

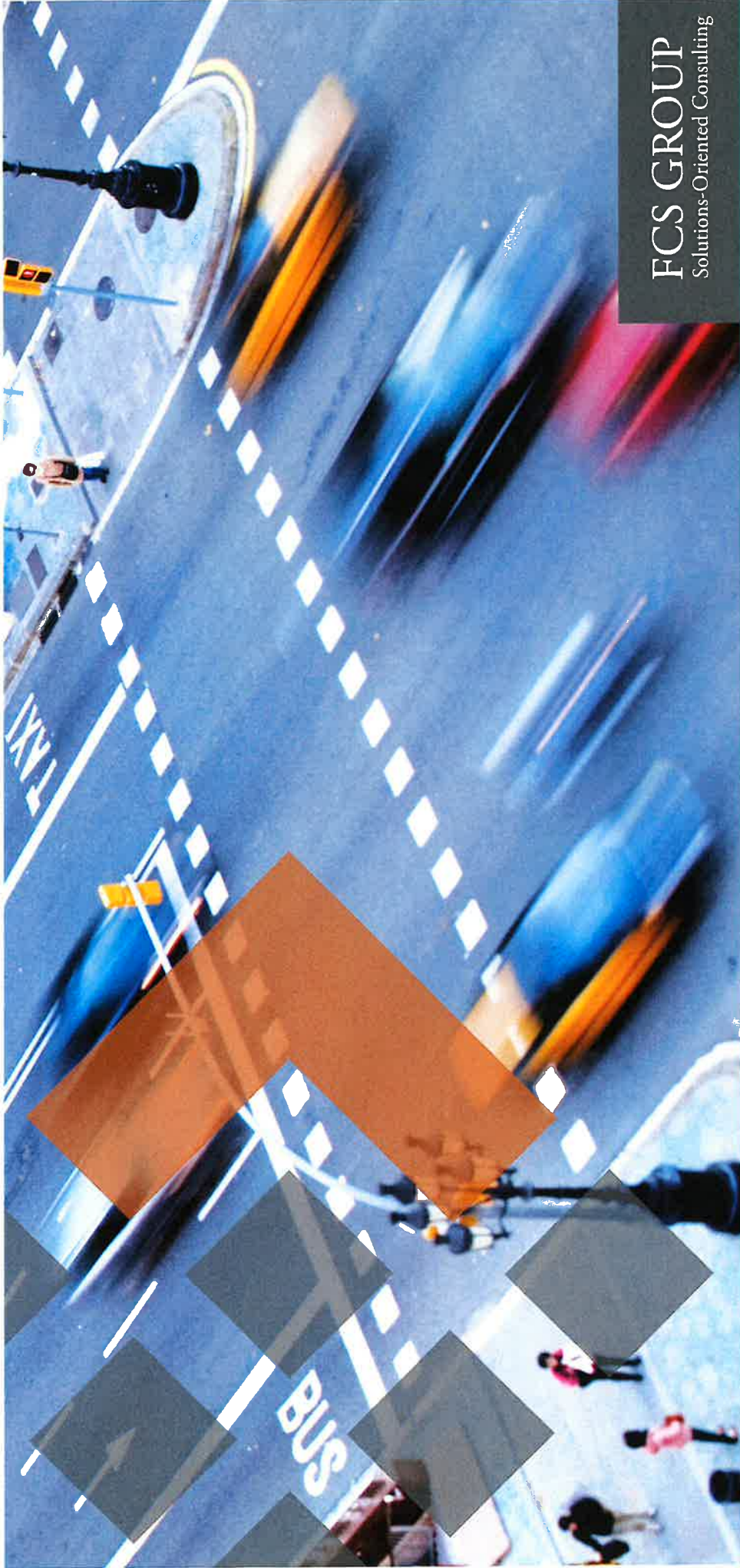


CITY COUNCIL

AGENDA BILL # AB22-0034

**City of Algona
200 Washington Blvd.
Algona, WA 98001**

ITEM INFORMATION			
SUBJECT: RFP Submittal for Transportation Impact Fee Rate and Implementation Study – FSC Group	Agenda Date: July 25, 2022		
	Department/Committee/Individual	Created	Reviewed
	Mayor		
	City Administrator		X
	City Attorney		
	City Clerk		X
	Finance Dept		
	PW/Utilities		
	Planning Dept		
	Community Services		
	Police Dept		
	Finance Committee		
Planning Commission			
Civil Service Committee			
Staff Contact: Dana Parker, Deputy City Clerk			
Attachments:			
SUMMARY STATEMENT: First review. The City of Algona seeks a qualified consultant to develop the City's transportation impact fee.			
COMMITTEE REVIEW AND RECOMMENDATION:			
RECOMMENDED ACTION: First Review			
RECORD OF COUNCIL ACTION			
<i>Meeting Date:</i>	<i>Action:</i>	<i>Vote:</i>	

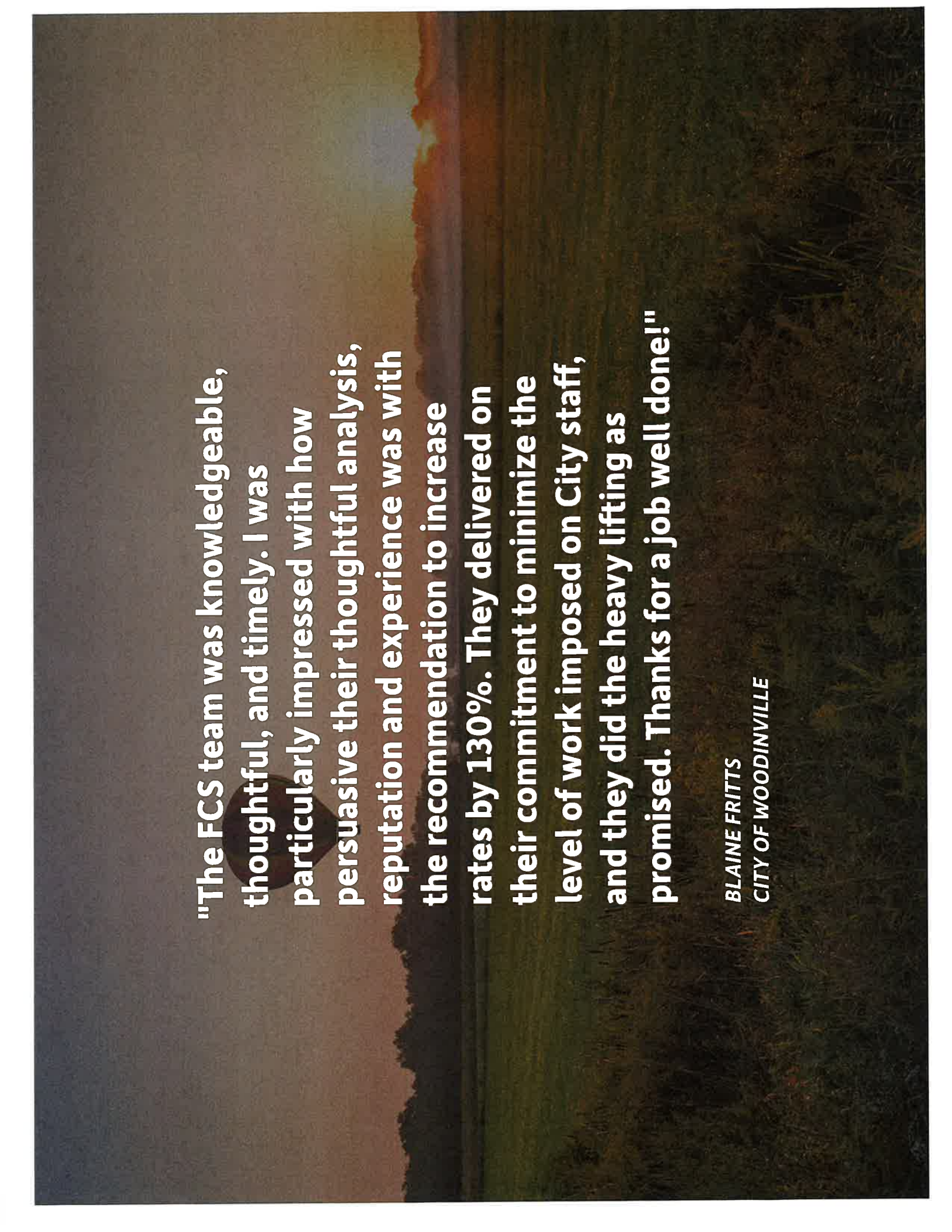


FCS GROUP
Solutions-Oriented Consulting

City of Algona

Transportation Impact Fee Rate and Implementation Study

JULY 18, 2022

A photograph of a sunset over a field. The sky is a mix of orange, yellow, and blue. A dark silhouette of a tree is in the foreground on the left. The field is dark and appears to be a grassy area.

"The FCS team was knowledgeable, thoughtful, and timely. I was particularly impressed with how persuasive their thoughtful analysis, reputation and experience was with the recommendation to increase rates by 130%. They delivered on their commitment to minimize the level of work imposed on City staff, and they did the heavy lifting as promised. Thanks for a job well done!"

**BLAINE FRITTS
CITY OF WOODINVILLE**

July 18, 2022

Jessica Griess, Clerk/Treasurer
City of Algona
200 Washington Boulevard
Algona WA 98001

RE: Transportation Impact Fee Rate and Implementation Study

Dear Ms. Griess,

The City of Algona (City) seeks a qualified consultant to develop the City's transportation impact fee program. The FCS GROUP project team is well-suited to provide these services. We have performed very recent, related, work in Pasco (transportation and fire impact fees), Kirkland (transportation, parks, and fire impact fees, Sammamish (transportation impact fee, park impact fee code review), and Issaquah (fire, transportation, and parks impact fees). We completed the transportation impact fee studies in Pasco and Kirkland with our proposed partners on this effort, DKS Associates (DKS).

Impact fee expert John Ghilarducci will serve as managing principal on the project. He will be supported by senior analyst Zech Hazel. Sarah Keenan of DKS will provide support updating the City's Transportation Capital Facilities Plan (CFP). Further information on key project personnel is included later in this proposal.

