

# The Gage Canal Company Overview

Board of Public Utilities  
August 27, 2018

RiversidePublicUtilities.com



1

## Overview

1. History and timeline
2. Structure, purpose and effect
3. Condemnation
4. Condition
5. Shares
6. Agreements

RiversidePublicUtilities.com



2

## References

1. Gage Canal Company Corporate Bylaws
2. Gage Canal Company Articles of Incorporation
3. Agreement For Operation Of Gage Canal Facilities
4. 1965 Judgement In Eminent Domain and Final Order of Condemnation
5. Creason's 1975 Report
6. Historic American Engineering Record, National Park Service
7. *A Citrus Legacy*, Joan H. Hall, 1992
8. 1965 Stipulation For Judgement In Eminent Domain and Final Order of Condemnation
9. Gage Water Exchange Agreement
10. Gage Canal Company staff
11. Water Rule 16
12. Letter to Gage Shareholders from Gage Legal Counsel

RiversidePublicUtilities.com



3

## Matthew Gage<sup>6</sup>

1. Watchmaker and jeweler, arrived in Riverside in 1881
2. Purchased cheap land along Box Springs, Tequesquite Arroyo and Arlington Heights via DLA
3. Must bring water to land within 3 years
4. By 1885 also had ~ 2,800 acres atop SAR basin
5. Found investors for project

