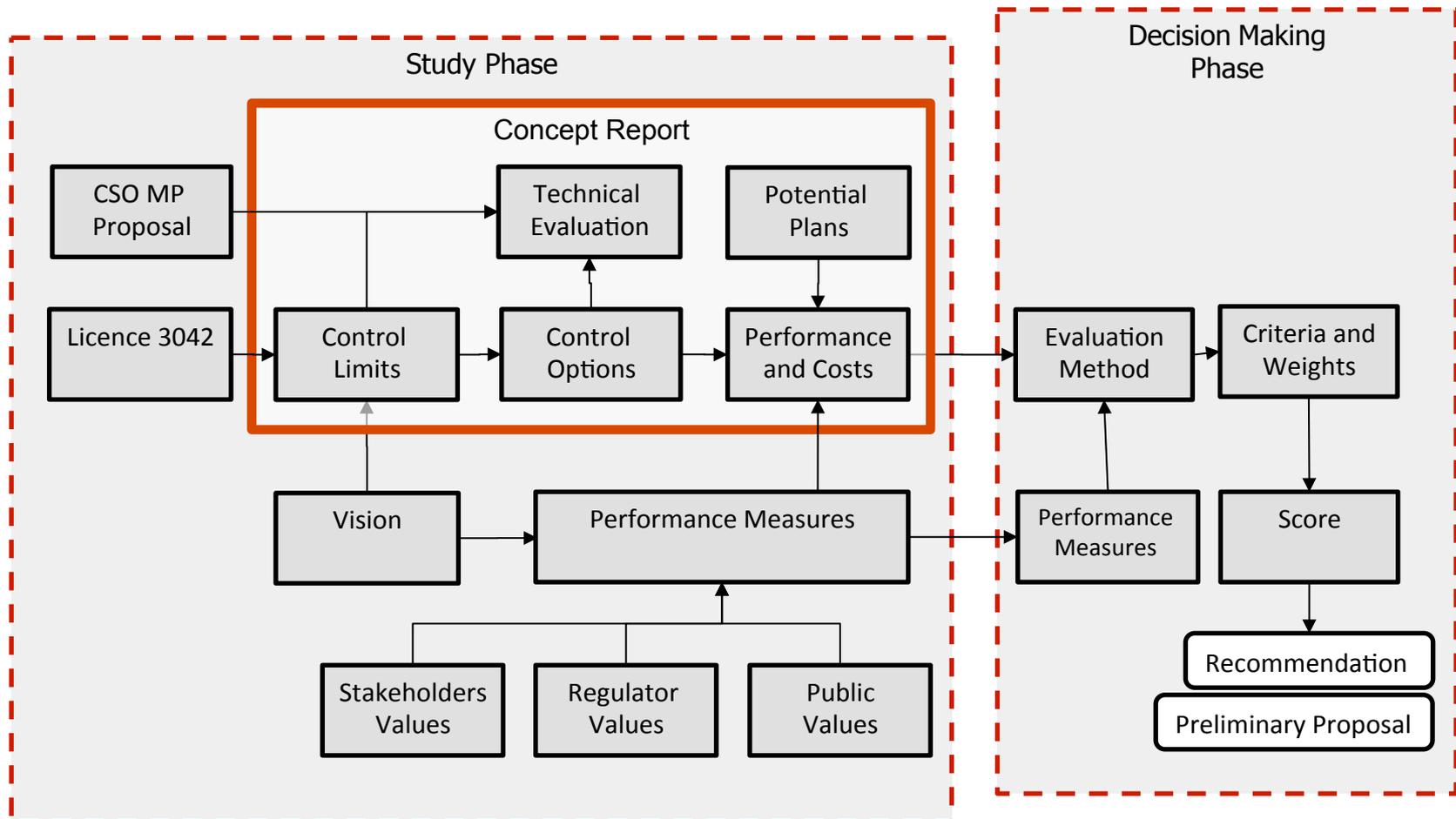


**City of Winnipeg's
Combined Sewer Overflow
Master Plan
SAC Mtg. #2**

What CSO Control Limit do we want to achieve and how are we going to do it?

