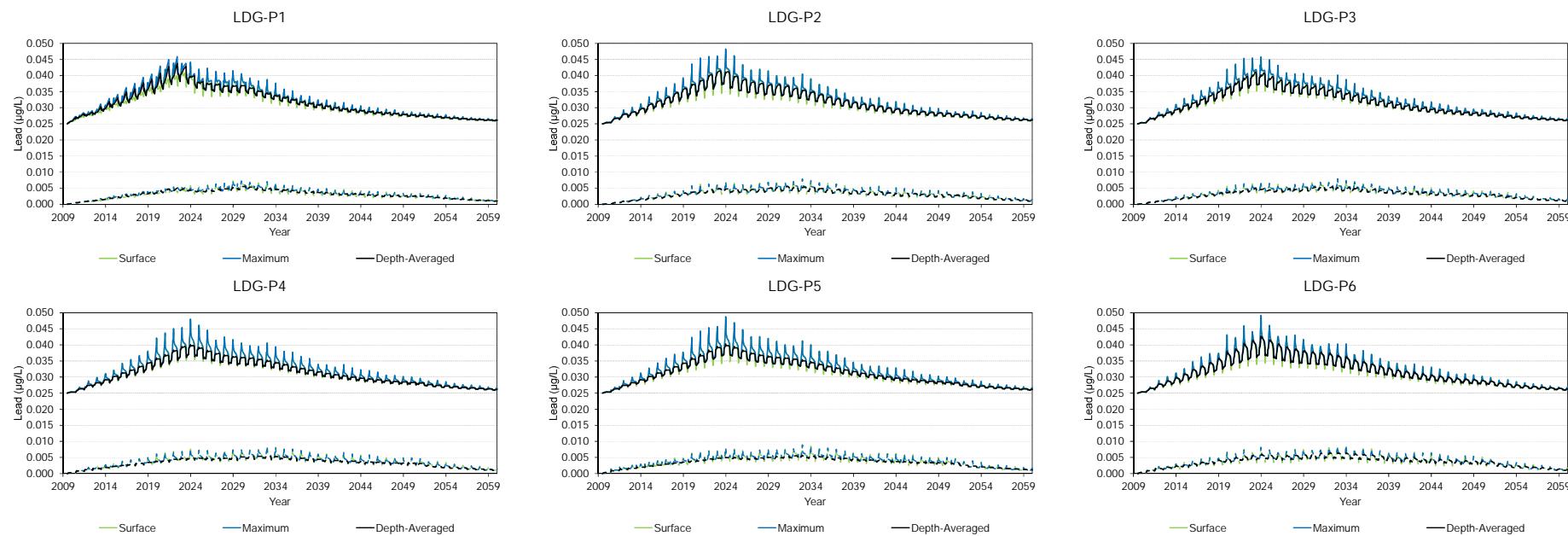


$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

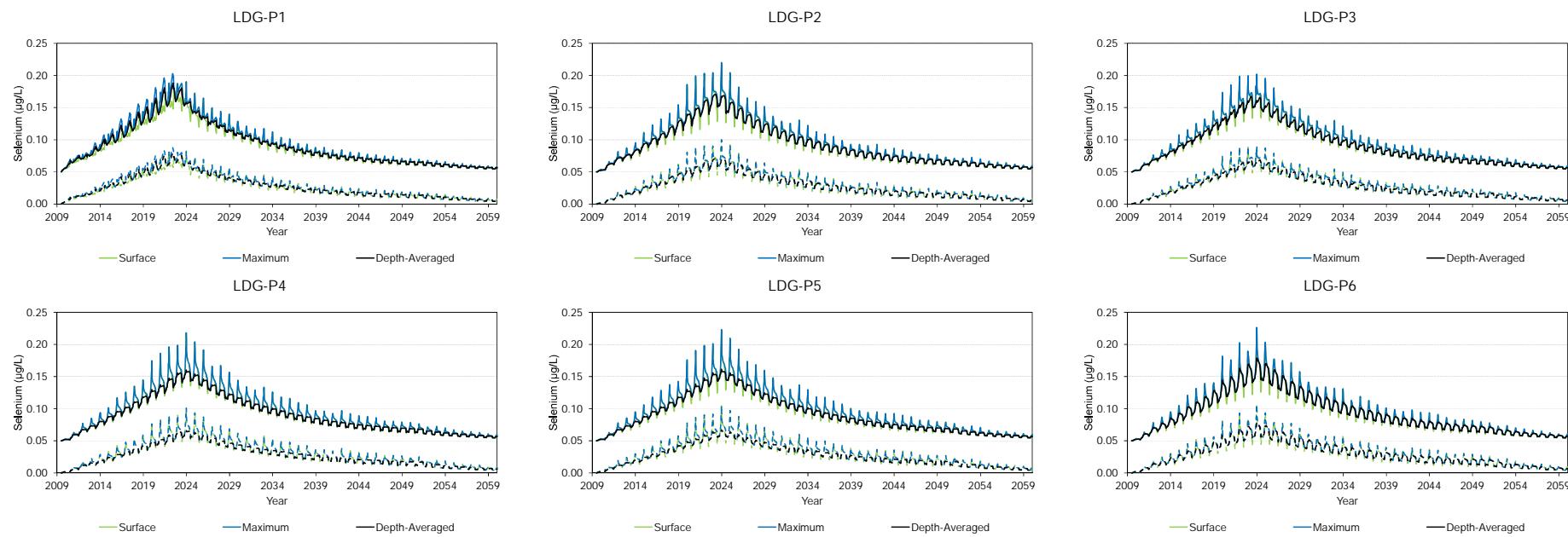
**Figure 8F5-31 Predicted Total and Dissolved Nickel Concentrations in Lac de Gras**



