

CITY OF
San Diego

**Industrial Waste Control Program
Cost Allocation Study and Model User
Guide**

Final Report / November 23, 2020

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Proposed Fee Summary

The City of San Diego (City) retained Raftelis to complete a comprehensive review and update its Industrial Waste Control Program (IWCP) fees. The Tables below summarize our analysis and present the proposed fees. Note that Table 1 Permit Fees are adjusted after the Enhanced Source Control Program's benefit is applied; see the Program Benefits section for details. The report details the methodology and assumptions used to calculate the proposed fees.

Table 1: Permit Fees (Adjusted for Program Benefits)

Program Task	Average Cost / Task
SIU - Standard	\$8,999
SIU - Complex	\$29,903
Non-SIU / Categorical Process	\$5,277
Enhanced Source Control	\$2,603

Table 2: Trucked Waste Fees

Program Task	Average Cost / Task
Base Permit (BP)	\$1,289
Self-Monitoring (SM) = BP + SM costs	\$2,598
High Strength Surcharges Billing (HSSB) = BP + SM + HSSB	\$3,271
Pre-arranged after-hours discharge request	\$107
Emergency after hours discharge fee	\$226

Table 3: Enforcement Fees

Program Task	Average Cost / Task
Initial Notice of Violation (NOV)	\$2,237
NOV Reissued	\$2,903
NOV significant non-compliance	\$4,355
NOV Preliminary	\$7,223
NOV Show Cause	\$11,121

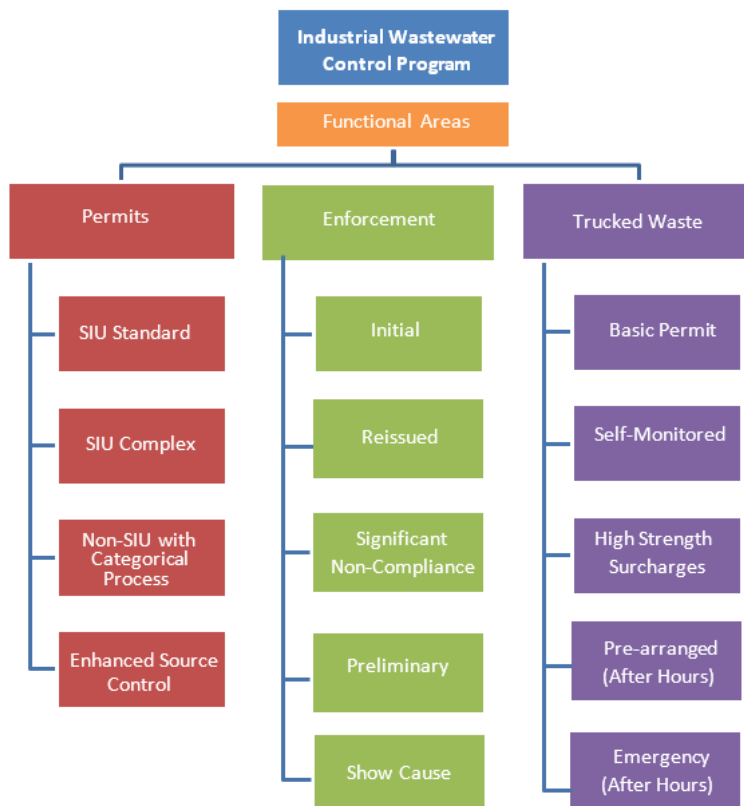
Introduction

The City of San Diego (City) retained Raftelis to complete a comprehensive review and update of their Industrial Waste Control Program (IWCP) fees. The study goals and objectives included:

- Developing a cost allocation methodology to equitably recover the cost of IWCP operations.
- With assistance from City Staff, assigning the level of effort based on staff positions to each permit type and enforcement action and
- Developing an Excel-based model which can be updated annually by staff incorporating the most recent salary and other budget information.

