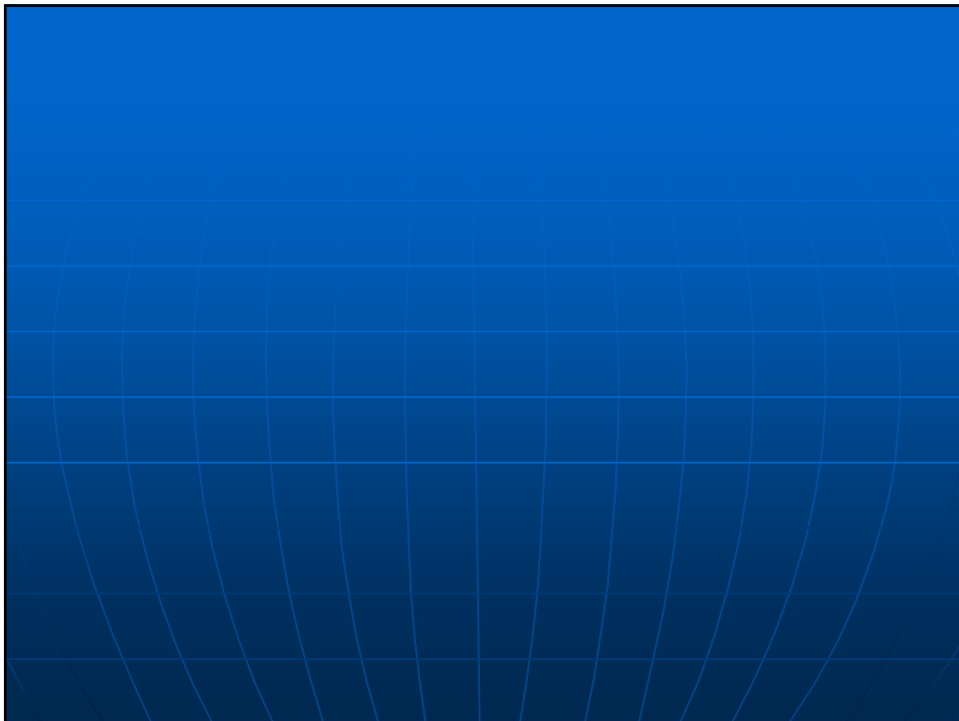


# Adoption of the 2010 California Codes

A brief look at what's ahead

Presented by:  
Stuart Tom  
LA Basin Chapter/ICC



... Didn't we just adopt a new code ???

- Yes, but we love the code adoption process.
  - We get to purchase new codes
  - We get to hold public hearings
  - We get to practice cut & paste; strikeout & underline; renumbering sections
  - We get to make up reasons why climate, topography and geology are so important
  - Now we'll even get a chance to make up reasons why one shade of green is better than another shade of green

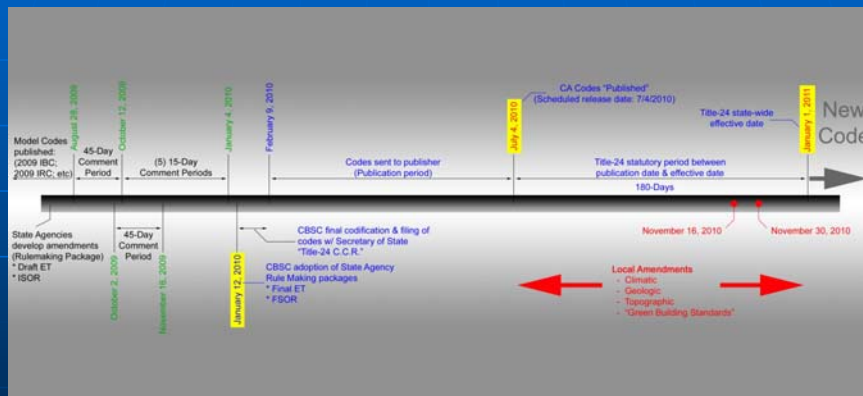
## HSC 17958.5 & HSC 18941.5

- Local jurisdictions may amend building standards to be more restrictive than Title-24, if such amendments are justified on the basis of a local geologic, topographic or climatic condition.
- AB 210 (Hayashi) recently added green building standards to the regulations that may be amended by a local jurisdiction pursuant to both HSC 17958.5 & HSC 18941.5.

