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# Lake Winnipeg Action Plan

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Manitoba Water Stewardship

# Outline

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- **Manitoba's Nutrient Management Strategy**
  - Progress
- **Lake Winnipeg Action Plan**
  - Progress

# Nutrient Management Strategy

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- Recognition that excess nutrients is one of our most important water quality issues
- Draft plan released for review on April 20, 2000
- Identifies key steps required to develop and implement a nutrient management plan to protect surface waters in Manitoba

# Key Steps (continued)

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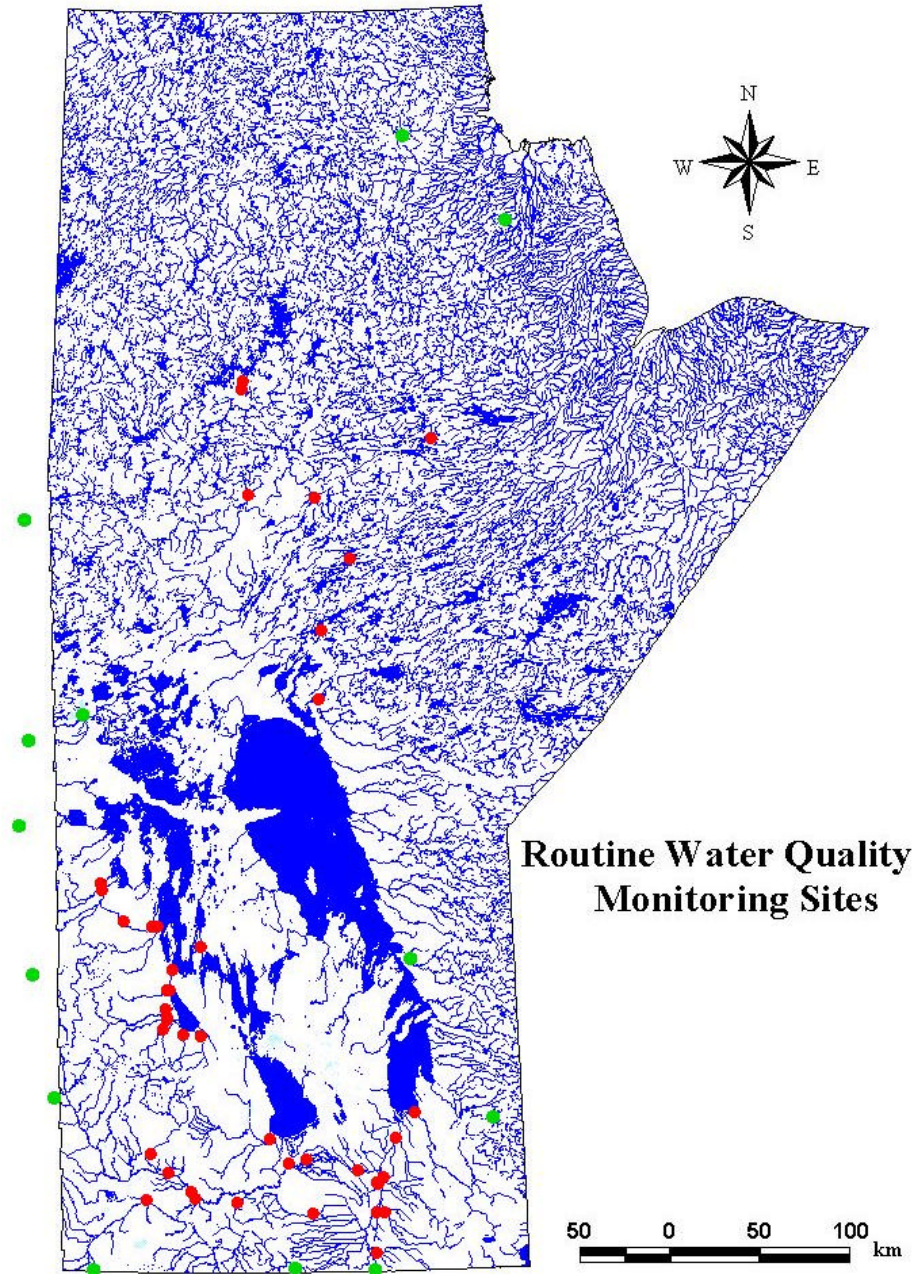
- Understand present status of nutrient issue in Manitoba
- Understand unique relationship between nutrients in Manitoba's prairie systems and algal abundance
- Identify most important nutrient or nutrients requiring control

# Key Steps (continued)

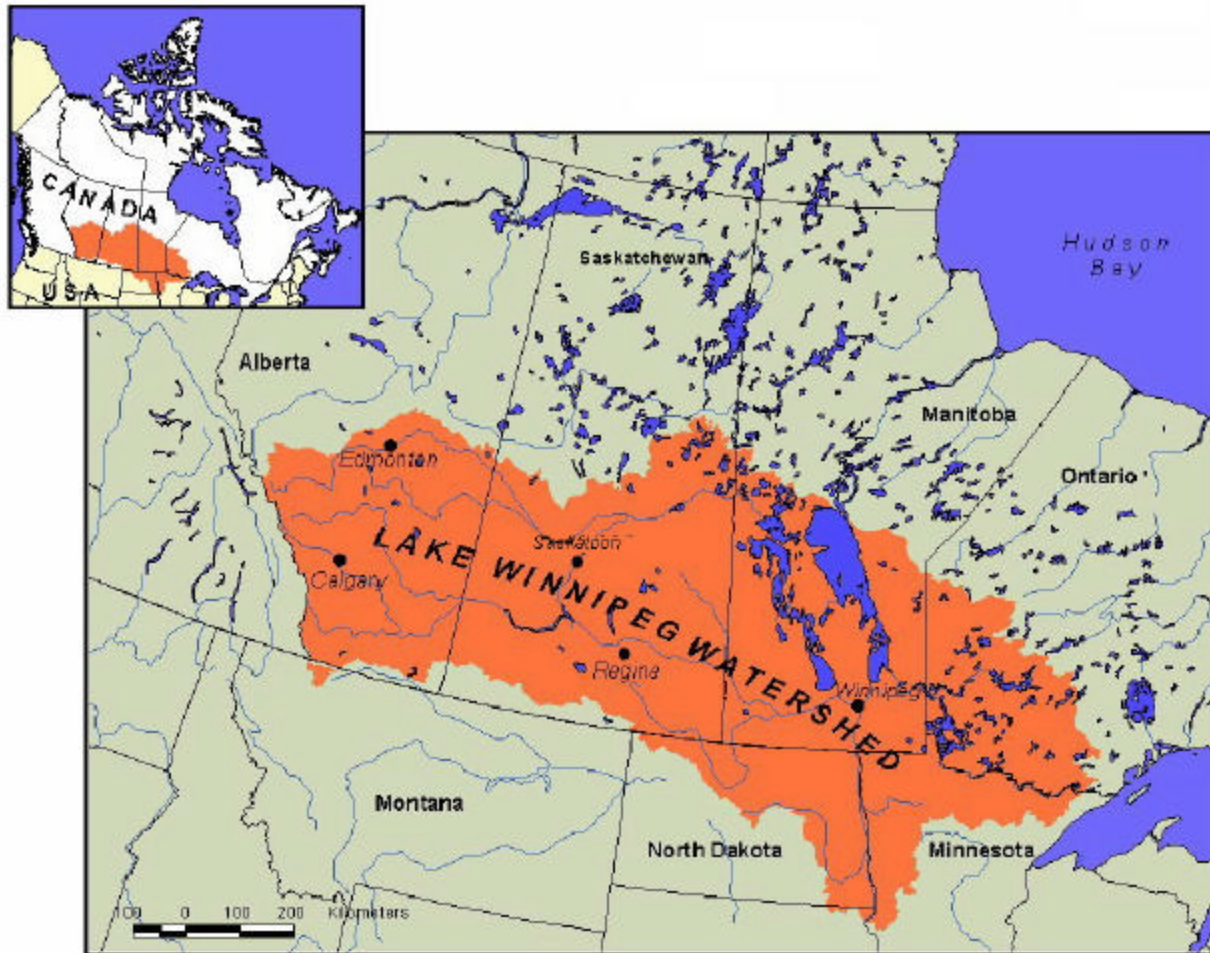
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- Develop Water Quality Objectives or Targets
- Develop implementation plan that is fair and equitable