- We want to develop an acceptable limit for the number of CSOs
- We are going to look at a range of modifications to the existing combined sewer system
- We will evaluate the options using criteria specific to Winnipeg
- We will include the input of regulators, stakeholders and the public

Decision Making Roadmap



Decision Making Process

- Analysis of Control Options
- Experience Elsewhere – lessons learned
- Performance Measures
- Input from regulator, stakeholders and public
- Weight criteria and scoring exercise based on weighted criteria
- Recommendation submitted to Province by Dec 2015

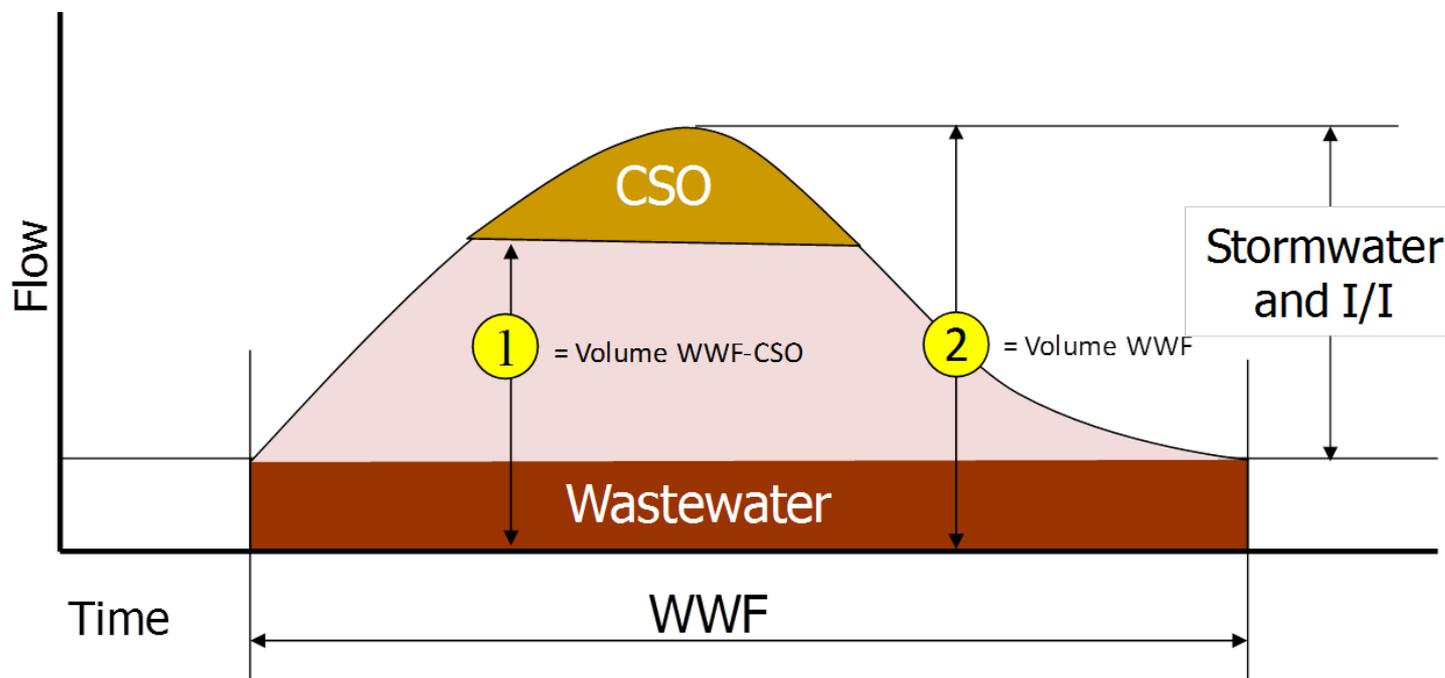
Control Limits

- As part of the CSO licence we are looking at what modifications need to be made to our combined sewer system to limit CSOs to:
 - zero overflows,
 - four overflows,
 - a minimum of 85% volume capture of wet weather flow with a maximum of four overflows, and
 - a range of other limits.

