



Draft Performance Measures

Water Supply Reliability

May 17, 2007

Background

- Committed to balanced set of actions
- 10-Year Action Plan
- CALFED Agencies agreed to develop tangible indicators and performance measures
- Monitor and report to demonstrate how well actions are meeting objectives

Water Supply Reliability

Historically, CALFED Program objective for water supply reliability has been to:

“reduce the mismatch between Bay-Delta water supplies and current and projected beneficial uses dependent on the Bay-Delta system”

Measuring Performance

- In order to assess how well Program actions satisfy intent of objective must consider
 - ◆ Some measure of acceptable protection provided to all beneficial uses within the Bay-Delta System that rely on Bay-Delta flow
 - ◆ Some measure of water supplies from the Bay-Delta for uses outside the Bay-Delta System

Recommendations

- Strategic Objective 1
 - ◆ Enhance Stability of Delta Water Supplies
 - ◆ (CALFED Focus)

- Strategic Objective 2
 - ◆ End User Supply Reliability
 - ◆ (Address in California Water Plan)

Aspects of Stability

- Three performance objectives
 - ◆ Objective 1a – Provide water supply in sufficient quantity and timing for the protection of drinking water quality and ecosystem restoration
 - ◆ Objective 1b – Deliver a predictable amount of water from the Delta over the long-term
 - ◆ Objective 1c – Provide a predictable amount of water from the Delta in the short-term

Proposed Structure

- Performance Objectives – describe intended outcome related to enhancing stability of water supply
 - ◆ Define one or more **indicators** that can be measured and reported annually that illustrate how well performance objective is met
 - ◆ Define a **target** that is used to gauge success

Delta Conditions

- Performance Objective 1a – Provide water supply in sufficient quantity and timing to meet the regulatory baseline and additional contractual commitments for the protection of drinking water quality and ecosystem restoration.
 - ◆ Bay-Delta Water Quality Control Plan
 - ◆ ESA Biological Opinions
 - ◆ HCP and NCCP agreements
 - ◆ EWA Operating Principles agreement
 - ◆ Other