The following highlights of our project team and approach will directly benefit the City on this effort.

- FCS GROUP has completed hundreds of impact fee studies throughout the Northwest, ranging from straightforward technical analyses to complex policy and sophisticated calculation frameworks. Our work in Washington has included both impact and mitigation fees, and we have helped clients understand the criteria for choosing between them. Benefit: We know Washington impact fee law as well as the policies and practices of local public agencies. We make sure that our solutions truly fit each city's needs.

- John Ghilarducci has extensive impact fee consulting experience with Washington and Northwest municipalities and teaches courses on impact fees for regional associations and client forums. Benefit: We are recognized impact fee experts and are committed to sharing knowledge for the good of Northwest communities.
- Our project team has the availability and capacity to address your needs quickly and capably, and soundly complete your project – backed by a 35-person firm. Benefit: We have a depth and breadth of technical resources unrivaled in the Northwest.
- Time and again, our project team has realized favorable outcomes when working with citizen groups, boards, and city councils on highly technical and politically sensitive studies. Benefit: Our ability to communicate effectively achieves positive results.

Finally, this letter serves to communicate FCS GROUP's desire and availability to perform the work. Also, as a principal and FCS GROUP president, I am duly authorized to represent the firm. Please do not hesitate to contact me at 425-336-1865 or johngh@fcsgroup.com if you have any questions.

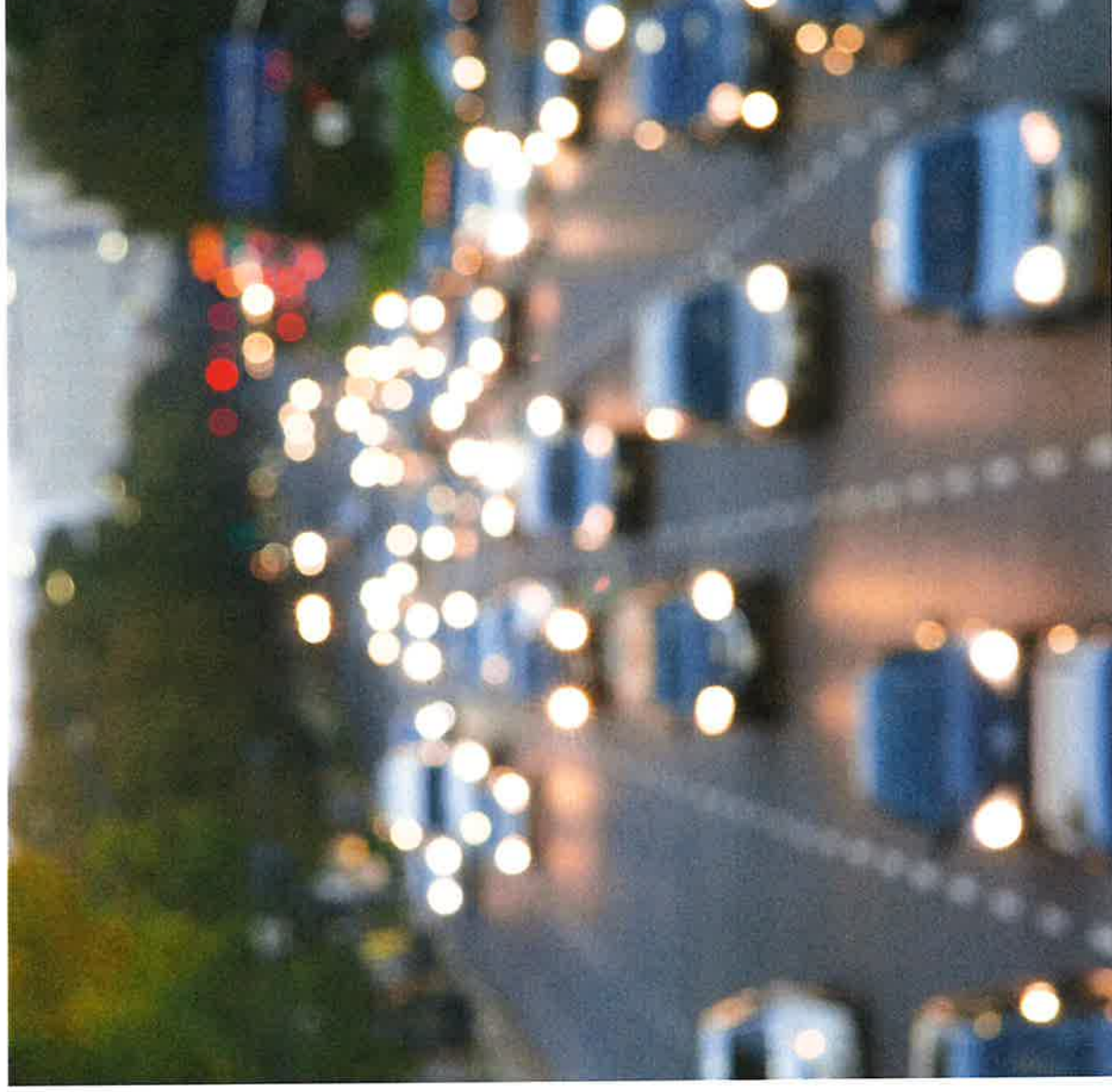
Sincerely,



John Ghilarducci
Principal-in-Charge

TABLE OF CONTENTS

Project Approach	1
Firm Profile	7
Subconsultant	8
Project Team	9
Project Experience	10
Project Management	12
Resumes of Key Personnel	13



PROJECT APPROACH

We are familiar with the kinds of challenges that cities like Algona face.

Impact fees are governed by local ordinance, enabled by state statute, and constrained by the United States Constitution. These layers of legal protection exist for the benefit of developers, and they prevent local governments from charging fees that are disproportionate to a development's impact. We know the law, and we will keep you on the right side of it. Our general approach to impact fees is to use all the data at our disposal to calculate the maximum impact fees that the City can legally impose. Then, the City can confidently set its impact fees anywhere at or below that level.

The FCS GROUP project team proposes to take the following general approach:

- **Capital Facilities Plan (CFP) Update.** In this step, DKS Associates will provide the supporting analysis and documentation needed to support the impact fee.
 - **Policy Framework.** In this step, we will work with City staff to develop a set of recommendations on key TIF policy issues, such as multi-modal TIF approaches, fee basis (average daily v. peak-hour trips), and project allocation methods. These recommendations will provide guidance for the technical analysis.
 - **Technical Analysis.** The technical analysis includes using the information developed by DKS to compile growth-related project costs to the TIF basis, establish customer base and growth assumptions, and calculate the TIF. The charge calculation will reflect the agreed-upon policy recommendations.
 - **Documentation.** In this step, we will write the methodology report describing the recommended policies and resulting charges, and draft the adopting ordinance.
 - **Outreach.** This step includes meetings with the City Council.
- The following approaches define the technical analysis (FCS GROUP) and CFP Update (DKS Associates.)



Scope of Work - Capital Facilities Plan Update

DKS Associates will provide a Transportation Capital Facilities Plan (CFP) update to support development of a traffic impact fee.

Phase 1

TASK 1 | REVIEW EXISTING PLANS AND POLICIES

DKS will obtain and review applicable portions of the following transportation plans and policies:

- 2015 Algona Comprehensive Plan
- Transportation Plans of bordering agencies – Auburn, Pacific, King County
- 2018 Puget Sound Regional Council - Regional Transportation Plan
- Washington Department of Commerce Periodic Update Checklist for Cities
- DKS will use relevant available data to supplement the new data collected in Task 2 and identify potential issues or conflicts with the CFP update. This scope does not include any updates to transportation vision, goals and policies provided in the 2015 Algona Comprehensive Plan.

TASK 2 | FACILITY INVENTORY AND EXISTING CONDITIONS ANALYSIS

DKS will conduct a high level inventory of collectors and arterials for the existing conditions narrative for motor vehicles, transit, pedestrian and bicyclists. DKS will obtain available GIS mapping data from King County to support the creation of graphics for the CFP. The inventory findings will be summarized in GIS figures for each mode. The maps and inventory will be used to identify gaps and deficiencies in the walking, bike and transit systems.

DKS will conduct weekday AM peak period (7 to 9 AM) and PM peak period (4 to 6 PM) turn movement counts at the identified study intersections. DKS will obtain collision data from WSDOT for the past five years at the study intersections and along city collector and arterial facilities within the Algona city limits. DKS will review the collision data, calculate intersection and roadway crash rates, identify existing safety issues and recommend potential countermeasures, if needed.

DKS will create a Synchro operations model of the study intersections to represent 2022 existing conditions. The model will be used to report intersection performance (level of service, delay, volume to capacity ratio) and identify existing operational deficiencies and local system needs based on regional and local performance standards.

THE PROPOSED LOCATIONS WERE SELECTED TO BE CONSISTENT WITH THE 2015 ALGONA COMPREHENSIVE PLAN.

- Celery Avenue/Boundary Boulevard
- Algona Boulevard/Broadway Boulevard
- Algona Boulevard/Main Street
- West Valley Highway/1st Avenue
- Algona Boulevard/1st Avenue
- Seattle Boulevard/1st Avenue
- Main Street/1st Avenue
- Milwaukee Boulevard/1st Avenue
- Stanley Avenue/1st Avenue
- Washington Boulevard/1st Avenue
- Seattle Boulevard/Frontage Road
- Tacoma Boulevard/5th Avenue
- Milwaukee Boulevard/5th Avenue

TASK 3 | FUTURE TRAFFIC VOLUME FORECASTS

DKS will use the current regional travel demand models, provided by Puget Sound Regional Council (PSRC), to estimate growth in traffic volumes. DKS will conduct a high level review of the base and future models and refine the network and link attributes as needed. Future 2042 Baseline PM peak hour traffic volumes will be developed for the study intersections and key roadway segments.

DKS will document the traffic volume forecast methodology and the land use growth projections (residential and employment) obtained from the PSRC model.

