Analysis of conductivity, temperature, and depth (CTD) data in Puget Sound

Angela Grout
Marine and Sediment
Assessment Group

Marine and Sediment Assessment Group Work Plan Priorities

- Meet regulatory or permit requirements.
- Assess wastewater discharge impacts to marine receiving waters.
- Assess background conditions in Puget Sound.
- Assess potential wastewater discharge transport/potential impacts to public health.
- Assess water quality at KC saltwater beaches/recreation areas.

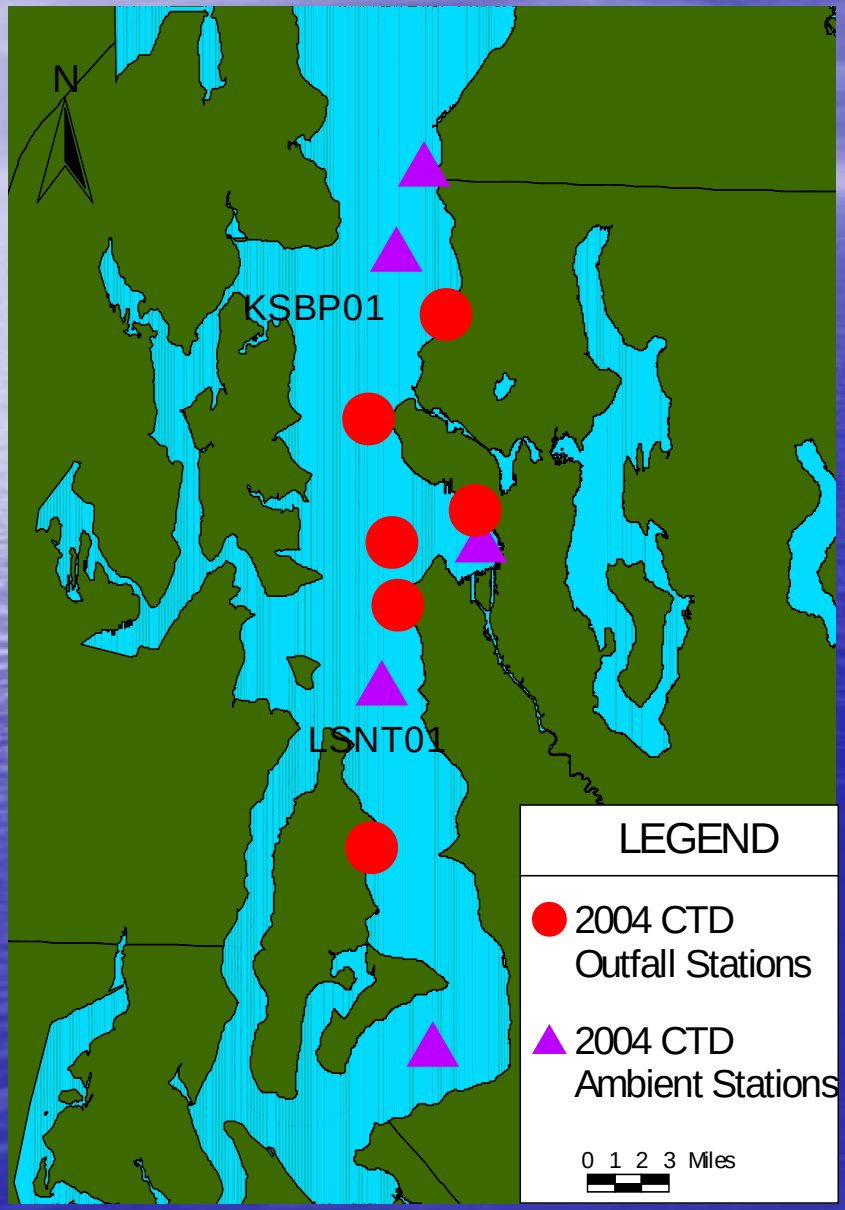
Overview of Marine and Sediment Assessment Group Projects/Programs

- ***Offshore Water Column Monitoring***
- Beach Water Quality Monitoring
- Annual Beach Sediment, Shellfish & Algae Monitoring
- Biennial Subtidal Sediment Monitoring
- Puget Sound Water Column EDC Survey
- Brightwater Outfall Studies
- Sediment Remediation/Monitoring

Monitoring Overview - 2004

Total Stations	**43**
Outfall Stations	**12**
Water	12
CTD	**6**
Sediment	4
Shellfish	4
Algae	5
Ambient Stations	**31**
Water	25
CTD	**5**
Sediment	7
Shellfish	3
Algae	3

2004 Puget Sound CTD Sampling Station Locations



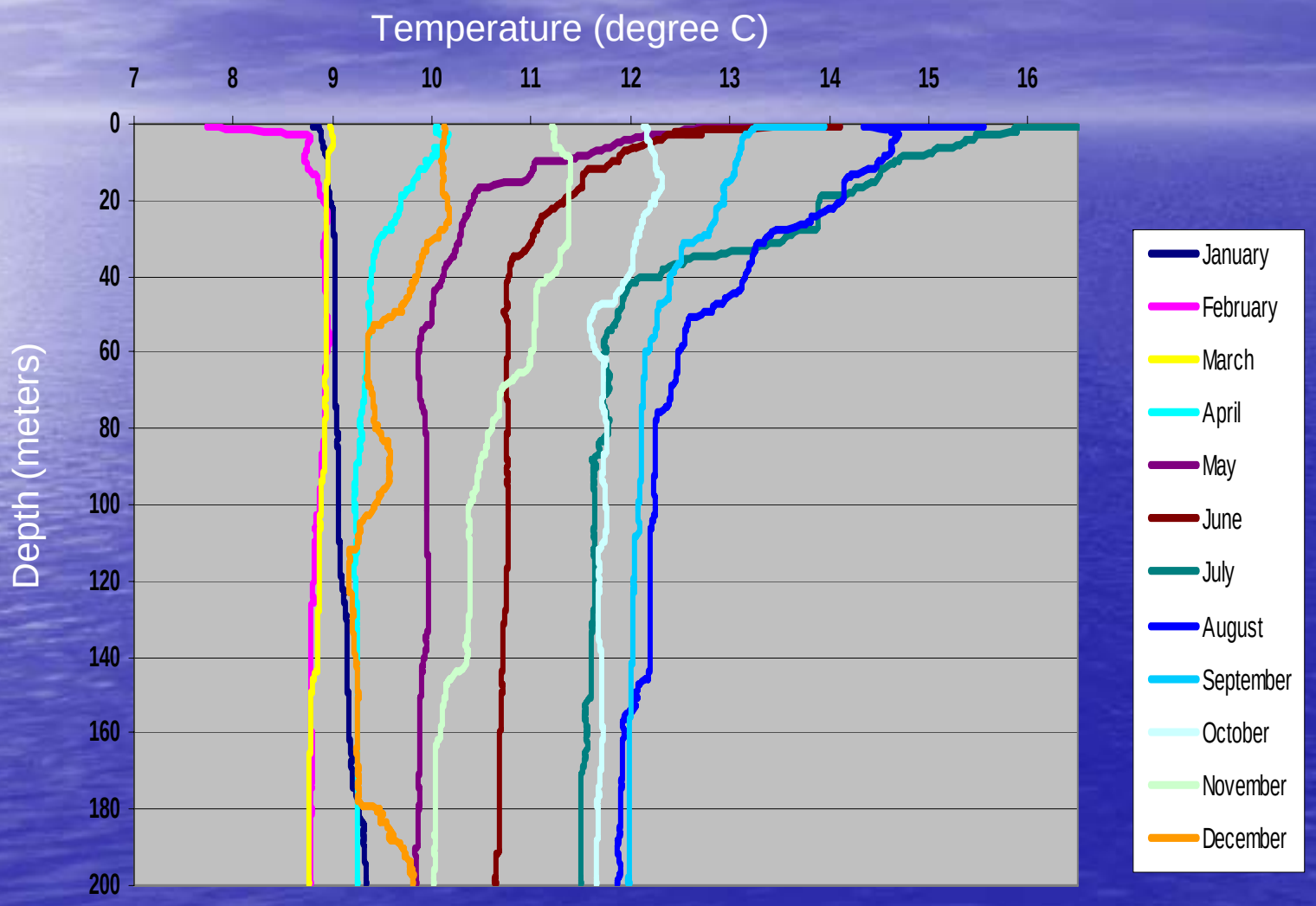
Outfall Stations:

- CK200P (Carkeek Outfall)
- KSSK02 (West Point Outfall)
- LSEP01 (South Plant Outfall)
- LSKQ06 (Alki Outfall)
- LTBC42 (Denny Way Outfall)
- VO50E (Vashon Island Outfall)

Ambient Stations:

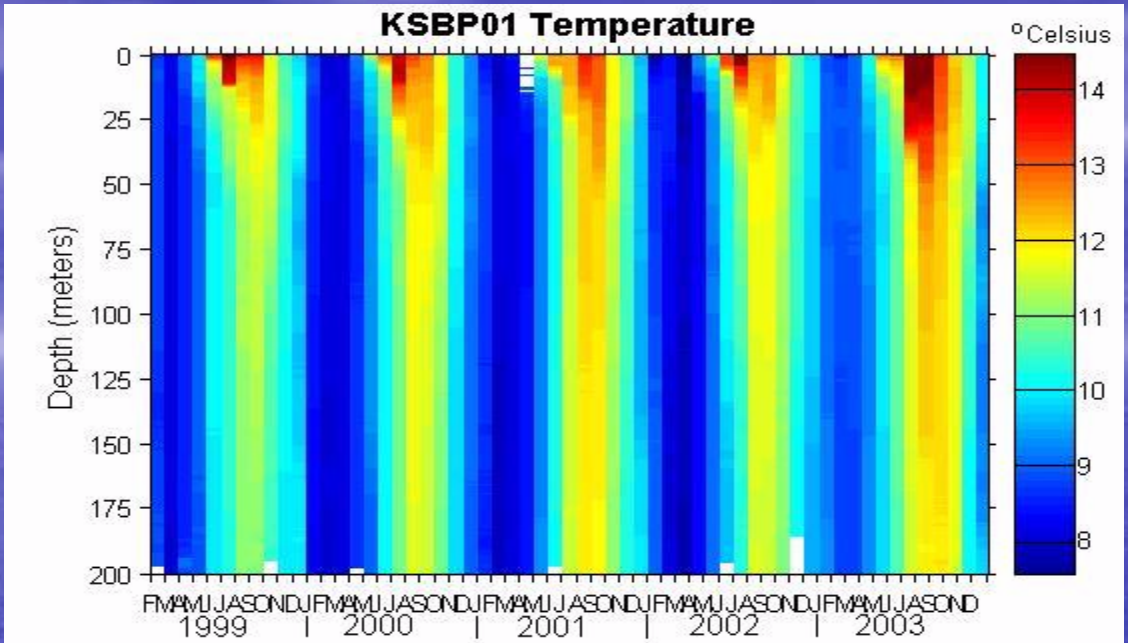
- KSBP01 (Point Jefferson)
- LSNT01 (Dolphin Point)
- LTED04 (Elliott Bay)
- NSEX01 (East Passage)
- PTWELLS1 (Point Wells)

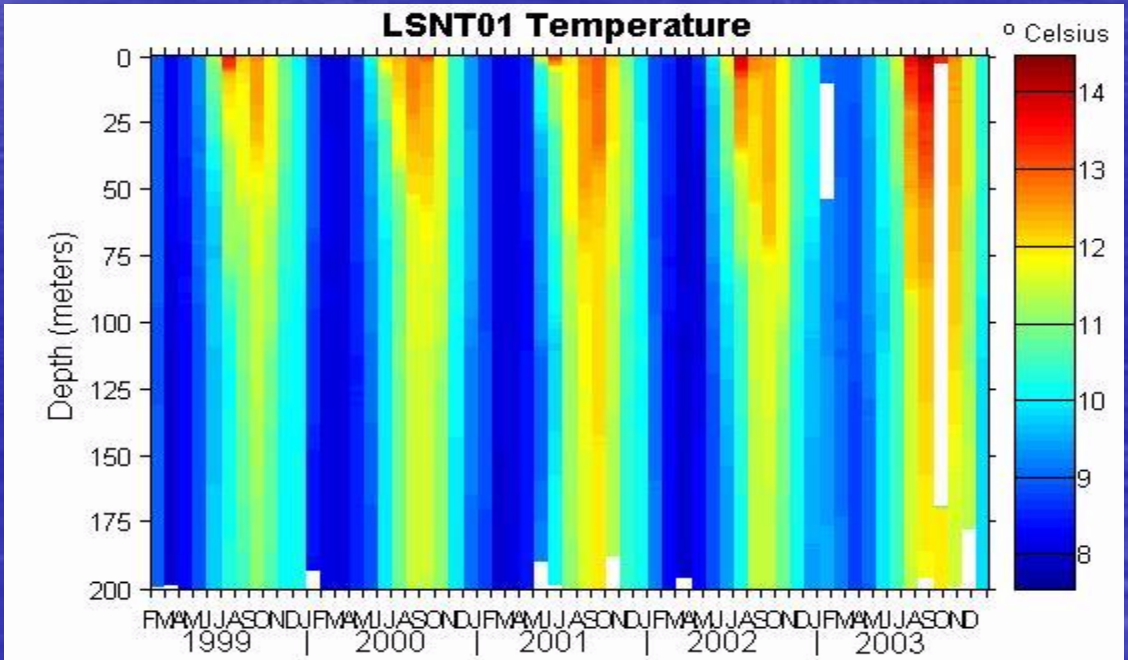
Water Column Temperature: Station KSBP01 (2003)