Raftelis developed these fees based on the City’s ‘top down’ approach. This process started with determining the total budgetary requirements (salaries/fringe and non-personnel expenses) for administering IWCP permits and enforcement. Next, City staff identified the primary functions of IWCP (Permits, Trucked Waste, and Violations) and determined the overall percentage of time for each functional area. The percentages were then broken down to hours of staff time. The hours were then distributed to each of the permits or violation notices within each functional area. The final step was to further allocate the hours to the specific job classifications involved in the permit or violation notice process. The functional areas and fees are illustrated in Figure 1 below.

Figure 1: Fee Allocation Overview



Raftelis developed an Excel-based model which allows the City to update all assumptions. This includes employee positions, number of full-time equivalents (FTEs) by position, direct labor rates, overheads and burdens. In addition, the model includes the ability to adjust the number of hours allocated to the three functional areas, as well as the various permits and violation notices within each functional area.

PROPOSITIONS 218 COMPLIANCE

In California, several constitutional laws such as Proposition 218, set the parameters under which the user fees are established and administered by local government agencies. While such laws do not necessarily require full cost recovery, the basis of a user fee program such as IWCP is to recover all or a portion of its costs associated with providing a service to a public individual or group when the service fully or partially benefits said individual or group; otherwise the fee could be considered a tax and subject to voter approval.

IWCP's cost recovery level is ultimately a decision that should be made by the Mayor and the City Council, in accordance with San Diego Municipal Code Section 64.0508, Council Policy 100-05, and Administrative Regulation 95.25.

RELIANCE ON CITY PROVIDED DATA

During this project, the City (and/or its representatives) provided Raftelis with a variety of technical information, including cost and revenue data. Raftelis did not independently assess or test for the accuracy of such data – historic or projected. Raftelis has relied on this data in the formulation of our findings and subsequent recommendations, as well as in the preparation of this report. Raftelis also relied on cost allocation data provided by the City needed to complete the cost-of-service analysis.

There are often differences between actual and projected data. Some of the assumptions used for projections in this report will not be realized, and unanticipated events and circumstances may occur. Therefore, there are likely to be differences between the data or results projected in this report and actual results achieved, and those differences may be material. As a result, Raftelis takes no responsibility for the accuracy of data or projections provided by or prepared on behalf of the Department, nor do we have any responsibility for updating this report for events occurring after the date of this report.

Program Background

The Public Utilities Department's (PUD) Industrial Wastewater Control Program (IWCP) represents a key element of the City of San Diego's (City) environmental management efforts. IWCP is a pretreatment and pollution prevention program intended to minimize toxic discharges to the metropolitan sewerage system. To that end, IWCP implements industrial wastewater discharge permitting, monitoring, and enforcement for the City and 11 other jurisdictions within the County of San Diego whose sewage is treated by the City's Point Loma and South Bay Wastewater Treatment Plants.

In general, IWCP's primary focus is to minimize toxic discharges to the sewerage system. The program consists of:

1. An industrial wastewater discharge permit system to establish industrial discharge limits and requirements;
2. Facility inspections and unannounced sampling;
3. Enforcement procedures to deter violations and bring noncompliant dischargers back into compliance with discharge standards and requirements; and
4. Industrial user guidance and permit conditions designed to encourage pollution prevention and waste minimization.

For the Cost Allocation Study, the IWCP was divided into three functional areas: Permits, Enforcement, and Trucked Waste.

PERMITS

The IWCP implements an industrial wastewater discharge permit system for the City of San Diego and 11 other Participating Agencies whose sewage is treated by the Point Loma Wastewater Treatment Plant and the South Bay Plant. The program regulates pollutant discharges into the metropolitan sewerage system from industrial facilities by issuing permits that establish enforceable pollutant limits and authorize civil and criminal penalties for discharge violations. They also establish sampling, reporting, record keeping, and notification requirements.

The Program generally defines a Significant Industrial User (SIU) in accordance with Federal regulations, as an Industrial User that:

- Is subject to federal categorical pretreatment standards under 40 Code of Federal Regulations (CFR) 403
- Any other industrial user that:
 - Discharges an average of 25,000 gallons per day or more of process wastewater to the publicly owned treatment works (POTW).
 - For groundwater remediation sites, the presence of free product or discharges >14,000 gpd have "reasonable potential" and are regulated as SIUs.