TASK 4 | FUTURE SYSTEM NEEDS AND RECOMMENDATIONS

DKS will update the existing conditions Synchro model of the study intersections to represent 2042 Baseline conditions. The model will be used to report intersection performance (level of service, delay, volume to capacity ratio), and identify future operational deficiencies and local system needs based on state and local performance standards. These operations will be used to determine the need for roadway network improvements to be modeled in Task 3.

DKS will update the Baseline conditions Synchro model of the study intersections to represent 2042 Mitigated conditions. DKS will conduct a high level evaluation of additional street connectivity improvements based on an iterative process using the future travel demand model.

DKS will evaluate the need for pedestrian, bicycle, transit, and parking based on the transportation analysis and input from the project team.

DKS will prepare a 20-year transportation capital facility project list with descriptions and an accompanying project map. Planning level cost estimates will be prepared for each project.

DKS will develop a roadway classification map to identify the hierarchy of the street system. This figure will inform how city guidelines and standards are applied.



TASK 5 | FINANCE PROGRAM AND SIX-YEAR TRANSPORTATION IMPROVEMENT PLAN

The City will provide transportation funding sources and expenditures over the past five years.

DKS will coordinate with the City to estimate future funds expected to be available to construct new transportation projects, for maintenance, and for other transportation-related programs.

Funding forecasts will be prepared for the short-term year 2028 and long-term year 2042.

DKS will prepare recommendations for priority projects to include in a Six-Year Transportation Improvement Plan (Year 2028) with input from City staff. DKS will provide information on additional transportation revenue sources to consider for potential funding shortfalls.

DKS will provide support to the City to develop a Traffic Impact Fee (TIF) program using the CFP project list and cost estimates from Task 5. The land use growth projections (residential and employment) obtained from the PSRC model in Task 3 will be used to determine growth in trips through the year 2042.

Phase 2

TASK 6 | FUTURE TRAFFIC VOLUME FORECASTS

DKS will document the findings and recommendations in a Draft Transportation Capital Facilities Plan.

DKS will respond to one round of consolidated and unified comments from the project team and provide an Adoption Ready Draft Transportation Capital Facilities Plan.

DKS will coordinate with City staff to prepare the Washington Department of Commerce Periodic Update Checklist for Cities to highlight Draft CFP compliance with state requirements obtained from the PSRC model.

TASK 7 | MEETINGS/PUBLIC INVOLVEMENT

To support the CFP update, DKS will attend the following meetings:

- Up to three project team coordination conference calls
- One Community Open House (optional online platform)
- One Planning Commission/City Council Work Session (optional online platform)
- One City Council Hearing for adoption (optional online platform)



Scope of Work - Technical Analysis



TASK 1 | DATA COLLECTION / KICKOFF MEETING

Provide the City a data needs list. Meet with City staff to collect and discuss initial data, review the work plan and schedule, discuss TIF policy and technical issues, and kickoff the study.

Deliverables:

- Project schedule with task completion and key milestone review points.
- Identification of project team communication leads.
- Validated financial, engineering, and customer billing data that serves as the primary inputs for the analysis.

TASK 1 KEY POINT

The initial kickoff meeting will establish mutual understanding of study goals, issues, and concerns by both parties (City and FCS GROUP).

TASK 2 | POLICY FRAMEWORK

Write a technical memorandum defining key policy issues, describing alternatives, and providing recommendations – for discussion and agreement with City staff. Key issues would likely include some if not all of the following:

- Multi-modal (e.g., vehicle, bike, pedestrian) TIF methodology.
- Basis of the Fee (average daily v. peak-hour trips; vehicle v. person trips)
- Project cost allocation methodologies.
- Credits and exemptions.

Deliverables:

- Technical memorandum.

TASK 2 KEY POINT

Defining the policy framework if an opportunity to review data that will affect technical analysis and the resulting impact fees.

TASK 3 KEY POINT

A rigorous technical analysis will quantify the impacts of policy decisions made in Task 2 and will leave the City Council with no doubt about the impact fee that can defensibly be charged.

TASK 3 | TECHNICAL ANALYSIS

- Compile the TIF project list and growth allocations, incorporating DKS' work into the impact fee analysis. The list will include the list of projects and updated costs to be used as the TIF basis – and the capacity-increasing portion of each project for inclusion in the TIF, consistent with the policy direction agreed upon in Task 2.
- Set up a spreadsheet model for the TIF analysis, based on the preliminary policy direction from Task 2.
- Calculate the impact fee from information on the eligible cost of planned future facilities. TIFs will be calculated for up to two different fee structure alternatives.

Deliverables:

- Analysis spreadsheet.

TASK 4 KEY POINT

All deliverables will be provided to City staff in Microsoft Word, PowerPoint, and Excel, and, as needed, Adobe Acrobat (.pdf). The consultant will prepare and provide presentation materials in support of meetings as needed, and the presentation packet will include a survey of comparative TIFs.

TASK 4 | DOCUMENTATION

A comprehensive study document will provide a reference for the methodology, data and assumptions used to prepare the impact fees, or each impact fee separately. The documentation allows for a greater foundation of understanding when future updates are performed.

- Prepare a draft methodology report describing policy recommendations, methodology, and results for review by City staff.
- Prepare a draft ordinance reflecting the recommended TIF and TIF structure.
- Provide a final report after Council action (Task 5).

Deliverables:

- Draft report and final report
- Presentation slides.

TASK 5 KEY POINT

Feedback received during these meetings will allow us to refine the analyses to best meet the needs of the City.

TASK 5 | MEETINGS

- Meet up to three times with City staff to review and discuss the following general topics:
 - Policy options (technical memorandum) and recommendations.
 - Analytical findings and results.
 - Implementation of recommended charges.
- Prepare for and attend up to two meetings (total) with the City Council (or other interested parties).

Deliverables:

- Up to three meetings with City staff.
- Up to two meetings with City Council.



FIRM PROFILE



FCS GROUP, ESTABLISHED IN 1988, IS ONE OF THE COUNTRY'S OLDEST AND MOST RESPECTED INDEPENDENT PROVIDERS OF FINANCIAL, ECONOMIC, AND UTILITY MANAGEMENT SERVICES IN THE PUBLIC SECTOR.

With over 4,000 engagements for more than 650 government clients, FCS GROUP provides best-in-class analytical solutions that offers our clients the clarity they need to solve their most complex issues in ways tailored specifically to their own communities.

As a private practice dedicated exclusively to state and local government issues, we have accumulated the expertise and the perspective that makes a real difference for the clients we serve. Each engagement is a highly personalized, entirely customized experience led by one of our most senior principals who will be your partner in building the solutions and outcomes you need.

At FCS GROUP, we understand that every municipal agency faces its own unique challenges. Our success and reputation comes from the ability to listen to clients and produce customized study results that can be easily implemented and understood by everyone.

Services

INFRASTRUCTURE RATE AND IMPACT FEE CONSULTING

FCS GROUP has performed over 3,000 infrastructure finance and rate development projects for local communities including defining revenue requirements with comprehensive financial modeling tools, performing long-term capital management strategies, preparing full cost-of-service rates, and developing legally defensible impact fees. We work with agencies large and small in urban and suburban areas, rural systems, regions with seasonal/climate sensitivities, and communities with special commercial/industrial needs. We are experts and educators in rate and fee policies and practices and are attentive to legal constraints in every location we work. We have invested time with agency staff, policymakers, stakeholders, and customers to improve your utility's long-term financial health and integrity.

IMPACT FEES

FCS GROUP has completed hundreds of impact fee studies throughout the Northwest, ranging from straightforward technical analyses to complex policy and sophisticated calculation frameworks. Our work in Washington has included both impact and mitigation fees, and we have helped clients understand the criteria for choosing between them.

4,000+
PROJECTS
COMPLETED

650+
CLIENTS
SERVED

35
MANAGEMENT
& TECHNICAL
PROFESSIONALS

34+
YEARS IN
OPERATION

4
OFFICES IN
WA, OR & CO



SUBCONSULTANT



FOUNDED IN 1979, DKS ASSOCIATES PROVIDES SPECIALIZED TRANSPORTATION PLANNING, DESIGN, AND ENGINEERING SERVICES TO PUBLIC AGENCIES ACROSS THE COUNTRY.

Firmwide, our staff includes over 140 professionals with offices in Oakland, Sacramento, and Anaheim, CA; Portland (Headquarters) and Salem, OR; Seattle, WA; and Austin, TX. Our professional staff members provide expert services in multimodal transportation analysis, planning, and engineering; intelligent transportation systems; pedestrian and bicycle planning and design, and transit planning and design. At DKS, we blend creative transportation solutions with state-of-the-art, cost-effective analysis. Our staff members go beyond basic volume and capacity analysis to measure key decision-making criteria, such as improved safety, access, circulation, facility users, hours of congestion, increased greenhouse gas emissions, travel times and multimodal travel needs.

Our team of engineers and planners also have experience working with traffic impact fees, delivering nexus-based transportation impact fee programs along the west coast. This included research on best practices from around the country, development of transportation impact fee district alternatives, and calculation of fees for different combinations of district and capital project list alternatives.

DKS will also perform traffic modeling for all alternatives, with trip origins and destinations providing the basis for calculation of fees and determination of a legal basis for transportation impact fee programs. DKS also works with our clients to develop a public process to provide a feedback loop between the development of fee districts and the resulting fee rates, finding that stakeholders could really only appreciate the meaning of district and methodology choices once they saw the fee outcomes that were produced.

DKS recently partnered with FCS GROUP to update the City of Kirkland's new impact fee update by analyzing traffic growth and trip attributes. As transportation modeling experts, DKS is also experienced with the TransCAD software to estimate distribution patterns throughout a transportation network, process travel model outputs to develop forecasted turn movements and growth patterns, and create subarea models to support transportation planning.



PROJECT TEAM

John Ghilarducci MANAGING PRINCIPAL, FCS GROUP

John Ghilarducci is president of FCS GROUP, as well as a principal and shareholder with 34 years of professional experience and more than 31 years with the firm. His practice focuses on all aspects of utility and general services impact fee / system development charge (SDC) and utility rate studies, from technical modeling to public involvement to ordinance drafting and implementation. Since 2005 and most recently in June of 2022, John has taught a series of impact fee / SDC training sessions for the League of Oregon Cities (LOC). In February 2020, John prepared and presented “Park Impact Fee Basics” at the Washington Recreation and Parks Association Funding Options for Parks Forum.



