DEVELOPMENT FEE TRENDS AND TUCSON CASE STUDY

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ABSTRACT

This paper describes national methodological and fee level trends for development fees (also referred to as impact fees, connection fees, and system development charges). A case study for Tucson Water is also provided to illustrate how broad constitutional standards and guidelines may be applied to address local concerns and objectives. Specific development fee trends described in this paper include:

- Legal environment
- Methodological approaches (e.g., fee structure, schedule, and offsets)
- Economic development issues
- Fee levels

More and more water and wastewater (including stormwater) utilities are including development fees as an integral component of their capital funding plans, in part because state and federal assistance for system construction has become more limited. As much of the utility capital cost burden has shifted to the local level, concerns about equity between current and future system users have become heightened as communities are faced with significant costs for system rehabilitation and replacement, as well as additional capacity needs. Development fees are often assessed either to avoid charging existing users for extra capacity costs or to compensate (via reduced future utility bill increases) the existing users for the costs they have previously incurred to provide this capacity.

State enabling acts and case law provide broad guidelines related to development fee calculation and implementation. It is then up to the local community to select specific approaches that are consistent with both the constitutional standards and local circumstances and objectives.

KEY WORDS

Impact fees, development fees, system development charges, capital financing, growth

INTRODUCTION

Development fees, also referred to as impact fees, connection fees, system development charges, or capital contribution fees, are one-time charges generally imposed at the time of connection to the infrastructure system or when development permits are issued. These charges are designed to

recover all, or a portion of, the capital investment made by a local government to provide sufficient capacity in a utility system to serve new users.

During the past decade, utilities across the country have turned to development fees as one of the principal sources of revenue for financing system facilities. Revenues generated through the assessment of development fees may be used a) to repay debt issued to finance existing extra system capacity or to 'front' the necessary system expansion and b) to offset directly the costs of a system expansion. Either use of development fee revenues reduces the amount of revenue required from monthly user rates.

Capital improvements needed to provide new capacity in a utility system must generally be constructed in large increments; therefore, system expansions are often constructed years in advance of when the added capacity will be fully utilized. As a result, current system users are often charged rates that are used to pay for a portion of the system capacity to serve future users. Development fees are often assessed either to avoid charging existing users for these extra capacity costs or to compensate the existing users for the costs they have previously incurred to provide this capacity.

LEGAL ENVIRONMENT

State Enabling Acts

Currently, 27 states have specific enabling legislation for development fees (Mullen, 2003). Texas was the first state to adopt development fee legislation in 1987. The most recent legislation was adopted by Arkansas in 2003. In other states, like Florida, where development fee enabling legislation does not exist, the ability to charge development fees is established in case law. The number of states with enabling legislation continues to increase, as indicated in Table 1 (Duncan, 2002). Furthermore, the number of services for which development fees may be implemented has also expanded in some states. For example, Nevada recently added parks, fire, and police among services authorized for development fees.

Table 1 – States with Development Fee Enabling Acts

Arizona (1988)	Indiana (1991)	Rhode Island
Arkansas (2003)	Maine (1988)	South Carolina (1999)
California (1989)	Maryland (counties)	Texas (1987 cities)
Colorado (2001)	Nevada (1989)	Utah (1995)
Delaware (2002)	New Hampshire (1991)	Vermont (1989)
Georgia (1990)	New Jersey (1989)	Virginia (1990)
Hawaii (1992)	New Mexico (1993)	Washington (1991)
Idaho (1992)	Oregon (1991)	West Virginia (1990)
Illinois (1987)	Pennsylvania (1990)	Wisconsin (1993)

Case Law

Recent case law in Oregon addressed how many courts nationwide are applying U.S. Supreme Court precedent to development fees. This year the Oregon Court of Appeals decided two exaction cases that further clarified the applicability of the "rough proportionality" test established in the U.S. Supreme Court's decision in *Dolan v. City of Tigard*, 512 U.S. 374 (1994). In *Dolan*, the Court held that even if there can be found an "essential nexus" "between the 'legitimate state interest' and the permit condition exacted by the city," *see Nollan v. California Coastal Commission*, 483 U.S. 825, 837 (1987), the city's exaction also must be "roughly proportional" in amount to the actual impact of the proposed development. 512 U.S. at 391. However, the exaction in *Dolan* was a land dedication, or "possessory exaction," required *ad hoc* at the time of permit approval, leaving open the question of whether the "rough proportionality" standard applies to legislatively adopted, non-possessory exactions, like development fees (system development charges in Oregon).