RiversidePublicUtilities.com



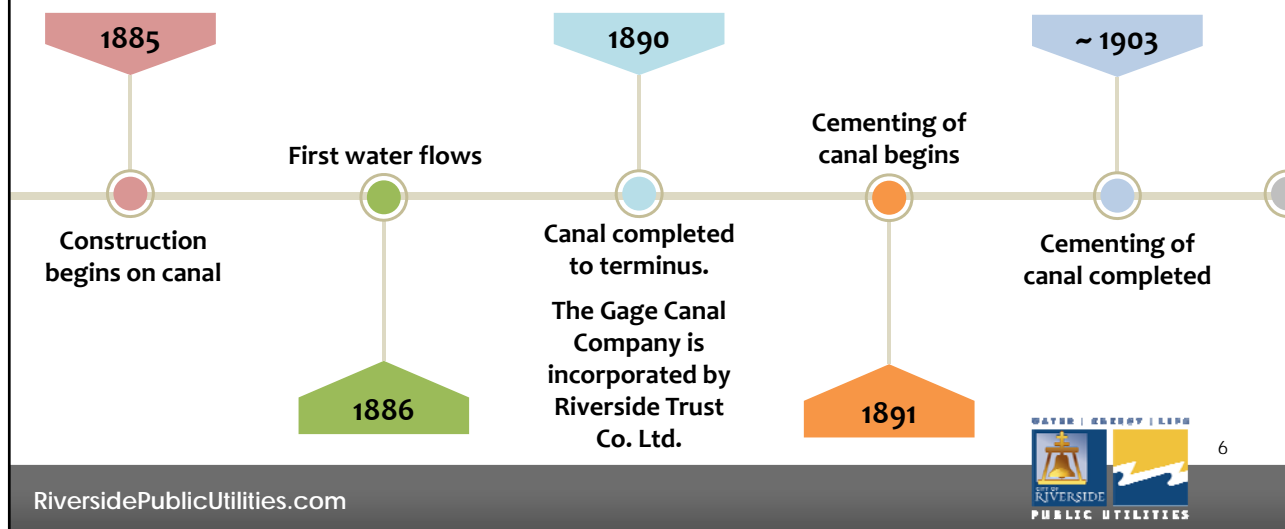
4