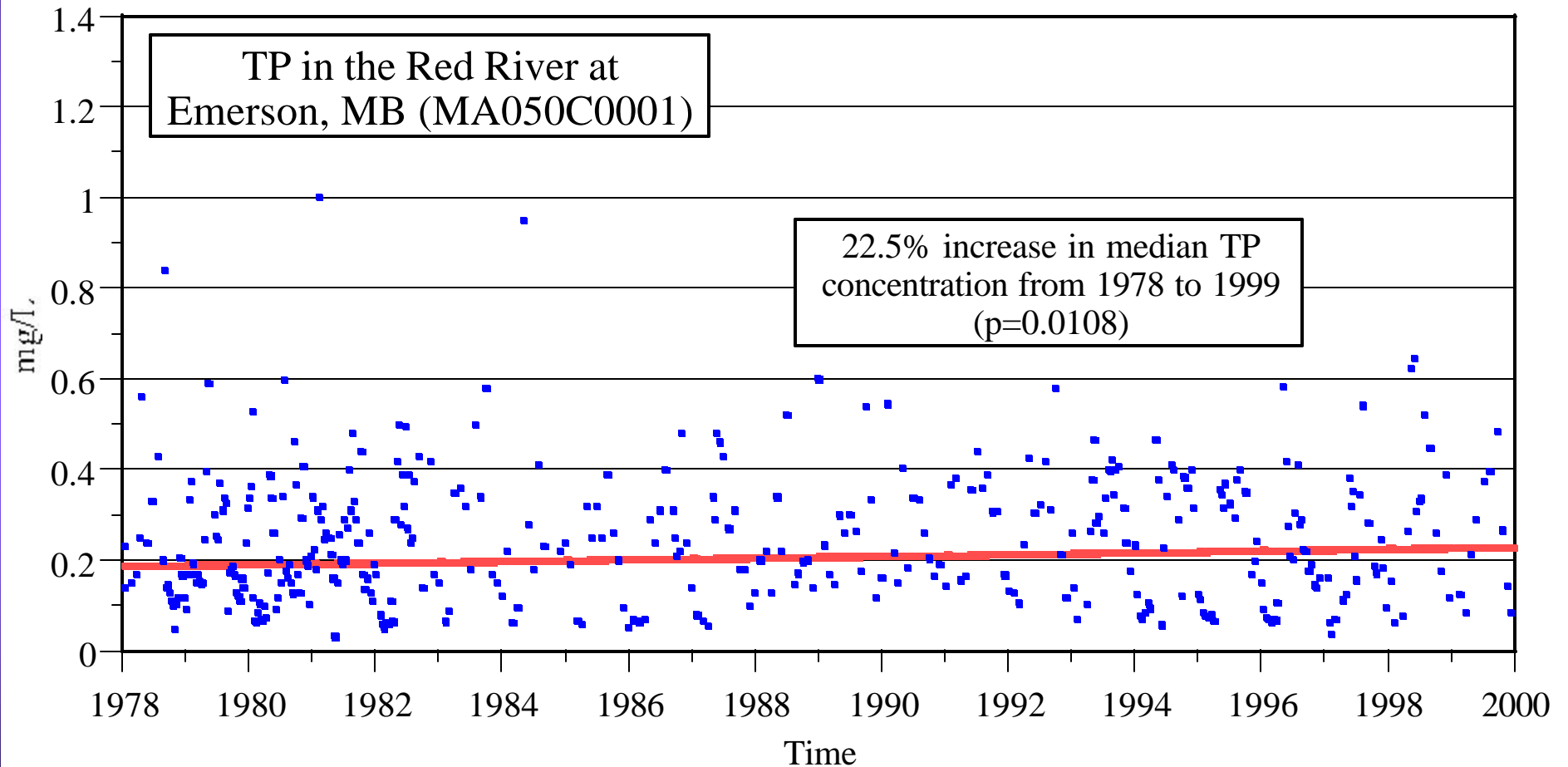
# Stream Water Quality Monitoring



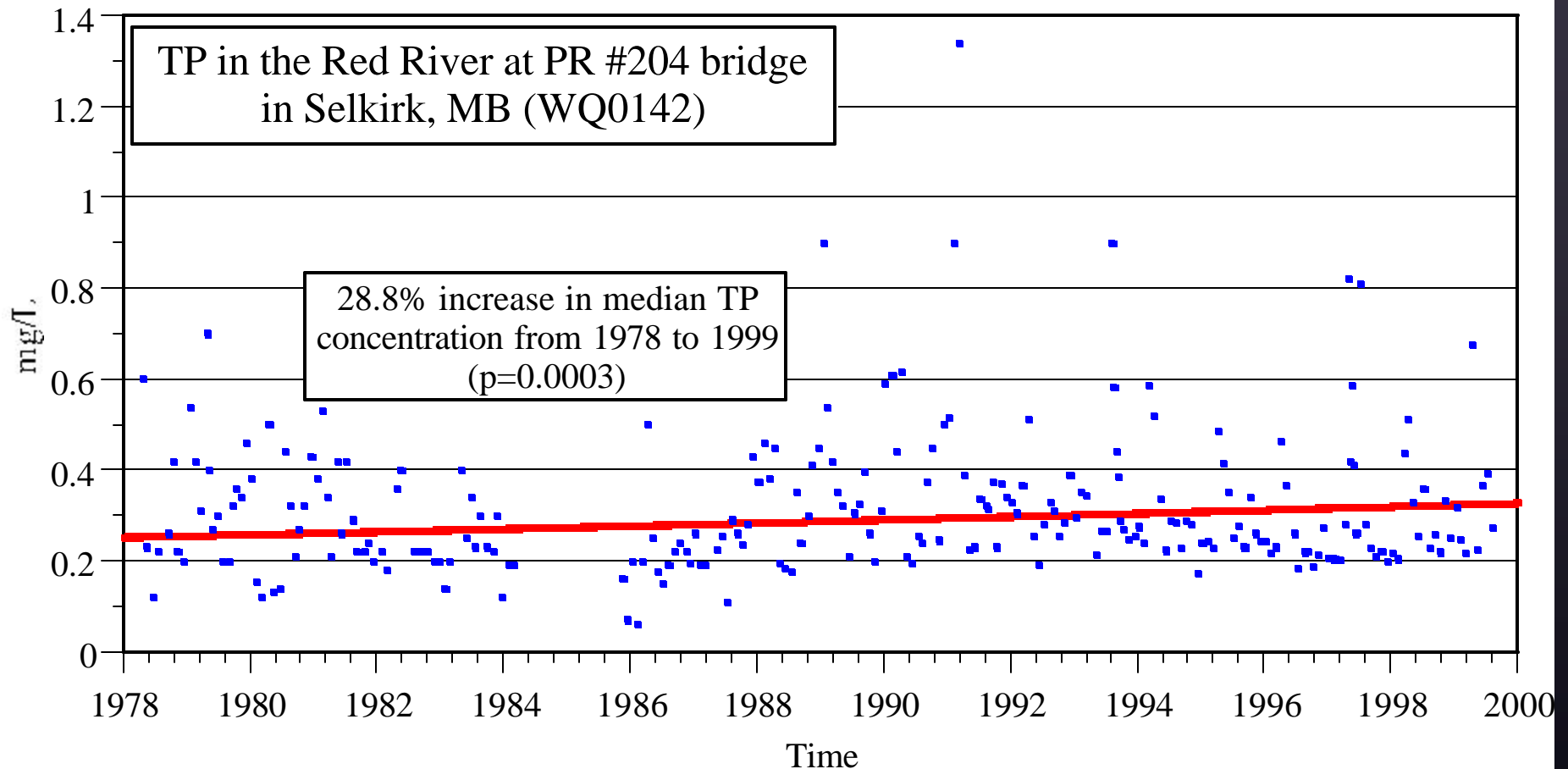
# Lake Winnipeg Drainage Basin



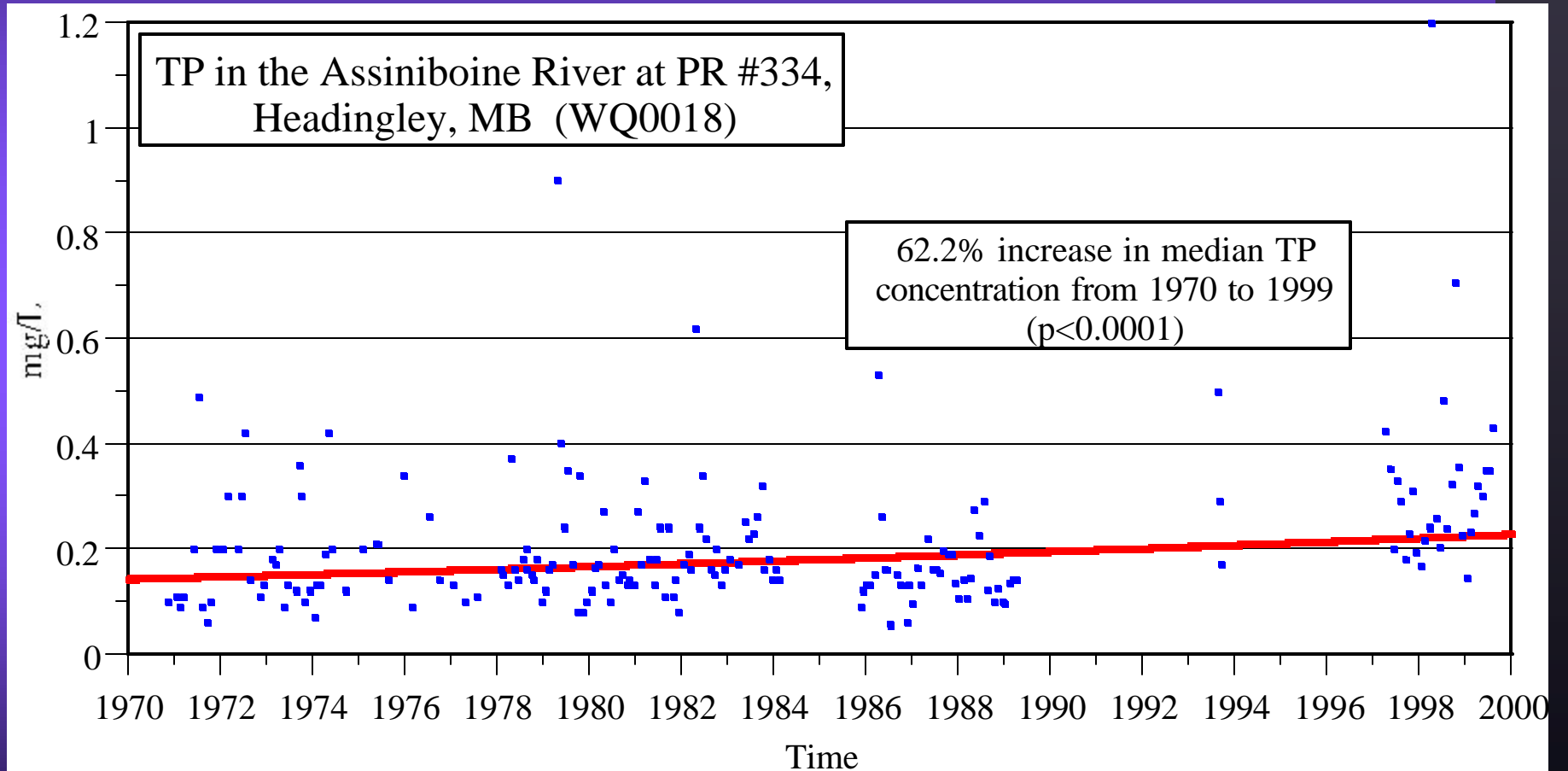
