

PLUMBING OUR FUTURE



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The benefits of Plumbing Code Improvements



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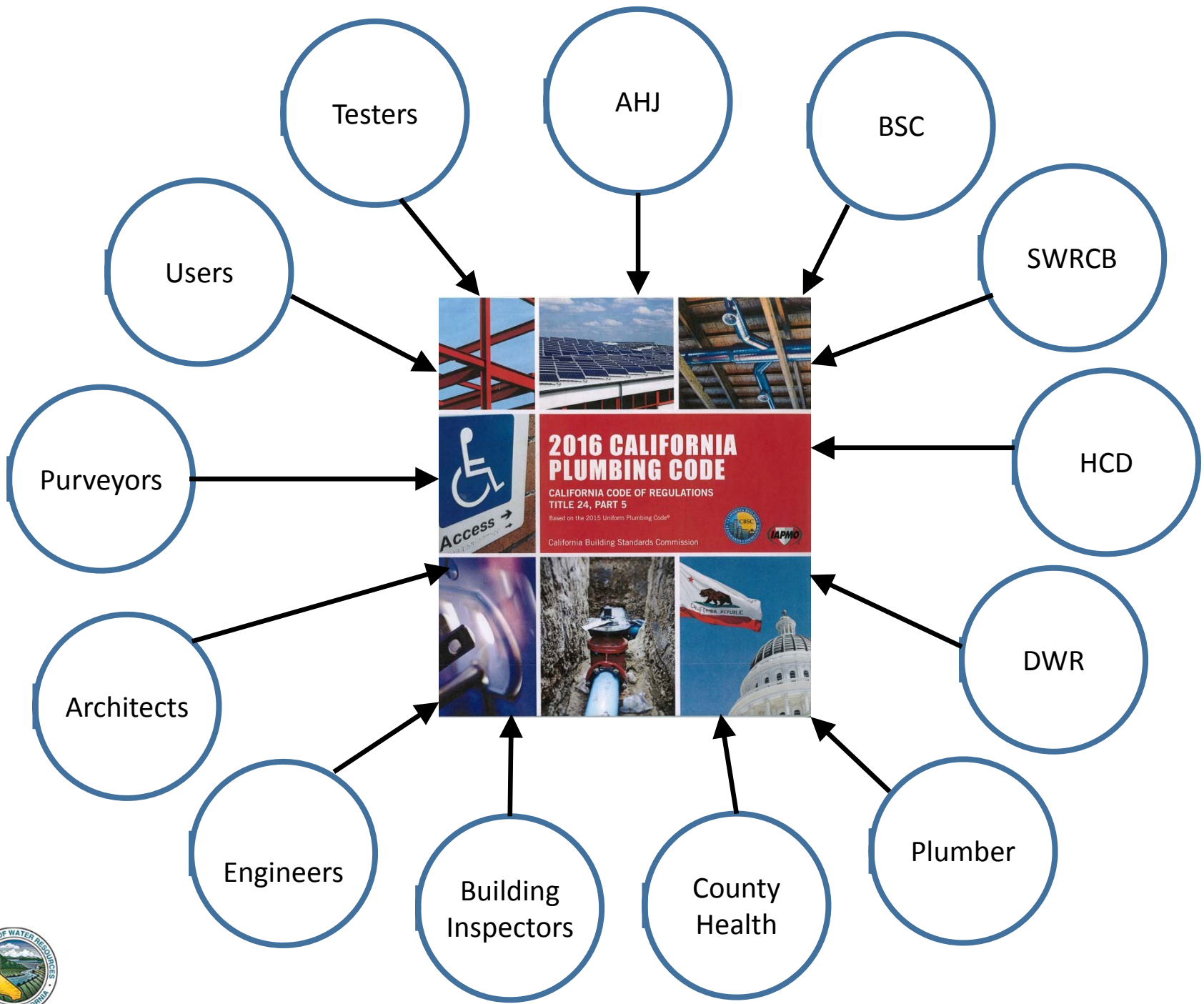
Outline

- Objectives
- Background
- Current Status
- Issues
- Your Participation
- Contacts



Background





What is California Plumbing Code?