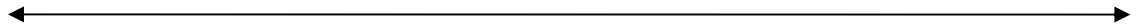
A summary of both cases is provided, followed by implications for development fees.

Rogers Machinery, Inc. v. Washington County
In this case, the Oregon Court of Appeals held that "rough proportionality" was not required for "legislatively imposed and calculated development fees." 181 Or.App. 369, 399, 45 P.3d 966, 982 (Or. Ct. App. 2002). The court's decision hinged on the fact that the system development charge (SDC), a "traffic impact fee" in this case, was (a) mandatory upon all development, not a single developer; (b) applied with no significant discretion, but rather according to a preset, legislatively adopted formula; and (c) applied to a broad class of property. *Id.* at 981-982. In fact, quoting the California Supreme Court, the Court of Appeals held that "…the *sine qua non* for application of *Dolan*'s heightened scrutiny test was the discretionary deployment of the police power in the imposition of land use conditions in individual cases…in which no meaningful government discretion entered into either the imposition or the calculation of the in lieu fee." *Id.* at 978 (quoting *San Remo Hotel v. City and County of San Francisco*, 27 Cal.4th 643, 117 Cal. Rptr.2d 269, 41 P.3d 87 (2002)).

Homebuilders Association of Metropolitan Portland v. Tualatin Hills Park and Recreation District
Rogers Machinery was decided after the parties had filed their briefs in the next case in this developing line of cases: *HBA of Metropolitan Portland v. Tualatin Hills Park and Recreation Dist.*, 185 Or. App. 729, 62 P.3d 404 (Or. Ct. App. 2003), a case raising essentially the same questions that were answered in *Rogers Machinery.* In *Tualatin Hills*, the plaintiffs asserted, *inter alia*, that the SDC resolution adopted by the parks district violated the taking provisions of both the Oregon and United States Constitutions. *Id.* at 406. Based in part on its recent decision in *Rogers Machinery*, the court of appeals upheld the circuit court's determination that the SDC did not violated either the state or federal constitutions. *Id.* at 409. ("Like the Traffic Impact Fee, the SDC is "a generally applicable development fee imposed on a broad range of specific, legislatively determined subcategories …" (quoting *Rogers Machinery*, 181 Or. App. at 400)).

However, the question was necessarily left open: if rough proportionality does not apply, what does? The court accepted supplemental briefs and in its brief the HBA asked the court to apply a "reasonable relationship" test to legislatively adopted development fees, a test, it asserted, was more restrictive than the more lenient "rational basis" test. *Id. at* 409-10.

The diagram below illustrates the continuum of judicial discretion the HBA asserted should apply in exaction cases.



Specifically & Uniquely Attributable	Rough Proportionality	Reasonable Relationship	Rational Basis

It appeared to the court that the HBA would suggest a meaningful distinction existed between a "reasonable relationship" test and a "rational basis" test, but the court recognized that "reasonable relationship," at least in the context of *ad hoc*, nonmonetary exactions, was "quite similar" to the rough proportionality test it refused to apply in *Rogers Machinery*. *Id.* at 410.

The court also refused to apply the "reasonable relationship" test advocated by HBA, finding it inapplicable to legislatively imposed, monetary exactions. *Id.* at 411. Noting that the taking of money, as opposed to property, amounts to an attack on the legislation that imposes the exaction, the court found that such an "attack [is] more appropriately couched in terms of the Due Process Clause." *Id.* Accordingly, the court concluded, the deferential treatment traditionally applied to legislation should apply to SDCs adopted by legislative act of the government. *Id.*

Of particular interest to development fee practitioners, is the remaining portion of the opinion, pages 412 and 413, where the court attempts to define "how close a nexus" is required in order for the government to withstand a constitutional challenge. The court describes in some detail the methodology adopted by the district in determining both the residential and nonresidential SDC rates and concludes that under this methodology, the parks district met both the required "rational basis" test and the more stringent "reasonable relationship" test asserted by the HBA.