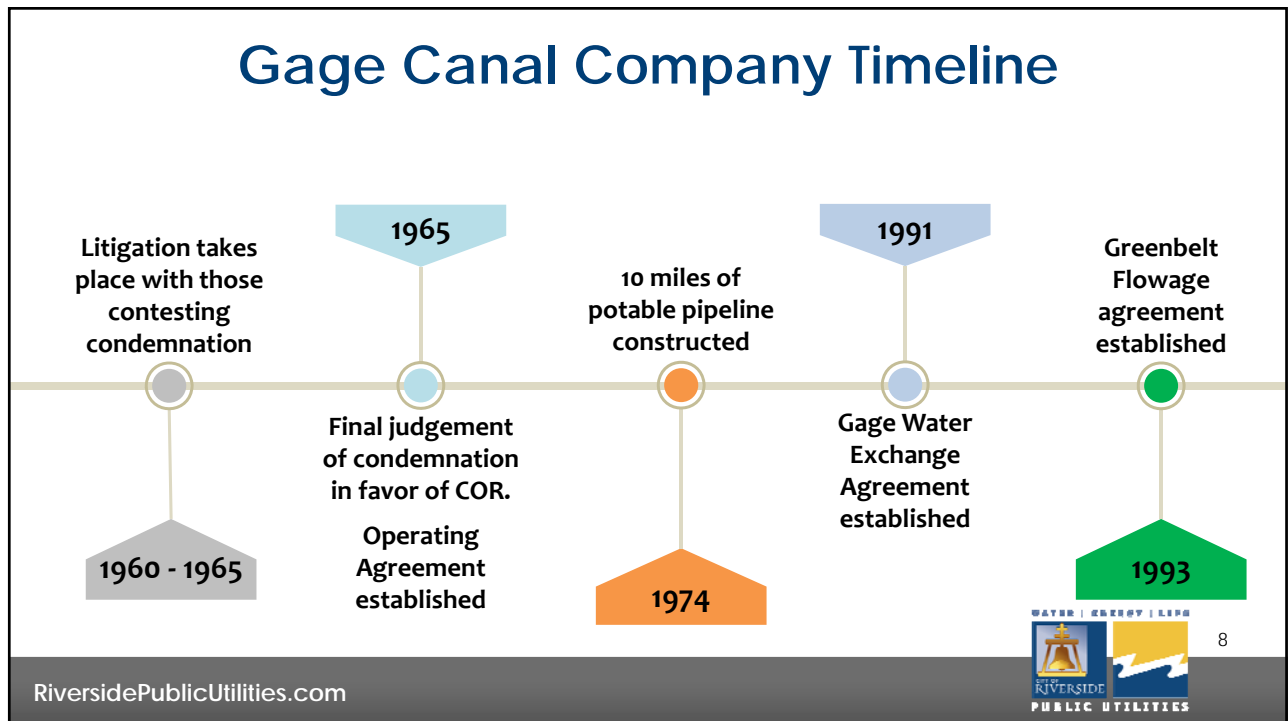
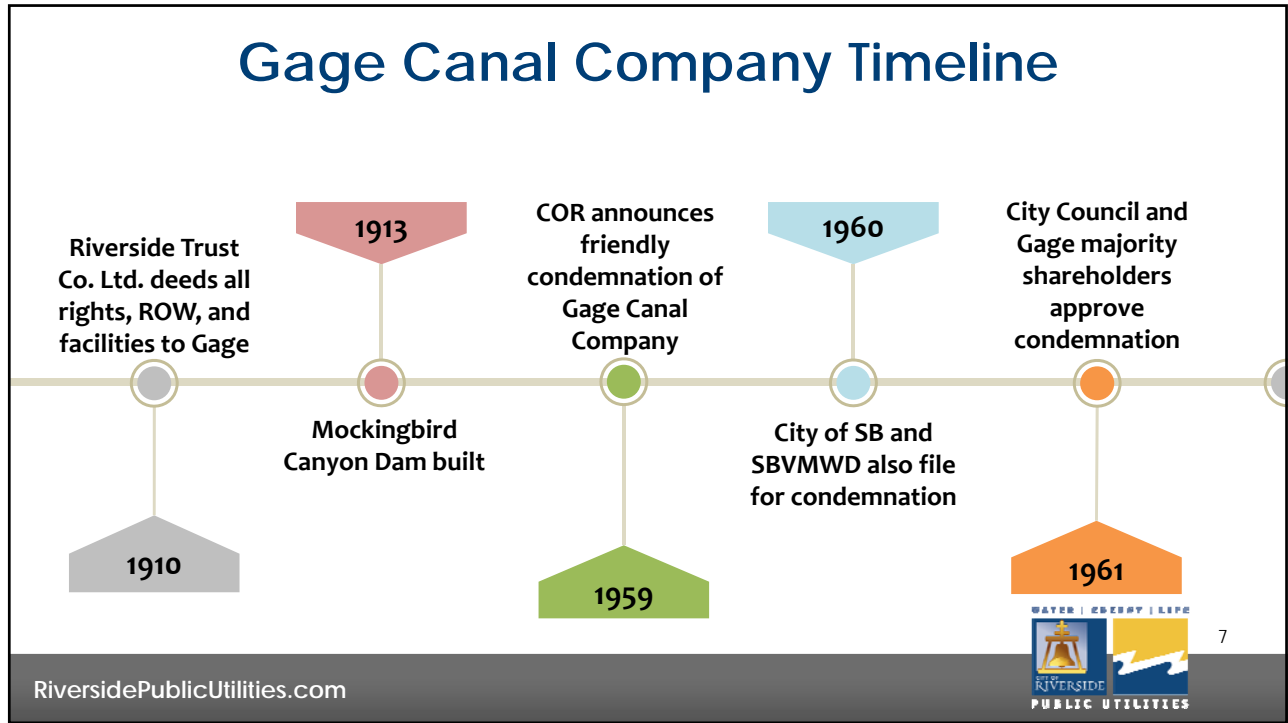
## Matthew Gage<sup>6</sup>