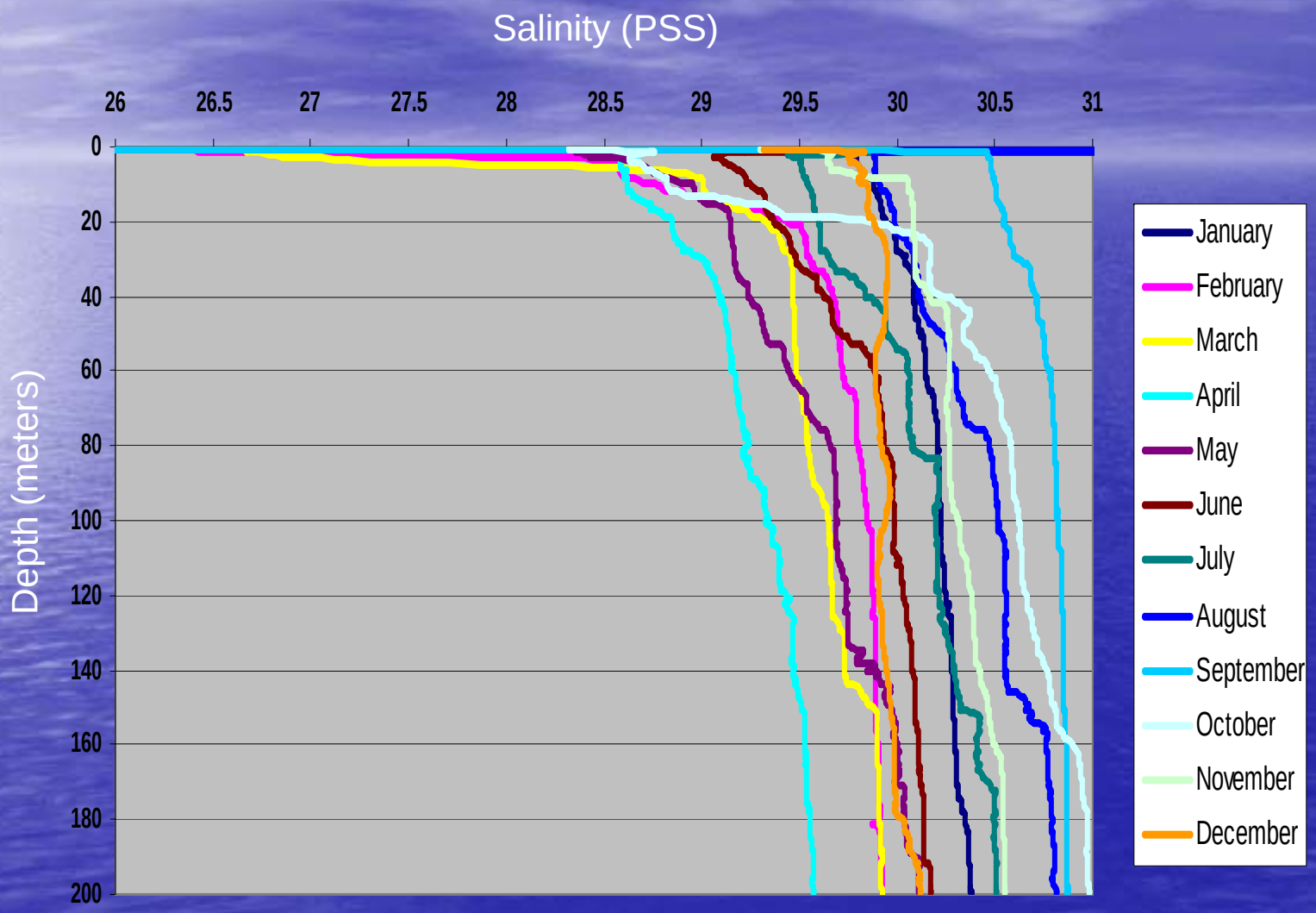
Puget Sound Temperature Variations

1999 - 2003



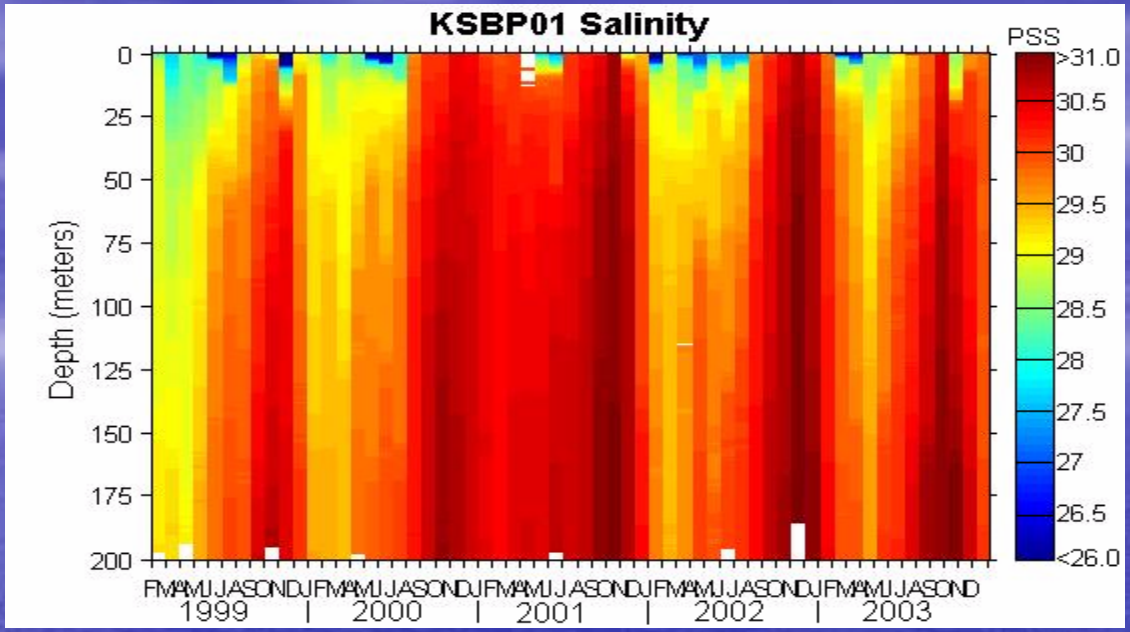


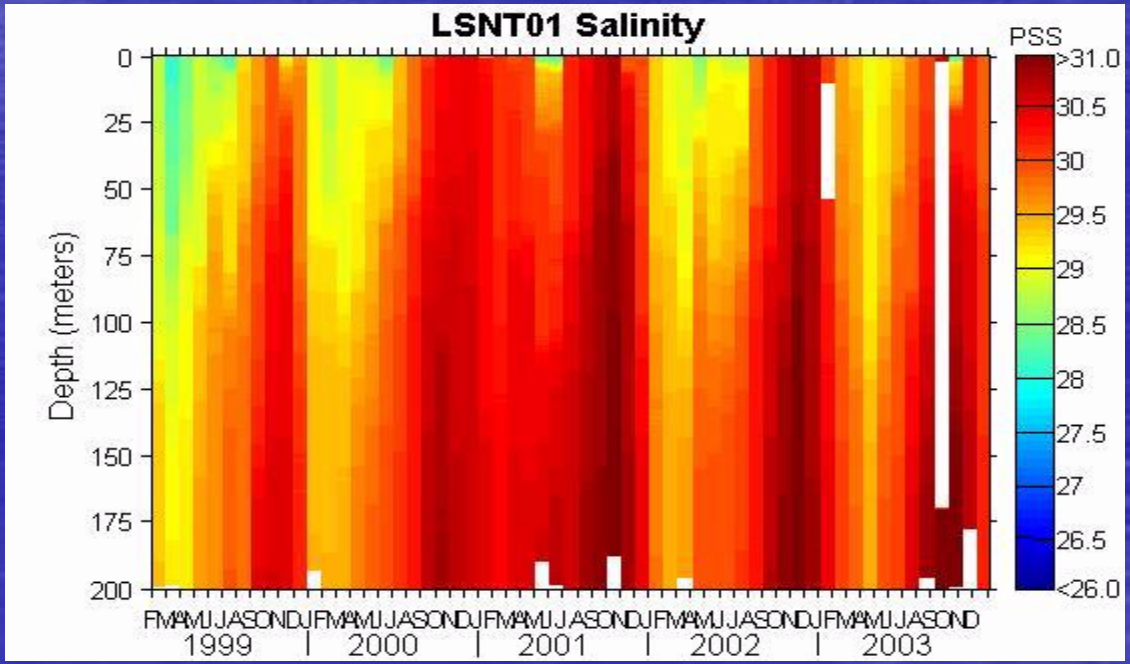
Water Column Salinity: Station KSBP01 (2003)



