

Sinclair and Dyes Inlets
Water Cleanup Plan for Bacteria
Community Advisory Committee Meeting
4/27/04











Bacteria

SourcesConveyances

- **Leaking septic systems**
- **Inadequate control of manure**
- **Pet waste**
- **Wastewater Treatment Plants - CSOs**
- **Wildlife**
- **Streams**
- **Storm drains/outfalls**
- **Illicit cross connections**
- **Streets, roofs, parking lots**

Where are the problems in the Sinclair and Dyes Watersheds?

Streams polluted with bacteria

- **Dyes Inlet: Barker, Clear, Mosher, Ostrich, Pahrman, Strawberry**
- **Sinclair Inlet: Annapolis, Blackjack, Gorst, Karcher, Sacco**

Marine waters closed to commercial shellfishing

- **Dyes Inlet – north and southeast sections**
- **Chico Bay (restricted)**

Clean Water Act (1972) requires states to assess water quality...

Water quality monitoring
Impaired waterbodies list 303(d)

Water Cleanup Plan (TMDL):
Technical study
Implementation Plan
EPA approval of plan

Undertake actions
Follow-up monitoring

Goals of Water Cleanup Plan

- **Protect aquatic life**
- **Waters safe for recreational use**
- **Fish, shellfish safe for commercial and recreational harvest**

To ensure these, waters must meet state water quality standards and DOH shellfish harvest standards

Water Quality *Study* vs. Water Quality *Plan*

Study - Data & Analysis

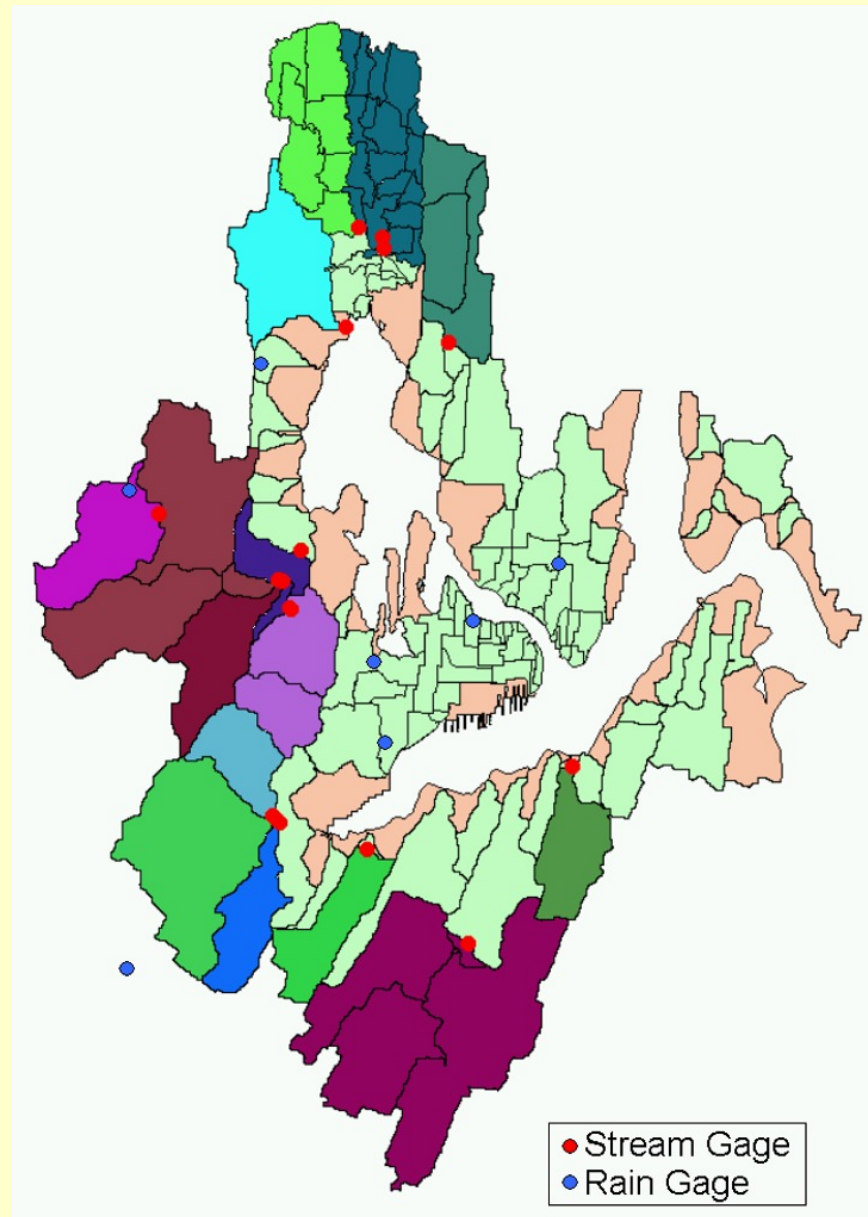
- How much bacteria can this water body accept & still meet stds?
- Prioritize sources for cleanup