6. Contracted to provide 1 inch water per 5 acres for \$100/acre payment
7. Canal opened up desert type land to irrigation
8. Became president of The Gage Canal Company
9. His foresight, vision and determination is why we're here



## Gage Canal Company Timeline





## Corporate Structure<sup>1</sup>

1. 1890, private non-profit<sup>12</sup> California corporation
2. Irrigation water supplier
3. Articles of Incorporation and Corporate bylaws
4. 50,000 shares capital stock issued @ \$50 par
5. Eleven Board of Directors
6. One General Manager

## Purpose of Company

1. Collect and divert waters from SAR and BH
2. Serve irrigation water to East Riverside, Box Springs and Arlington Heights areas
3. Originally gravity flow open canal, flumes and tunnels
4. Later pipeline, siphons, open & covered sections
5. Mockingbird dam
6. Production side and delivery side



## Artesian Well Photos



## Artesian Well Photos

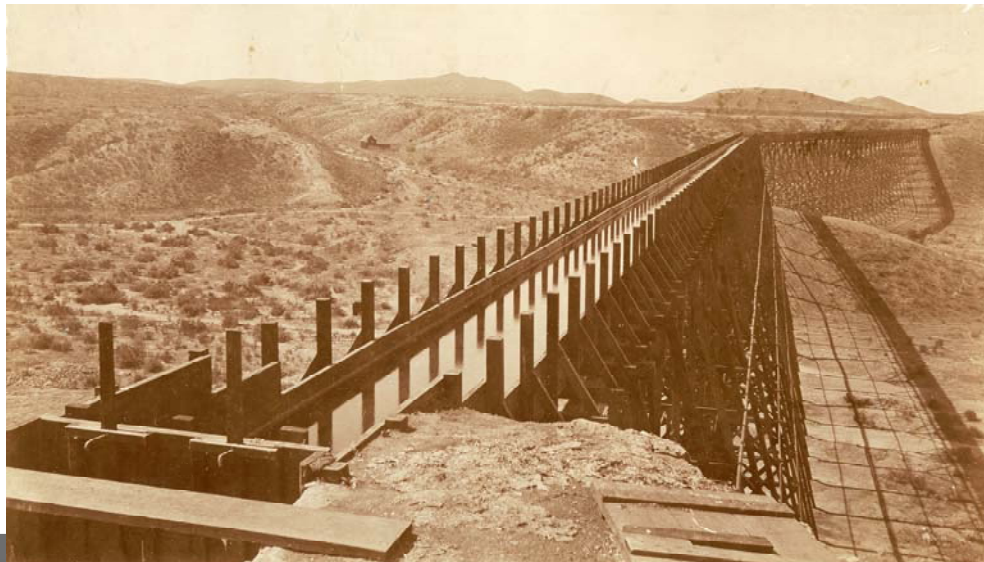


RiversidePublic



13

## Flume Across Tequesquite Arroyo

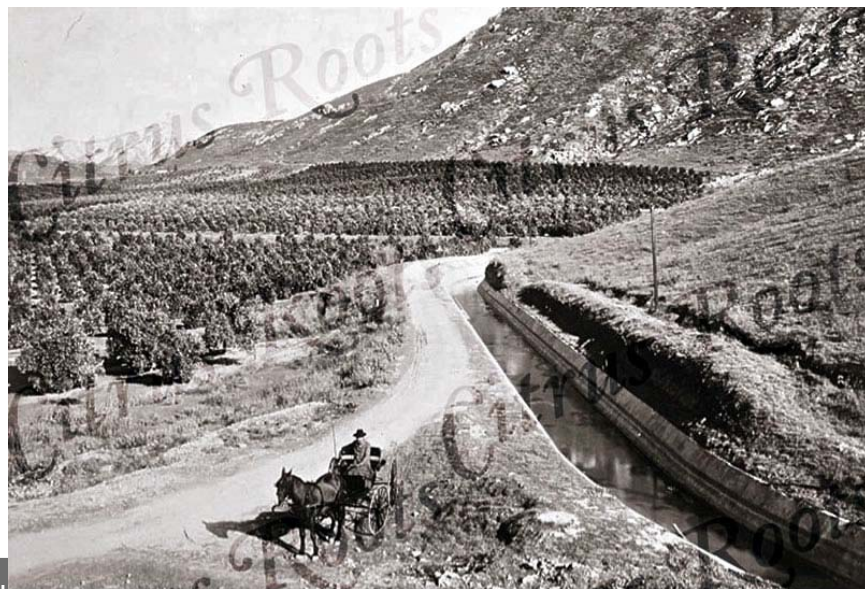


RiversidePublicUtilities.com



14

## Early Canal Photo



RiversidePublicUtilities.com



15

## Effect of Company

1. State of the art water conveyance system
2. Herculean task
3. Spurred land boom
4. City became largest navel orange producer in world
5. Added significant value to lands<sup>7</sup>
  - a. From \$1 to \$5 per acre to \$25 per acre in 1886
  - b. \$100/acre when water was available
  - c. \$500/acre when water delivery rights were purchased

RiversidePublicUtilities.com



16

# Orange Grove Pictures



RiversidePublicUtili



17

# Orange Grove Pictures



RiversidePublicUtilities.com



18

## Friendly Condemnation by City

1. Population increase led to increased water demand
2. 1959, COR announced condemnation
3. Used power of eminent domain to secure local groundwater rights for Riverside
4. Agencies in SB also looking to condemn Gage
5. 1965, Judgment of Condemnation for "*greatest public good*<sup>8</sup>" and "*necessary public use*<sup>4</sup>" of water
6. Included all water rights, facilities and ROW

## Friendly Condemnation by City

7. Residences and associated property not condemned
8. City paid \$547,277 to Gage<sup>8</sup>
9. Gage fixed assets recorded to Water Fund
10. No Gage assets in any other City fund
11. City owned ~ 1,268 shares upon condemnation
12. City offered \$225 for shares up front, \$175 when water no longer needed

## Friendly Condemnation by City

13. Operating Agreement established
14. Gage operates system as independent contractor without City interference<sup>3</sup>
15. City given right to "pledge" or "encumber" shares owned by others<sup>3</sup>
16. City required to ensure shareholder and contract water deliveries continue
17. Shareholder should not see a difference

