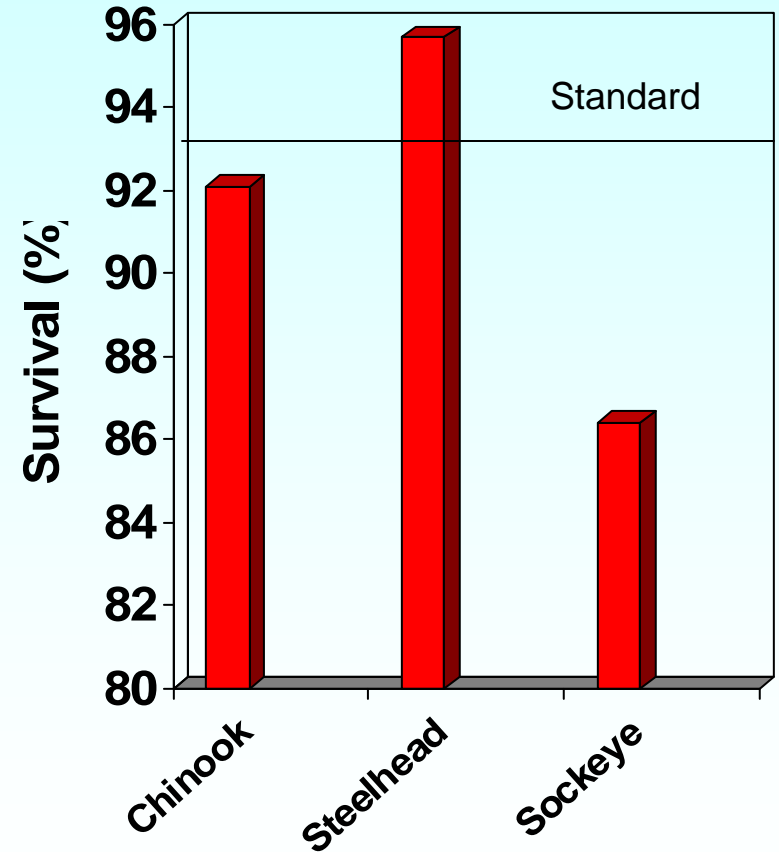


# 2007 Fish Studies and Spill

Rocky Reach and Rock Island  
Projects

# Summary of Rocky Reach Fish Survival Studies

- **Chinook (yearlings):**
  - 2-yr avg. = 92.1%
  - Will resume testing after improvements for sockeye are made
- **Steelhead**
  - 3-yr avg. = 95.7
  - STANDARD ACHIEVED
- **Sockeye**
  - 2-yr avg. = 86.4%
  - PHASE II (additional tools)
  - Testing improvements