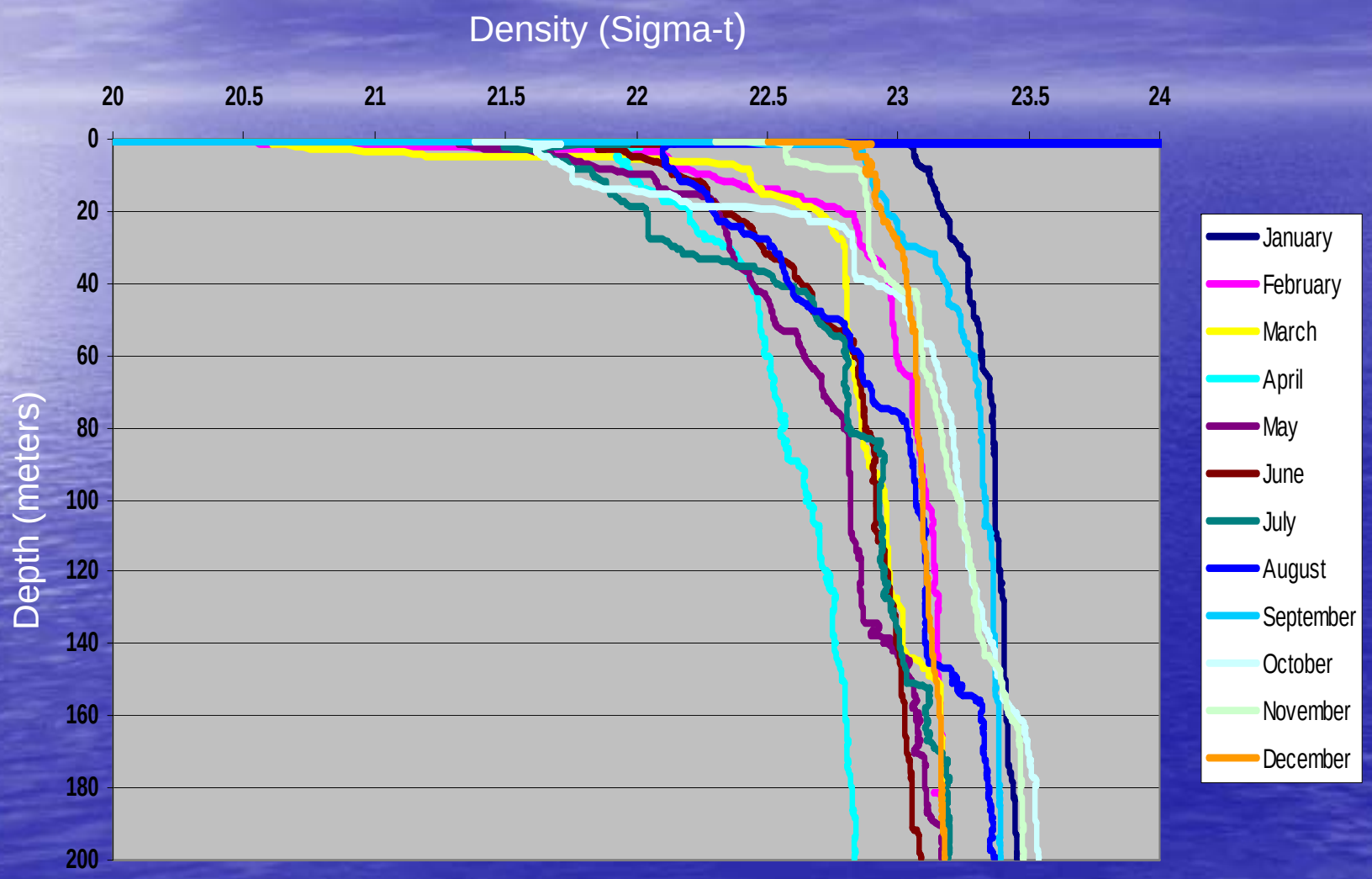
Puget Sound Salinity Variations

1999 - 2003



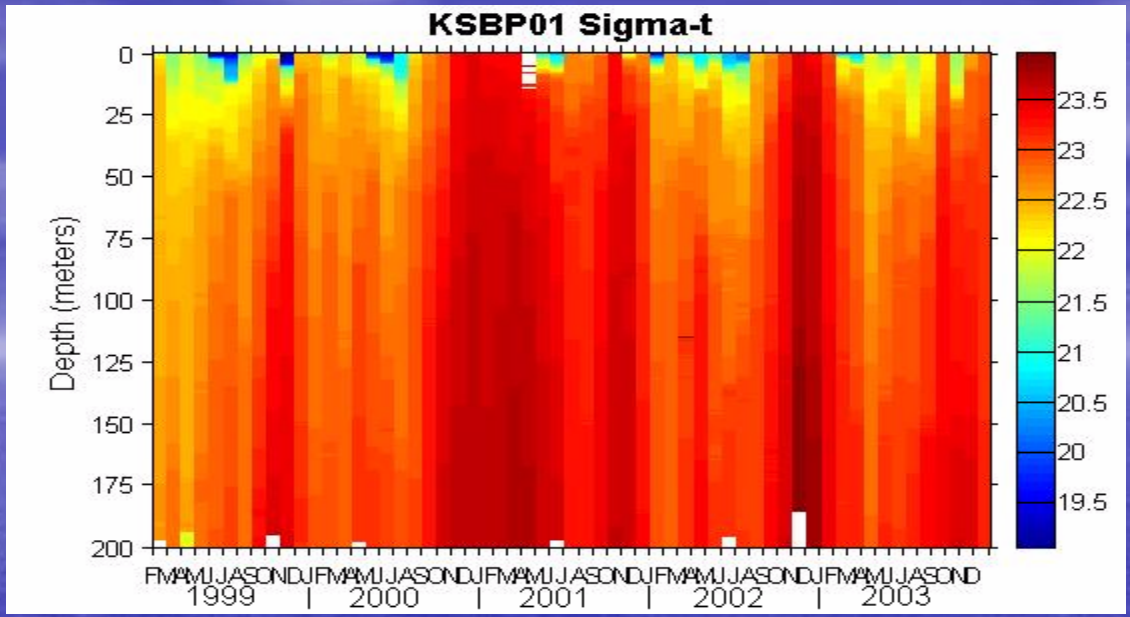


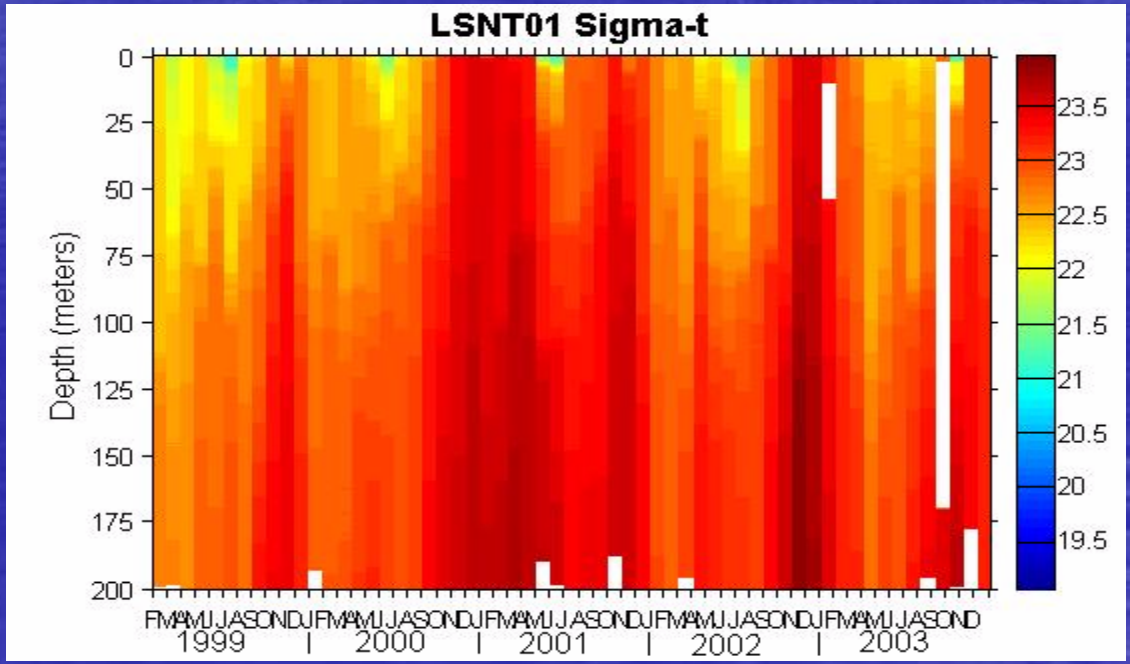
