

ASSESSORS' HANDBOOK  
SECTION 542

ASSESSMENT OF WATER COMPANIES  
AND WATER RIGHTS

DECEMBER 2000

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CALIFORNIA STATE BOARD OF EQUALIZATION

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## FOREWORD

Assessors' Handbook Section 542 (AH 542), *Assessment of Water Companies and Water Rights*, is a complete rewrite and compilation of two sections of the Assessors' Handbook: former AH 542, *Assessment of Water Companies* (which is no longer in circulation), and AH 543, *Assessment of Water Rights*. The objective of this handbook section is to provide assessors, assessor's staff, and other interested parties an understanding of issues relevant to water companies and water rights for assessment purposes. However, various other sections of the Assessors' Handbook and other Board publications are cited throughout the text and should be consulted as necessary. If there is an inconsistency resulting from the absence of technical data in this handbook section and a more advanced, specific manual, handbook section, or other authoritative source is available on that topic, parties are advised to consult with qualified experts and those sources regarding the technical aspects of valuing the particular complex property.

The rewrite of this handbook section was undertaken by staff members of the Policy, Planning, and Standards Division (PPSD) in conjunction with the staff of the Property Taxes Section of the Legal Division. As part of the process of producing this handbook section, meetings were held with assessors, industry representatives, and other interested parties. Any issues regarding the final language and content of this handbook section that could not be resolved by consensus among interested parties were voted on and resolved by the Members of the Board of Equalization after hearing relevant testimony from interested parties and Board staff. The Board approved this section of the handbook on December 14, 2000.

Under Government Code sections 15606 et seq., the State Board of Equalization is charged with the duty of administratively enforcing and interpreting the statutes governing the local assessment function. While regulations adopted by the State Board of Equalization are binding as law, Board-adopted manuals are advisory only. Nevertheless, courts have held that they may be properly considered as evidence in the adjudicatory process.<sup>1</sup> The citations and law references in this publication were current as of the writing of the manual.

Richard C. Johnson  
Deputy Director  
Property Taxes Department  
December 2000

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<sup>1</sup> *Coca-Cola Co. v. State Board of Equalization* (1945) 25 Cal.2d 918; *Prudential Ins. Co. v. City and County of San Francisco* (1987) 191 Cal.App.3d 1142; *Hunt Wesson Foods, Inc. v. County of Alameda* (1974) 41 Cal.App.3d 163.

# **PART I**

## **ASSESSMENT OF WATER COMPANIES**

# Assessment of Water Companies

## Table of Contents

<b>FOREWORD.....</b>	<b>I</b>
<b>CHAPTER 1: BACKGROUND.....</b>	<b>1</b>
TYPES OF WATER SYSTEMS .....	1
DISCOVERY .....	2
<i>California Public Utilities Commission (CPUC).....</i>	<i>2</i>
<i>California Department of Health Services .....</i>	<i>3</i>
<i>County Department of Public Health.....</i>	<i>3</i>
REPORTING .....	4
<i>Change in Ownership Statements .....</i>	<i>4</i>
<i>Property Statements .....</i>	<i>4</i>
Prescribed Property Statements.....	5
Regulated Water Companies.....	5
Mutual and Private Water Companies.....	6
Other Property Statements.....	6
VALUATION OF WATER SYSTEMS .....	6
AUDIT .....	7
<b>CHAPTER 2: TYPES OF WATER SYSTEMS.....</b>	<b>8</b>
REGULATED PUBLIC UTILITY COMPANIES .....	8
<i>Description.....</i>	<i>8</i>
<i>Regulation.....</i>	<i>9</i>
California Public Utility Commission (CPUC) Regulation .....	9
<i>Approaches to Value .....</i>	<i>13</i>
<i>Special Issues .....</i>	<i>14</i>
Contributions in Aid of Construction (CIAC) .....	14
Advances for Construction.....	15
Deferred Income Taxes .....	16
MUTUAL WATER COMPANIES .....	17
<i>Description.....</i>	<i>17</i>
<i>Approaches to Value .....</i>	<i>17</i>
<i>Special Issues .....</i>	<i>18</i>
Avoidance of Double Assessment.....	18
Treatment of Income Taxes. ....	19
GOVERNMENT-OWNED WATER COMPANY .....	20
<i>Assessment to Government Entity .....</i>	<i>20</i>
<i>Possessory Interest.....</i>	<i>20</i>
OTHER WATER SOURCE PROPERTIES .....	21
<i>Description.....</i>	<i>21</i>
<i>Approaches to Value .....</i>	<i>22</i>
<b>CHAPTER 3: VALUATION. ....</b>	<b>23</b>

APPROACHES TO VALUE .....	24
<i>Comparative Sales Approach</i> .....	24
<i>Stock and Debt Approach</i> .....	25
<i>Cost Approach (Reproduction and Replacement)</i> .....	25
Valuation of Land.....	27
Full Economic Cost of Depreciable Property.....	27
Depreciation .....	28
Limitations of Replacement Cost Approach .....	28
<i>Historical Cost Approach (HCLD)</i> .....	29
Computation of HCLD Indicator .....	29
Taxable Historical Cost.....	29
Depreciation .....	30
Special Considerations.....	31
Contributions in Aid of Construction .....	32
Advances for Construction.....	32
Deferred Income Taxes.....	33
Excess and/or Future Use Property.....	34
Summary of HCLD Calculation.....	35
Limitations of HCLD .....	35
<i>Income Approach</i> .....	36
Application of the Income Approach to Water Systems .....	37
Perpetual Life Model.....	38
Anticipated Net Income .....	39
Working Cash Allowance .....	41
Income Attributed to Intangibles.....	42
Total Capitalization Rate .....	43
Construction-in-Progress (CIP) Additive .....	45
Excess and/or Future Use Property.....	45
Limitations of the Income Approach.....	46
SPECIAL VALUATION ISSUES .....	46
<i>Assessment of Taxable Government-Owned Properties</i> .....	46
Constitutional Basis for Assessment.....	46
Government-Owned Properties Taxable when Acquired.....	46
Government-Owned Properties Not Taxable when Acquired.....	46
Assessment.....	47
Land .....	47
Improvements.....	47
Taxable When Acquired Requirement.....	47
Assessment. ....	48
Application.....	48
Special Issues .....	49
Joint Purchase of Taxable Property by Multiple Governments.....	49
Personal Property .....	49
<i>Valuation of Possessory Interest</i> .....	50
<i>Valuation of New Construction</i> .....	50
<i>Valuation of Construction-in-Progress (CIP)</i> .....	51
<i>Valuation of Noncapitalized Leased Property</i> .....	52

VALUE RECONCILIATION .....	52
<b>CHAPTER 4: AUDIT OF A WATER COMPANY.....</b>	<b>53</b>
PREPARATION FOR AN AUDIT .....	53
<i>Review of Information</i> .....	53
<i>Contact Assessee</i> .....	54
CONDUCTING AN AUDIT.....	56
<i>Initial Interview</i> .....	56
<i>Review Records</i> .....	58
<i>Reconciliation of Sources</i> .....	58
Sampling to Confirm Accuracy.....	58
Other Adjustments. ....	58
<i>Classification</i> .....	59
<i>Verification of Improvements</i> .....	59
<i>Verification of Contributions in Aid of Construction (CIAC)</i> .....	59
<i>Verification of Advances for Construction</i> .....	60
<i>Verification of Supplies</i> .....	61
<i>Verification of Construction-in-Progress</i> .....	61
<i>Verification and Identification of Leased Equipment</i> .....	62
<i>Items or Audits Requiring Special Attention</i> .....	62
<i>Inspection of Property</i> .....	63
AUDIT VALUATION AND SUMMARIZED FINDINGS .....	64
<b>APPENDIX A: SAMPLE PROPERTY STATEMENTS .....</b>	<b>65</b>
<b>APPENDIX B: CALIFORNIA PUBLIC UTILITY COMMISSION (CPUC) FORMS.....</b>	<b>70</b>
EXCERPTS FROM CPUC ANNUAL REPORT .....	71
INDEX FOR CLASS A ANNUAL REPORT .....	74
<b>APPENDIX C: REGULATED ACCOUNT LISTINGS.....</b>	<b>75</b>
<i>Chart of Accounts, Class A Water Utilities</i> .....	76
<i>Chart of Accounts, Class B, C, and D Water Utilities</i> .....	84
<b>APPENDIX D: SAMPLE VALUATION FORMS .....</b>	<b>88</b>
<b>APPENDIX E: INCOME TAX COMPONENT CALCULATION.....</b>	<b>93</b>
<b>GLOSSARY.....</b>	<b>95</b>
<b>BIBLIOGRAPHY.....</b>	<b>102</b>

## CHAPTER 1: BACKGROUND

Water companies (or water systems<sup>2</sup>) and other water source properties are unique types of assessable property. They are industrial properties that a county assessor may encounter infrequently. Unlike several other public utilities, however, nearly all water systems and water source properties are assessed at the local level, even though many are regulated by the California Public Utilities Commission (CPUC).<sup>3</sup>

This section of the Assessors' Handbook<sup>4</sup> is provided to aid the assessor in discovering, classifying (i.e., identification of type), and appraising water-related properties and developing procedures for auditing these accounts. Information regarding each topic is included here as a foundation for additional information presented in the remainder of the text. More thorough discussions of (1) each type of water system, (2) valuation, and (3) auditing are included in separate chapters.

### TYPES OF WATER SYSTEMS

For assessment purposes, water systems are generally classified as:

- **Regulated Public Utilities.** Companies in business to earn a profit from the sale of water and subject to regulation by the CPUC.
- **Mutual Water Companies.** Private (usually non-profit) associations created for the purpose of providing water primarily to its stockholders or members and not subject to regulation by the CPUC unless the company delivers water for profit to persons other than stockholders and members.<sup>5</sup>
- **Government-Owned (Publicly-Owned) Water Systems.** Government-owned water systems and properties are properties owned or held by agencies of the federal, state, county, or local (cities, school, fire, water, or sanitary districts) governments. These water systems are generally not subject to regulation by the CPUC, and in many cases are exempt from property taxation.
- **Other Water Source Properties.** Other water source properties include privately-owned and used water systems and properties located on or associated with entities such as manufactured home parks, campgrounds, lodges, and country clubs. These types of assessable properties may include wells, pumps, and pressure systems. These water source properties offer no service to the general public and are not *subject* to regulation by the

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<sup>2</sup> The terms *water company* and *water system* are more or less interchangeable, although it is actually a water system that is assessed and appraised for property tax purposes. The system itself, not the owner, is being assessed.

<sup>3</sup> Article XIII, section 19 of the California Constitution does not require assessment of water companies by the State Board of Equalization. At the time of this publication, the State Board of Equalization assesses only one public utility water company, due to its ownership by an electric company.

<sup>4</sup> All references to Assessors' Handbook (AH) sections refer to the handbook published and produced by the California State Board of Equalization.

<sup>5</sup> Public Utilities Code section 2705.

CPUC.<sup>6</sup> This category may also include water companies *subject* to CPUC regulation which are not regulated because the CPUC is unaware of the companies' existence.

After a water system is discovered, proper classification is vital because each type of property may have unique issues, affecting value and taxability. Therefore, an understanding of each type of water system is essential in order to make an accurate assessment. Each of the water systems described is discussed in more detail in Chapter 2.

## DISCOVERY

In discovering and identifying water companies and water system properties, methods may vary from county to county based upon the resources available to the assessor (e.g., building permits, business permits, field inspections, etc.). The Board encourages the review of all sources that may provide assessors with information that aids in the discovery and proper assessment of water-related properties.

In general, the Board recommends that the assessor consider the following sources:

- California Public Utilities Commission (CPUC)
- California Department of Health Services (Division of Drinking Water and Environmental Management)
- County Department of Public Health (Division of Environmental Health)

Gathering information from these sources annually will provide an assessor with a fairly comprehensive list of all water supply sources in the county. Such a list will include regulated water companies, mutual water companies, government-owned water systems, and other water source properties such as assessable wells, pumps, and pressure systems.

### CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC)

The CPUC regulates approximately 200 water companies in California that supply water to about 20 percent of the residents of the state.<sup>7</sup> Upon request, the CPUC can provide a listing of these companies by county or by location. The list is also available in the Water Division section of the CPUC's Web site, listing water companies in alphabetical order and referencing the county where the company is located.

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<sup>6</sup> Public Utilities Code section 2704.

<sup>7</sup> California Public Utilities Commission, *Water Regulatory Policy*, August 14, 1997, p. 2.



The CPUC can be contacted at:

California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102

Water Division Telephone Number: (415) 703-1568  
Water Division Fax Number: (415) 703-4426  
Web site Address: [www.cpuc.ca.gov](http://www.cpuc.ca.gov)

## **CALIFORNIA DEPARTMENT OF HEALTH SERVICES**

The California Department of Health Services, Division of Drinking Water and Environmental Management, maintains a drinking water program. The Drinking Water Program Field Operations Branch (DWFOB) of this Department is responsible for the inspection and regulatory oversight of approximately 8,500 public water systems to assure the delivery of safe drinking water to all California consumers. Activities involved in this oversight include the maintenance of statewide databases for all water systems in the State.<sup>8</sup>

Information regarding the DWFOB can be found on the Department of Health Services Web site at [www.dhs.cahwnet.gov/ps/ddwem/index.htm](http://www.dhs.cahwnet.gov/ps/ddwem/index.htm). In identifying assessable water system properties in the county, the assessor can request a list of the systems tested by the DWFOB.

The Department can be contacted at:

California Department of Health Services  
Division of Drinking Water and Environmental Management  
Drinking Water Program (Sacramento Headquarters)  
601 North 7<sup>th</sup> Street, MS 92, Sacramento, CA 95814

MAIL: P.O. Box 942732, Sacramento, CA 94234-7320

Telephone Number: (916) 323-6111  
Fax Number: (916) 323-1382

## **COUNTY DEPARTMENT OF PUBLIC HEALTH**

Each county's Department of Public Health (Division of Environmental Health or other similar division as named by each individual county) is delegated the responsibility of regulating small water systems for the California Department of Health Services (Drinking Water Program Field Operations Branch (DWFOB)).<sup>9</sup>

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<sup>8</sup> [www.dhs.cahwnet.gov/ps/ddwem/technical/dwp/dwpindex.htm](http://www.dhs.cahwnet.gov/ps/ddwem/technical/dwp/dwpindex.htm) (January 7, 2000).

<sup>9</sup> DWFOB provides assistance to local health departments and other agencies on water quality issues ([www.dhs.cahwnet.gov/ps/ddwem/technical/dwp/dwpindex.htm](http://www.dhs.cahwnet.gov/ps/ddwem/technical/dwp/dwpindex.htm)).

This county department or division can supply the assessor with a listing of the water supply sources for which the department or division is responsible for inspecting. Yearly, the assessor should contact the appropriate department or division in their county to obtain such a list.

## **REPORTING**

### **CHANGE IN OWNERSHIP STATEMENTS**

Any person or entity who acquires real property, a manufactured home, or a controlling interest (more than 50 percent) in a legal entity that owns real property, must file a change in ownership statement within 45 days of the date of the transfer.<sup>10</sup> In most cases, this requirement is satisfied by filing a preliminary change in ownership report (PCOR) concurrently with the recordation of the deed. Both the change of ownership statement and the PCOR inform the assessor of the property, date, and persons involved in a change in ownership and provide information to determine whether or not the property is subject to reappraisal.

### **PROPERTY STATEMENTS**

With respect to reporting personal property and real property related to personal property, some owners of property associated with water companies are required to file property statements. Others are required to file only upon request of the assessor. Section 441(a) of the Revenue and Taxation Code<sup>11</sup> identifies the requirements, in part, as follows:

Each person owning taxable personal property, other than a mobilehome subject to Part 13 (commencing with Section 5800), having an aggregate cost of one hundred thousand dollars (\$100,000) or more for any assessment year shall file a signed property statement with the assessor. Every person owning personal property that does not require the filing of a property statement or real property shall, upon request of the assessor, file a signed property statement. Failure of the assessor to request or secure the property statement does not render any assessment invalid.

When the county assessor mails or otherwise provides a property statement to an assessee, the assessor has thereby requested the assessee to file. These statements must be filed timely and signed under penalty of perjury by the deadline as prescribed under section 441.<sup>12</sup> If the assessee does not file the property statement by the prescribed deadline, the assessor shall estimate a value and add a 10 percent penalty to that estimated assessed value.<sup>13</sup>

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<sup>10</sup> Sections 480 through 480.4. Penalties are applicable for failure to report any transfers resulting in a change in ownership (section 482).

<sup>11</sup> All section references in this section of the handbook refer to Revenue and Taxation Code sections unless otherwise noted.

<sup>12</sup> Property statements should be filed annually with the assessor by April 1. A penalty applies if the statement is not filed by May 7.

<sup>13</sup> Section 501 and section 463.

Property statements are declarations of assessable property signed under penalty of perjury. The property statements filed by assesseees are used by assessors to gather information and to determine the assessable value of property.

The statement shall show all taxable property owned, claimed, possessed, controlled, or managed by the assessee as of 12:01 a.m. on the lien date.<sup>14</sup> The property statement shall also show the situs of the property,<sup>15</sup> and a description of the property in the detail required.<sup>16</sup>

In general, property statements are similar from county to county. Property statement forms are prescribed by the Board as set forth under Rule 171,<sup>17</sup> which reads in part:

Except as specifically authorized by the board with respect to heading, name and address of the taxpayer, location of the property, assessor's use columns, and the like, the assessor shall not change, add to, or delete the specific wording of property statement forms or mineral production report forms prescribed by the board or change the sequence of the questions, but he may otherwise arrange the content and alter the size and design of a property statement or mineral production report form to meet the needs of his office procedures and facilities.

Each year, the Board prescribes the property statements that are available for use by assessors for the forthcoming assessment year. The assessor is required to notify the Board of the forms (including exemption claim forms, which are also prescribed by the Board) that will be reproduced using the Board's prototype, the forms that will not be used, and forms originated by the Board that may have been rearranged by the assessor. Rearranged forms must be submitted to the Board for approval.

## **Prescribed Property Statements**

### **Regulated Water Companies**

The Board does not prescribe a property statement specific to regulated water companies. The assessor should use the general Business Property Statement (Form 571-L) for these types of companies (see Appendix A). Using Form 571-L, as opposed to a county-developed form or questionnaire, allows the assessor to enforce the section 463 penalty for the non-filing or late filing of a property statement.

The assessor should request that a regulated water company provide a copy of its annual CPUC report as an attachment to the annual filing of the general property statement.<sup>18</sup> The assessor

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<sup>14</sup> Sections 442 and 448.

<sup>15</sup> Section 443.

<sup>16</sup> Section 445.

<sup>17</sup> All Rule references in this section of the handbook refer to the Property Tax Rules in Title 18 of the California Code of Regulations, unless otherwise noted.

<sup>18</sup> The assessor cannot require the company to provide the CPUC report when filing the property statement. However, an assessor may obtain the report from the company under the authority of section 441(d). Otherwise, since these reports are public records, they can be requested from the Audit and Compliance Unit of the CPUC's Water Division.

may also request other information as necessary (i.e., aging schedule of advance contracts and remaining economic life (REL) estimates). Information reported and listed on the CPUC report is very useful to assessors in appraising the property of these companies and the report details changes which occurred during the previous calendar year in balance sheet accounts including plant in service and accrued depreciation. A CPUC report provides historical cost information regarding the company's assets, revenue and expense information, and other financial information. The report also includes annual income statements and/or a description of plant in service.

### **Mutual and Private Water Companies**

The Board prescribes Form 540-S, *Mutual or Private Water Company Statement*, for mutual or private water companies (see Appendix A). The assessor may also use Form 571-L, *Business Property Statement* (see Appendix A), for these types of companies. In either case, the section 463 penalty for the non-filing or late filing of a property statement can be legally enforced by the assessor.

### **Other Property Statements**

Assessors may request owners of water systems and related properties to file an annual property statement other than those statements prescribed by the Board (i.e., county-developed forms) or other questionnaires, designed in a manner that allows the assessor to obtain information necessary to make a proper assessment. However, the assessor cannot legally enforce a section 463 penalty for the non-filing or late filing of a form or property statement that is not prescribed by the Board. If a taxpayer fails to furnish information, other than on a prescribed property statement, the only remedy available to the assessor is to obtain the desired information through an audit.

## **VALUATION OF WATER SYSTEMS**

In general, locally assessed real property (including fixtures) owned by a water company is subject to the provisions of article XIII A of the State Constitution.<sup>19</sup> A base year value for the property is established and the property is assessed yearly at the lesser of its factored base year value or its full cash value on each lien date as defined in section 110(a).<sup>20</sup>

Personal property owned or used by a water company is not governed by the base year value limitations of article XIII A. This property is assessable at current market value as of the lien date each year. Annually, it must be taxed in proportion to its value as defined in section 110(a):

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<sup>19</sup> For information regarding exceptions, see Assessors' Handbook Section 502 (AH 502), *Advanced Appraisal*. See Chapter 2 of this section of the handbook for additional information regarding taxable government-owned "section 11" property.

<sup>20</sup> Certain taxable government-owned properties are assessed yearly at the lesser of current market value, factored base year value, or a restricted section 11 "Phillips factor" value (see Chapter 3, p. 46-49).

...the amount of cash or its equivalent that property would bring if exposed for sale in the open market under conditions in which neither buyer nor seller could take advantage of the exigencies of the other, and both the buyer and the seller have knowledge of all of the uses and purposes to which the property is adapted and for which it is capable of being used, and of the enforceable restrictions upon those uses and purposes.

Base year value and/or current market value for both real and personal property are generally estimated using one or more of the generally accepted and authorized approaches to value discussed in Rule 3, *Value Approaches*.

Rule 3 discusses five approaches to value. Although each value approach should be considered when valuing any water system (and related properties), the use of all five approaches may not always be appropriate. Factors that indicate which approach is most applicable include property type, regulations imposed upon the property, the market, and the availability of data. This is supported by Rule 3, which states, in part:

In estimating value as defined in section 2, the assessor shall consider one or more of the following [approaches to value], *as may be appropriate for the property being appraised...* (Emphasis added.)

Certain approaches to value may be more applicable to certain types of water companies (i.e., historical cost less depreciation (HCLD) for rate base regulated public utility water companies). Chapter 3 of this section of the Assessors' Handbook discusses value approaches as applied to each type of water system mentioned earlier. Reference is made to related sections of the Assessors' Handbook as necessary; some information presented in those sections is repeated as necessary for ease of reference and use.

## AUDIT

Chapter 4 discusses audits of water companies. For companies owning or possessing tangible business personal property and fixtures with a full cash value of \$400,000 or more,<sup>21</sup> section 469 requires an audit at least once in each four-year period.<sup>22</sup>

The information in Chapter 4 is similar to the audit chapter in Assessors' Handbook Section 504 (AH 504), *Assessment of Personal Property and Fixtures*, but adapted to provide information specifically related to a water company audit. For example, the chapter includes a discussion on what types of records to review to aid in the audit and valuation of a regulated water company.

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<sup>21</sup> Prior to January 1, 2001, the audit threshold amount was \$300,000.

<sup>22</sup> The requirements of section 469 apply to assessors and locally assessed property.

## CHAPTER 2: TYPES OF WATER SYSTEMS

For assessment purposes, water systems are generally classified as (1) regulated public utilities, (2) mutual water companies, (3) government-owned (publicly-owned) water systems, or (4) "other" water source properties. Proper classification is vital as each type of property may have unique issues that may affect value and assessability. The appraisal of a regulated company, for example, is unique in that income, and thereby value, is limited by a regulatory agency. (In general, only privately-owned public utilities are regulated.) The appraisal and assessment of government-owned properties are also unique because these properties are subject to restrictions such as those outlined in article XIII, section 11, of the California Constitution.

This chapter describes water systems that appraisers and auditor-appraisers may encounter. The discussion of each water system includes reference to the value approaches that typically provide valid indicators of market value for that system. Refer to Chapter 3, *Valuation*, for discussions of each of these value approaches.

### REGULATED PUBLIC UTILITY COMPANIES

#### DESCRIPTION

A public utility is a regulated business providing an essential public service such as electricity, natural gas, telephone, or water. The California Public Utilities Code defines a public utility to include:

... every common carrier, toll bridge corporation, pipeline corporation, gas corporation, electrical corporation, telephone corporation, telegraph corporation, water corporation, sewer system corporation, and heat corporation, where the service is performed for, or the commodity is delivered to, the public or any portion thereof.<sup>23</sup>

According to *Accounting for Public Utilities*,<sup>24</sup> section 1.01, a public utility possesses all of the following characteristics:

- (1) The business is essentially free from direct competition, i.e., it operates in a monopolistic environment.
- (2) The business is required by law to charge rates for its services that are reasonable and not unjustly discriminatory.
- (3) The business is allowed to earn (but not guaranteed) a "reasonable" profit.
- (4) The business is obligated to provide adequate service to its customers, on demand.

<sup>23</sup> Public Utilities Code section 216(a).

<sup>24</sup> Robert L. Hahne, Gregory E. Aliff, Deloitte & Touche LLP, Matthew Bender, 1999.

Most public utilities are assessed by the State Board of Equalization as required by article XIII, section 19 of the California Constitution. Section 19 states in part:

The Board shall annually assess (1) pipelines, flumes, canals, ditches, and aqueducts lying within 2 or more counties and (2) property, except franchises, owned or used by regulated railway, telegraph, or telephone companies, car companies operating on railways in the State, and companies transmitting or selling gas or electricity. This property shall be subject to taxation to the same extent and in the same manner as other property.

Public utility *water* companies, however, are not mentioned in section 19 of article XIII and are generally subject to local assessment.

## REGULATION

Utility companies, regardless of type, must abide by rules established by various regulatory agencies. Regulatory agencies typically define the services that a utility provides, establish the rates the utility may charge for its services, and prescribe the accounting system and methods used by the utility.<sup>25</sup> Regulatory agencies also, in the case of rate base regulated utilities, periodically establish an allowed rate base and authorize a rate of return.

The regulatory agencies which may influence the operation and value of a water utility company may include the California Public Utilities Commission (CPUC), the State Water Resources Control Board and Regional Water Quality Control Boards, and public health offices. Appraisers and auditor-appraisers should be aware that these influences exist as the regulatory requirements may have an effect on value. Most significant to the valuation of a privately-owned public utility water company, as discussed below, is the influence of and regulations imposed by the CPUC.

### California Public Utility Commission (CPUC) Regulation

Privately-owned public utility water companies, that operate to earn a profit from the sale of water, are subject to regulation by the CPUC. The California Public Utilities Code states that:

Any person, firm, or corporation, their lessees, trustees, receivers or trustees appointed by any court whatsoever, owning, controlling, operating, or managing any water system within this State, who sells, leases, rents, or delivers water to any person, firm, corporation, municipality, or any other political subdivision of the State, whether under contract or otherwise, is a public utility, and is subject to the provisions of Part 1 of Division 1 and to the jurisdiction, control, and regulation of the commission, except as otherwise provided in this chapter.<sup>26</sup>

<sup>25</sup> In the absence of regulatory reporting requirements, generally accepted accounting principles (GAAP) prescribe accounting methods (particularly pertaining to historical cost and depreciation) that may be used.

<sup>26</sup> Public Utilities Code section 2701.

As part of these regulations, the CPUC establishes the rate base for each public utility water company. Utilities are permitted to recover their cost of service and earn an authorized rate of return on the rate base.<sup>27</sup> The sum of the cost of providing service plus the earnings (the allowed rate of return on the rate base) determines the total revenue requirements for the utility. The revenue requirement level is used to set utility rates charged to customers.

The rate base for a regulated water utility, as with rates for other fixed utilities, is set prospectively (future test year) over a three-year period consisting of two test years and one attrition year based on cost. In the development of the rate base, the practice of the CPUC is to use historical or original cost less depreciation of the utility plant. However, with the passage of Public Utilities Code section 2720, as discussed further on page 12, a fair market value standard will be used to establish rate base when a public water system is sold after January 1, 1998.

The methods of accounting for cost and depreciation are also regulated by the CPUC for rate making purposes. For example, the CPUC may require the company to capitalize construction interest. The amount capitalized will usually be different than the amount of actual construction interest. Similarly, for depreciation, the CPUC regulates both the economic life and the method of depreciation (e.g., usually straight-line).

For rate making purposes, water utilities are divided into four classes according to size:

- **Class A:** greater than 10,000 connections
- **Class B:** between 2,000 and 10,000 connections
- **Class C:** between 500 and 2,000 connections
- **Class D:** less than 500 connections

To establish higher water utility rates, Class A companies file formal applications for increase requests in accordance with Article 4 of the Commission's Rules of Practice and Procedures (rules). Companies with less than 10,000 service connections (Classes B, C, and D) may file either formal or informal increase requests.

The CPUC's Water Division encourages small water companies to file for a rate case (an application filing for a rate increase) at least once every five years. The company submits standard workpapers, and the CPUC conducts an investigation and issues a Results of Operations (R/O) Report. The CPUC and the utility negotiate on the proper level of annual revenues and design of rates, and the negotiations are documented in a resolution. After Commission approval, the resolution authorizes the utility to file an Advice Letter with tariffs establishing the new rates.<sup>28</sup>

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<sup>27</sup> Profits are limited by the CPUC to a "fair" return on the outstanding investment in the net assets of the company.

<sup>28</sup> California Public Utilities Commission, *Water Regulatory Policy*, August 14, 1997, [www.CPUC.ca.gov](http://www.CPUC.ca.gov).



Generally, the rate base is computed by the CPUC as follows:<sup>29</sup>

$$\begin{aligned}
 &+ \text{Average Utility Plant in Service} \\
 &+ \text{Average Construction Work in Progress} \\
 &+ \text{Average Materials and Supplies} \\
 &+ \text{Average Working Cash} \\
 &- \text{Average Reserve for Depreciation at end of year (i.e., amortization)} \\
 &- \text{Average Contributions in Aid of Construction (remaining undepreciated)} \\
 &- \text{Average Advances for Construction (remaining undepreciated)} \\
 &- \text{Average Accumulated Deferred Income Taxes} \\
 &- \text{Average Deferred Investment Tax Credits (ITC)} \\
 \hline
 &= \underline{\text{Rate base}}
 \end{aligned}$$

For valuation purposes, the rate base is significant as it may be important to a prospective purchaser. The primary effect of this regulation is that potential earnings and, consequently, market value do not change from year to year in the same manner as unregulated properties. A company whose plant investments are static could actually lose value as book depreciation reduces the return allowed by the CPUC. On the other hand, a company may have excess earnings for a period of time because total revenues increase more quickly than expenses.

Also, appraisers and auditor-appraisers should be aware that the CPUC must approve the sale or transfer of regulated water utilities.<sup>30</sup> The Commission prevents transfers of functions into the hands of parties incapable of performing adequate service at reasonable rates and determines if the purchaser is financially capable of funding the acquisition and needed upgrades, and operationally capable of running the system properly.

Through 1997, when an investor-owned utility acquired another utility, the purchase price was not normally recognized for rate making purposes. The rate base of the acquired utility remained at the original cost less accrued depreciation of the used and useful facilities. Acquisition adjustments (differences between purchase price and rate base) were amortized below-the-line (not included in rates). The rate base used to calculate the return for rate making purposes was set at the depreciated original cost or the actual purchase price, whichever was less. The only exception to this policy occurred when an investor-owned utility acquired a mutual water

<sup>29</sup> California Public Utilities Commission Advice Letter Rate Adjustment Workbook (September 1, 1999), Estimated Rate Base, Sheet III-2.

<sup>30</sup> Public Utilities Code section 854.

company or district. In that case, since the customers of the mutual water company or district paid for the facilities originally, the Commission recognized the amount of money paid for the utility as the value of the utility. As of January 1, 1998, if the Commission approves the acquisition of the utility, the Commission, in most cases, must recognize the actual purchase price as the basis for rate making.<sup>31</sup>

In 1997, the Public Water System Investment and Consolidation Act of 1997 was enacted, as Public Utilities Code sections 2718 through 2720.<sup>32</sup> This Act requires the recognition of actual purchase price for rate making purposes, for systems sold after January 1, 1998. Public Utilities Code section 2720(a) provides that:

The commission shall use the standard of fair market value when establishing the rate base value for the distribution system of a public water system acquired by a water corporation. This standard shall be used for ratesetting.

Public Utilities Code section 2720(b) provides that:

If the fair market value exceeds reproduction cost, as determined in accordance with Section 820 of the Evidence Code, the commission may include the difference in the rate base for ratesetting purposes if it finds that the additional amounts are fair and reasonable....<sup>33</sup>

The extent to which this statute affects value for assessment purposes is not fully known at this time. However, appraisers and auditor-appraisers should consider the CPUC's application of Public Utilities Code section 2720. (See further discussion regarding valuation in the "Approaches to Value" section below.)

Sometimes an assessor will encounter a private water company in the business of selling water for profit that is not regulated by the CPUC. Normally the reason that the water charge rates are not regulated for these companies is because the companies have escaped the notice of the CPUC. With no enforcement arm to search county records, the CPUC must depend mainly on dissatisfied ratepayers complaining to the CPUC regarding poor service or high rates. These unregulated water companies should be assessed, and value should be estimated, in the same manner as other commercial properties and similar business property until the CPUC imposes its regulations.

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<sup>31</sup> Public Utilities Code section 2720. California Public Utilities Commission, *Water Regulatory Policy*, August 14, 1997, [www.CPUC.ca.gov](http://www.CPUC.ca.gov).

<sup>32</sup> This statute has an effective date of January 1, 1998.

<sup>33</sup> Section 2720(b) concludes "In determining whether the additional amounts are fair and reasonable the commission shall consider whether the acquisition of the public water system will improve water system reliability, whether the ability of the water system to comply with health and safety regulations is improved, whether the water corporation by acquiring the public water system can achieve efficiencies and economies of scale that would not otherwise be available, and *whether the effect on existing customers of the water corporation and the acquired public water system is fair and reasonable.*" (Emphasis added.)

## APPROACHES TO VALUE

The market or full cash value of property held by regulated public utilities may be determined by any of the methods allowed by Rule 3.<sup>34</sup> Each approach to value is discussed in Chapter 3. In theory, all of the value approaches may be significant and should be considered when information is available. In practice, however, the appraiser or auditor-appraiser will generally find the historical cost less depreciation (HCLD) approach and the income approach to be the most reliable and useful value indicators for properties subject to regulation. Appropriateness of a value approach will depend on the degree of regulation and the market's anticipation of future regulation and earning potential. This is true because the market value of regulated properties generally approximates HCLD and/or the company is purchased for the income it will produce (i.e., the income approach applies).

The cost (reproduction or replacement) approach should be considered when appraising the property of a regulated water company. With the enactment of Public Utilities Code section 2720,<sup>35</sup> the CPUC must use a fair market value standard when establishing the rate base for systems sold after January 1, 1998. For assessment purposes, a value estimate derived using the cost (reproduction or replacement) approach may be a reliable indicator of value for some regulated companies, since it is possible that an investor may not be influenced by the current CPUC established rate base if that rate base may be altered upon the sale of the property. However, use of the cost (reproduction or replacement) approach may be limited due to constraints imposed by the CPUC. A review of the CPUC valuation of companies, for rate base purposes, may be considered when determining the reliability of a valuation approach for such a company.

The comparative sales approach and the stock and debt approach are limited in their application to water companies, whether regulated or unregulated, due to the lack of comparable sales data and the fact that so few water companies are publicly traded. Often, even when sales data are available, the comparative sales approach is of little use because there are problems with comparability.<sup>36</sup> Therefore when sales of public utilities and the comparative sales approach are considered, the sales should be analyzed closely for comparability. The comparable sales must meet the fair market value transaction requirement as defined in Rule 2. If a sale does not meet the conditions of a market value transaction, it should not be used as a comparable sale in the comparative sales approach.<sup>37</sup>

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<sup>34</sup> As noted further below, real property of water utilities is subject to the provisions of article XIII A of the California Constitution, in that the property must be assessed yearly at the lesser of factored base year value or full cash value on the lien date.

<sup>35</sup> See discussion on page 12.

<sup>36</sup> However, reliable sales data may provide useful information on capitalization rates and other factors that are relevant to the water company market.

<sup>37</sup> See Chapter 3.

A market value appraisal for all property (personal property and real property) owned by a water utility company should be conducted annually to determine the proper taxable value to enroll each year. Real property of utility water companies is subject to the provisions of article XIII A, of the California Constitution, in that the property must be assessed yearly at the lesser of factored base year value or full cash value on each lien date. However, because the market value of this type of property generally approximates historical cost less depreciation (HCLD), the market value is generally less than the factored base year value (i.e., increasing the assessed value by the inflation factor each year may overstate the assessable value of the property).

The annual report filed by regulated water utility companies with the CPUC provides useful information when applying the HCLD and income approaches.<sup>38</sup> The report details changes that occurred during the previous calendar year in balance sheets, fixed capital in service, and accrued depreciation. The report also provides historical cost information regarding the company's assets, revenue and expense information, and other financial data. The report for each class of regulated water companies is slightly different, with more information required from the larger (Class A) companies. Excerpts of this report for Class A water utilities are included in Appendix B. Reporting requirements are discussed in more detail in Chapter 1.

The accounting for regulated utilities is also controlled and mandated by the CPUC.<sup>39</sup> Therefore, records and annual reports of regulated water companies are comparable. For ease of processing, value computation worksheets can be developed and/or used by assessors in estimating value for these companies. (See Appendix D: *Sample Valuation Forms*.)

## **SPECIAL ISSUES**

### **Contributions in Aid of Construction (CIAC)**

*Contributions in Aid of Construction (CIAC)* is property "possessed" by a utility which was donated or given to that (regulated) utility. Customers, usually developers, may contribute property to utilities in order to induce them to connect to or provide service to their projects. The cost incurred by the developers for CIAC property is most likely reflected in the sale price of the property charged by the developers. This property is capitalized in a utility's accounting records as *Contributions in Aid of Construction* in account 265 (Class A) or account 271 (Classes B, C, D) in the accounting system prescribed by the CPUC.

Tangible CIAC property that is owned, claimed, possessed, and/or controlled by a water company is assessable property. However, the value of CIAC is generally zero because a prospective purchaser would not pay for property on which he or she is unable to earn a return on or recover the investment.<sup>40</sup> If a typical buyer would pay for the CIAC property (i.e., CIAC is

<sup>38</sup> Regulated water companies are required to file an annual report with the CPUC no later than March 31 each year. These reports are public records and may be requested from the Audit and Compliance Unit of the CPUC's Water Division.

<sup>39</sup> For a listing of accounts mandated by the CPUC, see Appendix C.