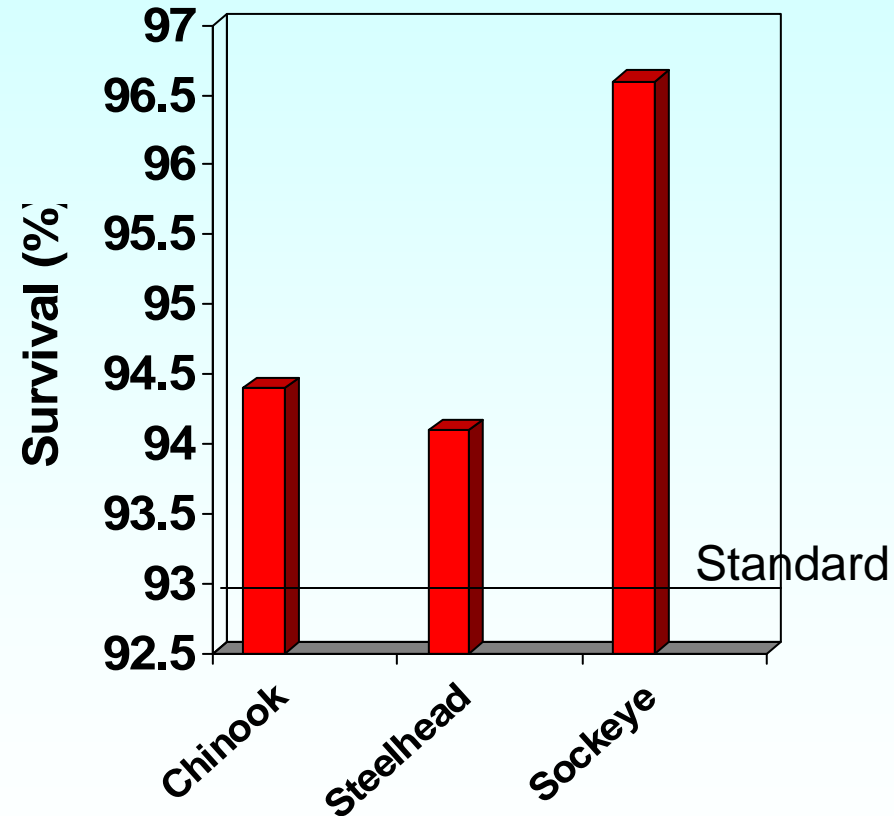


# Improving Sockeye Survival at Rocky Reach

- **2006:**
  - Tested spill versus no-spill
  - Tested release locations at Wells Dam to determine whether it biased results
- **2007 (no spill):**
  - Tested different powerhouse operations
  - Tested release locations in Rocky Reach tailrace to determine whether it biased results
    - Objectives:
      - 1: Increase percentage of fish using bypass system (SUCCESS)
      - 2: Increase survival of fish passing through powerhouse (LESS SUCCESSFUL)
- **2008 (*Possibilities*):**
  - Retest different powerhouse operations with different criteria
  - Investigate behavioral guidance in forebay
  - Other?
  - 08 Spill level TBD

# Summary of Rock Island Fish Survival Studies

- **Chinook (yearlings):**
  - 3-yr avg. = 94.4%
  - STANDARD ACHIEVED
- **Steelhead**
  - 3-yr avg. = 94.1%
  - STANDARD ACHIEVED
- **Sockeye**
  - 3-yr avg. = 96.6%
  - STANDARD ACHIEVED



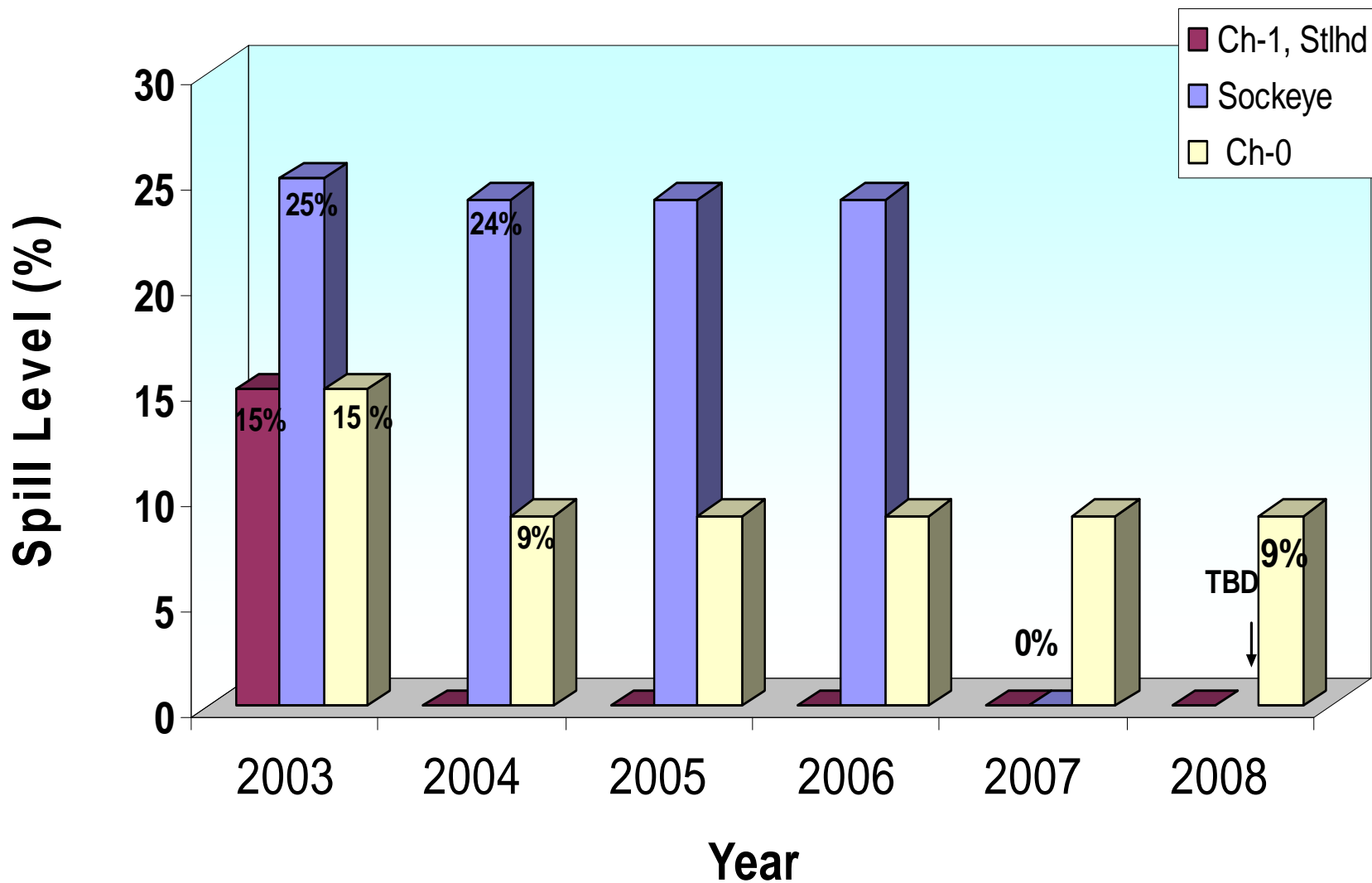
# Optimizing Fish Mitigation Tools at Rock Island

