

TO: BOARD OF DIRECTORS
FROM: BRUCE BUEL *DBB*
DATE: APRIL 2, 2009

**AGENDA ITEM
D-5
APRIL 8, 2009**

AUTHORIZE PURCHASE OF WATER CONSERVATION SOFTWARE

ITEM

AUTHORIZE PURCHASE OF WATER CONSERVATION SOFTWARE [RECOMMEND APPROVAL]

BACKGROUND

In February 2007, the NCSD Board of Directors approved the Water Conservation Program, which includes several measures which can be implemented. The first measure implemented was the Rebate Program for High-Efficiency Clothes Washers (HEW).

An important part of any Water Conservation Program (WCP) is accountability and measurement, where possible, of water savings related to the measures implemented.

NCSD's billing program for water and sewer use is very limited in its ability to provide the kind of data that we can use, in the format we can use.

In addition, the Rebate Program for HEWs was recently suspended by the California Urban Water Conservation Council (CUWCC) secondary to a the California State Department of Water Resources (DWR) suspending its funding of the subsidized portion of the HEW rebates processed through the CUWCC. NCSD has the option of continuing with the CUWCC processing the rebates, but NCSD would have to pay the full cost of both the rebates and the processing fees. The CUWCC HEW rebate program was especially attractive because of the processing and administrative services it provided, freeing up significant time that staff would have had to spend if NCSD staff was processing each application for rebate.

At a previous NCSD Board Meeting, request was made to investigate ways to better track the impact of the WCP's implemented measures.

CONSERVETRAK

Staff spent much time and energy searching for an integrated software program that would provide the range of options we need. One software program, "ConserveTrak," was found, and subsequently researched. Most of the water agencies that have purchased ConserveTrak did so through a sole-source approach, with documentation.

ConserveTrack is the product of Right There, Inc., which has been in business since 1999, developing Access (database) software to solve tracking and administration problems for water agencies. ConserveTrack (a web-based program) was developed in response to customer requests from the City of Santa Cruz and the Soquel Creek Water District.

ConserveTrack has six customers up and running, with additional customers being installed this year. The customers range from large agencies (Orange County, FL), some are medium sized (Soquel Creek, Santa Cruz), and some are small.

The software is versatile and easily integrates with Microsoft Office programs (Word, Excel, Outlook). The company has been a member of the CUWCC for many years, and is on the list to receive the

RFP for building the online BMP reporting system. They are developing a set of ConserveTrack reports that will match the new BMPs directly, and will be easily able to import data from a water agency's ConserveTrack software's database to complete the forms.

Training and documentation is included in the price of the software.

Joe Miller, the software designer for ConserveTrack and owner of RightThere, made a Board presentation on February 25, 2009, at which time he told the Board he could import NCSD's billing information into ConserveTrack.

The ConserveTrak (CT) program is structured for conservation, using a standard interface for all programs, with unified reporting and global planning. Because it is web-based, it can be used anywhere (including the field), there is no installation on our own network, and we are not responsible for updating the program. The internet website is privacy protected to ensure that the information can only be accessed by qualified reviewers.

CT can handle retrofits, rebates, surveys, restrictions, violations, and drought issues, providing analysis, reporting and evaluation.

INTERVIEWS WITH CONSERVETRACK REFERENCES

At the direction of the Board on February 25, five of Joe Miller's references were contacted, and interviews were obtained with four. The fifth reference, from the San Francisco Water Department, will not be available for interview until April 9, 2009, but is very willing to be interviewed at that time.

The four water purveyors interviewed were Soquel Creek Water District, Santa Cruz City Water, Big Bear Department of Water and Power, and Orange County (Florida) Water Utilities. Notes from the interviews are attached to this staff note.

Overall, all four representatives were very happy with their software, were able to easily learn the software, and felt that they could not have adequately tracked their water conservation programs, without adding additional staff to their department, without the software. They all reported that the importing of billing data to ConserveTrack went smoothly. The only instance where there were problems was because the agency had changed billing software and the new software had "glitches," such as not having addresses in some accounts. Joe Miller was able to develop a work-around patch that accessed the address from another approach.

They all described the software as stable, dependable, reliable, does what its supposed to do, etc.

All of those interviewed had only positive things to say about Mr. Miller, his work ethic and his software. If they have a problem with the software (most of these occurred while learning the software), he was immediately available and, usually within an hour, addressed the problem. One agency changed their water conservation programs, which required Mr. Miller to make a complicated update, and there were a few error messages that developed. However, when advised of the problem, he immediately fixed it.

He did not charge for these fixes. At the agency that changed billing software, creating problems with the ConserveTrack software, Mr. Miller solved the problems and did not charge. The billing software vendor charges for every phone call, so Mr. Miller handling the problems saved the agency quite a bit of money.