# Phosphorus in Red River at Emerson



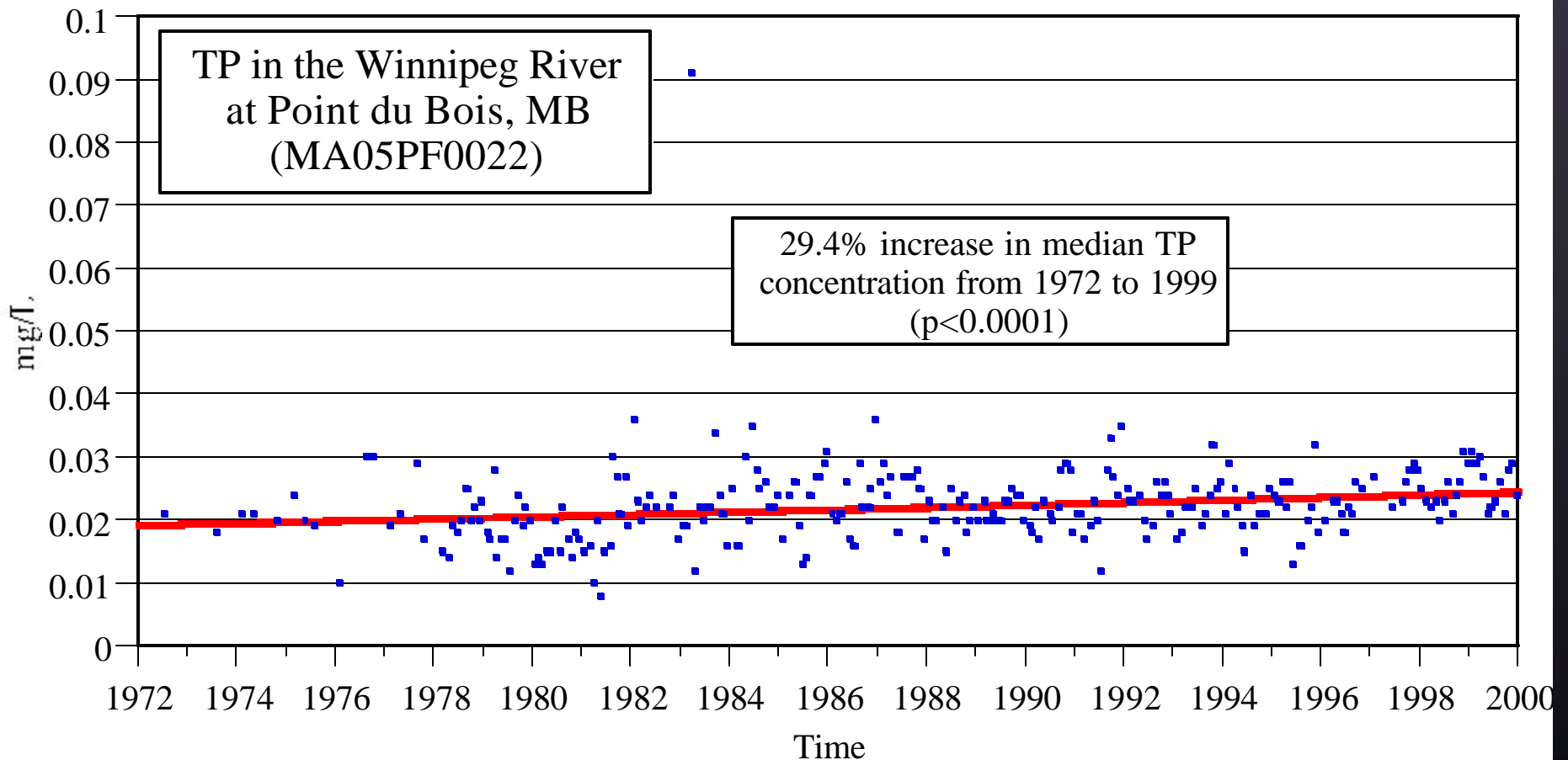
# Phosphorus in Red River at Selkirk



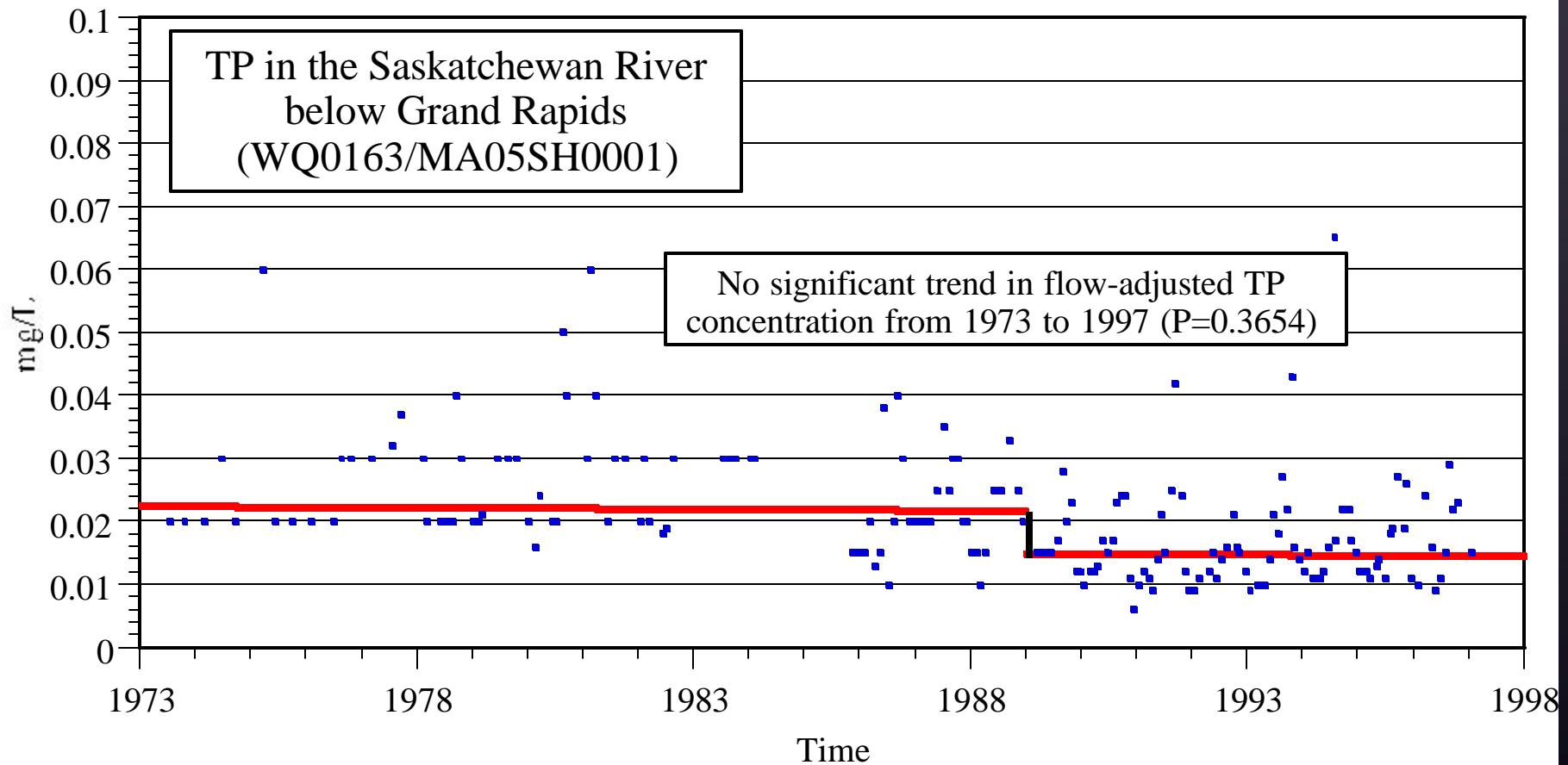
# Phosphorus in Assiniboine River at Headingley