- **2007:**
  - Tested 10% spill
  - Over 97% survival for Chinook yearlings!!!
- **2008:**
  - Retest Chinook at 10% spill
  - Test steelhead
  - Possible test sockeye
- **2009:**
  - Retest Chinook
  - Possibly test steelhead (depends on 2008 results)
  - Possible test sockeye (depends on 2008 results)

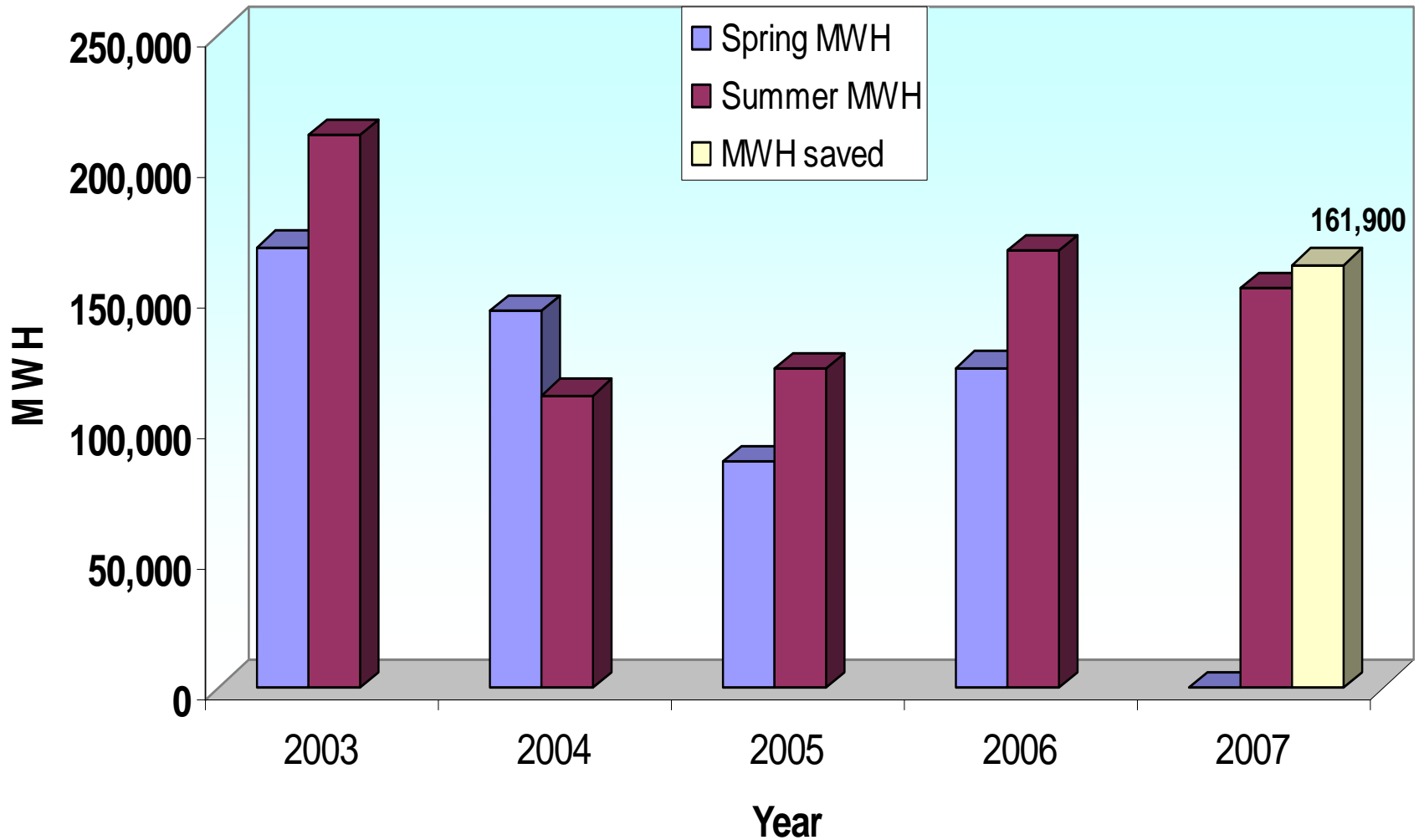
