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Date: September 20, 2016

To: City Council

From: Sharron Walker, City Auditor

Subject: Report No. 1602, Biennial Certified Audit of the City's Land Use Assumptions, Infrastructure Improvement Plans and Development Impact Fees

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In 2011, state legislation placed several requirements on municipalities' development impact fees.[1] To comply with one of these requirements, the City has contracted for its first biennial certified audit of its land use assumptions, infrastructure improvement plans and development impact fees.[2] The City's applicable activity relates to its Water and Wastewater utilities.

The attached report is the work product of the contracted firm, Raftelis Financial Consultants, Inc.; my office administered the audit contract.

This biennial certified audit was not performed under generally accepted auditing standards, but it has been performed in accordance with the statutory audit requirements.[2,3]

Once the biennial certified audit is posted on the City's website, the City is to conduct a public hearing on it within 60 days.

- This report was posted to the City's website with the Audit Committee agenda on September 13, 2016.
- On September 19, the Audit Committee voted unanimously (3-0) to accept the Biennial Certified Audit. Therefore, the report was posted to the Audit Reports webpage on September 20, 2016.
- The public hearing is scheduled for the City Council's October 10, 2016, regular agenda. The report will be posted again to the City's public website as part of the agenda materials for this meeting.

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[1] Senate Bill 1525 by the 50th Legislature First Regular Session of 2011.

[2] ARS §9-463.05(G)(2) states that the City may: "In lieu of creating an advisory committee … **provide for a biennial certified audit of the municipality's land use assumptions, infrastructure improvements plan and development fees. An audit pursuant to this paragraph shall be conducted by one or more qualified professionals who are not employees or officials of the municipality and who did not prepare the infrastructure improvements plan. The audit shall review the progress of the infrastructure improvements plan, including the collection and expenditures of development fees for each project in the plan, and evaluate any inequities in implementing the plan or imposing the development fee.** The municipality shall post the findings of the audit on the municipality's website … and shall conduct a public hearing on the audit within sixty days of the release of the audit to the public."

[3] ARS §9-463.05 (T)(8) defines "qualified professional" as a professional engineer, surveyor, financial analyst or planner providing services within the scope of the person's license, education or experience.

CITY OF
SCOTTSDALE

Biennial Certified Audit of Land Use Assumptions, Infrastructure Improvements Plan and Development Fees

Final Report / September 12, 2016

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September 12, 2016

Ms. Sharron E. Walker, CPA, CFE, CLEA
City Auditor
City of Scottsdale
7447 E. Indian School Road, Suite 205
Scottsdale, AZ 85251

Subject: Report of Findings from Audit of City's Infrastructure Improvements Plans

Dear Ms. Walker,

Raftelis Financial Consultants, Inc. (RFC) is pleased to provide this report documenting the findings of our audit of the City of Scottsdale's (City) 2013 Land Use Assumptions (LUA), Water Infrastructure Improvements Plan (IIP), and Wastewater IIP. RFC is a financial and management consulting firm serving water-industry utilities with extensive experience with utility development fees.

REQUIREMENTS OF THE AUDIT

Arizona Revised Statutes (ARS) §9-463.05 (G) (2) requires this audit by one or more independent qualified professionals to review the progress of the LUA and IIP, including the collection and expenditures of development fees for each project in the plan, and to evaluate any inequities in implementing the plan; the amount of development fees assessed, collected, and spent on capital facilities; or imposing the development fee. Because the City's development fees became effective on July 1, 2014, this audit reviews the City's collection and expenditure of the water, water supply, and wastewater development fees during the period from July 1, 2014 through June 30, 2016. The municipality must post the findings of this audit on the municipality's website and shall conduct a public hearing on the audit within 60 days of the release of the audit to the public.

MATERIALS REVIEWED AS PART OF THIS AUDIT

This audit is not intended to be an audit of the City's financial statements under generally accepted auditing standards. Rather, this audit is intended to review the progress of the Water IIP and Wastewater IIP and evaluate any inequities in implementing the plans or in imposing the City's development fees. Because ARS §9-463.05 requires an audit of the planning projections from an adopted LUA, this audit includes a review of the City's 2013 LUA Report. The revised legislation also requires that the IIP include information related to available capacities, current levels of service, commitments to use of capacities, and projected demands. As such, this audit reviewed the progress of many of the capacity planning and demand assumptions incorporated in the IIPs in addition to the collection and expenditures of development fees for each project in the plans.

FINDINGS

RFC has reviewed the City's LUA, Water IIP, and Wastewater IIP, adopted on December 10, 2013, and concludes that these written plans sufficiently address and provide the information required by ARS §9-463.05 (E) (1)-(7). In our opinion, the progress of the LUA, Water IIP, and Wastewater IIP, including the collection and expenditures of development fees for each project in the plan from July 1, 2014 through June 30, 2016 does not result in any inequities in implementing the plans or in imposing the water, water supply, and wastewater development fees. (It should be noted that the LUA, Water IIP, and Wastewater IIP must be updated on or before December 10, 2018.)

The review of current development conditions finds that available capacities in existing infrastructure, current levels of service, commitments to use of capacities, and projected demands remain consistent with the planning projections supporting the infrastructure improvements scheduled in the IIPs. The actual expenditure of development fee funds on growth-related infrastructure projects and other eligible costs is consistent with the scheduling and estimated costs of those projects identified in the IIP. Finally, the City has appropriately accounted for the monies received from development fees in separate funds and has only used those monies for the purposes authorized by statutes.

ACKNOWLEDGEMENTS

RFC wishes to acknowledge the efforts made by the Water Resources Division and the Planning and Development Department in providing timely and accurate input during the audit. In particular, we wish to acknowledge the important contributions provided by Gina Kirklin, Chris Hassert, and Leslie DeReche in helping us collect and clarify the key planning and financial information necessary to perform the audit.

If you have any questions or concerns, please do not hesitate to contact me at 941.349.1040.

Sincerely,
RAFTELIS FINANCIAL CONSULTANTS, INC.

Frank Davis
Manager

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INTRODUCTION

The City of Scottsdale (City) charges development fees to new water and wastewater customers as a mechanism to fund the infrastructure and public facilities needed to accommodate new development. Development fees are one-time payments that represent the "proportionate share" of infrastructure capital costs needed to accommodate new units of service. In 2013, the City updated its water and wastewater development fees under new State of Arizona legislative guidelines that required municipalities adopt land use assumptions (LUA) and an infrastructure improvements plan (IIP) for the service area in which the public services recovered by the development fees will be constructed.

These new legislative guidelines also require the City to have a certified audit of the LUA and IIP performed by a qualified professional on a biennial basis. In February 2016, the City engaged Raftelis Financial Consultants, Inc. (RFC) to conduct this audit of the LUA and Water and Wastewater IIPs, which were adopted on December 10, 2013. The objective of the audit is to review the progress of the LUA and IIP, including the collection and expenditures of development fees for identified capital projects in the IIP, and evaluate any inequities in implementing the adopted IIP or imposing adopted development fees differently from the adopted fee schedules. In meeting this objective, RFC reviewed and evaluated the progress of the growth and planning assumptions included in the LUA and IIP and evaluated financial records related to the City's accounting for the collection and expenditures of development fees.

REVISED STATUTES OF SENATE BILL 1525

In April 2011, statutory revisions were made by the approval of Senate Bill (SB) 1525 that significantly changed the requirements for development fees in the State of Arizona. As required by the Arizona Revised Statutes (ARS) §9-463.05, the City of Scottsdale and other municipalities in Arizona were required to replace development fees adopted prior to January 1, 2012 for compliance with the requirements of ARS §9-463.05. ARS §9-463.05 (D) further requires that "before the adoption or amendment of a development fee, the governing body of the municipality shall adopt or update the land use assumptions and infrastructure improvements plan for the designated service area."

To replace its water and wastewater development fees under the requirements of ARS §9-463.05, the LUA and the Water IIP and Wastewater IIP were posted on the City's website on August 20, 2013. A public hearing was held on October 22, 2013, and the LUA and both IIP's were adopted at the Scottsdale City Council Meeting on December 10, 2013. On February 25, the City Council repealed the old Development Fee Ordinance and adopted the new Development Impact Fee Ordinance and the new Development Impact Fees. On July 1, 2014 the City began charging the water and wastewater development fees adopted pursuant to this new legislation. The statutory revisions also require that municipalities either:

1. Appoint an infrastructure improvements advisory committee to perform specific advisory and monitoring duties as part of the LUA and IIP adoption and ongoing compliance processes, or

2. Provide for a biennial certified audit of the municipality's LUA, IIP, and development fees.

To comply with this requirement, the City of Scottsdale elected to provide for the biennial certified audits.