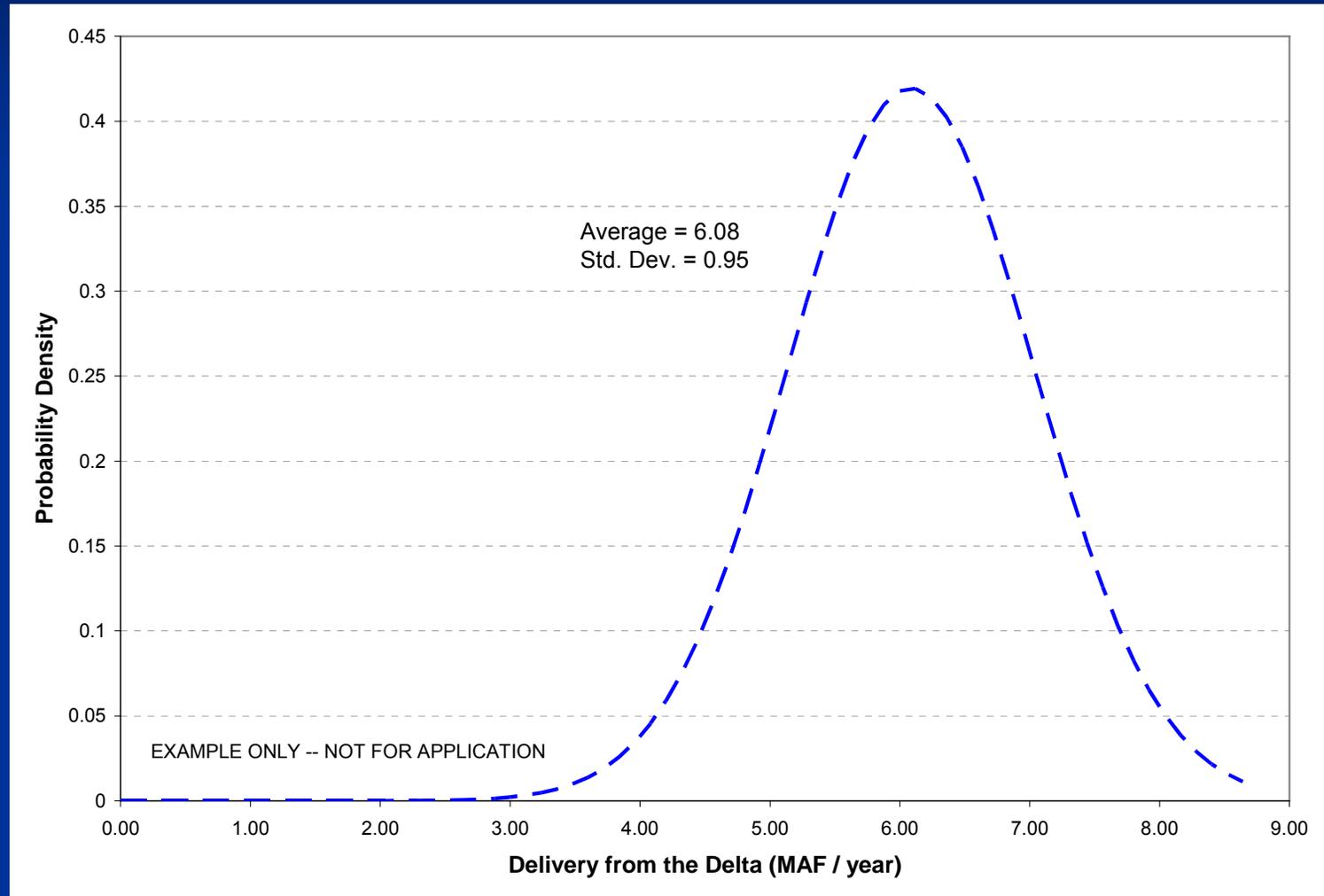
Delta Conditions (2)

- **Indicator 1a** – The annual number of incidences when water quality objectives, flow requirements, or other flow related agreements throughout the Delta are not met
- **Target 1a** – Zero incidences of not meeting water quality objectives, flow requirements, or other flow related agreements throughout the Delta