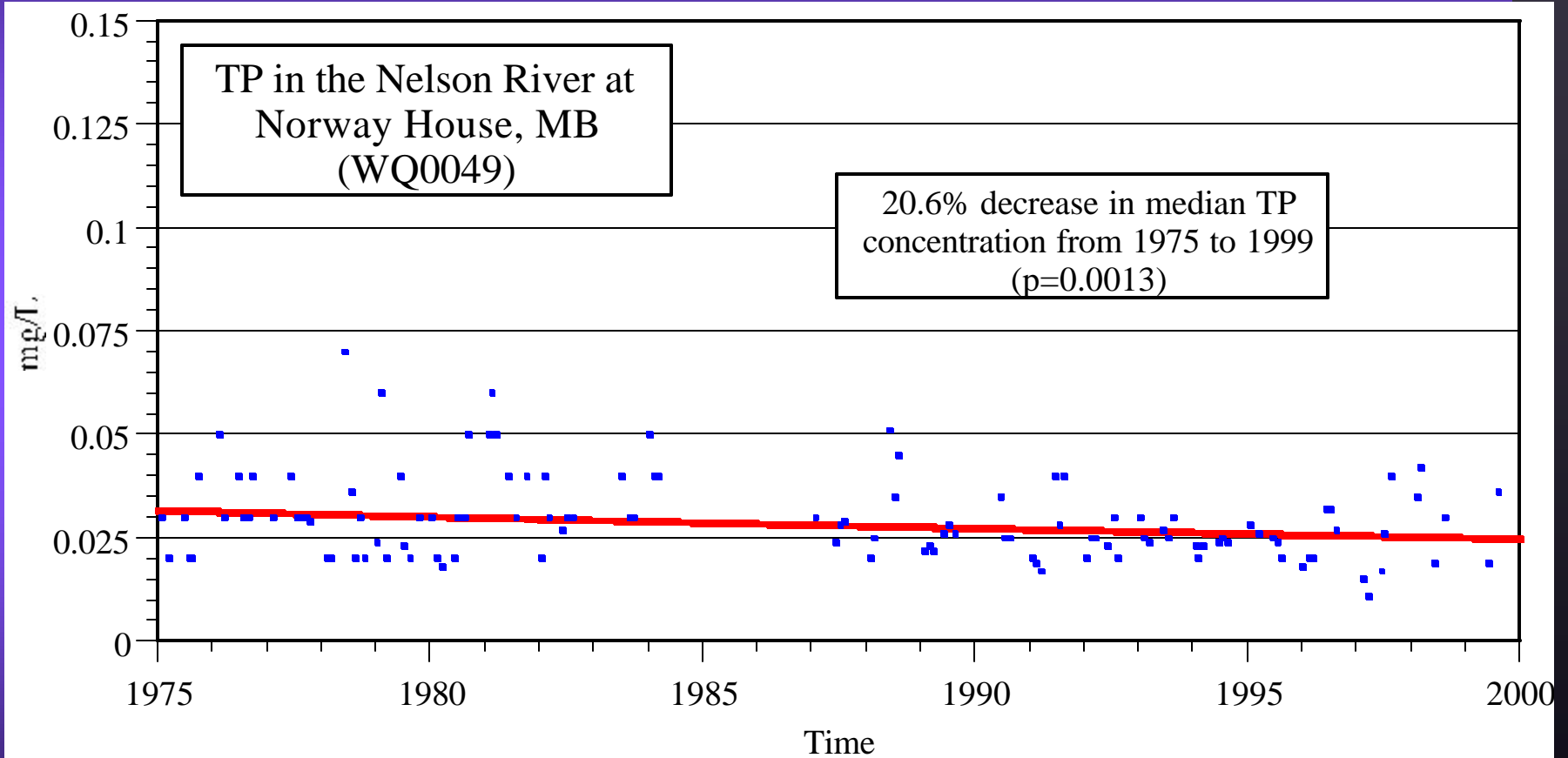
# Phosphorus in Winnipeg River at Pointe du Bois



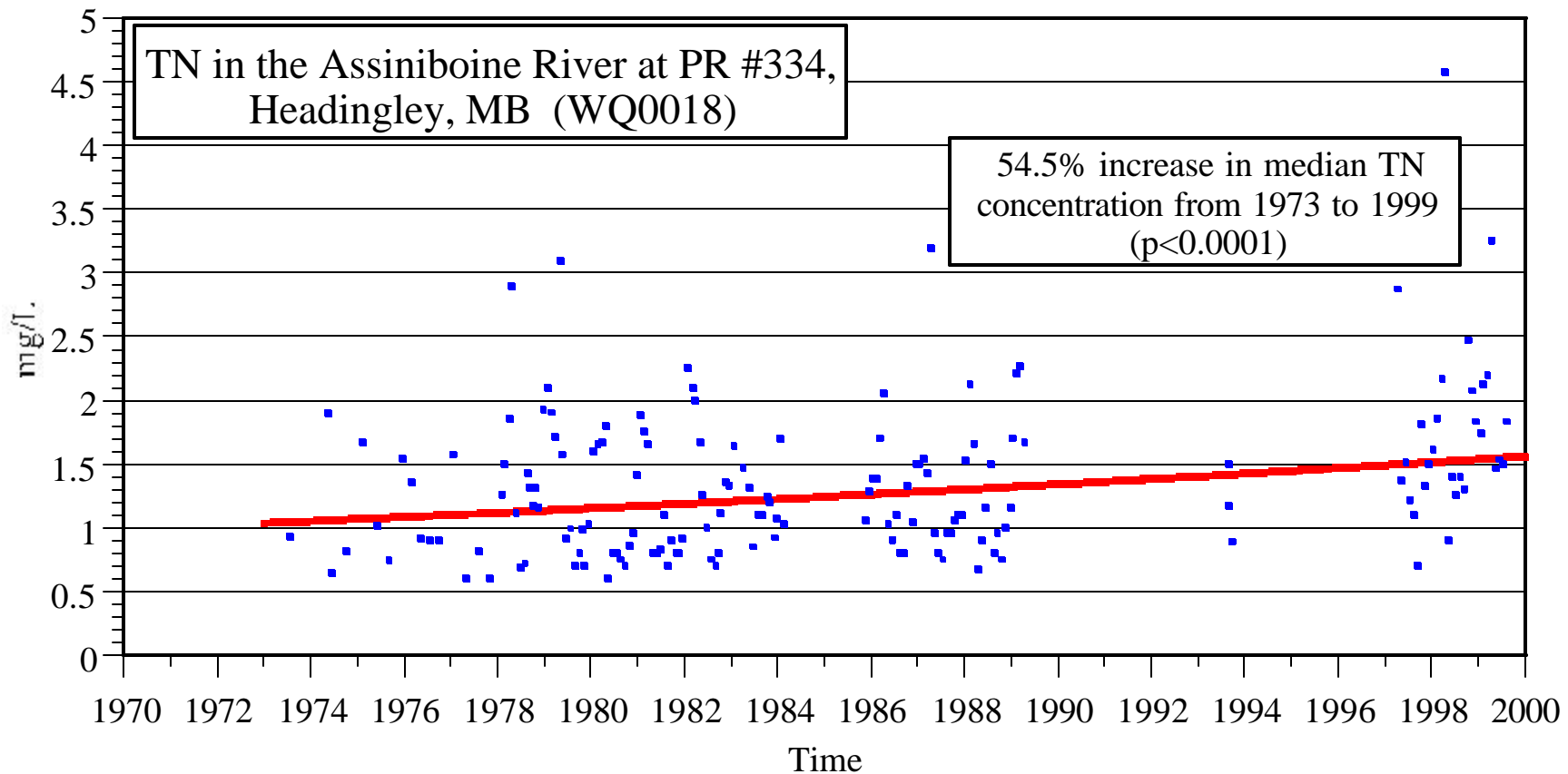
# Phosphorus in Saskatchewan River below Grand Rapids