The Plan

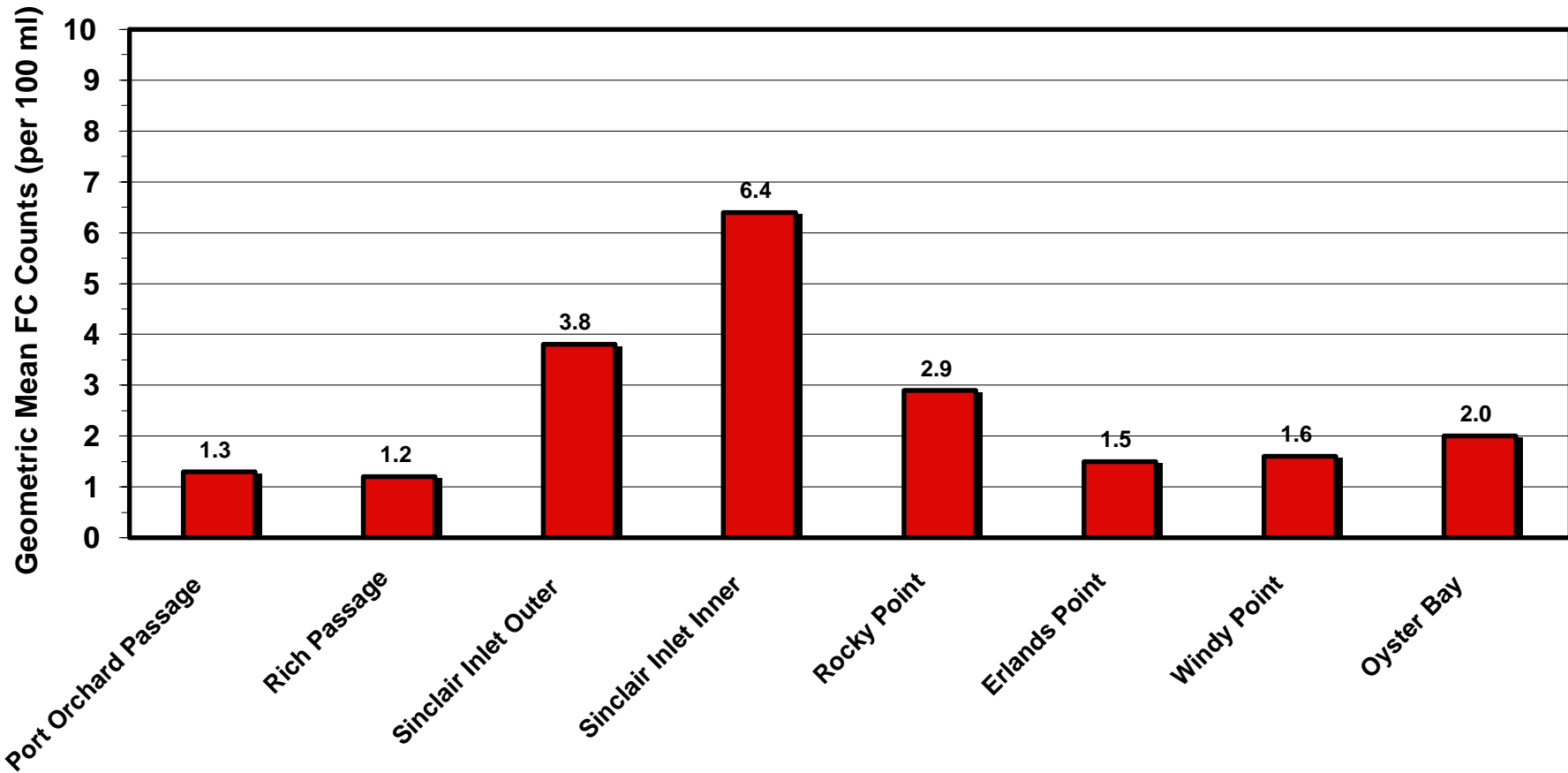
- What actions will reduce the pollution?
- What can local organizations do?