Control Limits Cont'd

- Other approaches being considered:
 - Watershed Approach
 - Environmental Equivalent of Separation
 - Water Quality Performance
 - Maximum use of existing infrastructure
 - “Knee-of-the-Curve” or best use of resources

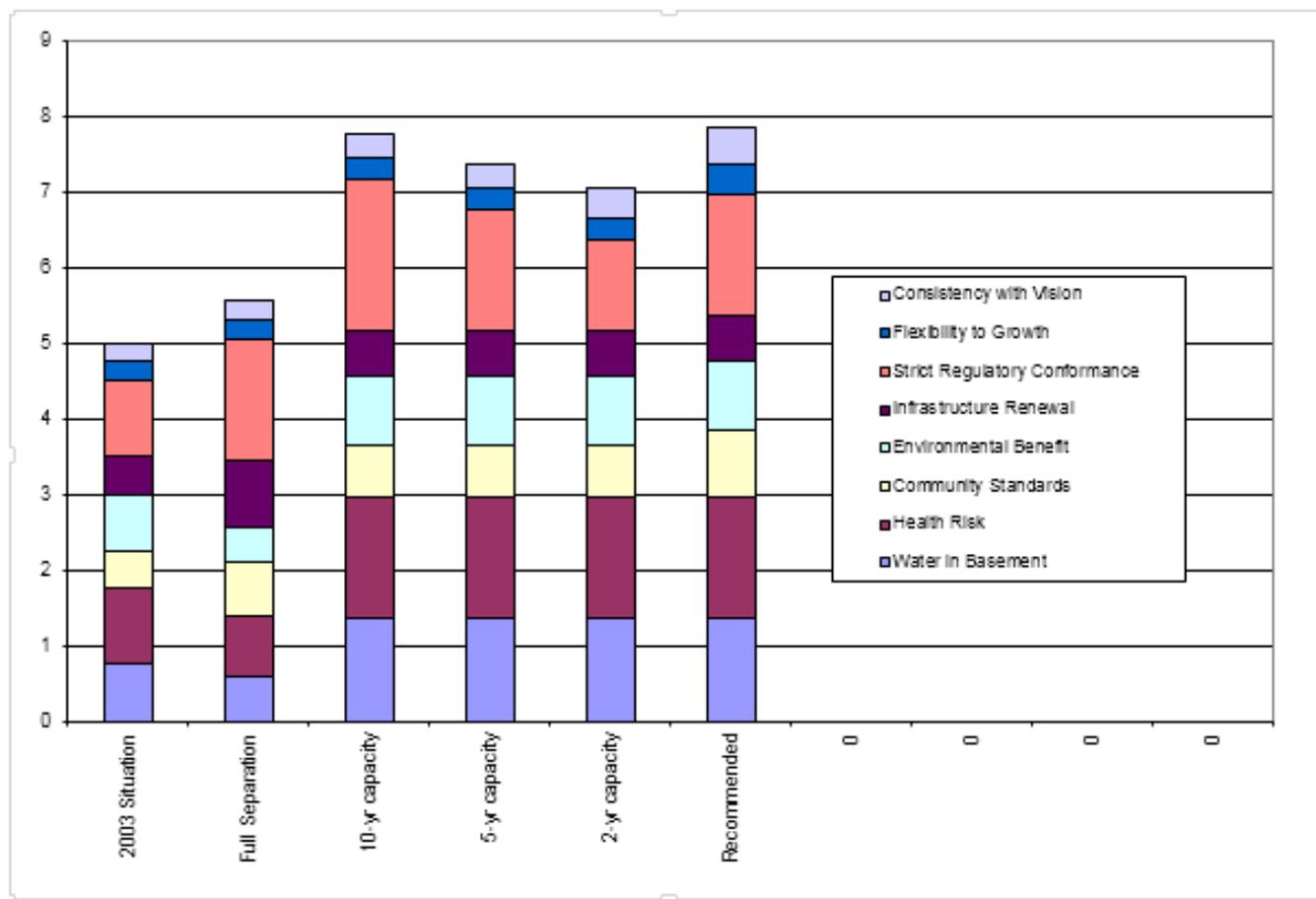
Control Limits Cont'd



Develop a Common Vision for the CSO Master Plan

- Environmentally responsible
- Affordable
- Sustainable
- Regulatory compliance
- Politically acceptable
- Preventing Basement Flooding
- Community Values

Scoring Matrix – Example



Developing Performance Measures for Winnipeg CSO Control

- System performance measures:
 - Number of overflow events
 - Volume of overflows
 - Duration of overflow
 - Flow diverted to treatment
- Environmental performance measures:
 - Water Quality
 - Nutrients
 - Aesthetics

Developing Performance Measures for Winnipeg CSO Control Cont'd

- **Affordability**
 - Utility Rates
 - Whole Life cost
- **Regulatory Compliance**
- **Community Values**
 - Construction industry
 - Traffic disruption
 - Sustainability
 - Feasibility

Questions?