Water Column Density (Sigma-t): Station KSBP01 (2003)



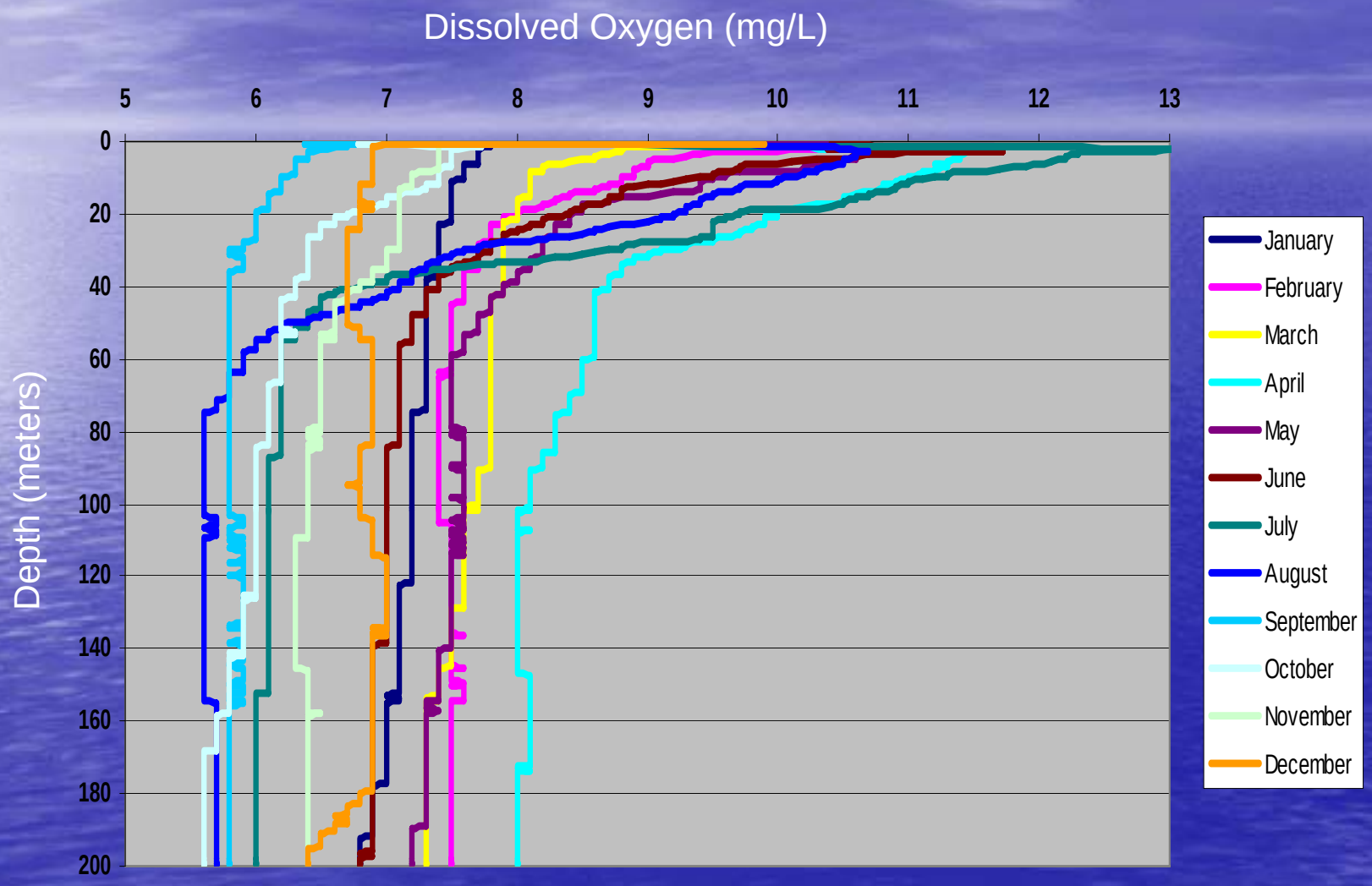
Puget Sound Density (sigma-t) Variations