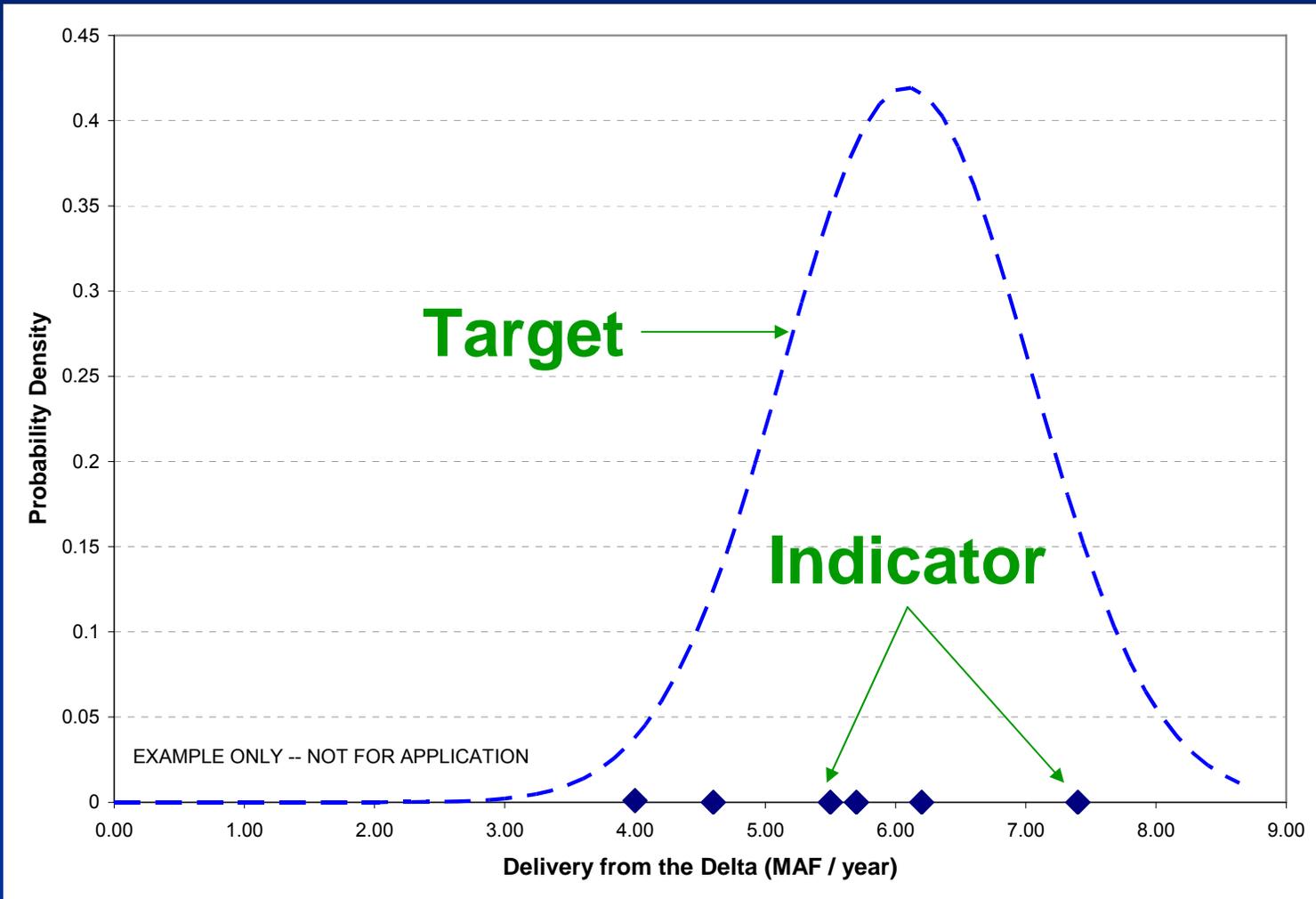
Long-Term Deliveries

- **Performance Objective 1b** – Deliver a predictable amount of water from the Delta over the long-term
- **Indicator 1b** – Annual amount of water delivered from the Delta each water year
- **Target 1b** – A probability function of expected deliveries from Delta in any water year (during some defined period of time)

Expected Annual Delivery



Target & Indicator



Short-Term Deliveries

- Performance Objective 1c – Provide a predictable amount of water from the Delta in the short-term
- Indicator 1c1 – The amount of water scheduled to be delivered in the current year
- Indicator 1c2 – The amount of water actually delivered in the current year

Short-Term Deliveries (2)

- **Indicator 1c3** – The amount of uncompensated reductions in scheduled deliveries due to Delta export reductions to meet Endangered Species Act requirements or actions taken to protect at-risk Delta fish species during the current year
- **Target 1c** – Zero uncompensated reductions in scheduled deliveries

Short-Term Performance

Target Deliveries for year = X

Measured Deliveries for year = Y

$$Y - X \geq 0$$

Strategic Objective 2

- End User Supply Reliability
 - ◆ Long-term, sustainable, water supply reliability is best measured at the end user
 - ◆ Considers the balance of supply and demand considering all sources of supply, demand management, and other water management strategies
- State agencies encouraging development of Integrated Regional Water Management Plans

Measuring End User Supply Reliability

- Plan to work with local and regional agencies to develop specific indicators and targets to measure progress toward statewide and regional water management objectives
- Will be addressed in future California Water Plan processes

Questions and Comments



Estimating Probability of Delivery