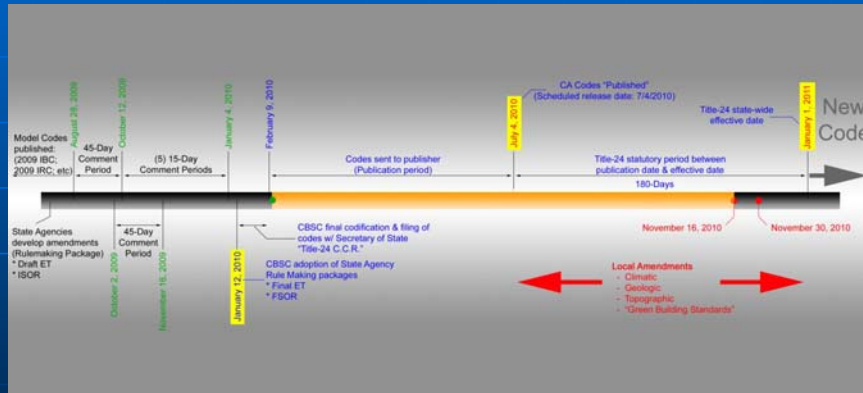
# Local Amendments

- Justification for a local amendment may be used repeatedly.
- The use of a "Justification Matrix" is acceptable.
- A local condition does not need to be unique to your jurisdiction.
- Amendments and justifications must be adopted by the governing body after a properly noticed public hearing.
- Local amendments may not reduce a building standard below the model state code requirement.
- Local amendments and justifications must be filed with the California Building Standards Commission (CBSC).
  - Building Standards Commission  
2525 Natomas Park Drive, Suite 130  
Sacramento, CA 95833  
Attention: Tom Morrison
- Local amendments do not take effect until such amendments and justifications are filed with the CBSC.
- CBSC does not review, approve or reject local amendments and/or justifications.

# Timeline



# How much time do we REALLY have?



- a) 278      b) 192      c) 134      d) 94

## So what does this mean???

- Each city throughout California enforces a *slightly* different version of the same code.
- Each city amends its code every three years.
- Sometimes the triennial adoption of new code results in substantial changes.
- Most changes fall into these categories:
  - Energy Conservation/Green Building Standards
  - Disabled Access Regulations
  - Structural Design Standards
  - Fire Safety

## So Which Codes ...???

- 2010 California Codes
  - 2009 International Building Code
  - 2009 International Residential Code
  - 2009 International Fire Code
  - 2009 Uniform Mechanical Code
  - 2009 Uniform Plumbing Code
  - 2008 National Electric Code

## State Agency Amendments

- Which state agencies will affect me the most??
  - HCD-1
  - HCD-2
  - SFM
  - DSA/AC
  - OSHPD3

## State Agency Amendments

- Which state agencies will affect me the most??
  - HCD-1 (Hotel, Apartment, Condo, SFD)
  - HCD-2 (Mobilehome Parks)
  - SFM (A,E,I,H,L,R, High-Rise, other)
  - DSA/AC (Disabled Access)
  - OSHPD3 (Licensed Clinic & Outpatient Svc)

## Key areas

- PEX
- Gray Water
- Green Building Standards
- Fire Safety
- Wildland Urban Interface (WUI)
- IRC
- Disabled Access
- Energy Conservation

# PEX

- January 22, 2009
  - CBSC approved PEX for statewide use.
  - Effective Date – August 1, 2009
- December 30, 2009
  - Alameda County Superior Court overturned approval of PEX by rejecting the EIR on the basis that it failed to:
    - Evaluate cancer and other health risks from chemicals leaching from PEX;
    - Evaluate drinking water taste and odor impacts;
    - Evaluate the risk of premature failure of PEX in certain applications.
  - Requires preparation of a new EIR
- BSC website still indicates that PEX is allowed for state-wide application.
- So what's the bottom line??

