Address question: “How is LTER advancing our understanding of the dynamics and controls of inorganic nutrients?”

• 3 Slides, 5 minutes (no exceptions, no animations)
• Modify the following example template:
  Slide 1: Brief orientation to your site’s research on inorganic nutrients
  Slide 2: Share recent key results made possible by LTER
  Slide 3: Explain relevance of research and how it might contribute to interesting, novel synthesis

We suggest that you might highlight results related to one of these major topic areas:
1. Greenhouse gas emissions / Ecosystem role in climate-change feedbacks
2. Hydrologic and marine transport, transformation, and retention of inorganic nutrients
3. Soil/sediment N, P, and organic C dynamics including coupled biogeochemical processes
4. Role of nutrients in controlling primary production and/or species composition/diversity
5. Other

Email powerpoint file to sherri.johnson@oregonstate.edu
no later than 21 April 2015
Inorganic Nutrient Research

McMurdo Dry Valleys LTER

Soil Nutrients (0-10 cm)

Total N (g/m²)

0 2 4 6 8 10 12 14

Lk Bonney basin Lk Hoare basin Lk Fryxell basin

Bate et al., 2008 Geoderma

Total P (g/m²)

0 50 100 150 200

Glacial Meltwater Streams means 1993-2005

Distance from Coast (km)

0 10 20 30 40

[NO₃⁻] (M)

0 2 4 6 8

[SRP] (M)

0.0 0.2 0.4 0.6 0.8 1.0 1.2

Welch et al., 2010 Ant. Sci.
Recent Key Findings - Inorganic Nutrients

**McMurdo Dry Valleys LTER**

**East Lobe, Lake Boney (1993-2009)**

- **NH₄** (M)
- **SRP** (M)
- **NO₃** (M)

![Graphs showing depth vs concentration for NH₄, SRP, and NO₃](image)

- Normalized Cumulative Hyporheic Exchange Flow

![Image of McMurdo Dry Valleys LTER](image)
Synthesis ideas - Inorganic Nutrients

McMurdo Dry Valleys LTER

How will changing hydro/bio connectivity influence the rate, variance, and coupling of biogeochemical cycles?

Contact: M. Gooseff (michael.gooseff@colorado.edu), J. Barrett (jebarre@vt.edu)