



#### **Special Session**

Cooperation and Exchange of Experience in Water Resource Management and Adaptation to Climate Change

Evolution of the Metropolitan Drainage Commission

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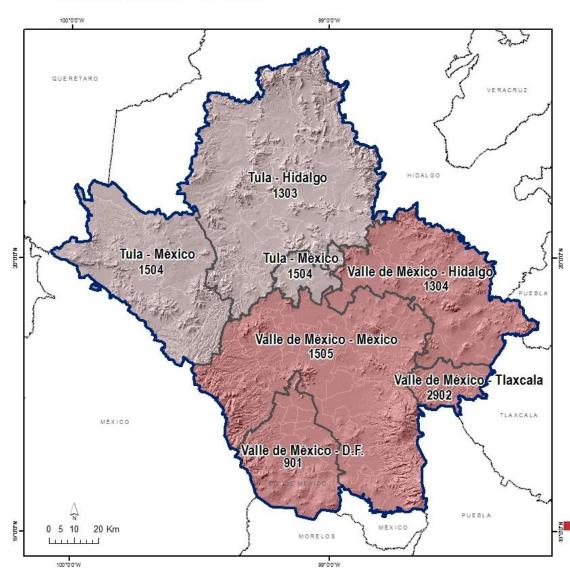
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#### Hydrologic-Administrative Region XIII









- 105 municipalities from three different states (México, Hidalgo y Tlaxcala) y 16 CDMX municipalities
- 2 sub-regions: Valley of Mexico and Tula.
- Valley of Mexico subregion: 16 CDMX y 69 municipalities (50 from State of Mexico, 15 from Hidalgo and 4 from

Tlaxcala)

#### Problems



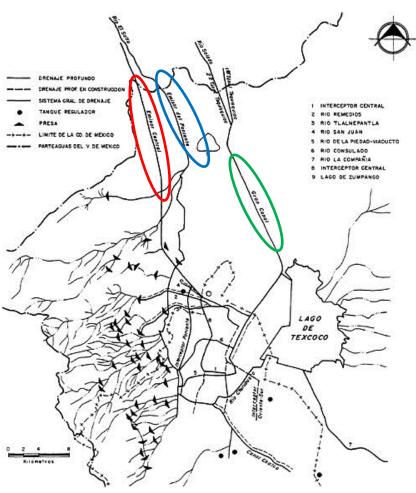
- Desiccation of lakes on which CDMX has settled.
- Deforestation in the basins that surround the metropolis.
- Overexploitation of aquifers causing regional and local subsidence.
- Pollution of watercourses and water bodies.
- The population extends to new urban areas that surround the metropolis.
- Risk of flooding during rainy season.





#### Drainage System





The infrastructure that protects CDMX citizens from flooding is known as Sistema Hidrológico del Valle de México (Hydrologic System of the Valley of Mexico).

It consist of 38 dams, tunnels, canals, regulating vessels, and 40 major rivers with significant flow and extension, wit and estimated longitude of 10,000 kilometers.

Three artificial outflows: Túnel Emisor Poniente, Túnel Emisor Central y Gran Canal del Desagüe.

#### **Joint Operation Protocol**



In order to solve the problems Conagua implemented the Joint Operation Protocol to attend the hydro-meteorological phenomena in the Metropolitan Area, in conjunction with Sistema de Aguas de La Ciudad de México (SACMEX) and the Comisión del Agua del Estado de México (CAEM), which allows the correct management and operation of the system.



First protocol: July 2<sup>nd</sup> 2001







#### **Joint Operation Protocol**



9 structures in the West Zone, among them we have the regulating vessels "El Cristo", Fresnos y Carretas and the Pumping Plant Río Hondo.

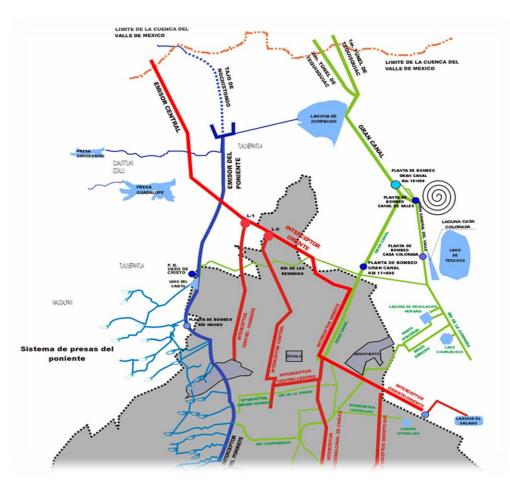
12 structures in the Dren General del Valle Zone, like Casa Colorada and regulación horaria lagoons, and the Interceptor Tunnel Río de los Remedios.