John's innovative technical approaches have resulted in person-trip based transportation impact fees suitable for multi-modal transportation capital plans, nonresidential park impact fees, area-specific impact fees, and tiered residential impact fees that can be used to reward smaller (and perhaps more affordable) dwelling units. He offers a broad knowledge of public policy and finance, and a thorough understanding of the legal and practical constraints that apply to Washington impact fees.

John's impact fee experience includes past (and current) engagements with the cities of Airway Heights, Auburn, Camas, Duwall, Issaquah, Kirkland, Kent, North Bend, Olympia, Pasco, Richland, Ridgefield, Sammamish, University Place, Vancouver, Walla Walla, and Clark County.

As Managing Principal, John will be responsible for contract management, technical direction and client communication.

Zech Hazel SENIOR ANALYST, FCS GROUP

Zechariah Hazel is an FCS GROUP senior analyst with experience in data collection, research, spreadsheet modeling and analysis for economic studies and fee development. He has performed in-depth analyses of program financial conditions and prepared reports detailing the results. Zech has applicable Northwest transportation impact fee experience with the cities of Corvallis, Hermiston, Medford, North Plains, and Veneta.

Zech will provide data analysis and modeling.



Sarah Keenan TRANSPORTATION ENGINEER/PLANNER, DKS ASSOCIATES

Sarah brings eight years of experience in traffic operations and traffic design on a wide variety of projects. Sarah's expertise is in travel demand modeling and traffic impact fee reports. She not only works with model outputs but can modify and run travel demand models to reflect project conditions. She has experience with the City of Federal Way, WSDOT, King County, Pierce County, City of Bothell, and City of Kirkland. Sarah's software expertise lies in Emme, Vissim, Dynameq, Synchro/SimTraffic, Sidra, Visum, and ArcGIS.

Sarah will complete traffic data analysis and modeling.



PROJECT EXPERIENCE

Transportation, Fire, and Parks Impact Fee Update and Bike / Ped, Police, and General Government Mitigation Fee Update

CITY OF ISSAQUAH, WA

FCS GROUP recently completed a multi-service impact fee / mitigation fee update for the City of Issaquah. The following fees were included, in two phases: Fire impact fee (last update 2006), Parks impact fee (last update 2014), Traffic impact fee (last update 2014), Bicycle and pedestrian mitigation fee (last update 2014), Police mitigation fee (last update 2008), and General government buildings mitigation fee (last update 2008).

In the first phase, FCS GROUP updated the fire and traffic impact fees, and the three mitigation fees. The fire impact fee was calculated in close collaboration with City staff and staff of Eastside Fire and Rescue, who together provide fire protection in Issaquah. The traffic impact fee update was performed in collaboration with City staff and the City's consulting engineer. Methodologies were updated as well as data inputs, and all recommendations were adopted.

Because this engagement included the calculation of both impact and mitigation fees, an important task was to educate staff and the City Council on the different legal requirements for these two types of fees. The statutory requirements are more exacting for impact fees, but mitigation fees can be charged only for projects that undergo the SEPA process. At the same time, both types of fees are development impact fees and are therefore subject to the same constitutional constraints. We were able to demonstrate to both staff and the City Council how our calculations for both types of fees met both statutory and constitutional requirements.

The second phase included a comprehensive park impact fee update. Again, working closely with City staff, FCS GROUP recommended a methodology closely aligned with impact fee statute, and produced an update fee schedule that included both residential and nonresidential fees. Those proposed fees were adopted on March 2, 2020.

Key Personnel:

- John Ghilarducci, Principal-in-Charge

Reference:

Sheldon Lynne, Public Works Director
sheldontl@issaquahwa.gov
(425) 837-3426





Transportation Impact Fee Study and Broadmoor Analysis

CITY OF PASCO, WA

In partnership with DKS Associates, FCS GROUP recently completed a transportation impact fee study for the City of Pasco. FCS GROUP wrote policy analyses on the following issues:

- area-specific charges,
- credits, exemptions, and discounts, and
- project cost allocation.

FCS GROUP calculated impact fees designed to recover up to 58% of the capital project list totaling more than \$665 million. FCS GROUP also completed a comparison of transportation impact fees among neighboring Eastern Washington cities.

DKS provided travel demand modeling and traffic analysis services for three different land use scenarios as part of the EIS for the Broadmoor area in northwest Pasco. DKS led the travel demand modeling efforts, which have included replicating the current BFGG model process, and running additional land use scenarios.

DKS used TransCAD software in the modeling efforts. DKS also reviewed the future land use assumptions in the 2040 model for the Broadmoor area. DKS led the model application for traffic analysis, using NCHRP 762 forecasting methodology to develop turn movement forecasts for Synchro analysis.

Key Personnel:

- John Ghilarducci, Principal-in-Charge
- DKS Associates

Reference:

Dan Ford, City Engineer
fordd@pasco-wa.gov
(509) 545-3441



Transportation Impact Fee Study

CITY OF KIRKLAND, WA

FCS GROUP recently completed a comprehensive transportation, parks, and fire impact fee study. The transportation and parks elements were updates to existing impact fees, and the fire element resulted in the City's first fire impact fee. As part of that work, FCS GROUP wrote a policy memorandum that included analysis and recommendations on such issues as impact fee indexing, low-income housing exemptions, and methodology and adjustment options for all three services. FCS GROUP calculated fee options and presented them to the City Council several times, from September 2020 through fall of 2021. The updated transportation impact fee was adopted in October 2021.

The transportation impact fee initially utilized the BKR travel demand model, interpreted by DKS, to estimate the fee eligible portion of planned transportation improvements and incorporated a person-trip basis to align with the City's multi-modal project list. The fire analysis included two options: one assuming a bond measure passed, and one if the bond measure failed.

Key Personnel:

- John Ghilarducci, Principal-in-Charge
- DKS Associates

Reference:

Tracey Dunlap, Deputy City Manager
TDunlap@kirklandwa.gov
(425) 587-3101

PROJECT MANAGEMENT



FCS GROUP is proud to be recognized as a firm with sincere attention to achieving excellence in every endeavor. You can be assured that we will adhere to a strict code of professionalism, objectivity, and ethics in all aspects of our business and interactions.

Quality Assurance is a critical element to our project management and internal work review policies.

FCS GROUP has sustained a well-respected practice evidenced by our continued work with municipal clients throughout Washington state. The following are the key QA/QC attributes of our consulting practice:

- **Dedicated Principal Review.** Every project shall have a Principal-in Charge – this person has ultimate draft and final deliverable review, interim work product review and project oversight responsibility.

- **Peer Level Review.** If a Principal-in-Charge happens to also be a project director/manager or a task leader, then internal peer level review assistance is required of the work products prepared by the Principal.
- **Scope of Services.** All engagements must have a mutually agreed upon scope of services with which to guide work activities, preparation of work deliverables, manage schedules and budgets, and manage client expectations.
- **Final Review.** Our calculations are expected to be accurate and on target; we use thousands of formulas in our economics, statistics, finance, and cost accounting analyses. Project Managers are required to test calculated results and review all analyses to a point of satisfaction that the models are working correctly.

- **Billing Process.** Every substantive progress billing is supplemented with a study or project status report that addresses budget and actual spending status, explanation of budget variances and estimated work to completion vs. plan, work progress for the period, and planned work for the next period, and finally any explanation or discussion about client or consultant recommended changes in direction of our work, scope and/or budget.
- **Communication.** We maintain ongoing communications with clients and team members to ensure that we stay on track with the work we agreed to perform; we do not perform new or out of scope work without written permission by our clients.

RESUMES OF KEY PERSONNEL

John Ghilarducci
Principal-in-Charge



FCS GROUP

John Ghilarducci is an FCS GROUP President, principal and shareholder with over 34 years of professional experience including 30 years with the firm. His practice focuses on all aspects of utility and general services system development charges (SDCs) and financial rate studies, from technical modeling and public involvement to ordinance drafting and implementation. He has formed stormwater and transportation utilities and has developed water, sewer, stormwater, transportation and parks rates and charges for dozens of clients. John is a recognized technical rate and finance expert and provides litigation support/expert witness testimony throughout the Northwest.

John's innovative rate making approaches have resulted in "level of service" stormwater rates, area-specific SDCs, sewer strength sub-classes, inverted block water rate structures, defensible stormwater rate credit methodologies, person-trip based transportation impact fees suitable for multi-modal transportation capital plans, and nonresidential park impact fees. He offers a broad knowledge of public policy and finance, and a thorough understanding of the institutional issues and options underlying the formation of utilities and the design of supporting rate and charge structures. Project experience includes the following.