Fees developed under the Permits functional area include initial, renewal, and amended permits and are as follows:

- **SIU – Standard.**
- **SIU – Complex.** Typically includes production based, education campuses, hospitals, or facilities with 3 or more sewer connections.
- **Non-SIU / Categorical Process.** Class 2C, 3C, 4C, 2Z, 3Z, & 4Z facilities with a non-discharging categorical process.

- **Enhanced Source Control.** Includes non-SIU facilities that do not also have non-discharging categorical process and for which local requirements have been established or are required by the Pure Water NPDES permit adopted May 2020.

ENFORCEMENT

The IWCP has the primary objectives of bringing permittees into compliance with applicable Federal Pretreatment Standards and local limit requirements and controlling and reducing the discharge of industrial pollutants to the sewer. The Program has a broad range of enforcement mechanisms available, including the recovery of administrative and supplemental monitoring costs related to violation identification and processing; Notices of Violation; Compliance or Penalty Orders; publication of the annual List of SIUs in Significant Non-Compliance; and permit revocations and suspensions.

Fees developed under the Enforcement functional unit are described as:

- **Initial Notice of Violation.** The first Notice of Violation (NOV) issued by the Program for specific violations of discharge limits or requirements that have occurred. The NOV requires the permittee to take corrective actions. Subsequently, the discharger is invoiced for fees to cover costs associated with administering the NOV.
- **NOV Reissued.** When the Industrial User (IU) fails to adequately respond to a previously issued NOV, another NOV is issued, typically with a new due date for the response.
- **NOV Significant Non-Compliance.** SIUs exceeding applicable discharge limits or failing to meet reporting requirements, based on statistical criteria established by the US EPA and set forth at 40 CFR 403.8(f)(2)(viii) are noticed to identify the date of publication in the local newspaper.
- **NOV Preliminary.** If the violation(s) persists, the response may escalate to a compliance inspection and/or Preliminary Conference as described in the program's Enforcement Response Plan.
- **NOV Show Cause.** A Show Cause Hearing may be appropriate when the IU violates an ordinance provision, permit condition, or Compliance Order which warrants permit revocation. An NOV shall require the IU to attend a hearing before the Program Manager to "show cause" why the IU Discharge Permit should not be suspended or revoked.

TRUCKED WASTE

Industrial and domestic trucked wastes originate from sources such as landfill leachate/condensate, dewatering of grease trap wastes, ship maintenance and repair, private treatment system sludge disposal, portable toilets, sewage holding tanks, and septic tanks. All truckloads are logged at the pump station and monthly billings are prepared by program staff.

Fees developed under the Trucked Waste functional unit are described as:

- **Base Permit (BP).** Permit issued to trucking companies registered with the program to provide hauling services for trucked wastes discharged to the City sewer dumpsite. Includes the costs of drafting and issuing the permit and performing the monthly load billing.
- **Self-Monitoring (SM).** Permit includes base permit costs plus those associated with the self-monitoring requirements established by the permit.
- **High Strength Surcharge Billing (HSSB).** Permit includes base permit costs and those associated with the self-monitoring requirements, plus the additional costs to bill for the high-strength waste stream.

- **Pre-arranged after-hours discharge fee.** A fee per discharge for processing discharges made outside of the normal open hours and **with** advance notice to subsequently enter the discharge event into the data system.
- **Emergency after hours discharge fee.** A fee per discharge for processing discharges made outside of the normal open hours and **without** advance notice to subsequently enter the discharge event into the data system.

Cost Allocation Fee Methodology

Raftelis used the City’s “top down” approach, focusing on three functional areas of the Program based on the amount of FTE level of effort required for each fee within the functional areas. In addition to distributing costs to the functional areas, the costs are then distributed to permit and violation fees based on time or instances the tasks have been performed historically. Raftelis used FY 2020 values throughout the report and user guide for illustrative purposes only and those values will vary annually based on the level of effort in each fee area function. Raftelis used the following approach in allocating the IWCP department costs.

