

TMDL Economic Allocation Model

B R I E F I N G

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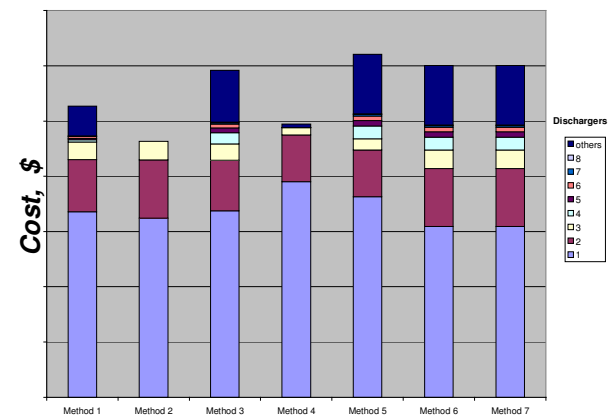
**Dominguez Channel/LA & LB TMDL
Technical Advisory Committee Meeting
June 28, 2006**



The TMDL Economic Allocation Model

What could it be used for ?

- **Estimate total cost of implementing TMDLs**
 - *As with all cost estimates, accuracy is related to level of project definition*
- **Estimate distribution of costs to various sources and/or responsible parties**
 - *Examine economic impact of various approaches to allocation*
 - *how to achieve low cost solutions*
 - *input to LLNL Stakeholder Model (“fairness” is a judgment)*



The TMDL Economic Allocation Model

What could it be used for ?

- ***Sensitivity Analysis***

- *Estimate incremental costs to achieve various levels of TMDL compliance*

$$?TMDL = ?WLA + ?LA + ?MOS$$

- ?\$s for ?benefit

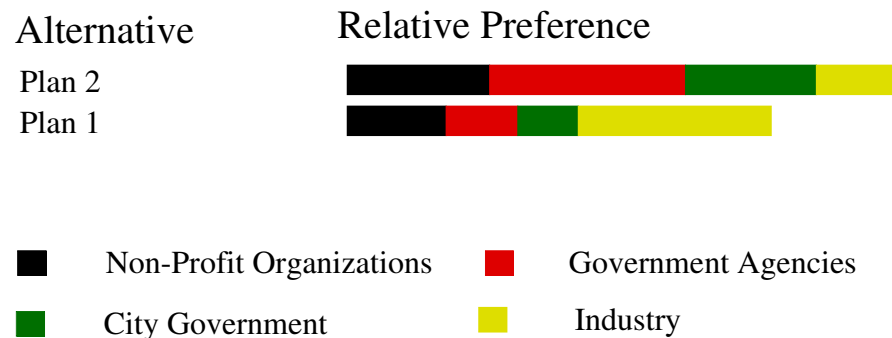
- ***Might be able to examine schedule & effectiveness issues***



The TMDL Economic Allocation Model

What it can't or shouldn't be used for ?

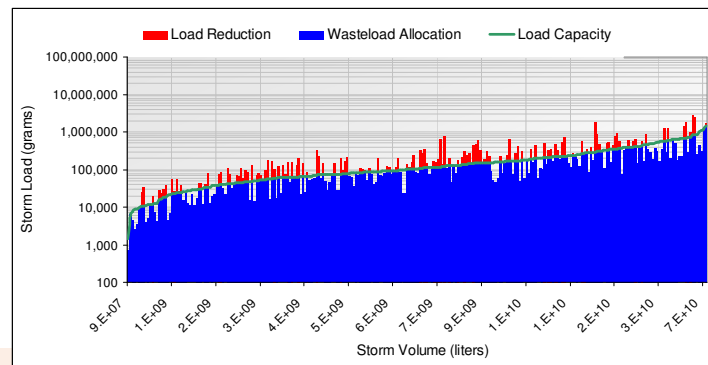
- **Not hydrology model but cost estimating tool**
 - Economics not physical / chemical / biological sciences
- **Does not address what TMDLs should be set at**
 - Allocation loads not TMDL targets
- **Does not quantify Stakeholder values**
 - That's the Stakeholder Model



The TMDL Economic Allocation Model

What is needed to use it ?

- **Data driven model**
 - **What, How Much, When, Where, How To, Cost To**
- **Identify pollutant & TMDL target value**
 - e.g. heavy metal, $\mu\text{g/l}$ max, kg/year max
 - can examine both weight or concentration based targets
- **Dry or wet weather, rain event**
 - can examine various averages