Washington

ANACORTES

- Sewer Cost of Service Rate Study

AUBURN

- Utility Financial Programs and Financial Chapter Development
- Water Supply Optimization Analysis
- Parks Impact Fee Study

EDUCATION

- MPA, Organization and Management, University of Washington
- BS, Economics, University of Oregon

CAREER SUMMARY

- 34 years (since 1988) professional experience
- Joined FCS GROUP in 1991

EXPERTISE

- System Development Charges (SDCs), General Facilities Charges (GFCs), Capital Facility Charges (CFCs) and Connection Charges
- Water, Sewer, Stormwater, & Transportation Utility Rates
- Stormwater and Transportation Utility Formations
- Transportation Funding
- Comprehensive Plans Financial Elements
- Litigation Support/Expert Witness
- Financial/Feasibility Studies
- Special Cost of Service
- Options Analysis

PROFESSIONAL AFFILIATIONS

- American Water Works Association
- American Public Works Association
- Oregon Government Finance Officers Association

CONTACT

- JohnG@fcsgroup.com
(425) 336-1865

BAINBRIDGE ISLAND

- Stormwater and Surface Water Rate Study Update
- Special Stormwater Rate Policy Analysis
- Water and Sewer Rate Study
- Ferncliff Water Main Extension Funding Alternatives

BATTLE GROUND

- Stormwater Utility Financial and Rate Update
- Sewer Rate Study Update

BELLINGHAM

- Stormwater Rate Study
- Marginal Water Cost Analysis
- Storm and Surface Water Rate, SDC and Permit Fee Study
- Sewer Financial Plan

BLACK DIAMOND

- Fire Service Study
- Fiscal Analysis

BLAINE

- Stormwater Rate Study Update
- Wholesale Water Rate Support

BONNEY LAKE

- Water Rate and SDC Financial Analysis

BOTHELL

- COVID-19 Utility Evaluation
- Stormwater Rate Study Update
- Water, Sanitary Sewer and Stormwater Rate and Stormwater SDC Study and Update
- Wastewater Rate Analysis
- Water, Sewer and Stormwater CFC Study

BREMERTON

- Utility Service Contract Negotiations with the US Navy
- Stormwater GFC Update

BREWSTER

- Water and Sewer Rate Study

BRIER

- Excise Tax Review

BURLINGTON

- Stormwater Utility Formation and Consulting

CAMAS

- Park Impact Fee Study
- Financial Services (On-call)
- Water, Sewer, Stormwater and Solid Waste Rate Study

CARNATION

- Stormwater Financial Analysis
- Stormwater Utility Formation
- Water and Sewer Rate Study
- Stormwater Formation and Rate Study

CENTRALIA

- Stormwater Utility Formation and Rate Studies

CENTRAL KLICKITAT CONSERVATION DISTRICT

- Rate Study

CHEHALIS

- Water and Wastewater Rate and CFC Study
- Wastewater Customer Charge Analysis and Special Evaluation of Treatment Offer
- Water, Wastewater and Stormwater Rate Study
- Wholesale Wastewater Rate Study

CHELAN COUNTY PUD

- Water, Sewer and Electric SDC Study

CLARK CONSERVATION DISTRICT

- Rate Development Study

CLARK COUNTY

- Transportation Impact Fee Study

CLINTON

- Sewer Financial Review

CLYDE HILL

- Stormwater Utility Formation

COLLEGE PLACE

- Stormwater Utility Formation
- Water and Wastewater Rate Study
- Transportation and Parks SDC Study

COWLITZ COUNTY

- Stormwater Funding Analysis

DES MOINES

- Stormwater Revenue Requirement Study
- Stormwater Comprehensive Plan, Efficiency and Rate Study and Update

DOUGLAS COUNTY SEWER DISTRICT #1

- Sewer Rate Study

DUVALL

- Parks Impact Fee Study
- Sewer Rate and GFC Update and Advice
- Water Rate Analysis and Comprehensive Plan Financial Chapter

EAST WENATCHEE

- Stormwater Plan Financial Services

EAST WENATCHEE WATER DISTRICT

- Water Rate Study

EDGEWOOD

- Stormwater Financial Plan
- Sewer Feasibility Study and Financial Chapter
- Utility Tax Review and Benchmarking

EDMONDS

- Water System Plan Financial Chapter
- Stormwater Rate Study Update
- Water, Sewer and Stormwater Revenue Requirement Update
- Lake Ballinger Regional Facility Feasibility Study
- Water, Sewer and Stormwater Rate and GFC Update

ENUMCLAW

- Water, Sewer and Stormwater Rate Study
- Stormwater Utility Formation and Financial Analysis
- Water and Wastewater Rate and Charge Study
- Water System Plan Financial Chapter

EVERETT

- Water and Sewer Connection Charge Update and Model Review

FEDERAL WAY

- Stormwater Comprehensive Plan Update

FERNDALE

- Water, Sewer and Stormwater Rate Study

FIFE

- Water and Sewer Rate Update
- Stormwater Rate Study
- Sewer Rate Study
- Water System Plan Financial Chapter
- Wastewater Revenue Requirement and Parity Certificate
- Water Initial Revenue Requirements Study
- Water Rate and GFC Study Update

FIRGROVE MUTUAL WATER COMPANY

- Water Utility Financial Plan and Share Charge Analysis

GRANT COUNTY CONSERVATION DISTRICT

- Rate Study

GRANT COUNTY MOSQUITO CONTROL DISTRICT

- Rate Assessment Study
- Fee Assessment Structure Update

ISSAQUAH

- Water Rate and GFC Study
- Transportation and Parks Impact Fee Development
- Police and General Government Mitigation Fee and Fire Impact Fee Update

JEFFERSON COUNTY CONSERVATION DISTRICT

- Rate Development Study

JEFFERSON COUNTY PUD #1

- Water and Sewer Rate Study

KELSO

- Water, Sewer, and Stormwater Rate study

KENT

- Stormwater and Water Rate Policy Review and Update
- Park Impact Fee Study

KING CONSERVATION DISTRICT

- Billing Database Update
- Rate Structure Development and Update

KING COUNTY WASTEWATER TREATMENT DIVISION

- Capacity Charge Rate System Evaluation

KING COUNTY WATER DISTRICT #20

- Water District #20 and Water District #85 Merger

KING COUNTY WATER DISTRICT #49

- Water Rate Study Technical Assistance

KING COUNTY WATER DISTRICT #125

- Water Rate/GFC Study

KING COUNTY

- Regional Watershed Initiative Project
- Stormwater Management Rate Evaluation

KIRKLAND

- Sewer Cost of Service Update
- Water Cost of Service Update
- Stormwater Rate, CFC Study and Update
- Stormwater Policy and Revenue Requirement Review
- Impact Fee Study
- Water and Sewer Rate Study

KITSAP COUNTY

- Surface and Stormwater Management Performance Audit

KLICKITAT PUBLIC UTILITY DISTRICT

- Water and Sewer SDC Rate Study and Update
- Water Rate Support Services

LA CENTER

- Stormwater Utility Formation
- Area Specific Sewer SDC Study

LACEY

- Water Rate and Charge Study
- Stormwater Comprehensive Plan
- Water System Plan
- Reclaimed Water Plan

- ICAP Update

LAKE STEVENS

- Stormwater Rate Study

LAKEWOOD

- Stormwater Rate Study

LAKEWOOD WATER DISTRICT

- Financial Management Services

LEWIS COUNTY

- Regional Flood District Formation
- Water and Wastewater Regional Utility Formation

LEWIS COUNTY SEWER DISTRICT #1

- Connection Charge Review
- Sewer Rate Study and Revenue Requirements Update

LONGVIEW

- Water and Sewer Rate and CFC Study
- Beacon Hill WSD Wheeling Rate Analysis
- Kelso Wheeling Rate Analysis
- Stormwater Rate Study

LYNNWOOD

- Water, Sewer and Stormwater Rate Study
- Stormwater Comprehensive Plan Update

MAPLE VALLEY

- Park Impact Fee Study
- Stormwater Rate Study

MERCER ISLAND

- Water Rate and Connection Charge Study

MILL CREEK

- Stormwater Rate Study

MOUNTLAKE TERRACE

- Stormwater Rate Study

MOUNT VERNON

- Surface Water Rate Study

MUKILTEO

- Stormwater Rate and GFC Study

- Surface Water Comprehensive Plan Financial Chapter

NEWCASTLE

- Infrastructure Maintenance Plan
- Stormwater Funding Analysis
- Stormwater Rate Study

NORTH BEND

- Wastewater Facility Plan and Rate Study
- Parks Impact Fee Study and Update
- Retail Water GFC Update and Wholesale Rate and GFC Development
- Stormwater Bond Parity Certificate and Utility Formation
- Water and Sewer Rate and GFC Study and Update

NORTH CITY WATER DISTRICT

- Water Cost-of-Service Analysis, GFC, Capital Investment Study and Update
- Management Advisory Services
- Special GFC Analysis

OCEAN SHORES

- Water System Financial Plan
- Ambulance Utility Cost of Service Analysis Update

OLYMPIA

- Evaluation of GFC Development Incentives
- Parks Impact Fee Study and Update
- Stormwater and Surface Water Rate Study
- Indirect Cost Allocation Plan
- Park Impact Fee Methodology Review
- Stormwater Rate Structure Review
- Park Impact Fee

PASCO

- Transportation Impact Fee

PIERCE CONSERVATION DISTRICT

- Rate Development Study and Update
- Billing Database Update and Maintenance

PIERCE COUNTY

- Stormwater Rate Study

PORT ANGELES

- Water, Wastewater and Solid Waste Rate Studies

PORT ORCHARD

- Stormwater Funding Analysis

PORT TOWNSEND

- Water and Sewer Rate and SDC Study

POULSBO

- Water and Sewer Rate Study
- Sewer Plan Financial Analysis

PUGET SOUND REGIONAL COUNCIL

- Regional Transportation Stormwater Retrofit Program

PUYALLUP

- Sanitary Sewer System Master Plan Financial Chapter
- Parks Impact Fee Study

REDMOND

- Business Case Analysis
- Stormwater Rate Study, Review and Update
- Water and Sewer Rate and GFC Study
- Water and Wastewater Cost-of-Service Analysis

RENTON

- Water, Wastewater and Surface Water Comprehensive Rate Study and SDC Studies

RICHLAND

- Transportation Plan
- Water Plan Financial Analysis and Rate Study

RIDGEFIELD

- Water and Stormwater Rate and SDC Study
- Transportation Benefit District Formation

SAMMAMISH

- Parks and Recreation Impact Fee Study Update
- Stormwater Rate Study
- Transportation and Park Impact Fee Study
- Stormwater Rate Study

SAMMAMISH PLATEAU WATER AND SEWER DISTRICT

- Financial Consulting

SAN JUAN COUNTY

- Stormwater Utility Formation Planning

SEATAC

- Stormwater Funding Analysis
- Stormwater Rate Study

SEATTLE NORTHWEST SECURITIES

- Bel-Red Corridor Financial Strategy

SEATTLE PUBLIC UTILITIES

- Conceptual Development
- Outreach Program
- Utility Connection Charge Study
- SDC Consulting Support

PORT OF SEATTLE

- Stormwater Utility Support and Rate Update

SHORELINE

- Boeing Creek Funding Evaluation
- Stormwater Master Plan
- Wastewater Rate and GFC Studies

SKAGIT COUNTY

- Drainage Utility Study
- Flood Control Zone District (FCZD) Formation
- Funding Options Analysis
- Surface Water Consulting (On-call)