- Determine the overall level of effort required to administer the functional area permit and violation fees
- Allocate hours to functional areas
- Allocate hours to fees within each functional area
- Determine number of instances for each permit and violation
- Calculate unit cost for each fee
- Adjust level of effort to ensure total costs for the entire program match total budget

DEVELOPMENT OF FY20 FEES

Table 4 reflects the full Fiscal Year (FY) 2020 budget for IWCP (Fund Center 2000161211) of \$3,971,596 including all personal expenses (PE) and non-personal expenses (NPE). Additionally, approximately five percent or \$380,466 of the Environmental Chemistry Services (ECS) budget (Fund Center 2000161611) helps support the IWCP.

Table 4: Budget for IWCP Functions

Budget	PE	NPE	Total
IWCP Budget	\$3,573,190	\$398,406	\$3,971,596
ECS Budget supporting IWCP	303,900	76,566	380,466
Total	\$3,877,090	\$474,972	\$4,352,062

The budgeted costs were then split into four categories across the three functional areas.

- **Direct Costs:** As the largest component of the IWCP budget, the direct costs reflect the salary and fringe costs based on estimated labor hours by job classification, which are further allocated to each of the permit and violation fees within the three functional areas.
- **Sampling Group and NPE Costs:** An additional component of the IWCP budget, the sampling group includes the salary and fringe cost for IWCP’s Chemists and Lab Technicians, and all material (NPE costs) for the program. The sampling group costs are allocated at the functional level only (no allocation of labor hours), based on the level of support provided to each of the three functions. There is one exception in the

Trucked Waste function. The costs for the sampling group allocation were reduced to offset the 39 hours of Lab Tech support (Sampling Group personnel) that is being captured as a direct cost in the Trucked Waste Pre-Planned and Emergency after hour sub-functions.

- **Program Manager Costs:** The smallest component of the IWCP budget, the Program Manager (Position Number 2270) costs are also allocated only at the functional level. Costs were distributed evenly across each IWCP function to recognize the position’s overall need to provide leadership and strategy to all areas of the program.
- **ECS:** In addition to the IWCP budget, five percent of the ECS budget is also included in the IWCP cost recovery study. The five percent allocation of the ECS budget was derived based on sample counts performed for IWCP in FY 2019. Similar to the Sampling Group costs, ECS costs are also allocated at the functional level only, based on the level of support provided to each function.

Table 5 shows the percent allocation of time and Table 6 shows the detailed cost breakout across the categories and functions, respectively. The allocations based on hours should be reviewed each year to ensure that costs are distributed accurately.

Table 5: IWCP Function Allocations

IWCP Functions	Direct Costs	Sampling Group and NPE	Program Manager	ECS
Permit Fees	76%	75%	33%	75%
Trucked Waste	6%	20%	33%	20%
Enforcement	18%	5%	33%	5%
Total	100%	100%	100%	100%

Table 6: IWCP Cost Allocations

IWCP Functions	Direct Costs	Sampling Group	Program Manager	ECS	Total
Permit Fees	\$2,189,361	\$833,856	\$63,410	\$285,350	\$3,371,977
Trucked Waste	\$158,883	\$214,926	\$63,410	\$76,093	\$513,312
Enforcement	\$526,576	\$55,590	\$63,410	\$19,023	\$664,599
Total	\$2,874,820	\$1,104,372	\$190,230	\$380,466	\$4,549,888

The approach does provide a variance between IWCP costs and budget, as shown below in Table 7. The variance is less than five percent and is attributable to differences between Salary/Fringe amounts in the budget for IWCP and ECS, compared to the calculated Salary/Fringe costs which are based on estimated labor hours for each job classification, as used in the Cost Allocation Model. This variance is within an acceptable range based on the City’s input.

Table 7: Comparison of IWCP Costs and Budget

IWCP Estimated Costs	\$4,549,888
IWCP + ECS budget	<u>(\$4,352,062)</u>
Variance	\$197,826

The fees presented in Tables 8 through 10 are full-cost user fees. The fees cover monitoring of significant industrial users (SIU) and non SIUs that are categorized to have significant strength loadings on the wastewater system. The fees do not take into consideration the benefits to the average wastewater customer – which are discussed in the Program Benefits section.

