

Particulate Phosphorus

Source, Transport and Control

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Components of a Sample of Water



100% Phosphorus

Water

40 %

Soluble

Fertilizers

Sediment

60 %

Particulate *Soils, Vegetation*

Particulate Phosphorus

Potential Sources

- Soil Erosion
- Erosion of Canal Bottom
- Erosion of Canal Banks
- Floating Aquatic Vegetation (FAV)

Management Practices to avoid Particulate P

- Soil Erosion
 - Fallow fields Flooding
 - Land Leveling
 - Sediment Sump in Culverts
 - Canal Berms
- Erosion of Canal Bottom
 - Slow velocity when draining
 - High water levels in the canals
- Erosion of Canal Banks
 - Vegetation in canals banks
 - Gentle slope in canal banks
- Floating Aquatic Vegetation (FAV)
 - Canal Cleaning Program

Management Practices to avoid Particulate P

➤ Fallow fields Flooding



➤ Field Leveling



Management Practices to avoid Particulate P

➤ Sediment Sump in Culverts



➤ Canal Berms

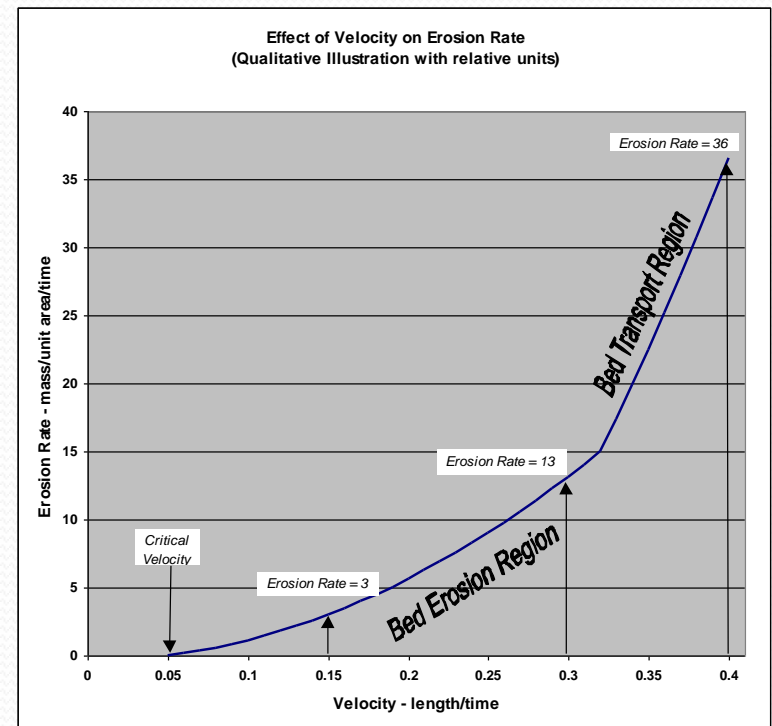


Management Practices to avoid Particulate P

- Vegetation in canals banks
- Gentle slope in canal banks

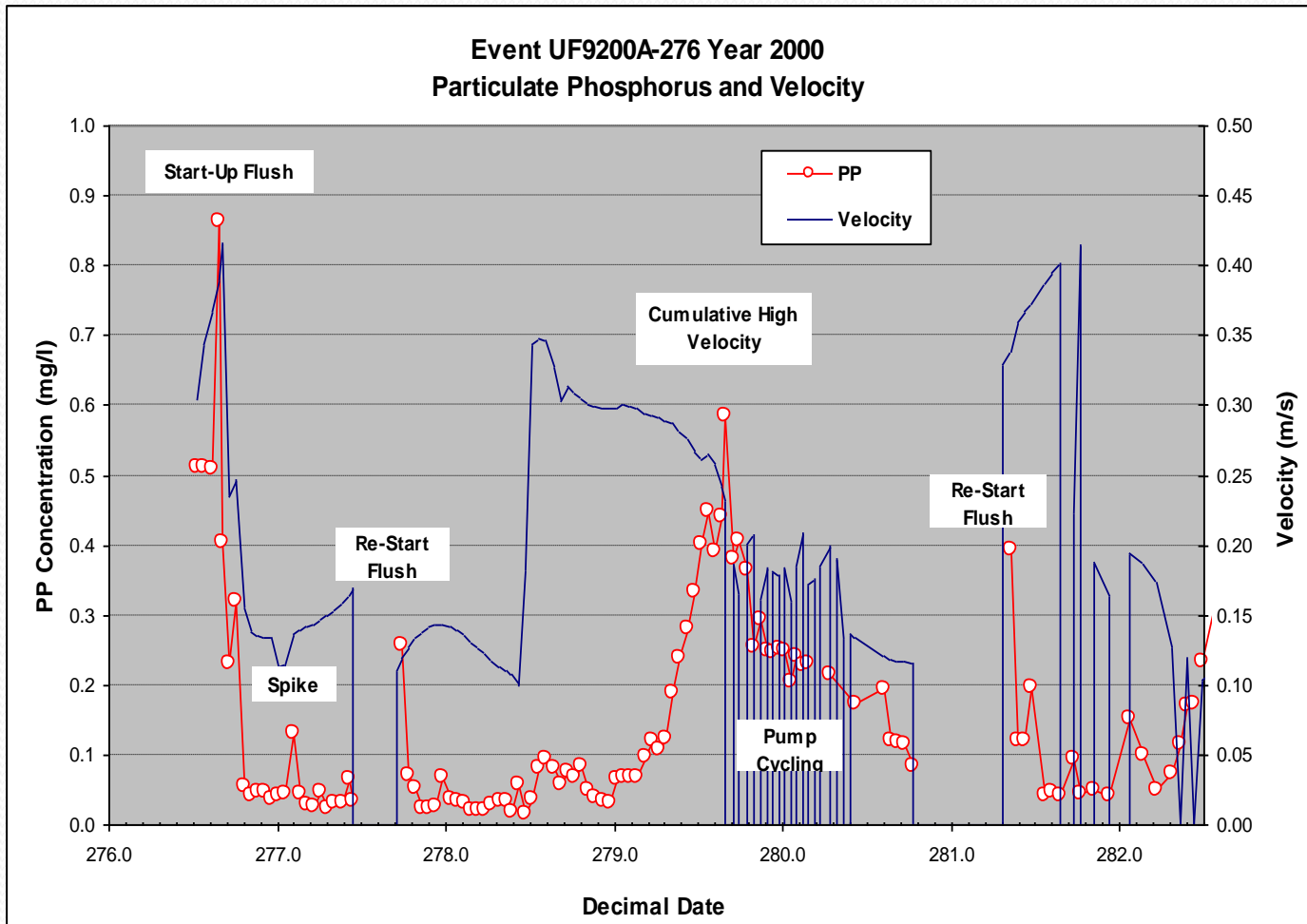


- Slow velocity when draining



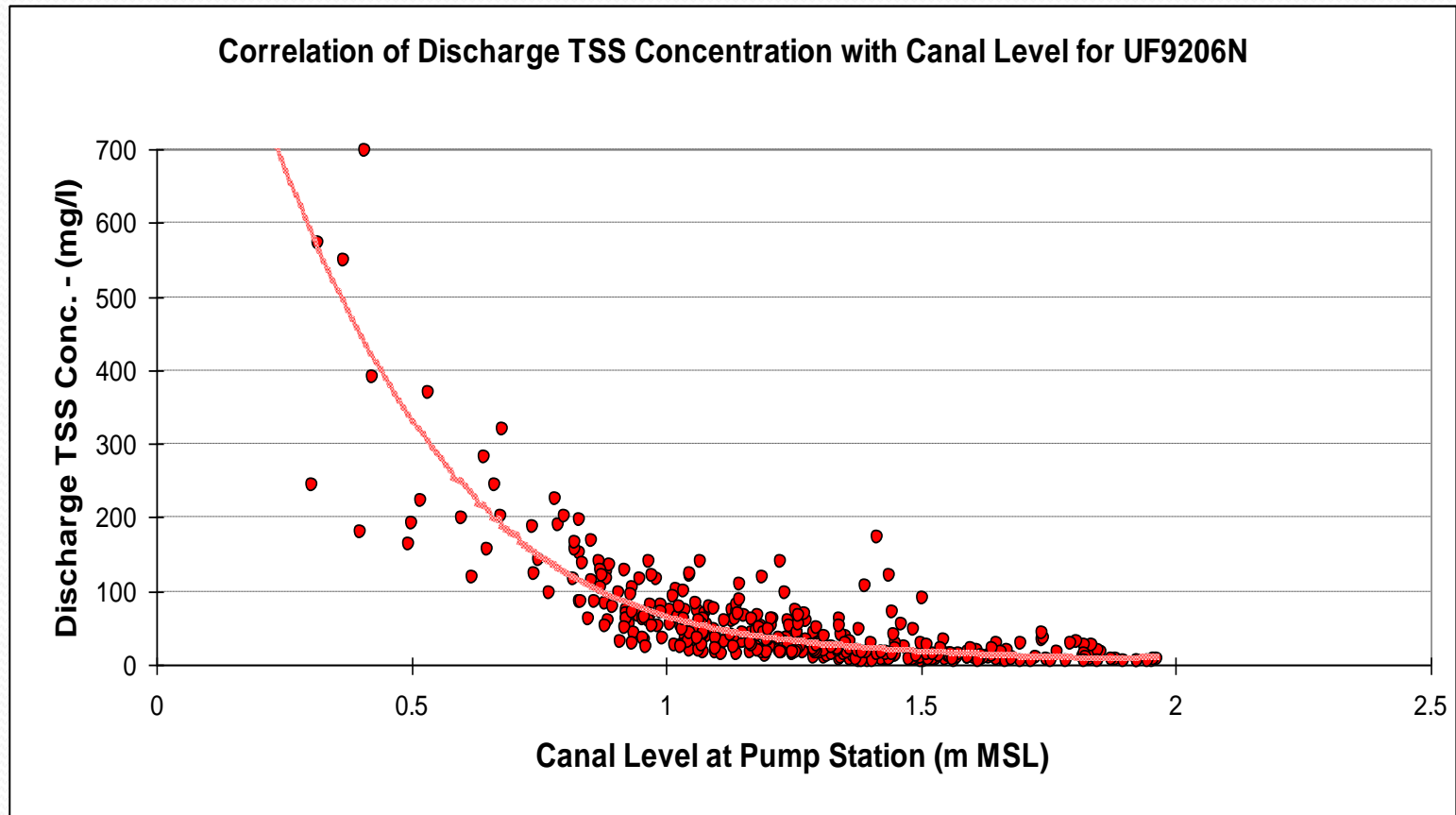
Management Practices to avoid Particulate P

Water Pump Management



Management Practices to avoid Particulate P

Water Level Management



Management Practices to avoid Particulate P

Water Velocity Control

- Limit maximum speed
- Pump for a long time at a low rate
- Long Pumping cycles are good, short pumping cycles are bad
- Determine critical water levels: Do not drain the farm below Stop elevations

Management Practices to avoid Particulate P

Canal Cleaning Program
Where to Place the Sediment

Best



Better



Bad



Management Practices to avoid Particulate P

Canal Cleaning Program

Floating Aquatic Vegetation Mechanical Removal



Management Practices to avoid Particulate P (Brainwashing)

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Epilog

At 87, She is learning to remember

- Learn how to Learn
Innovate