Implications for Development Fees. Most governmental units, in Oregon and nationwide, precede the adoption of development fees with the application of a fee methodology that, if done properly, amounts even to a "mathematical calculation" that likely would survive *Dolan* scrutiny were it to be applied. The next major battleground with respect to development fees will undoubtedly take place among the minutiae of these methodology reports. It appears settled that a "rational basis" is all that is required for development fees to survive judicial scrutiny and that most traditional fee methodologies will meet that test.

The message to local government: document, document, document. It is perfectly acceptable to explore alternative ways of calculating development fees to ensure that new development covers its full and proportionate impact on public facilities. However, the local government practitioner must make sure the rationale for its methodology is clearly documented at the time of adoption of the development fee.

METHODOLOGICAL APPROACHES

Fee Structures

There are three broadly recognized structures of utility development fees:

1. *System Buy-In (or Reimbursement Fee) Approach*. Based on existing facilities and costs.

2. *Capacity Expansion (or Improvement Fee) Approach*. Based on the projection of capacity-enhancing system improvements and costs.

3. *Combined Approach*. Considers both existing and planned future facilities and costs.

Each option is discussed in more detail below.

System Buy-In Approach. The system buy-in approach is based on existing facilities and costs. Under this approach, new customers are required to "buy in" to existing system facilities, generally at a rate that reflects the prior investment per unit of *capacity* (capacity buy-in). The capacity buy-in approach is illustrated below:

Existing System Investment ÷ Existing System Capacity = $/unit of capacity

Another, less common approach is the demand buy-in approach that requires buy-in at a rate equal to the existing investment per unit of existing *demand.* This approach is illustrated as follows:

Existing System Investment ÷ Existing System Demand = $/unit of demand

As illustrated above, the capacity buy-in approach differs from the demand buy-in approach in terms of the denominator of the unit cost calculation. The denominator in the demand buy-in approach is the current demand in the system. In contrast, the denominator of the capacity buy-in approach is the existing system capacity. To the extent that there is excess capacity available in the existing system (meaning capacity is greater than existing demand), the capacity buy-in approach will yield a smaller unit cost and development fee (all other things equal) than the demand buy-in approach.

Capacity Expansion Approach. While the buy-in approaches can be characterized as backward-looking, the capacity expansion approach is very much a forward-looking approach. The basis for the fees under this methodology is the projection of capacity-enhancing capital improvements planned for the system during the planning horizon (typically 10 to 20 years). The utility's master plan, facility plan, or other capital plan generally serves as the basis for this information. The projected capacity costs are then divided by the projected growth units during this same planning period to determine the development fees per unit of growth. This approach is illustrated below:

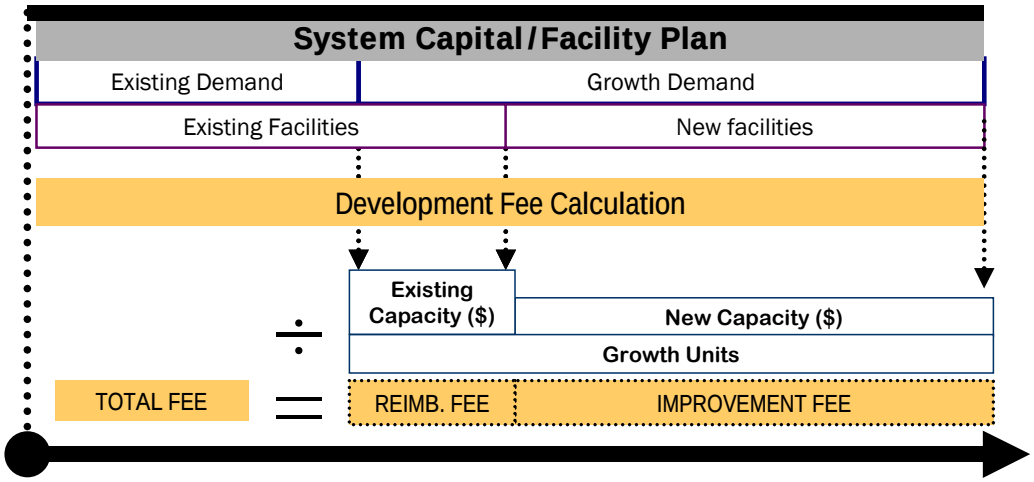
Future Capacity Costs ÷ Growth Units to be Served = $/unit of growth

Combined Approach. The combined approach is designed to recover both the costs of existing available system capacity and planned additional capacity costs. This approach is generally the most technically rigorous of the development fee calculation approaches. It involves explicit determination of *available* capacity in the existing system, as well as apportionment of future capital costs between existing users and new development. The buy-in or reimbursement fee component is determined by dividing the value of available capacity in the existing system by the estimated growth units during the planning period. The improvement fee component is determined by dividing the value of future capacity-increasing costs by the estimated growth units. So, unlike the capacity expansion approach described previously that only recovers the

future capacity costs related to growth, the combined approach also recovers the costs of available capacity of the existing system.