Table 8: Permit Fees

Program Task	Average Cost / Task
SIU - Standard	\$14,577
SIU - Complex	\$47,257
Non-SIU / Categorical Process	\$8,531
Enhanced Source Control	\$4,338

Table 9: Trucked Waste Fees

Program Task	Average Cost / Task
Base Permit (BP)	\$1,289
Self-Monitoring (SM) = BP + SM costs	\$2,598
High Strength Surcharges Billing (HSSB) = BP + SM + HSSB	\$3,271
Pre-arranged after-hours discharge request	\$107
Emergency after hours discharge fee	\$226

Table 10: Enforcement Fees

Program Task	Average Cost / Task
Initial Notice of Violation (NOV)	\$2,237
NOV Reissued	\$2,903
NOV significant non-compliance	\$4,355
NOV Preliminary	\$7,223
NOV Show Cause	\$11,121

Program Benefits

The IWCP is a critical component of the City's wastewater treatment system because a pretreatment program is required for Publicly-Owned Treatment Works (POTWs) and sewage collection agencies and enforcement of these regulations has been identified as an effective approach to source control of industrial pollutants. The many tangible and intangible benefits provided by this program are listed below.

- Protects infrastructure and helps to manage Operations and Maintenance costs
- Ensures the treatability of the wastewater being discharged protecting public health and the ocean environment
- Promotes reuse of biosolids as a soil amendment or cover at landfills, which saves ratepayers money
- Precludes the need for significant upgrades to the Point Loma Wastewater Treatment Plant (PLWTP) which also saves ratepayers money

ENHANCED SOURCE CONTROL

The Enhanced Source Control program provides additional pretreatment requirements for the Pure Water Program and the Urban Area Pretreatment Program (associated with the PLWTP permit waiver). Both key programs provide benefits to all customers of the wastewater system.

Pure Water

The enhanced source monitoring program is critical to the success of Pure Water. Wastewater that would have been processed by the PLWTP will be re-used as source water for the City's recycled Pure Water program. For the quality of this wastewater to meet Pure Water requirements, the IWCP will ensure that harmful discharges to sewer water are prevented. Additionally, diverting wastewater to be recycled reduces the total suspended solids (TSS) and biochemical oxygen demand (BOD) discharged into the environment and benefits all customers.

Urban Area Pretreatment

The Urban Area Pretreatment Program is associated with the permit waiver, which allows the City to avoid significant and costly upgrades to the PLWTP. The program must satisfactorily demonstrate to the United States Environmental Protection Agency that the discharge has and will meet the Clean Water Act (CWA) section 301(h) requirements. The City sets forth and enforces pretreatment requirements and a schedule of activities to eliminate the entrance of toxic pollutants from non-domestic users. The discharge of pollutants that would otherwise be removed through costly secondary treatment upgrades, are now controlled through the pretreatment requirements of the Urban Area Pretreatment Program in combination with the wastewater treatment processes at the PLWTP.

Since the Enhanced Source Control Program benefits all customers, the costs of this program (\$1,301,531) have been removed from the costs of the IWCP program attributed to the industrial users. The methodology for this reduction in program costs is discussed in more detail below.

METHODOLOGY AND MODEL COMPONENTS

The reduction to the cost was applied after the allocation of the entire IWCP budget. The model allocates the reduction of \$1,301,531 using a two-step process:

1. Functional Area Allocation to Permits: Allocate the reduction to the Permits Function only.
2. Permit and Violation Allocation: Allocate the reduction based on employee time for each sub-function.

The difference between direct IWCP revenues and IWCP costs are currently made up by the Municipal Wastewater Fund, which effectively places those costs on City ratepayers. IWCP's cost recovery level is ultimately a decision that should be made by the Mayor and the City Council.

The illustration below shows permit fees before and after the benefit to all customers reduction is applied.

