

Dominguez Channel and greater Harbor Toxics TMDLs

Draft concepts on Allocations
for Advisory Council

28 June 2006



Harbor TMDL-- draft concepts

Aquatic Life impairments

- Water and sediment toxicity
- Metals, Chlordane, individual PAHs

Targets

- CTR fresh and saltwater values
- ERL values for Sediment
- toxicity = 1 TUC

Human Health impairments

- DDT, PCBs, Toxaphene in tissue
- DDT, PCBs in sediment and water

Targets

- CTR Human Health values for water
- low Sediment values
- Tissue Threshold Residue Levels for fish
- Wildlife residue values

TMDL & Allocation concepts

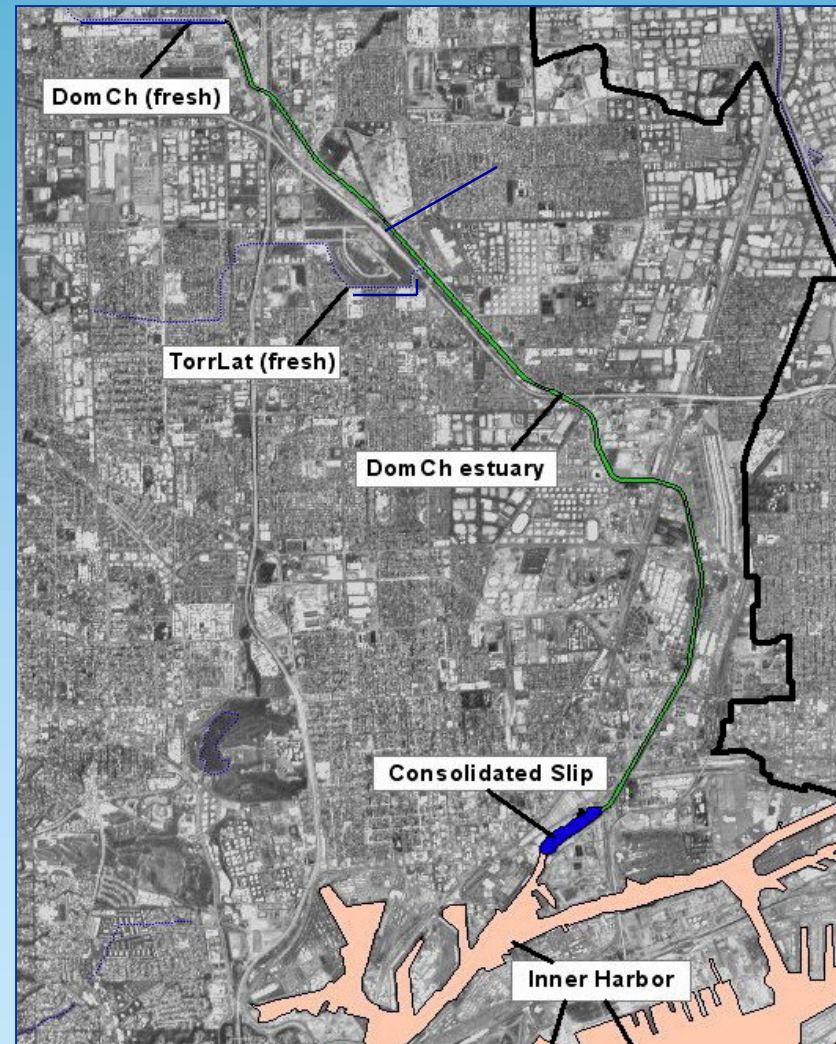
- $TMDL = WLA + LA + MOS$
- LOAD expressed in daily amount, thus allocations similar; e.g., g/day
- Imp. Plan may extrapolate to monthly or annual amounts; e.g., kg/yr.
- Allocation per pollutant will account for all pollutant sources to that WB
- Anti-degradation applies to Load capacity vs. Existing load

Allocation concepts - cont'd

- Mass based for bioaccumulative pollutants
 - maybe conc. based for general permits irreg. dischargers
- For toxicity, whole TUCs will be allocated to WB
- Expect Individual WLAs issued;
 - perhaps some group WLAs
- Freshwater TMDLs will rely on aquatic life targets; i.e., acute and chronic exposures
- Greater Harbor waters based on chronic aquatic targets or HH criteria

DomChannel Estuary

- WLA
 - MS4
 - Caltrans
 - Industrial
 - Construction
 - each Refinery
 - other minor permits
- LA
 - Direct Deposition
 - Bed sediments
 - Undefined/Growth?
 - Other?