BIENNIAL CERTIFIED AUDIT OF LUA, IIP, AND DEVELOPMENT FEES

Pursuant to the legislation, the audit must be conducted by one or more qualified professionals who are not employees or officials of the municipality and who did not prepare the IIP. The Water IIP was prepared by CH2M Hill and the Wastewater IIP was prepared by Water Works Engineers. The audit shall review the progress of the IIP, including the collection and expenditures of development fees for each project in the plan, and evaluate any inequities in implementing the plan or imposing the development fee. The municipality shall post the findings of the audit on the municipality's website and shall conduct a public hearing on the audit within 60 days of the release of the audit to the public.

This report summarizes RFC's findings and results as part of the initial biennial audit of the City of Scottsdale's LUA and Water IIP and Wastewater IIP.

RAFTELIS FINANCIAL CONSULTANTS, INC.

RFC was founded in 1993 to provide financial and management consulting services to water, wastewater, and stormwater utilities. RFC has extensive experience with development fees and has assisted numerous municipalities in Arizona and the Phoenix metropolitan area in determining development fees under ARS §9-463.05 and prior Arizona development fee statutes.

Frank Davis led RFC's efforts in performing this audit of the City's Water IIP and Wastewater IIP. Mr. Davis is a Manager who has been with RFC and providing financial consulting services to water and wastewater utilities since 1997. Mr. Davis has extensive experience in determining and implementing development fees under industry-accepted approaches and to be in compliance with state development legislative requirements. Mr. Davis authored a chapter entitled "System Development and Other Capital Recovery Charges" for the Fourth Edition of the industry guidebook *Water and Wastewater Finance and Pricing: The Changing Landscape*. Mr. Davis has his Bachelor of Science in Finance from the University of South Florida (1994) and his Master's in Business Administration from Wake Forest University (1997).

LAND USE ASSUMPTIONS REPORT

To comply with ARS §9-463.05, the City prepared on August 20, 2013 and adopted on December 13, 2013 an LUA Report that provides projections of changes in land uses, densities, and intensities and population projections for the specified areas representing the water and wastewater service areas over a 10-year period and pursuant to the City's General Plan. The LUA Report was prepared to cover a period from 2013 to 2023 and set forth the City' demographic estimates and projections for future development in residential, commercial, and industrial development within the City's service area.

The LUA Report was based on the professional services of several consultants, which include:

1. Applied Economics who prepared the *City of Scottsdale General Plan Economic Analysis: Development Forecast Update* in October 2011 with residential population projections based on the 2010 census and additional projections provided by the City.
2. Water Works Engineers with Carollo Engineers who prepared the *Water Reuse Master Plan Update.*
3. Elliott D. Pollack & Company (EDP & Company) who prepared a *Land Use and Economic Forecasts Report* to distribute the land use and growth assumptions from the Applied Economics report into the smaller sub divided areas of the water and wastewater service areas, and update the 2011 analysis to reflect the most up-to-date activity and expected future growth.

LAND USE PROJECTIONS

The population and land use assumptions documented in the 2013 LUA Report are based on the EDP & Company Report, which represent the City's most up-to-date development activity and growth expectations. These projections provide low, baseline, and high forecast scenarios for growth in employment, population, and housing units. The baseline growth scenario was used as the basis for water and wastewater demand projections in the Water IIP and Wastewater IIP. The aggregate annual water and wastewater demand projections were distributed among equivalent units of service, which are defined as Equivalent Demand Units (EDUs) and represent the daily water and wastewater demand of one detached single-family dwelling unit.

Like many utilities, the City assesses its water and wastewater development fees to new customers based on the size of the meter to be installed since larger meters are capable of meeting higher demands. Single-family residential customers typically have meters that are 1-inch in diameter or smaller, while commercial and other non-residential development typically select a meter size that is needed to provide the appropriate level of service to the development to be served. To translate current development and projected future growth for land use categories included in the LUA Report into equivalent water and wastewater demands, CH2M Hill and Water Works Engineers performed an analysis on the City's 2012 customer meter and billing database. The results of this analysis represent the basis for the existing level of service in fiscal year (FY) 2013.

The projected demands of various customer and land use types were standardized by CH2M Hill and Water Works Engineers into a measure of demand attributable to an individual unit of development

termed a service unit. For the water and wastewater categories of necessary public services, the service units are translated into an EDU. The daily water use factor for an EDU is 709 gallons per day (gpd) and the daily wastewater flow factor for an EDU is 196 gpd.[1] To standardize the use of other customer types to a single-family dwelling unit, the City applies the ratio of the capacity of meter sizes. For more information on the meter capacity ratios, see Schedules 1 and 2 in the Appendix.

ARS §9-463.05 requires municipalities to adopt or update the LUA to ensure that the growth and infrastructure projections used to determine the development fees are tied to the current planning estimates. However, land use types and densities are more typically used for determining levels of service and applying development fees to recover the cost of general government public services than they are for water and wastewater utility services. Water and wastewater demand characteristics can vary greatly for customers within the same land use type, and the customers' meter sizes or other similar measures that reflect the relative water and wastewater demands or proportional service requirements is a better predictor of water and wastewater demands than land use areas and densities. Because the City applies its development fees and growth forecasts according to meter size, this audit focuses on the growth projections for customer meters, EDUs, and daily water uses and wastewater flows developed as part of the Water IIP and Wastewater IIP.

[1]The daily water use factor is based on the peak or maximum day demand (MDD) because water systems must be sized to meet peak demands, while the wastewater flow factor is based on average daily demands (ADD).

LUA FINDINGS

RFC has reviewed the City's LUA in terms of its basis to support the planning estimates of the planned capacities and infrastructure in the Water IIP and Wastewater IIP. In our opinion, the progress of the Water IIP and Wastewater IIP is consistent with the LUA and does not result in any inequities in implementing the plans or in imposing the water, water supply, and wastewater development fees.

INFRASTRUCTURE IMPROVEMENTS PLAN

To comply with ARS §9-463.05, the City had prepared on August 20, 2013 and adopted on December 10, 2013 both a Water IIP and Wastewater IIP, which are written plans that identify each necessary public service or facility expansion that is proposed to be the subject of a development fee and may in part be the municipality's capital improvements plan. The IIPs were consolidated as separate chapters in a single document that was prepared by qualified professionals using generally accepted engineering and planning practices.

REQUIREMENTS OF INFRASTRUCTURE IMPROVEMENTS PLAN

Development fees may only be collected to recover the cost of current or future improvements with capacity to serve new development identified in the IIP prepared for each service area, which for Scottsdale consists of the entire corporate boundaries of the City. The IIP must describe projects planned within the next 10 years for necessary public services (NPS) described in ARS §9-463.05 (T) (7), but for water and wastewater the IIP can project out 15 years. The water and wastewater services are the only "necessary public services" for which the City collects a development impact fee. The IIP should include only new improvements that will add capacity to accommodate future growth or costs attributable to existing improvements that have excess capacity for future development. As required by ARS §9-463.05 (E) (1)-(7), the IIP shall include generally:

1. A description of the existing infrastructure and the costs to upgrade, expand, or replace the facilities to meet existing needs and usage and stricter safety, efficiency, environmental, or regulatory standards.
2. The capacity analysis, level of current usage, and any commitments for use of capacity.
3. A description and costs of all or the parts of the facility expansions attributable to development in the service area based on the approved land use assumptions.
4. A table quantifying the impact of a service unit for each category of NPS and the equivalency ratio of a service unit to various types of land uses including residential, commercial, and industrial.
5. The total number of projected service units (or equivalent development units) necessitated by and attributable to new development in the service area based on the approved land use assumptions.
6. The projected demand for NPS or facility expansions required by new service units for a period not to exceed 10 years.
7. A forecast of revenues generated by new service units other than development fees funding NPS, including estimated state shared revenue, highway users revenue, federal revenue, ad valorem property taxes, construction contracting, or similar excise taxes and the capital recovery portion of utility fees, with a plan to include these contributions in determining the extent of the burden imposed by the development.