<sup>40</sup> Property contributed to a regulated utility (i.e., CIAC) is usually not included in the CPUC's rate base for determining the rates a utility can charge its customers because regulators generally do not allow the utility to recover the cost (return of) or earn a profit (return on) on property for which the utility did not pay.

included in rate base, the property is purchased in order to convert it to a private or mutual company, or the property is not regulated), the value of such property could equal its cost, more than its cost, or less than its cost as is true with any other property. In addition, if a company is subject to or may be subject to Public Utilities Code section 2720 and/or the CPUC could be expected to add the value of CIAC to rate base, CIAC property should be valued at fair market value.<sup>41</sup>

In valuing CIAC property an appraiser or auditor-appraiser should consider all approaches to value, and whether or not the CIAC property adds value to the entire appraisal unit. However, since CIAC is related only to regulated utilities, HCLD and the income approach will tend to be the most valid indicators of value for the company as a whole. CIAC should not typically be added to the value indicators derived using these approaches. When HCLD is a valid indicator, CIAC generally has a zero value because the CPUC does not allow the company to earn a return on the property. Therefore, a prospective purchaser would not pay for such property.<sup>42</sup> When the income approach is utilized, the value, if any, of CIAC is included in the indicator derived. The income estimate utilized in the approach represents the income expected to be earned on the entire property including CIAC.

### **Advances for Construction**

*Advances for Construction (Advances)* represent money expended by a developer or customer in order to receive service.<sup>43</sup> For example, developers may give Advances to utilities in order for the utility to connect to or provide service to their projects. Advances are similar to CIAC in that the utility is prohibited from earning a return on Advanced property. The utility is allowed to recover revenue equal to depreciation of the property advanced but must refund the amount advanced to the developer or customer. CPUC rules provide that Advances shall be refunded by the utility, in cash, without interest for a period not to exceed 40 years after the date of contract. The rules further provide that the utility shall annually refund an amount equal to 2.5 percent of the Advances until the principal amounts of the contracts have been fully repaid. The unrefunded balance of Advances declines as a result of the cash refunds to the developer or customer resulting in a matching increase in rate base, offset by an increase in accumulated depreciation leaving rate base essentially unchanged.

When HCLD is a valid indicator, Advances, similar to CIAC, generally have a zero value for property tax assessment purposes because CPUC rules do not allow the utility to earn a "return on" the property advanced. Therefore, a prospective purchaser would not pay for Advanced property.

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<sup>41</sup> See Appendix D of CPUC Decision 99-10-064.

<sup>42</sup> If a potential purchaser would pay for CIAC, the assessable value of the property should be estimated accordingly.

<sup>43</sup> Account 241 (Class A) or account 252 (Classes B, C, D) in the Uniform System of Accounts. Any balances in this account not refunded in accordance with the utility's water main extension rules, are required to be transferred to account 265 (Class A) or account 271 (Classes B, C, D), *Contributions in Aid of Construction*.

A knowledgeable public utility investor's only expectation is to receive a "return of" the investment made on property acquired as a result of Advances, as CPUC rules prohibit the utility from earning a "return on" Advances.

### **Deferred Income Taxes**

Income tax accounting rules allow for certain deductions, most notably depreciation, to be taken for income tax purposes prior to when the deductions are allowed for financial accounting purposes. Deferred income taxes, also referred to as "deferred tax reserve" or "deferred federal income taxes" (DFIT), is the amount reserved or recorded on an assessee's financial accounting records for the liability created by the difference between accelerated tax depreciation for income tax purposes and straight-line depreciation for book purposes. A *Deferred Income Taxes* account records the amount of future income taxes due for financial accounting purposes because of differences between the deductions for income tax purposes and for financial accounting purposes.

In order for a regulated utility to use accelerated depreciation for regulated utility assets acquired after 1981, the Internal Revenue Code requires that, in the calculation of revenue, the CPUC must utilize the accounting (or normalized) income tax expense as opposed to actual taxes paid. For assets acquired since 1981, the CPUC allows the use of normalized taxes in calculating the revenue required to provide the utility its allowed rate of return. This means that in the early years of an investment, the rates will yield more revenue to the company to pay taxes than the actual tax expense. In later years, the actual tax expense will exceed the amounts provided for in the rates. The CPUC also effectively passes the benefit of the deferral of income taxes through to the rate payers by requiring that the deferred income tax liability be deducted from the HCLD in the calculation of the rate base.

Regulatory agencies generally will not approve the sale of a utility property if the sale is disadvantageous to the ratepayers. If the CPUC presently requires the deduction of deferred taxes from the rate base for a particular property, prospective purchasers of that property, are likely to assume that the same treatment will be required after the purchase. Therefore, the HCLD indicator for the properties should be adjusted to reflect the earnings limitation imposed by the rate making treatment of the deferred income taxes.

The amount of the adjustment should reflect the time value of money. The proper adjustment to the HCLD indicator is to deduct 100% of the deferred income taxes balance to reflect both the utility's inability to earn a return on the amounts represented by the deferred income taxes and the regulatory requirement of the use of accounting (or normalized) expense in the calculation of revenue.

## MUTUAL WATER COMPANIES

### DESCRIPTION

A mutual water company is a private (usually non-profit) association created for the purpose of providing water primarily to its stockholders or members. Companies organized for mutual purposes are generally not subject to regulation by the CPUC unless the company delivers water for profit to persons other than stockholders and members.<sup>44</sup> Section 2705 of the Public Utilities Code allows a mutual water company to make other deliveries of water, as identified in the code section, at cost, without becoming subject to CPUC oversight.<sup>45</sup> A mutual water company, however, may transfer water for profit to persons other than stockholders and members without becoming subject to regulation by the CPUC.<sup>46</sup>

When incorporated, a mutual association can enter into contracts, incur obligations, own property, and issue stock. If not incorporated, it can do these things in the names of all of its members. A certificate of stock issued by a mutual water company represents ownership of a portion of the assets of the mutual water company. The right to receive water for use on certain lands by virtue of ownership of shares of stock in a mutual company is a right in real property, but the shares are (intangible) personalty that may be conveyed separate and apart from the land. Shares do not automatically pass with a conveyance of the land unless they are appurtenant.

### APPROACHES TO VALUE

The assessable value of property owned by a mutual water company is typically minimal or zero because the value of the property is included in the value of the land which it serves. (See the following section regarding the avoidance of double assessment.) If the property of a company is subject to separate assessment, all approaches to value should be considered when appraising the property of a mutual water company. Generally, the reproduction or replacement cost approach is preferred (over HCLD) because the companies are typically subject to little or no regulation. The income approach (and stock and debt approach) may provide limited information when the business is operated as a non-profit entity, and the comparative sales approach cannot generally be applied due to lack of comparable data.

Appraisers and auditor-appraisers should keep in mind that the value of the owner's equity interests in a mutual water company association may not be equivalent to the fee value of the association's property. This may occur if the association has borrowed money to acquire the property. The value of the owner's equity may have been reduced from the fee value of the property by the amount of the loans. Therefore, the sales price of the served land only includes

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<sup>44</sup> Public Utilities Code section 2705. If a mutual water company delivers water for profit to persons other than stockholders and members, the company becomes a public utility subject to the jurisdiction, control, or regulation of the CPUC.

<sup>45</sup> See Public Utilities Code section 2705 for more information.

<sup>46</sup> A water transfer is distinguishable from a water delivery. Public Utilities Code section 2705(c) provides that transfers and exchanges of water or water rights by a mutual water company with another entity, pursuant to state or federal law, are not subject to oversight by the CPUC. See Chapter 1 of the Water Rights section of this Handbook for a discussion on the topic of water transfers.

this reduced value of the equity interest in the mutual water company's tangible property and not the fee value. The assessor must develop assessment techniques for mutual water company property that eliminates the likelihood of escape assessments caused by borrowed funds which reduce the value of the equity in the company, as well as escape assessments due to other causes (such as the value of property with situs in other counties).

An appraiser or auditor-appraiser should review a mutual company's annual property statement and gather as much information as possible to determine the most appropriate method(s) of valuation. Articles of incorporation contain much of the information that must be considered. Articles of incorporation include, for example (1) how the stock is held, (2) whether the mutual company is for profit or non-profit, (3) the area served by the company, (4) land and improvements owned by the company, and (5) a description of water sources, wells, and water rights.

In addition, an appraiser or auditor-appraiser should obtain the following information regarding a mutual water company in order to value the associated property appropriately:

- Articles of incorporation or articles of association, and any amendments
- Bylaws and any amendments
- Lists of land, improvements, and water distribution systems owned by the mutual water company, showing location and identity of each item
- Proof of ownership in the company's name of the land and improvements
- Listing of all assessor's parcels served by the company

## **SPECIAL ISSUES**

### **Avoidance of Double Assessment**

In most cases, mutual water company shares are appurtenant to the land.

...A thing is "appurtenant" to something else when it stands in relation of an incident to a principal and is necessarily connected with the use and enjoyment of the latter. A thing is deemed to be incidental or appurtenant to land when it is by right used with the land for its benefit, as in the case of a way, or water-course, or of a passage of light, air, or heat from or across the land of another ....<sup>47</sup>

In such cases, the value of the water company is typically reflected in the value of the land that it serves and to which the shares attach. This is based on the premise that purchasers take into account the value of the share in the mutual water company when buying property, and pay more for land than they would pay if the water was not available. As a result, in these situations, appraisers and auditor-appraisers must recognize that the value of the mutual water company is included in the value of the land that it serves and/or to which the shares attach (e.g., by fee interest or practice of the shareholders). If this fact is not recognized, and the water system is

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<sup>47</sup> *Black's Law Dictionary*, 6<sup>th</sup> Edition, s.v. "appurtenant."



appraised separately while appraising the land at the value indicated by sales, a duplicate assessment may result.

Even in situations in which shares of a mutual water company are not appurtenant to the land, the value of mutual water company assets may have been assessed with the land. In order to avoid duplicate assessments when mutual water company assets are assessed with the land, minimum values should be assigned to the mutual lands, improvements, and delivery system. Examples of when a mutual water company's land, improvements, and delivery systems may be separately assessed from the service parcels include (1) when stock in the mutual company is not appurtenant to land, and the value of mutual water company assets are not included in land valuations, and (2) when the company's water system (land and improvements) is not in the company's name. The appraiser or auditor-appraiser should consider whether a separate assessment is appropriate under these circumstances. If the value of the mutual water company assets is assessed with the land, then a separate assessment of the mutual water company assets may cause a duplicate assessment.

Sometimes a mixed situation may exist. For example, part of the value of the mutual water company may reside in land to which shares are attached, and part of the value may exist as an independent entity. In addition, a company may have retained some shares and the right to water that they represent instead of distributing all of the shares to the mutual service area. Over the course of time, the company may serve customers outside of the mutual service area. These customers will not acquire shares, but will pay the company the going rate for water. The appraiser or auditor-appraiser should analyze the income received by a mutual water company from non-mutual operations. The net income from such operations should be capitalized into a value that is attributed to the company itself, above and beyond the value of the land which it serves.

### **Treatment of Income Taxes**

When applying the income approach and deriving a capitalization rate, an appraiser or auditor-appraiser may need to estimate an income tax component and/or must determine whether the company is subject to federal corporate and state franchise tax. Some mutual water companies are exempt from federal corporate income taxes and state franchise taxes pursuant to section 501(c)(12) of the Internal Revenue Code.<sup>48</sup> Other mutual companies operate as proprietorships or partnerships; although the owners or partners are liable for the income received from these entities, the company itself is not liable for either federal corporate income tax or state franchise tax. As a result, the capitalization rate does not require a component for these taxes when the income approach is applied.

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<sup>48</sup> If 85 percent or more of the income of a mutual company consists of amounts collected from members, the company is exempt from federal corporate income and state franchise taxes pursuant to this section. Refer to IRS Publication 557, *Tax-Exempt Status of Your Organization*.

## GOVERNMENT-OWNED WATER COMPANY

### ASSESSMENT TO GOVERNMENT ENTITY

Government-owned water systems and properties may be held by agencies of the federal, state, county, or local (cities, school, fire, water, irrigation, or sanitary districts) governments. These water systems are not subject to regulation by the CPUC.

In many cases, property owned and/or held by governmental agencies is immune or exempt from property taxation because:

- The federal government is immune from taxation pursuant to the United States Constitution. It is a "governing constitutional principle that the properties, functions, and instrumentalities of the federal government are immune from taxation by state and local governments."<sup>49</sup>
- The California Constitution, article XIII, sections 3 and 5 expressly exempt from taxation all property owned by the state or local governments, except as provided in section 11(a) of the California Constitution, article XIII (which applies only to land and improvements outside the boundaries of the government).

As noted earlier, real property publicly-owned (government-owned) water systems and other real properties located outside the boundaries of the government entity are taxable if the real property was taxable when acquired pursuant to section 11, article XIII of the State Constitution. Land owned by government entities should be assessed at the lowest of (1) restricted value (article XIII, section 11), (2) factored base year value (article XIII A), or (3) market value. Improvements are taxable if the improvements were taxable when acquired or replace improvements that were taxable when acquired. Improvements should be assessed at the lower of factored base year value or market value. Improvements built after March 1, 1954, that replace taxable improvements, are assessed at the lowest of (1) current market value, (2) factored base year value, or (3) the highest value ever used for taxation of the improvements that have been replaced. See Chapter 3, page 46 for more information regarding the valuation of taxable government-owned properties.

### POSSESSORY INTEREST

Property owned by federal, state, county, or local governments is not taxable to that entity unless subject to taxation pursuant to section 11, article XIII of the California Constitution as discussed earlier. If a non-governmental taxpayer has been granted possession, in whole or in part, of property owned by a governmental entity, the taxpayer may have a taxable *possessory interest*.<sup>50</sup>

A possessory interest is an interest in publicly-owned real property that exists as a result of the possession of, or the right to possess or occupy, land and/or improvements unaccompanied by ownership of a fee simple or life estate in the property. A water system has a possessory interest

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<sup>49</sup> *TRW Space & Defense Sector v. County of Los Angeles* (1996) 50 Cal.App.4th 1703, 1710.

<sup>50</sup> Section 107.

whenever the utility or assessee has the exclusive right to possess publicly-owned property. The utility benefits from the possession of a possessory interest and is taxed on the value of the interest.<sup>51</sup> To identify taxable possessory interests, the assessor should request each agency to annually report any private occupation of this government-owned property.

A taxable possessory interest can be valued using any of three primary appraisal approaches: cost, income, or comparative sales. For mass appraisal purposes, the most common approach used is the income approach because data regarding economic or market rents and franchise fee payments are readily available. A brief discussion regarding the valuation of possessory interests is included in Chapter 3.

## **OTHER WATER SOURCE PROPERTIES**

### **DESCRIPTION**

Other water source properties that may be taxable include private water systems offering no service to the public (i.e., the system only serves the owner), and various other water-related properties which may be located in or associated with entities such as manufactured home parks, campgrounds, lodges, and country clubs. The owner(s) of such a system or property may sell or deliver water periodically to outside users, but not on an on-going basis (i.e., sell surplus water for the irrigation of adjoining land, in an emergency, to accommodate a neighbor). These types of water systems are not subject to regulation by the CPUC because they are not in the business of selling water for profit.<sup>52</sup>

These types of properties can be discovered from the listings of inspected water sources available from a county's Division of Environmental Health and from the State Drinking Water Program (a unit of the State Department of Health Services).<sup>53</sup> A county's Division of Environmental Health, for example, can provide a listing of tested water systems. The information contained on this list can be used to check applicable appraisal records to determine if all properties listed (e.g., wells, pumps, pressure systems, etc.) are being assessed.

Sometimes an assessor will encounter a private water company in the business of selling water for profit (privately-owned public utility), technically subject to regulation by the CPUC, but not so regulated. Typically, the reason that the water rates are not regulated for these companies is that they have escaped the notice of the CPUC. With no enforcement arm to search county records, the CPUC must mainly depend on dissatisfied ratepayers complaining to the CPUC of poor service or high rates. These unregulated water companies should be assessed and value should be estimated in the same manner as other commercial properties and unregulated water source properties until the CPUC imposes regulations.

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<sup>51</sup> Sections 107, 107.1; Rules 20-26.

<sup>52</sup> Public Utilities Code section 2704.

<sup>53</sup> See Chapter 1.

## APPROACHES TO VALUE

When making an appraisal of "other water source properties," as defined above (i.e., an unregulated private water system), appraisers and auditor-appraisers should consider all five approaches to value when sufficient data are available. However, for private non-profit water systems, HCLD and the income approach are not likely to be relevant because the property is not regulated or operated for the income it produces. The income approach may be appropriate for valuing a privately-owned public utility (selling for profit) that is subject to CPUC regulation, but whose existence is not known to the CPUC. Each approach should be utilized as generally applied to other industrial type properties and similar business property as discussed in AH 501, *Basic Appraisal*; AH 502, *Advanced Appraisal*; and AH 504, *Assessment of Personal Property and Fixtures*.

Generally the replacement cost method is most applicable to these types of property since historical cost, income, and comparable sales data are often limited or unavailable. Without such data, it becomes necessary to use the replacement cost approach by estimating the cost of replacing an existing property with a property of equivalent utility<sup>54</sup> as of a particular date (the lien date). The estimate is then adjusted by the estimated depreciation to arrive at an estimate of market value.

Many of these properties may be reported with or reported on property statements with other business property or included with a sale of unrelated real property, such as a farm. Thus, the assessment of such properties will often be included in the total property value of the property on which it is situated. An assessor should therefore set up procedures to avoid duplicate assessments resulting from information gathered from various sources.

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<sup>54</sup> "...substitute property capable of yielding the same services and amenities, with appropriate additions..."; Rule 6(d).

## CHAPTER 3: VALUATION

In general, locally assessed real property (including fixtures) owned by a water company or other entity is subject to the provisions of article XIII A of the California Constitution. A base year value for the property is established and the property is assessed yearly at the lesser of its factored base year value or its full cash value on each lien date as defined in section 110.<sup>55</sup> In accordance with section 110.1, a property's base year value is its fair market value as of either the 1975 lien date or the date the property was newly constructed or underwent a change in ownership after the 1975 lien date. The base year value is adjusted for the effects of inflation up to a maximum of two percent per year.<sup>56</sup>

Personal property owned or used by a water company or other entity is not governed by the base year value limitations of article XIII A (Proposition 13). This property is assessable at current market value, or full cash value, as of the lien date each year. The property must be taxed annually in proportion to its value as defined in section 110(a):

...the amount of cash or its equivalent that property would bring if exposed for sale in the open market under conditions in which neither buyer nor seller could take advantage of the exigencies of the other and both the buyer and the seller have knowledge of all of the uses and purposes to which the property is adapted and for which it is capable of being used, and of the enforceable restrictions upon those uses and purposes.

For both real and personal property, base year value and/or current market value (full cash value) are generally estimated using one or more of the generally accepted and authorized approaches to value discussed in Rule 3, *Value Approaches*.

Rule 3 discusses five approaches to value. Although each value approach should be considered when valuing any water system (and related properties), the use of all five may not always be appropriate. Property type, regulations imposed upon the property (and/or upon the company), the market, and the availability of data will normally indicate which approach, or combination of approaches, is most applicable. This is supported by Rule 3, which states, in part:

In estimating value as defined in section 2, the assessor shall consider one or more of the following [approaches to value], *as may be appropriate for the property being appraised...* (Italics added.)

This chapter discusses the value approaches used to estimate base year values and annual market values on the lien date, as applied to water companies and systems. Reference is made to related sections of the Assessors' Handbook as necessary; some information presented in those sections is repeated as necessary for ease of reference and use. It is important to again note that certain approaches to value are more significant to certain types of properties (i.e., HCLD as related to

<sup>55</sup> Section 51.

<sup>56</sup> The Board annually publishes the inflation factor. It is based on the California Consumer Price Index.

rate base regulated public utility water companies). Refer to Chapter 2 for general information regarding each specific type of water system and the most applicable approach(es) to value as related to each.

## **APPROACHES TO VALUE**

### **COMPARATIVE SALES APPROACH**

The comparative sales approach may be defined as any approach that uses direct evidence of the market's opinion of value of a property. When comparable sales data are available, the comparative sales approach may be preferable to other value approaches for all types of property. The comparative sales approach is based upon the principle of substitution; that is, the fair market value of an item is closely and directly related to sale prices (under the conditions of fair market value) of comparable properties. Ideally, value is estimated not only upon an opinion of value (such as list price) but measured by actual purchases of comparable properties. Sale prices of comparable properties provide an indication of what the market is willing to pay for that type of property at that time.

However, the comparative sales approach is limited in its application to water systems and related properties, whether regulated or unregulated, due to the lack of comparable sales data. Often, even when sales data are available, the comparative sales approach is of little use because there are problems with comparability.<sup>57</sup> Therefore, when sales data and the comparative sales approach are considered, the sales should be analyzed as are sales of other types of properties. Such sales must meet the conditions of a fair market value transaction. Fair market value is defined in Rule 2(a) as:

[T]he price at which a property, if exposed for sale in the open market with a reasonable time for the seller to find a purchaser, would transfer for cash or its equivalent under prevailing market conditions between parties who have knowledge of the uses to which the property may be put, both seeking to maximize their gains and neither being in a position to take advantage of the exigencies of the other.

This is, essentially, the "open-market, arm's length" concept with which most appraisers and auditor-appraisers are familiar. If a sale does not meet the conditions of a market value transaction, it should not be used as a comparable sale in the comparative sales approach.<sup>58</sup>

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<sup>57</sup> However, reliable sales data may provide information on capitalization rates and other factors that are relevant to the water company market.

<sup>58</sup> See also AH 501, *Basic Appraisal*, and AH 502, *Advanced Appraisal*.

## STOCK AND DEBT APPROACH

The stock and debt approach is a variation of the comparative sales approach. This approach relies on values of an organization's liabilities and net worth (i.e., the values of its debt and equity interests) as established in the capital markets. This approach values all of the assets of a corporation, taxable and nontaxable. Using the fundamental accounting equation, the sum of the current market value of the company's stock (equity) is added to the current market value of its liabilities (debt) to equal the total value of all corporate assets as valued in the capital market. Appraisers and auditor-appraisers must make adjustments for the value of any nontaxable assets. These adjustments should be based on the value the market places on those assets.

The stock and debt approach is included in Rule 3 as an acceptable approach to value; however, the approach has several limitations:

- It cannot be applied to companies that have little or no public trading of their securities.
- The adjustments for nontaxable assets (i.e., property outside of the assessor's jurisdiction, inventory, licensed vehicles, etc.) may be difficult to make.
- Typical stock prices do not effectively measure the advantages of ownership and control that are inseparable in non-corporate or closely-held corporate property. The purchaser of stock acquires ownership rights in a corporation, but this is ownership without control. In order to purchase enough stock to gain control of the corporation, the price is typically above the stock's market price.
- Stock and debt securities are generally highly liquid in contrast to the physical assets against which they represent claims. The aggregate value of the stock and debt securities may include a liquidity premium above the value of the physical assets.

The stock and debt approach is a valid approach but because of the above-mentioned limitations, this approach may not be applicable in the valuation of most water companies.

## COST APPROACH (REPRODUCTION AND REPLACEMENT)

Rule 6 authorizes an assessor to use a cost approach that is based on either *reproduction cost* or *replacement cost*. Reproduction cost, strictly construed, is an estimate of the cost of replacing the subject property with an exact replica using costs as of the valuation date. Since reproduction cost is relevant to market value only if the property would actually be replaced by an identical property, this concept of cost is not often particularly useful to an appraiser or auditor-appraiser. Replacement cost, in comparison, is the estimated cost of a property that is equivalent to the subject in terms of utility. It is this concept of cost that is validated by the principle of substitution since a rational person will pay no more for a property than the cost of acquiring a satisfactory—but not usually identical—substitute property.

Replacement cost, as opposed to reproduction cost, will most often be used in the appraisal of a water company or water system.<sup>59</sup> When employing this approach to determine the value of improved properties, the known value of the land or site is added to the current cost of replacing the improvements, less an allowance for any depreciation incurred by the improvements.

Where applied to personal property, the cost approach to value estimates the value of an asset or a group of assets utilizing the original or historical cost<sup>60</sup> of the asset (or group of assets), with adjustments to account for changes in value since purchase and/or installation. In general, the cost approach uses the historical or original cost information to estimate a replacement or reproduction cost new; then, the replacement or reproduction cost new is adjusted to reflect depreciation to arrive at an assessable value.<sup>61</sup> It is the method of valuation used most frequently to value personal property and applies to unregulated water systems for assessment purposes because it lends itself to mass appraisal<sup>62</sup> and is easily employed based on information provided on yearly property statements. This approach may also apply to regulated water systems (see the discussion of Public Utilities Code section 2720 on page 12). AH 582, *The Explanation of the Derivation of Equipment Percent Good Factors*, and the yearly update of AH 581, *Equipment Index and Percent Good Factors*, discuss this procedure in detail and provide index factors and percent good tables for use in valuing equipment.

In the context of a water system property, the steps employed in the cost approach can be summarized as follows:

1. Estimate the value of the land, or site, as if vacant and available for development to its highest and best use as of the valuation date.
2. Estimate the total cost new of the improvements and personal property (full economic cost of depreciable property) as of the valuation date.
3. Estimate the total amount of depreciation incurred by the improvements and personal property.

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<sup>59</sup> However, reproduction cost may be utilized when information is available. With the enactment of Public Utilities Code section 2720 as discussed in Chapter 2, for example, reproduction cost data may be available regarding recently sold regulated water systems. The CPUC may be able to supply information regarding (1) a current sale; (2) reproduction cost and/or replacement cost new at the time of acquisition; (3) rate making in general; or (4) rate making for a particular company. A review of the information available from the CPUC may be helpful to determine the applicability of a value approach or the validity of a value estimate for assessment purposes.

<sup>60</sup> Rule 6 uses the terms *historical cost* and *original cost* synonymously, the cost of the property when new. The term *acquisition cost* is, in the Rule, used as the cost to the current owner. For purposes of this manual, the terms are used as defined in Rule 6.

<sup>61</sup> Alternatively, one factor may be developed and used to estimate value using one mathematical operation (*original/historical cost x value factor = value estimate* as opposed to *original/historical cost x index factor x percent good factor = value estimate*).

<sup>62</sup> *Mass appraisal* is "the process of valuing a universe of properties as of a given date utilizing standard methodology, employing common data, and allowing for statistical testing" according to the Appraisal Institute, *The Dictionary of Real Estate Appraisal*, Third Edition, p. 224.



4. Subtract the total estimated depreciation from cost new to arrive at the depreciated cost of the improvements and personal property.
5. Add the land, or site, value to the depreciated cost of the improvements and personal property to arrive at a value indicator for the total property.

These steps, and the reproduction or replacement cost approach in general, are discussed thoroughly in various sections of the Assessors' Handbook (i.e., AH 501, AH 502, and AH 504). The following is a brief overview of the subject with reference to other applicable sections of the handbook as necessary for reference purposes.

### **Valuation of Land**

Both the California Constitution, article XIII, section 13, and Revenue and Taxation Code, section 607, require an allocation of value between land and improvements, even though a property is appraised as a single integral unit. For assessment purposes, land is generally valued under a highest and best use analysis. Even when a subject property is improved, the site is valued as though vacant and available for development to its highest and best use.<sup>63</sup>

The comparative sales approach is the most reliable method of valuing land. However, when a sufficient number of comparable sales are not available, five other valuation procedures may be used: (1) allocation, (2) extraction, (3) land residual, (4) ground rent capitalization, and (5) subdivision development analysis. Land valuation techniques are outlined in AH 501, Chapter 5, *Measurement of Value*, and AH 502, Chapter 2, *Advanced Issues in the Cost Approach*.

### **Full Economic Cost of Depreciable Property**

Cost, for appraisal purposes, may be thought of as *full economic costs*.<sup>64</sup> Full economic costs include all market costs (direct and indirect) necessary to purchase or construct property and make it ready for its intended use, and consist of all expenditures necessary to place the completed property in the hands of the buyer or ultimate consumer. Subdivision (d) of Rule 6 provides that this measure of a property's value may be estimated by applying current prices to the labor and material components of a substitute property capable of yielding the same services and amenities. To this estimate would be added amounts, as appropriate, for entrepreneurial services, interest on borrowed or owner-supplied funds, and other costs typically incurred in bringing the substitute property to a finished state as discussed under Rule 6(b)(2) and Rule 10.

Board-approved cost guides may be used for determining current costs of commercial and industrial properties.<sup>65</sup> Adjustments may be necessary, however, in order to achieve a fair

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<sup>63</sup> The highest and best use concept is discussed in detail in AH 501, *Basic Appraisal*, and AH 502, *Advanced Appraisal*.

<sup>64</sup> AH 501, page 74, and AH 504, Chapter 4.

<sup>65</sup> For example see AH 531, *Residential Building Costs*; AH 534, *Rural Building Costs*; AH 581, *Equipment Index and Percent Good Factors*; and Letter To Assessors (LTA) 97/71, *Commercial and Industrial Value Guides*.

market value assessment. Variances from the values indicated by the cost guides should be based on reliable evidence of current replacement costs.

## Depreciation

The most difficult aspect of the (reproduction or replacement) cost approach is estimating *depreciation*. In general, depreciation using this approach may be thought of as the difference between estimated reproduction or replacement cost new as of a given date and market value as of the same date. Depreciation estimates actual loss in value incurred by the property in the marketplace. Appraisers and auditor-appraisers do not use the accountant's depreciation estimate when using the reproduction/replacement cost approach to value, since this estimate is not market derived. Market value is unlikely to equal the book value indicated by accounting records.

Appraisers and auditor-appraisers analyze three generally recognized types, or causes, of depreciation: physical deterioration; functional obsolescence; and external, or economic, obsolescence. There are several methods of estimating depreciation when utilizing the cost approach (i.e., the percent good, age-life, market extraction, and observed condition methods).<sup>66</sup> Property types and information available will assist appraisers and auditor-appraisers in determining the method to be applied.

## Limitations of Replacement Cost Approach

The (reproduction and/or replacement) cost approach is generally applicable to all types of water system properties, except regulated utilities whose income and thus market value are limited by CPUC requirements. Use of the approach is preferred if: (1) no reliable sales data are available, (2) no reliable income data are available for the property being valued, and (3) the income of the property being valued is not so regulated as to make current replacement costs irrelevant to value. The cost approach may also be preferred, for regulated systems, when the regulating agency considers or would consider fair market value of the property for rate making purposes (i.e., Public Utilities Code section 2720 as discussed in Chapter 2).

The cost approach is limited, however, by the accuracy of the information used. The more current the costs and the newer the property, the more reliable and valid the cost approach to value will be. If the cost and depreciation estimates are skewed or otherwise unrepresentative of the property, the resulting value will not be an appropriate representation of the property's market value. The fluctuating purchasing power of money, together with changes in the efficiency of labor and changes in the techniques of production, and other economic factors cause costs and depreciation to vary over time. It is therefore essential to specify that costs are as of a certain date (i.e., the appraisal date) in order for the principle of substitution to be meaningful.

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<sup>66</sup> For information regarding types of depreciation and the methods utilized to estimate depreciation, refer to AH 501, AH 502, and AH 504 as appropriate.

## **HISTORICAL COST APPROACH (HCLD)**

The historical cost less depreciation (HCLD) approach is a generally accepted method for valuing property interests of rate base regulated utilities, whether centrally or locally assessed, that utilizes accounting information (cost and depreciation) as prescribed by the agency regulating that property to compute a value indicator. When regulation effectively limits income of a company to a rate base, HCLD tends to approximate market value because it closely approximates the rate base on which the regulating agency (i.e., the CPUC as related to a water company) allows a company to earn a return, thus approximating the price a prospective buyer would be willing to pay for the property subject to similar restriction (i.e., market value).

The assessor must consider the HCLD approach as an indicator of value for water companies and other properties pursuant to Rule 3(d) if:

... the income from the property is regulated by law and the regulatory agency uses historical cost or historical cost less depreciation as a rate base ...

Under Rule 3(d), the assessing agency shall consider as relevant to value the amount actually invested in the property or the amount invested less depreciation in such cases.

Following is a discussion of the HCLD approach to value as applied to rate base regulated water companies. Due to the fact that assessors tend to appraise rate regulated properties infrequently, and therefore seldom utilize HCLD, the computation of a HCLD value indicator is discussed in a step-by-step format with examples for illustration. Special issues pertinent to the valuation of rate base regulated utilities under the HCLD approach, as discussed on pages 31-34 (Contributions in Aid of Construction, Advances for Construction, deferred income taxes, and excess and/or future use property), should be reviewed in conjunction with this discussion and considered whenever the approach is applied.

### **Computation of HCLD Indicator**

#### **Taxable Historical Cost**

To derive an HCLD value indicator, an appraiser or auditor-appraiser must first estimate a company's taxable historical cost. In general,

$$\begin{array}{r} \text{Historical Cost of All Property} \\ - \text{Historical Cost of Nontaxable Items} \\ \hline \text{Taxable Historical Cost} \end{array}$$

For non-rate base regulated properties, historical cost is the acquisition cost of property when first acquired or constructed and includes all costs necessary to place the property into productive and beneficial use (i.e., direct costs and indirect costs). This is often referred to as *full economic cost*. This is generally true of the historical cost of rate base regulated properties as well.

In arriving at the historical cost of property to be assessed by the HCLD indicator (i.e., for rate base regulated properties), appraisers and auditor-appraisers begin with historical cost for accounting purposes and make appropriate adjustments (if any) to include "costs necessary to place the property into productive and beneficial use" by a "typical owner." Adjustments may also be required to remove (1) property specifically exempt by provisions of the Revenue and Taxation Code (i.e., licensed vehicles, business inventory, etc.), (2) property items (e.g., Contributions in Aid of Construction and Advances) that would have no value to a prospective purchaser of the utility, and (3) property assessed elsewhere or property having a taxable situs outside of the county/state and therefore not assessable by a particular assessor.

Following is an example of this computation:

<b>EXAMPLE 3.1 COMPUTATION OF HISTORICAL COST</b>		
<b>Historical Cost (all property)</b>		<b>\$ 20,000,000</b>
Exempt Items (historical cost):		
Licensed Vehicles	\$ 800,000	
Computer Application Software	400,000	
Business Inventory	550,000	
Intangible Assets	300,000	
Out of State & Out of County Property (historical cost)	<u>450,000</u>	
<b>Historical Cost of "Nontaxable" Items</b>	<u>\$ 2,500,000</u>	( 2,500,000)
Contributions in Aid of Construction (CIAC) <sup>67</sup>		( 300,000)
Advances		<u>( 65,000)</u>
<b>Taxable Historical Cost of Assessable Property</b>		<b><u>\$ 17,135,000</u></b>

### Depreciation

Taxable historical cost is reduced by the regulatory accounting *depreciation* of the taxable property pursuant to Rule 3(d). This results in an assessable HCLD value indicator.

Generally for appraisal purposes depreciation is defined as the loss in value due to any cause, including internal and external factors.<sup>68</sup> Using the HCLD approach, however, depreciation is the amortized portion of the investment in the total property. In other words, it is *book depreciation* as defined by the regulatory agency.

<sup>67</sup> See CIAC discussion on page 32.

<sup>68</sup> AH 501, Chapter 6, *Approaches to Value*, and AH 504, Chapter 4, *Valuation of Personal Property*.

For rate base regulated utilities, there may be several sets of accounting records that record depreciation. The book depreciation or depreciation reserve subtracted from historical cost for rate base regulated utilities using HCLD is based on the depreciation rates and methods (normally straight-line) established by the appropriate rate or tariff-setting regulatory agency.<sup>69</sup> It is labeled "Depreciation and Amortization Reserves" in the annual report to the CPUC and is subtracted from the total investment in computing a rate base. The depreciation reserve for nontaxable items is removed from the total depreciation reserve when computing an assessable HCLD value indicator.<sup>70</sup> Following is an example of this calculation:

<b>EXAMPLE 3.2</b>	
<b>COMPUTATION OF DEPRECIATION</b>	
Book Depreciation (all property)	\$ 8,250,000
Less: Depreciation for Nontaxable Property	(500,000)
Depreciation for Out of County/State Property	<u>(250,000)</u>
<b>Depreciation for Assessable Property</b>	<b><u>\$ 7,500,000</u></b>

Additional adjustments may be necessary for appraisal depreciation in the form of obsolescence that may be present in property. Such deductions from HCLD may be proper when the utility's economic income has been impaired and the rate or tariff-setting regulators have recognized such impairment. (See Example 3.3 for a summary of the HCLD computation.)

### Special Considerations

Finally, the value of other assessments such as possessory interests<sup>71</sup> and noncapitalized leased properties are added to arrive at a final value indicator. Adjustments may also be necessary for differences between the HCLD indicator and the CPUC rate base.

Several differences between HCLD and the rate base that should be considered include: Contributions in Aid of Construction (CIAC), Advances for Construction (Advances), deferred taxes, supplies, and construction-in-progress (CIP). These items are *not* generally included in the rate base, but should be included in the final value indicator when they are considered assessable properties pursuant to the Revenue and Taxation Code. Items exempt from property tax, on the other hand, such as working cash, licensed motor vehicles, property located in federal enclaves, and inventory should not be included in HCLD. These items, if capitalized, are included in the rate base established by the CPUC and should be recognized and excluded by appraisers and auditor-appraisers. Adjustments should be made for such items as appropriate.

<sup>69</sup> Rule 3(d).

<sup>70</sup> Western States Association of Tax Administrators, *Appraisal Handbook*, Section II - Cost Approach.

<sup>71</sup> Possessory interests are separately assessed at the local level. Therefore, a value for possessory interests is not included in the examples in this handbook section.

### **Contributions in Aid of Construction**

*Contributions in Aid of Construction (CIAC)* represents property which was donated or given to a utility. Customers, usually developers, contribute property to utilities in order to induce them to connect to or provide service to their projects. In the CPUC-prescribed accounting system for water utilities, the *Contributions in Aid of Construction* account is balance sheet account 265 for Class A Water Utilities and account 271 for Classes B, C, and D Water Utilities. CIAC is depreciated over a period equal to the estimated service life of the property, but is not included in the utility's rate base established by the CPUC.

The cost incurred by the developers of CIAC property is most likely reflected in the sales price of the property charged by the developers. Property contributed to a regulated utility is not included in the rate base in determining the rates the utility can charge its customers, because regulators do not allow the utility to recover the cost (return of) or earn a profit (return on) on property for which the utility did not pay. Assuming, however, that the tangible CIAC property (otherwise subject to property tax) is owned, claimed, possessed, and/or controlled by the water company, such property is assessable to the water company.

Although technically assessable, the value of CIAC is generally zero when HCLD is a valid indicator of value for the entire appraisal unit (i.e., the utility company's property as a whole). A prospective purchaser would not pay for property on which he or she is unable to earn a return on or recovery of the investment<sup>72</sup> (unless the property is purchased in order to convert it to a private or mutual company, or CIAC property is included in the rate base). However, in cases where Public Utilities Code section 2720 is applicable and the CPUC could be expected to add value for CIAC to rate base, the value of CIAC for assessment purposes may be the fair market value of the property.<sup>73</sup> In valuing CIAC property, appraisers and auditor-appraisers should consider all approaches to value and whether or not the property adds value to the appraisal unit as a whole.<sup>74</sup>

### **Advances for Construction**

*Advances for Construction (Advances)* represent money expended by a developer or customer in order to receive service.<sup>75</sup> For example, developers may give Advances to utilities in order for the utility to connect to or provide service to their projects. Advances are similar to CIAC in that the utility is prohibited from earning a return on Advanced property. The utility is allowed to recover revenue equal to depreciation of the property advanced but must refund the amount advanced to the developer or customer. CPUC rules provide that Advances shall be refunded by the utility, in cash, without interest for a period not to exceed 40 years after the date of the

<sup>72</sup> The CPUC prevents the company from earning net revenue on the CIAC as noted above.