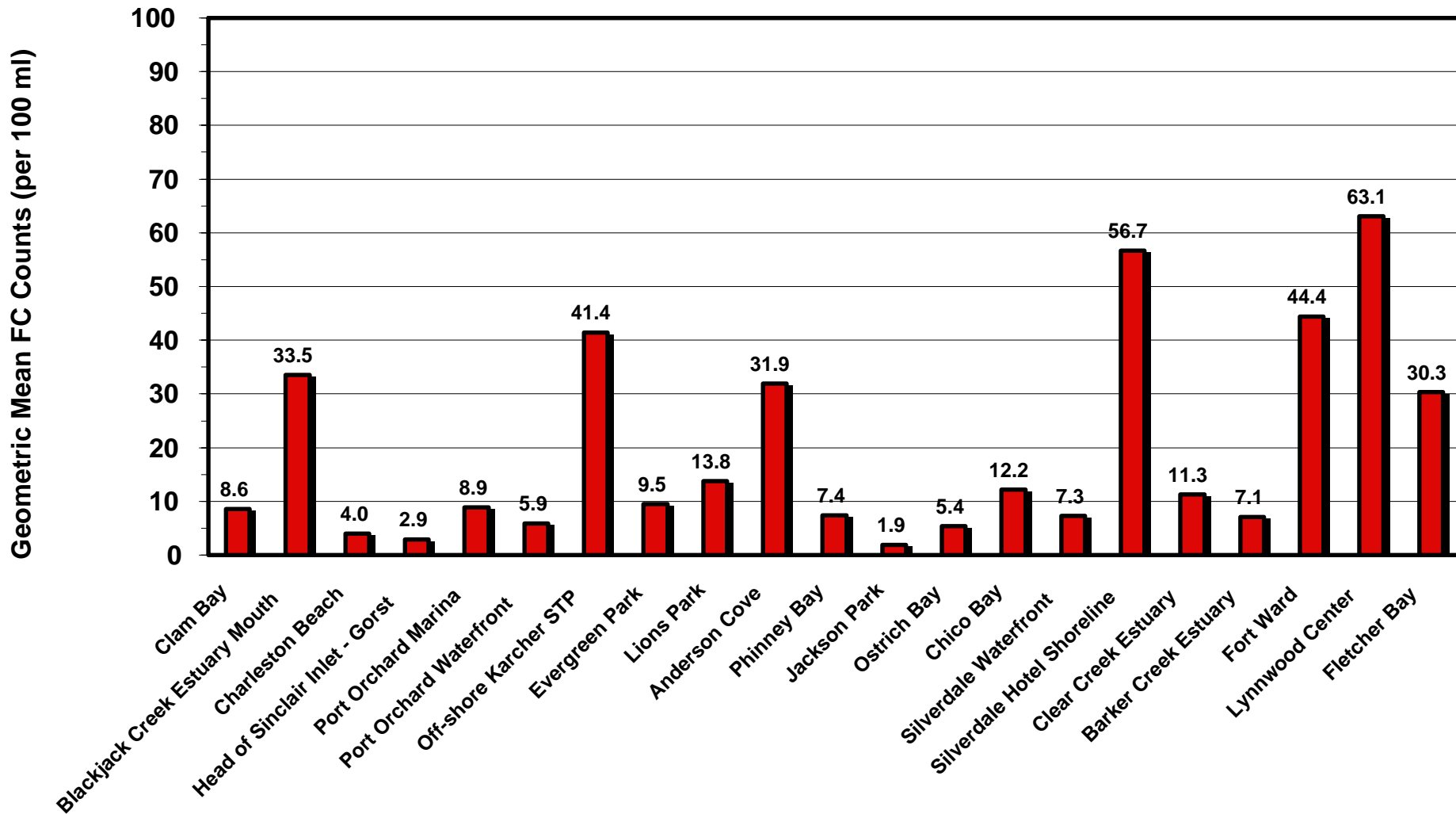
**Many
“subwater-
sheds”
drain to
Sinclair
and Dyes
Inlets.**