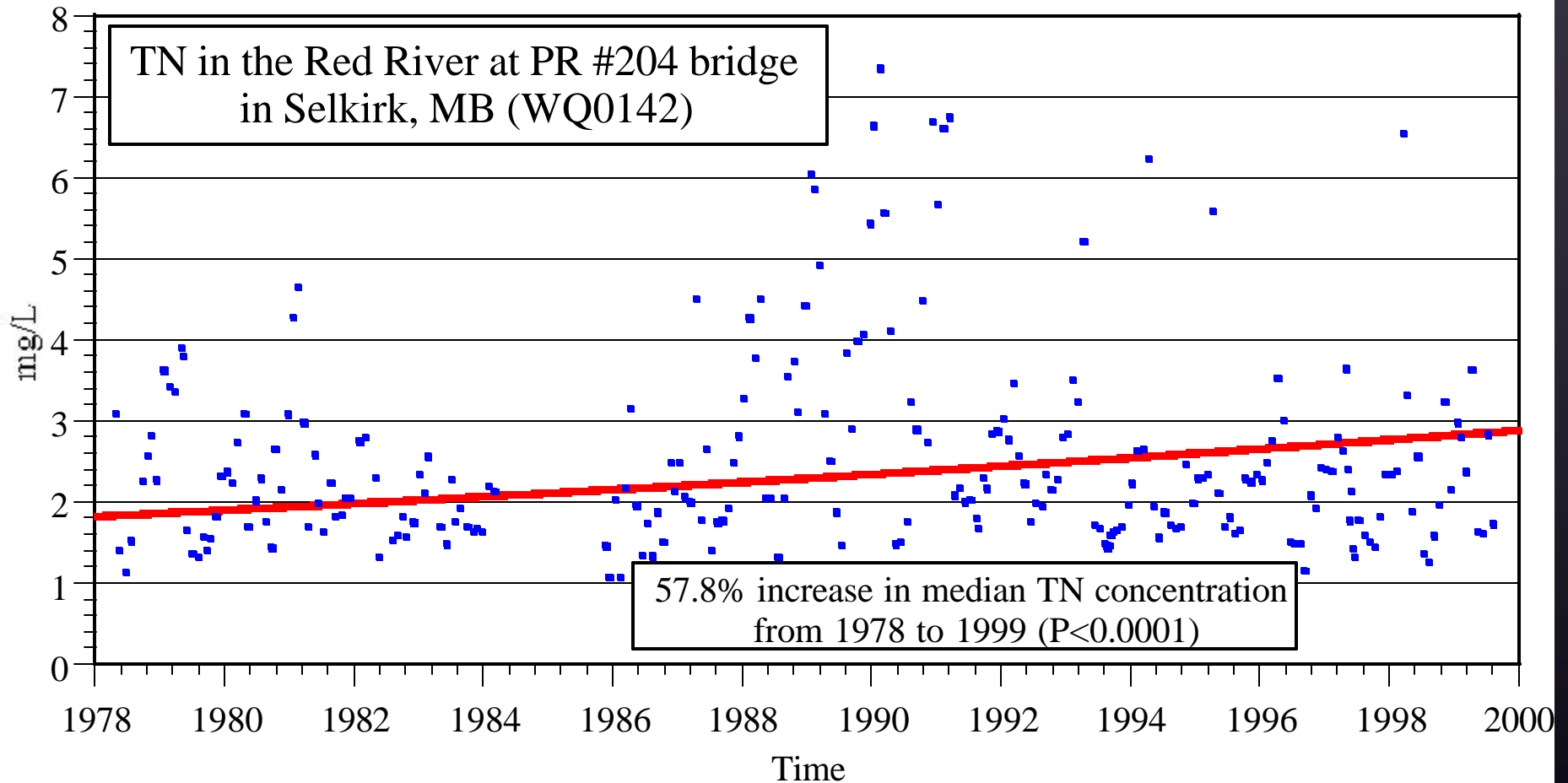
# Phosphorus in Nelson River



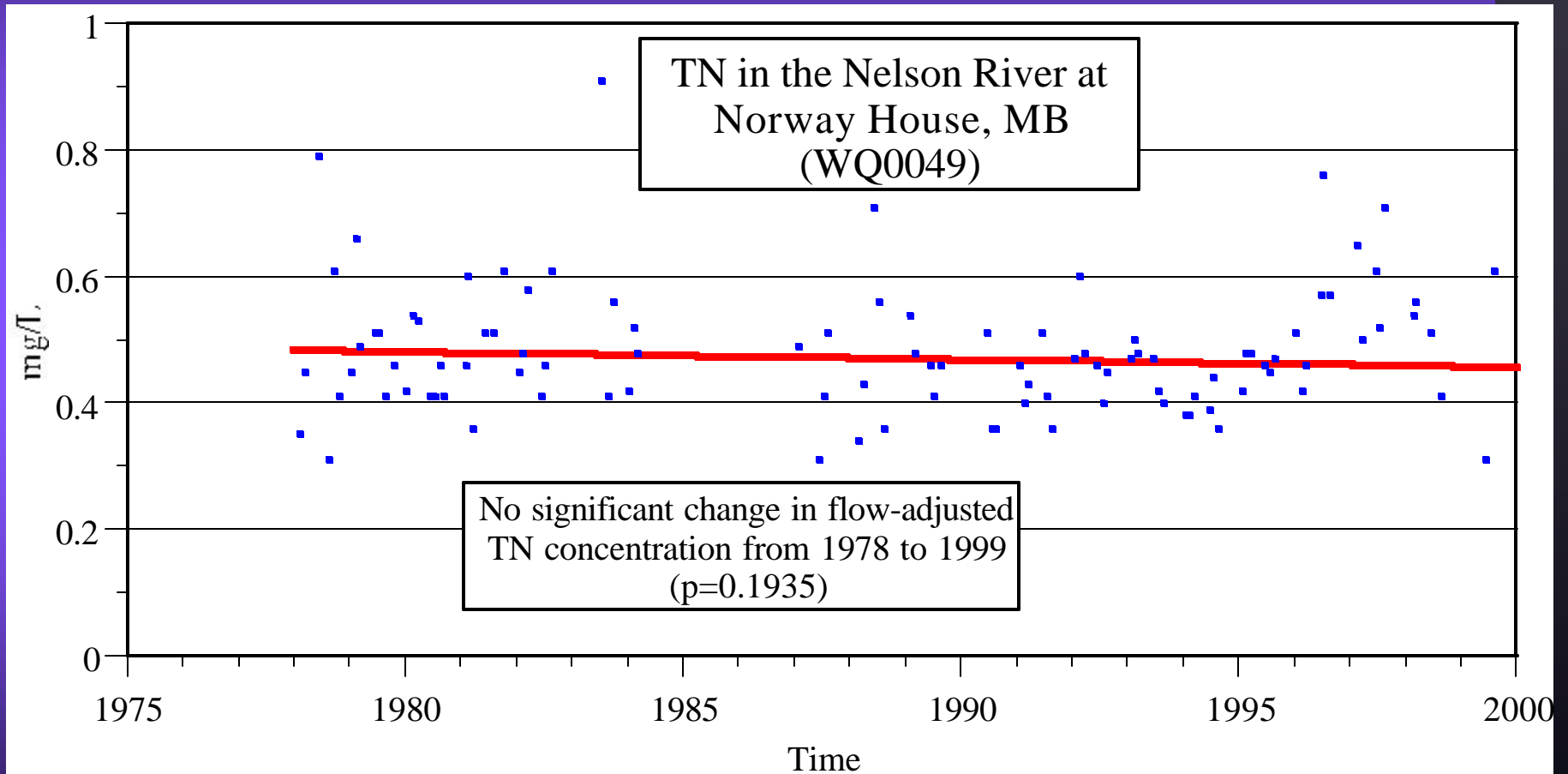
# Nitrogen in Assiniboine River at Headingley