<sup>73</sup> See Appendix D of CPUC Decision 99-10-064.

<sup>74</sup> Example 3.1 illustrates the exclusion of CIAC and Advanced property in determining the historical cost of assessable property. Although technically assessable property, CIAC and Advances generally add no additional value to the unit and are therefore excluded in the first step of the valuation process.

<sup>75</sup> Account 241 (Class A) or account 252 (Classes B, C, D) in the Uniform System of Accounts. Any balances in this account not refunded in accordance with the utility's water main extension rules, are required to be transferred to account 265 (Class A) or account 271 (Classes B, C, D), *Contributions in Aid of Construction*.

contract. The rules further provide that the utility shall annually refund an amount equal to 2.5 percent of the Advances until the principal amounts of the contracts have been repaid.

As an example, a building developer may pay a water company for the installation of water lines to the builder's subdivision. The unrefunded balance of Advances declines as a result of the cash refunds to the developer or customer resulting in a matching increase in rate base, offset by an increase in accumulated depreciation leaving rate base essentially unchanged.

When HCLD is a valid indicator, Advances, similar to CIAC, generally have a zero value for property tax assessment purposes because CPUC rules do not allow the utility to earn a "return on" the property advanced. Therefore, a prospective purchaser would not pay for Advanced property.

A knowledgeable public utility investor's only expectation is to receive a "return of" the investment made on property acquired as a result of Advances, as CPUC rules prohibit the utility from earning a "return on" Advances.

### **Deferred Income Taxes**

Income tax accounting rules allow for certain deductions, most notably depreciation, to be taken for income tax purposes prior to when the deductions are allowed for financial accounting purposes. Deferred income taxes, also referred to as "deferred tax reserve" or "deferred federal income taxes" (DFIT), is the amount reserved or recorded on an assessee's financial accounting records for the liability created by the difference between accelerated tax depreciation for income tax purposes and straight-line depreciation for book purposes. A *Deferred Income Taxes* account records the amount of future income taxes due for financial accounting purposes because of differences between the deductions for income tax purposes and for financial accounting purposes.

In order for a regulated utility to use accelerated depreciation for regulated utility assets acquired after 1981, the Internal Revenue Code requires that, in the calculation of revenue, the CPUC must utilize the accounting (or normalized) income tax expense as opposed to actual taxes paid. For assets acquired since 1981, the CPUC allows the use of normalized taxes in calculating the revenue required to provide the utility its allowed rate of return. This means that in the early years of an investment, the rates will yield more revenue to the company to pay taxes than the actual tax expense. In later years, the actual tax expense will exceed the amounts provided for in the rates. The CPUC also effectively passes the benefit of the deferral of income taxes through to the rate payers by requiring that the deferred income tax liability be deducted from the HCLD in the calculation of the rate base.

Regulatory agencies generally will not approve the sale of a utility property if the sale is disadvantageous to the ratepayers. If the CPUC presently requires the deduction of deferred taxes from the rate base for a particular property, prospective purchasers of that property are likely to assume that the same treatment will be required after the purchase. Therefore, the

HCLD indicator for the properties should be adjusted to reflect the earnings limitation imposed by the rate making treatment of the deferred income taxes.

The amount of the adjustment should reflect the time value of money. The proper adjustment to the HCLD indicator is to deduct 100% of the deferred income taxes balance to reflect both the utility's inability to earn a return on the amounts represented by the deferred income taxes and the regulatory requirement of the use of accounting (or normalized) expense in the calculation of revenue.

### **Excess and/or Future Use Property**

A company may own property in excess of that needed to operate the water system, but which is nevertheless in the company's rate base. This may also be referred to as *future use property*.<sup>76</sup> Appraisers and auditor-appraisers should exercise judgment in this regard, and include the property's value in the total value indicator at market value rather than at its HCLD value, noting that the sale of the property may be subject to CPUC approval.<sup>77</sup> It may be evident that property subject to such restriction, although non-operating, is not worth what similar, but uncommitted property is worth.

Similarly a utility company may own property not necessary for the operation of the utility. This property should be appraised in terms of its most profitable use (i.e., highest and best use) when it is not subject to restriction.

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<sup>76</sup> See also *future use property* as defined by the CPUC (Schedule A-1c of the Class A CPUC Annual Report; Schedule A-1b of the Class B and C CPUC Annual Report; Balance Sheet Account 103 of Class D companies).

<sup>77</sup> California Public Utilities Code section 851.



## Summary of HCLD Calculation

<b>EXAMPLE 3.3</b>	
<b>SUMMARY OF HCLD COMPUTATION</b>	
Taxable Historical Cost of Assessable Property (see Example 3.1) <sup>78</sup>	\$ 17,135,000
<i>Less:</i> Depreciation for Assessable Property (see Example 3.2)	<u>(7,500,000)</u>
<b>Assessable HCLD (Taxable Value)</b>	<b>\$ 9,635,000</b>
Value of Other Property:	
Noncapitalized Leased Property Value	\$ 1,000,000
Supplies	10,000
Construction-in-Progress (CIP)	100,000
<b>Total Value of Other Property</b>	<b><u>1,110,000</u></b>
<b>Total Value Indicator</b>	<b>\$ 10,745,000</b>
<i>Less:</i> Current Deferred Income Tax Liability	<u>( 50,000)</u>
<b>HCLD Value Indicator</b>	<b><u>\$ 10,695,000</u></b>
<b>Allocation of Value (for purposes of example only)</b>	
Land	\$ 2,000,000
Improvements	<u>8,695,000</u>
Total	<b><u>\$ 10,695,000</u></b>

### Limitations of HCLD

Generally, if regulation effectively limits earnings to a rate base selected, at a rate of return acceptable to investors, HCLD tends to be a good indicator of market value. However, HCLD is an important indicator only to the extent that potential buyers and sellers of water companies are influenced by CPUC regulations.<sup>79</sup> Even where Rule 3(d) provides that appraisers and auditor-appraisers shall consider HCLD as an appropriate indicator of value for rate base regulated companies, appraisers and auditor-appraisers should also consider other indicators. For instance, an income approach indicator which is much lower than an HCLD indicator may identify obsolescence or other problems that exist in the property, to such an extent that the owner or prospective purchaser may not earn the rate of return allowed by the regulatory agency. An income approach indicator higher than an HCLD indicator, on the other hand, may indicate that regulation is lax or, for other reasons, potential purchasers may be willing to pay more than

<sup>78</sup> Includes historical cost of Advances in this example. Adjustments for historical cost and present value of Advances are made below.

<sup>79</sup> Especially with the enactment of Public Utilities Code section 2720 as discussed in Chapter 2, appraisers and auditor-appraisers must evaluate the influence of the CPUC regulations currently imposed on the property. HCLD may not be a good indicator of market value in all situations.

rate base. Therefore, other approaches to value should be considered when information is available.

## **INCOME APPROACH**

The income approach, or capitalized earning ability (CEA) approach, to value is generally described as any method that converts an anticipated income stream or future benefits (cash flows and/or reversion) into a present value estimate. This approach can produce reliable results for both non-regulated and rate regulated properties. Pursuant to Rule 8, it is the preferred approach when (1) property is purchased in anticipation of future income, (2) reliable sales data of comparable properties are not available, and/or (3) the cost approaches are unreliable.

The income approach should be considered as a valid approach to value when a subject property meets three assumptions:

1. Value is a function of income (i.e., the property is purchased for the income it will produce);
2. Value depends upon the quality and quantity of the income stream (i.e., the investor demands a return of and on his/her investment in the property with consideration for risk); and
3. Future income is less valuable than present income (i.e., the value of the property is the sum of the present worth of its anticipated future net benefits).

Water companies, particularly regulated utility companies, are typically operated or bought for the income they will yield. As a result, the income approach is one of the more important approaches to value for this type of property.

A general discussion and explanation of the income approach to value is included in AH 501, *Basic Appraisal*. A more advanced discussion of the approach is included in AH 502, *Advanced Appraisal*, and the income approach as related to personal property and fixtures is discussed in AH 504, *Assessment of Personal Property and Fixtures*. See also *Unitary Valuation Methods*, State Board of Equalization for a discussion of the income approach, referred to as *capitalized earning ability* (CEA), as applied by the Board's Valuation Division for rate regulated properties and state assessees. These sections will not be repeated here. Following is a short discussion of the approach as specifically applied to a water system property. When using an income approach technique, refer to the earlier mentioned sections for additional discussions of the approach.

## Application of the Income Approach to Water Systems

There are generally two income approach methods for capitalizing income: direct capitalization and yield capitalization. Direct capitalization is a method used to convert a single year's anticipated income into an indication of value by dividing the anticipated income by an appropriate rate or multiplying the anticipated income by an appropriate factor. Yield capitalization is a method used to convert anticipated future benefits (income and/or reversion) into a present value by discounting each of the future benefits at an appropriate yield rate or by a derived overall capitalization rate that explicitly reflects the income pattern, change in property value, and return on and of capital. The proper capitalization method to use is a function of the shape of the income stream and should reflect the perceptions and actions of market participants.

When estimating the value of a water company's assessable property using an income approach, an overall capitalization rate is often mathematically developed through the use of yield capitalization formulas or "models" reflecting the property's forecasted income pattern, value change, and yield rate. A projection of a single-year's income is divided by this overall capitalization rate to arrive at an indicator of value. This variation of yield capitalization resembles direct capitalization mechanically (i.e.,  $V = I / R$ ) but not conceptually.<sup>80</sup>

Care should be exercised in the selection of a proper income stream premise or model (i.e., perpetual or limited life). The primary model recommended for water companies is the *perpetual life concept*. This model assumes that individual assets are replaced as they are retired. With the necessary capital investment, the income stream is sustained into perpetuity.

In certain factual situations where it is determined that replacements to the property will not be made, a limited life model is suggested. The *limited life model* involves forecasting an income stream for a finite period of time (straight-line declining or level-annuity) and discounting the periodic cash flows at an appropriate rate to arrive at the present value. Any remaining benefits at the end of the finite life are discounted to present value and added to the capitalized income.

A straight-line declining income model is appropriate when it can reasonably forecast that the property will produce lower net revenues as the property ages. The *level-annuity capital recovery premise* is not recommended unless the prospective purchaser can reasonably expect that the level of revenue and expenses anticipated will remain constant over the remaining life of the property. Lower net revenues are likely to occur because (1) repair and maintenance costs may increase as the property ages, (2) temporary operating failures may occur more frequently as the property ages (i.e., revenue declines due to operating failures), and (3) the regulatory agency may require reduced revenue rates because net book value has declined. Appraisers and auditor-appraisers should gain a clear understanding of the market's expectations regarding the future income stream and then select an income premise that corresponds to those expectations.

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<sup>80</sup> It is conceptually different because yield capitalization formulas explicitly consider income pattern, change in property value, and return on and return of capital. Furthermore, unlike the overall capitalization rate in direct capitalization, this overall capitalization rate is not derived from sales data.

When a limited life model is deemed appropriate, an estimate of remaining economic life (REL) is necessary. The estimate of REL should be based on physical factors. A reliable estimate of REL may be available from the assessee as a utility company may be required by the CPUC to periodically conduct a depreciation study of its plant. One result of this study is an estimate of REL. Appraisers and auditor-appraisers should request this information from the assessee for use in estimating REL for purposes of applying the income approach. When received, the information should be reviewed to determine the degree of applicability to an appraisal for assessment purposes, and/or the conclusions should be adjusted accordingly. To the extent possible, the REL estimate should be based on factual data reflecting typical life patterns of those assets that make up the appraisal unit.

Alternatively appraisers and auditor-appraisers may conduct a lifing study, to include an estimate of REL when reliable data are available. Basic methodology for such studies is included in AH 504, Appendix H: *Lifing Studies*. Other sources may also be available.

The following discussion will focus on the perpetual life model as recommended for most water company properties. Additional information regarding these discussions and other methodologies can be found in AH 502, Chapter 4.

### **Perpetual Life Model**

The perpetual life model assumes that individual assets are replaced as they are retired. The capital investment necessary to maintain a perpetual income flow (i.e., replace retired assets) is deducted from expected revenues. With the necessary capital investment, the income stream is sustained into perpetuity.

Using this model, a value indicator may be generally computed as illustrated in Example 3.4.<sup>81</sup> Those items in italics are discussed in more detail in the sections following the example.

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<sup>81</sup> Basic example taken from *Unitary Valuation Methods*, State Board of Equalization.

<b>EXAMPLE 3.4</b>	
<b>INCOME APPROACH COMPUTATION</b>	
<b>Perpetual Life Model</b>	
Anticipated Operating Revenue	\$ 50,000,000
Less: Anticipated Operating Expenses	( 30,000,000)
Less: Estimated Capital Replacement Expenditures	( 5,000,000)
<i>Anticipated Net Income</i>	\$ 15,000,000
Less: <i>Working Cash Allowance</i> (see Example 3.5)	( 202,500)
Less: <i>Income Attributed to Intangibles</i> (see Example 3.6)	( 607,500)
Appraisal Income	\$ 14,190,000
<i>Total Capitalization Rate</i>	14.5%
Income Approach Value Indicator (\$ 14,190,000/0.145)	\$ 97,862,069
Less: Average Business Inventory	0
Income Approach Value Indicator after Inventory Adjustment	\$ 97,862,069
Taxable Percentage (Historical Cost of Taxable Property / Historical Cost of All Property) <sup>82</sup>	86.0%
Taxable Income Approach Value Indicator (\$ 97,862,069 x .860)	\$ 84,161,379
Plus Other Taxable Property	
<i>Construction-in-Progress Additive</i>	\$ 500,000
<i>Excess and/or Future Use Property</i> (not in rate base)	<u>100,000</u>
Total Other Taxable Property	600,000
<b>Total Income Approach Value Indicator</b>	<b><u>\$84,761,379</u></b>

### Anticipated Net Income

The net income to be capitalized should be estimated by predicting future earnings that will be generated pursuant to Rule 8.<sup>83</sup> This requires a forecast of the gross income a property is expected to produce and a forecast of future operating expenses. Although the past and current experience of the subject and comparable properties can be (and should be) used as a guide, a forecast should not be a simple projection of past experience. A forecast should be based on a consideration of factors that influence the future income generating potential of the subject property. For regulated utilities, this influence is the CPUC. For example, the forecast should recognize authorized rate increases that have not yet been received.

Estimates of anticipated annual net income of a regulated utility water company can be derived from the accounts listed in Table 3.A and found in annual CPUC reports. Similar accounts and records should be reviewed for non-rate base regulated companies to which the income approach

<sup>82</sup> See Example 3.1.

<sup>83</sup> An estimate of future net income should be based on the existing system unless an anticipated expansion of the system is expected to change the earning power of the existing property.

is applied. These revenues and expenses should be modified to accurately reflect future expected revenues. Recent rate authorizations for revenue changes in the future, for example, will not be fully reflected in current operating statements and will require adjustments to reflect anticipated future operating revenue. Likewise, nonrecurring or nonutility revenues should be adjusted or deleted to reflect anticipated future operating revenue. Financial statements may provide appraisers and auditor-appraisers with insight into anticipated net income.

<b>TABLE 3.A</b>	
<b>ACCOUNTS FROM CPUC REPORTS UTILIZED TO DERIVE NET INCOME</b>	
<b>INCOME</b>	
Schedule B-1 <i>Account 501</i> (line 30)	Total Operating Revenues
<b>EXPENSES</b>	
Schedule B-2 <i>Account 502</i> (line 42)	Total Operating Expenses
Schedule B-4 <i>Account 507</i> (line 11)	State Unemployment Insurance Tax
Schedule B-4 <i>Account 507</i> (line 12)	Other State and Local Taxes
Schedule B-4 <i>Account 507</i> (line 13)	Federal Unemployment Insurance Tax
Schedule B-4 <i>Account 507</i> (line 14)	Federal Insurance Contributions Act
Schedule B-4 <i>Account 507</i> (line 15)	Other Federal Taxes

In estimating the income to be capitalized using the perpetual life model, the income is processed on an annual basis to net income before property taxes (NIBT). The estimated capital investment necessary to maintain a perpetual income flow is deducted from expected revenues.

The perpetual life model assumes that the income stream is sustained into perpetuity because individual assets are replaced as they are retired. Therefore, the amount of capital replacement required to perpetuate the income stream is allowed as an expense. For rate base regulated utilities, the appropriate level of capital replacement expenditures is book depreciation. The reason for this is that when a depreciable item must be replaced, the income stream will remain level if the dollar investment in the replacement item (i.e., the new property) corresponds to the dollar investment in the replaced item (i.e., the old property). If the actual replacement is more (or less) expensive than the original, the income stream will increase (or decrease) because the amount of the investment has changed.

The appropriate level of replacement expenditures for non-rate base regulated utilities can be estimated from a life study and the replacement cost of the assets. If such studies do not exist, book depreciation expense may be used as a surrogate for capital replacement expenditures unless more detailed information is available.<sup>84</sup> Properly documented company specific replacement expenditure estimates may be used when they are available and determined to be more accurate than the mass appraisal estimates. Care must be taken to confine the estimate to only the replacement of existing assets and not include capital expenditures for growth. For this

<sup>84</sup> Rule 8(c) requires the allowance of capital expenditures necessary to sustain the income stream, but prohibits the use of book depreciation as an expense. Although book depreciation cannot be directly allowed as an expense, in many cases book depreciation provides the best information for estimating the allowance for capital expenditures.

reason, actual capital expenditures are often an inappropriate surrogate for the annual allowance of capital replacements.

Future capital expenditures for growth should not be considered in the appraisal, either for purposes of revenues or expenses. Although plans for growth may affect the value of the company, future property that does not exist on the lien date (or date of change in ownership) cannot be assessed. The construction will be appraised and added to the base year value and/or assessment when it is completed or, if in process on the lien date, assessed as appropriate as construction-in-progress (CIP) or construction work in progress (CWIP).

### **Working Cash Allowance**

A working cash allowance is required to provide the owner with a return on funds provided to the business for the purpose of paying operating expenses in advance of receipt of offsetting revenues from its customers. Rule 8(e) provides, in part:

When income from operating a property is used, sufficient income shall be excluded to provide a return on working capital and other nontaxable operating assets and to compensate unpaid or underpaid management.

When using the income approach, the return on working cash allowance is deducted from the income stream to remove nontaxable working cash from the value indicator computed using the perpetual life model. This deduction excludes sufficient income from the amount to be capitalized to provide a return on working capital.

Cash held for construction, purchases of stock, payment of dividends and interest on funded debt, income and property taxes, and non-cash expenses such as depreciation, do not qualify for inclusion in cash working capital. The utility's working cash requirement is predicated upon having sufficient cash balances to enable the company to make timely payments for purchase of goods, services, and materials.

Assesseees may report the amount of working cash, if any, as determined by a lead-lag study<sup>85</sup> in their latest request for a rate change to the appropriate regulatory commission. If such information is not available, the assessee should report an estimate of its average working cash requirement. If no estimate is available the appraiser or auditor-appraiser, using the following calculation, may calculate an estimate of the working cash allowance:

$$\text{Anticipated Operating Expenses} \times 5\% \times (Y_o + \text{ITC})$$

In the computation, 5% equates to an 18-day working cash requirement,  $Y_o$  is the basic capitalization rate, and ITC is the income tax component.<sup>86</sup>

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<sup>85</sup> A lead-lag study is a study to determine the amount of working cash allowed in rate base. The lag in collecting revenues is offset by the lag in paying bills to determine how many days expenses should be reflected in working cash.

<sup>86</sup> See Appendix E: Income Tax Component Calculation.

Following is an example of the working cash allowance calculation:

<b>EXAMPLE 3.5 WORKING CASH ALLOWANCE</b>	
Anticipated Operating Expenses	\$ 30,000,000
18 days or approximately 5 percent	5%
Projected Working Cash Requirement	\$ 1,500,000
Basic Capitalization Rate <sup>87</sup>	10.0
Income Tax Component	3.5
Basic Rate plus Income Tax Component	13.5%
Working Cash Allowance (\$1,500,000 x 0.135)	<u><b>\$ 202,500</b></u>

### **Income Attributed to Intangibles**

When income to be capitalized is derived from operating a property, sufficient income shall be excluded to provide a return on any nontaxable operating assets such as intangible items.<sup>88</sup> After the value of the intangible items is determined, the amount of income to be excluded is calculated in the same manner as the allowance for working cash. The income attributed to intangibles is determined by multiplying the value of the intangible items by the basic capitalization rate plus a component for income taxes.

$$\text{Value of Intangible Items} \times (Y_o + \text{ITC})$$

As noted earlier,  $Y_o$  is the basic capitalization rate, and ITC is the income tax component. Following is an example of a computation of the income attributed to intangibles utilizing this formula.

<sup>87</sup> The basic capitalization rate in this example was derived using the band of investment method. This method is often the only method available to establish a capitalization rate since water companies are not often sold in the open market.

<sup>88</sup> Rule 8(e).



<b>EXAMPLE 3.6</b>	
<b>INCOME ATTRIBUTED TO INTANGIBLES</b>	
Organization	\$ 3,000,000
Franchises	1,500,000
Total Intangibles	\$ 4,500,000
Basic Capitalization Rate <sup>89</sup>	10.0
Income Tax Component	3.5
Basic Rate plus Income Tax Component	13.5 %
<b>Income Attributed to Intangibles</b> (\$ 4,500,000 x 0.135)	<b><u>\$ 607,500</u></b>

### Total Capitalization Rate

In yield capitalization, future income is discounted into an estimate of present value by either discounting each future income payment at a specified yield, or discount rate, or developing an overall capitalization rate that explicitly reflects the investment's income pattern, value change, and yield rate. The present value of the anticipated future net income is found by multiplying the net income by a present worth factor at the appropriate discount rate or capitalization rate. The capitalization rate includes a basic capitalization (or yield) rate and components that account for property taxes, income taxes, and capital recovery when appropriate.<sup>90</sup>

Ideally, the basic rate or total capitalization rate is derived from sales and thereby recognizes the influence of corporate income and franchise taxes. Rule 8(g) states, in part:

The capitalization rate may be developed by either of two means:

(1) By comparing the net incomes that could reasonably have been anticipated from recently sold comparable properties with their sales prices, adjusted, if necessary, to cash equivalents (the market-derived rate). This method of deriving a capitalization rate is preferred when the required sales prices and incomes are available. . . .

When sales are not available appraisers and auditor-appraisers may use the band-of-investment method (i.e., weighing appropriate equity and debt rate of returns) to derive a *yield rate* (Rule 8(g)(2)), and a total capitalization rate may be computed by adding components for

<sup>89</sup> The basic capitalization rate in this example was derived using the band of investment method. This method is often the only method available to establish a capitalization rate since water companies are not often sold in the open market.

<sup>90</sup> No component is required for capital recovery when the perpetual life model is utilized because the estimated capital replacement expenditures are allowed as operating expenses and the property value is presumed stable.

expenses not deducted from the income to be capitalized such as a recapture component, property tax component, and an income tax component as appropriate.<sup>91</sup>

An appraiser's or auditor-appraiser's yield rate and the rate of return allowed by the CPUC may be similar; however, the yield rate that the appraiser or auditor-appraiser derived is never identical to the CPUC's allowed rate of return on the rate base. The rates differ for several reasons:

1. The CPUC rate is on an after-income tax basis. The yield rate is pre-tax.
2. The CPUC rate may be higher or lower than current market rates because of a time lag<sup>92</sup> associated with the rate setting process. (The CPUC generally adjusts an allowable rate of return every three years.) Appraisers and auditor-appraisers attempt to measure the current market.
3. The CPUC utilizes the company's embedded cost rather than current debt in determining a company's allowable rate of return. Thus the CPUC's rate may not be reflective of current investor requirements.
4. Determination of a yield rate is not an exact science. The CPUC determination of the rate base is not authoritative or binding on appraisers or auditor-appraisers.

The yield rate or *basic capitalization rate* is derived by applying a weighted average of the yield rates for debt and for equity capital calculated by the band-of-investment method. The rates of debt and equity capital are weighted by the respective amounts of capital deemed most likely to be employed by prospective purchasers. This is likely to approximate the rate at which income was generated (net income/rate base), or the rate base on which the company is allowed to earn a return by the CPUC.

The *recapture component*, applicable only to limited life models, provides for a periodic recovery of invested capital in a wasting asset over a period of time and is calculated (based on a straight line capital recovery premise) by dividing one by the remaining economic life (1 / REL). There is no recapture component in the capitalization rate used in the perpetual life model because a capital recovery allowance (estimated capital investment required to sustain the property's income into perpetuity) is deducted from the income.

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<sup>91</sup> Pursuant to Rule 8(c) "[p]roperty taxes, corporation net income taxes, and corporation franchise taxes measured by net income are also excluded from gross outgo."

<sup>92</sup> *Regulatory lag* is defined as the time between changes in a utility's costs or sales and the corresponding changes in utility rates. It can be advantageous when costs are declining and sales are increasing, and disadvantageous when costs increase and sales decrease.

The *property tax component* consists of the cash outlay for property taxes that a prospective purchaser would anticipate. An average property tax rate can be calculated yearly for each assessee.<sup>93</sup>

The *income tax component* approximates the cash outlay for income taxes (both state and federal) that a prospective purchaser would anticipate. This adjustment is required to convert an after-income tax yield rate to a pre-income tax level. It is generally a more complicated computation. Appraisal experience, judgment, and available information should be utilized to determine the most appropriate method for developing the income tax component. Appendix E provides one methodology. This methodology is currently used by the Board's Valuation Division, as directed by members of the Board of Equalization for the year 2000, for the development of an income tax component for state assessed utility companies. It is generally applicable to properties assessed at the local level as well.

### **Construction-in-Progress (CIP) Additive**

The income approach value indicator of a company normally reflects the construction-in-progress (CIP) required to maintain replacement of the existing facilities. However, CIP for new property is not reflected in the income stream, because the new CIP has not had the opportunity to contribute to the earnings. The value of new CIP is therefore generally added to the value indicator derived using the income approach.

An assessee is requested to, and should, report CIP on the annual property statement filed with the assessor. An appraiser or auditor-appraiser should estimate how much of the CIP is "new CIP," that is, not related to replacements. If such information is not available from the assessee, the additive can be estimated using the following formula:

$$\text{Total CIP less (Replacement (or Reproduction) Cost New} \quad \times \quad 1.5\%)^{94}$$

### **Excess and/or Future Use Property**

Excess property is property owned by a company or entity that is in excess of that needed to operate a water system. This may also be referred to as *future use property*.<sup>95</sup> Future use property consists of property that is owned and held for future use in service by a utility. Such property includes assets acquired but never used by a utility or assets previously held by the utility in service, but retired from such service and held pending its reuse in the future. If this property is included in the rate base of a regulated water company and/or the earning ability of this property is reflected in the revenue, no additive is necessary. Excess or future use property not included in the rate base and not reflected in the income stream should be added to the value indicator developed using the income approach, or separately assessed.

<sup>93</sup> An average property tax rate may be estimated by utilizing the following formula: prior year's property taxes levied divided by prior year's total assessed value equals the property tax rate.

<sup>94</sup> Based on formula provided in *Unitary Valuation Methods*, State Board of Equalization.

<sup>95</sup> See also *future use property* as defined by the CPUC (Schedule A-1c of the Class A CPUC Annual Report; Schedule A-1b of the Class B and C CPUC Annual Report; Balance Sheet Account 103 of Class D companies).

## Limitations of the Income Approach

The three fundamental assumptions of the income approach are that (1) value is a function of income; (2) value depends upon the size, shape, duration, and risk of the income stream; and (3) future income is less valuable than present income. If the nature of the property being appraised is not consistent with these assumptions, the income approach to value should not be given great weight as an indicator of its market value. If the property meets the premises of the income approach, and if income and expense forecasts, remaining economic life estimates (as appropriate), and capitalization rates are accurate and supported by market data, the approach produces a supportable indicator of market value.

## SPECIAL VALUATION ISSUES

### ASSESSMENT OF TAXABLE GOVERNMENT-OWNED PROPERTIES <sup>96</sup>

#### Constitutional Basis for Assessment

##### Government-Owned Properties Taxable when Acquired

Article XIII, section 11 of the California Constitution generally provides that lands, water rights, and any other interests in lands owned by a local government that are located outside its boundaries are taxable if they were taxable when acquired by the local government.<sup>97</sup> Section 11 also provides that improvements owned by a local government are taxable if they were taxable when acquired or were constructed to replace improvements that were taxable when acquired. Whether land or improvements, these taxable government-owned properties are generally referred to as *section 11 properties*.

##### Government-Owned Properties Not Taxable when Acquired

The provisions of article XIII, section 11 of the California Constitution do not apply to properties that were not taxable when acquired by the local government. Thus, for example, property receiving the welfare exemption at the time it was acquired by the local government is not taxable as "section 11 property." Any portion of the property that was not exempt when it was acquired is, however, taxable under section 11. This treatment is consistent with the spirit of section 11, the purpose of which is to prevent the erosion of a county's property tax base and consequent loss of property tax revenues that would otherwise result from the acquisition of lands and improvements by tax-exempt local governments.

<sup>96</sup> See "Guidelines for the Assessment of Taxable Government-Owned Properties" distributed by Letter To Assessor (LTA) 2000/037.

<sup>97</sup> Extraterritorial government-owned lands in either Inyo or Mono county are taxable on a basis different than "section 11 property" in the rest of the state.

## Assessment

### Land

For lands located in Inyo and Mono counties, article XIII, section 11 of the California Constitution prescribes a value derived from a specific formula ("the Phillips Factor formula") set forth in section 11 and based upon the 1966 assessed value of the lands if located in Inyo County or on the 1967 assessed value of the lands if located in Mono County.<sup>98</sup> For lands located in all other counties, section 11 prescribes a value standard requiring assessment at the lower of current fair market value or the value determined by applying the Phillips Factor to the 1967 assessed value.<sup>99</sup>

In addition to the express language of section 11, of the California Constitution, establishing a value standard, the California Supreme Court in *City and County of San Francisco v. County of San Mateo et al.*<sup>100</sup> held that the value limitations of article XIII A of the Constitution apply to section 11 lands in counties other than Inyo and Mono.<sup>101</sup> Thus, the value standard applicable to section 11 assessments in those counties is the lowest of either (1) the current fair market value, (2) the factored base year value, or (3) the 1967 assessed value multiplied by the appropriate Phillips Factor.

For taxable government-owned land acquired *before* March 1, 1975, the base year value is the value of the 1975-76 roll, which is the lower of the value obtained by applying the appropriate Phillips Factor to the 1967 assessed value or the fair market value as of March 1, 1975. For land acquired *after* March 1, 1975, the base year value is the lower of the value obtained by applying the appropriate Phillips Factor to the 1967 assessed value as of the date of change in ownership or the full cash value as of the date of change in ownership.

### Improvements

#### *Taxable When Acquired Requirement*

Improvements owned by a local government and located outside its boundaries are taxable if they were taxable when acquired. Furthermore, improvements are taxable if they were constructed by the local government to replace improvements that were taxable when acquired. Improvements are not taxable if they were added after the original acquisition and do not replace improvements that were taxable when acquired.

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<sup>98</sup> The Board annually calculates and announces the constitutionally prescribed factor, which is commonly referred to as the *Phillips Factor*. The Phillips Factor formula for a current lien date is as follows: The previous year's assessed valuation of California land value only is divided by California's previous year civilian population, and the resultant statewide per capita value (1) for taxable government owned land in Inyo County, is divided by \$766 (the 1966 per capita value) to find the factor based upon the 1966 lien date and (2) for taxable government owned land in Mono County, is divided by \$856 (the 1967 per capita value) to find the factor based upon the 1967 lien date. This formula is derived to operate upon a 1966 and 1967 assessed value of 25 percent of market value to arrive at a current assessed value of 100 percent of market value.

<sup>99</sup> See article XIII, section 11(b) of the California Constitution.

<sup>100</sup> (1995) 10 Cal.4<sup>th</sup> 554.

<sup>101</sup> The court expressed no view on the application of article XIII A of the California Constitution to section 11 lands in Inyo or Mono counties.

### ***Assessment***

In general, article XIII, section 11 of the California Constitution provides no procedure or standard for the valuation of improvements, except taxable improvements constructed after March 1954, to replace taxable improvements that were owned by or in the possession of a local government. Because section 11 fails to prescribe any specific assessment procedure or standard (with the single noted exception), improvements are subject to the valuation standard applicable to all other real property that is not specifically restricted by constitutional or statutory provisions. Thus, with the exception noted above, the provisions of article XIII A apply to improvements taxable pursuant to section 11.

Improvements built *after* March 1, 1954, that replace taxable improvements, are taxable at the lowest of either (1) current market value, (2) factored base year value, or (3) the highest full value ever used for the taxation of the improvements that have been replaced. For purposes of this calculation, the full value for any year prior to 1967 is defined by subdivision (d)(2) of section 11 as four times the assessed value for that year.

### **Application**

To summarize the proper application of article XIII, section 11 of the California Constitution, the roll value for taxable government-owned extraterritorial property in counties other than Inyo and Mono is the lowest of:

- the fair market value (FMV) of the land and improvements,
- the factored base year value of the land and improvements, or
- the 1967 assessed value of the land times the appropriate Phillips Factor, plus the lesser of either (1) the FMV of the improvements, (2) the factored base year value of the improvements, or (3) for improvements built after March 1, 1954 that replace taxable improvements, the highest full value ever used for the taxation of the improvements that have been replaced.

To determine the roll value for taxable government-owned extraterritorial property in Inyo County, apply the appropriate Phillips Factor established by the Board to the 1966 assessed value of the land, plus the lesser of:

- the FMV of the improvements,
- the factored base year value of the improvements, or
- for replacement improvements built after March 1, 1954, that replace taxable improvements, the highest full value ever used for the taxation of the improvements that have been replaced (subdivision (d)(2) of section 11 of article XIII of the California Constitution).

To determine the roll value for taxable government-owned extraterritorial property in Mono County, apply the appropriate Phillips Factor established by the Board to the 1967 assessed value of the land, plus the lesser of:

- the FMV of the improvements,
- the factored base year value of the improvements, or
- for replacement improvements built after March 1, 1954, that replace taxable improvements, the highest full value ever used for the taxation of the improvements that have been replaced (subdivision (d)(2) of section 11 of article XIII of the California Constitution).

## Special Issues

### Joint Purchase of Taxable Property by Multiple Governments

Two or more local governments may purchase and hold title to the same property or properties. In that case, those interests in the property or properties owned by local governments that lie outside of their boundaries are taxable pursuant to article XIII, section 11 of the California Constitution. Thus, section 11 makes taxable those extraterritorial interests in property held by local governments in both sole ownership and joint ownership.

For example, a jointly purchased property may be located outside the boundaries of all the acquiring local government entities. Assuming that the property was taxable when acquired, the property is assessable to all the entities and the assessment should be apportioned according to the respective ownership interests.

Local governments may also form a "joint powers agency" pursuant to the Joint Exercise of Powers Act, which is a different method of ownership than described above. Such a joint powers agency is a local government within the meaning of article XIII, section 3, subdivision (b) of the California Constitution. As determined by the Board in the matter of the application for reassessment of *Central California Power Agency No. 1 v. County Assessors of Sonoma*,<sup>102</sup> the boundaries of a joint powers agency under Government Code section 6500 et seq. are the combined pre-established boundaries of each of the members of the agency. Therefore, all real property acquired by the joint powers agency that is outside the pre-established boundaries of each of the members, and were taxable when acquired, are subject to section 11 assessment. Conversely, all real property within the boundaries of the joint powers agency is not subject to assessment under section 11.

### Personal Property

The provisions of article XIII, section 11 of the California Constitution are not applicable to personal property. Personal property acquired by a local government is exempt from property taxation pursuant to subdivision (b) of section 3 of article XIII of the California Constitution.

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<sup>102</sup> Application, Review, Adjustment, and Equalization (ARA) No. 93-006.

## VALUATION OF POSSESSORY INTEREST

Property owned by federal, state, county, or local governments is not taxable to that entity, unless subject to taxation pursuant to article XIII, section 11 of the California Constitution as discussed earlier. However, property owned by a governmental entity may be taxable to a non-governmental user that has a *possessory interest* in the real property.<sup>103</sup>

A possessory interest is an interest in real property that exists as a result of the possession of, or a right to possess or occupy land and/or improvements unaccompanied by ownership of a fee simple or life estate in the property. A possessory interest in a water company or system exists whenever the entity has the exclusive right to possess tax-exempt, publicly-owned property. The entity benefits from the possession of this property right, and it is taxed for the value of the benefits it receives.<sup>104</sup>

A taxable possessory interest can be valued using any of three primary appraisal approaches: cost, income, or comparative sales approaches. For mass appraisal, the income approach is commonly used because data regarding economic or market rents and franchise fee payments are readily available.

For information regarding the assessment of this type of assessable property, refer to separate sections of the Assessors' Handbook, Letters To Assessors (LTAs), Special Topic Surveys, and other documents published by the Board regarding possessory interests.

## VALUATION OF NEW CONSTRUCTION

New construction may include (1) entirely new structures or fixtures; (2) square footage added to existing structures; (3) removal of improvements (including fixtures); or (4) physical alterations resulting in a change in use. These activities must be evaluated under the statutes and rules and—if determined to meet the definition of new construction—properly reflected on the assessment roll.

Proper valuation of new construction means estimating the full value of the qualifying new construction as of the date of completion or, if the construction is in progress, as of the lien date. Assuming adequate data and proper application of each approach to value, no single approach to value should be precluded from consideration.

Although Rule 4 establishes a preference for the comparative sales approach when adequate market data are available, the nature of new construction may limit the availability of relevant market data. In such cases, the cost approach may be preferred. As stated in Rule 6(a):

The reproduction or replacement cost approach to value is used in conjunction with other value approaches and is preferred when neither reliable sales data (including sales of fractional interests) nor reliable income data are available and when the income from the property is not so regulated as to make such cost

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<sup>103</sup> Section 107.

<sup>104</sup> Sections 107, 107.1; Rules 20-26.



irrelevant. It is particularly appropriate for construction work in progress and for other property that has experienced relatively little physical deterioration, is not misplaced, is neither over- nor underimproved, and is not affected by other forms of depreciation or obsolescence.