SKAMANIA COUNTY

- Economic Development Council Grant Applications

SNOHOMISH

- Water and Sewer Connection Fee and Capital Facility Charge Update

SNOHOMISH CONSERVATION DISTRICT

- Rate Development Study

SNOHOMISH COUNTY

- Stormwater Rate Study
- Regional Detention Funding Analysis

SNOQUALMIE

- Water, Sewer and Stormwater Revenue Update

- Water, Sewer and Stormwater Rate and GFC Study
- Stormwater Comprehensive Plan Financial Chapter

SEQUIM

- Water and Sewer Rate and GFC Study

SHELTON

- ICAP Update
- Stormwater Revenue Requirement forecast
- Sewer Financial Plan

SPOKANE

- Stormwater Rate Study

SPOKANE VALLEY

- Stormwater Plan and Rate Study

STANWOOD

- Water and Wastewater Master Plan Updates and Drain Utility Rate Study

SULTAN

- Solid Waste Rate Study
- Wastewater Rate Study

SUMNER

- Golf Course Sale Impacts Analysis
- Stormwater Capital Facilities Charge (CFC) Study
- Stormwater SDC Options Analysis
- Water, Sewer and Stormwater Rate Study, Evaluation and SDC Update
- Staffing Survey

TACOMA

- Water Cost of Service Rates
- Economic Development Fee Analysis
- Ecology Stormwater Rate Structure Alternatives

THURSTON CONSERVATION DISTRICT

- Rate Development Study

TUKWILA

- Parks Impact Fee Review
- Stormwater Funding Analysis

TUMWATER

- Stormwater Comprehensive Plan
- ERR Fee Model Review and Update

UNION HILL WATER ASSOCIATION

- Water System Plan Financial Analysis Element
- Revenue Requirement Update and Rate Structure Evaluation

UNIVERSITY PLACE

- Transportation Impact Fee Study

VANCOUVER

- Traffic Impact Fee Update
- Water, Sewer, Storm Drainage and Stormwater Rate Studies and Updates

WALLA WALLA

- Stormwater Rate Equity Study
- General Sewer Plan Financial Program
- Sanitation Level of Service Study
- Transportation Impact Fee Study
- Water and Wastewater Rate and Capital Facility Charge (CFC) Studies
- Water and Wastewater Rate Study
- Low-Income Utility Rate Discount Policy Evaluation
- Ambulance Utility Cost of Service and Rate Update
- Wholesale Water Rate Analysis
- Water, Sewer and Stormwater COSA and CFC Study
- Ambulance Utility Rate Review

WALLA WALLA CONSERVATION DISTRICT

- Rate Development

WASHINGTON STATE JOINT TRANSPORTATION COMMISSION

- Joint Transportation SDC Update
- Stormwater Cost Recovery for Cities

WASHOUGAL

- Stormwater Rate Study
- Water and Wastewater Rate and Charge Study

WENATCHEE

- ERU Analysis

- Water, Sewer and Stormwater Rate and Financial Study

WHATCOM COUNTY

- Birch Bay Stormwater Funding Analysis
- Whatcom County/Birch Bay Stormwater Master Plan

WOODINVILLE

- Surface Water Rate Study

WOODINVILLE WATER DISTRICT

- Asset Management Services

WOODLAND

- Water, Sewer and Solid Waste Rate Study

YARROW POINT

- Stormwater Utility Formation Workshops
- Stormwater Rate Design/Committee Facilitation

YELM

- City Finance Technical Advisor Services
- Nisqually Tribe Sewer Treatment Cost-of-Service Analysis

Oregon

ASHLAND

- Transportation SDC Study
- Stormwater Master Plan Update

ASTORIA

- Wastewater Treatment Plant Facilities Plan Financial Chapter

AUMSVILLE

- Utility Rate Design Advisory Services

BAKER CITY

- Special SDC Workshop

BEAVERTON

- South Cooper Mountain Transportation System Development Charge Analysis

BEND

- Water, Wastewater and Stormwater Rates
- Special Transportation Funding Support
- Water and Sewer SDC Study

- Sewer Financial Plan Model
- Extra Strength Surchage Analysis
- Transportation SDCs
- Integrated Water Plan Financial Analysis
- Water Utility Rate Model

BENTON COUNTY

- Parks Funding Plan

CANBY

- Parks SDC Study
- Transportation SDC Study
- Special SDC Consulting

CANNON BEACH

- Water, Sewer and Stormwater SDCs

CENTRAL POINT

- Public Works and Planning Fee Study
- Special Wholesale Water SDC Methodology Review
- Stormwater Rate Study Update
- Transportation SDC Survey and Utility Formation Study
- Water Rate Study and Revenue Requirement Update
- Water, Stormwater, Transportation and Parks SDC Study and Stormwater Utility Formation

CHEHALEM PARKS AND RECREATION DISTRICT

- Parks SDC Study

CLACKAMAS COUNTY

- Economic Landscape Phase 3
- Economic Landscape Study
- Fuller Road Transit Oriented Development Study
- Happy Valley Joint Transportation SDC Update
- Transportation Utility Formation Study, Update and Public Outreach

CLACKAMAS RIVER WATER

- Water Rate Analysis

CLARK COUNTY

- Whipple Creek Funding Analysis

CLATSKANIE

- Goal 9 Economic Opportunities Analysis Update

COBURG

- Sewer, Stormwater, Transportation and Parks SDC Study
- Water and Wastewater Rate Study

COLUMBIA COUNTY

- Transportation and Parks SDC Feasibility Study

COOS BAY

- Sewer, Stormwater, Flood, Transportation and Parks SDC Evaluation

COOS BAY-NORTH BEND WATER BOARD

- Water SDC Methodology and Report

CORNELIUS

- Parks SDC Update
- Water, Wastewater and Stormwater Rate and SDC Study and Update

CORVALLIS

- Downtown Core SDC Evaluation
- Intermediate SDC Review
- Stormwater SDC Study
- Park SDC Study
- Transportation SDC Update

COTTAGE GROVE

- Water, Wastewater and Stormwater Rate Study Update
- Utility Rate and SDC Study

CRESWELL

- Water Rate Study Update

CRYSTAL SPRINGS WATER DISTRICT

- Water Rate Study and SDC Update

DEPOE BAY

- Water and Sewer Rate and SDC Study

DESCHUTES COUNTY

- Transportation SDC Study

EAGLE POINT

- Water, Transportation, Parks and Stormwater Rate and SDC Study and Update

FALLS CITY

- Transportation System Plan Funding Strategy and Transportation SDC Update

FOREST GROVE

- Water Rate and SDC Study and Update

GLADSTONE

- Stormwater SDC Study
- Park SDC Study
- Water Rate Study and Stormwater Utility Formation
- Transportation SDC Study
- Sewer Master Plan
- Water SDC Update

GLENEDEN SANITARY DISTRICT

- Sewer SDC Study

GOVERNMENT CAMP SANITARY DISTRICT

- Issues Review

GRANITE FALLS

- Water and Sewer COSA Rate and GFC Study

GRANTS PASS

- Water, Sewer and Stormwater Rate and SDC Study
- Water Revenue Requirement Study

GRESHAM

- DES Financial Analysis
- Stormwater Bond Feasibility Study

HAPPY VALLEY

- Sewer and Stormwater Feasibility Evaluation
- Economic Opportunities Analysis
- Clackamas County Joint Transportation SDC Update
- Transportation Utility Formation
- Transportation Utility Fee Implementation Study
- On-Call Consulting Services
- Community Center Feasibility Study

HERMISTON

- Water, Wastewater, Parks and Transportation SDC Study

HILLSBORO

- Large Water User SDC Payment Alternatives
- Water Rate and SDC Study
- Stormwater Master Plan

HOOD RIVER

- Water, Sewer and Stormwater Rate and SDC Study

HUBBARD

- Transportation System Plan Funding Strategy and Transportation SDC Update

JACKSON COUNTY

- Transportation and Parks SDC Study

JACKSONVILLE

- Transportation and Parks SDC Studies

JUNCTION CITY

- Park SDC Advice

KEIZER

- Stormwater Utility Formation
- Water Rate Study and Update Assistance

KLAMATH COUNTY

- Transportation, Storm Drainage and Parks SDC Study

KLAMATH FALLS

- Transportation SDC Study
- Stormwater Financial Plan

LAFAYETTE

- Parks SDC Capital Facilities Plan Update

LAKE OSWEGO

- Planning Work (On-call)
- Population Baseline Forecast
- Sewer Utility Financial Plan and Rate Review
- Water Cost-of-Service Analysis, SDC Study, Rate Study and Update
- Parks and Recreation District SDC Analysis

LANE COUNTY

- Stormwater Utility Feasibility Study
- Transportation and Parks SDC Study
- Stormwater Utility Formation

LA PINE

- Large Customer Connection Analysis
- Water and Wastewater Rate and SDC Study

MADRAS

- Wastewater Rate and SDC Study
- Water Rate and SDC Study
- Transportation Utility Formation
- Transportation SDC Study

MAMMOTH COMMUNITY WATER DISTRICT

- Connection Fee Ongoing Support Services

MCMINNVILLE WATER AND LIGHT

- Water SDC Study

MEDFORD

- Water, Sewer, Stormwater, Transportation, Parks and Public Safety Rate Benchmarking Study
- Sewer, Stormwater and Street Rate Study
- Leisure Services Plan and System Development Charges
- Street SDC Credit Policy Special Evaluation
- Sewer, Stormwater and Transportation Rate Design Study
- Storm Drain Master Plan
- Wastewater Treatment Rate Study
- Street, Sewer, Stormwater and Parks Rate and SDC Study

METRO PLANNING

- Infrastructure Analysis Work Session
- Regional Infrastructure Planning Study and Update

METROPOLITAN LAND GROUP

- North Bethany Transportation Funding Strategy

MILWAUKIE

- Transportation Maintenance Fee Public Process
- Wastewater Rate and Water, Wastewater and