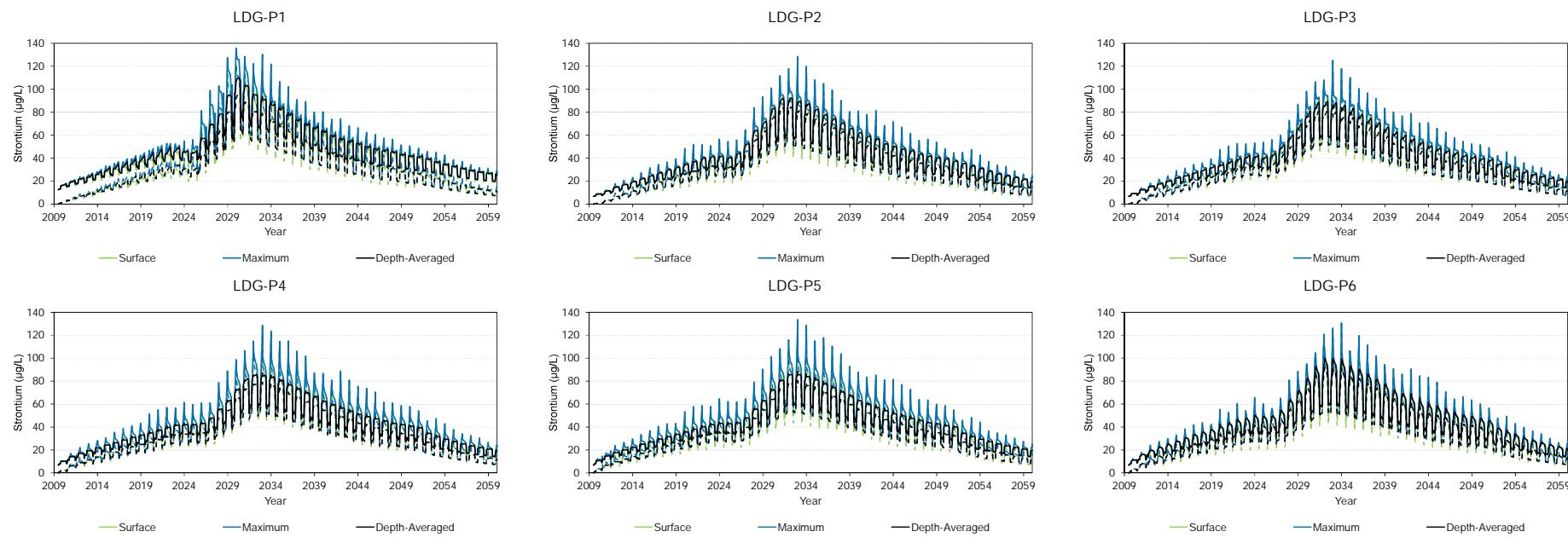
$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-32 Predicted Total and Dissolved Lead Concentrations in Lac de Gras**