Appraisers and auditor-appraisers should use caution when applying the cost approach, since construction costs may be highly divergent between different projects. Especially in the cases of over- or under-improvements and regulated properties, the actual market value of new construction may vary widely from the cost to construct those improvements. To compensate for these potential differences, the values derived with the cost approach should be compared with values derived from the other approaches to value whenever possible.

When new construction involves income-producing properties, appraisers and auditor-appraisers may estimate the value of new construction using the income approach. Using current market-derived rates, appraisers and auditor-appraisers may capitalize the difference in the subject property's economic rent with and without the new construction to yield an estimate of value for the new construction. As with the comparative sales approach, application of the income approach requires income data and capitalization rates from highly comparable properties. In certain circumstances, the income approach may capture value attributable to more than just the qualifying new construction.

### **VALUATION OF CONSTRUCTION-IN-PROGRESS (CIP)**

Construction-in-progress (CIP), also known as construction-work-in-progress (CWIP), is assessable at full cash value on the lien date when actual construction has begun by the lien date. The income and sales comparison approaches are of limited use because property under construction is typically not producing any income, and it is difficult to find comparable sales of partially-constructed projects. For this reason, the cost approach is nearly always used to value this type of property. Costs incurred as of the lien date represent total costs, including preliminary direct and indirect costs such as planning and engineering charges. These costs may or may not represent actual market value on the lien date. Ultimately, the value should be based on what the property in its partially-constructed condition would bring in the market place involving a willing buyer and seller. The seller would attempt to recover all costs if the property under construction was sold in a partially-constructed state. Potential purchasers may or may not be willing to pay the full costs of partially-constructed projects, depending on their perceptions of the earning potential of the projects.

There is a potential for duplicate assessment when CIP is being paid for by Advances or contributed funds (CIAC). When a market value assessment for property (i.e., CIP) is added to a final value indicator, care should be taken to ensure that the property's value is not already included in the value derived for the property as a whole.

## **VALUATION OF NONCAPITALIZED LEASED PROPERTY**

The value of leased property must often be added to a value indicator when leased properties are not recorded on an entity's accounting records (noncapitalized). This type of assessable property can be valued using any of three primary appraisal approaches: cost, income, or comparative sales. For more information refer to AH 504.

## **VALUE RECONCILIATION**

The final step in the appraisal process is to reconcile value indicators from the separate approaches utilized into a final estimate of value, when more than one approach to value is applied. In the reconciliation process, consideration should be given to any factors influencing value that are not reflected or only partially reflected in the indicators. The greatest weight should be given to that approach or combination of approaches that best measures the type of benefits the subject property yields. The reconciliation step should involve an analysis of: (1) the relative appropriateness of the approaches applied; (2) the accuracy of the data collected and calculations made in each approach; (3) the quantity of data available for each approach; and (4) the consistency in the manner in which the approaches to value were applied.

A cost estimate, for example, should be reviewed for the realism of the depreciation estimate and whether it is supported by market data. If the sales comparison approach was used, a review should be made to determine whether the indicator was based on sufficient market data or relies heavily upon only one sale. In reviewing the income approach, the appraiser or auditor-appraiser should reexamine the estimates of economic income, economic life, expenses, and capitalization rate. Alternative estimates should be considered.

Although containing an element of judgment, the analysis of value indicators should be based upon indicators derived from objective data, plus general overall value influences (economic, physical, political, and social factors). As indicated above, if the appraiser or auditor-appraiser has adequate and reliable data, the greatest reliance should be placed on that indicator and approach which best measures the type of benefits the subject property is expected to yield.

Several value approaches that may be applied to water company or water system related properties yield value estimates for all of the property owned by the assessee, with no regard for the value of its individual components. In these circumstances, the assessor must allocate the final value to property items in different tax rate areas as appropriate. Allocation to tax rate areas can be made using any method deemed appropriate to fairly distribute assessable value, and therefore tax dollars, to the applicable tax rate areas. A ratio of market value to reproduction/replacement cost less normal depreciation is one method for making this allocation. Although reproduction/replacement cost new less depreciation may not be a good indicator of market value, it remains a tool for allocating value to the appropriate tax rate area.

## CHAPTER 4: AUDIT OF A WATER COMPANY

A property tax *audit* is a means of collecting data relevant to the determination of taxability, situs, and value of property.<sup>105</sup> It is used to verify an assessee's reported cost and other information that may influence the assessment of all items that are taxable under property tax law. The primary objective of a property tax audit is to confirm that taxable property is being assessed properly and uniformly.

Statutes not only authorize the assessor to conduct audits, but require audits in certain circumstances. Sections 441(d), 469, and 470, and Rules 191, 192, and 193 provide the assessor with the basic legal authority to review an assessee's records. For assessees owning or possessing tangible business personal property and fixtures with a full cash value of \$400,000 or more,<sup>106</sup> section 469 *requires* an audit at least once in each four-year period.<sup>107</sup>

The purpose of this chapter is to provide helpful information regarding audit procedures related to water companies and systems. The discussion should assist in making an audit complete and accurate, and/or aid the assessor in the development or improvement of his/her own auditing procedures and manuals. Much of the text is taken from AH 504, Chapter 8, but modified and expanded as specifically related to water companies and systems. For more general information regarding audits for assessment purposes, refer to that section of the Assessors' Handbook.

### PREPARATION FOR AN AUDIT

#### REVIEW OF INFORMATION

An auditor-appraiser should review all applicable information available prior to an audit appointment in order to become familiar with the assessee, the nature of the business, and the potential problems that may be encountered. Specific to water companies and water systems, this review may include but is not limited to:

1. Review of property statements and attachments as filed (or change of ownership statements, if applicable)
2. Review of yearly valuation working papers
3. Review of California Public Utilities (CPUC) Reports, if applicable
4. Review of prior audit (if any)
5. Review of real property land and structure records
6. Review of applicable Revenue and Taxation Code sections

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<sup>105</sup> Rule 191.

<sup>106</sup> Prior to January 1, 2001, the audit threshold amount was \$300,000.

<sup>107</sup> The requirements of section 469 apply to assessors and locally assessed property.

7. Review of applicable CPUC statutes, as necessary
8. Identification of suspected problems needing attention (e.g., trade level adjustments, reporting inconsistencies, possibility of double assessment, etc.)
9. Review of lessor files for lease, cost, and assessment information if the subject company leases equipment
10. Review of assessment roll for associated entities<sup>108</sup>
11. Review of prior owner's property statements, if the business has undergone a change in ownership recently or if a change in ownership affects the current owner's reported cost and/or value<sup>109</sup>
12. Review of assessment appeal files, correspondence, and other data that identifies past and current issues regarding the appraisal and assessment of the property

If the auditor-appraiser is not thoroughly familiar with the issues regarding the appraisal and assessment of the property, he or she should interview the staff who are responsible for the appraisal. In many cases, the auditor-appraiser needs to have specific information verified or obtained.

The review will prepare the auditor-appraiser for the upcoming audit and promote a smoother audit appointment. In some cases, the auditor-appraiser will find no obvious problems or areas of concern. In other cases, potential problems will be clearly evident. In such cases, the auditor-appraiser can concentrate on the potential problems and/or discuss them with the assessee during the initial phases of the audit. The review will also help determine what specific records may be needed for pre-identified problem areas.

## **CONTACT ASSESSEE**

An auditor-appraiser representing the assessor shall contact the assessee to inform him/her that an audit will be conducted and arrange a place and time for the audit to be conducted. (It is also helpful to determine with whom the audit will be conducted.) An audit appointment should be scheduled to give the assessee (or agent) sufficient time to prepare for the visit. Setting an appropriate and convenient date for both parties can help to avoid canceled appointments and/or second visits to an assessee's office.

It is also critical to inform the assessee of what records will be necessary and to verify that the records will be available for audit prior to arriving on site. This allows the assessee to schedule accordingly and also aids in avoiding unnecessary delays.<sup>110</sup> Basic records to be available on site include:

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<sup>108</sup> If there are associated entities, it may be proper to audit all associated accounts.

<sup>109</sup> See Public Utilities Code section 2720 for regulated water companies.

<sup>110</sup> A follow-up letter can also help by confirming the appointment and by providing a more detailed list of the records which will be required.

1. CPUC reports, schedules, and rate increase requests/decisions, as applicable
2. Articles of incorporation and amendments, as applicable
3. Chart of accounts<sup>111</sup>
4. General ledger and subsidiary ledgers supporting the general ledger
5. Detailed fixed asset list or depreciation schedule
6. Income tax returns
7. Invoices and other source documents (purchase orders, receiving records, lease agreements, appropriation records and work orders for construction projects, etc.)
8. Financial statements and/or annual reports
9. Accounting procedures manuals
10. Independent audit reports (if any)
11. Insurance policy(ies)
12. Sales tax audit report(s) (if any)
13. Lists of land, improvements, and water distribution systems owned, showing location and identity of each item
14. Listing of parcels served by the water system
15. Title (in the company's name) to land and improvements
16. Assessee's work papers reconciling books and records to property statement filing(s)

Depending upon the approach(es) to value utilized and whether the auditor-appraiser is conducting a total property audit,<sup>112</sup> additional records may be necessary since a total property audit involves the verification of considerably more information than a typical audit that focuses primarily on equipment and supplies. It is important to verify all information that is relevant to the appraisal of the entire property. In addition to basic records, the auditor-appraiser will also need to focus on:

1. Profit and Loss Statements — for use in the income approach
2. Tenant Improvements — costs included in a total property appraisal

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<sup>111</sup> The CPUC mandates the accounting system for rate base regulated companies. For regulated water companies, the chart of accounts and accounting methodology is dependent upon "class." The chart of accounts for Classes A, B, C, and D water companies, current as of printing, is located in Appendix C.

<sup>112</sup> Total property appraisals refer to appraisals in which the entire property (consisting of land, building, and equipment) is appraised as "one appraisal unit."

3. Lease Agreements — essential terms of the contract must be extracted (such as lease term, monthly rent, maintenance provisions, tax provisions, etc.), but where possible a copy of the entire contract may be helpful
4. Construction Contracts — furnish a general description of the type of construction and also identify any special items such as special foundations not readily discernible through a physical inspection. Also, excess costs of construction, if any, might be indicated.
5. Plant Utilization — data concerning whether the facilities — especially the structures and fixed equipment — are being used for purposes originally intended. Also, whether there is unused capacity.
6. Market Studies and Forecast — supply the expectation of future business for the company. May indicate how soon any unused capacity might be utilized.
7. Plot Plan — detailed plot plans should be received from all total property assessesees.

These lists can be expanded based on the preliminary review and discussions with the assessee. If the assessee has more than one account or location in the county, or if property owned by others is at the situs of the business, the list and the audit may include records for more than one company and/or assessor's account numbers.

## CONDUCTING AN AUDIT

### INITIAL INTERVIEW

A short initial interview with the assessee (or agent) at the beginning of an audit appointment can help to quickly acquaint the auditor-appraiser with the books and records and the company's concerns. This generally facilitates the remainder of the audit and allows the assessee to continue business with fewer interruptions.

A pre-audit review and the audit checklist<sup>113</sup> help to determine relevant questions that should be asked at this interview. Such questions may include inquiries pertaining to:

1. Ownership type — *regulated public utility, mutual company, government-owned, or other.*
2. Explanation of records.
3. Control — *determination whether there has been a change in control during the audit period.*
4. Type of accounting system — *mandated by CPUC or other.*

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<sup>113</sup> See sample audit checklist in AH 504, Appendix D.

5. Capitalization policy — *mandated by CPUC or other. What is the cost threshold or minimum service life for capitalizing assets?*
6. Construction-in-Progress (CIP) — *How is CIP treated in the accounting records? Is it reported? What is included? Are expenditures posted when incurred, when invoiced (frequently contractors do not send a bill until weeks or months after some of the work has been completed), or when paid (even "accrual basis" companies sometimes use "cash basis" for CIP)? Is overhead recorded? Is construction interest recorded? How are change orders recorded? What portion of CIP is related to "new" construction as opposed to "replacement"?*
7. Policy of writing off assets — *How are fully-depreciated assets treated? Are they listed on the depreciation schedule and on the books? How are scrapped or sold assets treated? How often are they taken off the books and the depreciation schedule? How often is a physical inventory of fixed assets conducted?*
8. Recording trade-in allowances — *How are trade-in allowances treated on the books and on the depreciation schedule?*
9. Situs — *Where are assets located? Are all the assets located in one county/state?*
10. Internal control — *A company's system of internal control, including EDP (electronic data processing) data entry and retrieval and software controls, is vital evidence in support of the recorded transactions and financial statements. Basic characteristics of sound internal control include: appropriate segregation of responsibilities; reasonable accounting control over assets, liabilities, revenues, and expenses; and sound practices followed by quality personnel in the performance of duties and functions in each department.*
11. Rate base — *For rate base regulated public utilities, what is the rate base negotiated with the CPUC? How is the rate base calculated? Have rate increases been requested and/or authorized?*
12. Contributions in Aid of Construction (CIAC) — *Is CIAC reported on the property statement? Is this property included in the rate base negotiated with the CPUC?*
13. Advances in Aid of Construction (Advances) — *How are advances reported? Are any repayments past due?*

These questions should be expanded upon and altered based on property type (i.e., regulated public utility, mutual, etc.), the auditor-appraiser's review of information prior to the audit, the assessee's responses provided during the interview, and as further information is gathered. This may include questions related to such things as income taxes (i.e., deferred income taxes, exempt status, or other), excess property, water shares, and water rights. Answers to these questions will allow the auditor-appraiser to identify problems from the start and focus more research into these areas.

## REVIEW RECORDS

The records requested from and provided by the assessee are related to the company's financial statements and position as asserted by management.<sup>114</sup> Once the records are gathered, the auditor-appraiser must identify all data pertinent to the audit in order to verify full economic cost and/or full cash value on each lien date.

## RECONCILIATION OF SOURCES

Auditor-appraisers generally gather information relevant to an audit for assessment purposes from two sets of sources: (1) general ledger accounts or subsidiary ledgers, and (2) depreciation schedules or fixed asset listings. When two sources are available regarding selected data, they should be reconciled. This reconciliation can aid in compiling a complete and accurate asset list, cost summary, or a complete listing of revenue and expenses as needed, that can be used as a basis for the audit.

## Sampling to Confirm Accuracy

An auditor-appraiser can also use a compiled asset or cost listing (or revenue and expense summary) to select source documents to sample and compare to the booked cost. This may include such things as invoices, transportation invoices, and receiving reports. This sampling serves two purposes. First, it enables an auditor-appraiser to verify correctness of acquisition date as recorded on the asset listing or accounting records. Second, it enables an auditor-appraiser to verify that the property's full economic cost (or the recorded revenue or expense amount) is equal to the cost reported on the asset listing or accounting records.

## Other Adjustments

After reviewing the source documents selected for sampling and determining accurate cost and acquisition date information, an auditor-appraiser should also determine whether any other machinery and equipment or other personal property and fixtures exist (including self-constructed assets) that are not on the depreciation schedule or in the fixed asset accounts. Equipment costing less than the assessee's established minimum value for capitalizing assets and/or short-lived equipment are examples of equipment that may not be included in the general ledger asset accounts or on the depreciation schedule. Equipment such as hand tools are commonly expensed rather than capitalized, depending upon the assessee's capitalization policy. Expense accounts should be reviewed for these types of items as well as leased equipment. Leased equipment may not be physically identifiable in most cases, but can be located by reviewing accounting records. Payments for these leases may be noted in Accounts Payable and/or Expense Accounts and can be easily missed, if an auditor-appraiser is not careful to identify them.

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<sup>114</sup> Financial statements are implied or expressed representations by management. Management makes assertions regarding (1) existence and occurrence of assets, obligations, and equities, (2) completeness of the statements, (3) rights and obligations (i.e., assets are the rights of the company and liabilities are the obligation of the company), (4) valuation and allocation (i.e., asset, liability, equity, revenue, and expense have been included in the financial statements at the proper amount under generally accepted accounting principles (GAAP)), and (5) presentation and disclosure (i.e., the financial statements are classified, described, and disclosed properly).



## CLASSIFICATION

The auditor-appraiser should also verify that the property was classified correctly when reported by the assessee. For example, were computers and printers reported in the proper column on the property statement and properly classified; or, were they erroneously reported and therefore incorrectly valued? Classification is important, since value may rely upon it.

When the cost approach (reproduction or replacement) is applicable and utilized, equipment should not necessarily be classified based solely on the classification groups provided on the property statement (i.e., equipment; office equipment; tools, molds, and dies, etc.). The asset listing of a business may include several different groups of equipment and the business may operate distinct units, whose values fluctuate independently. Thus, it may be necessary for each group of equipment to be classified and valued separately (i.e., using the cost approach, different index factors apply to different groups of assets).

## VERIFICATION OF IMPROVEMENTS

Verification of improvement and building accounts is similar to verification of machinery and equipment. As with machinery and equipment, the auditor-appraiser must make sure that reported costs, acquisition dates, and classifications are accurate. Improvements may be included with machinery and equipment on the depreciation schedule, but will generally be separated in the general ledger accounts.

When it is determined that information gathered regarding improvements is accurate and that proper classifications have been made, the auditor-appraiser should also verify that (1) improvements assessed by the assessor's business property section were not also assessed by the assessor's real property section, and (2) all improvements were assessed (i.e., no escapes). This usually involves coordination with a real property appraiser, and/or a review of the real property appraisal record.

## VERIFICATION OF CONTRIBUTIONS IN AID OF CONSTRUCTION (CIAC)

As noted earlier, CIAC property is property donated or given to a regulated utility. This property is capitalized in a utility's accounting records as *Contributions in Aid of Construction* in account 265 (Class A) or account 271 (Classes B, C, D) in the accounting system prescribed by the CPUC.

The auditor-appraiser should verify CIAC to determine if value should be added for this type of assessable property since, technically, tangible CIAC property (otherwise subject to assessment) that is owned, claimed, possessed, and/or controlled by a water company is assessable property. Except as noted earlier,<sup>115</sup> the value of CIAC is generally zero because a prospective purchaser

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<sup>115</sup> See page 14.

would not pay for property on which he or she is unable to earn a return or recover the investment.<sup>116</sup>

To confirm that the practice of assessing CIAC for a particular company at a value of zero is accurate, an auditor-appraiser should verify that (1) regulations exist and (2) a typical buyer would not pay for the property (i.e., CIAC is not included in the rate base). If an auditor-appraiser finds that regulations do not exist and/or that a typical buyer would pay for such property, the assessment of CIAC should be reviewed to determine the appropriate value to be enrolled.

For more general information regarding CIAC, refer to Chapter 2, page 14, or Chapter 3, page 32.

### **VERIFICATION OF ADVANCES FOR CONSTRUCTION**

*Advances for Construction (Advances)* represents money expended by a customer or customers in order to receive service that will eventually be paid back by the utility.<sup>117</sup> Costs are recoverable over the life of the property, and the assessable value of this property is generally greater than zero.

When conducting an audit in which Advances are encountered, an auditor-appraiser should determine:

1. Whether the utility is refunding the Advances to the developers or customers over the stipulated period of time. The CPUC rules provide that Advances shall be refunded by the utility, in cash, without interest for a period not to exceed 40 years after the date of the contract.
2. Whether the Advances are added to the rate base as the Advances are paid by the utility.
3. The value of Advances for assessment purposes. Generally, it is appropriate to compute the value of Advances using termination factors established by CPUC Rule 15.
4. Whether the value of Advances should be added to the total value of the remainder of the appraisal unit (i.e., utility company's property as a whole). The present worth of Advances is usually added to the value indicator derived using HCLD and, if applicable, would be added to a reproduction/replacement cost approach indicator.

For more general information regarding Advances, refer to Chapter 2, page 15, and Chapter 3, page 32.

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<sup>116</sup> Property contributed to a regulated utility (i.e., CIAC) is usually not included in the CPUC's rate base for determining the rates a utility can charge its customers because regulators generally do not allow the utility to recover the cost (return of) or earn a profit (return on) on property for which the utility did not pay.

<sup>117</sup> Account 241 (Class A) or account 252 (Classes B, C, D) in the Uniform System of Accounts. Any balances in this account not refunded in accordance with the utility's water main extension rules, are required to be transferred to account 265 (Class A) or account 271 (Classes B, C, D), *Contributions in Aid of Construction*.

## **VERIFICATION OF SUPPLIES**

The audit of supplies consists primarily of ensuring that the assessee has properly reported supplies on hand on the lien date. "Properly reported" means that (1) exempt inventory items were excluded, and (2) all assessable supply items were included.

Where the assessee maintains a supply inventory account in the general ledger, the auditor-appraiser must verify that the account is properly maintained and contains all purchases received prior to the lien date. A review of inventory accounts for supply items may also be warranted, as some items booked as inventory may be assessable supply items. Where supplies are expensed, the auditor-appraiser must review the supply expense accounts over the prior year. Based on this review, discussions with the assessee regarding the amount of supplies on hand, and observation during the facility tour, an auditor-appraiser should be able to effectively estimate a lien date supply amount.

## **VERIFICATION OF CONSTRUCTION-IN-PROGRESS**

The verification of construction-in-progress (CIP) involves matching expenditures to the existence of physical property as well as properly classifying that property. Where progress payments are being made, the assessee's books may reflect a considerable amount of expenditures in the construction-in-progress account. However, the assessee may not yet have possession of the property or the property may not have existed on the lien date or, as mentioned earlier, the property may have been received or constructed before the expenditures were posted. Existence and ownership of the items on the lien date are required elements for proper assessment. For example, if construction has not started as of the lien date, no value is assessable, assuming any material on hand belongs to the contractor and is classified as business inventory. If construction has started, an assessment of CIP is appropriate.<sup>118</sup>

As related to a rate base regulated public utility valued utilizing the income approach, an auditor-appraiser should also determine which portion of CIP is related to "new" construction versus "replacement" construction. The income of a company normally reflects the construction work in progress required to maintain replacement of existing facilities. However, CIP for new construction is normally not reflected in the income stream, because the new CIP has not had the opportunity to contribute to the earnings. Therefore, the value of "new" construction-in-progress is generally added to the value indicator derived using the income approach.

Similar to verification of leasehold improvements, verification of construction-in-progress also involves proper classification. Coordination between the auditor-appraiser and the real property appraiser is necessary to avoid duplicate assessments and escape assessments.

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<sup>118</sup> Determination of value should be based on market value on the lien date. See Chapter 3.

## VERIFICATION AND IDENTIFICATION OF LEASED EQUIPMENT

Errors in reporting and assessing leased equipment frequently occur as discussed in AH 504. Thus, an audit should include testing for leased property.

By reviewing the various records and accounts maintained by an assessee, an auditor-appraiser can discover, identify, and verify all leases or security arrangements. The principal sources of obtaining information for leased property are:

1. General Ledger — Accounts (such as lease and rental expense, accounts payable, and notes payable) in the general ledger will indicate whether the assessee was making lease or rental payments on the lien date.
2. Cash Disbursements Journal — This record will indicate the amounts and payees of lease and rental payments.
3. Lease Contracts — The monthly lease payment indicated on the lease contract should be compared to the amounts shown in the expense accounts. This will verify that all leases are accounted for and what costs are included in the lease payment/cost.
4. Financial Statements — The financial statements may indicate not only the existence of leases but may also give important information associated with such leases. The footnotes give a summary of the rental and lease commitments regarding operating leases (short-term or cancelable leases in which the risks of ownership lie with the lessor, FASB 13). The balance sheet gives information regarding leases similar to that found in the general ledger accounts.
5. Other Sources — Discussions with the assessee and/or physical inspection of the premises may indicate the existence of leased equipment.

When the auditor-appraiser has identified all leases, a comparison should be made between the lessor and lessee accounts maintained by the assessor to confirm accurate reporting (i.e., was the appropriate cost(s) reported at the appropriate trade-level) and correct assessment (i.e., was valued correctly, no duplicate assessment occurred, and no proper assessment was omitted).

## ITEMS OR AUDITS REQUIRING SPECIAL ATTENTION

Certain items tend to cause problems in reporting and valuations. In reviewing an assessee's records and reported costs, an auditor-appraiser may avoid some problems by discovering information sufficient to answer the questions listed below:

1. Does the reported or booked cost include all property costs (i.e., sales/use tax, freight, installation, etc.)?
2. Is all taxable property listed in the accounting records (i.e., fully-depreciated equipment, CIAC, Advances for Construction, leased equipment, property belonging to other entities,

expensed personal property, equipment purchased near the lien date, interest during construction, etc.)?)

3. Do all booked costs contribute to assessable value (i.e., CIAC, Advances for Construction, goodwill, covenant not to compete, unrecorded disposals, exempt property, rental equipment not on rent on the lien date, inventory, deferred income taxes, licensed vehicles, commercial coaches, etc.)?
4. Are water rights owned and held by the water company? Are the water rights assessable to the water company or another assessee?
5. Is the value of the water company reflected in the value of the land that it serves and to which shares attach?

To determine other items that may require special attention in certain circumstances refer to AH 504 (Chapter 4, *Valuation of Personal Property*; Chapter 5, *Assessment of Improvements Related to Business Property*; Chapter 6, *Special Issues*, and Chapter 8, *Audits*).

When the HCLD or income approaches to value are utilized to estimate the assessable value of a water company or system, an auditor-appraiser should concentrate on data relevant to the specific approach. For example, with regard to the HCLD approach, the depreciation used in the approach should reflect the book depreciation as required by the CPUC. An auditor-appraiser should ensure that the reported amount of depreciation reflects this amount. Much of these data may be similar to that mentioned earlier in regards to total property audits. Chapters 2 and 3 of this section of the handbook can also aid in identifying items that an auditor-appraiser should concentrate on with regard to each value approach.

## **INSPECTION OF PROPERTY**

At some point during most audits, the auditor-appraiser should take a "tour" of the premises to physically inspect the property being appraised. Normally, this is an important part of the audit process. A tour and inspection of the property being audited (appraised) contributes to the audit in the following ways: (1) confirms the existence and the location of the property, (2) confirms the correct classification of the property, (3) verifies the condition of the property, (4) verifies that all property is recorded in the books and/or reported on the property statement, (5) verifies that all property on the books actually exists at the location, and (6) verifies that valuation of the property as a whole is reasonable and accurate. However, with regard to a water company (or water system) the tour and inspection may be less significant. The auditor-appraiser may not be able to see or identify much of the assessable property (i.e., the property is underground and/or located throughout the county or state).

Where possible, an auditor-appraiser should attempt to sample the assets compiled based on review of the records against actual existing assets viewed during the tour and vice versa. This sample should be large enough to reasonably conclude the accuracy and completeness of the records being used as a basis for the assessable value.

## **AUDIT VALUATION AND SUMMARIZED FINDINGS**

When all information is gathered and reviewed, an auditor-appraiser must analyze the data and summarize the results. Within this portion of the audit, an auditor-appraiser will (1) compare audited cost, classification, and acquisition dates to reported information and/or revenue and expense information; (2) appraise the property and estimate audited value; (3) compare audited value to assessed value; and (4) produce findings in audit work papers. A thorough discussion of this step in the audit process is included in Chapter 8 of AH 504. The discussion in AH 504 applies to water company audits as it would to most other types of business accounts.

BOE-571-L (S1F) REV. 5 (8-00)  
**BUSINESS PROPERTY**  
**STATEMENT FOR 2001**  
*(Declaration of costs and other related property information as of 12:01 A.M., January 1, 2001)*

(Make necessary corrections to the printed name and mailing address.)

OWNER  
 NAME  
 DBA  
 STREET  
 CITY

RETURN THIS COPY BY APRIL 1, 2001

LOCATION OF THE PROPERTY  
 STREET  
 CITY

(File a separate statement for each location.)

**PART I: GENERAL INFORMATION**

COMPLETE (a) THRU (g) AS REQUESTED

- a. Enter type of business: \_\_\_\_\_
- b. Enter local telephone number ( ) \_\_\_\_\_ FAX number ( ) \_\_\_\_\_
- c. Do you own the land at this business location?  Yes  No  
 If yes, is the name on your deed recorded as shown on this statement?  Yes  No
- d. When did you start business at this location? DATE: \_\_\_\_\_  
 If your business name or location has changed from last year, enter the former name and/or location: \_\_\_\_\_
- e. Enter location of general ledger and all related accounting records (include zip code): \_\_\_\_\_

- f. Enter name and telephone number of authorized person to contact at location of accounting records: \_\_\_\_\_
- g. During the period of January 1, 2000 through December 31, 2000:
  - (1) Has all or part of this real property been subject to a change in ownership?  Yes  No
  - (2) Are any related entities conducting business in the county?  Yes  No  
 If yes, provide name, mailing address, and locations: \_\_\_\_\_
  - (3) If you leased this real property, has it been the subject of a lease agreement for a period of 35 years or more (including options)?  Yes  No
  - (4) Did you acquire "control" through acquisition of stock or otherwise of a legal entity which owns real property in this county?  Yes  No
  - (5) Did another person or entity acquire "control" through acquisition of stock or otherwise of this corporation or entity?  Yes  No

**PART II: DECLARATION OF PROPERTY BELONGING TO YOU**  
*(attach schedule for any adjustment to cost)*

	COST (per cents) <i>(see instructions)</i>	ASSESSOR'S USE ONLY	
1. Supplies			
2. Equipment <i>(From line 35)</i>			
3. Equipment out on lease or rent to others <i>(Attach Schedule)</i>			
4. Bldgs., Bldg. Impr., and/or Leasehold Impr., Land Impr., Land <i>(From line 71)</i>			
5. Construction in Progress <i>(Attach Schedule)</i>			
6. Alternate Schedule A <i>(See instructions)</i>			
7.			
8.			

**PART III: DECLARATION OF PROPERTY BELONGING TO OTHERS - IF NONE WRITE "NONE"**

(SPECIFY TYPE BY CODE NUMBER)

Report conditional sales contracts on Schedule A

	Year of Acq.	Year of Mfr.	Description and Lease or Identification Number	Cost to Purchase New	Annual Rent
1. Leased equipment 2. Leased-purchase option equipment 3. Capitalized leased equipment 4. Vending equipment 5. Other businesses 6. Government-owned property					
Tax Obligation: <input checked="" type="checkbox"/> A. Lessor <input type="checkbox"/> B. Lessee					
9. Lessor's name Mailing address					
10. Lessor's name Mailing address					

**OWNERSHIP TYPE (✓)**

- Proprietorship
- Partnership
- Corporation
- Other

**CERTIFICATION**

I certify (or declare) under penalty of perjury under the laws of the State of California that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief it is true, correct, and complete and covers all property required to be reported which is owned, claimed, possessed, controlled, or managed by the person named in the statement at 12:01 a.m. on January 1, 2001. If prepared by a duly authorized person other than the taxpayer, the declaration is based on all information of which the preparer has knowledge. This statement must be signed. Failure to do so could result in penalties. This declaration is binding on each and every co-owner and/or partner.

BUSINESS DESCRIPTION (✓)	NAME OF ASSESSEE OR AUTHORIZED AGENT (typed or printed)	TITLE
Retail <input type="checkbox"/>	SIGNATURE OF ASSESSEE OR AUTHORIZED AGENT	DATE
Wholesale <input type="checkbox"/>	NAME OF ENTITY (typed or printed)	FEDERAL EMPLOYER ID NUMBER
Manufacturer <input type="checkbox"/>	PREPARER'S NAME AND ADDRESS (typed or printed)	TITLE
Service/Professional <input type="checkbox"/>	SIGNATURE OF PREPARER	TELEPHONE NUMBER ( )
		DATE

\* Must be legal agent; see (S4B) SIGNATURE for definition of legal agent.

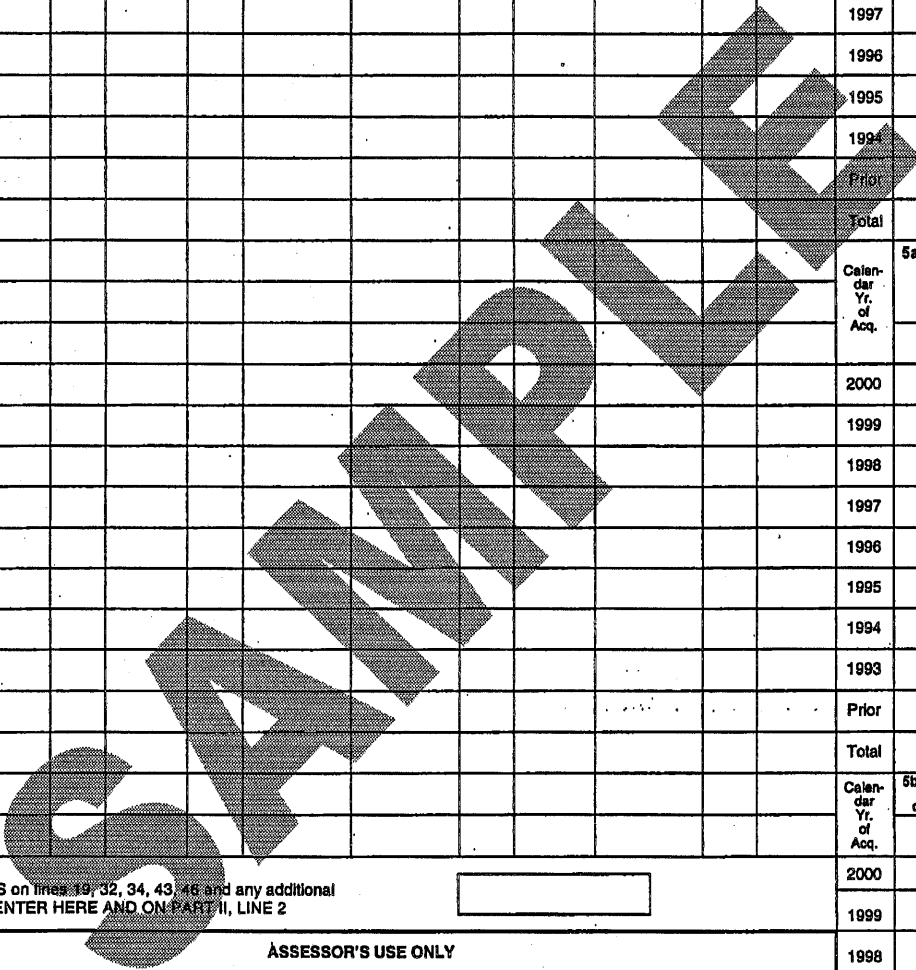
BOE-671-L (S1B) REV. 5 (8-00)

**SCHEDULE A — COST DETAIL: EQUIPMENT** (Do not include property reported in Part III.)

Include expensed equipment and fully depreciated items. Include sales or use tax, freight and installation costs.

Attach schedules as needed. Lines 18, 31, 33, and 42 "Prior"— Report detail by year(s) of acquisition on a separate schedule.

LINE NO	Calendar Yr. of Acq.	1. MACHINERY AND EQUIPMENT FOR INDUSTRY, PROFESSION, OR TRADE (do not include licensed vehicles)		2. OFFICE FURNITURE AND EQUIPMENT		3. OTHER EQUIPMENT (describe)		Calendar Yr. of Acq.	4. TOOLS, MOLDS, DIES, JIGS		
		COST	ASSESSOR'S USE ONLY	COST	ASSESSOR'S USE ONLY	COST	ASSESSOR'S USE ONLY		COST	ASSESSOR'S USE ONLY	
11	2000							2000			
12	1999							1999			
13	1998							1998			
14	1997							1997			
15	1996							1996			
16	1995							1995			
17	1994							1994			
18	1993							Prior			
19	1992							Total			
20	1991							5a. COMPUTERS Component cost of \$25,000.00 or less			
21	1990								COST	ASSESSOR'S USE ONLY	
22	1989										
23	1988							2000			
24	1987							1999			
25	1986							1998			
26	1985							1997			
27	1984							1996			
28	1983							1995			
29	1982							1994			
30	1981							1993			
31	1980							Prior			
32	1979							Total			
33	Prior							5b. COMPUTERS—Component cost of \$25,000.01 to \$500,000.00			
34	Total								COST	ASSESSOR'S USE ONLY	
35	Add TOTALS on lines 19, 32, 34, 43, 46 and any additional schedules: ENTER HERE AND ON PART II, LINE 2								2000		
36	ASSESSOR'S USE ONLY								1999		
37	CLASSIFICATION	COL.	FULL VALUE BASE	FULL VALUE	PERS. PROP. RCLND	PERS. PROP. ADJUSTMENT	PERS. PROP. FULL VALUE	1997			
38	Machinery & equipment	1						1996			
39	Office furniture & equipment	2						1995			
40	Tools, molds, dies & jigs	4						1994			
41	Computers	5a						1993			
42		5b						Prior			
43		5c						Total			
44	Other equipment	3						5c. COMPUTERS—Provide total cost of components costing \$500,000.01 or more and attach detailed schedule by year of acquisition			
45	Schedule B - Fixtures	-							TOTAL COST		
46	TOTALS										



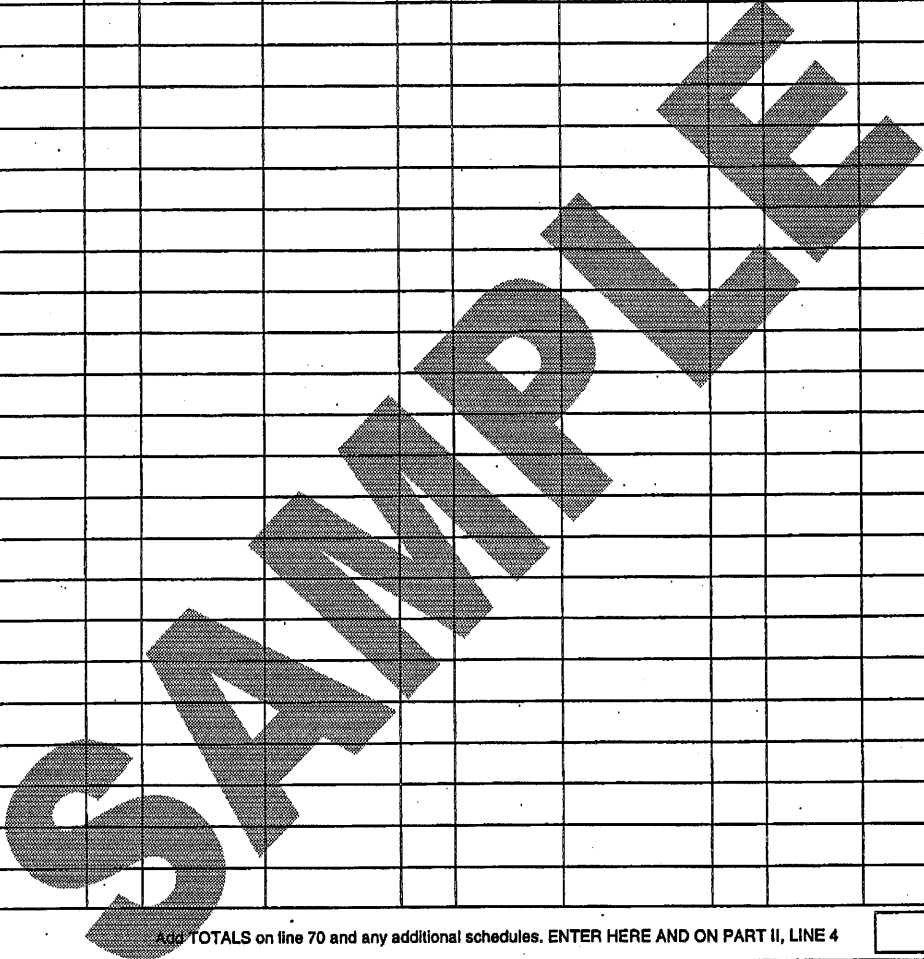


BOE-571-L (S2) REV. 5 (8-00)

**SCHEDULE B — COST DETAIL: BUILDINGS, BUILDING IMPROVEMENTS, AND/OR LEASEHOLD IMPROVEMENTS, LAND IMPROVEMENTS, LAND AND LAND DEVELOPMENT**

Attach schedules as needed. Line 69 "Prior"— Report detail by year(s) of acquisition on a separate schedule.