RFC has reviewed the City's Water IIP and Wastewater IIP, and both written plans sufficiently address and provide the information required by ARS §9-463.05 (E) (1)-(7). This section includes a discussion of our review and audit of the City's Water IIP and Wastewater IIP.

WATER INFRASTRUCTURE IMPROVEMENTS PLAN

The Water IIP, prepared by CH2M Hill, addressed the City's water treatment, water distribution, and water recharge components of the City's water utility, and included:

1. A description of the City's water service area.
2. The existing level of service provided by the water system.
3. The future level of service to be provided by the water system.
4. The existing capacity of the capital facilities including the available capacity to serve new development.
5. A forecast of future EDUs to be served by the capital facilities.
6. The required capital facilities to serve existing and future EDUs.
7. The existing and planned costs to provide capacity to serve new EDUs.

One of the purposes of this audit is to review the progress of the Water IIP, including the collection and expenditures of development fees for each project in the plan, and evaluate any inequities in implementing the plan or imposing the development fee.

Evaluate Growth in Water EDUs

Because the City assesses its water development fees to new development based on meter size, the usage of various customer types was standardized into a measure of demand attributable to an individual unit of development termed a service unit. This service unit, or EDU, is equivalent to the water demand of one detached single-family dwelling unit. For purposes of development fees, the City standardized its residential meter sizes by adopting the 1-inch meter as the minimum meter size for a single-family unit.

To standardize the use of other customer types to a single-family dwelling unit, the City applies the meter capacities of other larger meter sizes expressed in gallons per minute (gpm) by size and type based on standards from the American Water Works Association (AWWA). Table 2-3 of the IIP calculated the existing number of water EDUs based on the City's FY 2013 water meter records and meter conversion factors based on the AWWA meter capacity standards. To assess the progress of growth in water EDUs since the IIP, the City provided water meter records from June 30, 2014; June 30, 2015; and June 30, 2016.

Table 1 compares the existing EDUs identified in the 2013 IIP with the EDUs connected to the water system based on water meter records provided at the end of fiscal years 2014, 2015, and 2016. Schedule 1 in the Appendix provides more detail on the EDUs connected to the water system in Fiscal Years 2013, 2014, 2015, and 2016.

Table 1: Comparison of Existing Water EDUs

Fiscal Year	Meters	EDUs	New EDUs	Increase (%)
2013 (1)	87,595	132,779		
2014	88,393	134,622	1,843	1.39%
2015	89,043	135,805	1,183	0.88%
2016	89,704	136,853	1,048	0.77%

(1) Due to the adoption schedule required under ARS §9-463.05, the existing number of EDUs documented in the 2013 IIP were based on water meter records as of December 31, 2012.

Based on the updated customer billing information, the City has added 4,074 additional water EDUs since FY 2013, which represents approximately 19.2% of the 21,275 total future EDUs expected during the 10-year IIP planning period. Although it did not provide a forecast of annual EDU growth, the expected growth in EDUs identified in the Water IIP during the planning period reflects an annual compound growth rate of 1.36%. If extrapolated annually, this would amount to projected additional water EDUs of 7,373 by June 30, 2016, which is more than the actual EDUs added based on the updated customer billing information.

Because growth projections are uncertain and actual growth in development often occurs intermittently during a planning period, this actual level of growth is consistent with the assumptions used to identify the required capital facilities needed to serve the expected growth and demand projections in the IIP and does not result in any inequities in implementing the plan or imposing the water development fee.

Review Existing Level of Service (LOS)

The IIP defines the existing level of service (LOS) of the water system as meeting the peak or maximum day demand (MDD), which is the volume of water used by customers on the highest use day during the year. Water systems must be sized to meet maximum demands when the combined outdoor irrigation and other indoor uses are the highest. This approach was used because water treatment facilities are rated and permitted based on maximum firm production capacity. The existing LOS in the IIP was determined by dividing the MDD during calendar year 2012 by the number of existing water EDUs on December 31, 2012. To evaluate whether the existing LOS per EDU of 709 gpd is still appropriate, the City also provided water production data for 2014, 2015, and 2016.

Table 2 compares the existing LOS identified in the 2013 IIP with the LOS as determined by water meter records and water production data provided in Fiscal Years 2014, 2015, and 2016.

Table 2: Comparison of Existing Level of Service for Water

Year	MDD (gpd)	Existing EDUs	LOS	% Change
2013 (1)	94,140,000	132,779	709	100.0%
2014	94,918,000	134,622	705	99.4%
2015	92,112,000	135,805	678	95.7%
2016	94,860,000	136,853	693	97.8%

(1) Due to the adoption schedule required under ARS §9-463.05, the existing number of EDUs documented in the 2013 IIP were based on water meter records as of December 31, 2012.

As Table 2 demonstrates, the existing LOS of 693 gpd per EDU in FY 2016 is within 5% of the LOS determined in the IIP. Water use per household in the U.S. has been on a downward trend over the last decade due to conservation measures and more efficient low flow plumbing fixtures. However, the decrease in water use per EDU in FY 2016 is immaterial when compared to the LOS established in the 2013 IIP and will not affect City planning.

Based on these recent and current demands, the existing LOS identified in the IIP remains appropriate and does not result in any inequities in implementing the plan or imposing the water development fee.

Existing Capacity of Capital Facilities

The Water IIP included an analysis to document the existing capacity of the capital facilities in the water service area, the utilization of those capital facilities by existing EDUs, and the available excess capacity of those capital facilities to serve new EDUs, including any existing or planned commitments or agreements for the usage of such capacity. The capital facilities that provide water within the City's service area includes water treatment, water distribution, and water recharge, and the available capacity associated with each of the components was determined. In determining the available capacity of each component, any capacity reserved to meet contractual agreements or any facilities or portions of facilities not eligible to serve new EDUs was excluded.

To evaluate how completed capital projects and growth in EDUs since FY 2013 has affected the existing capacity of the capital facilities eligible to serve new EDUs, RFC evaluated the existing capacity of the City's treatment, distribution, and water recharge facilities along with recent water production and recharge records.

Review of Capacity in Water Treatment Facilities

Table 2-4 of the IIP presented the existing capacity of the water treatment facilities and the net capacity available to serve EDUs. To assess the progress of treatment capacity utilization by existing EDUs and determine the net treatment capacity currently available to serve new EDUs, RFC used the water production data for Fiscal Years 2014, 2015, and 2016.

Table 3 documents the progress of how existing EDUs have utilized the City's treatment capacity and the resulting net treatment capacity available to serve new EDUs documented since FY 2013.

Table 3: Comparison Water Treatment Capacity Available to Serve New EDUs

Facility	2013 Capacity (mgd)	2014 Capacity (mgd)	2015 Capacity (mgd)	2016 Capacity (mgd)
CAP WTP	70.00	70.00	70.00	70.00
Chaparral WTP	27.00	27.00	27.00	27.00
CGTF	12.30	12.30	12.30	12.30
Wells	50.90	50.90	50.90	50.90
Total	**160.20**	**160.20**	**160.20**	**160.20**
Less CGTF	(12.30)	(12.30)	(12.30)	(12.30)
Less Reserved Capacity	(0.40)	(0.40)	(0.40)	(0.40)
Total Eligible for New EDUs	**147.50**	**147.50**	**147.50**	**147.50**
Less Max Day Demand (MDD)	(94.14)	(94.92)	(92.11)	(94.86)
Capacity Available for New EDUs	**53.36**	**52.58**	**55.39**	**52.64**

Based on discussions with Scottsdale Water Resources Department staff and a review of the City's capital improvements since FY 2013, the City has not constructed additional water treatment capacity, it has not decommissioned any facilities that would reduce water treatment capacity, nor has it changed the amount of reserved capacity. Because the available capacity exceeded the projected MDD of the new EDUs to connect to the water system during the 10-year IIP planning period, no projects to expand water production or treatment capacity were included in the IIP.

Based on MDD data, the net capacity available to serve new EDUs decreased slightly in FY 2016 when compared to FY 2013. This slight decrease was due to increased MDD demand in FY 2016 when compared to FY 2013, which is expected due to the increased number of EDUs now served by the water system. Based on recent growth and demand trends, the City's water treatment facilities still have available capacity that exceeds the projected MDD of the new EDUs expected to connect to the water system during the 10-year IIP planning period ending FY 2023.