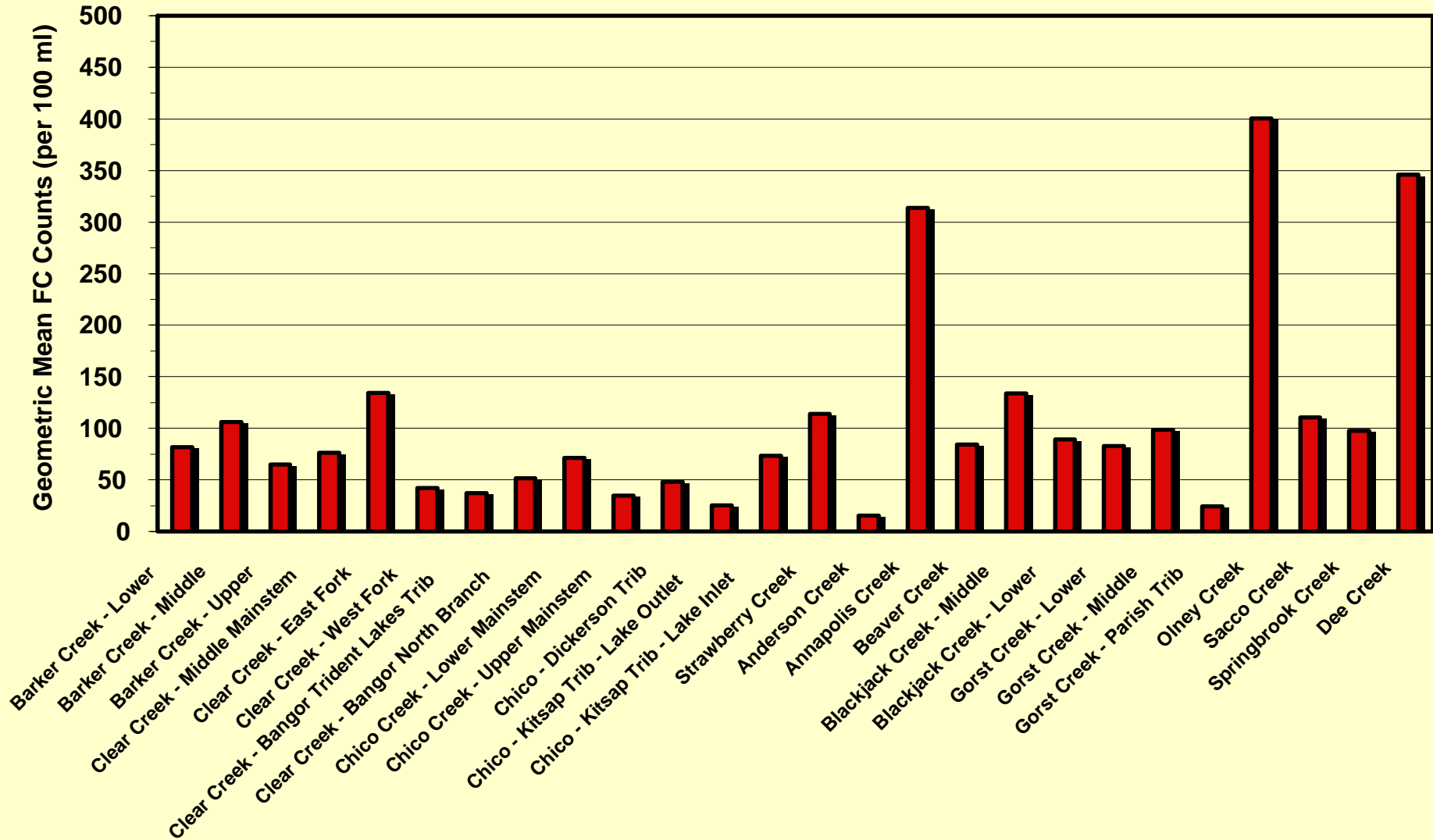
Preliminary Fecal Coliform Sampling Results for Marine Stations



Preliminary Fecal Coliform Sampling Results for Nearshore Stations



Preliminary Fecal Coliform Sampling Results for Stream Stations



Watershed model linked to dynamic marine model

- **Data inputs – measured stream, stormwater and nearshore counts of bacteria**
- **Watershed model uses precipitation, storm size to generate streamflow and outfall discharge**
- **Watershed model results are fed into the dynamic marine model to predict the “where” and “when” and “how much” of a storm**