All of those interviewed said they would absolutely buy the software again, and were looking forward to using more modules developed by Mr. Miller.

Another common comment was that Mr. Miller was very knowledgeable about water utility operations, especially billing issues, and was also very current with water conservation programs and new government requirements.

RECOMMENDATIONS FOR SOFTWARE MODULES

After review of the available software modules and what they offer, the following recommendations for purchase are made:

RECOMMENDED MODULES FOR PURCHASE		
Module	Description	Price
Core System & Shared tools	The basics of what drives and integrates the ConserveTrack Modules; global reporting, budgeting.	\$4000
Residential Surveys	Water audits; track visits, findings, recommendations, results of Interventions.	\$2000
Retrofits (up to 5)	HEWs, Showerheads, Aerators, Weather-Based Irrigation Controllers, Turf Replacement	\$4000
Outreach & Educ.	Track outreach and education program.	\$2000
Water Explorer	Very power tracking and analysis tool (including statistical analysis) for water usage.	\$3000
Violations	Track water efficiency (waste) problems, communication, results of interventions.	\$3000
TOTAL FOR MODULES:		\$18,000

Other modules may be considered in the future, should conditions indicate the need. These include the Drought, CII Processes, GIS Mapping, Water-Demand Offset. Mr. Miller stated it would take approximately two weeks, once the initial system is installed, to add on other modules.

COST OF SOFTWARE, INSTALLATION, TRAINING		
Item	Description	Cost
Software modules	Software	\$18,000
Customization, Installation	Getting it up and running (includes training)	\$11,000
TOTAL FOR PURCHASE OF SOFTWARE AND INSTALLATION:		\$29,000

MONTHLY COSTS FOR SUPPORT, WEB HOSTING		
Item	Description	Monthly Cost
Service and Support	Includes service, support, updates.	\$467
Hosting service	Includes all server hardware, software, administration	\$350
TOTAL FOR MONTHLY (RECURRING) COSTS:		\$817
TOTAL PER YEAR:		\$9,804

BUDGET/FINANCIAL

The FY 2008/2009 budget for the WCP was for \$138,233, with \$27,731 having been used to date, and with \$110,502 left in the program. There is enough unused funding in this FY's budget to purchase and get us up and running with the CT program.

RECOMMENDATION

Staff recommends that the Board adopt the attached resolution authorizing purchase, installation, and other start-up charges for the ConserveTrak water-conservation software program. The recommended choice of the options is as follows:

Leased/Hosted Service Program, with the start-up 2-seat Water Explorer license Payment Option #1:	\$29,000
Yearly software maintenance and updates:	\$ 9,804

ATTACHMENTS

- ConserveTrack Quote (March 31, 2009)
- Reports of Interviews with Current Software Users
- *Resolution Authorizing the Purchase of Water Conservation Software as a Sole-Source Acquisition.*

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Celeste Whitlow, Conservation Coordinator and
Public Outreach Specialist
Nipomo Community Services District
148 S. Wilson Street
Nipomo, CA 93444

March 31, 2009

Dear Ms. Whitlow,

Thank you for this opportunity to offer ConserveTrack system and services for managing your water conservation programs. This ballpark proposal is for installation and minor customization of our ConserveTrack system specifically configured for the Nipomo Community Services District (NCSD) Water Conservation requirements.

This ballpark estimate includes the required ConserveTrack tools to manage all of the programs you currently run and are planning for the near future. In addition, ConserveTrack is modular and new program tools can be added as needed.

This is an initial 'ball park' quote. As we progress and discuss the system in more detail, we can refine the system specification and provide a more detailed quote.

Sincerely,



Joseph Miller
President, RightThere Software

1 Summary

RightThere Inc. proposes to implement a browser-based ConserveTrack system for managing the Nipomo Community Services District (NCSD) Water Conservation Programs.

NCSD's ConserveTrack provides turnkey management of NCSD's Water Conservation Programs. ConserveTrack provides these three basic functions:

1. Simple Day to Day Management of all programs in one system.
2. Full Access to the relevant information held in your billing system (if desired).
3. Reporting by program and across programs.
4. Planning future programs.

This proposal outlines the software and services RightThere, Inc. will provide to implement and then support the NCSD ConserveTrack system.

2 Qualifications

RightThere specializes in water conservation software and services. We have been developing and supporting these systems since 2003. Our unique ConserveTrack tools are in use at 4 water agencies in California. We are expanding to New Mexico, Florida, and others. We are currently in the process of implementing our new Web based ConserveTrack in 6 cities located across the country. Our growing experience and capabilities allow us to provide uniquely powerful tools for water conservation management.