5 structures in the *Gran Canal del Desagüe* Zone, including 4 pumping

plants and the Túnel Emisor Oriente

(1st stage).

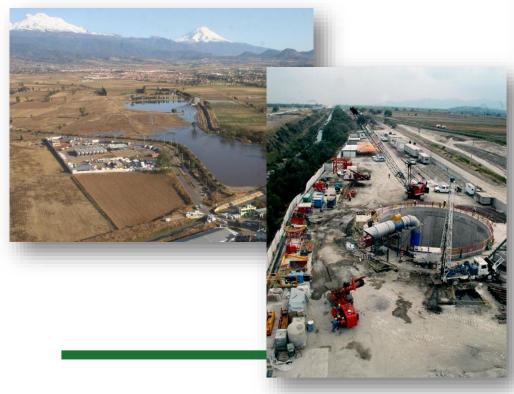
5 drain ports of the Deep Drainage



### Metropolitan Drainage Commission



The Commission observes and ensures compliance with the Joint Operation Protocol for the attention of hydro-meteorological phenomena in the metropolitan area.





Signing of the agreement on June 24<sup>th</sup> 2014, for the installation of the Commission for the Operation of the Metropolitan Drainage Infrastructure.

## Comisión Metropolitana de Drenaje



#### It consists of:

- 1. Planning, Programming and Construction Subcommittee.
- 2. Operation, Infrastructure Maintenance and Emergencies Subcommittee

The work is permanent, there is a calendar of sessions of the Directive Council and they meet at least once a month.

The subcommittees are responsible for:

- Develop and propose support plans.
- Analyze the information needed for decision making.
- Carry out actions to perform specific tasks related to the scope, limits, conformation, deadlines and other conditions.







## Comisión Metropolitana de Drenaje



The functions of the Commission for the Operation of the Metropolitan Drainage Infrastructure are as follows:

- 1. Decision making.
- 2. Planning.
- 3. Maintenance and Civil Works.
- 4. Forecasting and alerting
- 5. Operation.
- 6. Information Mechanisms.
- 7. Settlement of Operation and Maintenance Disputes.
- 8. Water Uses.



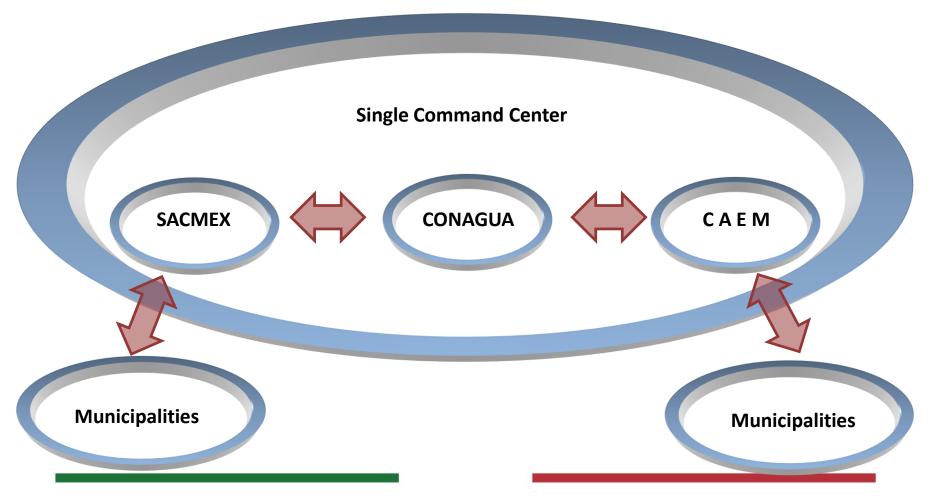




## Metropolitan Drainage Commission



#### Joint Operation Protocol Command Line



## Metropolitan Drainage Commission



#### **Next Steps**

- Develop the strategy for the consolidation of the Commission
- Encourage the implementation of technological improvements and risk management of hydrometeorological phenomena
- Provide the Commission with real independence (necessary institutional reforms)













# Thanks!