# 2007 Fish Spill Results

- **Rocky Reach**
  - No spring spill; summer only
  - 81 days summer spill @ 9%
  - 152,891 MWH
  - \$7.79 M
  
- **Rock Island**
  - Spring and summer spill
  - 46 days spring spill @ 10%
  - 81 days summer spill @ 20%
  - 228,842 MWH
  - \$11.34 M

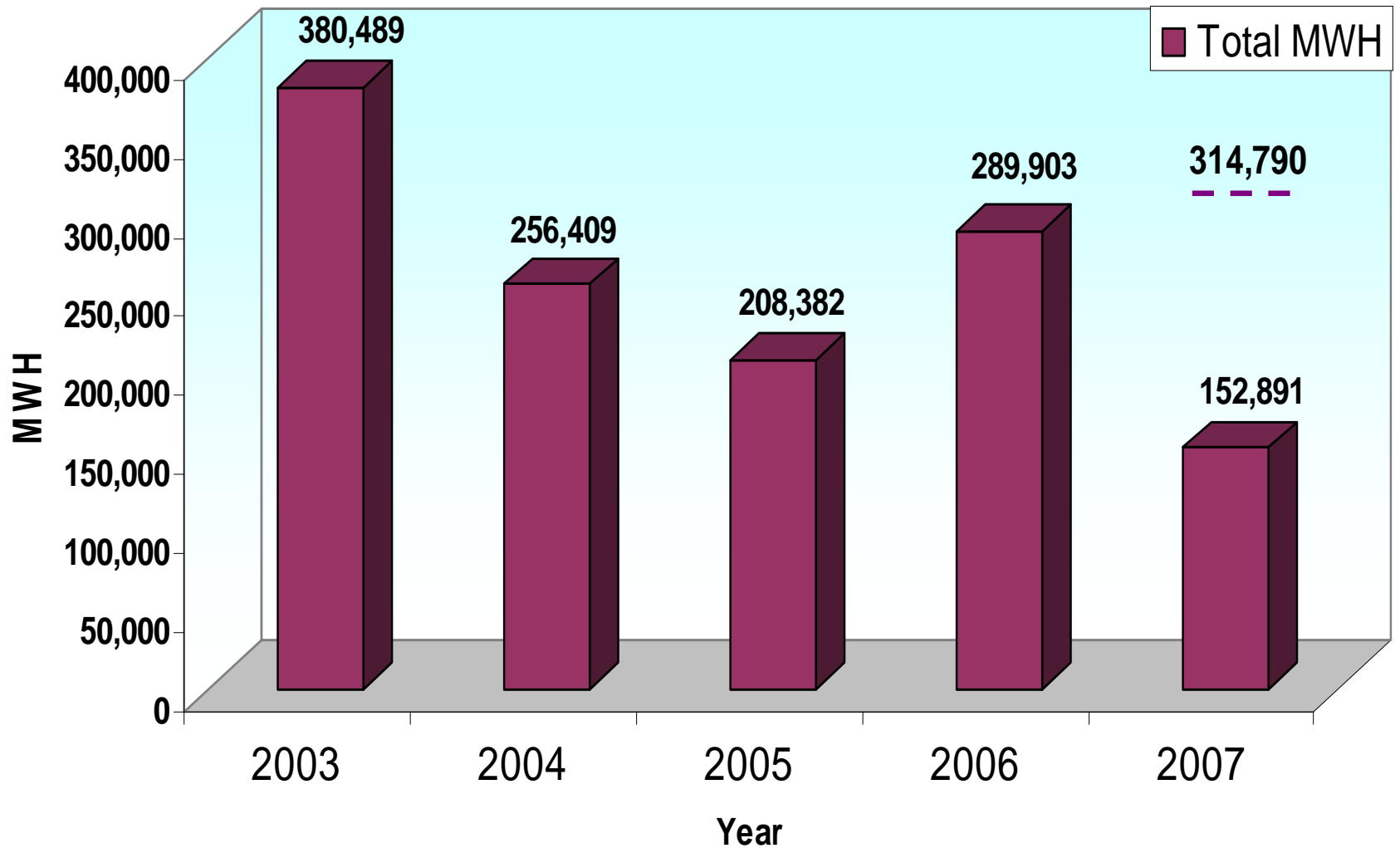
# Rocky Reach Fish Spill Levels 2003-2007