LINE NO	Calendar Yr. of Acq.	BUILDINGS, BUILDING IMPROVEMENTS, AND/OR LEASEHOLD IMPROVEMENTS				3. LAND IMPROVEMENTS <i>(e.g., blacktop, curbs, fences)</i>		4. LAND AND LAND DEVELOPMENT <i>(e.g., fill, grading)</i>	
		1. STRUCTURE ITEMS ONLY <i>(see instructions)</i>		2. FIXTURES ONLY <i>(see instructions)</i>		COST	ASSESSOR'S USE ONLY	COST	ASSESSOR'S USE ONLY
		COST	ASSESSOR'S USE ONLY	COST	ASSESSOR'S USE ONLY				
47	2000								
48	1999								
49	1998								
50	1997								
51	1996								
52	1995								
53	1994								
54	1993								
55	1992								
56	1991								
57	1990								
58	1989								
59	1988								
60	1987								
61	1986								
62	1985								
63	1984								
64	1983								
65	1982								
66	1981								
67	1980								
68	1979								
69	Prior								
70	Total								
71	Add TOTALS on line 70 and any additional schedules. ENTER HERE AND ON PART II, LINE 4								
72	Have you received allowances for tenant improvements for the current reporting period that are not reported above? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes indicate amount \$ _____								



REMARKS:

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**Appendix A: Mutual or Private Water Company Property Statement (540-S)**

Appendix A

BOE-540-S (FRONT) REV. 2 (8-00)

**OFFICIAL REQUIREMENT**

A report submitted on this form is required of you by section 441(d) of the Revenue and Taxation Code (Code). The statement must be completed according to the instructions and filed with the Assessor on or before \_\_\_\_\_. Failure to file it on time will compel the Assessor's Office to estimate the value of your property from other information in its possession and add a penalty of 10 percent as required by Code section 463.

Make necessary corrections to the printed name, mailing address and location of the property.

20 \_\_\_\_\_  
**MUTUAL OR PRIVATE  
 WATER COMPANY  
 PROPERTY STATEMENT**

This statement is not a public document. The information contained herein will be held secret by the Assessor (Code section 451); it can be disclosed only to the district attorney, grand jury, and other agencies specified in Code section 408. Attached schedules are considered to be part of the statement.

**1. PERSON OR CORPORATION NAME**

DBA \_\_\_\_\_  
 Mailing Address \_\_\_\_\_  
 City and State \_\_\_\_\_ Zip Code \_\_\_\_\_

**2. LOCATION OF EACH WATER SYSTEM:**

(a separate statement must be filed for each system located in this county. See instructions.)

4. TYPE OF SERVICE:  Domestic  Irrigation 5. Ownership:  Proprietorship  Partnership  Corporation  Other

6. YEAR STARTED SERVICE \_\_\_\_\_

**3. LOCAL PHONE NUMBER ( )**

**FINANCIAL DATA FOR YEAR ENDING \_\_\_\_\_**

TANGIBLE PLANT (omit cents)	BALANCE AT BEGINNING OF YEAR	ADDITIONS DURING YEAR	RETIREMENTS DURING YEAR	OTHER ADJUSTMENTS	BALANCE AT END OF YEAR	ASSESSOR'S USE ONLY
Land	\$	\$	\$	\$	\$	
Water Rights						
Buildings						
Other Improvements						
Lakes and Springs						
Other Source of Supply						
Wells						
Pump Equipment						
Purification Equipment						
Reservoirs						
Tanks						
Mains						
Services						
Meters						
Hydrants						
Office Furniture and Equipment						
Mobile Equipment Not Licensed by DMV						
Tools, Shop and Other Equipment						
Total Plant (sum of above items)						
Accrued Depreciation						
Total Plant Less Accrued Depreciation						
Construction Work in Progress						
Materials and Supplies						

REMARKS: \_\_\_\_\_

**CERTIFICATION**

I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing property statement, including any accompanying schedules and statements, is true, correct, and complete to the best knowledge and belief of the undersigned and covers all property at the above location owned, claimed, possessed, controlled or managed by the person named in the statement at 12:01 a.m. January 1, 20\_\_\_\_ and required to be reported on the statement. If prepared by a person other than the taxpayer, his or her declaration is based on all information of which he or she has knowledge. This declaration is binding on each and every co-owner and/or partner.

NAME OF ASSESSEE OR AUTHORIZED AGENT (typed or printed)	TITLE
SIGNATURE OF ASSESSEE OR AUTHORIZED AGENT	DATE
NAME OF ENTITY (typed or printed)	FEDERAL EMPLOYER ID NUMBER
PREPARER'S NAME AND ADDRESS (typed or printed)	TITLE
SIGNATURE OF PREPARER	TELEPHONE NUMBER ( )
	DATE

(Please complete statement on reverse side)

STATISTICAL DATA AS OF DECEMBER 31, 20 \_\_\_\_

	YEAR INSTALLED	ORIGINAL COST	NUMBER	TYPE	SIZE OR CAPACITY	LENGTH OR DEPTH	LOCATION	ASSESSOR'S USE ONLY
Buildings		\$						
Other improvements								
Lakes and springs								
Other source of supply								
Wells								
Pump equipment								
Purification equipment								
Reservoirs								
Tanks								
Mains — pipe lines — canals & ditches								
Services								
Meters								
Hydrants								
Office furniture and equipment								

Average number of customers during year \_\_\_\_\_ Total amount of water delivered during year \_\_\_\_\_

Does company own water rights in this county in addition to the water system?

Yes  No If yes, attach a listing and description of the water rights.

**PROPERTY OWNED BY OTHERS**

Did you hold merchandise or other personal property on consignment at 12:01 a.m. on January 1?  Yes  No If yes, list the name and address of the consignor, quantity, description and total amount to be remitted to consignor on a separate schedule and attach to this statement.

Did you hold equipment belonging to others on a loan, rental or lease basis at 12:01 a.m. on January 1?  Yes  No If yes, list the name and address of the owner or lessor, description, year constructed, cost if purchased, and rental on a separate schedule and attach to this statement.

Are any other individuals, partnerships, corporations, or joint ventures doing business on your premises?  Yes  No If yes, list the name and address of the owner and briefly describe the nature of the business on a separate schedule and attach to this statement.

**INSTRUCTIONS**

The Assessor may provide forms to allocate by code area the property described in this statement. All property (wells, pump houses, pumping plants, reservoirs, tanks, pipe lines, services, etc.) located on land owned by the assessee must be identified by the Assessor's Parcel Number of the land upon which located. If additional space is needed, attach a schedule that lists the parcel numbers.

The exact location of personal property (office furniture and equipment, other equipment, unlicensed equipment, construction work in progress, materials and supplies) on the land owned by the assessee, must be identified by the Assessor's Parcel Number of the land upon which located. If additional space is needed, attach a schedule that lists the parcel numbers.

Each system which is not connected to any other system by pipe lines or canals is considered to be a unit for appraisal purposes.

If costs are available, complete the schedule of Financial Data on the front of the property statement, along with the statistical data on the reverse side.

If cost data is not available and it is not feasible to develop cost, a description of the physical property, with date of construction or installation and original costs, should be reported in the schedule headed, Statistical Data as of December 31, 20 \_\_\_\_.

## **APPENDIX B: CALIFORNIA PUBLIC UTILITY COMMISSION (CPUC) FORMS**

In order to appraise property and audit records related to regulated public utility water companies, it is helpful to be familiar with documents and financial information that will be provided or otherwise obtained. Following is a sampling of the CPUC report required to be filed annually by regulated water companies with the CPUC. Information provided on similar documents will provide an appraiser with much of the information necessary to appraise the property associated with these businesses.

The sample is a Class A Water Utility report. However, the reports filed by other regulated water utilities (Classes B, C, and D) are essentially similar. The CPUC report for Class A regulated water companies is 45 pages long; therefore, only selected sheets are included in this appendix to familiarize appraisers and auditor-appraisers with the appearance of the report. The index for this report is also included to illustrate the types of information available in the CPUC report. A copy of a complete report can be obtained from the CPUC and/or is also located on the CPUC's web site ([www.cpuc.ca.gov/divisions/water/reports.htm](http://www.cpuc.ca.gov/divisions/water/reports.htm)).

**EXCERPTS FROM CPUC ANNUAL REPORT**

***Front Cover of CPUC Class A Annual Report***

[year]  
ANNUAL REPORT  
OF

---

(NAME UNDER WHICH CORPORATION, PARTNERSHIP, OR INDIVIDUAL IS DOING BUSINESS)

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(OFFICIAL MAILING ADDRESS) ZIP

TO THE  
PUBLIC UTILITIES COMMISSION  
STATE OF CALIFORNIA  
FOR THE  
YEAR ENDED DECEMBER 31, \_\_\_\_\_

REPORT MUST BE FILED NOT LATER THAN MARCH 31, \_\_\_\_  
(FILE TWO COPIES IF THREE RECEIVED)

**Page 1 of Class A Annual Report**

Year 19 \_\_\_\_

NAME OF UTILITY \_\_\_\_\_ PHONE \_\_\_\_\_

PERSON RESPONSIBLE FOR THIS REPORT \_\_\_\_\_

(Prepared from Information in the 19\_\_\_\_Annual Report)

	1/1/____	12/31/____	Average
<b>BALANCE SHEET DATA</b>			
1 Intangible Plant	_____	_____	_____
2 Land and Land Rights	_____	_____	_____
3 Depreciable Plant	_____	_____	_____
4     Gross Plant in Service	_____	_____	_____
5 Less: Accumulated Depreciation	_____	_____	_____
6     Net Water Plant in Service	_____	_____	_____
7 Water Plant Held for Future Use	_____	_____	_____
8 Construction Work in Progress	_____	_____	_____
9 Materials and Supplies	_____	_____	_____
10 Less: Advances for Construction	( _____ )	( _____ )	( _____ )
11 Less: Contributions in Aid of Construction	( _____ )	( _____ )	( _____ )
12 Less: Accumulated Deferred Income and Investment Tax Credits	( _____ )	( _____ )	( _____ )
13 Net Plant Investment	_____	_____	_____

<b>CAPITALIZATION</b>			
14 Common Stock	_____	_____	_____
15 Proprietary Capital (Individual or Partnership)	_____	_____	_____
16 Paid-in Capital	_____	_____	_____
17 Retained Earnings	_____	_____	_____
18     Common Stock and Equity (Lines 14 through 17)	_____	_____	_____
19 Preferred Stock	_____	_____	_____
20 Long-Term Debt	_____	_____	_____
21 Notes Payable	_____	_____	_____
22     Total Capitalization (Lines 18 through 21)	_____	_____	_____

**Page 2 of Class A Annual Report**

19 \_\_\_\_

NAME OF UTILITY \_\_\_\_\_ PHONE \_\_\_\_\_

	Annual Amount
<b>INCOME STATEMENT</b>	
23 Unmetered Water Revenue	_____
24 Fire Protection Revenue	_____
25 Irrigation Revenue	_____
26 Metered Water Revenue	_____
27 Total Operating Revenue	_____
28 <u>Operating Expenses</u>	_____
29 Depreciation Expense (Composite Rate _____)	_____
30 Amortization and Property Losses	_____
31 Property Taxes	_____
32 Taxes Other Than Income Taxes	_____
33 Total Operating Revenue Deduction Before Taxes	=====
34 California Corp. Franchise Tax	_____
35 Federal Corporate Income Tax	_____
36 Total Operating Revenue Deduction After Taxes	_____
37 Net Operating Income (Loss) - California Water Operations	_____
38 Other Operating and Nonoper. Income and Exp. - Net (Exclude Interest Expense)	_____
39 Income Available for Fixed Charges	_____
40 Interest Expense	_____
41 Net Income (Loss) Before Dividends	_____
42 Preferred Stock Dividends	_____
43 Net Income (Loss) Available for Common Stock	_____

<b>OTHER DATA</b>	
44 Refunds of Advances for Construction	_____
45 Total Payroll Charged to Operating Expenses	_____
46 Purchased Water	_____
47 Power	_____
<b>48 Class A Water Companies Only:</b>	
a. Pre-TRA 1986 Contributions in Aid of Construction	_____
b. Pre-TRA 1986 Advances for Construction	_____
c. Post TRA 1986 Contributions in Aid of Construction	_____
d. Post TRA 1986 Advances for Construction	_____

<u>Active Service Connections</u>	(Exc. Fire Protect.) _____	Jan. 1	Dec. 31	Annual Average
49 Metered Service Connections		_____	_____	_____
50 Flat Rate Service Connections		_____	_____	_____
51 Total Active Service Connections		_____	_____	_____

## INDEX FOR CLASS A ANNUAL REPORT

	<i>PAGE</i>		<i>PAGE</i>
Accidents . . . . .	36	Operating revenues . . . . .	28
Acres irrigated . . . . .	41	Organization and control . . . . .	4
Advances from associated companies . . . . .	22	Other deferred credits . . . . .	26
Advances for construction . . . . .	25	Other deferred debits . . . . .	18
Assets . . . . .	5	Other income . . . . .	7
Assets in special funds . . . . .	14	Other investments . . . . .	13
Balance Sheet . . . . .	5-6	Other physical property . . . . .	10
Bonds . . . . .	22	Payables to associated companies . . . . .	23
Capital stock . . . . .	19	Political expenditures . . . . .	37
Capital surplus . . . . .	20	Population served . . . . .	41
Contributions in aid of construction . . . . .	27	Premium on capital stock . . . . .	19
Depreciation and amortization reserves . . . . .	11	Prepayments . . . . .	16
Declaration . . . . .	42	Proprietary capital . . . . .	21
Discount on capital stock . . . . .	18	Purchased water for resale . . . . .	38
Discount and expense on funded debt . . . . .	17	Receivables from associated companies . . . . .	16
Dividends declared . . . . .	19	Revenues apportioned to cities . . . . .	28
Earned surplus . . . . .	20	Securities issued or assumed . . . . .	22
Employees and their compensation . . . . .	36	Service connections . . . . .	40
Engineering and management fees . . . . .	35	Sinking funds . . . . .	14
Franchises . . . . .	9	Sources of supply and water developed . . . . .	38
Income account . . . . .	7	Special deposits . . . . .	15
Income deductions . . . . .	7	Status with Board of Health . . . . .	42
Investments in associated companies . . . . .	13	Stockholders . . . . .	19
Liabilities . . . . .	6	Storage facilities . . . . .	38
Loans to officers, directors, or shareholders . . . . .	37	Taxes . . . . .	32
Management compensation . . . . .	36	Transmission and distribution facilities . . . . .	39
Meters and services . . . . .	40	Unamortized debt discount and expense . . . . .	17
Miscellaneous long-term debt . . . . .	22	Unamortized premium on debt . . . . .	17
Miscellaneous reserves . . . . .	26	Undistributed profits . . . . .	21
Miscellaneous special funds . . . . .	14	Utility plant . . . . .	8
Notes payable . . . . .	23	Utility plant in service . . . . .	8-9
Notes receivable . . . . .	15	Utility plant held for future use . . . . .	10
Officers . . . . .	4	Water delivered to metered customers . . . . .	41
Operating expenses . . . . .	29-31		



## APPENDIX C: REGULATED ACCOUNT LISTINGS

Regulatory commissions must investigate and review the operations of utilities within their jurisdiction. In order to ensure that the actions of regulators, such as the CPUC, are reasonable and consistent and that utilities are regulated on a comparable basis, uniformity of accounting treatment as well as consistency of treatment from period to period is necessary.<sup>119</sup> Uniformity and consistency are also important for other parties requiring accounting information from the public utility; such as, management, shareholders, and creditors.

To maintain uniformity and consistency, regulatory commissions develop a uniform system of accounts. All uniform systems of accounts include:<sup>120</sup>

1. A detailed list of specific account numbers and account titles
2. A definition of each account
3. Instructions regarding the accounting basis for recording amounts in specific accounts
4. General instructions and definitions, including:
  - Maintenance of accounting records
  - Required audit trails
  - Retention and destruction of accounting records

In applying a uniform system, an individual utility is not prohibited from developing sub-accounts, departmental accounts, or other records that supplement those required by the particular system.

Following are account listings for the Uniform System of Accounts applicable to Class A Water Utilities and Classes B, C, and D Water Utilities as prescribed by the CPUC.<sup>121</sup> These listings are provided to familiarize appraisers and auditor-appraisers with the records that will be encountered when appraising or auditing these types of companies. Additional information regarding the Uniform System of Accounts may be obtained from the CPUC.

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<sup>119</sup> *Accounting for Public Utilities*, section 11.02.

<sup>120</sup> *Ibid.*

<sup>121</sup> Current as of January 2000.

### **Uniform System of Accounts**

#### **CHART OF ACCOUNTS, CLASS A WATER UTILITIES<sup>122</sup>**

<b>Account</b>	<b>BALANCE SHEET ACCOUNTS</b>
	<b>ASSET AND OTHER DEBITS</b>
	<b>I. Utility Plant</b>
100	Utility Plant
107	Utility Plant Adjustments
	<b>II. Investment and Fund Accounts</b>
110	Other Physical Property
111	Investments in Associated Companies
112	Other Investments
113	Sinking Funds
114	Miscellaneous Special Funds
	<b>III. Current and Accrued Assets</b>
120	Cash
121	Special Deposits
122	Working Funds
123	Temporary Cash Investments
124	Notes Receivable
125	Accounts Receivable
126	Receivables from Associated Companies
131	Materials and Supplies
132	Prepayments
133	Other Current and Accrued Assets
	<b>IV. Deferred Debits</b>
140	Unamortized Debt Discount and Expense
141	Extraordinary Property Losses
142	Preliminary Survey and Investigation Charges
143	Clearing Accounts
145	Other Work in Progress
146	Other Deferred Debits

<sup>122</sup> Chart of accounts from *Uniform System of Accounts for Water Utilities (Class A, Class B and Class C)*, Prescribed by the Public Utilities Commission of the State of California, effective January 1, 1955. However, the chart of accounts for Classes B and C water utilities were modified April 17, 1985. See page 84.

	<b>V. Capital Stock Discount and Expense</b>
150	Discount on Capital Stock
151	Capital Stock Expense
	<b>LIABILITIES AND OTHER CREDITS</b>
	<b>VI. Capital Stock</b>
200	Common Capital Stock
201	Preferred Capital Stock
202	Stock Liability for Conversion
203	Premiums and Assessments on Capital Stock
204	Proprietary Capital
205	Undistributed Profits of Proprietorship or Partnership
	<b>VII. Long-Term Debt</b>
210	Bonds
211	Receivers' Certificates
212	Advances from Associated Companies
213	Miscellaneous Long-Term Debt
	<b>VIII. Current and Accrued Liabilities</b>
220	Notes Payable
221	Notes Receivable Discounted
222	Accounts Payable
223	Payables to Associated Companies
224	Dividends Declared
225	Matured Long-Term Debt
226	Matured Interest
227	Customers' Deposits
228	Taxes Accrued
229	Interest Accrued
230	Other Current and Accrued Liabilities
	<b>IX. Deferred Credits</b>
240	Unamortized Premium on Debt
241	Advances for Construction
242	Other Deferred Credits
	<b>X. Reserves</b>
250	Reserve for Depreciation of Utility Plant
251	Reserve for Amortization of Limited-Term Utility Investments
252	Reserve for Amortization of Utility Plant Acquisition Adjustments
253	Reserve for Depreciation and Amortization of Other Property

254	Reserve for Uncollectible Accounts
255	Insurance Reserve
256	Injuries and Damages Reserve
257	Employees' Provident Reserve
258	Other Reserves
	<b>XI. Contributions in Aid of Construction</b>
265	Contributions in Aid of Construction
	<b>XII. Surplus</b>
270	Capital Surplus
271	Earned Surplus
	<b>UTILITY PLANT ACCOUNTS</b>
	<b>I. Intangible Plant</b>
301	Organization
302	Franchises and Consents
303	Other Intangible Plant
	<b>II. Landed Capital</b>
306	Land and Land Rights
	<b>III. Source of Supply Plant</b>
311	Structures and Improvements
312	Collecting and Impounding Reservoirs
313	Lake, River and Other Intakes
314	Springs and Tunnels
315	Wells
316	Supply Mains
317	Other Source of Supply Plant
	<b>IV. Pumping Plant</b>
321	Structures and Improvements
322	Boiler Plant Equipment
323	Other Power Production Equipment
324	Pumping Equipment
325	Other Pumping Plant
	<b>V. Water Treatment Plant</b>
331	Structures and Improvements
332	Water Treatment Equipment

	<b>VI. Transmission and Distribution Plant</b>
341	Structures and Improvements
342	Reservoirs and Tanks
343	Transmission and Distribution Mains
344	Fire Mains
345	Services
346	Meters
347	Meter Installations
348	Hydrants
349	Other Transmission and Distribution Plant
	<b>VII. General Plant</b>
371	Structures and Improvements
372	Office Furniture and Equipment
373	Transportation Equipment
374	Stores Equipment
375	Laboratory Equipment
376	Communication Equipment
377	Power Operated Equipment
378	Tools, Shop and Garage Equipment
379	Other General Plant
	<b>VIII. Undistributed Items</b>
390	Other Tangible Property
391	Utility Plant Purchased
392	Utility Plant Sold
	<b>EARNED SURPLUS ACCOUNTS</b>
	<b>CREDITS</b>
400	Credit Balance Transferred from Income Account
401	Miscellaneous Credits to Surplus
	<b>DEBITS</b>
410	Debit Balance Transferred from Income Account
411	Dividend Appropriations-Preferred Stock
412	Dividend Appropriations-Common Stock
413	Miscellaneous Reservations of Surplus
414	Miscellaneous Debits to Surplus

<b>INCOME ACCOUNTS</b>	
<b>I. Utility Operating Income</b>	
501	Operating Revenues
502	Operating Expenses
503	Depreciation
504	Amortization of Limited-Term Utility Investments
505	Amortization of Utility Plant Acquisition Adjustments
506	Property Losses Chargeable to Operations
507	Taxes
508	Income from Utility Plant Leased to Others
510	Rent for Lease of Utility Plant
<b>II. Other Income</b>	
521	Income from Nonutility Operations
522	Revenues from Lease of Other Physical Property
523	Dividend Revenues
524	Interest Revenues
525	Revenues from Sinking and Other Funds
526	Miscellaneous Nonoperating Revenues
527	Nonoperating Revenue Deductions
<b>III. Income Deductions</b>	
530	Interest on Long-Term Debt
531	Amortization of Debt Discount and Expense
532	Amortization of Premium on Debt-Cr.
533	Taxes Assumed on Interest
534	Interest on Debt to Associated Companies
535	Other Interest Charges
536	Interest Charged to Construction-Cr.
537	Miscellaneous Amortization
538	Miscellaneous Income Deductions
<b>IV. Disposition of Net Income</b>	
540	Miscellaneous Reservations of Net Income
<b>OPERATING REVENUE ACCOUNTS</b>	
<b>I. Water Service Revenues</b>	
601	Metered Sales to General Customers
602	Unmetered Sales to General Customers
603	Sales to Irrigation Customers
604	Private Fire Protection Service
605	Public Fire Protection Service

606	Sales to Other Water Utilities for Resale
607	Sales to Governmental Agencies by Contracts
608	Interdepartmental Sales
609	Other Sales or Service
	<b>II. Other Water Revenues</b>
611	Miscellaneous Service Revenues
612	Rent from Water Property
613	Interdepartmental Rents
614	Other Water Revenues
	<b>OPERATING EXPENSE ACCOUNTS</b>
	<b>I. Source of Supply Expense</b>
	<b>Operation</b>
701	Operation Supervision and Engineering
702	Operation Labor and Expenses
703	Miscellaneous Expenses
704	Purchased Water
	<b>Maintenance</b>
706	Maintenance Supervision and Engineering
707	Maintenance of Structures and Improvements
708	Maintenance of Collecting and Impounding Reservoirs
709	Maintenance of Lake, River and Other Intakes
710	Maintenance of Springs and Tunnels
711	Maintenance of Wells
712	Maintenance of Supply Mains
713	Maintenance of Other Source of Supply Plant
	<b>II. Pumping Expenses</b>
	<b>Operation</b>
721	Operation Supervision and Engineering
722	Power Production Labor and Expenses
723	Fuel for Power Production
724	Pumping Labor and Expenses
725	Miscellaneous Expenses
726	Fuel or Power Purchased for Pumping
	<b>Maintenance</b>
729	Maintenance Supervision and Engineering
730	Maintenance of Structures and Improvements

731	Maintenance of Power Production Equipment
732	Maintenance of Pumping Equipment
733	Maintenance of Other Pumping Plant
	<b>III. Water Treatment Expenses</b>
	<b>Operation</b>
741	Operation Supervision and Engineering
742	Operation Labor and Expenses
743	Miscellaneous Expenses
744	Chemicals and Filtering Materials
	<b>Maintenance</b>
746	Maintenance Supervision and Engineering
747	Maintenance of Structures and Improvements
748	Maintenance of Water Treatment Equipment
	<b>IV. Transmission and Distribution Expenses</b>
	<b>Operation</b>
751	Operation Supervision and Engineering
752	Storage Facilities Expenses
753	Transmission and Distribution Lines Expenses
754	Meter Expenses
755	Customer Installations Expenses
756	Miscellaneous Expenses
	<b>Maintenance</b>
758	Maintenance Supervision and Engineering
759	Maintenance of Structures and Improvements
760	Maintenance of Reservoirs and Tanks
761	Maintenance of Transmission and Distribution Mains
762	Maintenance of Fire Mains
763	Maintenance of Services
764	Maintenance of Meters
765	Maintenance of Hydrants
766	Maintenance of Miscellaneous Plant
	<b>V. Customer Account Expenses</b>
	<b>Operation</b>
771	Supervision
772	Meter Reading Expenses
773	Customer Records and Collection Expenses
774	Miscellaneous Customer Accounts Expenses



775	Uncollectible Accounts
	<b>VI. Sales Expenses</b>
	<b>Operation</b>
781	Supervision
782	Demonstrating and Selling Expenses
783	Advertising Expenses
784	Miscellaneous Sales Expenses
785	Merchandising, Jobbing and Contract Work
	<b>VII. Administrative and General Expenses</b>
	<b>Operation</b>
791	Administrative and General Salaries
792	Office Supplies and Other Expenses
793	Property Insurance
794	Injuries and Damages
795	Employees' Pensions and Benefits
796	Franchise Requirements
797	Regulatory Commission Expenses
798	Outside Services Employed
799	Miscellaneous General Expenses
	<b>Maintenance</b>
805	Maintenance of General Plant
	<b>VIII. Miscellaneous</b>
811	Rents
812	Administrative Expenses Transferred - Cr.
813	Duplicate Charges-Cr.
	<b>CLEARING ACCOUNTS</b>
901	Charges by Associated Companies-Clearing
902	Stores Expenses-Clearing
903	Transportation Expenses-Clearing
905	Shop Expenses-Clearing
906	Tools and Work Equipment-Clearing

**CHART OF ACCOUNTS, CLASS B, C, AND D WATER UTILITIES<sup>123</sup>**

<b>BALANCE SHEET ACCOUNTS</b>	
<b>Account</b>	<b>ASSETS</b>
101	Water plant in service
103	Water plant held for future use
104	Water plant purchased or sold
105	Construction work in progress - water plant
108	Accumulated depreciation of water plant
108.1	Accumulated Amortization of SDWBA Loan
114	Water plant acquisition adjustments
121	Non-utility property and other assets
122	Accumulated depreciation of non-water utility property
131	Cash
131.1	Cash on hand
131.2	Cash in bank
132	Special Deposits
141	Accounts receivable - customers
143	Accumulated provision for uncollectible accounts
151	Materials and supplies
174	Other current assets
180	Deferred charges
<b>EQUITY AND LIABILITIES</b>	
201	Common stock
204	Preferred stock
211	Other paid-in capital
215	Retained earnings
218	Proprietary capital
218.1	Proprietary drawings
224	Long-term debt
231	Accounts payable
232	Short-term notes payable
235	Customer deposits
236	Accrued Taxes
237	Accrued Interest
237.1	Interest accrued on long-term debt
237.2	Interest accrued on SDWBA loan

<sup>123</sup> From CPUC, Decision 85 04 076, April 17, 1985.

237.3	Interest accrued on other liabilities
241	Other current liabilities
252	Advances for construction
253	Other credits
255	Accumulated deferred investment tax - credits
271	Contributions in aid of construction
272	Accumulated amortization of contributions - dr.
282	Accumulated deferred income taxes - ACRS depreciation
283	Accumulated deferred income taxes - other
	<b>PLANT ACCOUNTS</b>
	<b>Non-Depreciable</b>
301	Intangible plant
303	Land
	<b>Depreciable</b>
304	Structures
307	Wells
317	Other water source plant
311	Pumping equipment
320	Water treatment plant
330	Reservoirs, tanks and standpipes
331	Water mains
333	Services and meter installations
334	Meters
335	Hydrants
339	Other equipment
340	Office furniture and equipment
341	Transportation equipment
	<b>INCOME ACCOUNTS</b>
400	Operating revenues
401	Operating expenses
403	Depreciation expense
407	SDWBA loan amortization expense
408	Taxes other than income taxes
408.1	Property taxes
408.2	Payroll taxes
408.3	Other taxes and licenses
409	State corporate income tax expense
410	Federal corporate income tax expense
421	Non-utility income
426	Miscellaneous non-utility expense

427	Interest expense
	<b>Operating Revenue Accounts</b>
460	Unmetered water revenue
460.1	Single-family residential
460.2	Commercial and multi-residential
460.3	Large water users
460.5	Safe Drinking Water Bond Surcharge
460.9	Other unmetered revenue
462	Fire protection revenue
462.1	Public fire protection
462.2	Private fire protection
465	Irrigation revenue
470	Metered water revenue
470.1	Single-family residential
470.2	Commercial and multi-residential
470.3	Large water users
470.5	Safe Drinking Water Bond Surcharge
470.9	Other metered revenue
480	Other water revenue
	<b>Operating Expense Accounts</b>
	<b>Plant Operation and Maintenance Expenses</b>
	<b>A. Volume Related Expenses</b>
610	Purchased Water
615	Power
618	Other Volume Related Expenses
	<b>B. Non-Volume Related Expenses</b>
630	Employee Labor
640	Materials
650	Contract Work
660	Transportation Expense
664	Other Plant Maintenance Expenses
	<b>Administrative and General Expenses</b>
670	Office Salaries
671	Management Salaries
674	Employee Pensions and Benefits
676	Uncollectible Accounts Expense
678	Office Services and rentals
681	Office Supplies and expenses
682	Professional services
684	Insurance

688	Regulatory Commission expense
689	General expense
800	Expenses Capitalized (Optional)
900	Clearing Accounts (Optional)
900.1	Payroll Clearing (Optional)

## **APPENDIX D: SAMPLE VALUATION FORMS**

The following pages contain sheets designed to provide appraisers and auditor-appraisers with generalized formats for making computations pertaining to the historical cost (HCLD) and income approaches. Since the reproduction/replacement cost approach and the comparative sales approach are more commonly applied, a sample format is not provided for these appraisal methodologies. In general the HCLD and income approaches relate to privately-owned public utilities, although they may be utilized in the appraisals of other water-related properties in certain circumstances.

The format of the sheets presented on the following pages may be modified by the assessor as deemed appropriate and necessary based on the individual assessor's procedures and needs, property type, and/or available data. The forms are not being prescribed or even recommended by the Board for use by any assessor. They are merely provided to aid assessors in developing their own forms for internal use.

Each worksheet contains shaded areas to designate that input is required. These shaded areas are not computations. Formulas for computations using the input are noted.

## HISTORICAL COST LESS DEPRECIATION (HCLD) Value Worksheet

<u>Line</u>		<u>COST</u>	<u>SUBTOTAL</u>
	<b><u>Historical Cost:</u></b>		
1	Plant and Equipment		
2	Advances for Construction		
3	Contributions in Aid of Construction (CIAC)		
4	Land		
5	Other		
6	Total Historical Cost (all property)		(Line 1 + Line 2 + Line 3 + Line 4 + Line 5)
7	<i>Less:</i> Licensed Vehicles		
8	Contributions in Aid of Construction (CIAC)		
9	"Intangible" Assets		
10	Other		
11	Total Deductions from Historical Cost		(Line 7 + Line 8 + Line 9 + Line 10)
12	<i>Less:</i> Historical Cost of Advances		
13	Other		
14	Total Other Adjustments		(Line 12 + Line 13)
15	Total Taxable Property	(Line 6 - Line 11 - Line 14)	
16	<i>Less:</i> Depreciation Reserve (1)		
17	<i>Less:</i> Deferred Income Tax Adjustment (1)		
18	Total Historical Cost Less Depreciation Value Indicator		(Line 15 - Line 16 - Line 17)
19	Add: Materials & Supplies		
20	Construction in Process (CIP)		
21	Other		
22	<b>VALUE OF TOTAL TAXABLE PROPERTY</b>		(Line 18 + Line 19 + Line 20 + Line 21)

(1) Depreciation Reserve and Deferred Income Tax Adjustment amounts should not include amounts for nontaxable property excluded above such as licensed vehicles, intangibles, etc.

**INCOME APPROACH WORKSHEET****Summary Sheet**Line

1	Anticipated Operating Revenue	\$	
2	Less: Anticipated Operating Expenses		(1)
3	Less: Estimated Capital Replacement Allowance		
4	Anticipated Operating Income Before Income & Property Taxes	<hr/> <i>(Line 1 - Line 2 - Line 3)</i>	
5	Less: Working Cash Expense		(2)
6	Less: Income Imputed to Intangible Assets		
7	Appraisal Income	<hr/> <i>(Line 4 - Line 5 - Line 6)</i>	
8	Total Capitalization Rate		
9	Total Income Approach Value Indicator	<i>(Line 7 / Line 8)</i>	(3)
10	Less: Average Business Inventory		
11	Adjusted Income Approach Value Indicator	<hr/> <i>(Line 9 - Line 10)</i>	
12	Taxable Percent		(4)
13	Taxable Income Approach Value Indicator	<i>(Line 11 x Line 12)</i>	(5)
14	Add: Materials & Supplies Additive		
15	Construction in Process (CIP) Additive		
16	Other		
17	Total Taxable Value	<hr/> <i>(Line 13 + Line 14 + Line 15 + Line 16)</i> <hr/>	

(1) Excluding depreciation, amortization, income and property taxes

(2) Excluding capital replacement allowance, income and property taxes

(3) Appraisal Income / Total Capitalization Rate

(4) Historical Cost of Taxable Property in Service / (Historical Cost of Taxable + Non-Taxable Property)

(5) Adjusted Income Approach Value Indicator x Taxable Percent



## INCOME APPROACH WORKSHEET

### Computations

*Line*

#### Working Cash Expense

1	Basic Capitalization Rate	
2	Corp. Income Tax Per \$ of Value	<i>Line 28</i>
3	Adjusted Capitalization Rate	<i>(Line 1 + Line 2)</i>
4	Required Working Cash (if available)	
5	Anticipated Operating Expenses	
6	18 Days or Approximately 5 Percent	<i>(Line 5 x 5 %)</i>
7	<b>Estimated Working Cash Expense</b>	<b><i>(Line 3 x Line 4) or (Line 3 x Line 6)</i></b>

#### Income Imputed to Intangible Assets

8	Intangible Assets	
9	Adjusted Capitalization Rate	<i>(Line 1 + Line 2)</i>
10	<b>Income Imputed to Intangible Assets</b>	<b><i>(Line 8 x Line 9)</i></b>

#### Property Tax Rate

11	Property Tax, Previous Year	
12	Property Value, Previous Year	
13	<b>Property Tax Rate (If less than 1%, use 1%)</b>	<b><i>Line 11/Line 12</i></b>

#### Effective Income Tax Rate

14	Anticipated Operating Revenue	
15	Less: Anticipated Operating Expenses	
16	Less: Estimated Capital Replacement Allowance <sup>124</sup>	
17	Anticipated Operating Income Before Income & Property Taxes	<i>(Line 14 - Line 15 - Line 16)</i>
18	Less: Property Tax, Current Year	
19	Adjusted Operating Income Before Income Tax	<i>(Line 17 - Line 18)</i>
20	<b>Effective Income Tax Rate</b>	<b><i>(Income tax rate based on Line 19)</i></b>

#### Income Tax Component

21	Basic Capitalization Rate	
22	Debt Ratio	
23	Debt Rate	
24	Interest Per \$ of Value	<i>(Line 22 x Line 23)</i>
25	After Corp. Income Tax Per \$ of Value	<i>(Line 21 - Line 24)</i>
26	One Minus Effective Income Tax Rate	<i>(1 - Line 20)</i>
27	Pre-Corp. Income Tax Profit Per \$ of Value	<i>(Line 25/Line 26)</i>

<sup>124</sup> Current year depreciation expense.

## INCOME APPROACH WORKSHEET

### Computations

<i>Line</i>		
28	<b>Corp. Income Tax Per \$ of Value</b>	<i>(Line 27 - Line 25)</i>
	<b>Total Capitalization Rate</b>	
29	Basic Capitalization Rate	
30	Property Tax Rate	<i>Line 13</i>
31	Corp. Income Tax Per \$ of Value	<i>Line 28</i>
32	<b>Total Capitalization Rate</b>	<i>(Line 29 + Line 30 + Line 31)</i>
	<b>Average Business Inventory</b>	
33	Business Inventory as of beginning of period	
34	Business Inventory as of end of period	
35	Average Business Inventory (if available)	
36	<b>Average Business Inventory</b>	<i>Line 35 or ((Line 33 + Line 34)/2)</i>
	<b>Construction-in-Progress (CIP or CWIP) Additive</b>	
37	Total CIP	
38	Growth CIP (if available)	
39	<b>CIP Additive</b>	<i>Line 37 or (Line 38 - Line 42)</i>
	<b>Materials and Supplies (M&amp;S) Additive</b>	
40	Reported Materials and Supplies	
41	RCN of Depreciable Plant in Service	
42	RCN of Depreciable Plant in Service x 1.5%	<i>(Line 41 x 1.5%)</i>
43	Reported Materials & Supplies Additive	
44	<b>Materials and Supplies Additive</b>	<i>Line 43 or (Line 40 - Line 42)</i>

## APPENDIX E: INCOME TAX COMPONENT CALCULATION

Basic capitalization rates often represent required rates of return after payment of corporate income taxes. The basic capitalization rates developed by the Board's Valuation Division in annual capitalization rate studies, for example, are prospective purchasers' required rates of return after payment of corporate income taxes.<sup>125</sup> A component that provides for the income taxes of a prospective purchaser is added to the basic rate along with the components for recapture and property taxes, as necessary,<sup>126</sup> to arrive at a total capitalization rate.