1999-2003



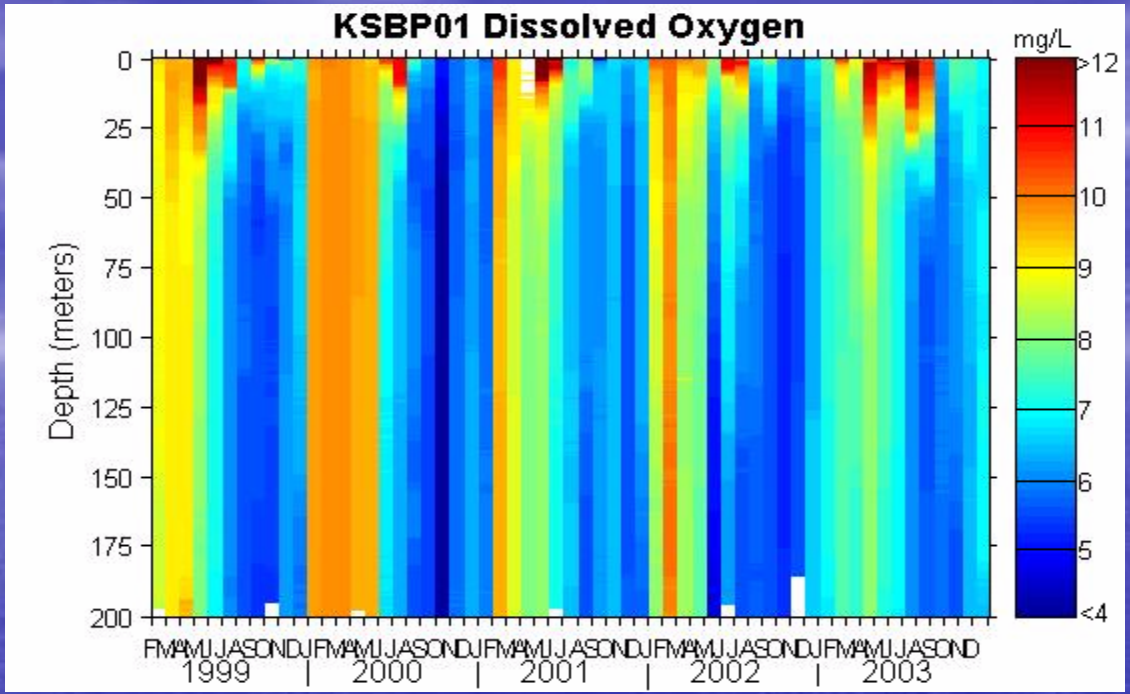


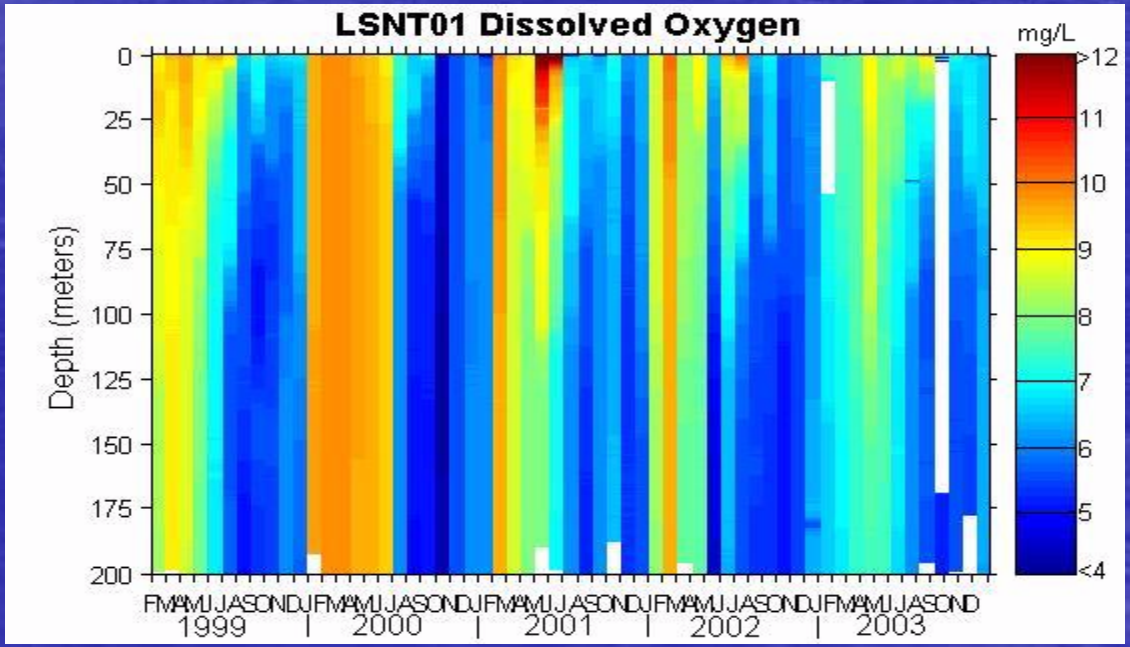
Water Column Dissolved Oxygen: Station KSBP01 (2003)