Figure 2: Benefit to All Reduction to Permits

Program Summary	Total Cost per Permit Type	Benefit to All Reduction	Total Cost per Permit Type	Average Cost per Task	Reduced Avg Cost/Task
SIU-standard	\$1,020,357	(\$390,459)	\$629,897	\$14,577	\$8,999
SIU-Complex	\$708,853	(\$260,306)	\$448,547	\$47,257	\$29,903
NON-SIU/Categorical Process	\$341,236	(\$130,153)	\$211,083	\$8,531	\$5,277
Enhanced Source Control	\$1,301,531	(\$520,613)	\$780,919	\$4,338	\$2,603
Total	\$3,371,977	(1,301,531)	\$2,070,446		

Cost Allocation Fee - Model Guide

MODEL OVERVIEW

The model is Excel-based and requires the input of certain financial data and the calibration of various assumptions in order to achieve optimal results. The Model was designed to be simple, while being inclusive of the functionality requested by the City. Input and assumption tabs have been programmed to make future updates quick and easy to perform. However, this User Guide contains information that should be helpful to the user as the user updates and utilizes the Model. While many aspects of the Model may seem intuitive, it is recommended that the user review the User Guide in its entirety to ensure that the Model is being used as intended, and to ensure the most efficient use and accurate results.

While this User Guide contains an in-depth discussion on how to use the Model, some basic information about the Model that may be helpful to the user is included below. In general, the Model contains input, output, and calculation tabs. The input and output tabs are as follows:

Input tabs:

- General Assumptions
- FTE and Cost Allocation
- Dashboard

Output tabs:

- Budget and Cost Allocations
- Permit Fee
- Truck Waste
- Enforcement
- Lab Tech Adj to Sampling Group

Input cells contain a light blue fill and a blue or black text. This helps the user identify where inputs may be made on the various input tabs. Calculation or output cells contain grey or white fill and black text. This helps the user identify where calculations are located, or outputs provided, and that the user should not make any changes to these cells.

ANNUAL MODEL UPDATES

Each year, the following components should be reviewed and updated as necessary within the model:

1. On the FTE and Cost Allocation tab (Cell E3): Input the fringe benefit percent. The calculation is based on the previous year's actuals and reflects the percentage of the IWCP fringe to salary (\$1,812,188/\$2,362,697) for the previous year. For reference, it was approximately 77% for both FY18 and FY19.

2. On the FTE and Cost Allocation tab (Line Item 1): verify and update as necessary, the data that comprises the Program Manager portion of the IWCP budget. Specifically, verify/update the Direct Labor Rate for the Program Manager. Input “No” in the Direct Costs Position column (J). The model uses 1840 hours for each FTE, which takes into consideration non-productive time. Please work directly with the Program Manager to determine the hourly rate, as it is an unclassified position and not listed in the City’s Salary Table.
3. On the FTE and Cost Allocation tab (Line Items 2 – 6): verify and update the data that comprises the Sampling Group portion of the IWCP budget. Specifically, verify/update the job classifications, FTE, and Direct Labor Rate, for the Sampling Group. The salary for each job classification is based on the City’s current Salary Table, using the E-step hourly rate. Input “No” in the Direct Costs Position column. The FTE hours and Costs are not calculated on the FTE and Cost Allocation tab. The Sampling Group Costs are calculated on the General Assumptions tab (Cell D14) using the inputs provided and will be added to the total NPE for IWCP in a later step.
4. On the FTE and Cost Allocation tab (Line Items 7 – 25): verify and update the data that comprises the Direct Cost portion of the IWCP budget. Specifically, verify/update the job classifications, number of FTEs, and Direct Labor Rate. Input “Yes” in the Direct Costs Position column. The salary for each job classification is based on the City’s current Salary Table, using the E-step hourly rate.
5. On the General Assumptions tab, update the total budget for IWCP including (PE and NPE costs) and a portion of the ECS Budget for supporting IWCP. To determine the ECS portion, contact the ECS group and find out what percentage of analysis performed in the previous year was in support of the IWCP program. In FY19, approximately 5% of the analysis was for IWCP, therefore, 5% of the ECS budget (including all PE and NPE), was included as part of the total IWCP budget for this cost recovery model.
6. On the General Assumptions tab, update the 5-year average historical performance for permits and violation fees in the three functional areas listed. Contact the IWCP group to get the updated average for the last 5-yr period.

MODEL OPTIMIZATION

The model is not programmed to auto solve user fees based on FTEs and permits and violations issued. Due to the top down approach described above, the model could produce variances in the total hours available versus the total hours assigned, depending upon the class-specific level of effort allocated to each of the permit and violation fee categories within each functional area. The user should review results and adjust the percent of hours allocated to arrive at the appropriate cost-based fee.