Figure 1 provides an illustration of the combined fee structure approach. Existing customer and growth demands are analyzed, and facility capacities are reviewed to determine what portion of the existing system is available for growth, along with needed new facilities or facility expansions. The value of the existing system available capacity serves as the basis for the reimbursement component of the fee, and the value of new facility costs is the basis for the improvement fee component.

FIGURE 1 – COMBINED FEE STRUCTURE



All of the approaches described above are used in the industry today. The selection of a specific approach should consider a number of factors, including: legal requirements, data availability, equity, and public acceptance. Enabling legislation in some states provides very broad guidelines and any of the fee structures would likely meet established standards. Arizona law, for example, requires only that the fees: "bear a reasonable relationship to the burden imposed upon the municipality to provide additional necessary public services to the development." To the extent that the existing system has excess capacity for growth, or that new capacity can be added at a similar unit cost, the capacity buy-in approach would meet the requirements of the law. The capacity expansion and combined approaches, when based on a defensible capital improvements plan, should also meet the requirements of the law.

In other states, development fee legislation is generally more oriented to a capacity expansion approach, though in many cases (Utah and Georgia for example), provisions allow for consideration of existing facility costs, provided these facilities will serve growth. Oregon law explicitly allows for implementation of a reimbursement fee, an improvement fee, or a combination of the two. However, recent changes to Oregon law also require that in cases where a reimbursement fee or combined fee is to be charged, that the methodology demonstrates that the existing system have available capacity to serve growth.

As noted previously, documentation in general is becoming more important as the courts exhibit a willingness to "get into the methodology". One area of the methodology that is particularly important to document is how the capacity needs of growth will be met – through existing facilities, future facilities or a combination of the two. The need to be able to relate the fees back to capacity utilization is one reason why the demand buy-in approach is less commonly used.

The buy-in and capacity expansion options offer clear distinctions in terms of data requirements: the buy-in options are based on existing system data (costs, capacities or demands), and the capacity expansion approach is based on projected capital improvements, as identified in long-term master plans or shorter term capital improvement plans (CIPs). While the more rigorous combined approach may be the most equitable in theory – as it attempts to recover the full costs of serving growth – it may be viewed as less equitable in practice if the data on which the fee is based are inadequate (for example the absence of a long term capital plan.) .

The potential understanding and acceptance of the development fees by the community's key stakeholders, typically including developers and environmental interests, as well as the general public may also guide the selection of structural options. In some communities, recovery of future costs is the primary concern while past investments already embedded in rate revenue requirements are considered 'bought and paid for'. In other communities, particularly those that have incurred substantial costs to install available existing capacity, fee approaches that ensure future customers are asked to pay for their proportionate share of these past investments is of primary importance.

Often the selection of approaches or fee levels ultimately set by specific communities is more a reflection of an assessment of public acceptability than other factors. For example, in Fort Worth, Texas, fee levels were set at 50 percent of the 'maximum allowable fee' to encourage economic development and achieve public, and especially development community, acceptance of the fee levels. In Eugene, Oregon, fee levels that reflect a combination of system buy-in and capacity expansion approaches have been developed in large part in response to that community's political environment that is particularly focused on growth management.

Fee Schedule

The fee structure is the mechanism for determining the costs to be recovered from new development as a whole. Of equal concern to local governments and the development community alike, is how the fees are then assessed to different types, sizes, and location of development. Table 2 lists standard fee schedule components.