Available capacity to serve new EDUs in the City's water treatment facilities remains appropriate and does not result in any inequities in implementing the plan or imposing the water development fee.

Review of Capacity in Water Distribution Facilities

Table 2-5 of the IIP presented the existing capacity of the water distribution facilities and the net capacity available to serve EDUs. To assess the progress of distribution capacity utilization by existing EDUs and determine the net capacity currently available to serve new EDUs, the water production data for Fiscal Years 2014, 2015, and 2016 was again used.

Table 4 compares how the existing capacity of the water distribution facilities and the net capacity available to serve new EDUs has progressed since FY 2013. Water treatment plant capacity is

considered the constraint as regardless of the size of various distribution facilities, the capacity to provide treated water will constrain the ability of the water system to serve new development.

Table 4: Comparison Water Distribution Capacity Available to Serve New EDUs

Facility	2013 Capacity (mgd)	2014 Capacity (mgd)	2015 Capacity (mgd)	2016 Capacity (mgd)
Current Pipe Capacity	147.90	147.90	147.90	147.90
Less Reserved Capacity	(0.40)	(0.40)	(0.40)	(0.40)
Total Eligible for New EDUs	**147.50**	**147.50**	**147.50**	**147.50**
Less Max Day Demand (MDD)	(94.14)	(94.92)	(92.11)	(94.86)
Capacity Available for New EDUs	**53.36**	**52.58**	**55.39**	**52.64**

The 10-year IIP planning period does include growth related infrastructure that is required to extend the distribution system within the service area to the following development areas:

- Wildcat Development
- State land near Legend Trails
- East Dynamite
- Crossroads

Despite these water distribution projects that will benefit development, the current pipe capacity in the water distribution system is unchanged in relation to the existing capacity identified in the IIP. While the water distribution system consists of a network of individual components, all of which have a unique capacity, many of these components have been designed to accommodate both current and new EDUs beyond the 10-year planning period and function as part of a combined system. Furthermore, no matter how large the capacity of the various pipelines, the maximum day water treatment capacity will restrict the ability of the system to serve new development.

The collective capacity of the City's treatment facilities is used in the IIP as a measure of the capacity of the entire water distribution system. Because there has been no change in the existing water treatment capacity, there is no change in the water distribution capacity.

Similar to water treatment, the net capacity available to serve new EDUs decreased slightly in FY 2016 when compared to FY 2013. Again, this slight decrease was due to increased MDD demand in FY 2016 when compared to FY 2013, which is expected due to the increased number of EDUs now served by the water system. Based on recent growth and demand trends and the progress of new distribution infrastructure projects to serve development, the City's water distribution facilities have the available capacity to meet the projected MDD of the new EDUs during the 10-year IIP planning period.

Available capacity to serve new EDUs in the City's water distribution facilities remains appropriate and does not result in any inequities in implementing the plan or imposing the water development fee.

Review of Capacity in Water Recharge Facilities

Table 2-6 of the IIP presented the existing capacity of the water recharge facilities and the net capacity available to serve EDUs. To assess the progress of recharge capacity utilization by existing EDUs and determine the net capacity currently available to serve new EDUs, the water recharge data for Fiscal Years 2014, 2015, and 2016 was provided by the City.

Table 5 compares how the existing capacity of the water recharge facilities and the net capacity available to serve new EDUs has progressed since FY 2013.

Table 5: Comparison Water Recharge Capacity Available to Serve New EDUs

Facility	2013 Capacity (mgd)	2014 Capacity (mgd)	2015 Capacity (mgd)	2016 Capacity (mgd)
AWT Available for Use	20.00	20.00	20.00	20.00
Less Reserved Capacity	(6.50)	(6.50)	(6.50)	(6.50)
Total Eligible for New EDUs	**13.50**	**13.50**	**13.50**	**13.50**
Less Current Demand	(5.84)	(2.93)	(3.87)	(2.91)
Capacity Available for New EDUs	**7.66**	**10.57**	**9.63**	**10.59**

To meet its long-term sustainable water supplies and maintain compliance with Arizona Department of Water Resources (ADWR), the City has a water supply strategy that utilizes reuse effluent for ground water recharge and surface water provided through Salt River Project (SRP) and Central Arizona Project (CAP) water rights. This combination of recharge and surface water rights supplies the untreated water to the City's two water treatment plants. Since the City does not plan to purchase additional SRP or CAP surface water rights during the 10-year IIP planning period, the City's groundwater recharge facilities at its Advanced Water Treatment (AWT) Facility represent the only existing capacity considered for the water supply component.

In its 2013 review of the City Assured Water Supply status, the ADWR concluded that additional water resources are not needed during the IIP planning period. However, eight additional reclaimed water vadose zone recharge wells were planned in the IIP for implementation in 2017. The capacity eligible to serve new EDUs remains unchanged and the only difference in capacity available to serve new EDUs relates to changes in current recharge activity. Based on recharge effluent data, the net capacity available to serve new EDUs has fluctuated annually and increased in FY 2016 when compared to FY 2013. However, the annual amount of effluent used for recharge is influenced by the amount of wastewater treated at the City's Water Campus, which supplies effluent to the AWT, and the amount of the effluent used by local golf courses for irrigation purposes. The City has a pump back system that directs wastewater flows between the City's Water Campus and the Sub-Regional Operating Group (SROG) 91st Avenue Wastewater Treatment Plant, and operating issues in recent

years have resulted in fluctuations in the amount of wastewater directed to the Water Campus and recharged through the AWT Facility. For this reason, the annual amount of net capacity available for new EDUs has and may tend to fluctuate.

Based on recent growth and demand trends and the progress of new water recharge infrastructure projects to serve development, the City's water recharge facilities have the available capacity to meet the projected recharge demands of the new EDUs during the 10-year IIP planning period.

Available capacity to serve new EDUs in the City's water recharge facilities remains appropriate and does not result in any inequities in implementing the plan or imposing the water development fee.

WASTEWATER INFRASTRUCTURE IMPROVEMENTS PLAN

The Wastewater IIP, prepared by Waterworks Engineering, addressed the City's wastewater treatment and reclamation, collection, and conveyance components of the City's wastewater utility, and included:

1. A description of the City's wastewater service area.
2. The existing level of service provided by the wastewater system.
3. The future level of service to be provided by the wastewater system.
4. The existing capacity of the capital facilities including the available capacity to serve new development.
5. A forecast of future EDUs to be served by the capital facilities.
6. The required capital facilities to serve existing and future EDUs.
7. The costs of existing and planned costs to provide capacity to serve new EDUs.

One of the purposes of this audit is to review the progress of the Wastewater IIP, including the collection and expenditures of development fees for each project in the plan, and evaluate any inequities in implementing the plan or imposing the development fee.

Evaluate Growth in Wastewater EDUs

Because the City also assesses its wastewater development fees to new development based on water meter size, the usage of various customer types was standardized into a measure of demand attributable to an individual unit of development termed a service unit. This EDU is equivalent to the wastewater flow of one detached single-family dwelling unit. For purposes of development fees, the City standardized its residential meter sizes by adopting the 1-inch water meter as the minimum meter size for a single-family unit.

Because overall water usage is a reasonable predictor of wastewater production, the City applies the meter capacities of other larger meter sizes expressed in gpm by size and type based on standards

from AWWA.[2] Table 3-1 of the IIP calculated the existing number of wastewater EDUs based on the City's FY 2013 meter records for wastewater customers and meter conversion factors based on the AWWA meter capacity standards. To assess the progress of growth in wastewater EDUs since the IIP, the City provided meter records for wastewater customers from June 30, 2014; June 30, 2015; and June 30, 2016.

Table 6 compares the existing wastewater EDUs identified in the 2013 IIP with the EDUs connected to the wastewater system based on wastewater customer meter records provided at the end of Fiscal Years 2014, 2015, and 2016. Schedule 2 in the Appendix provides more detail on the EDUs connected to the wastewater system in Fiscal Years 2013, 2014, 2015, and 2016.