Located on the FTE and Cost allocation worksheet is a summary of Total Available Hours based on the individual function worksheets where fee hours are assigned to the permits and violations based on the level of effort for each job classification. The hours are then allocated and summarized showing the total hours over and under for each job classification. Figure 3 shows the summary of hours in the current model.

Figure 3: Hour Optimization Summary

FY 2020 Salary Table - E Step	Total Hours Assigned (See individual worksheets)			Total Hours Available	Hours Over	Hours Under
	Permit Fee	Truck Waste	Enforcement			
WW Pretreatment Program Manager (1528)	1,791	0	31	1,840	0	(17)
Supervisory WW Pretreatment Inspector	5,611	104	1,611	7,360	0	(35)
WW Pretreatment Inspector III	5,036	253	2,065	7,360	0	(5)
WW Pretreatment Inspector II	8,281	1,241	1,533	11,040	15	0
WW Pretreatment Inspector I	0	0	0	0	0	0
Haz Mat/Pretreatment Trainee	4,867	0	667	5,520	14	0
Field Representative	3,346	0	333	3,680	0	(0)
Senior Clerk Typist	0	0	0	0	0	0
Word Processing Operator	1,589	273	0	1,840	22	0
Clerical Assistant II	2,603	318	780	3,680	21	0
Administrative Aide II	676	370	780	1,840	0	(14)
Management Intern	0	0	0	0	0	0
Totals	33,799	2,600	7,800	44,199	\$ 71	(71)

MODEL COMPONENTS

The screenshots in the following section illustrate the steps to update and optimize the cost allocation.

FTE and Cost Allocation Worksheet

The FTE & Cost Allocation Worksheet provides the Direct Costs to be distributed to the three functions. The Direct Costs for the Program are comprised of the following elements:

- Average Direct Labor Hourly Rate
- Benefits
- Number of FTEs
- Available Hours

When the assumptions are entered into the model by Job Classification, the results are the total direct costs of that position to the Program. Figure 4 illustrates an example of the Direct Costs calculations. As discussed in the Cost Allocation Methodology section, all other expenses for Sampling Group, Program Manager, and ECS are allocated at the functional level only. Inputs for Sampling Group and Program Manager are still entered as this information is used to calculate costs on the General Assumptions tab.

Figure 4: Total Direct Cost Calculation

FY 2020 Salary Table	Direct Labor (DL)	Fringe (F)	Direct Cost	No of FTEs	Total Hours	Total Direct Cost
Job Classification	in \$/Hour	DL x 0.77	in \$/Hour			
WW Pretreatment Program Manager	\$ 54.50	\$ 41.97	\$ 96.47	1.0	1,840	\$ 177,496
Supervisory WW Pretreatment Inspe	\$ 49.79	\$ 38.34	\$ 88.13	4.0	1,840	\$ 648,624
WW Pretreatment Inspector III	\$ 45.25	\$ 34.84	\$ 80.09	4.0	1,840	\$ 589,481
WW Pretreatment Inspector II	\$ 41.10	\$ 31.65	\$ 72.75	6.0	1,840	\$ 803,127

The model sums the total hours and then allocates over the three core functions based on input provided by management and staff on time spent working in each function.

DASHBOARD WORKSHEET

The Dashboard worksheet allows the user to input estimated staff time spent on each function. For Example, the permits function will receive 76.5 percent of the total hours, as shown in Figure 5. The allocation of 76.5 percent is calculated based on 85 percent of staff time spent in the three functional areas, and the other 15 percent of the time (not shown) spent on administration. In addition to IWCP budgeted hours, the user must input percentage allocations for the Sampling Group and NPE Budget, Program Manager Budget, and ECS Budget.

Figure 5: Program Budget Functional Allocation

Program	Estimated Staff Time	Function Allocation	NPE	Sampling Group	Program Manager	ECS
Permit Fees	65.0%	76.5%	75.0%	75.0%	33.3%	75.0%
Trucked Waste	5.0%	5.9%	20.0%	20.0%	33.3%	20.0%
Enforcement	15.0%	17.6%	5.0%	5.0%	33.3%	5.0%
Total	85.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Next, the hours and other expenses for each functional area need to be distributed into their respective permits and violations category using time estimates for each. Figure 6 illustrates the allocation to the Permit Fees categories. The model requires an additional step to allocate the total IWCP budgeted hours for the different types of permits and violation categories. This additional step is not needed for the other budgeted costs listed in Figure 5.