Stormwater SDC Studies and Update

- Stormwater SDC and Rate Study
- Wastewater System Master Plan

MONMOUTH

- Parks SDC Study
- Transportation SDC Update
- Western Oregon University SDC
- Stormwater Rate Study
- Stormwater Utility Formation

MOSIER

- Parks SDC Study
- Water Rate Study Update and SDC Study

MT. ANGEL

- Sewer Rate and SDC Study
- Stormwater SDC Study

NEWBERG

- Transportation SDC Study
- Street Utility Formation

NEWPORT

- Water, Sewer and Stormwater Rate Study
- Citywide Cost Allocation Plan and User Fee Study

NORTH CLACKAMAS PARKS AND RECREATION DISTRICT

- Parks SDC Methodology Update

OREGON CITY

- Transportation SDC Study
- Police Utility Fee Analysis
- Pavement Maintenance Utility Fee Update
- SDC Forum
- Parks Utility Fee Framework
- Transportation Utility Formation Study, Maintenance Fee Public Process and SDC Study
- Sewer Rate and SDC Study
- Water Rate Study and SDC Update
- SDC Code Review
- Stormwater Rate and SDC Study
- Rate and SDC Benchmarking Study

OREGON DEPARTMENT OF HOUSING AND COMMUNITY SERVICES

- SDC Study

PHOENIX

- Water, Parks, Stormwater System and Transportation SDC Studies

PORT OF ST. HELENS

- Strategic Plan

PORTLAND

- Parks SDC Comparison Chart and Index Update
- Portland Area Regional Employment Study

PREMIER WEST BANK

- Shady Cove Waterworks Valuation
- Rate Model Training

PRINEVILLE

- SDC Work Session #1
- Joint Recreation and Parks Master Plan

RAINIER

- Wastewater Rate Study Update

RALEIGH WATER DISTRICT

- Water SDC and Revenue Requirements Study

REDMOND

- Stormwater Utility Formation and Implementation Support
- Transportation System Plan Financial Section
- Water and Sewer Rate Studies and Update
- Parks SDC Study

REEDSPORT

- Downtown and Riverfront Plan

ROSEBURG

- Transportation SDC Comparison and Update

SALEM

- Park SDC Study

SANDY

- Transportation and Parks SDC Update

- Wastewater Rate and SDC Study

SHERWOOD

- Park SDC Methodology Update

SILVERTON

- Transportation SDC Update

SISTERS

- Water and Sewer Rate Study

SCAPPOOSE

- Wastewater Rate Study

SEASIDE

- Water Rate, Wastewater and Parks SDC Studies

SHADY COVE

- Wastewater, Stormwater, Transportation, Parks SDC Studies and Review

SHERWOOD

- Transportation SDC and Street Fee Study
- Transportation Plan Funding SDC Study and Update
- Stormwater and Wastewater Rate and SDC Studies
- Water Rate and SDC Study and Financial Chapter
- Parks SDC Methodology Update

SILVERTON

- Water, Wastewater and Transportation SDC Study and Update

ST HELENS

- Water, Sanitary Sewer, Storm Sewer, Transportation and Parks SDC Studies and Updates

SUNRISE WATER AUTHORITY

- Water SDC Update

TALENT

- Stormwater, Transportation and Parks SDC Study

THE DALLES

- Wastewater Rate and SDC Study
- Wastewater Financial Plan

TIGARD

- River Terrace Community Plan

- Parks and Transportation SDC Studies and Advice
- Infrastructure Financing Services
- Stormwater Rate and SDC Study
- Water Cost of Service Analysis
- Water SDC Study

TILLAMOOK

- Stormwater SDC Study
- Water SDC Study

TROUTDALE

- Water, Sewer and Stormwater Rate and SDC Study
- Local Gas Tax Revenue Analysis
- Water, Sewer, Stormwater Rate and SDC Updates

TUALATIN HILLS PARKS AND RECREATION DISTRICT

- Parks System Development Charge Update
- Aging Facilities Assessment Tool
- Park SDC Consulting and Index Adjustment

TUALATIN

- Water Rate and SDC Study with Water Master Plan and Financial Element
- Southwest Tualatin Master Plan Implementation

UMATILLA

- Water, Wastewater and Parks Rate Study

VENETA

- Transportation SDC Study
- Wastewater Rates and SDC Study
- Water Rate and SDC Study and Update
- Parks SDC Study

VERNONIA

- Wastewater Rate Study

WARRENTON

- Water and Wastewater Rate Study
- Fort Stevens State Park Wastewater Cost Analysis
- Street, Water, Wastewater, Parks, Storm Drainage SDC Methodology Review and Public Process
- Parks and Stormwater SDC Assistance

WASHINGTON COUNTY

- Transportation Impact Fee Study

WEST LINN

- Water, Stormwater and Transportation SDC Updates
- Transportation SDC Study
- Sewer, Storm and Parks SDC Update

WILLAMALANE PARKS AND RECREATION DISTRICT

- Parks SDC Annual Adjustment Index
- SDC Index Update

WILSONVILLE

- Street System Development Charge Update
- Goal 9 Study
- Water and Sewer Rate and SDC Study

WOODBURN

- Transportation Impact Fee Study
- Water Rate and SDC Study

WOOD VILLAGE

- Transportation Utility Formation

YACHATS

- Water, Wastewater and Storm Drainage SDC Studies

California

LOS GATOS

- Transportation Impact Fee Update

MAMMOTH COMMUNITY WATER DISTRICT

- Connection Fee Ongoing Support Services
- Study to Determine Revised Water and Wastewater Connection Fees

SACRAMENTO

- Cost-of-Service Analysis and Utility Rate Study
- Stormwater Rate Model Development
- Storm Drainage Rate Structure Review

SAN JOSE

- Connection Fee Study

Montana

BILLINGS

- Stormwater rate study

MISSOULA

- Water, Sewer and Stormwater Rate Study

Arizona

SURPRISE

- Stormwater Utility Formation

Alaska

KETCHIKAN

- Preliminary Stormwater Financial Services

KETCHIKAN PUBLIC UTILITIES

- Water and Wastewater and Storm Drain Cost Allocation and Rate Design Study

Idaho

BOISE

- Wastewater Cost of Service Analysis and Rate Study

COEUR D'ALENE

- Stormwater Utility Formation
- Stormwater Rate Study

LEWISTON

- Stormwater Utility Consulting
- Water, Wastewater and Sanitation Rate and Capacity Fee Study
- Water CIP Analysis & Update
- Water and Wastewater Equity Buy-In Fee Study
- Utility Rates and Charges Litigation Support

MERIDIAN

- Connection Charge Evaluation
- Water and Sewer COSA Rate Study

NAMPA

- Water Rate Study
- Wastewater Hookup Fee Update
- Wastewater Special Industrial Rate Estimate

- Stormwater Utility Formation, Technical Support and Rate Study
- Wastewater Funding Options Study
- Wastewater Cost-of-Service Analysis and Rate Study
- Capacity Optimization Fee Economic Analysis
- TASCO Scenario Development
- Water and Wastewater Impact Fee Analysis
- Water Rate Update
- Wastewater Rate Model Dashboard

POST FALLS

- Financial Plan and Capacity Fee Update

Nevada

SPARKS

- Financial Rate Study for Sanitary, Storm and Effluent Sewer System

WASHOE COUNTY

- Stormwater Utility Formation
- Truckee River Flood Area Funding Study

Colorado

PUEBLO

- Stormwater Rate Study

Canada

CALGARY, AB

- Water, Wastewater and Storm Drainage Cost-of-Service Analysis

SASKATOON, SK

- Data Needs Review
- Wastewater Cost-of-Service Analysis

Federal Government

UNITED STATES ARMY CORPS OF ENGINEERS (CA)

- Tahoe Basin Sewer Cost-of-Service Report Peer Review

PUBLICATIONS/SEMINARS/SPEAKING ENGAGEMENTS

- *Solutions to Stormwater Rate Challenges*, Montana Stormwater Conference, May 2022

- *System Development Charges 101*, League of Oregon Cities Spring Conference, April 2022
- *Rate Design Strategies*, Oregon Municipal Finance Officers Association, March 2021
- *System Development Charges: Understanding the Legal & Technical Requirements*, League of Oregon Cities SDC Workgroup, October 2020
- *Park Impact Fee Basics*, Washington Recreation and Parks Association Funding Options for Parks Forum, February 2020
- *System Development Charges Overview*, League of Oregon Cities, June 2019
- *General Facilities Charges*, Infrastructure Assistance Coordinating Council, October 2018
- *System Development Charges: Understanding the Legal and Technical Requirements*, Oregon City Attorneys Association, September 2018
- *Solutions to Stormwater Rate Challenges*, American Public Works Association Spring Conference, April 2017
- *Solutions to Stormwater Rate Challenges*, Washington Finance Officers Association, September 2016
- *System Development Charges*, League of Oregon Cities Training Seminars, 2012-2016
- *Cap Fee Basics and Legal Update*, Association of Idaho Cities, June 2016
- *Rate and Charge Setting: A Conservation District 'How to'*, Washington Association of Conservation Districts, November 2015
- *Managing Financial Risk and Declining Water Sales*, Pacific Northwest Section – American Water Works Association, May 2015
- *Trip-Based Stormwater Rates*, American Public Works Association Oregon Chapter, October 2014
- *Water System Development Charges*, American Water Works Association Oregon Subsection Waterworks School, June 2014
- *Managing Financial Risk and Declining Water Sales*, Washington Finance Officers Association Training Series, April 2014
- *Rate Study Basics*, Washington Finance Officers Association Training Series, April 2014
- *Building a Solid System Development Charge Methodology*, League of Oregon Cities “Local Focus,” July 2013
- *Managing Financial Risk and Declining Water Demand*, Pacific Northwest Section American Water Works Association, May 2013
- *Connection Charges*, Washington Association of Sewer and Water Districts, April 2013
- *Managing Financial Risk and Declining Water Demand*, Washington Finance Officers Association Annual Conference, September 2012
- *Managing Financial Risk and Declining Water Demand*, Washington Association of Sewer & Water Districts Spring Conference, April 2012
- *Managing Financial Risk and Declining Water Sales*, Cascade Water Alliance Regional Water Supply Forum, November 2011
- *Transportation Benefit District Formation*, Washington Finance Officers Association Annual Conference, 2011
- *Local Transportation Funding Options*, Washington Finance Officers Association Annual Conference, 2011
- *Models for Regional and Multi-Jurisdictional Transportation Impact Fees*, National Impact Fee Roundtable Annual Conference, November 6, 2009
- *Fiscal Health During Hard Economic Times*; Washington Association of Sewer and Water Districts (WASWD) Workshop, SeaTac, WA, May 2009
- *Funding Infrastructure Locally: Rates v. System Development Charges v. Impact Fees v. Taxes*, Lorman Education Services Seminar on Approval & Funding of Infrastructure in Washington, May 9, 2008
- *Structuring General Facilities Charges to Meet Redevelopment Objectives*, Washington Finance Officers Association Annual Conference, September 2007
- *Funding Ongoing Stormwater Programs*, Washington Finance Officers Association Annual Conference, September 14, 2006
- *Recovering the Cost of Infrastructure from Growth: Connection Charges & Impact Fees*, Washington Finance Officers Association Annual Conference, September 14, 2005
- *System Development Charges*, Statewide Training Series, League of Oregon Cities, 2005
- *Recovering the Cost of Infrastructure from Growth: Connection Charges & Impact Fees*, Washington Finance Officers Association Annual Conference, September 14, 2005
- “Seven Tips for Building a Successful System Development Charge”, League of Oregon Cities Local Focus, February 2005
- “Transportation Utility Fee – Oregon Experience”, Transportation Research Record/Journal of the Transportation Research Board, No. 1895, TRB, National Research Council, Washington DC, 2004
- *System Development Charges*, Pacific Northwest Clean Water Association Fall Conference, September 6, 2004
- *Utility Connection Charges*, Washington Finance Officers Association Annual Conference, September 18, 2003 and 2001