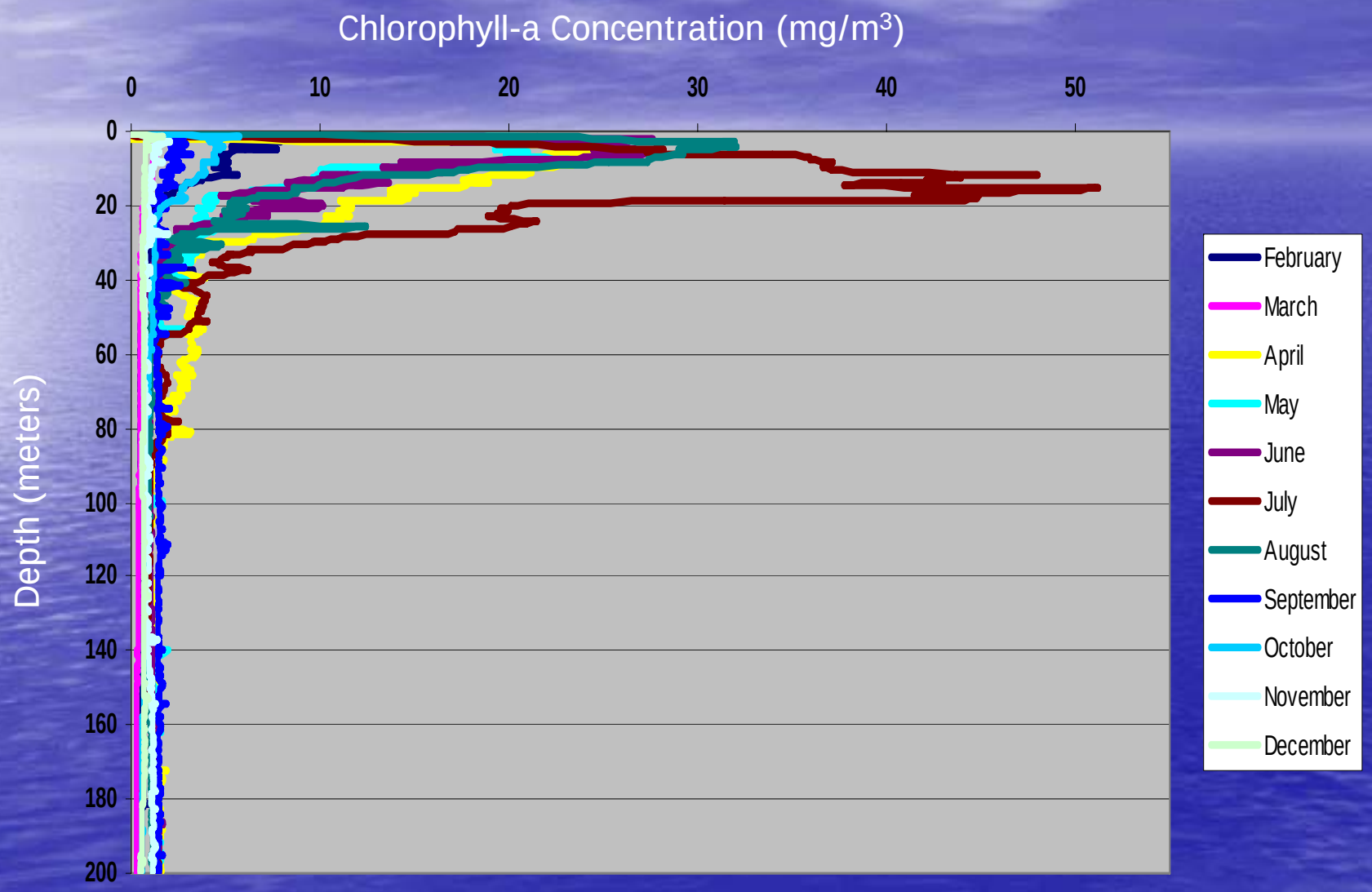
Puget Sound Dissolved Oxygen Variations

1999 - 2003



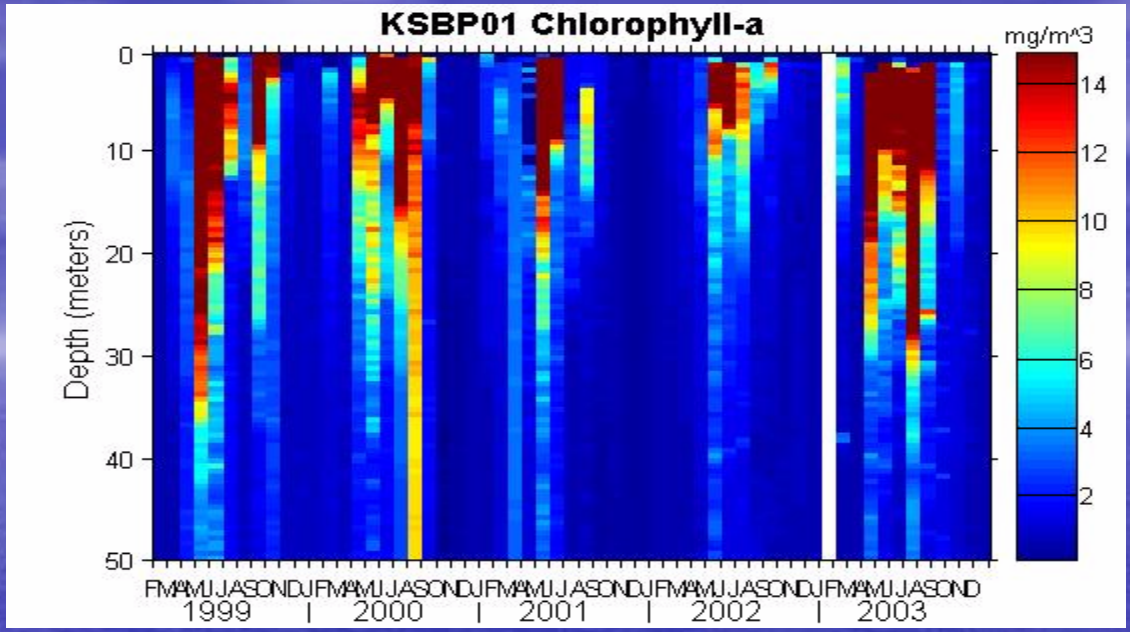


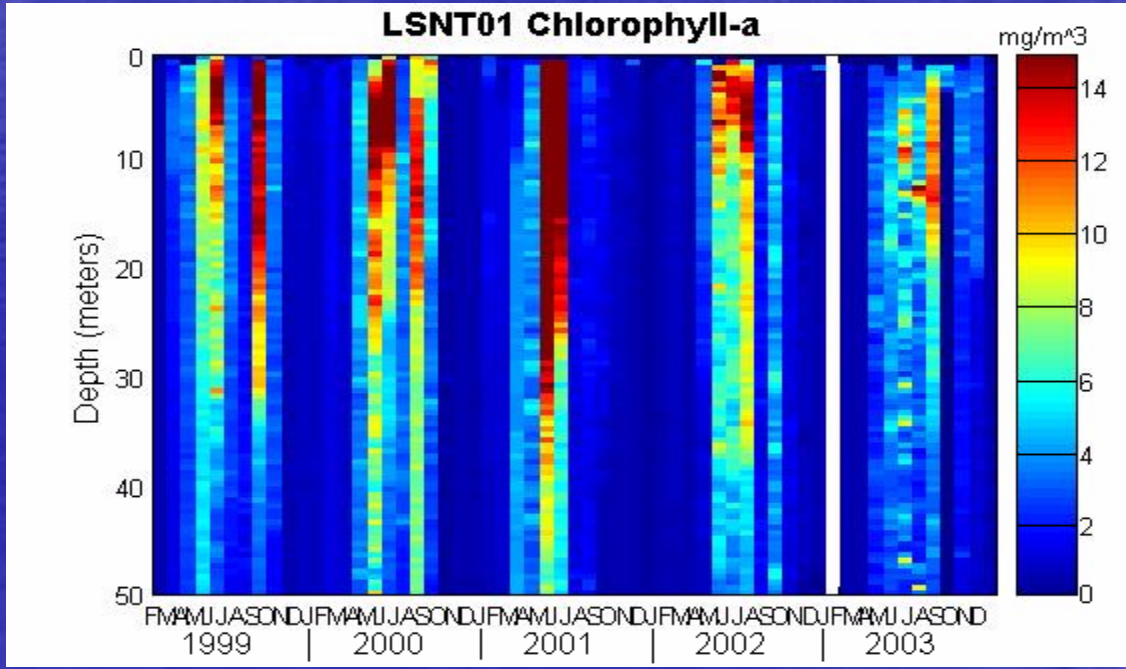
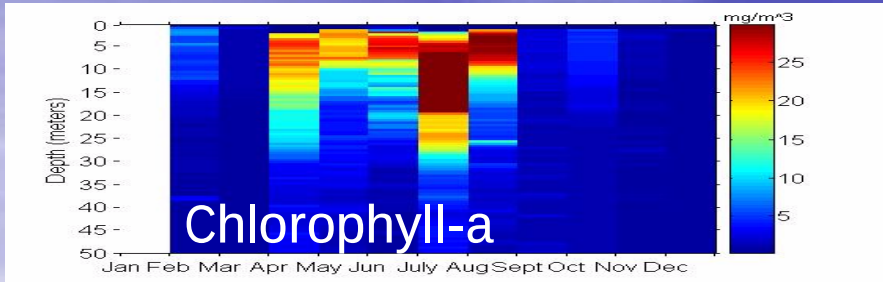
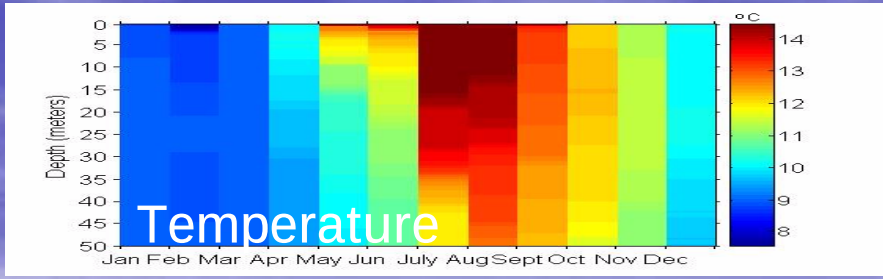
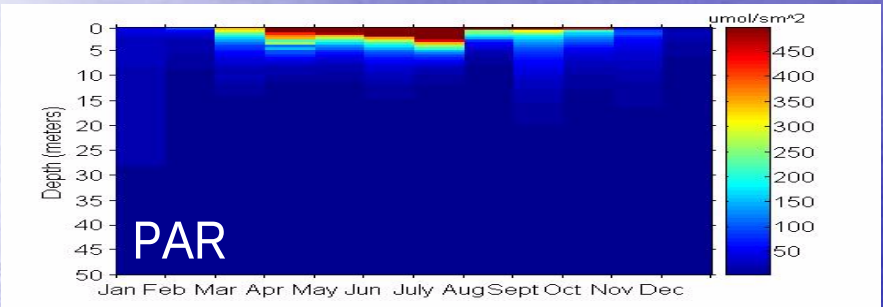