Table 2 – Fee Schedule Components

Utility	Scaling Measure	Land Use Factors	Location Factors
Water/Sewer	Water meter size, plumbing fixtures, square footage, lot size, equivalent dwelling units	Peaking factors, sewage strengths	Policy incentives Infrastructure needs Planning criteria User characteristics
Stormwater	Dwelling units, impervious area, lot size	Runoff coefficients, water quality factors	

Scaling Measures. At the very least, the fee schedule generally provides one or more scaling measures for assessment of development fees to different types and sizes of developments. The use of scaling measures in calculating development fees is designed to ensure that customers who are larger, or use infrastructure systems more intensively, pay the associated costs of capacity required to serve them. The most common scaling measures for water and wastewater development fees include water meter size and plumbing fixture units (PFUs). Stormwater development fees are generally assessed based on impervious area.

However, a trend in the industry is toward more progressive fee schedules, through the use of scaling measures that allow for greater variability in fees among residential developments. Two water utility examples are the City of Scottsdale, Arizona and the City of Denver, Colorado. The City of Scottsdale charges development fees based on housing density (number of dwelling units per acre) and estimated lot size. Denver Water charges a base fee per residential unit (to capture indoor water use), and a charge per square foot of gross lot size (to capture outdoor use).

The City of Eugene, Oregon adopted a similar approach for wastewater development fees. The residential fee schedule is based on a nominal base fee per dwelling, and a charge per square foot of house size. In developing its fee schedule, the City of Eugene considered a number of other potential scaling measures, including number of bedrooms and bathrooms. These options were ruled out, in part because of administrative concerns. In Eugene, house size was selected as a scaling measure over bedrooms and bathrooms because it is information that is already gathered in the permit process. Furthermore the use of square footage does not lend itself to debate regarding staff interpretation of room use. Examples of potential problems using bedrooms would be defining a room as a den when in reality it will be used as a bedroom. Or, with respect to a bathroom, classifying a bath as a ½ or partial bath when in reality if functions as a full bath.

It is important to note that all available scaling measures offer limited precision in capturing potential differences in system requirements across customers. For example, there is the potential for differences in demands of customers with the same number of PFUs, as the intensity of use may vary among customers. Also, for some commercial customers, water meter sizing may be more reflective of process requirements then local wastewater system demand characteristics. Nevertheless, standard scaling criteria are required because of the inherent lack of information on customers' prospective use of system resources at the time of connection (unless they are existing developments connecting to the system). Since there is no viable mechanism by which system use may be predicted in advance, standard scaling criteria are employed to achieve reasonable estimates of different users' requirements for growth-related capacity.

Land Use Factors. In addition to development size, the type of land use may provide an indication of potential system use, and is sometimes considered in the development of the fee schedule. This is particularly true for residential versus commercial developments, where the trend has been to shift the cost burden from residential to commercial developments, where such a shift can be reasonably supported by local or industry data (Nelson, 2002).

For example, wastewater development fee schedules may take into account sewage strengths by type of land use, in additional to traditional sewage volumes. The Metropolitan Wastewater Management Commission (MWMC) of Eugene/Springfield, Oregon has implemented such a schedule, where the assessment of the fees is related in part to a development's estimated sewage volume, and in part on estimated wastewater strength contributions by land use. MWMC has five strength categories to which land uses are assigned, and fees are calculated. A similar trend is likely to develop for stormwater development fees, as water quality issues and costs take on increased importance. For water systems, maximum day or other type of peaking factors also provide a potential basis for differentiation of charges among different development types.

Location Factors. Fee schedules may also consider the location of the development in computing fees. Location factors may be technically based – in cases where geographic areas exhibit unique costs and or service characteristics (for example, in the case of some stormwater drainage basins). Geographically differentiated development fee schedules may also reflect policy objectives, for example, in the case of downtown revitalization incentives.

Fee Offsets and Credits

The three general forms of development fee offsets or credits used in the industry are as follows (Juergensmeyer, 2003):

1. Revenue offsets: adjustments to recognize capital contributions through other funding sources (e.g., taxes, assessments, user fees)
2. On-site credits: credits to recognize on-site facilities that reduce the impact of the development on the general system.
3. Payment in-kind: reductions for capital improvements constructed by the developer that are a part of the capital improvement plan.