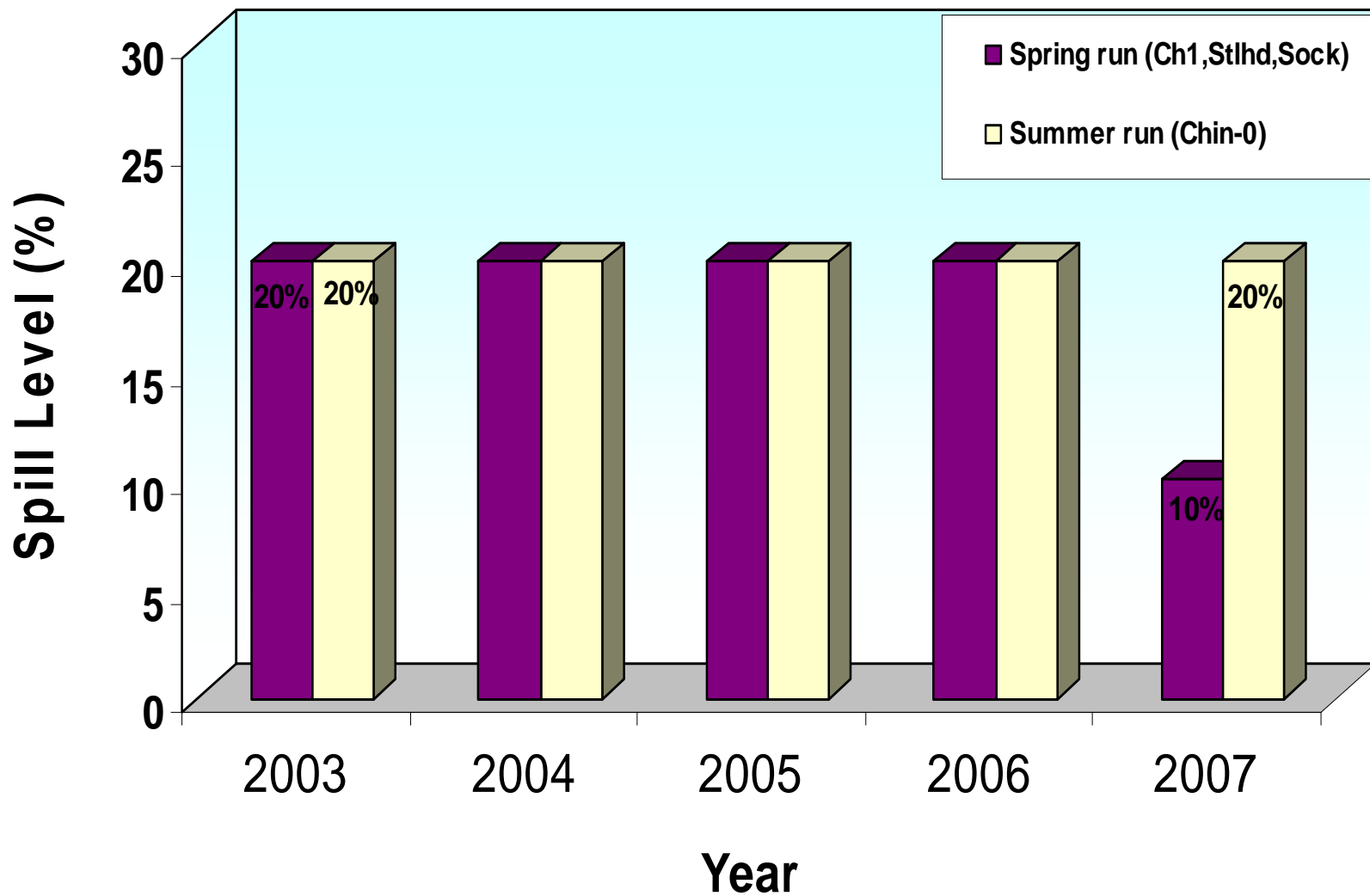
# Rocky Reach Spring/Summer Spill MWH



# Rocky Reach Spill - Total MWH



# Rock Island Fish Spill Levels 2003-2007



# Rock Island Spill - Total MWH