- *System Development Charges*, Oregon Chapter APWA Conference, Sun River, Oregon, April 5, 2001
- *Storm/Surface Water Utilities*, Washington Finance Officers Association Annual Conference, September 22, 1999
- *Conservation Rate Setting*, AWWA Water Works School Session, Clackamas, OR, June 1999
- *System Development Charges*, AWWA Water Works School Session, Clackamas, OR, June 1999
- *Growth Paying for Itself in Stormwater Facilities: Fact or Fiction?* (Washington & Oregon), Surface Water Conference, Bend, OR, April 1998
- *SDCs – Conflicts and Controversy*, Oregon Government Finance Officers' Association, Northwest Government Finance Institute, Portland, OR, November 1997
- *Ratemaking: A Level-of-Service Approach*, Washington Finance Officers Association Conference, Pasco, WA, September 1995
- *Funding Packages for Stormwater*, Second Annual Surface Water Conference, Bend, OR, March 1994
- *Emergency Rate Surcharges in Drought Conditions*, CONSERV93 Conference, Las Vegas, NV, December 1993
- *Utility Connection Charges and Growth*, Pacific Northwest Pollution Control Association, 58th Annual Conference, Portland, OR, November 1991

Zech Hazel
Senior Analyst



FCS GROUP

Zech Hazel is an FCS GROUP senior analyst with experience in data collection, research, spreadsheet modeling and analysis for economic studies and rate development for water, sewer and stormwater utilities.

Zech has assisted clients throughout the Pacific Northwest with housing needs analysis, economic impacts, revenue requirement and cost-of-service studies, multi-year financial planning, and connection fee development. He has performed in-depth analysis of program financial conditions and prepared reports detailing the results. Project experience includes the following.

Washington

ISLAND COUNTY

- Economic Development Study

KLICKITAT COUNTY

- Buildable Lands Inventory
- Housing Needs Analysis

LAKE WHATCOM WATER SEWER DISTRICT

- Water and Sewer GFC Study

MASON COUNTY PUD

- Electric Cost of Service Study

POULSBO

- Sewer Plan Update

RIDGEFIELD

- Discovery Corridor Economic Vision

SCHWABE

- Columbia River System Operations Economic Impact Study

SHORELINE

- Development Impact Analysis

EDUCATION

- BA, Mathematics, Willamette University

CAREER SUMMARY

- Joined FCS GROUP in 2019

EXPERTISE

- Rate Study Development (Water, Sewer, Stormwater)
- Data Collection and Research
- Financial Consulting

CONTACT

- ZechariahH@fcsgroup.com
(503) 374-0688

SPOKANE

- Stormwater Rate Study

SULTAN

- Water, Sewer and Stormwater Rate, and GFC Study

THURSTON COUNTY

- Water and Sewer Rate Study

VANCOUVER

- Water, Sewer and Stormwater Rate Study

WALLA WALLA

- Housing Action Plan

Oregon

ALBANY

- Parks Master Plan Update
- Park SDC Methodology

ASHLAND

- Stormwater and Drainage Financial Study

BANKS

- Water, Parks and Transportation SDC Study

Boardman

- Water, Wastewater, Streets, and Parks SDCs

Canby

- Economic Opportunities Analysis

CANNON BEACH

- Water, Sewer and Stormwater SDCs

CENTRAL POINT

- Streets, Parks, Stormwater and Water Rate Update

COBURG

- Water and Sewer Rate Study

CORVALLIS

- Park SDC Study
- Transportation SDC Study

COTTAGE GROVE

- Water, Sewer and Stormwater Rate Study

DALLAS

- Housing Needs Analysis

DEPOE BAY

- Water and Sewer Rate and SDC Study

FOREST GROVE

- Housing Needs Analysis
- Westside UGA Study

GRANTS PASS

- Water, Wastewater and Stormwater Rates and SDCs
- Housing Needs Technical Assistance

HAPPY VALLEY

- 164th Ave Funding Study
- Rock Creek Employment Center Infrastructure Plan

HELENA

- Water and Sewer Rates and SDCs

HERMISTON

- Water, Wastewater, Parks and Transportation SDC Study

KLAMATH FALLS

- Stormwater Financial Plan

LA GRANDE

- Housing Needs Analysis

LAKE GROVE WATER DISTRICT

- Water Rate Study

LEBANON

- Housing Needs Analysis

MEDFORD

- Wastewater Rate Study
- Street, Sewer, Stormwater and Parks Rate and SDC Study

MILWAUKIE

- Wastewater System Master Plan

MOSIER

- Water and Sewer Rate and SDC Study

NORTH CLACKAMAS PARKS AND RECREATION DISTRICT

- Parks SDC Update

NORTH PLAINS

- Transportation, Water and Parks SDCs and CET Fee Study

PENDLETON

- Housing Needs Analysis

PORT OF GARIBALDI

- Market Feasibility Study

PORT OF PORTLAND

- Metro Employment Land Site Readiness

PRINEVILLE

- Joint Recreation and Parks Master Plan

SANDY

- Utility Rate and Wastewater SDC Study
- Parks and Trails Plan SDC Update

ST. HELENS

- Housing Needs Analysis

TIGARD

- Water Cost of Service Analysis
- Stormwater Rate and SDC Study
- Water SDC Study

TILLAMOOK COUNTY

- Housing Needs Analysis

TUALATIN

- Water System Plan Financial Analysis

VENETA

- Transportation SDC Study
- Parks SDC Study

WEST LINN

- Sewer, Storm and Parks SDC Update

WOODBURN

- Housing Needs Analysis

**PUBLICATIONS/SEMINARS/SPEAKING
ENGAGEMENTS**

- Rate Setting for Infrastructure Funding, AWC Annual Conference, June 2022



SARAH KEENAN, PE, Transportation Engineer/Planner

Sarah's relevant expertise: Sarah brings eight years of experience in traffic operations and traffic design on a wide variety of projects. Sarah's expertise is in travel demand modeling and traffic impact fee reports. She not only works with model outputs but can modify and run travel demand models to reflect project conditions. She has experience with the City of Federal Way, WSDOT, King County, Pierce County, City of Bothell, and City of Kirkland. Sarah's software expertise lies in Emme, Vissim, Dynameq, Synchro/SimTraffic, Sidra, Visum, and ArcGIS.

Registrations:
Washington Civil
Professional Engineer
No. 56272

Education: BS Civil
Engineering,
Northeastern
University 2013

Years of experience: 8

Unique Qualifications:

- Traffic Operations Analysis
- Traffic Impact Fee
- Signal Design
- Illumination Design

Federal Way Transportation Impact Fee Update, WA. Sarah was the project manager for the Transportation Impact Fee Update for the City of Federal Way. She worked closely with City of Federal Way staff to determine a list of eligible projects and estimate the number of new vehicle trips in the City. Sarah wrote a report summarizing the findings. She presented the methodology and results to Federal Way City Council and Transportation Committee.

Mercer Island Traffic Impact Fee Study, WA. Sarah worked closely with the City of Mercer Island staff to develop a new traffic impact fee program. Sarah developed the list of eligible projects and used the travel demand model to estimate new vehicle trips in the City. She developed a reasonable fee for developers to pay into the traffic impact program and wrote a report summarizing findings. Sarah presented their findings to City Council.

Kenmore Traffic Impact Fee Study, WA. Sarah assisted the City of Kenmore staff update the traffic impact fee and concurrency program. Sarah developed a project list and a reasonable fee for developers to pay into the transportation impact fee fund. Sarah created a way for the

City to track concurrency using Microsoft Excel. Concurrency is tracked in the spreadsheet based on City projects that add capacity and development that takes that capacity.

WSDOT SR 526 Corridor Improvements, WA. Sarah was the lead traffic engineer for the SR 526 Corridor Improvements project, studying potential improvements to reduce congestion along the SR 526 Corridor. The route is the primary connection for Boeing to I-5. Sarah ran alternatives in the Emme travel demand model and post-processed traffic volumes to run a Dynamic Traffic Assignment model in Dynameq. She analyzed alternatives in Dynameq at a high level and evaluated several alternatives in detail using a micro-simulation Vissim model. The measures of effectiveness included travel time, throughput, impacts on freight, and freeway Level of Service. She regularly attended meetings with WSDOT and the City of Everett to present results and discuss the alternative evaluation.

Thank you for taking
the time to review
our qualifications.





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