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Allocations – Metals

- Fresh WBs get both Dry and Wet season
- Dry based on chronic; one hardness value
- wet on acute, one or several hardness values
- Allocations in total recoverable metals
- Convert dissolved targets to total allocations via:
 - Metal specific factors in CTR
 - Site sp. factors determined for each metal

Allocations – Wet Weather

- Perform analysis of flow and precipitation records

Options--

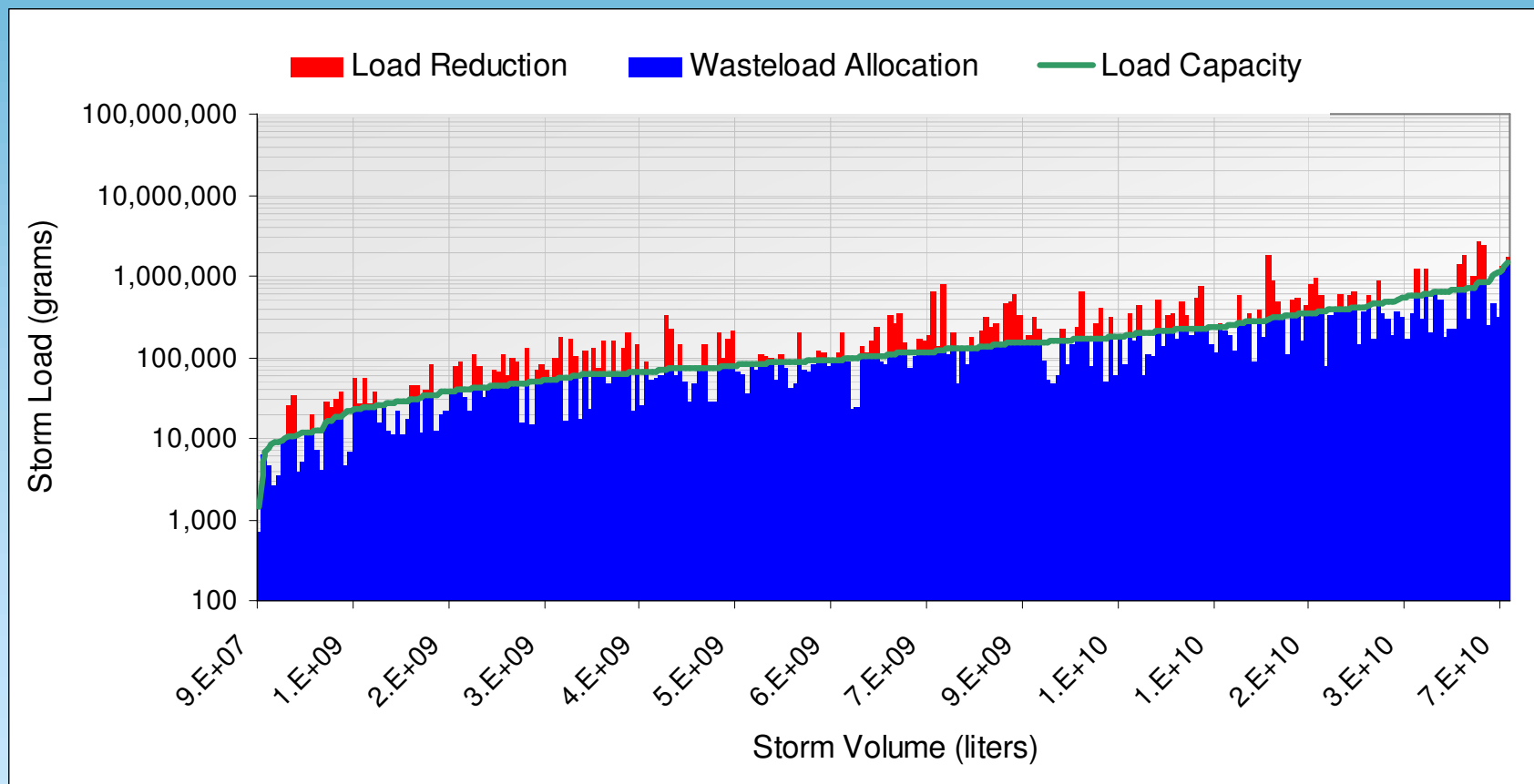
- Flow Tiers-discrete volumes with allocation for each
- Daily storm volume—based on load duration curves for aquatic life protection

Allocations by flow tiers

- Perform analysis of stream flow records to determine volumes associated with flows and precipitation records
- Applies to freshwater systems flowing into estuaries