# Gray Water

- "Single-Fixture" gray water systems eliminated from the code.
- "Clothes Washer" gray water systems may be installed without a construction permit if no cutting of existing plumbing piping is necessary.
  - 12 conditions to ensure public safety
    - Discharge to be contained on-site & may not pool
    - Min. 2" cover of mulch/rock/soil or solid shield
- "Simple" and "Complex" gray water systems both require construction permits.
  - Strict conditions apply
- Most jurisdictions support the use of gray water.

# Green Building Standards

- Title 24 C.C.R. – Part 11
- 2008 California Green Building Code
  - Effective Date: **August 1, 2009**
  - Almost entirely voluntary.
  - 7 mandatory requirements that were essentially required through various other code provisions.
  - Not significant in terms of establishing new mandatory minimum standards.
  - **But it was a starting point.**

# Code vs. Rating System

- What is the difference between a “code” and a “rating system”?
- Why are both codes and rating systems important?
- What are the implications of various Green Construction codes/rating systems on your jurisdiction?
- Who will be responsible for verifying compliance?
- How will jurisdictions pay for additional staff and/or training to evaluate compliance?
  - LEED
  - LEED-Intent
  - Green-Point Rated
  - Local Programs



# Green Building Standards

- "Cal-Green" Code
  - Minimum Mandatory Standards
  - Tier 1
  - Tier 2
- Significantly more robust than 2008 standard.
- Part of a comprehensive program to establish state-wide green building standards:
  - State-wide consistency
  - Continuous, incremental improvement
  - Subject to 9-point criteria
  - Intent to "migrate" many green standards into appropriate other portions of Title-24
  - May be amended locally if reasonably necessary as a result of a local geologic, topographic or climatic condition.

# Fire Safety

- Residential Fire Sprinklers (R313)
  - Required in every dwelling unit, including SFDs
  - NFPA 13D (P2904)
  - Not required in unoccupied concealed spaces, unless such space includes fuel-fired equipment.
  - Not required in bathrooms up to 55 sqft
  - Not required in closets/pantries up to 24sqft, provided smallest dimension is limited to 3'0" and walls & ceiling protected by gypsum board.
  - Not required in detached garages, carports or exterior porches that do not have habitable space above. (R309.6)
  - Additions, alterations or repairs (R313.2 Exception)  
*"An automatic residential fire sprinkler system shall not be required for additions or alterations to existing buildings that are not already provided with an automatic residential sprinkler system."*

# Wildland Urban Interface

- California requirement (Chapter 7A).
- Most advanced Wildfire Ignition standard in the nation.
- Key: Ignition-Resistance
  - Vents protection
  - Window construction
  - Exterior walls & soffits
  - Roofs
  - Decks
- Applies to all new construction within WUI area and to additions/alterations to such compliant buildings.
  - Additions, remodels & TI do not need to be retrofit to comply with Chp. 7A for buildings that were constructed prior to the establishment of Chp. 7A standards.

## Chapter 7A - WUI

- Chapter 7A has been completely revised.
- IRM is defined better.
- Use of spray-applied coatings to achieve IRM is expressly prohibited.
- 2x rafter tails & 2x sheathing boards may be exposed at eaves.
- 2x solid fascia boards will be permitted without using FRTW.
- All vents reduced to 1/16" – 1/8" or require special vents.
- Special under-eave vents required if located within 12' of grade or walking surface of a porch or deck, unless the attic space is sprinklered.
- Exterior door and window protection has been clarified, especially for raised-panel doors.
- Fuel modification must be verified prior to issuance of Certificate of Occupancy.
- Objective: Understand the Hazard to mitigate the Risk.