Consideration of offsets and credits can be tracked back to one of the most influential court cases in the history of development fees: *Banberry Development Corportation et al. v. South Jordan City*, 631 P.2d 899 (Utah, 19981). In this case, the Utah Supreme Court held that in establishing development fees, local governments must consider the share of capital costs to be born by newly developed properties relative to the costs already borne by existing properties. Specifically, the Court identified seven factors that an entity must consider:

1. Cost of existing capital facilities;
2. Manner of financing existing capital facilities;
3. Relative extent to which newly developed properties and other properties in the municipality have already contributed to the cost of existing capital facilities;

4. The extent to which the newly developed properties will contribute to the cost of existing public facilities in the future;
5. Relative extent to which newly developed properties and other properties in the municipality are entitled to a credit because the municipality is requiring new developers or owners to provide common facilities that have been provided by the municipality and financed through general taxation or other means in other parts of the municipality;
6. Extraordinary costs in servicing newly developed properties; and
7. Time-price differential inherent in fair comparisons of amounts paid at different times.

While the applicability of *Banberry* as a *legal* standard is limited to those states that adopted some or all of the factors listed above within development fee enabling acts (Utah, Hawaii, and Georgia, for example), the case carries significant *politica*l weight nationwide, leading many to consider Banberry an industry standard, as well.

ECONOMIC DEVELOPMENT ISSUES

Communities are often concerned about the impact of development fees on housing prices and overall economic development. A community's equity goals—of which development fees are often a key component, providing a mechanism for growth to pay for its impact on infrastructure—must be balanced with the community's other goals related to affordable housing and economic development.

Housing Affordability

Limited studies have been done to document the relationship between development fees and housing prices. A study in Contra Costa County California in the mid-1990s from the Public Policy Institute of California, found that "underlying supply and demand factors, as well as current economic conditions will determine which fraction of the [development fee] burden is actually borne by each party [homeowners, developers, and landowners] (Dresch, 1997)."

Another publication by the Brookings Institution Center on Urban and Metropolitan Policy finds: "Housing prices are actually determined by a host of interacting factors, such as the price of land, the supply and types of housing, the demand for housing, and the amount of residential choice and mobility in the area." While there are a number of factors that can influence the price of housing, the paper states that the "strength of the housing market is the single most important influence on housing prices whether growth management programs are present or not (Nelson, et. al, 2002)."

These studies point to the complexity of the issue, in that there are a number of factors that contribute to the price of housing, perhaps most importantly the strength of the local economy and housing market.

Economic Development

In at least one study, development fees have been linked to job creation (Nelson, 2003). The study found that development fees -- through provision of needed infrastructure -- are often "the

grease that helps sustain job growth in the local economy." Still, communities struggle to address concerns by businesses, particularly small business, that the fees actually are an impediment to economic development. As a result, in some communities (like the Fort Worth example cited earlier), fees are being reduced from the "maximum allowable" levels due to economic development concerns. In other cases, special programs are being considered to target specific business types. The City of Portland, Oregon, for example, is considering a grant program that would cover a portion of transportation and sewer development fees for small restaurants. Under the proposed program guidelines, business owners would be eligible for 75 percent or $15,000 (whichever is less) off the combined sewer and transportation development fee charges. The grant program would be funded through non-development fee funding sources.

FEE LEVELS

A limited number of national surveys have been conducted for development fees in general, and water and wastewater fees specifically. Table 3 presents information on trends in total development fee levels from a survey conducted by Dr. James Nicholas at the University of Florida (Nicholas, 2003). Table 3 shows the annual rate of increase in total development fees for four different development types, from data collected from approximately 152 jurisdictions between 1988 and 2002, compared to the rate of change in the Consumers Price Index. As indicated in Table 3, total development fees have increased at a rate of between 2.7 and almost 12.0 percent, for the communities surveyed.

Table 3 – Avg. Increase in Total Development Fees (1988-2002)

Development Type	Avg. Annual Percent Increase
Residential	7.13%
Industrial	11.96%
Office	6.32%
Retail/Commercial	2.77%
CPI	3.05%

While the data suggest that development fee costs overall have increased over the last 15 years -- likely due in part to an increase in individual fees, as well as an expansion of the number of fees – the same trend may not hold true for individual utility fees. Figure 2 shows data from the same survey (Nicholas, 2003) for water, sewer, and stormwater fees specifically. Data were not available for the individual utilities prior to 1991. The chart indicates an increase in fees from 1991 to 2003; however, there was considerable variability during the time period analyzed, with the highest fees generally occurring in the mid 1990's for water and sewer.

