

The South Florida Water Management District's
**Trace Metal and Mercury
Monitoring Program:**

52

A Request to the Everglades
Technical Oversight Committee

Bahram Charkhian

May 12, 2000

CURRENT TRACE METALS PROGRAM

(as governed by the TOC)

- Mandates: ENP Memorandum of Agreement, Settlement Agreement, Non-ECP Permit, Everglades Forever Act, STA1W Operating Permit and Seminole MOA.
- Analytes: Total Silver, Arsenic, Beryllium, Cadmium, Chromium, Copper, Iron, Mercury, Nickel, Lead, Antimony, Selenium, Thallium, Zinc
- 116 monitoring stations
- Frequencies: biweekly if flowing to semi-annually depending on mandate.

PROPOSED CHANGES

- Comprehensive changes for trace metal collection at Everglades sites to reflect what is in the Non-Everglades Construction program Permit. This includes:

- Eliminating all trace metals and iron at stations that are "within" and "from" the Everglades .
- Reducing frequency from Bi-weekly collection at the "into " site to quarterly for iron and semi-annual for trace metals.
- All trace metals will be collected using the "clean hands/dirty hands" method.
- Request reduction of trace metals for Holeyland permit in separate letter to DEP.

54

REASONS FOR CHANGE

- No Class III excursions for arsenic, chromium, nickel, antimony, selenium, and thallium.
- Many of the values found above the detection limit were a result of analytical limitations.

59

Ratio of Excursions from Class III Standards to Number of Samples

	Total Silver	Total Arsenic	Total Beryllium	Total Cadmium	Total Chromium	Total Copper	Total Iron	Total Mercury	Total Nickel	Total Lead	Total Antimony	Total Selenium	Total Thallium	Total Zinc
8SQM		(0:1)		(0:8)		(0:8)	(0:8)	(0:6)		(0:1)				(0:8)
CAMB		(0:1042)		(2:1056)		(3:1053)	(30:2171)	(53:963)		(2:1056)				(2:1057)
NECP				(0:20)		(0:20)	(0:43)							(0:20)
ENP		(0:715)		(3:716)		(0:713)	(5:1384)	(39:694)		(2:715)				(0:718)
EVPA		(0:514)		(5:515)		(6:516)	(5:2108)	(131:472)		(65:511)				(21:514)
HOLY	(1:279)	(0:273)	(11:279)	(4:279)	(0:279)	1:277	(1:230)	(2:287)	(0:279)	(1:279)	(0:279)	(0:279)	(0:279)	(4:271)
TAMB		(0:8)		(0:8)		(0:8)	(0:18)	(0:8)		(0:8)				(0:8)

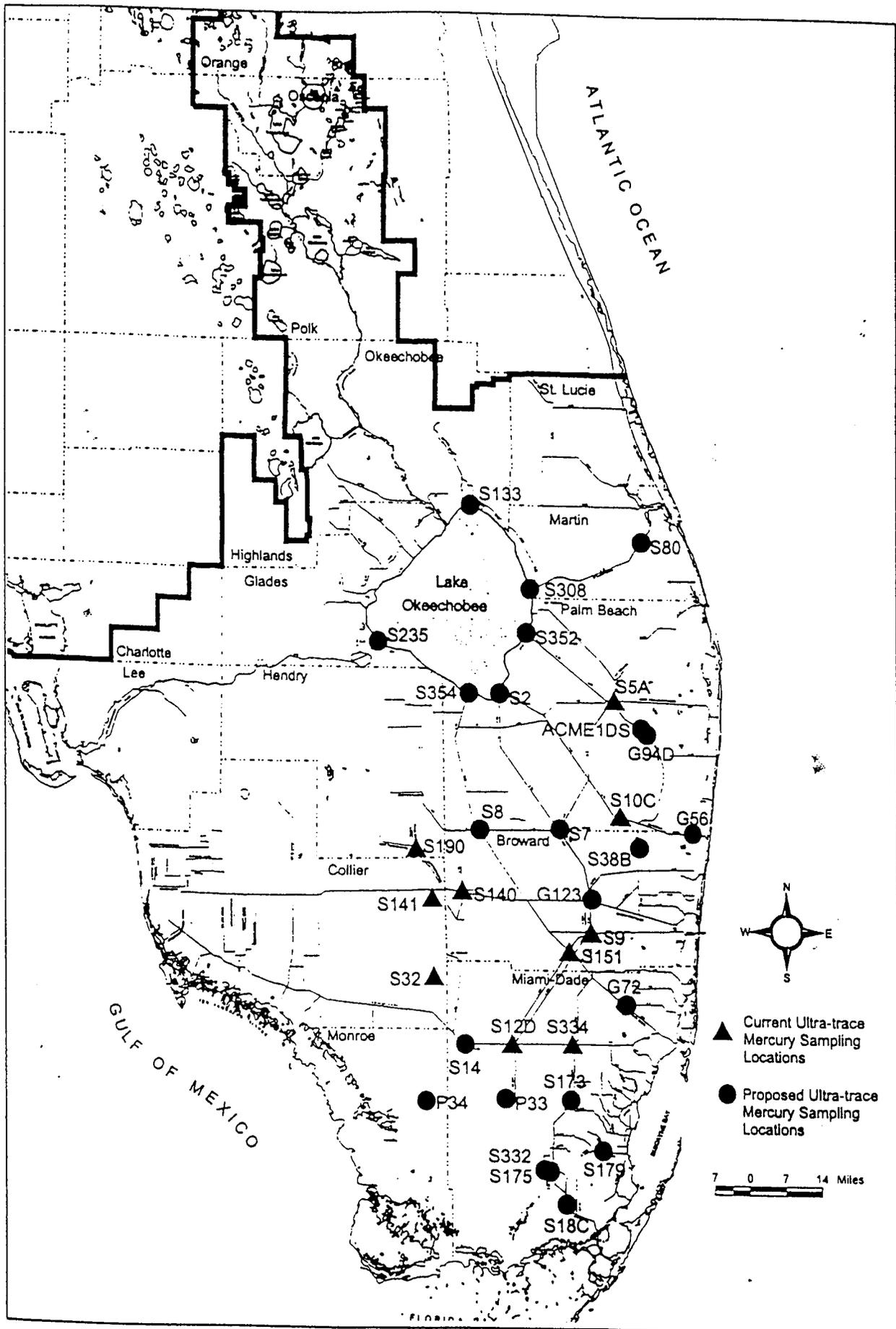
56

Mercury Monitoring

CONSENSUS FROM LAST TOC MEETING

- Discontinue routine mercury by AA methods for all District projects.
- Flag all routine mercury from all projects in the District database that were determined by AA method.
- Increase ultra mercury monitoring network by 25 sites.

85



Current and Proposed Ultra-trace Mercury Sampling Locations