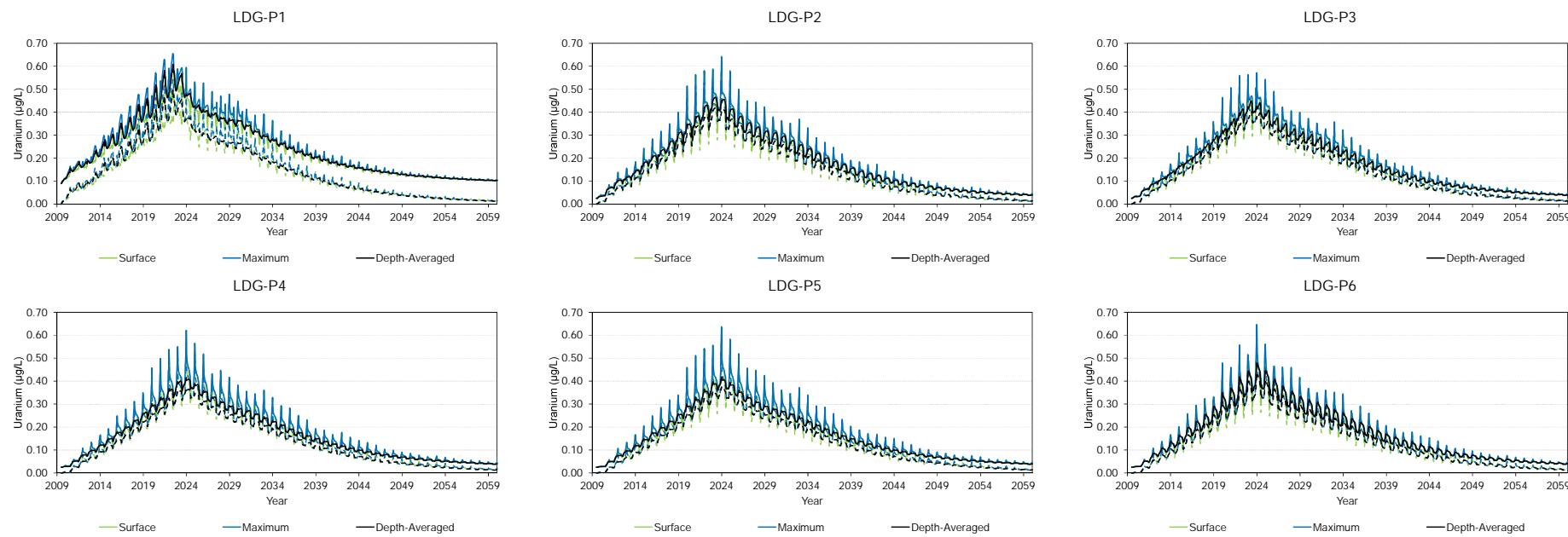
$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-33 Predicted Total and Dissolved Selenium Concentrations in Lac de Gras**


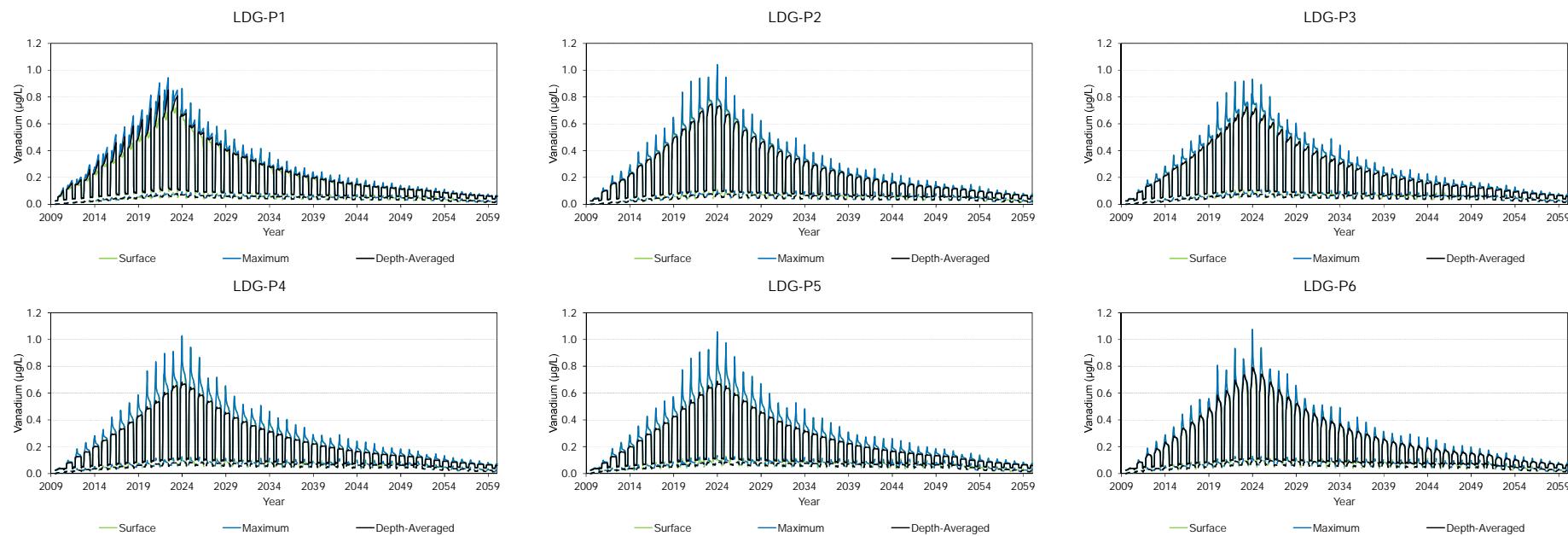
$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-34 Predicted Total and Dissolved Strontium Concentrations in Lac de Gras**