Table 6: Comparison of Existing Wastewater EDUs

Fiscal Year	Meters	EDUs	New EDUs	Increase (%)
2013 (1)	78,392	111,091		
2014	79,335	113,157	2,066	1.86%
2015	80,194	114,903	1,746	1.54%
2016	80,364	115,266	363	0.32%

(1) Due to the adoption schedule required under ARS §9-463.05, the existing number of EDUs documented in the 2013 IIP were based on water meter records as of December 31, 2012.

Based on the updated customer billing information, the City has added 4,175 additional wastewater EDUs since FY 2013, which represents approximately 13.0% of the 32,110 total future EDUs expected during the 10-year IIP planning period. Although it did not provide a forecast of annual EDU growth, the expected growth in EDUs identified in the Wastewater IIP during the planning period reflects an annual compound growth rate of 2.34%. If extrapolated annually, this would amount to projected additional wastewater EDUs of 10,745 by June 30, 2016, which is more than the EDUs added based on the updated customer billing information. Although the actual increase in wastewater EDUs is substantially less than the amount extrapolated from the Wastewater IIP forecast, the actual

[2] The meter counts for wastewater customers does not necessarily correlate to water customer meter counts since some water customers have septic systems and certain sewer customers are supplied water from a different water service provider. Furthermore, because the City provides water service in large areas that are currently served by septic systems, the Wastewater IIP anticipates that the City will add more future wastewater EDUs than the number of future water EDUs anticipated to be added in the Water IIP. Because the timing of when the EDUs served by private septic systems will convert to City wastewater service is uncertain, the City's Wastewater Master Plan assumes a compound rate of growth in new wastewater EDUs during the 10-year planning period and continuing through build-out. It is possible that septic conversions could occur in large segments during a short timeframe as septic systems fail, and some or all of these conversions could actually occur beyond the 10-year planning period. For these reasons, the EDUs determined for water and wastewater may not necessarily result in a one-for-one correlation.

wastewater EDUs added to the wastewater system is consistent with the actual EDUs added to the water system and, to date, includes minimal conversions away from septic systems.

Because growth projections are uncertain and actual growth in development often occurs intermittently during a planning period, this actual level of growth is consistent with the assumptions used to identify the required capital facilities needed to serve the expected growth and demand projections in the IIP and does not result in any inequities in implementing the plan or imposing the wastewater development fee. The City will continue to evaluate the need for and timing of capacity expansions.

Review Existing Level of Service

The IIP defines the existing LOS of the wastewater system as meeting the ADD of wastewater flow since wastewater systems are rated and permitted based on ADD flow conditions. The existing LOS in the IIP was determined by dividing the ADD wastewater flow of the Scottsdale wastewater system in calendar year 2012 by the number of existing EDUs served by the system on December 31, 2012. To evaluate whether the existing LOS per EDU of 196 gpd is still appropriate, the City provided wastewater flow data (Basins 1 through 5, Paradise Valley, and residuals) for 2014, 2015, and 2016.

Table 7 compares the existing LOS identified in the 2013 IIP with the LOS as determined by wastewater customer meter records and wastewater flow data provided in Fiscal Years 2014, 2015, and 2016.

Table 7: Comparison of Existing Level of Service for Wastewater

Year	AAD (gpd)	Existing EDUs	LOS	% Change
2013 (1)	21,800,000	111,091	196	100.0%
2014	21,628,000	113,157	191	97.4%
2015	21,234,000	114,903	185	94.2%
2016	20,976,000	115,266	182	92.7%

(1) Due to the adoption schedule required under ARS §9-463.05, the existing number of EDUs documented in the 2013 IIP were based on water meter records as of December 31, 2012.

As Table 7 demonstrates, the existing LOS of 182 gpd per EDU in FY 2016 is within 8% of the LOS determined in the IIP.

Based on these recent and current demands, the existing LOS identified in the IIP remains appropriate and does not result in any inequities in implementing the plan or imposing the wastewater development fee. Utilities throughout the U.S. are observing reductions in indoor water use as customer water behaviors change and more efficient water using fixtures are used more widely. The City should continue to monitor indoor water gpd per EDU for modifications in future IIPs if reductions are determined to permanently affect City wastewater facility planning requirements.

Existing Capacity of Capital Facilities

The Wastewater IIP included an analysis to document the existing capacity of the capital facilities in the wastewater service area, the utilization of those capital facilities by existing EDUs, and the available excess capacity of those capital facilities to serve new EDUs, including any existing or planned commitments or agreements for the use of such capacity. The capital facilities that provide wastewater service within the City's service area include wastewater treatment and wastewater collection, and the available capacity associated with both of the components was determined. In determining the available capacity of each component, any capacity reserved to meet contractual agreements or any facilities or portions of facilities not eligible to serve new EDUs was excluded.

To evaluate how completed capital projects and growth in EDUs since FY 2013 have affected the existing capacity of the capital facilities eligible to serve new EDUs, RFC evaluated the existing capacity of the City's wastewater treatment and collection facilities along with recent wastewater flow records.

Review of Capacity in Wastewater Treatment Facilities

Table 3-2 of the IIP presented the existing capacity of the wastewater treatment facilities and the net capacity available to serve EDUs. To assess the progress of wastewater treatment capacity utilization by existing EDUs and determine the net treatment capacity currently available to serve new EDUs, RFC evaluated the wastewater flow data provided for Fiscal Years 2014, 2015, and 2016.

Table 8 documents the progress of how existing EDUs have utilized the City's wastewater treatment capacity and the resulting net treatment capacity available to serve new EDUs documented since FY 2013.

Table 8: Comparison Wastewater Treatment Capacity Available to Serve New EDUs

Facility	2013 Capacity (mgd)	2014 Capacity (mgd)	2015 Capacity (mgd)	2016 Capacity (mgd)
Gainey Ranch WRF	1.67	1.67	1.67	1.67
Water Campus	20.00	20.00	20.00	20.00
SROG (Scottsdale Safe Capacity Ownership)	20.25	20.25	20.25	20.25
Total	**41.92**	**41.92**	**41.92**	**41.92**
Less Gainey Ranch	(1.67)	(1.67)	(1.67)	(1.67)
Less Average Day Demand (ADD) (1)	(20.13)	(20.80)	(20.42)	(20.25)
Less Reserved Capacity	(0.25)	(0.25)	(0.25)	(0.25)
Capacity Available for New EDUs (2)	**19.87**	**19.20**	**19.58**	**19.75**

(1) Average Day Demand (ADD) adjusted to exclude Gainey Ranch wastewater flows since the existing flows treated at Gainey Ranch WRF do not affect the capacity available for new EDUs at other wastewater treatment facilities.

(2) As with the water distribution facilities, the wastewater collection system consists of a network of individual components, and many of these components have been designed to accommodate both current and new EDUs beyond the 10-year planning period. For this reason, the collective capacity of the City's wastewater treatment facilities is used in the IIP as a measure of the capacity of the entire wastewater collection system. Table 3-2 in the IIP was used to define the available capacity for new EDUs for both the wastewater treatment and wastewater collection facilities.

Based on discussions with Scottsdale Water Resources Department staff and a review of the City's capital improvements since FY 2013, the City has not constructed additional wastewater treatment capacity, it has not decommissioned any facilities that would reduce wastewater treatment capacity, nor has it changed the amount of reserved capacity. Because the available capacity exceeded the projected ADD of the new EDUs to connect to the wastewater system during the 10-year IIP planning period, no projects to expand wastewater treatment capacity were included in the IIP.

Based on ADD data, the net capacity available to serve new EDUs is similar in FY 2016 when compared to FY 2013. The City's wastewater treatment facilities still have available capacity that exceeds the projected ADD of the new EDUs expected to connect to the wastewater system during the 10-year IIP planning period.

The available capacity to serve new EDUs in the City's wastewater treatment facilities remains appropriate and does not result in any inequities in implementing the plan or imposing the wastewater development fee.

Review of Capacity in Wastewater Collection Facilities

Because the collective capacity of the City's wastewater treatment facilities is used as a measure for capacity of the entire wastewater collection system, Table 3-2 of the IIP presented the existing capacity for both the wastewater treatment and collection facilities. To assess the progress of wastewater collection capacity utilization by existing EDUs and determine the net collection capacity currently available to serve new EDUs, the same analysis to assess the utilization of the City's wastewater treatment capacity in Table 8 is used for wastewater collection capacity.