- Legally binding State regulation
- Standards for potable, nonpotable water, sewer, gas piping
- California Code of Regulations (adopted by state agencies)
- California Building Standards Code: Title 24 of CCR
 - Under general direction of California Building Standards Commission
 - Amendments adopted by various state agencies
- California Plumbing Code: Part 5 of Building Standards



What is DWR's Role?

- To adopt CPC standards to safely plumb buildings with both potable and recycled water



Where are the Recycled Water Provisions in the Plumbing Code?

- Mainly Chapter 15: Alternative Water Sources for Nonpotable Applications
 - Recycled (municipal)
 - Graywater (untreated, treated)
- Chapter 1: DWR's authority
- Chapter 2: Definitions
- Chapter 6: Hot/Cold water, alternative water sources
- Chapter 16: Rainwater



What is Covered in Plumbing Code Regarding Recycled Water?

- Minimum water quality requirements (treatment)
- Types of buildings
- Signage, labelling, colour coding
- Cross-connection testing, inspection, frequency
- Pipe separation in trenches
- User maintenance, inspection, frequency
- Connections to other water source types



Applicability of Plumbing Code

- Buildings – plumbing within or part of bldg
- Premises (the property surrounding the building)
- Plumbing downstream of water service meter



Types of Buildings Covered

- Commercial, offices
- Government offices
- Commercial enterprises
- Industrial buildings
- Hotels, condos, apartments
- Landscape around buildings



Buildings Not Covered--Yet

- Single-family houses



Recycled Water Uses

- All uses authorized by Title 22 RW Criteria, e.g.:
- Toilet & urinal flushing
- Trap primers for floor drains
- Commercial laundering
- Vehicle washing
- Landscape irrigation
- Industrial uses - cooling towers, refineries, pulp and paper recycling
- Other allowed uses



Plumbing Code Recycled Water Standards not under DWR Authority

- Landscape plumbing
 - California Building Standards Commission (CBSC)
 - Dept of Housing and Community Development (HCD)
- Mandates for recycled water plumbing in new construction
 - Commercial – CBSC
 - Residential - HCD
 - Currently for landscape piping only
 - Future may include plumbing for indoor uses
 - AB 2282 (2014)



Other Dual Plumbing Regulations

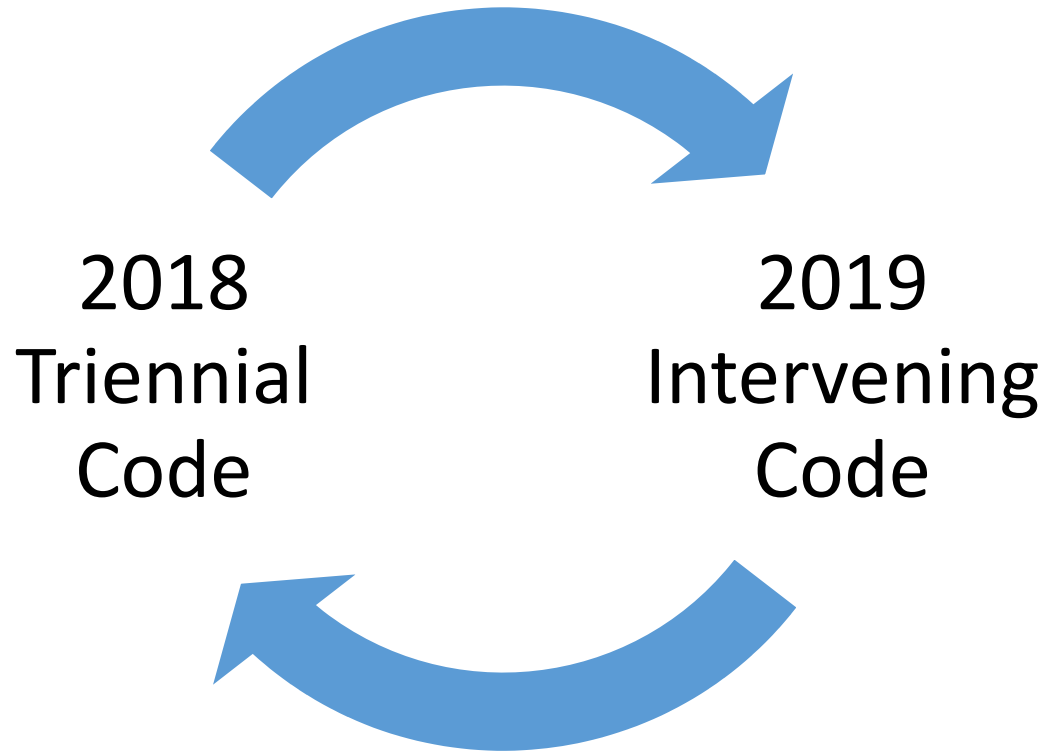
- Title 22 Water Recycling Criteria, Division 4, Chapter 3
 - Article 4, Use Area Requirements
 - Article 5, Dual Plumbed Recycled Water Systems (in buildings or irrigation at individual residences)
 - Signage, cross-connection testing, etc.
- Title 17, Div. 1, Ch. 5, Art. 2, Protection of Water Systems
 - Backflow protections for public water supply