Following is an example of an income tax component calculation, using the perpetual life model. As noted in the main text, the perpetual life model income approach is generally recommended for water system properties. This methodology is generally utilized by the Board's Valuation Division in the appraisal of public utilities.<sup>127</sup> This methodology is also generally recommended to assessors for use in applying the income approach to value to water system properties where the income approach is considered a valid indicator. Assessors, appraisers, and/or auditor-appraisers should use their appraisal judgment and experience to determine the applicability of this methodology to a subject property.

<b>Example F-1 Computation of Income Tax Component</b>		
Basic Capitalization Rate		13.28 %
Debt Ratio	20.0 %	
Debt Rate	7.42 %	
Interest per \$ of Value (20.0% x 7.42%)		1.48 %
Profit (after Corporate Income Tax) per \$ of Value (13.28% - 1.48% )		11.80 %
Effective Income Tax Rate	41.75 %	
One minus Effective Income Tax Rate (1 - 41.75%)		59.25 %
Pre-Corporate Income Tax Profit per \$ of Value (11.80% / 59.25%)		19.92 %
Corporate Income Tax per \$ of Value (19.92% - 11.80%)		8.12 %
<b>Income Tax Component</b>		<b>8.12 %</b>

A recapture component is not added to the total capitalization rate, or in the example above, estimated when the perpetual life model is applied. It is not appropriate to add a recapture

<sup>125</sup> The annual study is available upon request.

<sup>126</sup> Taxes measured by income, such as the federal corporate income tax and the California corporate franchise tax, are excluded from the definition of gross outgo pursuant to Property Tax Rule 8 (c).

<sup>127</sup> The methodology is discussed in the *Unitary Valuation Methods*, State of California Board of Equalization.

component in arriving at the total capitalization rate using this model because the income stream already includes a cash outflow for capital replacements.

The recapture component or capital recovery rate is added to a basic capitalization rate (which is an after income tax rate) to compute the total rate before income tax adjustment when other models are applied (i.e., level terminal income stream or straight line declining income stream). The recapture rate used in those cases should be consistent with the underlying premise in the capitalization model used in the appraisal. If the appraiser or auditor-appraiser projects a level terminal income stream, the sinking fund factor, at the applicable basic rate and remaining economic life (REL), should be used. If a straight line declining income stream is projected, the recovery rate should be  $1/REL$ .

If material, an adjustment for the tax deductibility of depreciation is then accounted for by adjusting straight line or financial depreciation to reflect the benefits of accelerated depreciation as allowed by modified accelerated cost recovery system (MACRS). This is accomplished by multiplying the straight-line depreciation rate by the 'J' factor. Because the tax lives of used properties are generally not materially different from the remaining economic life of those properties, the 'J' factor is only calculated for a unit comprised entirely of new assets. Refer to *Unitary Valuation Methods*, State of California Board of Equalization, for information regarding the 'J' factor and other income approach models.

## GLOSSARY

<b>Term</b>	<b>Definition</b>
<b>Advances for Construction</b>	Money expended by a customer or customers in order to receive service. For example, developers may give advances to utilities in order for the utility to connect to or provide service to their projects. Also referred to as Advances.
<b>Anticipated Income</b>	Future income payments expected or hoped for by an investor in property.
<b>Appurtenant</b>	A thing is <i>appurtenant</i> to something else when it stands in relation of an incident to a principal and is necessarily connected with the use and enjoyment of the latter. A thing is deemed to be incidental or <i>appurtenant</i> to land when it is by right used with the land for its benefit, as in the case of a way, or water-course, or of a passage for light, air, or heat from or across the land of another.
<b>Assessed Value</b>	The taxable value of a property against which the tax rate is applied.
<b>Assessee</b>	Person who owns, claims, possesses, or controls the property on the lien date.
<b>Audit</b>	Means of collecting data relevant to the determination of taxability, situs, and value of property.
<b>Base Year Value</b>	In accordance with section 110.1, a property's base year value is its fair market value as of either the 1975 lien date or the date the property was last purchased, newly constructed, or underwent a change in ownership after the 1975 lien date.
<b>Book Value</b>	Capitalized cost less depreciation as estimated by the accountant.
<b>Capitalization Rate</b>	Any rate used to convert income into an indicator of value; a ratio that expresses a relationship between income and value.
<b>Comparative Sales Approach</b>	An approach to value by reference to sale prices of the subject property or comparable properties; under Rule 4, the preferred approach when reliable market data are available.
<b>Contributions in Aid of Construction</b>	Property which was donated or given to a utility. Customers, usually developers, contribute property to utilities in order to induce them to connect to or provide service to their projects. Also referred to as CIAC.

<b>Term</b>	<b>Definition</b>
<b>Deferred Income Taxes</b>	Accrued income tax credit or accrued income tax charges arising from the use of different accounting methods for financial reporting and income tax purposes. To conform to regulatory requirements, public utilities generally use straight-line depreciation for financial accounting purposes. However, to minimize income tax liability, accelerated depreciation is generally used. The use of two different depreciation methods creates a tax timing difference known as deferred income taxes.
<b>Depreciation</b>	A decrease in utility resulting in a loss in property value; the difference between estimated replacement or reproduction cost new as of a given date and market value as of the same date. There are three principal categories of depreciation: physical deterioration, functional obsolescence, and external obsolescence.
<b>Direct Capitalization</b>	A capitalization method used to convert a single year's income expectancy into an indicator of value, either by dividing the income estimate by an appropriate rate or by multiplying the income estimate by an appropriate factor.
<b>Direct Costs</b>	Expenditures required for the labor and materials necessary to develop and construct an improvement (or personal property); sometimes referred to as "hard costs."
<b>Discount Rate</b>	A selected yield rate use to convert expected future payments into an estimate of present value.
<b>Economic Life</b>	Useful or profitable life of property, which may be shorter than the physical life.
<b>Economic Obsolescence</b>	See <i>External Obsolescence</i> .
<b>Equipment Index Factor</b>	Multiplier used to "trend" the historical cost of property to an estimated replacement cost new.
<b>External Obsolescence</b>	Form of depreciation. Also referred to as <i>Economic Obsolescence</i> . The loss in utility and value due to an incurable defect caused by external negative influences outside the property itself.

<b>Term</b>	<b>Definition</b>
<b>Fair Market Value</b>	The price at which a property, if exposed for sale in the open market with a reasonable time for the seller to find a purchaser, would transfer for cash or its equivalent under prevailing market conditions between parties who have knowledge of the uses to which the property may be put, both seeking to maximize their gains and neither being in a position to take advantage of the exigencies of the other.
<b>Fixture</b>	An item of tangible property, the nature of which was originally personal property, but which is classified as real property for assessment purposes because it is physically or constructively annexed to real property with the intent that it remain annexed indefinitely.
<b>Full Economic Cost</b>	Cost for appraisal purposes. Includes all market costs (direct and indirect) necessary to purchase or construct equipment and make it ready for its intended use.
<b>Functional Obsolescence</b>	Form of depreciation. The loss in utility and value due to changes in the desirability of the property; attributable to changes in tastes and style or the result of a poor original design. Functional obsolescence is curable if the cost to cure it is equal to or less than the value added by curing it.
<b>Government-Owned (Publicly-Owned) Water System</b>	Properties owned or held by agencies of the federal, state, county, or local (cities, school, fire, water, or sanitary districts) governments. These water systems are generally not subject to regulation by the CPUC, and in many cases are exempt from property taxation.
<b>Gross Income</b>	Income from the operation of a business or the management of property, customarily stated on an annual basis. Gross income is income to the property from all sources.
<b>Historical Cost</b>	The total cost of a property when it was originally constructed or purchased.
<b>Improvements</b>	All buildings, structures, fixtures, and fences erected on or affixed to the land; all fruit, nut bearing, ornamental trees and vines, not of natural growth, and not exempt from taxation, except date palms under eight years of age.

<b>Term</b>	<b>Definition</b>
<b>Income Approach</b>	Any method of converting an income stream or series of future income payments into an indicator of present value.
<b>Indirect Costs</b>	The outlay for items, other than labor and materials, required to develop and construct an improvement or personal property; includes such costs as (1) legal fees, property taxes, construction financing, administrative expenses, appraisal fees, and lease-up expenses for real property and/or (2) freight, installation, interest on borrowed funds, and testing costs for personal property. Sometimes referred to as "soft costs."
<b>Interest Rate</b>	The rate of return on debt capital; the price paid for borrowing money.
<b>Land</b>	Real estate, or real property, except improvements. It includes: the possession of, claim to, ownership of, or right to possession of land; and all mines, minerals, and quarries in the land, all standing timber whether or not belonging to the owner of the land, and all rights and privileges appertaining thereto.
<b>Leasehold/Tenant Improvement</b>	Improvements made by the lessee/tenant.
<b>Lessee</b>	One who has the right to use (or occupy) property under a lease agreement. (In terms of real property a tenant.)
<b>Lessor</b>	One who conveys the right to use (and/or occupy) property under a lease agreement. (In terms of real property a landlord.)
<b>Lien Date</b>	All taxable property (both state and locally assessed) is assessed annually for property tax purposes as of 12:01 a.m. on January 1, which is called the lien date. It is referred to as the lien date because on this date the taxes become a lien against all real property assessed on the secured roll.
<b>Mandatory Audit</b>	Audits required by law. For taxpayers owning or possessing tangible business personal property and fixtures with a full cash value of \$400,000 or more, section 469 requires an audit at least once in each four-year period.
<b>Market Value</b>	Also referred to as full cash value or fair market value. See <i>Fair Market Value</i> .



<b>Term</b>	<b>Definition</b>
<b>Mutual Water Company</b>	Private (usually non-profit) association created for the purpose of providing water primarily to its stockholders or members.
<b>Nonmandatory Audit</b>	Audits not required by law, but authorized by section 470 and Rule 192(e).
<b>Other Water Source Properties</b>	Include privately-owned and used water systems; and properties located on or associated with entities such as manufactured home parks, campgrounds, lodges, and country clubs. These water source properties offer no service to the general public.
<b>Percent Good</b>	The complement of depreciation; if a property is 20 percent depreciated, its percent good is 80 percent; percent good refers to the portion of benefits remaining in an asset compared to the total benefits when new.
<b>Personal Property</b>	All property except real property.
<b>Physical Deterioration</b>	Form of depreciation. The loss in utility and value due to some physical deterioration in the property; considered curable if the cost to cure it is equal to or less than the value added by curing it.
<b>Possessory Interest</b>	Interests in real property that exist as a result of (1) a possession of real property that is independent, durable and exclusive of rights held by others in the real property, and that provides a private benefit to the possessor, except when coupled with the ownership of a fee simple or life estate in the real property in the same person; or (2) a right to the possession of real property, or a claim to a right to the possession of real property, that is independent, durable and exclusive of rights held by others in the real property, and that provides a private benefit to the possessor, except when coupled with the ownership of a fee simple or life estate in the real property in the same person; or (3) taxable improvements on tax-exempt land.
<b>Principle of Substitution</b>	When several similar or commensurate commodities, goods, or services are available, the one with the lowest price attracts the greatest demand and widest distribution. This principle assumes rational, prudent market behavior with no undue cost due to delay. A buyer will not pay more for one property than for another that is equally desirable.
<b>Property</b>	Property includes all matters and things—real, personal, and mixed—that are capable of private ownership.

<b>Term</b>	<b>Definition</b>
<b>Public Utility</b>	A regulated business providing an essential public service such as electricity, natural gas, telephone, or water.
<b>Rate Base</b>	The dollar amount established by a regulatory agency on which a return is allowed.
<b>Real Property</b>	The possession of, claim to, ownership of, or right to the possession of land; all mines, mineral, and quarries in the land; all standing timber whether or not belonging to the owner of the land, and all rights and privileges appertaining thereto; and improvements; in California property tax law, the term is synonymous with "real estate."
<b>Regulated Public Water Utility</b>	A company in business to earn a profit from the sale of water and subject to regulation by the California Public Utilities Commission (CPUC).
<b>Remaining Economic Life (REL)</b>	The estimated period during which the improvements will continue to contribute to a property's value.
<b>Replacement Cost</b>	The cost required to replace an existing property with a property that has equivalent utility.
<b>Reproduction Cost</b>	The cost required to reproduce an exact replica of an existing property.
<b>Service Life</b>	Period of time (or service) extending from the date of installation to the date of retirement from service.
<b>Situs</b>	The place where property is legally situated, the more or less permanent location of the property.
<b>Stock and Debt Approach</b>	Values all of the assets of a corporation, taxable and nontaxable. The current market value of the company's stock (equity) is added to the current market value of its liabilities (debt) to equal the total value of all corporate assets as valued in the capital market.
<b>Structure</b>	An edifice or building; an improvement whose primary use or purpose is for housing or accommodation of personnel, personalty, or fixtures and has no direct application to the process or function of the industry, trade, or profession.
<b>Supplies</b>	Property used up in the normal operation of a business, but which are not intended for sale or lease.

<b>Term</b>	<b>Definition</b>
<b>Taxable Possessory Interest</b>	A private right to possession and use of publicly owned property for a period of time less than perpetuity.
<b>Taxable Value</b>	For real property subject to article XIII A of the California Constitution, the base year full value adjusted for any given lien date as required by law or the full cash value for the same date, whichever is less, as set forth in section 51(a).
<b>Tenant Improvement</b>	See <i>Leasehold/Tenant Improvement</i> .
<b>Termination Factors</b>	Factors used to compute the present worth (assessable value) of Advances for Construction (Advances).
<b>Trade Level</b>	Property normally increases in value as it progresses through production and distribution channels.
<b>Yield Capitalization</b>	A capitalization method used to convert future benefits to present value by discounting each future benefit at an appropriate yield rate or by developing an overall rate that reflects the investment's income pattern, value change, and yield rate.
<b>Yield Rate</b>	A measure of investment return (usually annualized) that is applied to a series of incomes to obtain the present value of each; examples are the interest rate, the discount rate, the internal rate of return, and the equity yield rate.

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# **PART II**

# **ASSESSMENT OF WATER RIGHTS**

# Part II: Assessment of Water Rights

## Table Of Contents

<b>CHAPTER 1: INTRODUCTION.....</b>	<b>1</b>
WATER.....	1
<i>California's Water Supply</i> .....	1
<i>Water Use</i> .....	2
WATER RIGHTS.....	2
<i>Introduction To Water Rights</i> .....	2
<i>Definition of Water Rights</i> .....	2
<i>Types of Water Rights</i> .....	3
<i>Principle of Reasonable and Beneficial Use</i> .....	3
<i>Duty of Water</i> .....	4
WATER RIGHTS ARE TAXABLE AS REAL PROPERTY.....	4
<i>Definition of Property</i> .....	4
<i>Water as Real Property</i> .....	4
<i>Real Property Attributes Apply to Water Rights</i> .....	5
<i>Water Rights as Property</i> .....	5
<i>Taxation of Water Rights</i> .....	6
WATER RIGHTS ARE TRANSFERABLE.....	6
<i>Public Policy Supports Transfers</i> .....	6
<i>Non-Assessable Transfers</i> .....	7
TYPES AND SOURCES OF WATER .....	8
<i>Surface Water</i> .....	8
<i>Ground Water</i> .....	8
<b>CHAPTER 2: TYPES OF WATER RIGHTS.....</b>	<b>10</b>
RIPARIAN RIGHTS.....	10
<i>Definition, Nature and Extent</i> .....	10
<i>Ownership of Riparian Rights</i> .....	11
<i>Waters to Which Riparian Rights Attach</i> .....	11
<i>Loss of Riparian Rights</i> .....	11
APPROPRIATIVE RIGHTS .....	12
<i>Definition, Nature and Extent</i> .....	12
<i>Ownership of Appropriative Rights</i> .....	12
<i>Waters to Which Appropriative Rights Attach</i> .....	13
<i>Loss of Appropriative Rights</i> .....	14
OVERLYING RIGHTS (PERCOLATING GROUND WATER) .....	14
<i>Definition, Nature and Extent</i> .....	14
<i>Ownership of Overlying Rights</i> .....	15
<i>Waters to Which Overlying Rights Attach</i> .....	15
<i>Loss of Overlying Rights</i> .....	16
PRESCRIPTIVE RIGHTS .....	16
<i>Definition, Nature and Extent</i> .....	16

<i>Ownership of Prescriptive Rights</i> .....	16
<i>Waters Subject to Prescription</i> .....	17
<i>Loss of Prescriptive Rights</i> .....	17
ADJUDICATED WATER RIGHTS.....	17
PUEBLO RIGHT.....	18
<b>CHAPTER 3: VALUATION.</b> .....	<b>20</b>
WATER RIGHTS ASSESSABLE AS REAL PROPERTY .....	20
<i>Legal Basis for the Taxation of Water Rights</i> .....	20
<i>Separate Assessment of Water Rights</i> .....	20
APPRAISAL OF WATER RIGHTS.....	21
<i>Creation of a New Water Right</i> .....	21
<i>Change of Ownership</i> .....	21
<i>Ownership and Situs</i> .....	22
<i>Purpose of the Appraisal</i> .....	22
<i>Valuation Date</i> .....	22
<i>Definition of Value</i> .....	23
<i>Highest and Best Use</i> .....	23
FACTORS USED TO VALUE A WATER RIGHT .....	23
<i>Analysis of the Type of Transaction</i> .....	23
<i>Sources of Information</i> .....	24
VALUATION APPROACHES .....	25
<i>Comparative Sales Approach</i> .....	25
Applicability and Limitations. ....	26
Comparable Sales Data .....	26
Reconciliation within the Comparative Sales Approach.....	28
Example of Comparative Sales Approach.....	29
<i>Cost Approach (Reproduction and Replacement)</i> .....	30
<i>Income Approach</i> .....	31
Return on and Return of Capital.....	31
Example of Income Approach .....	32
<i>Reconciliation of Values.</i> .....	32
SPECIAL TOPICS .....	33
<i>Severance of Water Rights from a Parcel</i> .....	33
<i>Temporary Loss or Reduction of Water Rights</i> .....	33
<i>Valuation of Water Rights Appurtenant to Land Subject to the California Land Conservation Act.</i> .....	34
<i>Ground Water Management Districts &amp; Watermaster Service Areas</i> .....	35
Watermasters –Adjudicated Ground Water Basins .....	35
Ground Water Management Districts.....	35
Watermaster Service Areas–Surface Waters.....	36
Watermasters as a Resource.....	36
<b>APPENDIX A: GROUND WATER BASINS AND SURFACE WATER AREAS</b> .....	<b>37</b>
ADJUDICATED GROUND WATER BASINS IN SOUTHERN CALIFORNIA .....	37
WATERMASTERS–CONTACTS FOR WATER RIGHTS TRANSFERS IN SOUTHERN CALIFORNIA .....	39

ADJUDICATED WATER RIGHTS—SURFACE WATER SERVICE AREAS IN NORTHERN CALIFORNIA .....41

GROUND WATER MANAGEMENT DISTRICTS/AGENCIES WHICH REGULATE EXTRACTION .....42

**APPENDIX B: CONTENTS OF SOURCE DOCUMENTS .....43**

PURCHASE AGREEMENTS .....43

PETITION FOR CHANGES .....43

APPLICATION TO APPROPRIATE WATER .....44

STATEMENT OF WATER DIVERSIONS AND USE.....45

NOTICE OF EXTRACTION AND DIVERSION OF WATER.....46

LICENSE RECORDED WITH THE COUNTY RECORDER'S OFFICE.....47

OTHER INFORMATION – BOOKS, LEDGERS AND RELATED DOCUMENTS.....47

**APPENDIX C: POSTED NOTICE ON AN APPROVED PERMIT .....48**

**GLOSSARY.....49**

**BIBLIOGRAPHY .....52**



# CHAPTER 1: INTRODUCTION

## WATER

### CALIFORNIA'S WATER SUPPLY

The average statewide precipitation in California measures almost two feet annually.<sup>1</sup> About 60% of the precipitation evaporates or is consumed by plants or percolates into the ground. The remaining 40%, about 71 million acre-feet, is runoff or surface water.<sup>2</sup> However, the amount of runoff can vary greatly, ranging from a low of 15 million acre-feet in the 1977 drought year to 135 million acre-feet in 1983.<sup>3</sup> The state also receives runoff from Oregon, about 1.4 million acre-feet annually. Finally, California imports water from the Colorado River under an annual entitlement of 4.4 million acre-feet.<sup>4</sup>

California has an available water supply of about 77 million acre-feet in an average year, which is generally sufficient to meet the state's demands; however, the water must be stored and transported long distances. Most of the state's available surface water is collected in local, state, and federal reservoirs. The current capacity of California's reservoirs is about 43 million acre-feet of water.<sup>5</sup>

The State Water Project and the Central Valley Water Project are the two major water projects in the state.<sup>6</sup> Both projects extract water from the Delta for delivery south of the Delta. The Central Valley Project, operated by the United States Bureau of Reclamation, is the largest water supplier in the state and supplies water primarily for agricultural purposes. The State Water Project, operated by the Department of Water Resources, supplies water to 30 public agencies authorized to provide water service within their designated areas throughout the state. About half the project's yield is provided to the Metropolitan Water District of Southern California.

In addition, 450 ground water basins in the state store an estimated 850 million acre-feet of water. More than half of this supply is too far from the surface to be economically pumped. In an average year, ground water provides about 20% of the state's water supply.<sup>7</sup> Ground water is recharged or replenished from three sources: (1) rainfall, snowmelt, and stream seepage; (2) water seepage after agricultural, municipal, and industrial use; and (3) additional water added to recharge ground water supplies. About 1.3 million acre-feet of the state's ground water supplies are depleted annually despite recharge efforts. This excess withdrawal from ground water basins is referred to as *overdraft*. Southern California has numerous ground water basins that have been

<sup>1</sup> A. Littleworth and E. Garner, *California Water*, Solano Press (1995), p. 2.

<sup>2</sup> An acre-foot equals 325,851 gallons or enough water to cover an acre of land one foot deep.

<sup>3</sup> Littleworth and Garner, *supra* at p. 2.

<sup>4</sup> About one third of southern California's needs are met by local sources. The Metropolitan Water District of Southern California imports water from the Colorado River, the Delta, Owens Valley, and Mono Lake Basin.

<sup>5</sup> Littleworth and Garner, *supra* at p. 5.

<sup>6</sup> Other major water projects include San Francisco's Hetch Hetchy System, the East Bay Municipal Utility District System, and the Metropolitan Water District of Southern California.

<sup>7</sup> Littleworth and Garner, *supra* at p. 3.

overdrafted, and are subject to limits on the amount of water extracted. (See discussion on the valuation of adjudicated water rights in ground water basins that have been overdrafted in Chapter 3.)

## WATER USE

The largest use of water in California is for agriculture, which uses almost 31 million acre-feet in an average year, or about 80% of the state's developed water supply; however, a significant amount of water used by agriculture percolates back into the ground, making it available for other uses. Thus, the net use for agriculture amounts to 26.8 million acre-feet annually. Urban use accounts for about 7.8 million acre-feet per year, and about 26 million acre-feet are dedicated to wild and scenic rivers and environmental protection.<sup>8</sup>

## WATER RIGHTS

### INTRODUCTION TO WATER RIGHTS

California water rights law is complex, incorporating Gold rush era mining customs, English common law, court decisions, administrative rulings of the State Water Resources Control Board (SWRCB), state statutes, and local ordinances.<sup>9</sup> A basic understanding of water rights law is necessary for purposes of distinguishing between the permanent transfer of a water right, which is assessable, and the mere transfer of water, which is not assessable.

Under California water rights law, water is divided into two types, surface water and ground water. The location, source, and use of water define both the kind of water right as well as the nature and extent of that right, including: (1) whether a water right is a correlative right that must be shared with other owners, (2) whether it is a vested property right, (3) whether such a right can be acquired or transferred, and (4) the duration and priority of the water right. Water rights in California can be acquired in three ways, by ownership of land with water rights, by appropriation, and by prescription.

### DEFINITION OF WATER RIGHTS

All water within California is the property of the people of California,<sup>10</sup> and is not subject to private ownership while in its natural state or watercourse,<sup>11</sup> even though it is considered part and parcel of the land where it is found. Water rights traditionally have been considered rights in real property.<sup>12</sup> A basic principle of water rights law is that water rights are *usufructuary*, which is a right to the use of the water, not a right to own it. In some western states, the amount of the

<sup>8</sup> Littleworth and Garner, *supra* at p. 2-3.

<sup>9</sup> Littleworth and Garner, *supra* at p. 27.

<sup>10</sup> The Water Commission Act (Stats. 1913, ch. 586, p. 1012); Water Code, section 102.

<sup>11</sup> A *watercourse* is a stream that contains a definite bed, banks, and channel, and flows into some other river, stream, lake, or sea, including subsurface streams flowing in the same direction of the stream and is determined with reasonable accuracy as being part of the watercourse that flows on the surface.

<sup>12</sup> *San Bernardino v. Riverside* (1921) 186 Cal. 7, 13.

water right is based on the quantity of water consumed, but the measure of the water right in California is that amount of water diverted and put to beneficial use.<sup>13</sup>

## TYPES OF WATER RIGHTS

Most surface water rights in California are governed by riparian rights or appropriative rights.<sup>14</sup> *Riparian rights* are rights to the use of water that is based on the ownership of land bordering on the banks of a stream, river, or lake.<sup>15</sup> Such a right requires the land to actually touch or abut the natural watercourse. Appropriative rights are based on the use of water for a beneficial purpose rather than land ownership and were founded on the principle of first in time, first in right.<sup>16</sup> An overlying right is based on ownership of land overlying ground water. Owners of land overlying a single body of underground water have a common right to the reasonable beneficial use of this water supply. Pueblo rights refer to the superior right of a California city, which is the successor of a Spanish or Mexican pueblo, to the use by the city's inhabitants, of water naturally found within the boundaries of the old pueblo.

Prescriptive rights and adjudicated rights are means of obtaining rights, rather than a type of water right, and may be applicable to any kind of water right. The terms describing the different rights or means of obtaining rights are discussed in Chapter 2.

## PRINCIPLE OF REASONABLE AND BENEFICIAL USE

The principle of reasonable beneficial use applies to all water rights in California. A 1928 amendment to the California Constitution established a policy that requires the fullest beneficial use of all water resources. Article X, section 2 of the California Constitution<sup>17</sup> prohibits waste of water and requires that use, method of use, and method of diversion be reasonable.

It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water.

<sup>13</sup> *A Guide to Water Transfers*, July 1999 Draft, SWRCB.

<sup>14</sup> Littleworth and Garner, *supra* at 29, citing *United States v. State Water Resources Control Board* (1986) 182 Cal.App.3d 82.

<sup>15</sup> *Riparian* is defined as belonging or relating to the bank of a river or stream.

<sup>16</sup> Appropriative rights can be acquired for both surface water and ground water. However, the acquisition of appropriative rights for surface water is governed by the Water Code and enforced by the State Water Resources Control Board.

<sup>17</sup> Previously article XIV, section 3, of the California Constitution, effective November 1928.

*Beneficial use* has typically included municipal and industrial uses, irrigation, hydroelectric generation, livestock watering, recreation, fish and wildlife protection, and aesthetic enjoyment. *Reasonable use* is a question of fact that depends on the entire circumstances of each case.

## **DUTY OF WATER**

*Duty of water* traditionally refers to the amount or quantity<sup>18</sup> of water necessary to irrigate a given measure of land. There is, however, no standard definition as to how much water per acre of arable land would constitute "reasonable and beneficial" use. Neither the legislature nor the courts have determined an upper limit on the duty of water that would be applicable to all types of water rights, beyond which may be wasteful or excessive use. To ensure that water in the state is put to reasonable and beneficial use, the State Water Resources Control Board provides some guidelines relevant to applications for new water rights.

## **WATER RIGHTS ARE TAXABLE AS REAL PROPERTY**

### **DEFINITION OF PROPERTY**

Section 103 of the Revenue and Taxation Code provides that *property* includes "all matter and things, real, personal, and mixed, capable of private ownership." Real property includes the possession of, the claim to, the ownership of, and the right to possession of land and improvements. Personal property includes all property except real property. The concept of property is much more than a property's physical description and includes the concepts of property rights and property ownership.<sup>19</sup>

### **WATER AS REAL PROPERTY**

Water in its natural state, whether in streams, lakes or ponds, or ground water percolating through the soil, is part of the land, or real property. All water in its natural state within California is the property of the people of California, and as such is not subject to private ownership. Water in a natural stream may become privately-owned real property upon diversion into a ditch or canal.

Appropriated water is real property. Each appropriation of water constitutes a separate piece of property, even though the appropriation may be made from the same stream. Water stored in a reservoir is real property. However, water may become personal property by being severed from the land.

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<sup>18</sup> Commonly used standards to measure the unit flow of water include cubic feet per second, gallons per minute, or per day, or per annum.

<sup>19</sup> Further discussion of "property" and "property rights" is contained in AH 501, *Basic Appraisal*, Chapter 3.

## REAL PROPERTY ATTRIBUTES APPLY TO WATER RIGHTS

Water rights include the following attributes of real property:

- (a) Water rights are private rights capable of ownership and disposition.
- (b) Ownership of water rights can be determined through a quiet title action.
- (c) Water rights may be acquired by adverse use.
- (d) Water rights may serve as servient estates to which easements may attach.
- (e) Water rights may be appurtenant to the land.
- (f) Water rights are subject to:
  - the statute of frauds concerning conveyances of real estate,
  - the statute of limitations concerning land, and
  - the statute of recordings as between successive conveyances.

## WATER RIGHTS AS PROPERTY

The right to water in its natural state may be acquired; however, as noted previously, a water right is a right to use water and not a right to own it. Water diverted from a natural stream is not subject to private ownership until it is in a separate ditch or reservoir under the control and in the possession of the person who has diverted the water. The right of riparian owners to divert and use the waters of a stream or river for beneficial use on their respective lands is real property.<sup>20</sup> A riparian right is "part and parcel" of riparian land; thus, a transfer of this land generally transfers the riparian rights, unless the deed expressly provides otherwise.<sup>21</sup>

The right to appropriated water is an interest in real property.<sup>22</sup> The appropriator's right to the water in the stream is the right to have an amount diverted sufficient to meet the beneficial use for which the flow has been appropriated. Thus, an appropriator does not gain actual title to the stream. Rather, he or she acquires a property interest in the appropriated water and the sole and exclusive right to use the appropriated water for the purposes for which it was appropriated.<sup>23</sup>

The right to water in a natural stream acquired by prescription is real property. This right is limited to the amount reasonably necessary for the beneficial use for which it was diverted. Thus, such right confers a title in fee on the prescriptive user, but not for any water in excess of those needs. The title in fee is good against all downstream riparian owners and is capable of transfer as any other right in real estate.<sup>24</sup>

<sup>20</sup> *Title Insurance & Trust Co. v. Miller & Lux* (1920) 183 Cal. 71.

<sup>21</sup> *Holmes v. Nay* (1921) 186 Cal. 231.

<sup>22</sup> *Wright v. Best* (1942) 19 Cal.2d 368.

<sup>23</sup> Cal Jur 3d, Vol. 62, Water, § 378.

<sup>24</sup> Cal Jur 3d, Vol. 62, Water, § 244.

The right of an overlying land owner to use percolating ground water is real property, as part of the land overlying it.<sup>25</sup> Such a right is analogous in its status as property to the rights of riparian owners in surface streams.<sup>26</sup> In summary, all water rights derive their existence and value from land or from real property rights.

## **TAXATION OF WATER RIGHTS**

For purposes of property taxation, water rights are land within the meaning of that term as used in article XIII, section 1, of the California Constitution.<sup>27</sup> This is true of riparian, overlying, appropriative, and prescriptive rights.<sup>28</sup>

Riparian and overlying water rights are assessed as part of the associated land. Appropriative and prescriptive rights to divert water are assessed at the point of diversion, not where the water is ultimately used.<sup>29</sup>

Water rights retain the classification of land for assessment purposes even though ownership of the associated land is not held, such as in the following situations:

- A landowner with appropriative water rights may convey such rights to another who then diverts the water for use elsewhere.
- Riparian or overlying rights, as a result of either a sale or a condemnation, can be divested from the land of which they are a part.

When a city acquires riparian rights to water on land outside the city's geographical boundaries, the water right acquired by the city is taxable in accordance with article XIII, section 11, of the California Constitution. (See discussion in Part I, Chapter 2, under *Assessment to Government Entity*.)

## **WATER RIGHTS ARE TRANSFERABLE**

### **PUBLIC POLICY SUPPORTS TRANSFERS**

The right to the use of water can be acquired, sold, conveyed, granted, leased, or transferred either temporarily or permanently. State law supports the voluntary transfer of water and water rights where consistent with the public welfare of the areas exporting and importing the water.<sup>30</sup> A water transfer is a change in the way water is usually allocated among users. Such transfers are viewed as a means of alleviating water shortages and conserving water and energy. Most water transfers do not require approval from the SWRCB, but are still subject to the general rule

<sup>25</sup> *Stanislaus Water Company v. Bachman* (1908) 152 Cal. 716.

<sup>26</sup> *Pasadena v. Alhambra* (1949) 33 Cal.2d 908.

<sup>27</sup> *Waterford Irrigation District v. County of Stanislaus*, (1951) 102 Cal.App.2d 839; Rule 124.

<sup>28</sup> *City and County of San Francisco v. County of Alameda* (1936) 5 Cal.2d 243; *Alpaugh Irrigation District v. County of Kern* (1952) 113 Cal.App.2d 286.

<sup>29</sup> *North Kern Water Storage District v. County of Kern* (1960) 179 Cal.App.2d 268; *Faix, Ltd v County of Los Angeles* (1976) 54 Cal.App.3d 992.

<sup>30</sup> Water Code, section 109(a).

that the transfer must not injure other water rights holders. As to whether the grantee or transferee becomes the new owner or assessee depends on the facts and circumstances around each transfer. (See discussion in Chapter 3.)

### **NON-ASSESSABLE TRANSFERS**

Most water transfers in the state are short term and are not a transfer of water rights.<sup>31</sup> For example, transfers within the Central Valley Project or State Water Project constitute the vast majority of transfers.<sup>32</sup> These transfers of surplus or conserved water are not made pursuant to the Water Code, nor are they transfers of water rights. Individual farmers, who are users of the Central Valley Project, have informally transferred water among themselves for years. Since such transfers do not require a change in the Project's water rights permit, they are not subject to the provisions of the Water Code nor under the jurisdiction of the State Water Resources Control Board.<sup>33</sup> Water transfers are not a change in ownership of the water right for property tax purposes.

Transfers of water among landowners within an irrigation district also are not a change in ownership of the water right for property tax purposes. An irrigation district is a state agency with the function of supplying water for irrigation to landowners within its boundary.<sup>34</sup> Such districts, however, hold legal title to their property in trust for the landowners in their respective districts, rather than for the public generally. While a landowner may assign for use within the irrigation district, the right to all or any portion of the water apportioned to the property,<sup>35</sup> the assigned right remains subject to the control of the irrigation district. As such, the assignee may use the water only for irrigation of lands in the district,<sup>36</sup> and the assigned right cannot be sold.<sup>37</sup> Thus, the assignment of a right to water in an irrigation district does not constitute a change in ownership of that right for property tax purposes.

Similarly, local agencies authorized under state law to sell surplus water act as brokers between individual users within their service area.<sup>38</sup> This surplus water can be transferred without the loss of the rights to the water that has been conserved and made available for transfer, provided that certain requirements are met.<sup>39</sup>

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<sup>31</sup> Littleworth and Garner, *supra* at p. 228.

<sup>32</sup> Littleworth and Garner, *supra* at p. 237.

<sup>33</sup> Since 1992, transfers of Central Valley Project water also have been allowed outside its service area, provided certain conditions are met. Central Valley Project IA, section 3405(a).

<sup>34</sup> Water Code, section 20570.

<sup>35</sup> Water Code, section 22251.

<sup>36</sup> 63 Cal Jur 3d, section 963, citing *Jenison v. Redfield* (1906) 149 Cal. 500.

<sup>37</sup> Water Code, section 22261 provides that nothing in this article authorizes the sale of any water right.

<sup>38</sup> Water Code, sections 380 et seq.

<sup>39</sup> Water Code, sections 1010, 1011, 1244.

The Legislature has enacted measures to address concerns about water transfers causing the forfeiture of water rights. One such provision states:

[t]he transfer of water, or the offer of water for transfer shall not cause, or be the basis for, a forfeiture, abandonment, or modification of any water right, contract right, or other right to the use of that water. An offer of water for transfer, contract negotiations, or a transfer agreement shall not be used as evidence of waste or unreasonable use, or of cessation of use, of the water made available for transfer.<sup>40</sup>

## TYPES AND SOURCES OF WATER

### SURFACE WATER

*Surface water* generally refers to creeks, streams, rivers, lakes and oceans. However, surface water may be defined more broadly as water from rainfall, melting snow and springs which flow over the surface of the land, initially having no flow or defined channels, but eventually draining into definite channels such as creeks, streams, sloughs, rivers, or lakes.<sup>41</sup> A stream that has a definite bed, banks, and a channel that flows into some other stream, river, lake, or sea is a *watercourse*. A watercourse also includes water that flows underground in a definite channel, but it does not include underground percolating waters that are not in a definite channel. The concept of a watercourse is key to determining whether water rights can exist. For example, riparian rights attach only to a natural watercourse. A watercourse or channel is natural when it is made by the waters rather than made by a person.<sup>42</sup>

The flow of surface water from higher altitudes, called *headwaters*, to lower altitudes in a downhill flow is called *runoff*. Each point of land that is higher than the level of the flowing water is called the *drainage basin*, or *watershed*. A watershed may be composed of small streams and rivers flowing into small lakes or reservoirs, or as large as the drainage basins which drain into the Mississippi River and contain thousands of small watersheds.

### GROUND WATER

Precipitation that seeps down through the soil by gravity until it reaches rock materials saturated with water forms another source of fresh water called *ground water*. Water continuously moves deeper into layers of rock until it is prevented from further downward movement by hard, non-porous rock formations such as granite. When the water is prevented from further downward movement it begins filling cavities, rock fractures and other porous or void spaces in bedrock. The top of this saturated ground is called the *water table*, and above the water table are soil, dirt, and rock that do not permanently retain water.

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<sup>40</sup> Water Code, section 1014.