## Friendly Condemnation by City

18. City can take excess production capacity beyond shareholder entitlements<sup>3</sup>, up to basin right
19. Excess taken by City at cost of production<sup>3</sup>
20. SB basin export right for Gage ~ 27K AFY
21. There have been amendments to the Operating Agreement
22. City owned ~ 2,700 shares by 1975<sup>5</sup>

## Condition of Canal

1. ~ 20 total miles of transmission system
  - a. ~ 10 miles of potable pipeline
  - b. ~ 7 miles of open canal structure
  - c. ~ 3 miles covered canal structure
2. Canal and ROW maintained by Gage except per Amendments
3. Very high reliability, rarely offline
4. Much has been re-lined

## Condition of Canal

5. ~ 3,000 MID total capacity
6. ~ 2,000 MID (67%) normal operation
7. Gage well water considered raw water
8. Quality of irrigation water very good
9. Cost to cover canal paid by City or developers
10. ROW provides walking, jogging, biking trails

## Current Canal Photo



RiversidePublicUtilities.com



25

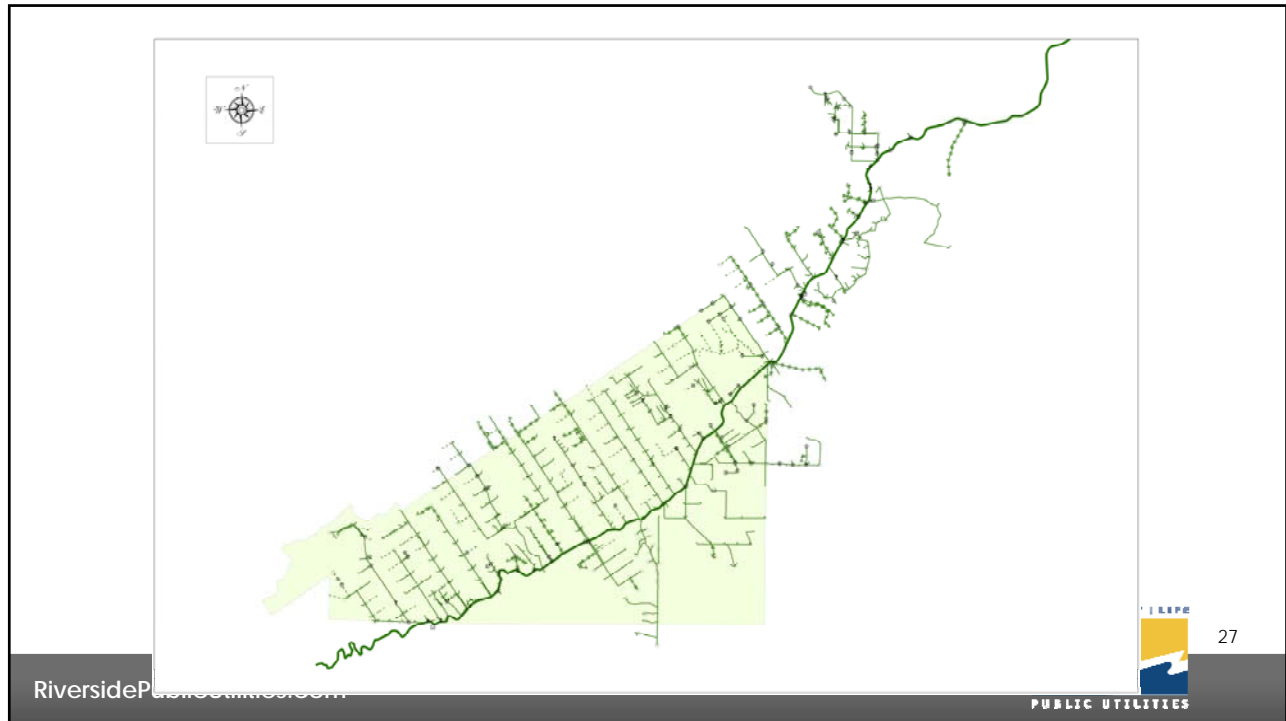
## Distribution Infrastructure

1. Maintained by Gage up to last delivery point
2. Piping beyond DP customer's responsibility
3. Almost all gravity flow, except a few private pumps
4. Antiquated concrete or steel pipe
5. Not suitable for higher pressures