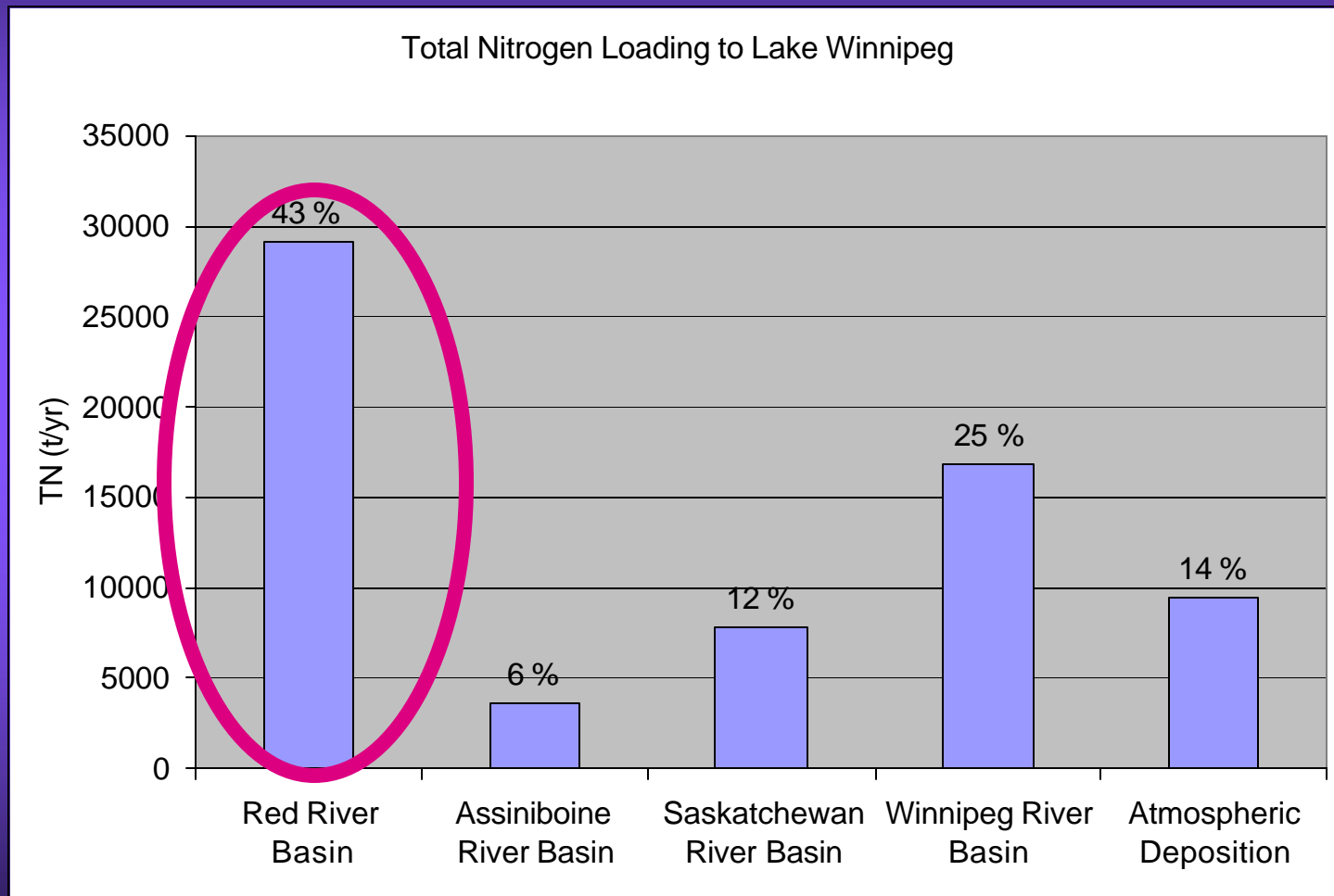
# Nitrogen in Red River at Selkirk



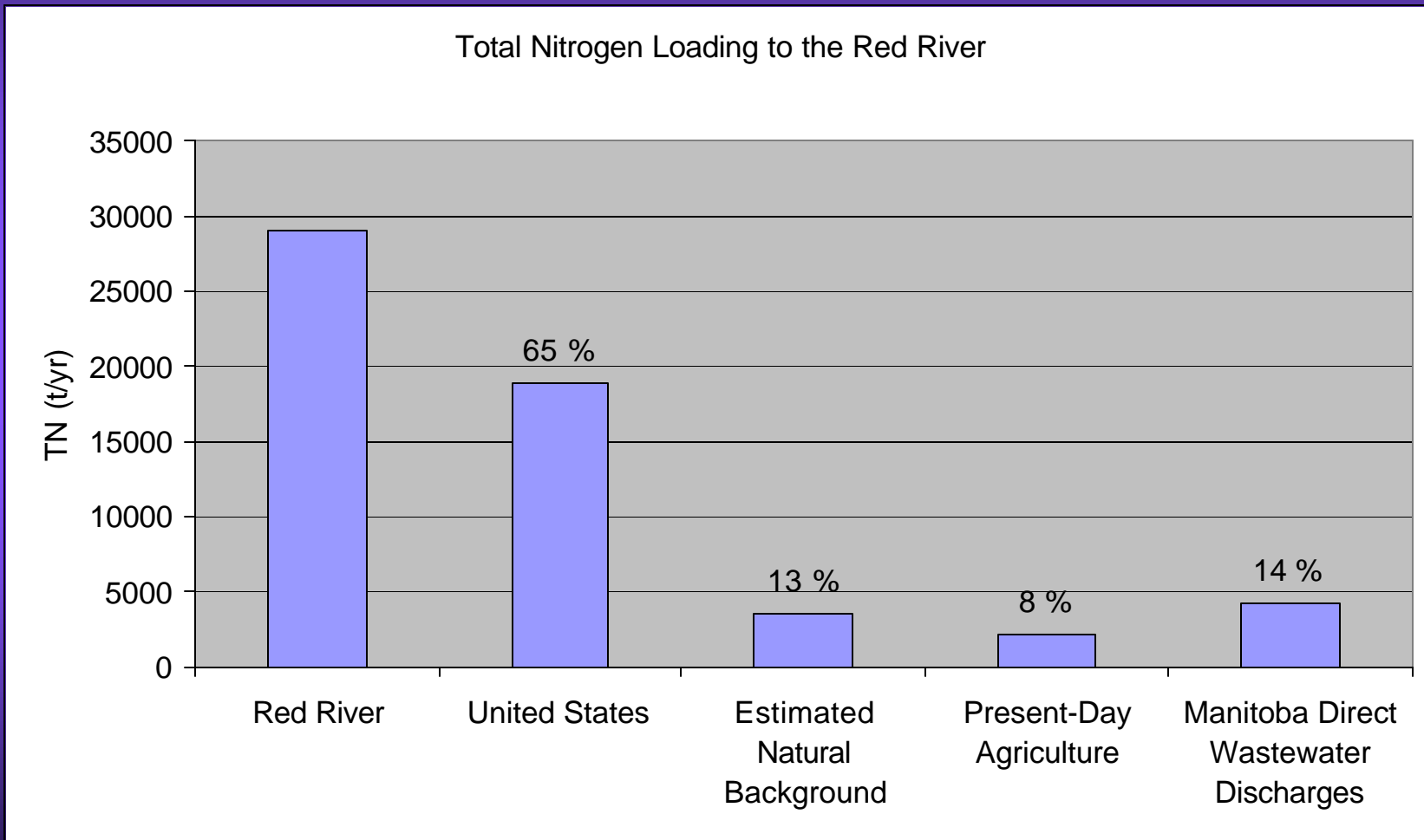
# TN in Nelson River



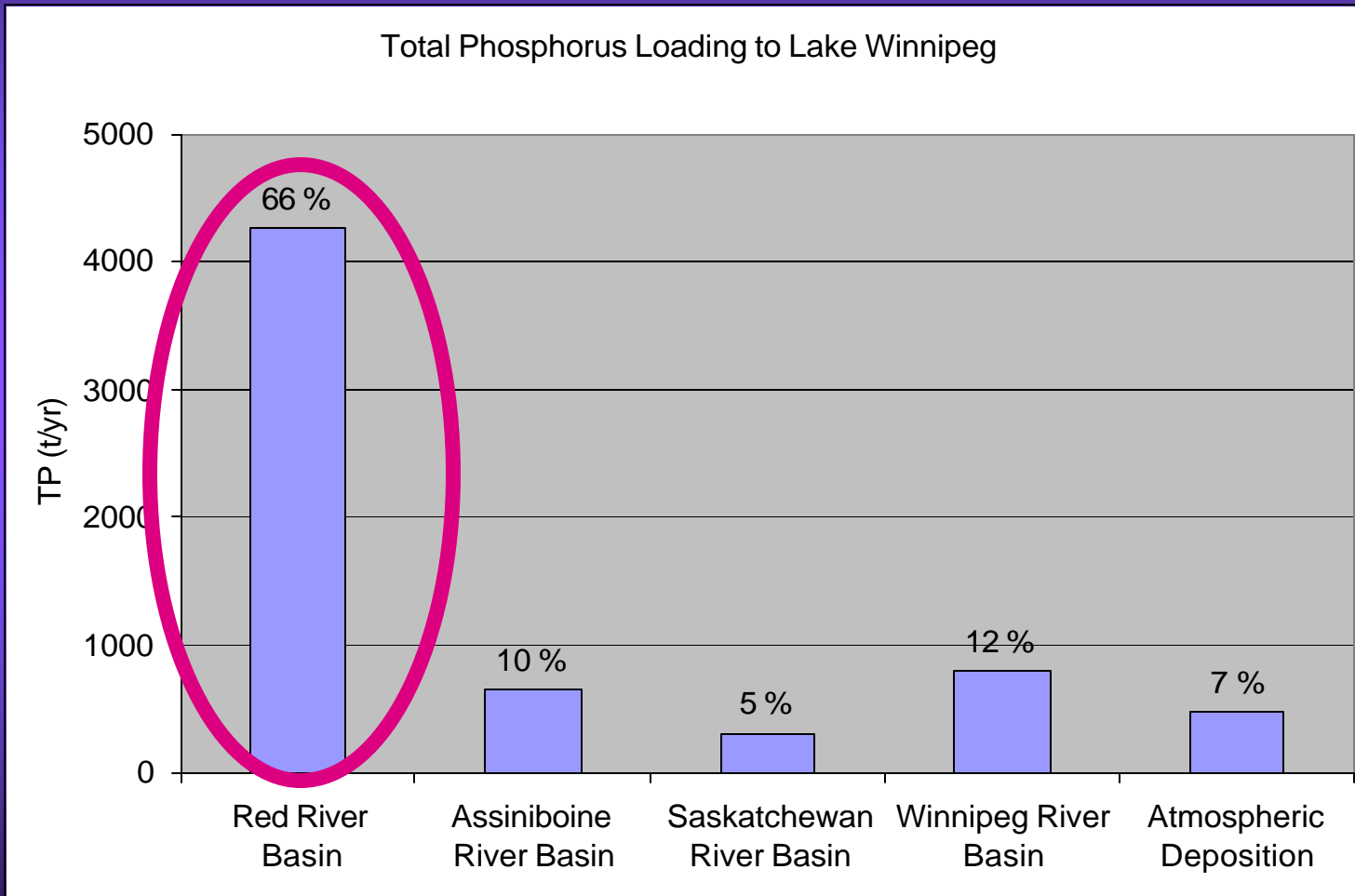
# Nitrogen Loading to Lake Winnipeg



# Nitrogen Loading to the Red River

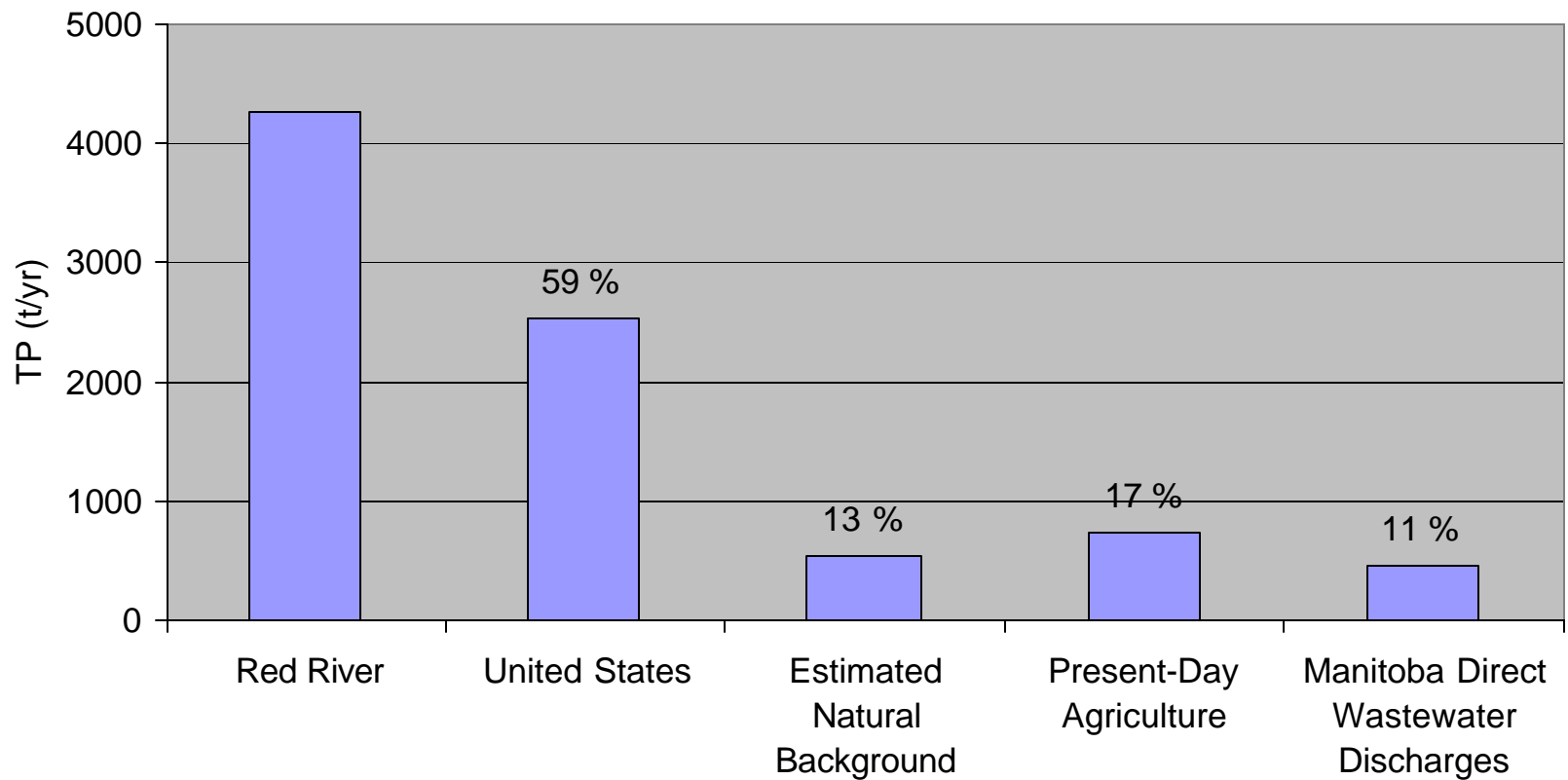