Figure 2 – Average Single Family Development Fees (1991-2003)

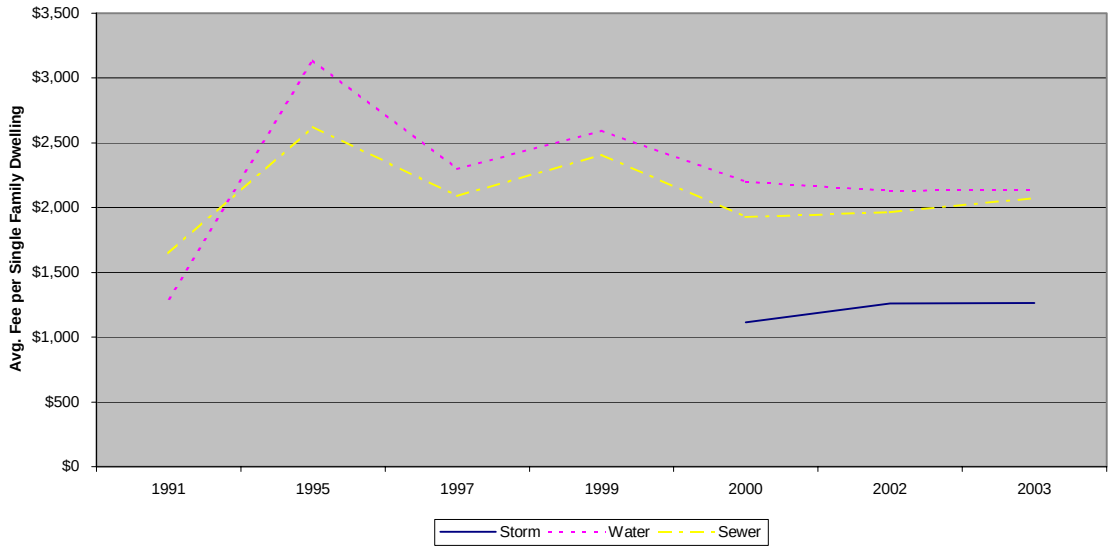


Table 4 shows detailed data for water, sewer, and stormwater from the Nicholas survey (Nicholas, 2003). While the survey is not a statistically valid sample, it does provide some insight into recent fee level trends.

Table 4 – Summary of National Average Development Fees (2003)

	RESIDENTIAL		- - GENERAL - -		
	Single	Multi	Industry	Office	Retail
Utility	Each Dwelling		Per 1,000 FT²		
STORM DRAINAGE					
Maximum	$6,000	$2,500	$3,826	$3,045	$4,591
Minimum	$160	$50	$81	$81	$81
Average	$1,266	$640	$1,058	$930	$1,075
Median	$934	$451	$590	$655	$705
WATER					
Maximum	$6,220	$5,425	$2,173	$2,860	$2,173
Minimum	$237	$196	$64	$161	$161
Average	$2,138	$1,535	$488	$751	$588
Median	$1,719	$1,180	$318	$363	$385
SEWER					
Maximum	$6,998	$6,998	$1,966	$1,966	$6,103
Minimum	$265	$99	$22	$22	$22
Average	$2,074	$1,553	$500	$682	$989
Median	$1,875	$1,327	$316	$478	$396

TUCSON WATER CASE STUDY

In May 2003, after a yearlong effort by Tucson Water staff, the Mayor and Council of the City of Tucson adopted a buy-in fee for new water connections that assesses $1,416 per new residential connection. The fee is estimated to generate approximately $8 million in revenue per year, reducing the need for regular water rate increases (which had been scheduled to go up about 3 percent per year before implementation of the fee) to 2 percent every other year.

Methodology

Tucson's buy-in fee is not a forward-looking impact fee that would pay for future infrastructure. Rather, this fee is a backward looking fee that passes on to new development its proportionate share of the cost of existing system capacity that will serve the development. The rationale for the fee is as follows: The capital improvements needed to provide new capacity in a utility system are generally constructed in large increments, frequently years in advance of when the added capacity will be fully used. As a result, current system users are often charged water rates that are used to pay for a portion of the system capacity that will serve future users. The development buy-in fee provides a mechanism to compensate existing users for the costs they have previously incurred to provide this capacity (this "compensation" will take the form of reduced water rate increases in the future).