RiversidePublicUtilities.com



26



## Distribution Infrastructure

6. 30% to 40% has been abandoned by Gage or damaged by development
7. Penetration may be needed for new service
8. 5 acre parcels preferred
9. Lack of knowledgeable growers and irrigators complicate deliveries
10. Gage can reduce delivery amount if waste occurs<sup>1</sup>

## Outstanding Shares of Stock

1. 14,055 shares outstanding at condemnation
2. 254 shareholders currently
3. City holds 8,569 shares (61%)
  - a. Not considered a "shareholder"<sup>3</sup>
4. Remaining 5,486 shares (39%)
  - a. 6 shareholders holding 1% - 4% total shares
  - b. 247 shareholders holding < 1% total shares

## Issuance of Stock

1. Originally issued at 2 shares per acre
2. Secured **water delivery right** appurtenant to property<sup>3</sup>
3. No new shares can be added or issued (Section 6)<sup>3</sup>
4. Gage must inform City of changes or transfers<sup>3</sup>
5. Subdivision and lot splits create complications

## Conveyance of Shares

1. Can transfer to new owners through escrow
  - a. No City approval needed
2. Can be turned into City for \$175 payment
3. Excess shares conversion to a "Contract"
  - a. Requires City approval
  - b. City gets shares but not entitlement
4. Water Rule 16 explains conveyance of water rights and stock (1991)

## Share Assessment

1. Annual "Water Tax" each shareholder pays
2. Currently \$175 per share
3.  $14,055 \times \$175 = \$2.46 \text{ M}$  revenue for Gage
4. If not paid, shares encumbered by City
5. Cost of water ~ \$81.50 per acre foot

## Shareholder Deliveries<sup>10</sup>

1. Each share entitled to 4.5 Miners Inch Day per month
2. 1 MID = 9 GPM or 12,960 gals in a 24 hr period
3. MIDs rounded down if a decimal (4.5 becomes 4)
4. 1 share = 36 GPM for 24 hours, 51,840 gals per month, or 2.1476 AFY
5. 14,055 shares = 30,184 AFY total delivery obligation
6. 11,781 AFY irrigation delivery obligation

## Shareholder Deliveries<sup>10</sup>

7. Made over two 48 hour periods, with 15 day gap
  - a. 10 shares = 45 MID = 1<sup>st</sup> 48 hr run of 25 MIDs, then 2<sup>nd</sup> 48 hr run of 20 MIDs
8. Worked well for citrus groves, operations and Zanjeros
9. Two turn-ons per month for < 20 shares
10. Not an exact science
11. Nurseries create exceptions due to water demands

## Extra Water to Shareholders

1. Shareholders can request "extra water" beyond delivery entitlement
2. First 80% of entitlement \$7.50 per MID
3. Beyond 80% is \$15 per MID
4. Example: 10 shares = 45 MID
  - a. 80% = 36 MID at \$7.50 per
  - b. 37<sup>th</sup> or more MID at \$15 per

## 1991 Gage Water Exchange Agreement

1. Result of drought condition and augments domestic supply
2. City provides Gage Canal with 1.25 units irrigation water for 1 unit potable water
3. Adds 6K - 8K AFY into lower Gage canal (from Riverside Canal) and 4.8K – 6.4K AFY potable to City
4. City's non-potable wells are irrigation water source
5. Gage determines if quality is acceptable
6. Samples are taken every 6 months

## 1993 Greenbelt Flowage Agreement

1. Established WA-8 “pass-thru” rate
2. Allows properties to take Gage water:
  - a. Regardless of share history
  - b. That have access to Gage facilities
  - c. At owner’s expense
3. Customer receives water delivery equivalent of 2 shares (or 156 CCF) per acre, per month
4. Gage Canal delivers water and reports in MIDs

## Recommendations

That the Board of Public Utilities receive and file this report.