# California Building Code

- Based on 2009 IBC.
- Most state amendments were statutory provisions.
- Disabled Access and Energy Conservation merit their own discussion/training.
- Group I, Division 1 occupancy has been eliminated.
  - 24-hour residential care provisions have been moved to Group R, Division 2.1
- "Fire-Smoke Barrier" has been added.
- LA Basin's "Residential Second Exit" proposal for the 2012 IBC has been incorporated into CBC "early".
  - For dwellings regulated under the CBC, a second exit will be required if the occupant load exceeds 20 persons.

# Height & Area

- Very few changes to Height & Area from last code cycle.
- Minor adjustments to select table values in T503.
  - H-2, H-3, H-4, L of Type I construction will be limited to 20-stories.
  - I-3 must be Type IA or IB
- Sprinkler "Double-Dip"
  - Same as last cycle: SFM amendment allows sprinkler tradeoff for either height or area (but not both).
    - A,E,H,I,L,R, other SFM applications
- "Multi-Story" Area Increase
  - Same as last cycle: SFM amendment only allows area to be doubled (not tripled) in buildings 3-stories and taller.
    - A,E,H,I,L,R, other SFM applications
- CTC has halted efforts to revise H/A
  - Balanced Fire Protection is on hold

# California Residential Code

- The IRC is finally here.
- Applies to 1- and 2-family dwellings up to 3-stories in height.
  - Including townhouses up to 3-stories
  - Including live/work units complying with Section 419 of the CBC.
- Intended to provide designers with a consolidated code that contains all regulatory provisions for most projects.
  - Chapters 1 through 10 (R)-General Building
  - Chapter 11 (N) – Energy Efficiency
  - Chapters 12 through 23 (M) – Mechanical
  - Chapter 24 (G) – Fuel Gas
  - Chapters 25 through 33 (P) – Plumbing
  - Chapters 34 through 43 (E) – Electrical
  - Appendices – Swimming Pools, Patio Covers, Sound Transmission, PSDs, Gray Water, etc.
- R301 – Alternative provisions & Engineered design
  - *"Engineered design in accordance with the IBC is permitted for all buildings and structures, and parts thereof, included in the scope of this code"*

# California Residential Code

- R302.1(2) – Exterior wall fire separation distance.
  - Sprinklered dwellings
    - 0'-3' requires 1-hour walls with no openings
    - >3' no fire protection of walls or openings
  - Non-sprinklered dwellings
    - 0'-3' requires 1-hour walls with no openings
    - 3'-5' requires 1-hour walls & 25% openings
    - >5' no fire protection of walls or openings
- R311.4 Vertical Egress
  - Habitable levels more than 1-story above/below the level of an egress door may not have a point located more than 50' from an egress stair.
- Guard height increase from 36" to 42" has been maintained from last code cycle.
- Residential sprinklers are not required in detached garages, or carports which do not have occupied space above.

# Are You Prepared for the 2010 CBC, CRC & CGBSC ??



Beginning on  
January 1, 2011,  
several NEW  
BUILDING  
CODES will be  
enforced in  
California.



All architects, engineers,  
designers and contractors MUST  
be familiar with the new codes, or  
projects will NOT be approved.



For training  
information, visit  
[www.icclabc.org](http://www.icclabc.org);  
[www.calbo.org](http://www.calbo.org); or  
speak with your  
local Building  
Official

# Important Facts about the CBC, CRC & CGBSC



The 2010 CBC  
and CRC are  
based on the  
International  
Building and  
Residential Code  
(IBC and IRC).

All structures other than one and two  
family dwellings and townhomes will  
be built under the NEW 2010  
California Building Code (CBC).

Beginning in 2011, one and two  
family dwellings and townhomes will  
be built under the NEW 2010  
California Residential Code (CRC).

The 2010 CGBSC is the first-in-the-  
nation to enforce mandatory Green  
Building Standards Code  
(CALGreen). Homes and buildings  
will be more energy efficient.



For training  
information, visit  
[www.icclabc.org](http://www.icclabc.org);  
[www.calbo.org](http://www.calbo.org); or  
speak with your  
local Building  
Official