# Phosphorus Loading to Lake Winnipeg



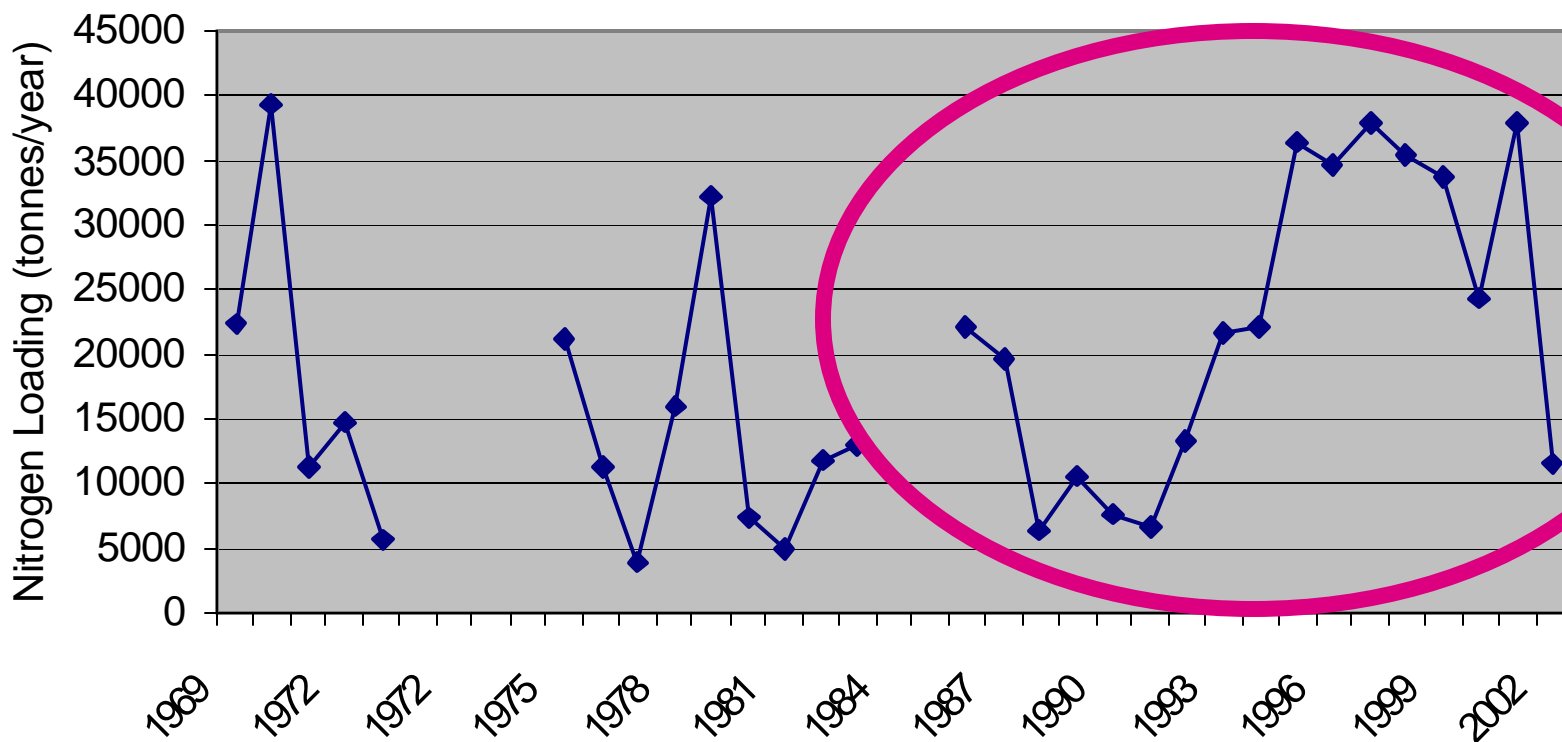
# Phosphorus Loading to the Red River

Total Phosphorus Loading to the Red River



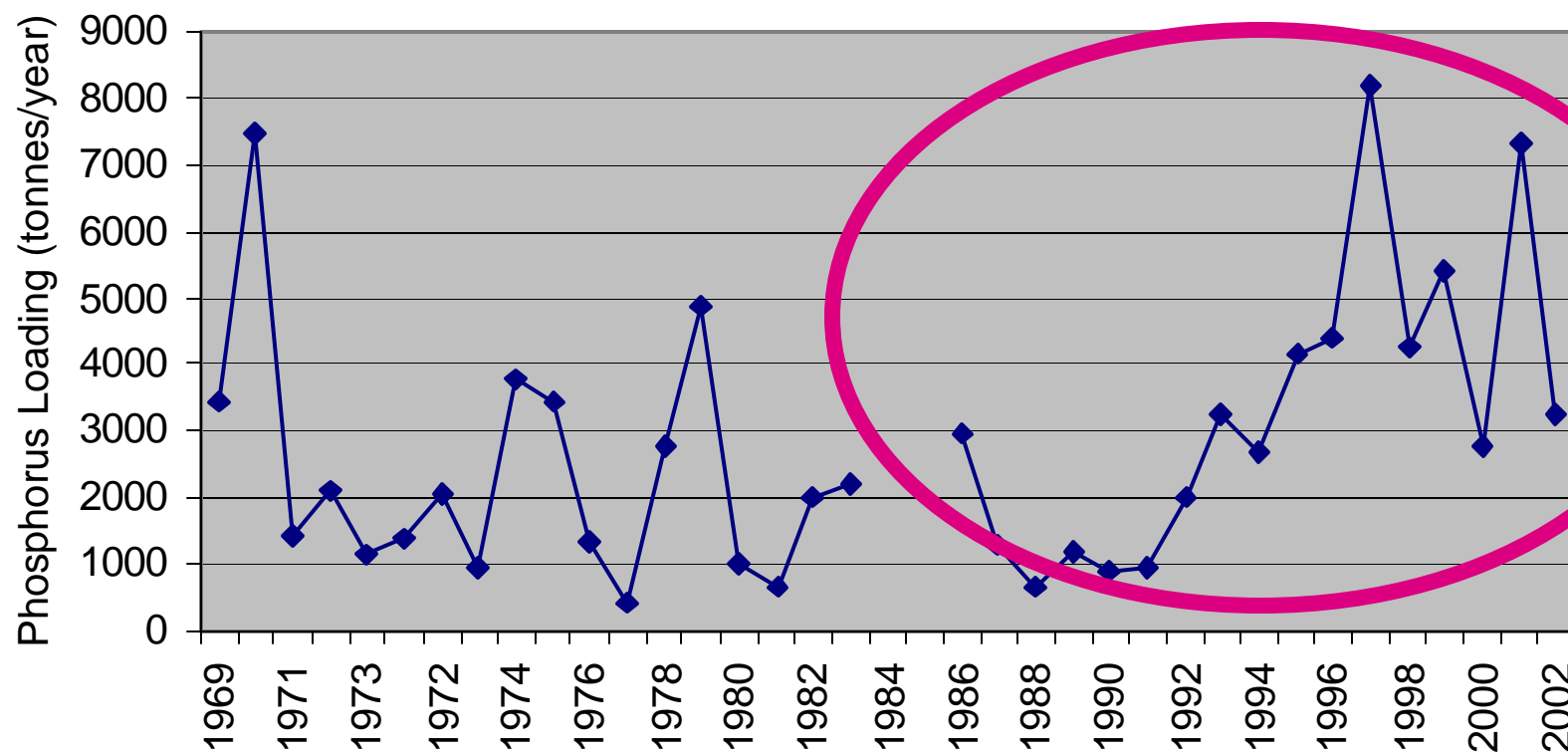
# Nitrogen Loading to Lake Winnipeg from the Red River