The method used by Tucson Water to establish the amount of the development buy-in fee is presented in Figure 3. The methodology is easy to understand, and easily transferable to other utilities. Tucson Water staff and its rate consultant, CH2MHILL (in association with Galardi Consulting, LLC), determined a unit cost of existing capacity (cost of capacity-generating infrastructure divided by the gallons of peak day capacity provided by that infrastructure). Multiplying that unit cost by the peak day capacity available to the typical residential customer yields the buy-in fee amount ($1,416 per residential connection).

Implementation Process

Because this water buy-in fee was the first of several citywide development related fees to be considered in Tucson, there was understandable concern from developers regarding this fee. There was also concern from non-profit homebuilders of affordable housing who said the fee could prevent some low-income families from qualifying for a home loan. There was political pressure placed on the Mayor and Council to oppose this fee. The path to adoption of the fee was circuitous, but eventually successful. Meetings were held with members of the development community [Southern Arizona Home Builders Association (SAHBA), and Tucson Utility Contractors Association (TUCA)], as well as the general public and the Customer Rate Design Group, a group of citizens who provide input on water rate issues. A presentation to the Citizens Water Advisory Committee (CWAC) occurred in November 2002, with consideration of the system equity fee's revenue impact on Tucson Water's financial plan in December 2002. Ultimately, Tucson's Mayor and Council adopted the buy-in, fee in May 2003.

Figure 3– Tucson Water Buy-In Development Fee Methodology

Financial Data Inputs

- ✓ Determine historical cost of Fixed Assets at June 30, 2002*
  - o Exclude assets *not* contributing to existing potable capacity (treatment plant, reclaimed assets, etc.),
  - o Exclude assets *not* funded through water rates (developer contributed assets, meters/hydrants, assets funded with *outstanding* bonded debt)
  - o Add cost of financing (historical interest incurred on included bond funded assets)
- ✓ Segregate adjusted assets by functional areas and calculate the total for each area:
  - o Source/Supply
  - o Transmission
  - o Storage/Pumping

**Assets include Clearwater Renewable Resource Facility at buildout, projected for spring 2003.*

Fee based on (1) the value of the utility's current capacity, and (2) the amount of that capacity provided to a new customer.

Engineering Data Inputs

- ✓ Determine existing system capacity for :
  - o Source/Supply (peak day capacity)
  - o Transmission (peak day capacity)
  - o Storage/Pumping (peak day + fire flow capacity)
- ✓ Determine the same peak demand measures for standard residential (5/8" meter) connection

Buy-in Fee Calculation

- ✓ Determine cost per unit of capacity *(divide each functional asset value by its respective peak capacity measure)*
- ✓ Determine system equity fee for standard residential 5/8" metered connection *(multiply cost per unit of capacity by the related residential peak demand measure)*
- ✓ Calculate system equity fees for all other meter sizes *(hydraulic flow -AWWA standards - relationship between 5/8" meter and other meter sizes)*

In subsequent phases of the development fee program, Tucson Water plans to consider development of a "capacity expansion" fee, to complement the recently adopted development buy-in fee. A "capacity expansion" fee would fund infrastructure investments over the next 20 years to implement a Long-Range Water Resource Plan currently being developed. In contrast to the development buy-in fee (which reimburses the utility for existing infrastructure investment), a "capacity expansion" fee would be a forward-looking impact fee to support new infrastructure or attainment of new water resources

CONCULSIONS

Development fees have become in important part of infrastructure financing plans for water, wastewater, and stormwater systems. The number of states enacting development fee enabling legislation continues to grow. Additional authority to charge development fees is firmly grounded in case law. The lesson to be drawn from recent case law in Oregon and nationally, is that challenges, both facial and as-applied, to government's use of development fees are unlikely to abate. Therefore, it is critical that the rationale for both legislative and adjudicative decisions of government regarding development fees is well reasoned and well documented, especially where the methodology used is untested.

There are a number of methodological approaches used in the industry today. The selection of specific approaches by local governments should consider applicable statutory requirements, data availability, revenue needs, as well as local policy objectives. As the total cost burden borne by growth increases – as a result of individual fee increases, and an expansion in the number of fees charged – the methodology employed will likely be the subject of heightened scrutiny.

As the general health of the economy continues to be a concern nationwide, the potential impacts of development fees on housing affordability and economic development will continue to be a concern. Limited studies have been conducted to determine the impact of development fees. The issues are complex, however, there is evidence that development fees can actually help promote job growth and housing affordability through the provision of necessary public services.

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