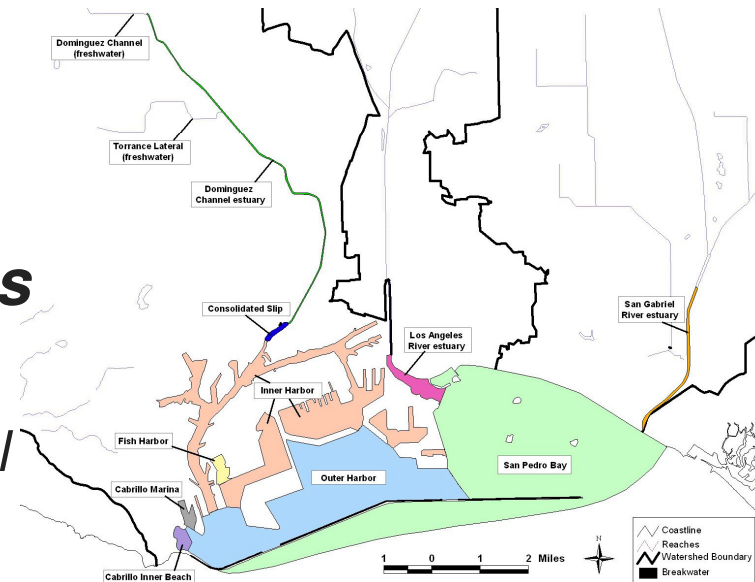
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The TMDL Economic Allocation Model

What is needed to use it ?

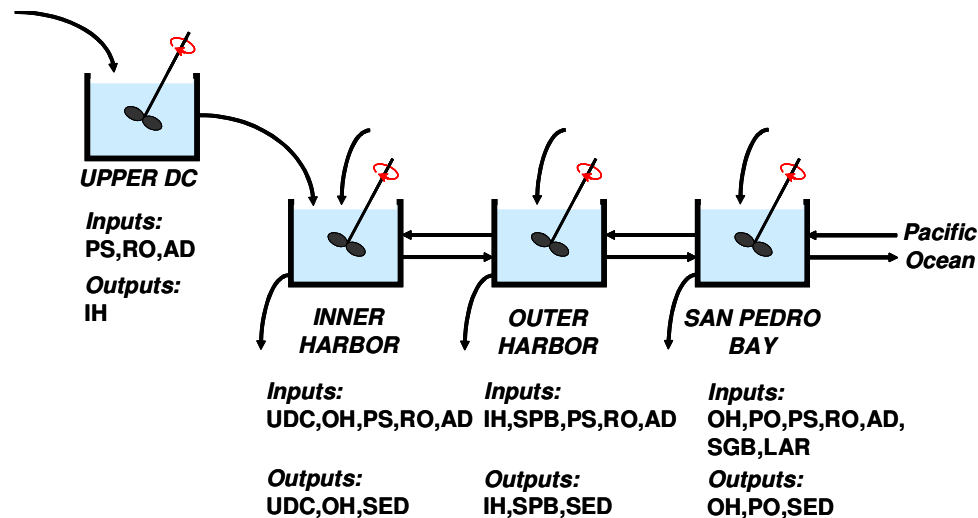
- **Data driven model**
 - **What, How Much, When, Where, How To, Cost To**
- **Identify location of TMDLs**
 - *Water Body aggregation*
 - *least flexibility once model is set up*



The TMDL Economic Allocation Model

What is needed to use it ?

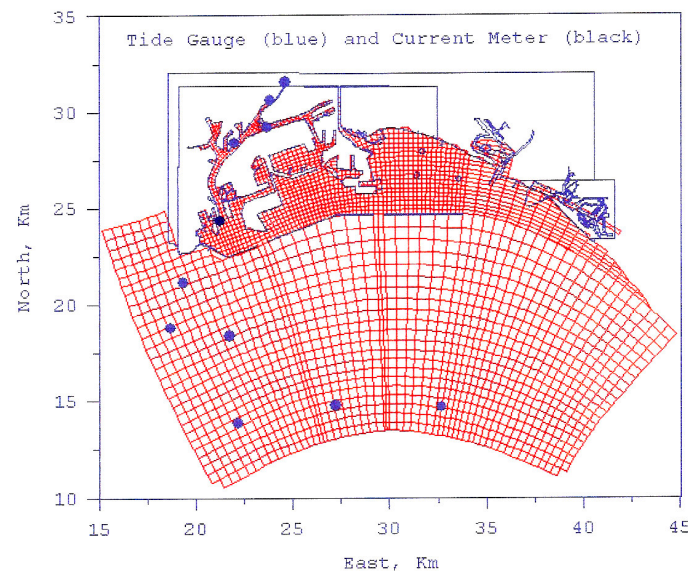
- **Identify sources/sinks for WB**
 - Aggregation of sources
 - e.g. discrete – individual point (probably large)
 - e.g. aggregates – non-point, all permit holders of a certain type, land-use aggregates, atm deposition



The TMDL Economic Allocation Model

What is needed to use it ?

- **Identify total flow and loadings for sources**
 - from hydrology data and linkage analysis
 - aggregate these data



The TMDL Economic Allocation Model

What is needed to use it ?

- **Data driven model**
 - What, How Much, When, Where, **How To, Cost To**
- **Identify options for reducing loadings**
 - e.g. BMPs, technologies, etc.
- **Estimate cost & effectiveness**
 - Existing or similar technology, best/worst cases
 - Literature data
 - Stakeholder/others estimates (interviews)
 - Vendor quotes



Points of Contact

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