Nitrogen Loading to Lake Winnipeg from the Red River

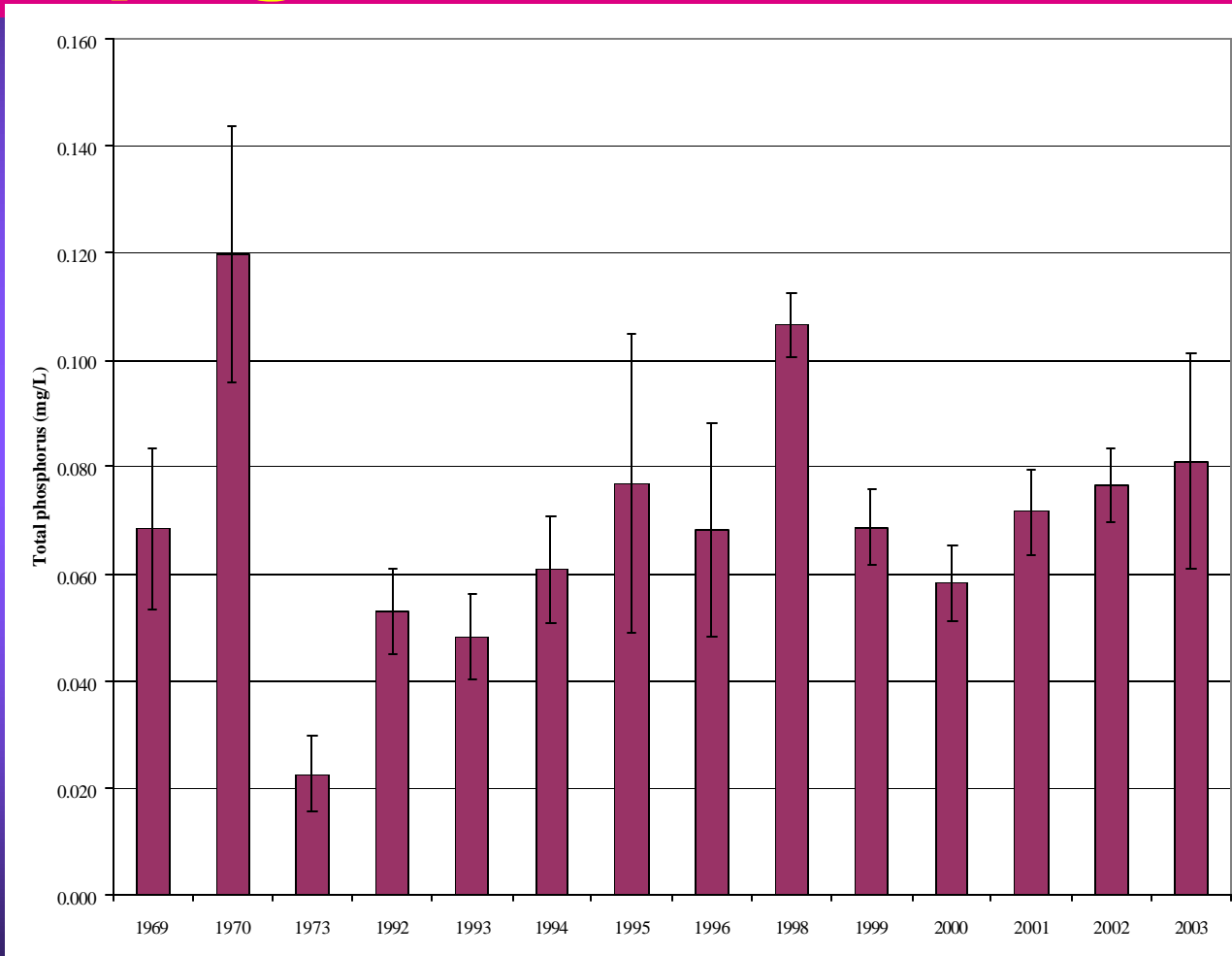


# Phosphorus Loading to Lake Winnipeg from the Red River

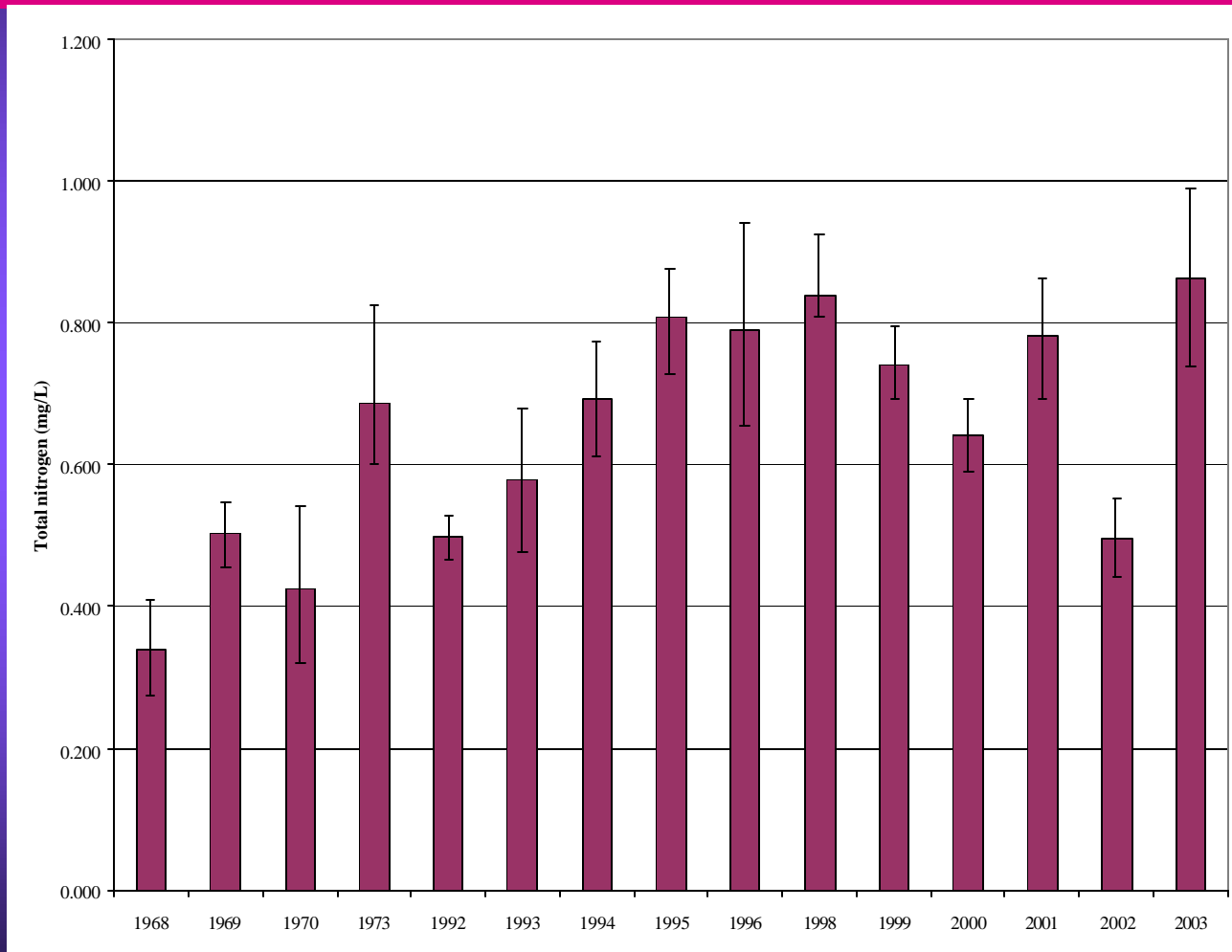
Phosphorus Loading to Lake Winnipeg from the Red River



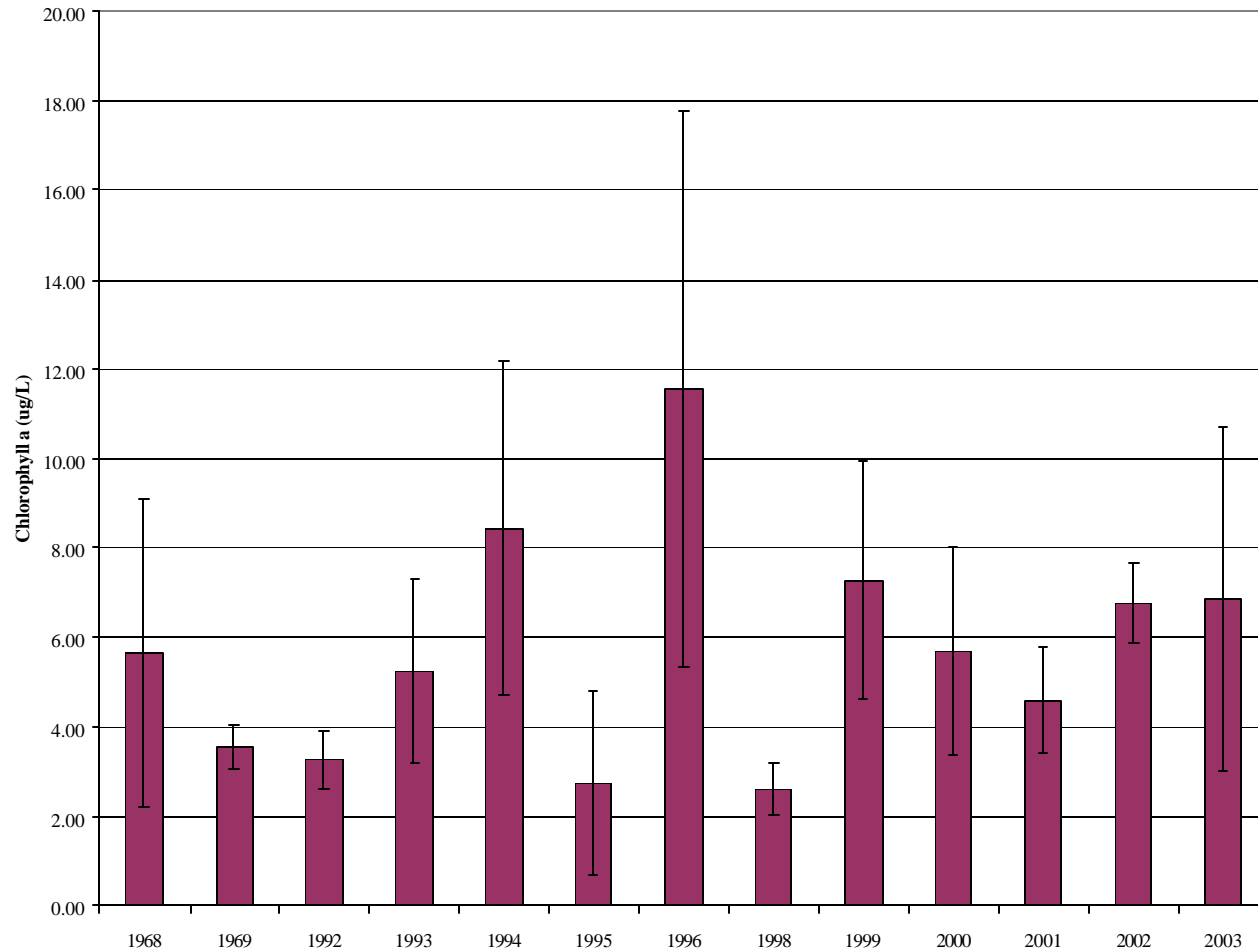
# Phosphorus - Lake Winnipeg



# Nitrogen - Lake Winnipeg



# Chlorophyll a - Lake Winnipeg



# Lake Winnipeg Action Plan

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- Commitment to reduce nitrogen and phosphorus in Lake Winnipeg to pre-1970s levels
  - reduce N loading by 13 % (8,200 tonnes/year)
  - reduce P loading by 10 % (580 tonnes/year)

# Action Plan (continued)

- Establish a Lake Winnipeg Stewardship Board to assist in identifying actions to achieve the commitments in the Lake Winnipeg Action Plan
  - membership announced on July 18, 2003
  - gaining common understanding of relevant science
  - developing a focused workplan to guide the Board's activities

# Action Plan (continued)

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- Action plan recognizes that all our activities contribute nutrients, reductions need to occur across many sectors
- Benefits will accrue to the entire Lake Winnipeg basin

# Action Plan (continued)

- Key actions identified as a starting point
  - measures to protect riparian vegetation
  - work with municipalities to implement nutrient controls
    - CEC recommendations on City of Winnipeg
  - Nutrient Management Areas
  - cross-border discussions

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# Thank You