The Wastewater IIP states that in general the existing collection system and pump back system is capable of meeting the current LOS for existing and new EDUs. However, the IIP identified projects that will provide additional collection system capacity in the Crossroads development area and for Sewer Collection Improvements, which will include line oversizings to accommodate new EDUs. However, the wastewater collection projects benefitting development in the IIP are not scheduled to be completed before 2017, and the collective capacity of the City's wastewater treatment facilities serves as the measure of the capacity of the entire wastewater collection system in the IIP. Because there is no change in the wastewater treatment capacity, there is no change in the wastewater collection capacity.

The available capacity to serve new EDUs in the City's wastewater collection facilities remains appropriate and does not result in any inequities in implementing the plan or imposing the wastewater development fee.

IIP FINDINGS

RFC has reviewed the City's Water IIP and Wastewater IIP, and both written plans sufficiently address and provide the information required by ARS §9-463.05 (E) (1)-(7). The review of current development conditions finds that available capacities in existing infrastructure, current levels of service, commitments to use of capacities, and projected demands remain consistent with the planning projections supporting the infrastructure improvements scheduled in the IIPs. In our opinion, the progress of the Water IIP and Wastewater IIP does not result in any inequities in implementing the plans or in imposing the water, water supply, and wastewater development fees.

COLLECTION AND EXPENDITURE OF DEVELOPMENT FEES

ARS §9-463.05 (G)(2) states that the "audit shall review the progress of the infrastructure improvements plan, **including the collection and expenditures of development fees for each project in the plan.**" Since the development fees adopted under the revised statutes became effective on July 1, 2014, this section reviews the City's collection and expenditure of the water and wastewater development fees during the period from July 1, 2014 through June 30, 2016.

The rational nexus test established in impact fee case law throughout the country requires that (1) new growth requires facilities that may be recovered proportionally through development fees; (2) the amount of the fee does not exceed the reasonable cost to provide capacity to accommodate growth; and, (3) **the funds collected must be adequately earmarked for the sufficient benefit of new customers required to pay the development fee**. ARS §9-463.05 (B)(5) further clarifies that development fees may not be used for any of the following:

- Construction, acquisition, or expansion of public facilities or assets other than necessary public services or facility expansions identified in the infrastructure improvements plan.
- Repair, operation, or maintenance of existing or new necessary public services or facility expansions.
- Upgrading, updating, expanding, correcting, or replacing existing necessary public services to serve existing development in order to meet stricter safety, efficiency, environmental, or regulatory standards.
- Upgrading, updating, expanding, correcting, or replacing existing necessary public services to provide a higher level of service to existing development.
- Administrative, maintenance, or operating costs of the municipality.

The revised statutes also state that "monies received from development fees shall be placed in a separate fund and accounted for separately and may only be used for the purposes authorized by statutes. Monies received from a development fee identified in the IIP shall be used to provide the same category of necessary public services or facility expansions for which the development fee was assessed and for the benefit of the same service area, as defined in the IIP, in which the development fee was assessed. Interest earned on monies in the separate fund shall be credited to the fund."

This section of the audit reviews the City's collection, accounting, and expenditures of the development fees adopted under the revised statutes during the audit period from July 1, 2014 through June 30, 2016.

Review Collection of Water Development Fees

To review the collection of water development fees, the City Planning & Development Department provided water development fee payment records during the audit period. These records provided each water development fee payment received by the City along with the address, meter size, customer classification, date of payment, amount of payment received, and other customer reference information.

Table 9 summarizes the water development fee payments received per customer classification (single-family, multi-family, and non-residential) and by meter size from July 1, 2014 to June 30, 2016, along with the number of new EDUs connecting to the water system based on the payments during this period.

Table 9: Collection of Water Development Fees (Fund 626)

Fund	626	Water		
Meter Size	**Refunds**	**Receipt**	**Grand Total**	**# of EDU**
5/8		$32,712	$32,712	12
3/4	($2,726)	$169,012	$166,286	61
1	($30,014)	$2,932,627	$2,902,613	1,065
1.5	($43,610)	$1,098,414	$1,054,804	387
2		$1,152,939	$1,152,939	423
3		$335,252	$335,252	123
4		$133,556	$133,556	49
Total	($76,350)	$5,854,512	$5,778,162	2,120

Source: Scottsdale Planning & Development Department cashiering ledger.

During the audit period, the City has collected a net total of $5,778,172 in water development fees from an additional 2,120 EDUs at a cost of $2,726 per EDU.

Review Collection of Water Supply Fees

The City Planning & Development Department also provided water supply fee payment records during the audit period including each fee payment received by the City along with the address, meter size, customer classification, date of payment, and amount of payment received.

Table 10 summarizes the water supply fee payments received per customer classification (single-family, multi-family, and non-residential) and by meter size from July 1, 2014 to June 30, 2016, along with the number of new EDUs connecting to the water supply system based on the payments during this period.

Table 10: Collection of Water Supply Development Fees (Fund 627)

Fund	627	Water Supply		
Meter Size	**Refunds**	**Receipt**	**Grand Total**	**# of EDU**
5/8		$7,668	$7,668	12
3/4	($639)	$39,618	$38,979	61
1	($1,647)	$681,659	$680,012	1,064
1.5	($10,230)	$257,681	$247,451	387
2		$270,456	$270,456	423
3		$78,643	$78,643	123
4		$31,329	$31,329	49
Total	($12,516)	$1,367,054	$1,354,538	2,120

Source: Scottsdale Planning & Development Department cashiering ledger.

During the audit period, the City has collected a net total of $1,354,538 in water supply fees from an additional 2,120 EDUs at a cost of $639 per EDU.

In updating the development fees, the City decided to integrate the former water resource fee (which recovered the City's growth-related water supply capital needs) into the water development fee. As a result, the City charges new development a consolidated water development fee of $3,365 per EDU, and the total proceeds per EDU are segregated into a water fund (626) and a water supply fund (627). The proceeds earmarked for deposit in the water fund are $2,726 per EDU (81%) while the remaining $639 per EDU (19%) is deposited into the water supply fund. The segregation of the fee was based on the value of the water supply facilities component in relation to the values of the water treatment and water distribution components. Because the water development fee funds are tracked in two separate accounts, this audit reviews collections and expenditures for both the water and water supply funds.

Review Collection of Wastewater Development Fees

To review the collection of wastewater development fees, the City Planning & Development Department provided wastewater development fee payment records during the audit period. These records provided each wastewater development fee payment received by the City along with the address, meter size, customer classification, date of payment, amount of payment received, and other customer reference information.

Table 11 summarizes the wastewater development fees payments received per customer classification (single-family, multi-family, and non-residential) and by meter size from July 1, 2014 to June 30, 2016, along with the number of new EDUs connecting to the wastewater system based on the payments during this period.

Table 11: Collection of Wastewater Development Fees (Fund 628)

Fund	628	Sewer		
Meter Size	**Refunds**	**Receipt**	**Grand Total**	**# of EDU**
5/8		$18,378	$18,378	9
3/4	($2,042)	$89,848	$87,806	43
1	($40,522)	$2,003,889	$1,963,367	961
1.5	($22,462)	$679,986	$657,524	322
2		$798,422	$798,422	391
3		$251,166	$251,166	123
4		$100,058	$100,058	49
Total	($65,026)	$3,941,747	$3,876,721	1,898

Source: Scottsdale Planning & Development Department cashiering ledger.

During the audit period, the City has collected a net total of $3,876,721 in wastewater development fees from an additional 1,898 EDUs at a cost of $2,042 per EDU. Because some areas of the wastewater service area are supplied water from a different water service provider and separate irrigation meters are not connected to the wastewater system, the wastewater EDUs added during a specific period will not necessarily correlate with the number of water EDUs added during that same period.

Review Expenditures of Development Fee Funds

To review the expenditure of water, water supply, and wastewater development fees, the City provided development fee fund expenditure records for each fund from July 1, 2014 through June 30, 2016. As mentioned in the previous section, the Water IIP included growth-related infrastructure (approximately $26.4 million) required to extend the water distribution system within the service area and eight additional reclaimed water vadose zone recharge wells (approximately $3.2 million) for water supply. No growth-related infrastructure was included for water treatment facilities.