Flow tier	Corresponding flow rate (cfs)	Mean annual flow volume assoc. w/ tier (million cubic ft.)	Corresponding Hardness (mg/L)
Base flows	≤ 20	275.4	400
Small flows	>20 to ≤ 181	347.5	322
Medium flows	>181 to ≤ 814	357.6	236
Large flows	>814	468.8 Harbor TMDL-- draft concepts	197

Load Duration Curve - example



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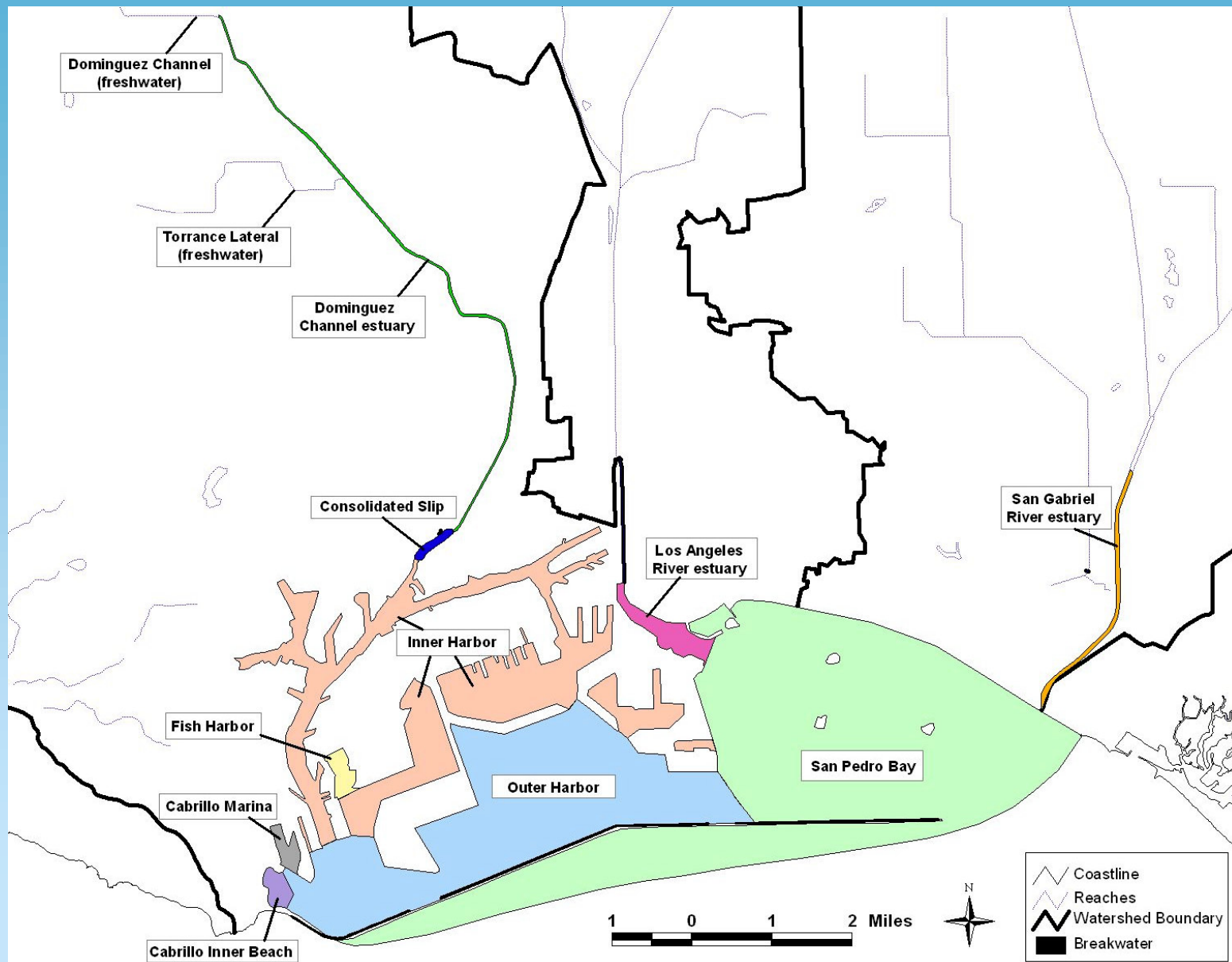
Options to achieve Reductions

- Percent reductions
- Feasible reductions
- Equally distributed reductions amongst all sources
- Land use weighting for some pollutants and if data available

Implementation timelines

- Timing from “effective date”
- Tiered implementation approach
- Integrated approach gets more time
- Compliance time driven by achievability and practicality; some flexibility
- Start w/ RB proposal = 10 yr. yet some flexibility for extenuating circum.

2006 Waterbody names



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