<sup>41</sup> B. E. Witkin, *Summary of California Law*, 9<sup>th</sup> Ed., sections 755 & 797; Cal Jur 3d, Vol. 62, Water, § 11.

<sup>42</sup> Cal Jur 3d, Vol. 62, Water, § 4-19.



Ground water may be contained inside porous and permeable rock formations called *aquifers*. When the water in these aquifers is under natural pressure that forces it towards the surface, it is known as *artesian water*.

Although not readily apparent, ground water may also flow, seeping into rivers, lakes and oceans. When ground water flows in definite and defined channels it becomes *surface water* for water rights purposes.<sup>43</sup>

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<sup>43</sup> See *Glossary* for expanded definitions of terms relating to water and water rights

## CHAPTER 2: TYPES OF WATER RIGHTS

California water rights law recognizes two types of water: surface water and [under]ground water, and the laws governing them are quite different. As previously noted, *surface water* is water flowing above the surface of the ground, such as a river, stream, or creek; *ground water* generally refers to percolating water located in an underground basin.

Ground water is generally treated as a local water supply subject to local control with minimal statewide regulation. Further, the nature and extent of ground water rights has been defined by court decisions. Ground water is not a simple concept under California water rights law, which distinguishes between ground water that percolates into a ground water basin and ground water that is part of an underground stream. Water located under land is assumed to be percolating ground water unless it can be established that it is part of an underground stream.<sup>44</sup> The assumption in favor of percolating ground water is based on the fact that almost all ground water is percolating water in a ground water basin. When ground water is determined to be an underground stream flowing in a known and definite channel, it is subject to law governing surface water rights.

In contrast, water rights in surface water are governed by a complex system of statewide laws regulating its development and use and are administered by the State Water Resources Control Board. As will be discussed in this chapter: (1) surface water is primarily governed by riparian and appropriative rights, but prescriptive rights in surface water may also be acquired; and (2) ground water rights are classified according to water type (percolating, underflow or underground stream) and may be overlying, appropriative, riparian or prescriptive.

### RIPARIAN RIGHTS

#### DEFINITION, NATURE AND EXTENT

A *riparian right* refers to the right of a property owner to use water from a stream, river, or lake abutting the property. A riparian right is created exclusively because the land is situated next to a natural water source, and the right to the use of the surface water rests solely in the ownership of the land. However, a parcel must meet three criteria before a riparian right can attach to it: (1) the property must be contiguous to the watercourse, except when a riparian right has been preserved in non-contiguous parcels when the land was subdivided; (2) the riparian right extends only to the smallest tract held under one title in the chain of title leading to the present landowner;<sup>45</sup> and (3) the land must be within the watershed of the watercourse. Since a riparian right attaches to the land, governmental permission is not required to exercise the right, unlike appropriative or prescriptive rights.

<sup>44</sup> *A Guide to Water Transfers, supra*, Ch. 3, p. 1.

<sup>45</sup> A riparian parcel may not become larger than the original parcel, but may become smaller by severing noncontiguous parcels when riparian land is subdivided. (*Title Insurance and Trust Co. v. Miller & Lux, Inc.* (1920) 183 Cal.71.

A riparian right also includes the right of a property owner whose land overlies the underground flow of a surface stream or an underground stream. A riparian right is a correlative, or shared right, with each riparian owner sharing the water in the same stream or lake by virtue of the ownership of lands abutting the stream. As between owners of riparian land, first in time is not first in right; thus, priority of use establishes no priority of right. A riparian landowner can divert as much water from the stream as can be reasonably and beneficially used on the riparian land, within the watershed in which it originated, and without encroaching on the rights of other riparian owners. Limitations on use are that the diverted water cannot be wasted, stored for future use, or applied to non-riparian land. During times of insufficient water supply, riparian owners must decrease their water use and share the available resource.

### **OWNERSHIP OF RIPARIAN RIGHTS**

A riparian right accrues to anyone who owns the fee simple title to land adjoining a stream or lake, including parties with possessory interests in government land adjacent to the body of water. However, riparian rights do not attach to lands held by the United States until the land is transmitted to private ownership.

### **WATERS TO WHICH RIPARIAN RIGHTS ATTACH**

Riparian rights apply to different types of surface water and ground water. However, riparian rights are specifically part and parcel only of lands that abut or are adjacent to surface waters. Riparian rights may extend to the following kinds of surface and subterranean waters:

- lakes, streams, ponds, sloughs, or other natural bodies of water
- subsurface flows of streams and rivers
- navigable streams not obstructed by the water right
- non-navigable streams and rivers
- return flows of streams that were previously diverted
- definite underground streams and rivers
- normal floodwaters flowing with the same stream that is beyond the low-water mark of dry seasons
- springs that form as tributaries to creeks beyond the boundary of one land
- abandoned or escaped waters

### **LOSS OF RIPARIAN RIGHTS**

Riparian rights are generally not lost by non-use; therefore, the rights can be reactivated at any time. However, water not taken under riparian rights can be appropriated. (See discussion in the following section on requirements for appropriation.)

As noted previously, riparian rights attach to the land and, typically, title to the rights is acquired when the property is conveyed in a transaction involving a change in ownership. However, a riparian right can be severed from the riparian land through grant, conveyance, or prescription. (See section later in this chapter titled *Prescriptive Rights*.) When riparian land is parceled and land not adjacent to the watercourse is conveyed without the apportioned water right, this non-adjacent land is forever deprived of its riparian status. The water right received by the grantee is no longer a riparian right, but an appropriative right to the surface stream not adjacent to the land. Conversely, if the non-riparian parcel is conveyed with its apportioned share of water rights with all other parcels, the riparian right is preserved through all future transfers and is correlative with all the riparian landowners of the stream. However, if land contiguous to riparian land is purchased by the riparian landowner, the riparian right does not extend to the purchased land.

Riparian rights can also be lost when: (1) a river changes its course and the land is no longer contiguous to the watercourse; and (2) through condemnation by a public agency for a public purpose.

## **APPROPRIATIVE RIGHTS**

### **DEFINITION, NATURE AND EXTENT**

The law of appropriative rights, also known as the doctrine of prior appropriation, is based on the historic principle of "first in time, first in right." An *appropriative right* refers to the right to divert and use a specific quantity of water for reasonable beneficial use in a specific location.<sup>46</sup> Thus, the appropriative right defines a specific point of diversion, time, place of use, and method of diversion. The "specific quantity" of water taken must be water in excess of the requirements of all existing vested rights to the same surface waters and applied to a specific beneficial use. As between appropriators, the appropriative right is limited solely to the amount of water reasonably necessary for that person's actual, beneficial use. An amount that constitutes reasonable use is a question of fact that is determined on a case by case basis in which all the beneficial uses are compared.

### **OWNERSHIP OF APPROPRIATIVE RIGHTS**

Unlike riparian rights, an appropriative right is not a basic right inherent to the ownership of the land and does not attach to land contiguous to the water source. Consequently, an appropriator does not have to own land to acquire an appropriative right.<sup>47</sup> The historic principle of prior appropriation has been codified,<sup>48</sup> and procedures for acquiring appropriative rights are governed by the Water Code.<sup>49</sup> A person must apply for and secure a permit or license for an appropriative right, under specific parameters, from the State Water Resources Control Board

<sup>46</sup> Littleworth and Garner, *supra* at p. 39.

<sup>47</sup> *Pasadena v. Alhambra* (1949) 33 Cal.2d 908.

<sup>48</sup> Water Code, sections 100 et seq.; Civil Code, sections 1410 et seq.

<sup>49</sup> The Water Commission Act of 1913 is the basis for appropriation procedures set forth in provisions of the Water Code.

(SWRCB), the agency responsible for the allocation of appropriative rights of surface water in California.<sup>50</sup> Section 19 of the California Water Code defines *person* as "...any person, firm, association, organization, partnership, business trust, corporation, limited liability company, or company."

The SWRCB, prior to issuing a permit, must first make a determination that unappropriated water is available, and that the proposed use is beneficial. An unconditional and complete appropriative right is acquired only when a person or entity completes the following steps:

- files an application with the state to appropriate unappropriated water;
- completes construction of the diversion method; and
- applies the water to beneficial use within a reasonable time.

Pre-1914 appropriative rights and riparian rights are not subject to the permit requirements of the Water Code or the jurisdiction of the SWRCB. However, for water use record-keeping purposes, these right holders are required to file statements of diversion with the agency that indicate the water source, point of diversion, place of use, and amounts of water diverted or stored for record keeping purposes of water use.<sup>51</sup> The SWRCB, therefore, is a good source of information for determining who has water rights, as discussed in Chapter 3.

### **WATERS TO WHICH APPROPRIATIVE RIGHTS ATTACH**

Waters subject to appropriation include all surface and subterranean waters (streams flowing in definite channels) that are unappropriated or in excess of all reasonable present and prospective beneficial uses by riparian owners and other appropriators with senior priority to the same stream. The Water Code does not provide procedures for the appropriation of percolating ground water.<sup>52</sup> Unlike holders of riparian rights, however, the land to which the appropriative right relates may be either contiguous to the stream or located at a distance from it, even in a different watershed. Other examples of water to which appropriative rights may attach are:

- water in a running stream and in a lake
- water flowing in a natural channel
- temporary waters available seasonally, such as spring waters or infrequent and unpredictable flows of variable streams, mainly from storms
- flood waters that are proven to be non-beneficial to riparian and other appropriative users of the stream
- waters in navigable and interstate streams
- waters that have been diverted but are allowed to return to or abandoned into a stream, before or after its use by riparians or appropriators

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<sup>50</sup> Water Code, sections 174 et seq.

<sup>51</sup> Water Code, sections 5100 et seq.

<sup>52</sup> Water Code, section 1200.

- water from one stream diverted into a conduit and then abandoned into another stream with no further intention of being recaptured for beneficial use (foreign water)
- seepage and spills from dams, ditches, and other diversion containment methods, returning to the original watercourse
- excess water from irrigation (waste water)
- water put to a beneficial use occasionally or only at particular times of the day (residual appropriation)
- unappropriated water pending completion of the diversion method being constructed by the primary appropriator (temporary appropriations)
- waters saved from evaporation or seepage by the same appropriator through the use of conduits (salvage waters)
- waters artificially introduced into a stream in excess of its normal flow is the property of the party whose efforts caused the excess waters (developed waters and springs)

### **LOSS OF APPROPRIATIVE RIGHTS**

Appropriative rights can be lost in the following ways:

- abandonment, which is the voluntary relinquishment of possession with no intent to further use the water
- forfeiture caused by non-use, which is the failure to put water to beneficial use for a period of years<sup>53</sup>
- failure in diligence to complete the construction of the method of diversion in a reasonable amount of time
- prescription, by allowing adverse use by another appropriator (see requirements for obtaining a prescriptive right later in this chapter in the section titled *Prescriptive Rights*)
- failure to submit proof of claim during administrative adjudication,<sup>54</sup> to determine the rights of all claimants to the use of water in a stream system (includes streams, lakes, tributaries, and other bodies of water)
- eminent domain, the appropriation by a governmental entity for public use

## **OVERLYING RIGHTS (PERCOLATING GROUND WATER)**

### **DEFINITION, NATURE AND EXTENT**

An *overlying water right* refers to the right of the owner of lands overlying percolating ground waters to use the waters for reasonable beneficial purposes on the overlying lands within the

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<sup>53</sup> Water Code, section 1241, provides for loss of appropriative rights that were acquired after December 19, 1914, after 5 years of non-use.

<sup>54</sup> Water Code, section 2500.

same watershed. An overlying water right is exclusively based on the ownership of land overlying percolating waters, and the right to the use of the percolating waters is appurtenant to the overlying land. Thus, the rights of overlying land owners are considered to be analogous to riparian rights. Each owner has a common right to the reasonable beneficial use of the ground water basin supply on the overlying land, which is correlative with the rights of all the other owners of land overlying a common source of percolating waters. Owners with overlying water rights have paramount rights to withdraw water for reasonable and beneficial use on their overlying lands. Thus, only surplus water that may be withdrawn without creating an overdraft on the ground water supply may be appropriated for use on non-overlying lands, subject to future requirements for overlying lands.<sup>55</sup>

California water rights law recognizes three types of [under] ground water: (1) percolating water, (2) the underflow of a surface stream or river, and (3) a definite underground stream. According to water use management specialists, almost all water under the ground is percolating ground water in a basin. Since ground water is usually percolating water, ground water is assumed to be percolating ground water. As noted above, an overlying right applies solely to percolating ground waters, while surface water rights law applies to the underflow of a stream or river and a definite underground stream.

### **OWNERSHIP OF OVERLYING RIGHTS**

Overlying rights accrue to those who own lands overlying a common source of ground water. The correlative right to the use of percolating waters belongs to all the owners in common, to the full extent of the individual needs, if the supply is sufficient. If there is insufficient water to supply the requirements of all, the available supply may be equitably apportioned, either by agreement or adjudication. Unlike riparian rights, if there is surplus water, the owners may appropriate the surplus water for use outside the basin.

### **WATERS TO WHICH OVERLYING RIGHTS ATTACH**

Overlying rights are rights to percolating ground waters, excluding those subsurface waters flowing in defined and known channels or as part of surface streams. Ground waters to which overlying rights apply include (1) artesian wells and basins and (2) springs.

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<sup>55</sup> Surplus water would exist only in ground water basins that have not been adjudicated. See discussion in Ch. 3.

## LOSS OF OVERLYING RIGHTS

Overlying rights are subject to the same methods of transfer or loss of rights as other types of water rights. An overlying right attaches to the land and cannot be lost by non-use. However, the right can be lost by appropriation by adjacent landowners and by prescription. Further, ground water rights can be limited through a court adjudication of the ground water basin (see discussion in Chapter 3). Overlying owners may institute proceedings to protect their supply and prevent the water supply from falling below a known point of safe yield. Further, due to the nature of ground water, overlying rights may be limited by statute to protect the present rights of those who use the water and to prevent the permanent lowering of the water table or to control the amount allowed for accumulation from precipitation.

## PRESCRIPTIVE RIGHTS

### DEFINITION, NATURE AND EXTENT

A *prescriptive right* is a permanent right to divert and use water when the elements for adverse use are met. This right is good against others that have prior rights, including riparian or overlying land owners or appropriators with prior claims. A prescriptive right is acquired to use a specific amount of water for a specific purpose, the quantity determined by the highest amount beneficially used over a five year period. Since the right is for a specific quantity of water, the adverse user has no right to increase this amount for future uses.<sup>56</sup> Once acquired, a new title is vested on the adverse user that is binding on all appropriators on the same stream.

### OWNERSHIP OF PRESCRIPTIVE RIGHTS

A prescriptive title is acquired by an adverse or hostile appropriator of water who divests another of the right to the use of water by meeting the statutory requirements for prescriptive title, regardless of the source of the prior owner's title. The water must be appurtenant to a particular parcel of land and used continuously by the appropriator for beneficial use, at a given quantity, and on a given parcel through a period that satisfies the statute of limitations.

In order to obtain water rights by prescription, the use of the water must be all of the following:

- actual;
- open and notorious;
- hostile and adverse to the original owner's title or right;
- continuous and uninterrupted for statutory period of 5 years;
- under claim of title in claimant, and not be virtue of another right; and
- for beneficial use.

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<sup>56</sup> *San Bernardino v. Riverside* (1921) 186 Cal.7.



The prescriptive right also is conditioned on the appropriator paying any assessed taxes, and the prior owner must have had an opportunity to prevent the adverse use by legal action and have failed to do so during that time. If any of these conditions are not met, a prescriptive water right cannot be acquired. However, once acquired, new title is vested on the adverse user that is binding on all appropriators on the same stream, lake, ground waters, etc., as if acquired by conveyance.

### **WATERS SUBJECT TO PRESCRIPTION**

A prescriptive right may be acquired in any surface or ground water that can be put to reasonable and beneficial use and in which some other private owner has a valid prior right. However, prescriptive rights in ground water may not be established against ground water rights owned by public agencies and public utilities.<sup>57</sup> Also, a prescriptive right cannot be acquired on excess or surplus water, since the taking of surplus water would not be adverse to the rights of owners, who are entitled only to water that can be used beneficially, and not to surplus water. Withdrawal of excess or surplus water therefore, is an appropriative right. In certain Southern California counties, no prescriptive rights in ground water may be established by extraction of water without first filing records of ground water extraction with the state.<sup>58</sup>

A prescriptive water right to surface water does not run downstream between riparian owners unless the lower owner's use is interfered with and he or she receives notice of the adverse use. Under current law, the appropriator may legally take water the riparian owner does not need for a reasonable use, thus a prescriptive right should not arise. A well-established rule is that a prescriptive right never runs upstream against an upper riparian owner since the upstream user has first use and control of the water. It would be difficult, if not impossible for the downstream user to interfere with the water use of an upstream user. The sole exception to this rule is where the downstream user actually diverts water from a point on the upstream land. This rule does not apply between appropriators since a lower appropriator can acquire a prescriptive right against an upper appropriator of water.

### **LOSS OF PRESCRIPTIVE RIGHTS**

Title by prescription may be forfeited through continued nonuse for five years or may be abandoned. Abandonment can occur if the purpose for the water use has been accomplished or no longer exists. Once abandonment occurs, the prescriptive right is lost immediately.<sup>59</sup>

## **ADJUDICATED WATER RIGHTS**

An *adjudicated water right* is not a separate type of water right but a term used to describe a method of confirming or validating water rights between claimants. It is a water right that has been established or defined by statute and/or judicial proceedings. Such proceedings are

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<sup>57</sup> *Los Angeles v. San Fernando* (1975) 14 Cal.3d 199.

<sup>58</sup> Water Code, sections 4999-5108.

<sup>59</sup> Littleworth and Garner, *supra* at p. 62.

normally initiated when there is an overdraft condition in a ground water basin or there is insufficient water in a stream or stream system for all uses. Adjudication procedures usually quantify riparian and pre-1914 appropriative rights, as well as reprioritize unexercised riparian rights.

There are two ways to initiate adjudication proceedings. The first is through judicial litigation. An action is filed directly in superior court or a Federal court, which the court, in its discretion, may then refer the matter to the State Water Resources Control Board for investigation as referee. This procedure may be utilized for either surface or ground water sources.

The second is through quasi-adjudicatory hearings before the State Water Resources Control Board and the Regional Water Quality Control Boards, which address issues that affect the individual rights of involved parties such as, permit applicants, filers of protests, and respondents in enforcement issues. The procedure is initiated by one or more claimants through the State Water Resources Control Board, culminating in an "order of determination" by the board, which is subsequently submitted to the superior court for a final order. Section 2769 of the Water Code requires that the decree shall in every case declare each of the following:

- the water right adjudged to each party;
- the priority;
- the amount;
- the season of use;
- the purpose of use;
- the point of diversion;
- the place of use of the water; and
- as to water used for irrigation, the specific tracts of land to which it is appurtenant, and such other factors as may be necessary to define the right.

An adjudicated water right confirmed by a court judgment may or may not be a property right separate from the land. Frequently, the judgment merely fixes the maximum quantity any particular producer may extract from the ground water or surface supply. The court cannot substitute a new, different, and inferior right for that right possessed by the one whose right is sought to be changed in the adjudication.

## **PUEBLO RIGHT**

The pueblo water right is the paramount right of a California city which is the successor of a Spanish or Mexican pueblo (municipality) to the use, by the inhabitants of the city, of water naturally occurring within the old pueblo limits. This right attaches to all waters naturally in the watershed of the stream flowing through the pueblo and does not attach to water brought into the area from other contributory watersheds. The pueblo right extends to as much of the waters of

the stream as are required for the expanding needs of the city. The pueblo right is superior to all other rights and cannot be divested, conversely all other rights are subject to divestiture in favor of pueblo rights. Los Angeles and San Diego are the only cities in California that have adjudicated pueblo water rights.

## CHAPTER 3: VALUATION

### WATER RIGHTS ASSESSABLE AS REAL PROPERTY

#### LEGAL BASIS FOR THE TAXATION OF WATER RIGHTS

Section 1 of article XIII of the California Constitution states that "[a]ll property is taxable and shall be assessed at the same percentage of fair market value." Section 201 of the Revenue and Taxation Code provides that "[a]ll property in this State, not exempt under the laws of the United States or of this State, is subject to taxation under this code."

A water right is real property and is, specifically, land within the meaning of section 1 of article XIII of the California Constitution, and assessable as such.<sup>60</sup> Water systems are improvements to land subject to separate assessment.

#### SEPARATE ASSESSMENT OF WATER RIGHTS

The general rule is that the value of the entire fee simple estate is assessed to the owner of record. Nevertheless, there is no prohibition or legal restriction in California law against the separate assessment of partial interests in real property, as long as "the sum of the assessments of the multiple interests in a property should not exceed the value of the entire fee simple interest in the property."<sup>61</sup> Usufructuary interests such as water rights are not ordinarily assessed separately from the fee interest. In some cases, however, it may be necessary to separately value and assess water rights, such as where the rights belong to a water company or are appurtenant to other property.<sup>62</sup>

As noted in the court's holding in *Scott-Free River Expeditions, Inc. v. County of El Dorado* (1988) 203 Cal.App.3d 896, 913:

In *Alpaugh Irr. District v. County of Kern*, (1952) 113 Cal.App.2d 286, 294, the court held that water rights and the ownership of the real property may be assessable and taxable. Likewise in *Faix Ltd. v. County of Los Angeles* (1976) 54 Cal.App.3d 992, 998-999, it was held a separate assessment and taxation of appropriative or prescriptive water rights is not double taxation, even where the underlying property is separately taxed. Plaintiffs' exclusive, commercial use of the river is a separate property interest and subject to separate taxation.

With regard to improvements used to divert or transport water that are owned by someone other than the landowner, the assessor has authority to assess separate interests in real property to their separate owners.

<sup>60</sup> *Alpaugh Irrigation District v. County of Kern* (1952) 113 Cal.App.2d 286; *North Kern Water Storage District v. County of Kern* (1960) 179 Cal.App.2d 268; *Tuolumne v. State Board of Equalization*, (1962) 206 Cal.App.2d 352.

<sup>61</sup> AH 501, *Basic Appraisal*, p. 33.

<sup>62</sup> *North Kern Water Storage District*, *supra* at p. 279; *County of Ventura v. Channel Island Bank* (1967) 251 Cal.App.2d 240.

## APPRAISAL OF WATER RIGHTS

### CREATION OF A NEW WATER RIGHT

The right to unappropriated water belongs to the state until the water is appropriated. Establishing a new appropriative right is therefore a transfer of an existing right owned by the state to a new owner and establishes a new base year value. Therefore, if the owner of the new right is subject to taxation, then the water right is taxable and the valuation date is the date the water right was established. (See the discussion on how the different types of water rights are created in Chapter 2.)

### CHANGE OF OWNERSHIP

Sections 50 and 51 of the Revenue and Taxation Code, implementing article XIII A of the California Constitution, require the assessor to value taxable real property at the lesser of its factored base year value or its full cash value. In accordance with section 110.1 of the Revenue and Taxation Code, a property's base year value is its fair market value as of either the 1975 lien date or the date the property was newly constructed or underwent a change in ownership after the 1975 lien date. The base year value is annually adjusted for the inflation up to a maximum of two percent per year.<sup>63</sup> All other taxable property that is not otherwise exempt shall be valued at its *full value* reported as of the lien date.<sup>64</sup>

When there is a change in ownership of the real property, or of the interests associated with it such as water rights, an appraisal of the transferred real estate should be performed to establish a new base year value. According to water use management specialists, most water transfers in the state do not involve the transfer of water rights, but merely the transfer of a specified quantity of water for a specified period.

A transfer of water rights resulting in a change of ownership for property tax purposes can be accomplished by an outright sale or by a long-term lease of 35 years or more, which is considered to be equivalent to fee simple ownership. Section 61 (c)(1) of the Revenue and Taxation Code and Property Tax Rule 462.100 (a)(1)(A)<sup>65</sup> provide that the creation of a leasehold interest in taxable real property (including water rights per section 104) for a term of 35 years or more, including renewal options, constitutes a change in ownership and reappraisal of the property subject to the lease.<sup>66</sup>

Depending on the circumstances, a revaluation of the real property may or may not result in a change to the roll value. It is important, however, that the appraiser records in the real property

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<sup>63</sup> The Board of Equalization annually publishes the inflation factor, which is based on the California Consumer Price Index.

<sup>64</sup> For a discussion on the treatment of water rights severed from land, see the section later in this chapter on *Severance of a Water Right*.

<sup>65</sup> Rule 462.100 of Title 18 of the California Code of Regulations. (All rule references in this section of the handbook refer to the Property Tax Rules in Title 18 of the California Code of Regulations.)

<sup>66</sup> *E. Gottschalk & Co. v. Merced Co.* (1987) 196 Cal.App.3d 1378.

file the appraisal steps, procedures performed, and conclusions arrived at in the appraisal of the real property and any associated water rights.

### **OWNERSHIP AND SITUS**

Article XIII, section 14 of the California Constitution provides that "All property taxed by the local government shall be assessed in the county, city, and district in which it is situated." In the case of riparian and overlying rights, the situs of the water right generally is identical to the situs of the land; therefore, the land and the water rights should be valued together following accepted appraisal procedures. The appraiser, however, should not assume that the water right is riparian because the land abuts a stream or that the water right is overlying because the land overlies ground water. The water right held should be verified, as the right involved may have changed to either an appropriative or prescriptive right.

A California appellate court has held that the situs of appropriative rights is at the point of diversion of the water.<sup>67</sup> The court rejected the argument that the water right had its situs at the place of use since the right to control the water in a river is exercised at the point of diversion.

In some cases the water is transported some distance from its point of diversion in its natural channel to its point of use. In this case, the point of diversion is also the situs for taxation, and not where the water is received and measured by the owner.<sup>68</sup> Appropriative rights to both surface and ground water generally include uses of water on land at a distance from the water source. Nonetheless, appropriative rights are assessed at the point of diversion, separately from the land where the water is used. With respect to prescriptive rights, once a prescriptive title is acquired, the right is retained for as long as the diverted water is put continuously to beneficial use. The situs of a prescriptive right is the point of diversion, which may not change. Unlike other types of water rights, the use of the water and the place of use of a prescriptive right may be changed as long as other appropriators are not injured.

### **PURPOSE OF THE APPRAISAL**

The purpose of all appraisals is to estimate some type of value. An appraisal of water rights for property tax purposes renders a valuation, consistent with property tax law, that will be used as the basis for assessing the property.

### **VALUATION DATE**

An opinion of value is valid as of the specified date of the appraisal. For most real property in California, the relevant appraisal date for property tax purposes is the date on which a change in ownership of property occurred or new construction was completed. The statutory lien date, January 1, is also a relevant date of appraisal.

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<sup>67</sup> *North Kern Water Storage District*, *supra* at p. 277.

<sup>68</sup> *Jurupa Ditch Co., Inc. v. County of San Bernardino* (1967) 256 Cal.App.2d, 35,40.

## DEFINITION OF VALUE

For property tax purposes, the value to be estimated is *fair market value*.<sup>69</sup> Market value is the value in exchange under certain stipulated conditions. Each selling price an appraiser uses as an indicator of market value should be investigated to determine whether these conditions were present at the time of sale. Important aspects of the relationship between fair market value and open market conditions are:

- exposure on an open market for a sufficient amount of time;
- the amount the property would bring in cash or its equivalent;
- neither the buyer nor the seller are able to take advantage of the exigencies of the other;
- both parties seek to maximize their gains; and
- both the buyer and seller having full knowledge of the property and acting prudently.

## HIGHEST AND BEST USE

As in other types of real property, the productivity or benefits derived from a water right depends upon its use. Highest and best use is that use, among the possible alternative uses, that is physically practical, legally permissible, market-supportable, and most economically feasible. Water not only can be applied to different uses, but also transferred to different locations. Thus, a given water right may provide a variety of potential uses.

The most likely use of a water right is dependent on several key factors. These include:

- the physical feasibility of transferring the water;
- supply and demand conditions; and
- costs of alternative water supplies.

A water right should be appraised based on the use that generates the highest present value for the water right.

## FACTORS USED TO VALUE A WATER RIGHT

### ANALYSIS OF THE TYPE OF TRANSACTION

A water right is the right to divert water from its natural watercourse and put it to beneficial use. It is not a contract to receive water or a right to purchase water from a supplier or an irrigation district. A water right does not include the improvements necessary to physically divert the water from its natural watercourse. In appraising a water right, the appraiser should obtain all available information regarding the water right and its market in order to identify factors that give the water right its unique value to the current owner and any potential buyers. These factors may include:

<sup>69</sup> Revenue and Taxation Code, section 110. See AH 501, *Basic Appraisal*, Ch. 2, for a detailed discussion of the fair market value standard.

- type of water right in existence, including points and methods of diversion;
- quantity and quality of water the right provides, including historical records of the quantities diverted over a number of years;
- specific times, periods, or seasons when the water can be legally taken;
- restrictions, if any, placed upon the right, including any current legal issues;
- data available concerning the cost of obtaining and developing the right;
- any records of sales of similar water rights, particularly market conditions that determine supply and demand relationships;
- any alternate sources of water available and the estimated price or cost;
- losses in transportation; and
- income and operating expenses, including amortization schedules.

### **SOURCES OF INFORMATION**

Analysis of transaction-related documents may provide the information listed above, including information on selling price or purchase price (dollar per acre-foot), volumetric information such as acre-foot per time period (per year), flow-rate information such as cubic inches per second (second-foot), parcel identification, etc. The primary source of information is the landowner. Other sources of direct information are the county recorder's office, the county clerk's office, the State Water Resources Control Board (SWRCB), the Department of Water Resources (DWR), and other federal, state, and local regulatory agencies. (For information on transfers of water rights in any of the adjudicated ground water basins located in Southern California, contact the Watermaster for that ground water basin, see discussion later in this chapter under the section titled *Watermasters—Adjudicated Ground Water Basins*.)

The SWRCB, Division of Water Rights,<sup>70</sup> is an excellent resource for information regarding water rights. Although the SWRCB does not have exclusive jurisdiction over water rights matters in the State, the agency has authority pursuant to the California Water Commission Act of 1914 to (1) issue permits and licenses to post-1914 appropriators of surface waters (and appropriators of subterranean streams flowing in known and definite channels), and (2) require diverters of surface waters (riparians and pre-December 19, 1914 appropriators), with certain exceptions,<sup>71</sup> to file a *Statement of Diversion and Use*. The filing of *Statements of Diversion and Use* create a public record of surface diversions that would not otherwise be on file, with the SWRCB.

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<sup>70</sup> The SWRCB's, Division of Water Rights web site is [www.waterrights.ca.gov](http://www.waterrights.ca.gov). The web site has information regarding water rights law, the activities and duties of the State Water Resources Control Board, and water rights holders in the State.

<sup>71</sup> Diverters of surface waters not required to file a Statement of Diversion and Use include: (1) diverters already covered by an application, permit, or license to appropriate water on file with the SWRCB, and (2) diverters regulated by watermasters.



With the issuance of permits and licenses and the filing of *Statements of Diversion and Use*, the State Water Resources Control Board, as mentioned above, is an excellent resource of water rights information. Approximately 35,000 licenses and permits, including small domestic users, and approximately 15,000 *Statements of Diversion and Use* are on file with the State Water Resources Control Board. Water rights information is available from the State Water Resources Control Board through its web site<sup>72</sup> or by contacting the Records Unit of the Division of Water Rights at (916) 657-2221.

*Appendix B* lists some of the documents used by the various agencies and documents used in transfer transactions, including the contents of each of the documents. *Appendix C* is an example of details contained in the public announcement of a newly issued permit.

## VALUATION APPROACHES

Valuation of water rights requires consideration of the following characteristics peculiar to most water rights:

- water rights may be acquired, conveyed, or adjudicated in whole or in fractional interests;
- water rights may be valued together with, or separately from, abutting or overlying real property; and
- even within the same watershed, each water right may be unique in its own set of circumstances (i.e., economic, legal, etc.).

Finally, the quality of the water may affect the value of the water right. Thus, sales of water rights may not be good comparable sales if the water quality is substantially different. (For a further discussion on the factors influencing the value of water rights in ground water basins, see the section later in this chapter titled *Comparable Sales Data*.)

### COMPARATIVE SALES APPROACH

In the comparative sales approach, the appraiser: (1) selects comparable properties based on their similarity to the property being appraised (i.e., the subject property); (2) compares the selected properties to the subject property; and (3) if necessary, adjusts the sales prices of the selected comparable properties to reflect any significant differences between the subject and comparable properties. The standards for comparison should be those of the market in which the subject and comparable properties compete. That is, any adjustments to be made to the comparable sales prices should be based on market-derived information. The adjusted sales price of each comparable property represents an estimate of what that property would have sold for had it possessed all of the significant characteristics of the subject property. Thus, each adjusted

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<sup>72</sup> Through a GIS mapping system.

comparable sale price becomes a value indicator for the subject property. The comparative sales approach reconciles these separate value indicators into a single indicator of value.<sup>73</sup>

The primary theoretical basis for the comparative sales approach is the principle of substitution, i.e., the concept that an informed market participant would not pay more for a property than the cost of acquiring a substitute property of equal utility. The comparative sales approach is summarized in the following steps:

1. investigate and research market data (e.g., sales, listings, and pending offers to purchase) concerning properties comparable to the subject property;
2. verify and select the comparable sales data;
3. analyze the comparable sales data for significant differences between the subject and comparable properties, adjusting the sale price of each comparable property as necessary;
4. convert the adjusted sales prices of the comparable properties into relevant units of comparison (e.g., price per acre-foot, price per unit, etc.) and further adjust the unit prices as necessary in order to derive value indicators; and,
5. reconcile the value indicators from the group of adjusted comparable sales into a single value indicator for the subject property.

### **Applicability and Limitations**

The comparative sales approach is applicable when there is an active market for the type of property being appraised and an adequate amount of verified, and otherwise reliable sales data regarding the sales of comparable properties. Comparable sales that require fewer and less significant adjustments generally produce the most reliable indicators of value. Support for the adjustments made in this approach must be derived from market data. Under Property Tax Rule 4, the comparative sales approach is preferred when reliable market data are available.

### **Comparable Sales Data**

The appraiser's primary task in the comparative sales approach is finding comparable sales data. A threshold consideration in determining comparability is whether or not the sale meets the conditions of a fair market value transaction. Fair market value is defined in Property Tax Rule 2 as:

[T]he price at which a property, if exposed for sale in the open market with a reasonable time for the seller to find a purchaser, would transfer for cash or its equivalent under prevailing market conditions between parties who have knowledge of the uses to which the property may be put, both seeking to maximize their gains and neither being in a position to take advantage of the exigencies of the other.

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<sup>73</sup> The comparative sales approach is also referred to as the sales comparison approach or the direct sales comparison approach.

In essence, this is the "open-market, arm's length" concept with which most appraisers are familiar. If a sale does not meet the conditions of a market value transaction, it should not be used as a comparable sale in the comparative sales approach.

Section 402.5 of the Revenue and Taxation Code establishes basic criteria for comparability. It provides that:

When valuing property by comparison with sales of other properties, in order to be considered comparable, the sales shall be sufficiently near in time to the valuation date, and the properties sold shall be located sufficiently near the property being valued, and shall be sufficiently alike in respect to character, size, situation, usability, zoning or other legal restriction as to use unless rebutted pursuant to Section 402.1, to make it clear that the properties sold and the properties being valued are comparable in value and that the cash equivalent price realized for the properties sold may fairly be considered as shedding light on the value of the property being valued. "Near in time to the valuation date" does not include any sale more than 90 days after the lien date.

Thus, comparable sales must be sufficiently comparable in terms of location, physical characteristics (e.g., utility, size, age, quality, condition, amenities) and use (zoning and other enforceable government restrictions) so as to "shed light" on the value of the subject property. In addition, the comparable sales prices must reflect a cash equivalent amount and have occurred no more than 90 days after the valuation date.<sup>74</sup> The appraiser's objective is to find sales data that require as few adjustments as possible.

Sales in one ground water basin may not be comparable to an adjoining ground water basin for a variety of reasons, including (1) one of the basins is at or near overdraft, (2) one of the basins is not an adjudicated basin, or (3) the water quality in the two basins may be substantially different.

In particular, the sale of a water right in an adjudicated basin may not be comparable to the sale of a water right in a non-adjudicated basin. The quality of the two types of water rights is different. In an adjudicated basin, a court will have determined the quantity of water that can be extracted by each holder of a right in the basin; in a non-adjudicated basin, there has been no such court determination. A water right in a non-adjudicated basin, therefore, is subject to greater uncertainty, or risk, regarding the quantity of water that ultimately may be extracted and, all else being equal, is less valuable than a right in an adjudicated basin.

The next step is for the appraiser to sort the data according to the degree of comparability. From the sorted transactional data, a price per unit of measure (e.g., per acre-foot) should be derived or identified that can be applied to the subject water right.

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<sup>74</sup> Revenue and Taxation Code, section 402.5 uses the term "lien date" and not "valuation date." However, section 75.54 defines lien date for real property to mean the date of the change in ownership or completion of new construction. Thus, lien date is synonymous with valuation date.

### **Reconciliation within the Comparative Sales Approach**

In the comparative sales approach, each adjusted sales price is a separate value indicator of the subject property. Typically, the comparative sales approach involves the estimation of several value indicators—i.e., the set of adjusted sales prices—that must be reconciled to arrive at a single value estimate for the approach. Generally the appraiser, in making the reconciliation, should not use a simple arithmetic average of the separate value indicators, since to do so would require an assumption that each value indicator has equal validity. Rather, in making the reconciliation, the appraiser should place greater emphasis on the adjusted sales prices for the properties that are most comparable to the subject property.<sup>75</sup>

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<sup>75</sup> For additional information regarding the comparative sales approach to value, see AH 502, *Advanced Appraisal*, Ch. 3.

## Example of Comparative Sales Approach

<b>EXAMPLE 3.1</b>				
<p>Assumptions:</p> <ul style="list-style-type: none"> <li>The subject water right, an overlying right for 50 acre-feet in an adjudicated ground water basin, was transferred on 2/20/99.</li> </ul> <p style="padding-left: 40px;">Six market transactions occurred in a span of two years in the same ground water basin.</p>				
	Selected Sales Transactions			Comments
Sale/Transfer Date	Acre-feet	Price	Price Per acre-foot	
1. 5/10/98	11	\$32,500	\$2,955	(a)
2. 1/10/98	113	\$364,086	\$3,222	(b)
3. 11/30/98	60	\$180,000	\$3,000	
4. 2/9/99	32	\$96,000	\$3,000	
5. 2/10/99	27	\$81,000	\$3,000	
6. 5/17/99	18.5	\$64,783	\$3,502	
<b>Value Per Acre Foot (c)</b>			<b>\$3,000</b>	
<b>Value of Subject Water Right</b>			<b>\$150,000</b>	
<p>(a) The appraiser determined that this transfer was not considered to be a comparable sale, as it was not close in time to the transfer date.</p> <p>(b) The appraiser determined that this transfer was not considered to be a comparable sale as: (1) it was not close in time to the transfer date and (2) the quantity was not comparable to the subject property.</p> <p>(c) More weight was placed on Sales 3, 4, and 5, as these sales were considered to be most comparable to the subject property as of the transfer date</p>				

## **COST APPROACH (REPRODUCTION AND REPLACEMENT)**

The cost approach is preferred when neither reliable sales or income data is available. Its basis also is the economic principle of substitution. The basic assumption of this principle is that investors will pay no more for an investment than the cost to obtain an alternative or substitute investment of equal utility.