The Wastewater IIP included growth-related infrastructure (approximately $5.0 million) required to provide additional wastewater collection capacity through replacing some existing collection infrastructure with larger diameter pipe to accommodate increased flow associated with development. No growth-related projects were included for wastewater treatment facilities.

In addition to growth-related infrastructure, the Water IIP and Wastewater IIP also include buy-in values for the portion of existing facilities with available capacity to serve new EDUs and interest costs associated with previous debt issues necessary to fund growth-related infrastructure projects. Debt service associated with existing facilities with capacity available to serve future EDUs are eligible to be funded with development fee funds.

Table 12 summarizes the water, water supply, and wastewater development fee expenditures on infrastructure improvements projects and for annual debt service payments from July 1, 2014 to June 30, 2016.

Table 12: Expenditure of Development Fee Funds

Project Name	Project Number	July 2014 - June 2015 Water (626)	July 2014 - June 2015 Water Supply (627)	July 2014 - June 2015 Wastewater (628)	July 2015 - June 2016 Water (626)	July 2015 - June 2016 Water Supply (627)	July 2015 - June 2016 Wastewater (628)	Total	
Cross Roads East Water	WB50A				$ 1,408			$ 1,408	
Wastewater Collection System Improvements	V3704			$ (119,704)				$ (119,704)	(1)
Well Sites	W4708	$ 134,031			$ (134,031)			$ -	(2)
Zone 14/16 Water Improvements Phase 3	WB70A	$ 74,006			$ 283,749			$ 357,755	(3)
Total - Improvements Projects		$ 208,037	$ -	$ (119,704)	$ 151,126	$ -	$ -	$ 239,459	
Impact Fee Biennial Audit					$ 8,847	$ 8,847	$ 9,115	$ 26,808	
Debt Service - Principal		$ 2,118,788	$ 407,774	$ 4,084,403	$ 2,242,400	$ 438,883	$ 4,315,940	$13,608,188	
Debt Service - Interest		$ 3,416,369	$ 808,745	$ 4,814,336	$ 2,137,747	$ 563,909	$ 4,219,278	$15,960,384	
Total Non-Project Payments		$ 5,535,157	$ 1,216,519	$ 8,898,739	$ 4,388,994	$ 1,011,639	$ 8,544,333	$29,595,380	
Total Expenditures		$ 5,743,194	$ 1,216,519	$ 8,779,035	$ 4,540,119	$ 1,011,639	$ 8,544,333	$29,834,839	

(1) Negative wastewater development fee entry in FY 2015 is due to the transfer of prior period bond eligible expenditures to bond funded project VA06A.
(2) In FY 2016 the City made an adjustment to the Fund (626) to correct for a FY 2015 expenditure of water development fee funds on Well Sites project W4708 which was not included in the Water IIP and therefore not eligible for development fee funding.
(3) Includes project expenditures for both project numbers WBO7A and WB70A, which represent the same project. Early expenditures for this project were incorrectly categorized as WB07A.

Although the Water IIP and Wastewater IIP included significant infrastructure improvements during the 10-year IIP planning period, construction for the majority of these projects are scheduled to occur after the initial audit period. The only water infrastructure projects for which the City expended water development fee funds (Fund 626) were WB50A and WB70A. WB50A represents preliminary design expenditures for the Crossroads water line extension projects and WB70A represents preliminary design and construction of water line extensions as part of the Wildcat Development project.[3] The City did not expend any water supply fee funds (Fund 627) on infrastructure projects as the Vadose Zone Recharge Wells are scheduled to begin later in the IIP planning period.

Similarly, the City did not expend any wastewater development fee funds (Fund 628) on infrastructure projects as the wastewater collection projects are also scheduled to begin later in the IIP planning period. However, the City did credit wastewater development fee funds (Fund 628) for prior expenditures of $119,704 in funds on the initial expenditures for a growth-related infrastructure project that was subsequently funded through bond proceeds. The bond proceeds were used to repay the wastewater development fee fund.

[3] Zone 14/16 Water Improvements Phase 2 - (WB70): Design and construct a 2.5 million gallon reservoir, booster pump station and install approximately 10,000 linear feet of 16" water line in Carefree Highway to Bartlett Road to serve Wildcat Hills.

In addition to growth-related infrastructure improvements, the water, water supply, and wastewater development fees are designed to recover replacement cost new less depreciation (RCNLD) of capacity in existing facilities that is available to serve new EDUs. The RCNLD represents the buy-in value of the water system, water supply system, and wastewater system. The development fees are also designed to recover the present value (PV) of remaining annual interest payments on debt the City has issued in the past for facilities that benefit development. ARS §9-463.05 allows municipalities to assess development fees to offset costs to the municipality associated with financing necessary public services that benefit development if development fees are used to pay debt service.

During FY 2015, the City paid approximately $15.7 million in debt service payments from the water ($5.5 million), water supply ($1.2 million), and wastewater ($8.9 million) development fee funds; and during FY 2016 the City paid approximately $13.9 million in debt service payments from water ($4.4 million), water supply, ($1.0 million), and wastewater ($4.2 million) development fee funds. These amounts reflect the annual fiscal year debt payments in 2015 and 2016 for those portions of existing bond issues used to fund water, water supply, and wastewater facilities with available capacity to serve new EDUs. These payments reflect slight differences in the debt payments of existing bond issues due to a refunding of outstanding bond issues that reduced the annual debt payments. Based on a review of revised debt service schedules, the expenditure of water and wastewater development fee funds on these FY 2015 and FY 2016 interest payments is consistent with the total interest payments identified in the Water IIP and Wastewater IIP as benefitting growth.

Finally, ARS §9-463.05 (A) states a municipality may assess development fees to offset costs associated with financing and professional services required for preparation or revisions of the development fee. Accordingly, the City also used monies from the water, water supply, and wastewater development fees funds for the costs associated with this certified biennial audit that were incurred during FY 2016.

Review Development Fee Fund Balances

A review of the development fee fund balances provides a summary confirmation of the collection of development fee receipts and the expenditure of development fee funds during the audit review period. Pursuant to the revised legislation, monies received from development fee assessments shall be placed in separate funds and accounted for separately.

Table 13 summarizes the change in development fee fund balances during the July 1, 2014 to June 30, 2016 IIP audit period.

Table 13: Accounting of Development Fee Funds

Development Fee Fund Balances		FY 2015	FY 2016	Two-Year Total
626	Water Development Fees			
	Beginning Balance	($118,394,091)	($121,739,853)	($118,394,091)
	Adjustment (1)		$15,603,367	$15,603,367
	Receipts	$2,922,287	$2,932,225	$5,854,512
	Refunds (2)	($25,101)	($51,249)	($76,350)
	Prepaid Fee Modifications (3)	($499,754)	($226,269)	($726,023)
	Expenditures	($5,743,194)	($4,540,120)	($10,283,314)
	Ending Balance	($121,739,853)	($108,021,899)	($108,021,899)
627	Water Supply Fees			
	Beginning Balance	($2,953,233)	($3,494,005)	($2,953,233)
	Adjustment (1)		($14,806,256)	($14,806,256)
	Receipts	$677,705	$689,349	$1,367,054
	Refunds (2)	($6,274)	($6,242)	($12,516)
	Prepaid Fee Modifications (3)	$4,317	($4,506)	($189)
	Expenditures	($1,216,519)	($1,011,639)	($2,228,158)
	Ending Balance	($3,494,005)	($18,633,299)	($18,633,299)
628	Wastewater Development Fees			
	Beginning Balance	($128,170,910)	($135,057,974)	($128,170,910)
	Adjustment (1)		$7,732,825	$7,732,825
	Receipts	$2,013,251	$1,928,496	$3,941,747
	Refunds (2)	($27,073)	($37,953)	($65,026)
	Prepaid Fee Modifications (3)	($94,207)	$14,428	($79,779)
	Expenditures	($8,779,035)	($8,544,332)	($17,323,368)
	Ending Balance	($135,057,974)	($133,964,511)	($133,964,511)

Source: City of Scottsdale Water Resources Division financial ledger.

(1) Since FY 2000, Water Resources paid all capital project expenditures through either its Water CIP Fund (602) or Sewer CIP Fund (605). Monies were transferred into these two CIP funds from the development fee funds (water, water supply, and wastewater), operating funds (water and wastewater), and/or various bond proceed funds to meet annual capital expenditure needs. In FY 2016, Water Resources made adjustments to reconcile these capital sources and uses provided from the various funds between FY 2000 and FY 2013.