Current Status



3 Year Code Adoption Cycle



General CPC Adoption Process

- CBSC adopts a model code every 3 yrs
 - IAPMO Uniform Plumbing Code
- State agencies adopt amendments
- Model Code + Amendments = CPC
- Intervening Code 18 mos after Triennial
 - Incorporates additional State agency amendments



Questions

- How well are current standards working?
- Are current standards adequate or suitable to
 - Protect public health?
 - Facilitate inspections and testing?
 - Address piping materials currently in use?



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Currently Identified Issues



Plumbing Code Issues Identified for Further Input and Analysis - 1

1. Chapter 2 definitions: initial testing, recycled vs reclaimed water
2. Criteria for qualified designers
3. Pipe marking
 - Distance between markings, wrapping vs linear adhesion of marking tape, Mylar vs other tape materials, size of lettering on pipe
4. Compliance of signage standards with accessibility standards



Plumbing Code Issues Identified for Further Input and Analysis - 2

5. Certification of cross-connection control testers
6. Alternate test procedures when shut-down test not practical
7. Procedures to restore potable water operation after a cross-connection has been corrected
 - Appropriateness of AWWA procedure
8. O&M criteria for property owners (Table 1503.15)
9. Recycled water used as makeup for rainwater and vice versa



Plumbing Code Issues Identified for Further Input and Analysis - 3

10. Possible different standards for different types of buildings or uses within buildings
 - Possible lower treatment quality
11. Possible different standards for buildings where dual plumbing is in building but recycled water is used outside
 - Different frequency of inspection and testing
12. Usefulness of owner O&M manual
 - Different levels of professionals operating and maintaining buildings, e.g., apartments or condominiums



Plumbing Code Issues Identified for Further Input and Analysis - 4

13. What protections should exist when distance requirements between pipes cannot be met?
14. What signage is appropriate for apartments, condominiums, and hotels bathroom use?
15. Consider whether the authorization of purveyor to replace AHJ is too broadly stated (intended to apply to cross-connection inspection and testing)



Plumbing Code Issues Identified for Further Input and Analysis - 5

16. Conduct a survey:

- Number and types of buildings with recycled water pipe
- Compliance with certain practices (e.g., monitoring valve seals)

17. Need toilet & urinal fixture standards to withstand recycled water quality?

18. If Title 22 amended to allow single family house use, are current provisions in CPC adequate or practical for single family structures?



Plumbing Code Issues Identified for Further Input and Analysis - 6

19. What design features would facilitate inspection and testing of residential buildings?
20. Define who is Authority Having Jurisdiction or Enforcing Authority for certain roles
21. Should hose bibbs be allowed in building maintenance areas not accessible to public or having sealable handles?



Future



Your Participation

- Future public workshops for all stakeholders
- Written comments
 - Now – informal
 - Later – formal on publicly released drafts
- Contact us
 - At this conference
 - Email, phone (last slide)
- Mailing list
 - Signup sheet for DWR list
 - Online subscription for CBSC list



2019 Intervening Code Adoption Cycle

- ~July – December 2019: State agency workshops
- December 2019: State agency initial submittal of code changes to CBSC
- June 2020: DWR adoption
- July 2020: CBSC adoption
- January 2021: Supplement Publication
- July 2021: Amendments become effective



Contact

California Building Standards Commission



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Stay in touch with CBSC by adding your email address to the CBSC's **Mailing List**. After signing up, you will receive meeting notices, information bulletins, quarterly newsletters and more.

<https://www.dgs.ca.gov/BSC/Contact>

Contact Us

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