Rule 6, *The Reproduction and Replacement Cost Approaches to Value*, states the circumstances under which use of the cost approach is appropriate:

The reproduction or replacement cost approach to value is used in conjunction with other value approaches and is preferred when neither reliable sales data (including sales of fractional interests) nor reliable income data are available and when the income from the property is not so regulated as to make such cost irrelevant. It is particularly appropriate for construction work in progress and for other property that has experienced relatively little physical deterioration, is not misplaced, is neither over or under improved, and is not affected by other forms of depreciation or obsolescence.

In applying the cost approach to the valuation of water rights, the appraiser should gather information to establish the full economic costs and/or replacement costs related to acquire the water right.<sup>76</sup>

Full economic costs of a water right would include:

- direct (hard) costs such as application, processing and permit fees directly associated with obtaining the right, easement, variance, lease, etc.; and
- indirect (soft) costs in obtaining the right, such as professional fees of lawyers, consultants, accountants, etc.

Replacement cost is the cost to replace an existing property with a property of equivalent utility as of a particular date. Using this approach requires an estimate of the costs that would be incurred in replacing the existing source of water with a water right that uses the same quantity of water for the same beneficial purpose. All of the assumptions used to derive the estimates must be reasonable expenses to a potential buyer.

While the improvements necessary to divert the water to its place of use are not a part of the water right, there may be additional costs associated with replacing the existing water right and therefore relevant when comparing costs of acquiring water from alternative sources. A water right can be purchased with a known point of diversion but without the existence of the structures necessary to divert the water. Under such a scenario, the cost approach will result in a value indicator that reflects only the economic cost to obtain the right, not the full economic cost to obtain the right, divert the water, and beneficially use it.<sup>77</sup>

<sup>76</sup> For more information on the valuation of CPUC regulated water companies, see Part I of this handbook section.

<sup>77</sup> For additional information regarding the cost approach to value, see AH 502, *Advanced Appraisal*, Ch. 2.

## INCOME APPROACH

The income approach to value, also called the capitalization approach, includes any method of converting an income stream into an indicator of fair market value. This approach is based on the economic principle of anticipation; i.e., that the value of an investment is the present value of the anticipated future income to be generated by the subject investment. This approach is applicable to valuing water rights only if the component of net income attributable to the water rights can be identified and quantified.

Property Tax Rule 8(a), *The Income Approach to Value*, addresses the applicability of the income approach:

The income approach to value is used in conjunction with other approaches when the property under appraisal is typically purchased in anticipation of a money income and either has an established income stream or can be attributed a real or hypothetical income stream by comparison with other properties. It is the preferred approach for the appraisal of land when reliable sales data for comparable properties are not available. . . .

The three fundamental assumptions of the income approach are that (1) value is a function of income; (2) value depends on the size, shape, duration, and risk of the income stream; and (3) future income is less valuable than present income. If the nature of the property being appraised is not consistent with these assumptions, the income approach to value generally should not be given great weight as an indicator of its market value. The value of water rights to a CPUC regulated water utility is the amount allowed into rate base upon which the utility can earn a return, usually original cost.

### Return on and Return of Capital

An investor's expected return generally includes both an economic reward and a recovery of invested capital. The economic reward is the *return on* capital, which is the amount an investor receives for the use of his or her capital until it is recovered. The return on capital is also referred to as the investment yield. Except in the case of the income from land, which is capitalized in perpetuity, real property income is generally capitalized over a finite period. Capitalization over a finite period requires a recovery of capital, which is referred to as the *return of* capital (or capital recapture or recovery). All capitalization rates, factors, and income multipliers (excluding the case in which income from land is capitalized in perpetuity) provide, explicitly or implicitly, for both the return on and the return of capital. The income producing aspects of a water right are similar to land because they are expected to continue into perpetuity. A direct capitalization approach can be used to value water rights using the income approach.<sup>78</sup>

In income capitalization, capital is recovered over an income projection period that matches the capital recovery period. There are several possible income projection/capital recovery periods in

<sup>78</sup> For information on the derivation of capitalization rates, see related sections in Chapter 4 of AH 502, *Advanced Appraisal*.

appraisal. The most important are (1) income projected over the remaining economic life of the improvements and (2) income projected over a market-derived investment holding period. The investment holding period is the period of time (projected forward from the valuation date) that the investor expects to hold the property before selling it.<sup>79</sup>

### Example of Income Approach

This is an example of the valuation of a water right with a perpetual income stream, that is, the income to be capitalized is expected to continue forever.

<b>EXAMPLE 3.2</b>	
<b>VALUATION OF A WATER RIGHT USING THE INCOME APPROACH</b>	
Assumptions:	
•	The subject water right, an overlying right for 60 acre-feet per year in an adjudicated ground water basin, was transferred on May 13, 2000.
•	The subject water right is currently leased for \$150 per acre-foot per year. The lease is for the water right only. This is the current market rate for this type of water right in this adjudicated ground water basin.
•	The appraiser has determined that the market-derived direct capitalization rate for water rights is 8%. There is an effective ad valorem property tax rate of 1%.
Annual income	\$9,000 = 60 acre-feet x \$150 per acre-foot = \$9,000 / (8.0% + 1.0%) = \$9,000 / 9.0%
Water right value	= <b>\$100,000</b>

### RECONCILIATION OF VALUES

*Reconciliation of value indicators*, as discussed in detail in AH 502, *Advanced Appraisal*, Chapter 5, is the final step the appraiser takes to present a reasoned and defensible value estimate. In the reconciliation process, consideration should be given to factors influencing value that either are not reflected or are only partially reflected in the indicators. Generally, appraisers should not calculate a simple arithmetic average of several indicators. Instead, the greatest weight should be given to that approach or combination of approaches that best measures the types of benefits yielded by the subject property. Thus, the reconciliation step should involve an analysis of: (1) the relative appropriateness of the approaches applied; (2) the accuracy of the data collected and calculations made in each approach; (3) the quantity of data available for each approach; and (4) the consistency in the manner in which the approaches to value were applied.

<sup>79</sup> For additional information regarding the income approach to value, see AH 502, *Advanced Appraisal*, Ch. 4.



## SPECIAL TOPICS

### SEVERANCE OF WATER RIGHTS FROM A PARCEL

Water rights (riparian or overlying) severed from the land of which they were appurtenant remain real property for purposes of property taxation. The severed water rights themselves generally are subject to reassessment because they have undergone a change in ownership. The transferred water rights should be assessed at their market value as of the date of change in ownership. Since water rights are considered land by definition, the severed water right is most appropriately entered on the secured roll as land value.

An adjustment of the remaining appurtenant land's base year value may also be required. If an adjustment is necessary due to the severance, the base year value of the appurtenant parcel should be adjusted by the same proportion that the divested water rights contributed to the parcel's base year value. An analysis of the current market value of the remaining appurtenant land may also be appropriate at this time since it may be possible that the current market value is less than the factored base year value after the adjustment for the divested water rights.

### TEMPORARY LOSS OR REDUCTION OF WATER RIGHTS

Section 170 applies to all damaged or destroyed taxable real property. Section 170 provides that any assessee whose property is damaged or destroyed by a misfortune or calamity may apply for reassessment. The section also states that "misfortune or calamity" includes a drought condition such as existed in this state in 1976 and 1977. The term "real property" in section 170 refers to the appraisal unit that persons in the marketplace commonly buy and sell as a unit, or property that is normally valued separately. Since water rights are classified in Property Tax Rule 124(b)(1) as real property, they are eligible for section 170 relief.

Section 170 requires a county board of supervisors to enact an ordinance to provide such relief from reassessment. If the county where the disaster occurs does not have an ordinance, the assessee may seek relief for damage to the separately-held water right under section 51 of the Revenue and Taxation Code, which provides for reassessment reflecting a decline in a property's assessed value.<sup>80</sup>

A reduction in value under section 170 is effective from the beginning of the month in which the calamity occurs instead of on the following lien date, as in a reduction under section 51. Calamity reductions under section 170 result in a lower assessment only during the period starting with the beginning of the month the calamity occurred, through the end of the month in which the restoration is completed. The property's base year value is returned to the assessment roll when the property is restored, which in the case of a separately-assessed water right, would occur when the water right owner is again receiving the benefit of the water provided by the water right. The application of a section 170 reduction is problematic, however, since the

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<sup>80</sup> For further detail see AH 501 *Basic Appraisal*, Appendix A, under *Decline in Value Appraisals*; and the *Assessment Appeals Manual*, Ch. 3, under *Assessment Appeals Filing Periods*, and Ch. 6, under *Misfortune or Calamity*.

duration and impact of a drought may be difficult to determine. Assessors may confirm that a drought exists if a water shortage emergency has been declared in the county. Section 350 of the Water Code authorizes a local water supplier, public or private, including a mutual water company, to declare a water shortage emergency when it finds that "the ordinary demands and requirements of water consumers cannot be met without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection." Under section 351 of the Water Code, a public hearing is required before the declaration of an emergency can be made. The water supplier may adopt regulations and restrictions on the delivery and consumption of water during a water shortage emergency.

During periods of inadequate water supply, irrigation districts also have authority to impose restrictions on the use of water for growing crops. Districts without devices to measure water quantity are authorized under state law to limit water used by farmers, based on the estimated available water and the type of crop grown.<sup>81</sup> The district may refuse to deliver water to or assess penalties on the landowner who uses more water than the amount allocated for the crop grown. Water districts also serve the function of supplying water for irrigation to landowners within their boundaries and may restrict water quantity used to irrigate crops during periods of inadequate supply.<sup>82</sup> Thus, such information from irrigation districts and water districts may be considered to establish whether a section 170 reduction in value is appropriate.

### **VALUATION OF WATER RIGHTS APPURTENANT TO LAND SUBJECT TO THE CALIFORNIA LAND CONSERVATION ACT**

In 1965, the Legislature enacted the California Land Conservation Act (CLCA, or Williamson Act) in an attempt to preserve agricultural lands for the production of food and fiber products. The act provided for the creation of "agricultural preserves" and for certain contractual agreements between property owners and counties. Such agreements limit the use of lands to agricultural purposes for a specified number of years. The Legislature's action was ratified by the electorate in 1966. Subsequent legislation prohibited the assessor's use of sales information on property subject to open-space restrictions and required an appraisal based only upon a property's income-producing ability. A property subject to open-space restrictions is now assessed at the lowest of: (1) its value determined by income capitalization with a statutorily prescribed rate—its restricted value; (2) its factored base year value; or (3) its current market value.

The valuation of CLCA land may include the value of appurtenant water rights.<sup>83</sup> The availability of water, regardless of source is considered in the value through the determination of the use of the land. If water is not available, then the land can only be used for grazing or a

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<sup>81</sup> Water Code, section 22252.3.

<sup>82</sup> Water Code, section 35454.5. However, a water district is a municipal corporation which, under the provisions of article XIII, section 11, of the California Constitution, renders its real property located outside its boundaries taxable if such property was taxable when acquired.

<sup>83</sup> For a discussion on the avoidance of double assessment, see the *Mutual Water Companies* section in Part I, Chapter 2 of this handbook section.

limited variety of crops depending on the precipitation in the region. If water is available to the land in adequate quantities, then higher value crops may be grown. Differences between sources of water on the restricted value of the land is accounted for in the variations of expenses for water between properties with different sources. For example, land which is irrigated with water from its own wells may have lower expenses for water (electricity and maintenance for the pumps) than land irrigated with water supplied by an irrigation district where the water must be purchased.

## **GROUND WATER MANAGEMENT DISTRICTS & WATERMASTER SERVICE AREAS**

The water system in California for managing water resources is a complex and uncoordinated system involving numerous federal, state, and local agencies, that has evolved piecemeal.<sup>84</sup> For example, there is statewide regulation of water rights for surface waters by the State Water Resources Control Board. However, there is no statewide regulation of water rights for ground water, despite the overdraft of many ground water basins. In most areas of California, overlying land owners may extract percolating ground water and put it to beneficial use without the approval of the State Water Resources Control Board<sup>85</sup> (SWRCB) or of a court. Other than the exception noted in the footnote below, the state does not have a permit process for the regulation of ground water. In several basins, however, the extraction of ground water is regulated by either (1) a watermaster in an adjudicated basin, or (2) a ground water management district or agency. Appendix A includes a list of the regulated ground water basins in the state.

### **Watermasters –Adjudicated Ground Water Basins**

In ground water basins that have been overdrafted, land owners or other parties have turned to the courts to settle disputes over how much ground water can be rightfully extracted. Typically, after several years of litigation, a court will enter a judgment establishing the water rights for the basin, with an equitable distribution of the water that will be available for extraction each year. A watermaster is usually appointed by the court to administer the judgment to assure that the ground water is distributed as decreed. Of the 15 adjudicated ground water basins in existence statewide, almost all are located in the southern part of the state.

### **Ground Water Management Districts**

The extraction of ground water in the state is also regulated by local ground water management districts and agencies that have been authorized by special state legislation to regulate ground water basins. Almost all the ground water management districts and agencies statewide are located in the northern part of the state. (See Appendix A.)

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<sup>84</sup> Littleworth and Garner, *supra* at p. 68.

<sup>85</sup> The jurisdiction of the SWRCB to issue permits and licenses for the appropriation of underground water is limited by Water Code section 1200 to "subterranean streams flowing through known and definite channels." In addition, Part 5 of Division 2 of the Water Code, commencing at section 4999, requires persons in the counties of Riverside, San Bernardino, Los Angeles, and Ventura who extract ground water in excess of 25 acre-feet per annum, with certain exceptions, to file a notice regarding this extraction with the SWRCB.

## **Watermaster Service Areas—Surface Waters**

In the northern part of the state, watermasters also regulate the extraction of water from surface waters by water rights holders. Part 4 of Division 2 of the Water Code, commencing with Section 4000, provides for the management of surface water areas by watermaster service. The main purpose of the watermaster program is to ensure that water is allocated according to established water rights as determined by adjudication or by agreement and to help prevent the waste or unreasonable use of water.

The Department of Water Resources, Division of Planning and Local Assistance, Northern District,<sup>86</sup> currently provides watermaster service for 15 areas in the northern part of the State. Appendix A includes a list of these service areas. The watermasters in these areas oversee the distribution of water for rights defined in 43 water right adjudications and one agreement, totaling approximately 1,500 users. All of the water rights in these areas are for surface water diversions only.<sup>87</sup>

## **Watermasters as a Resource**

Watermasters, particularly watermasters of ground water basins, can potentially be an excellent resource for such information as: (1) whether a sale of a water right has occurred or merely a lease or sale of water, and (2) the date and amount of a transaction and the parties involved. In addition, watermasters can also be a resource of comparable sales information. In several ground water basins, a Notice of Ownership Transfer must be filed with the watermaster, at which time the watermaster approves the sale of the water right. In addition, many watermasters include a list of the sales made in the basin in their annual report. As a result, comparable sales information may be available from watermasters to value rights in ground water basins.

In addition to sales information, watermasters may also have information available regarding leases in the basin. Such information can be used to apply the income approach to the valuation of a particular water right. However, as mentioned above, the comparability of a lease may depend upon whether the lease was attained from the same basin.

In addition to watermasters, individual providers in a basin, such as a municipality, may also be a resource for sale and lease information regarding ground water rights. Municipalities are acquiring water rights and leasing ground water on a more frequent basis. These municipalities, because of their pursuit of acquiring water, will be knowledgeable of the current market price of water in the area.

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<sup>86</sup> For more information, see the Northern District's web site at [www.dplawater.ca.gov/nd](http://www.dplawater.ca.gov/nd).

<sup>87</sup> The Department of Water Resources, Division of Planning and Local Assistance, Southern District, provides watermaster service for two adjudicated ground water basins in Southern California, the West Coast Ground Water Basin and the Central Ground Water Basin.

## APPENDIX A: GROUND WATER BASINS AND SURFACE WATER AREAS

### ADJUDICATED GROUND WATER BASINS IN SOUTHERN CALIFORNIA

COURT NAME	FINAL DECISION	WATERMASTER	LOCATION
Brite Basin	1970	Tehachapi-Cummings County Water District	Kern County
Central Basin	1965	Department of Water Resources, Southern District	Los Angeles County
Chino Basin	1978	Nine-member board	San Bernardino County
Cucamonga Basin	—	Not yet appointed; operated as part of Chino Basin	San Bernardino County
Cummings Basin	1972	Tehachapi-Cummings County Water District	Kern County
Main San Gabriel Basin	1973	Nine-member board nominated by water purveyors and water districts, appointed by Superior Court	Los Angeles County
Mojave Basin Area	1996	Mojave Water Agency	San Bernardino County
Puente	1985	Three consultants	Los Angeles County
Raymond Basin	1944	Raymond Basin Management Board	Los Angeles County
San Bernardino Basin Area	1969	One representative each from Western Municipal Water District and San Bernardino Valley Municipal Water District	San Bernardino and Riverside Counties
Santa Margarita River Watershed	1966	U.S. District Court appointee	San Diego and Riverside Counties
Santa Paula Basin	1996	Three-person Technical Advisory Committee from United Water CD, City of Ventura, and Santa Paula Basin Pumpers Association	Ventura County
Scott River Stream System	1980	Two local irrigation districts	Siskiyou County
Six Basins	1979	Nine-member board	Los Angeles and San Bernardino Counties
Tehachapi	1973	Tehachapi-Cummings County Water District	Kern County
Upper Los Angeles River Area	1979	An individual hydrologist appointed by the Superior Court	Los Angeles County
Warren Valley Basin	1977	Hi-Desert Water District	San Bernardino County

COURT NAME	FINAL DECISION	WATERMASTER	LOCATION
West Coast Basin	1961	Department of Water Resources, Southern District	Los Angeles County

Note: Numerous water rights transfers occur annually in these adjudicated basins. See the *Special Topics* section of Chapter 3 for a further discussion of adjudicated ground water basins.

## WATERMASTERS—CONTACTS FOR WATER RIGHTS TRANSFERS IN SOUTHERN CALIFORNIA

*As of May 14, 1997*

WATERMASTER	ADDRESS	TELEPHONE
Central Basin Watermaster Charles White Chris Nagler	Watermaster Service Department of Water Resources P. O. Box 29068 Glendale, CA 91209-9068	(818) 543-4600
Chino Basin Watermaster	Watermaster Services 8632 Archibald Avenue, #109 Rancho Cucamonga, CA 91730	(909) 484-3888
Cummings Basin Watermaster	Tehachapi-Cummings County WD 22901 Banducci Road P. O. Box 326 Tehachapi, CA 93581	(805) 822-5504
Main San Gabriel Basin Watermaster Carol Williams	725 North Azusa Avenue Asuza, CA 91702	(818) 815-1300
Mojave Basin Area Watermaster Valerie Wiegenstein	P. O. Box 1089 Apple Valley, CA 92307	(619) 240-9201
Puente Basin Watermaster JoAnn Angelico	Walnut Valley Water District 271 South Brea Canyon Road Walnut, CA 91789	(909) 595-1268
Puente Narrows Watermaster Traci Stewart Thomas M. Stetson	Stetson Engineers, Inc. 3104 East Garvey Avenue West Covina, CA 91791	(818) 967-6202
Puente Narrows Watermaster Thomas N. O'Laughlin	ASL Consulting Engineers 3280 East Foothill Boulevard, #350 Pasadena, CA 91107	(818) 683-0066
Raymond Basin Watermaster Ron Palmer	Raymond Basin Management Board 4536 Hampton Road P. O. Box 686 La Cañada Flintridge, CA 91012-0686	(818) 790-4036
Santa Margarita River Watershed James S. Jenks,	P. O. Box 631 Fallbrook, CA 92088	(619) 728-1028
Santa Paula Basin Watermaster c/o Steve Bachman	United Water Conservation District 106 North 8 <sup>th</sup> Street Santa Paula, CA 93060-2710	(805) 525-4431
Tehachapi Basin Watermaster	Tehachapi-Cummings County WD 22901 Banducci Road P. O. Box 326 Tehachapi, CA 93581	(805) 822-5504
Upper Los Angeles River Area Watermaster Melvin L. Blevins	Los Angeles DWP P. O. Box 111, Room 1455 Los Angeles, CA 90051	(213) 367-1020

WATERMASTER	ADDRESS	TELEPHONE
Warren Valley Basin Watermaster	Hi-Desert Water District 6955 Old Woman Springs Road P. O. Box 1210 Yucca Valley, CA 92286-1210	(619) 365-8333
West Coast Basin Watermaster Charles White Chris Nagler	Watermaster Service Department of Water Resources P. O. Box 29068 Glendale, CA 91209-9068	(818) 543-4600
Western San Bernardino Watermaster Robert L. Reiter Donald L. Harriger	San Bernardino Valley MWD P. O. Box 5906 San Bernardino, CA 92412-5906	(909) 387-9200



**ADJUDICATED WATER RIGHTS—SURFACE WATER SERVICE AREAS IN NORTHERN CALIFORNIA**

SERVICE AREA	NO. OF DECREED WATER USERS*	LOCATION
Ash Creek	40	Lassen and Modoc Counties
Big Valley	58	Lassen and Modoc Counties
Burney Creek	11	Shasta County
Butte Creek	50	Butte County
Cow Creek	104	Shasta County
Digger Creek	106	Shasta and Tehama Counties
Hat Creek	88	Shasta County
Indian Creek	53	Plumas County
Middle Fork Feather River	128	Plumas and Sierra Counties
North Fork Cottonwood Creek	12	Shasta County
North Fork Pit River	114	Modoc County
Scott River	103	Siskiyou County
Shasta River	217	Siskiyou County
Surprise Valley	181	Modoc County
Susan River	229	Lassen County

\* 1996 Decreed Water Rights

Note: The Department of Water Resources, Division of Planning and Local Assistance, Northern District, provides watermasters for these surface water areas, who are informed of water rights transfers within these areas. The sale of water rights in these adjudicated surface water areas generally require court approval.

**GROUND WATER MANAGEMENT DISTRICTS/AGENCIES WHICH REGULATE  
EXTRACTION**

GROUND WATER MANAGEMENT DISTRICT	FORMED	LOCATION
Fox Canyon Ground Water Management Agency	1982	Ventura County
Honey Lake Valley Ground Water Management District	1989	Lassen County
Long Valley Ground Water Management District	1980	Lassen and Sierra Counties
Mendocino City Community Services District	1971	Mendocino County
Mono County Tri-Valley Ground Water Management District	1989	Mono County
Monterey Peninsula Water Management District	1947	Monterey County
Ojai Ground Water Management Agency	1991	Ventura County
Pajaro Valley Water Management Agency	1984	Santa Cruz County
Sierra Valley Ground Water Management District	1980	Sierra County
Surprise Valley Ground water Management District	1995	Modoc and Lassen Counties
Willow Creek Ground Water Management Agency	1993	Lassen County

Note: These management districts/agencies are authorized by state statute to regulate ground water extraction.

## APPENDIX B: CONTENTS OF SOURCE DOCUMENTS

### PURCHASE AGREEMENTS

A "water right purchase agreement" executed between the seller and buyer has information on the price per unit of measure for the particular water right purchased; e.g., \$2,000 per acre-foot. It also contains information on the exact location of the water right that was recorded in the corresponding county. If a license from the State Water Resources Control Board is involved, section 1650 of the Water Code requires that a copy of the water right license should be filed within 30 days after its issuance with the office of the recorder of the county in which the point of diversion lies.<sup>88</sup> The contents of the license are detailed in a succeeding paragraph.

### PETITION FOR CHANGES

When there is a change in the point of diversion, purpose of use or place of use, such as a sale of the water right, title 23, section 794 of the California Code of Regulations requires that specific information must be submitted by the proponent of the transfer to the State Resources Water Control Board.<sup>89</sup> Some information contained in this petition for transfers are:<sup>90</sup>

- (a) the amount(s) of water which would have been diverted, consumptively used, or stored under the water right in the absence of the proposed change(s), (a) during the period for which the change is requested, or (b) in a maximum year if the change is permanent;
- (b) the amount(s) of water proposed for change, transfer or exchange;
- (c) the existing and the proposed purpose(s) of use of water;
- (d) the existing and the proposed point(s) of diversion and re-diversion, and the existing and proposed location(s) of any return flow;
- (e) the existing and the proposed place(s) of use of the water for various purposes of use;
- (f) the existing and the proposed diversion, release and return flow schedules if stored water is involved or if the stream flow regime will be changed;
- (g) any changes in property ownership(s) involved, and the point(s) of diversion and place(s) of use of other known users of water who may be affected by the proposed change(s);
- (h) information identifying any effects of the proposed change(s) on other known users of water, including identification in quantitative terms of any projected change in water quantity, water quality, timing of diversion or use, consumptive use of the water,

<sup>88</sup> See section 1650 of the Water Code for provisions related to points of diversion in multiple counties.

<sup>89</sup> See Water Code, section 1725 et seq. for temporary transfers, and section 1735 et seq. for permanent transfers.

<sup>90</sup> Division of Water Rights, State Water Resources Control Board, *A Guide to Water Transfers*, [waterrights.ca.gov/watertransferguide.pdf](http://waterrights.ca.gov/watertransferguide.pdf).

reduction in return flows, or reduction in the availability of water within the streams affected by the proposed change(s);

- (i) the parties involved in the proposed change, transfer or exchange;
- (j) map(s) prepared in accordance with Article 7, which describe the proposed change(s), delineate any additional information required by Items (4), (5), and (7) above, and show the hydrologic basin of origin and the streams that could be affected by the proposed change(s); and
- (k) the proposed place(s) of use for irrigation may be listed as net acreage(s) within gross area(s) shown on a map submitted with the petition.

### **APPLICATION TO APPROPRIATE WATER**

If the subject water right was acquired through the permit and licensing process of the State Water Resources Control Board,<sup>91</sup> a copy of the application should contain the following information:<sup>92</sup>

- (a) the name and post office address of the applicant;
- (b) the source of water supply;
- (c) the nature and amount of the proposed use;
- (d) the location and description of the proposed headworks, ditch, canal, and other works;
- (e) the proposed place of diversion;
- (f) the place where it is intended to use the water;
- (g) the time within which it is proposed to begin construction;
- (h) the time required for completion of the construction;
- (i) the time for the complete application of the water to the proposed use; and
- (j) sufficient information to demonstrate a reasonable likelihood that unappropriated water is available for the proposed appropriation.

The license issued confirms the amount of water determined as a beneficial use, including all conditions stipulated by the State Water Resources Control Board.<sup>93</sup>

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<sup>91</sup> Water Code, section 1252 provides that any person may apply for a permit to appropriate unappropriated water.

<sup>92</sup> Water Code, section 1260.

<sup>93</sup> Water Code, sections 1610 and 1628.

## STATEMENT OF WATER DIVERSIONS AND USE

The owner of a water right for which a license was issued, and waters were diverted after December 31, 1965, is required by section 5102 of the Water Code to file a "statement of water diversions and use" for each point of diversion, except those specifically enumerated in section 5101 (a through h), prior to July 1 of the succeeding year. Section 5103 provides that the statement shall include:

- (a) The name and address of the person who diverted water and of the person filing the statement.
- (b) The name of the stream or other source from which water was diverted, and the name of the next major stream or other body of water to which the source is tributary.
- (c) The place of diversion. If a public land survey has been made, location of diversion works shall be described to the nearest 40-acre subdivision. If not, it shall be described by reference to nearest local landmarks or other recorded surveys.
- (d) The capacity of the diversion works and of the storage reservoir, if any, and the months in which water was used during the preceding calendar year. Those who maintain water-measuring devices and keep monthly records of water diversions shall state the quantity of water diverted by months during the preceding calendar year. Others shall state the acreage of each crop irrigated, the average number of people served with water, the average number of stock watered, and the nature and extent of any other use during the preceding calendar year, or such other equivalent information tending to indicate the quantity of water used as may be prescribed by the board.
- (e) The purpose of use.
- (f) A general description of the area in which the water was used. If the water was used on an area within the 1/16 section containing the point of diversion, a statement to that effect will suffice; otherwise a description or sketch of the general area of use shall be given.
- (g) The year in which the diversion was commenced as near as is known.

Every three years thereafter, a supplemental statement must be filed reporting the quantity of water and the rate of diversion, by month, for each of the preceding year.<sup>94</sup>

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<sup>94</sup> Water Code, section 5104.

## NOTICE OF EXTRACTION AND DIVERSION OF WATER

If water extraction in excess of 25 acre-feet annually occurs in any of the four counties of San Bernardino, Los Angeles, Riverside and Ventura,<sup>95</sup> the appropriator is required to file a "Notice of Extraction and Diversion of Water."<sup>96</sup> The contents of this report are:<sup>97</sup>

- (a) The name of the person extracting ground water or diverting surface water.
- (b) The quantity of water taken and the method of measurement used by such person or his predecessor in interest in each preceding year from each surface or ground water source; provided, that if the period of such taking exceeds 10 years, such person is not required to state such quantities for any period greater than the preceding 10 calendar years.
- (c) The location (sufficient for identification) of each surface or ground water source through or by means of which water has been taken, and if any person or persons other than the person filing said notice claims any interest in such source or the right to extract water therefrom, the name or names, so far as known, of such other person or persons.
- (d) A general description of the area in which such water has been used.
- (e) Any other facts which the board may require by general regulation and which tend to prove the facts required by this section to be stated, the origin of water supplying any ground water source mentioned in the notice, water levels in any such source, or the extent of any ground water basin from which such water is withdrawn.
- (f) Any person diverting only surface water and not more than 25 acre-feet of ground water in any year need not file such notice for such year. Notices, other than the first notice filed, shall state, in addition to the name of the person extracting or diverting such water:
  - 1) The quantity of water taken from each surface and ground water source from which such person received any water in the preceding calendar year.
  - 2) Location of each such surface and ground water source through or by means of which water has been taken in such preceding year. This may be stated, so far as applicable, by reference to the water sources described in the original notice.
  - 3) If such person diverts surface water in excess of three miner's inches, such person shall further state in said notice the period or periods of such diversion, and the maximum and minimum flows so diverted in each period.
- (g) Any other facts which the board may require by general regulation, and which tend to prove facts required by this subdivision to be stated, the origin of water supplying any surface or ground water source mentioned in the notice, water levels or flow in any such

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<sup>95</sup> Water Code, section 4999.

<sup>96</sup> Water Code, section 5001.

<sup>97</sup> Water Code, section 5002.

source, or the extent or origin of the water source supplying the ground water supply from which such water is extracted.

### **LICENSE RECORDED WITH THE COUNTY RECORDER'S OFFICE**

As mentioned earlier, as required by section 1650 of the Water Code, and, as with most real property rights, to perfect the transfer of water rights, a true copy of each license issued must be filed with the office of the county recorder's office identifying the point(s) of diversion granted by the license.

It is conceivable that there may not just be one but dozens of water rights that are both part and parcel of and appurtenant to the subject property. The appraiser should be aware that water rights that are pre-1914 may no longer have cost records that can traced to and that many water rights would fall in this category. In this type of appraisal scenario, the appraiser needs to use other methods to establish a defensible basis for valuation.

### **OTHER INFORMATION – BOOKS, LEDGERS AND RELATED DOCUMENTS**

Audited financial statements, books and ledgers, contracts of sale, lease contracts, copies of application, permit, and other related fees, in the possession of the owner are some other sources of information on costs of improvements, consultancy and agency fees, and other costs and expenses related to the water right and the waters diverted.

Other sources of indicators of potential value, are local or regional brokers or consultants specializing in the sale and exchange of water rights. Advertisements on water rights for sale or water rights sought include information such as:

- (a) General location: county/state
- (b) Specific river basin or watershed
- (c) Source such as surface waters or ground waters
- (d) Total consumptive use, giving particular volume measurements
- (e) Priority date of the water right being advertised
- (f) Asking price of the owner

## APPENDIX C: POSTED NOTICE ON AN APPROVED PERMIT

APPLICATION <u>XXXXX</u>	PERMIT <u>NNNNN</u>	ISSUED ON <u>Feb. 2, 1994</u>
<i>Applicant</i>	Applicant's name  Address	
<i>Source(s)</i>	Unnamed stream tributary to Oak Moss Creek thence Capell Creek thence Putah Creek thence Yolo Bypass	
<i>Point(s) of Diversion</i>	NE ¼ of NW ¼ of Section 22, T7N, R3W, MDB&M	
<i>Purpose(s) of Use</i>	Domestic, irrigation, and stockwatering	
<i>Direct Diversion Rate</i>	4,500 gallons per day (Domestic)	
<i>Season of Diversion</i>	From October 1 to May 31 of the succeeding year.	
<i>Storage Amount and Season of Diversion</i>	10 from October 31 to May 31 (Irrigation and Stock-watering) of the succeeding year.	
<i>Max Annual Amount</i>	13 from October 1 to September 30	
<i>Place of Use</i>	Incidental domestic, stockwatering and irrigation use of 60 acres located within the NE ¼ of NE ¼ of Section 21, and NW ¼ of NW ¼ of Section 22, T7N, R3W, MDB&M, as shown on maps on file with the SWRCB.	
<i>Existing Project</i>	Water is to be collected to storage from an unnamed stream in an onstream reservoir with a proposed capacity of 13 behind a 10-foot high earthfill dam. Stored water will be pumped and/or gravity diverted from the reservoir by PVC pipeline to an unobstructed channel for sprinkler irrigation of permanent pasture.	
<i>Petition for Change(s):</i>	Permittee petitioned to convert 3 acre-feet of water by direct diversion to commensurate storage within the proposed 13 acre-foot onstream reservoir.	
<i>Extension of Time</i>	Permittee requests an Extension of time to develop full beneficial use of water authorized under this permit.	
<i>Related Application</i>	Application <u>xxxxx</u> file May 15, 1996 to store 147 per annum for irrigation, frost protection, fire protection, stockwatering, domestic and recreation from October 1 to May 31.	



## GLOSSARY<sup>98</sup>

<b>Acre foot (acre-ft)</b>	The volume of water required to cover 1 acre of land (43,560 square feet) to a depth of 1 foot, equal to 325,851 gallons or 1,233 cubic meters.
<b>Aqueduct</b>	A pipe, conduit, or channel designed to transport water from a remote source, usually by gravity.
<b>Aquifer</b>	A geologic formation(s) that is water bearing. A geological formation or structure that stores and/or transmits waters, such as to wells and springs. Use of the term is usually restricted to those water-bearing formations capable of yielding water in sufficient quantity to constitute a usable supply.
<b>Artesian water</b>	Ground water that is under pressure when tapped by a well and is able to rise above the level at which it is first encountered. It may or may not flow out at ground level. The pressure in such an aquifer commonly is called artesian pressure, and the formation containing artesian water is an artesian aquifer or confined aquifer.
<b>Conveyance loss</b>	Water that is lost in transit from a pipe, canal, or ditch by leakage or evaporation. Generally, the water is not available for further use; however, leakage from an irrigation ditch, for example, may percolate to a ground water source and be available for further use.
<b>Cubic feet per second (cfs)</b>	A rate of the flow in streams and rivers. It is equal to a volume of water one foot high and one foot wide flowing a distance of one foot in one second. One "cfs" is equal to 7.48 gallons of water flowing each second.
<b>Discharge</b>	The volume of water that passes a given location within a given period of time. Usually expressed in cubic feet per second.
<b>Domestic water use</b>	Water used for household purposes, such as drinking, food preparation, bathing, washing clothes, dishes, and dogs, flushing toilets, and watering lawns and gardens.
<b>Drainage basin</b>	A land area where precipitation runs off into streams, rivers, lakes, and reservoirs. It is a land feature that can be identified by

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<sup>98</sup> United States Geological Service, *Glossary of Water Resource Terms*, [www.edwardsaquifer.net/glossary.html](http://www.edwardsaquifer.net/glossary.html).

tracing a line along the highest elevations between two areas on a map, often a ridge. Large drainage basins, like the area that drains into the Mississippi River contain thousands of smaller drainage basins. Also called a "watershed."

**Ground water**

(1) Water that flows or seeps downward and saturates soil or rock, supplying springs and wells. The upper surface of the saturate zone is called the water table.

(2) Water stored underground in rock crevices and in the pores of geologic materials that make up the Earth's crust.

**Ground water recharge**

Inflow of water to a ground water reservoir from the surface. Infiltration of precipitation and its movement to the water table is one form of natural recharge. Also, the volume of water added by this process.

**Headwater(s)**

(1) The source and upper reaches of a stream; also the upper reaches of a reservoir. (2) The water upstream from a structure or point on a stream. (3) The small streams that come together to form a river. Also may be thought of as any and all parts of a river basin except the mainstream river and main tributaries.

**Peak flow**

The maximum instantaneous discharge of a stream or river at a given location. It usually occurs at or near the time of maximum stage.

**Percolation**

(1) The movement of water through the openings in rock or soil. (2) The entrance of a portion of the streamflow into the channel materials to contribute to ground water replenishment.

**Prior appropriation doctrine**

The system for allocating water to private individuals used in most Western states. The doctrine of Prior Appropriation was in common use throughout the arid West as early settlers and miners began to develop the land. The prior appropriation doctrine is based on the concept of "First in Time, First in Right." The first person to take a quantity of water and put it to beneficial use has a higher priority of right than a subsequent user.

**Return flow**

(1) That part of a diverted flow that is not consumptively used and returned to its original source or another body of water. (2) (Irrigation) Drainage water from irrigated farmlands that re-enters the water system to be used further downstream.

**Riparian water rights**

The rights of an owner whose land abuts water. They differ from state to state and often depend on whether the water is a river,

lake, or ocean. The doctrine of riparian rights is an old one, having its origins in English common law.

**Runoff**

The part of the precipitation, snowmelt, or irrigation water that appears in uncontrolled surface streams, rivers, drains or sewers.

**Seepage**

(1) The slow movement of water through small cracks, pores, Interstices, etc., of a material into or out of a body of surface or subsurface water. (2) The loss of water by infiltration into the soil from a canal, ditches, laterals, watercourse, reservoir, storage facilities, or other body of water, or from a field.

**Stream**

A general term for a body of flowing water; a natural watercourse containing water at least part of the year. In hydrology, the term stream is generally applied to the water flowing in a natural channel as distinct from a canal.

**Water table**

The top of the water surface in the saturated part of an aquifer.

**Watershed**

The land area that drains water to a particular stream, river, or lake. It is a land feature that can be identified by tracing a line along the highest elevations between two areas on a map, often a ridge. Large watersheds, like the Mississippi River basin contain thousands of smaller watersheds.

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