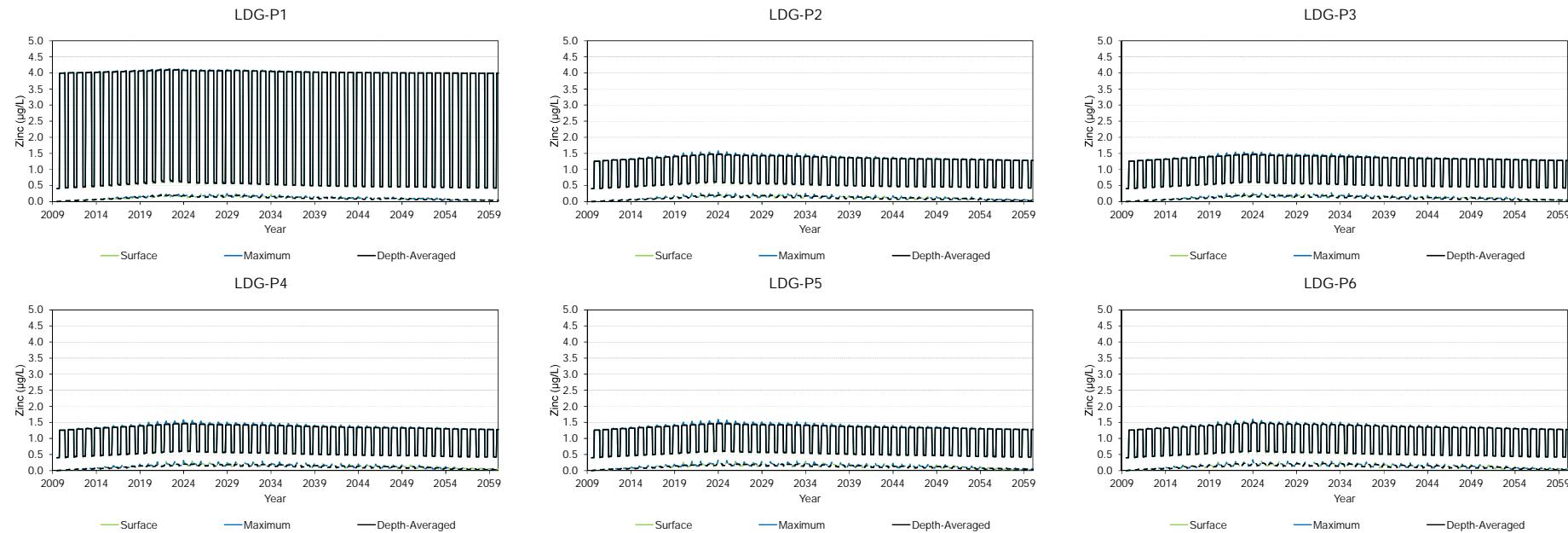
$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-35 Predicted Total and Dissolved Uranium Concentrations in Lac de Gras**


$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-36 Predicted Total and Dissolved Vanadium Concentrations in Lac de Gras**


$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).

**Figure 8F5-37 Predicted Total and Dissolved Zinc Concentrations in Lac de Gras**


$\mu\text{g/L}$  = micrograms per litre; solid lines represent total metals predictions; dotted lines represent dissolved metals predictions; LDG-P1, LDG-P2, LDG-P3, LDG-P4, LDG-P5, and LDG-P6 are the locations used in the water quality assessment (Map 8F2.2-2).