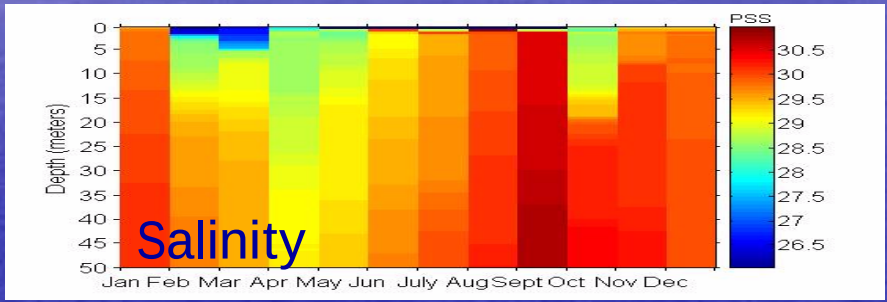
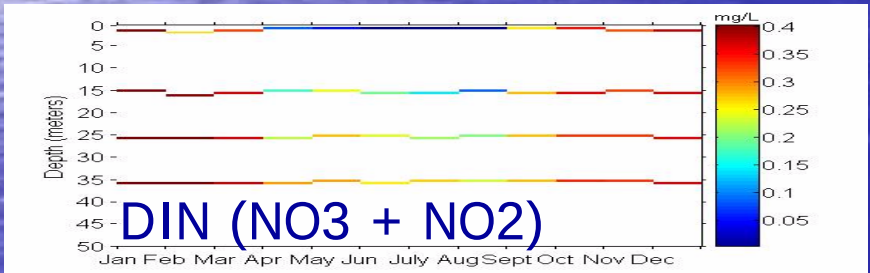
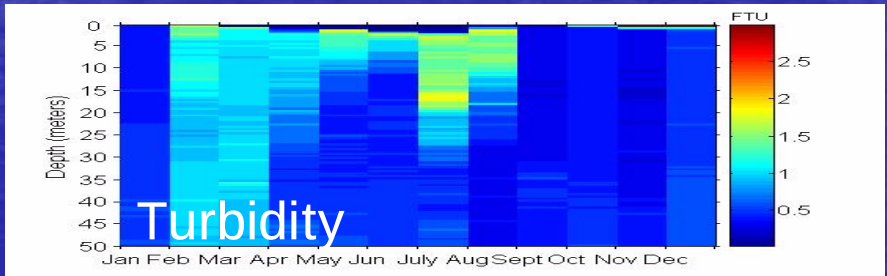
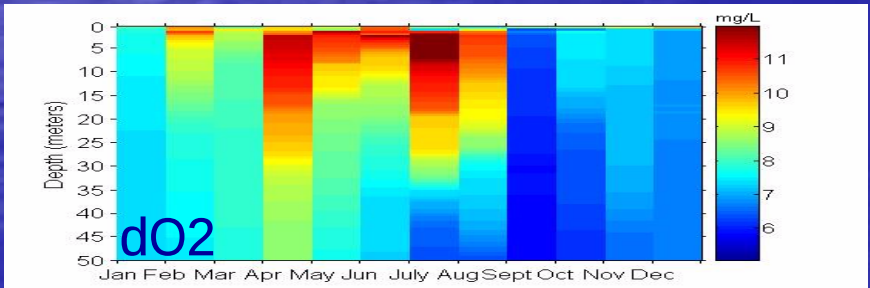
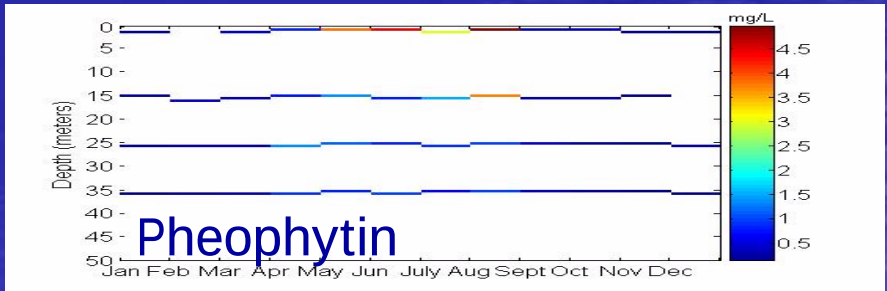
Water Column Chlorophyll-a: Station KSBP01 (2003)



Puget Sound Chlorophyll-a Variations

1999-2003





KSBP01: Upper 50 Meters in 2003