Figure 6: Permit Fee by Permits and Violation Category Allocation

Permit Fees	Allocation	Staff Hours
SIU-standard	30.0%	10,140
SIU-Complex	20.0%	6,760
NON-SIU/Categorical Process	10.0%	3,380
Enhanced Source Control	40.0%	13,520
	100.0%	33,799

The model now lists all fees and violations and requires the user to select staff from the drop-down menu and allocate the time to each category. For example, SIU-Standard Permit is allocated 10,140 staff hours as seen in Figure 6. The 10,140 hours must now be distributed to each staff member that works on the permit and violation and the estimated time they spend. Once the selections are made, the model will calculate the Total Direct Costs for each task by multiplying the staff hours by the Direct Cost Rate. Figure 7 shows the screenshot of the current model selection by job classification for SIU Standard.

Figure 7: Permits and Violation Allocation for Staff Classification

Staff Selection	Allocation	Staff Hours	Actual Direct Cost Rate	Total Labor Costs
SIU-standard				
WW Pretreatment Program Manager (1528)	5.0%	507	\$96.47	\$48,907
Supervisory WW Pretreatment Inspector	10.0%	1,014	\$88.13	\$89,360
WW Pretreatment Inspector III	19.0%	1,927	\$80.09	\$154,303
WW Pretreatment Inspector II	35.0%	3,549	\$72.75	\$258,173
Word Processing Operator	5.0%	507	\$34.43	\$17,454
Clerical Assistant II	10.0%	1,014	\$32.75	\$33,203
Haz Mat/Pretreatment Trainee	6.0%	608	\$46.57	\$28,332
Field Representative	10.0%	1,014	\$35.35	\$35,841
	100.0%	10,140		\$665,572

The Sampling Group and NPE, Program Manager, and ECS budget allocation will then be automatically distributed based on the same staff allocation. The totals are then rolled up into the permits and violation level. Figure 8 provides the details before the costs are rolled into the sub-function.

Figure 8: Permits and Violation Allocation of Other Costs

Staff Selection	Allocation	Sampling and NPE Allocation	Program Manager Allocation	ECS Budget
SIU-standard				
WW Pretreatment Program Manager (1528)	5.0%	\$12,713	\$951	\$4,280
Supervisory WW Pretreatment Inspector	10.0%	\$25,426	\$1,902	\$8,560
WW Pretreatment Inspector III	19.0%	\$48,309	\$3,614	\$16,265
WW Pretreatment Inspector II	35.0%	\$88,991	\$6,658	\$29,962
Word Processing Operator	5.0%	\$12,713	\$951	\$4,280
Clerical Assistant II	10.0%	\$25,426	\$1,902	\$8,560
Haz Mat/Pretreatment Trainee	6.0%	\$15,256	\$1,141	\$5,136
Field Representative	10.0%	\$25,426	\$1,902	\$8,560
	100.0%	\$254,260	\$19,023	\$85,605

The model then adds the total costs for all categories and divides the costs by the historical tasks performed to come up with a charge for each permit and violation. As illustrated in Figure 9, to fully recover 100% of the cost to process an SIU-Standard permit, the fee is estimated to be an average of \$14,577 per instance.

Figure 9: Average Cost per Permit

Program Summary	Est # Tasks Perf Annually	Average Cost/Task	Total Cost per Permit Type
SIU-standard	70	\$14,577	\$1,020,357
SIU-Complex	15	\$47,257	\$708,853
NON-SIU/Categorical Process	40	\$8,531	\$341,236
Enhanced Source Control	300	\$4,338	\$1,301,531
Total			\$3,371,977

As mentioned in the Cost Allocation Section, these fees represent full-cost recovery for each permit and violation task performed within the function, however it may not be feasible for the utility to charge the full amount. Other considerations such as benefits to all customers must be considered.