(2) Refunds are made for developer fee credits and/or for changes in demands for services related to redevelopment projects. The full amount of the fee is collected when a building permit is issued for the development and any refunds are made subsequent to the customer having a different size meter installed.

(3) Previously paid fee modifications represent modifications for previously received development fee payments in the Water Resources general ledger. Differences between the collections recorded in the general ledger and the Planning & Development Department's cashiering ledger relate to direct grandfathered collections made by Water Resources for modifications to development fees paid in earlier years for commercial establishments. The City's previous fee assessment approach for commercial establishments was based on estimated demands and provided for modifications to the original fee amount following a multi-year water use monitoring program. These modifications are typically collected directly by Water Resources and not reflected in the Planning & Development cashiering ledger.

The beginning and ending balances in each period reflect significant negative cash balances, with the changes in the balances reflecting an ongoing trend of depleting the net cash balances. The reason for these significant negative cash balances relates to the City's practice of accounting for 100% of annual growth-related capital expenditures from the development fund balances. Because the historical and current collection of development fee revenues are not sufficient at this time to fully fund past and current growth-related capital expenditures, the development fee fund deficiencies have been supported by the water and wastewater operating funds. These negative balances can be considered intra-fund loans from the water and wastewater funds to the water, water supply, and wastewater development fee funds. Due to the development fee calculation methodologies and the necessity to construct water and wastewater supply and capacity in advance of projected demands for that capacity, the collection of development fee revenues will always lag behind the need for growth-related capacity expenditures.

Our evaluation of the changes in net fund balances for the water, water supply, and wastewater development fee fund balances is consistent with the development fee collections and expenditures during the IIP planning period. The review and evaluation of the collection and expenditure of water, water supply, and wastewater development fees does not result in any inequities in implementing the plan or imposing the development fees.

DEVELOPMENT FEE FINDINGS

RFC has reviewed the City's collection and expenditures of development fees for each project in the plan from July 1, 2014 through June 30, 2016. The actual expenditure of development fee funds on growth-related infrastructure projects is consistent with the scheduling of those projects identified in the IIP and consistent with the intent of the rational nexus and requirements of ARS §9-463.05. Finally, the City has appropriately accounted for the monies received from development fees in separate funds and have only used those monies for the purposes authorized by statutes. In our opinion, the City's collection and expenditure of development fees does not result in any inequities in implementing the plans or in imposing the water, water supply, and wastewater development fees.

Schedule 1: Water Meter Counts and EDU

Meter Type	EDU Conversion	FY 2013		FY 2014		FY 2015		FY 2016		Difference
		Meter Count	EDU	Meter Count	EDU	Meter Count	EDU	Meter Count	EDU	
Single Family <= 1"	1	76,684	76,684	76,808	76,808	77,310	77,310	77,860	77,860	1,176
Single Family 1.5"	5	1,007	5,035	853	4,265	865	4,325	877	4,385	(650)
Single Family 2"	8	279	2,232	103	824	104	832	104	832	(1,400)
Single Family 3" Compound	16	3	48	2	32	2	32	3	48	-
Single Family 3" Turbine	22	-	-		-		-		-	-
Multi-Family <= 1"	1	1,554	1,554	2,130	2,130	2,170	2,170	2,206	2,206	652
Multi-Family 1.5"	5	733	3,665	979	4,895	1,004	5,020	1,012	5,060	1,395
Multi-Family 2"	8	1,544	12,352	1,763	14,104	1,785	14,280	1,805	14,440	2,088
Multi-Family 3" Compound	16	17	272	20	320	22	352	23	368	96
Multi-Family 3" Turbine	22	2	44	3	66	3	66	3	66	22
Multi-Family 4" Compound	25	16	400	18	450	20	500	21	525	125
Multi-Family 4" Turbine	42	1	42	2	84	2	84	2	84	42
Multi-Family 6" Compound	50	18	900	23	1,150	23	1,150	23	1,150	250
Multi-Family 6" Turbine	86.5	2	173	2	173	2	173	2	173	-
Multi-Family 8" Compound	80	4	320	4	320	4	320	4	320	-
Non-Residential <= 1"	1	2,383	2,383	2,370	2,370	2,388	2,388	2,404	2,404	21
Non-Residential 1.5"	5	1,548	7,740	1,511	7,555	1,523	7,615	1,528	7,640	(100)
Non-Residential 2"	8	1,557	12,456	1,556	12,448	1,570	12,560	1,579	12,632	176
Non-Residential 3" Compound	16	121	1,936	120	1,920	120	1,920	122	1,952	16
Non-Residential 3" Turbine	22	12	264	14	308	14	308	14	308	44
Non-Residential 4" Compound	25	58	1,450	58	1,450	58	1,450	58	1,450	-
Non-Residential 4" Turbine	42	17	714	19	798	19	798	19	798	84
Non-Residential 6" Compound	50	25	1,250	24	1,200	24	1,200	24	1,200	(50)
Non-Residential 6" Turbine	86.5	10	865	11	952	11	952	11	952	87
Total		87,595	132,779	88,393	134,622	89,043	135,805	89,704	136,853	4,074

Note: It should be noted that there was a combined decrease of 2,050 EDUs in the 1.5-inch, 2-inch, and 3-inch single-family meter classification from FY 2013 to FY 2016. According to City staff, this change represents former single-family accounts that are now included in the billing system as multi-family accounts for those same meter sizes to consolidate all residential master meters into one category. Because the recording consolidation was limited to customer categories and did not require a reclassification of accounts among meter classifications, these adjustments did not have an impact on the number of existing water EDUs identified in the 2013 Water IIP.

Schedule 2: Wastewater Meter Counts and EDU

Meter Type	EDU Conversion	FY 2013		FY 2014		FY 2015		FY 2016		Difference
		Meter Count	EDU	Meter Count	EDU	Meter Count	EDU	Meter Count	EDU	
Single Family <= 1"	1	70,589	70,589	71,141	71,141	71,660	71,660	71,796	71,796	1,207
Single Family 1.5"	5	566	2,830	604	3,020	609	3,045	610	3,050	220
Single Family 2"	8	48	384	54	432	58	464	58	464	80
Single Family 3" Compound	16	2	32	1	16	1	16	1	16	(16)
Multi-Family <= 1"	1	1,257	1,257	1,456	1,456	1,659	1,659	1,661	1,661	404
Multi-Family 1.5"	5	568	2,840	628	3,140	646	3,230	649	3,245	405
Multi-Family 2"	8	1,163	9,304	1,224	9,792	1,254	10,032	1,272	10,176	872
Multi-Family 3" Compound	16	15	240	20	320	21	336	22	352	112
Multi-Family 3" Turbine	22	2	44	3	66	3	66	3	66	22
Multi-Family 4" Compound	25	15	375	17	425	19	475	19	475	100
Multi-Family 4" Turbine	42	1	42	2	84	2	84	2	84	42
Multi-Family 6" Compound	50	17	850	19	950	20	1,000	20	1,000	150
Multi-Family 6" Turbine	86.5	2	173	2	173	2	173	2	173	-
Multi-Family 8" Compound	80	4	320	4	320	4	320	4	320	-
Non-Residential <= 1"	1	1,586	1,586	1,601	1,601	1,613	1,613	1,616	1,616	30
Non-Residential 1.5"	5	1,160	5,800	1,139	5,695	1,154	5,770	1,156	5,780	(20)
Non-Residential 2"	8	1,198	9,584	1,224	9,792	1,272	10,176	1,276	10,208	624
Non-Residential 3" Compound	16	118	1,888	116	1,856	116	1,856	116	1,856	(32)
Non-Residential 3" Turbine	22	1	22	1	22	1	22	1	22	-
Non-Residential 4" Compound	25	47	1,175	48	1,200	48	1,200	48	1,200	25
Non-Residential 4" Turbine	42	5	210	5	210	5	210	5	210	-
Non-Residential 6" Compound	50	24	1,200	22	1,100	23	1,150	23	1,150	(50)
Non-Residential 6" Turbine	86.5	4	346	4	346	4	346	4	346	-
Total		78,392	111,091	79,335	113,157	80,194	114,903	80,364	115,266	4,175