3 Scope of Work

This section outlines the tasks and deliverables that will be completed as a part of this project.

Any tasks that are not a part of the stated licenses and tasks will be considered out of scope. Tasks that are out of scope will require separate cost estimate payment. RightThere will inform client of any such tasks and submit a separate cost estimate for your pre-approval.

Note: these ConserveTrack modules are “off the shelf” and may require some customization for use at Nipomo. We have included some customization cost (see the cost summary later in this quote) but this may not be sufficient for all desired customizations. Generally each module will be usable as-is, but if additional extensive customization is desired, there may be additional costs required. These costs can be planned for by providing details of the desired additional features. We will provide a written estimate for any additional customization costs before beginning any additional customization work beyond what is included in this quote.

3.1 Program Management Tools for NCS D:

This quote includes the following ConserveTrack Modules for the initial NCS D. Note additional modules (a complete list is provided in the Appendix), can be added later.

1. Rebate Programs

This tool manages many types of device distribution programs. In this case the following types of retrofits will be included:

- a. High Efficiency Toilets
- b. High Efficiency Clothes Washers
- c. Turf Replacement
- d. Irrigation Smart Controllers
- e. Cisterns

2. Residential Surveys and House Calls

- a. Data entry for audit results
- b. Track fixture information on a room by room basis (indoor)
- c. Track water uses outdoors (pools, hot tubs, irrigation details)
- d. Track general information, and recommendations.
- e. Free form data entry because of the wide variety of possible water saving interventions.

3. Outreach and Educational Programs

- a. Track educational visits to schools, fairs, adult workshops etc.
- b. Track advertisement placements
- c. Track printed materials

4. WaterExplorer Tool:

- a. WaterExplorer is an interactive analysis tool used to ‘slice and dice’ water usage data.
- b. Users can interactively select how they want the water usage (and savings) data tabulated and charted.
- c. Selection parameters include (depending on availability in billing data):
 - i. Property Type
 - ii. Zip code
 - iii. SIC Codes
 - iv. Meter route and book
 - v. Program participation
 - vi. Water Usage (e.g. top 50 users or top 1%)
 - vii. And any parameter available in the billing system database
 - viii. And any combination of these parameters.
- d. Grouping and totaling by:
 - i. Month, quarter, year
 - ii. Property Type
 - iii. Intervention Type
 - iv. SIC Code
 - v. Zip Code
 - vi. Meter route and book
 - vii. Others as available

5. Search Matrix Tool

- a. View all programs and properties in a single matrix
- b. View ALL property past participation in programs.
- c. Search on multiple parameters to narrow list of properties
- d. Search by program participation
- e. Launch campaigns for targeted properties

6. Additional Tools Included:

- a. Global Reporting – ability to create reports across multiple programs and phases.
- b. Program Budget Tracker – tracks budget and expenditures for each Program.
- c. Process Manager – implements user defined steps for each Program.
- d. Calendars – shows scheduled appointments and inspections.
- e. Device Manager – users edit which devices (e.g. HETs, HECWs) are used in each program.

- f. Property/Service Point Viewer – shows details of the Property and Service Point, and the water consumption history
- g. Users and Roles administration.
- h. Device and Device Types administration – including efficiency level and predicted savings values.

3.2 Customization and Integration

Minor integration and customization of ConserveTrack is included in Pricing Option #1 in Section 5.4 below. Additional customization will be an additional fee.

Integration includes:

1. Import of past water conservation records (current conservation program data stored in CIS Billing system, Access databases or Excel files),
 - a. All data will be translated into the new ConserveTrack software database
 - b. All historical data will be preserved
 - c. New reporting capabilities can use historical data.
2. Integration with your Billing System for sharing account and water use information. This is dependent on cooperation of your IT department and the billing system vendor as needed. RightThere has previous experience working with many types of billing systems. One time import and then monthly update of:
 - i. Accounts and holders
 - ii. Properties and Owners
 - iii. Tax Parcels Data as available
 - iv. Meter Reads
 - b. This will require support from the IT department to create the export script.
 - i. We will either work with your IT department or optionally we can do most of the export ourselves with minimal support.
 - ii. The cost of this task is an approximate cost, and depends on the type and level of support available. We have estimated the cost but will inform you as early as possible if the cost will change.

3.3 System Users and Access

NCSD's ConserveTrack system will be accessed through web browsers. Internal users (NCSD Staff) will access the system over the internal network. Internal users will be assigned specific, individual accounts or authentication can be integrated with current windows logins.

3.4 Ongoing Support, Training and Service

RightThere will provide ongoing system and user support. Costs are summarized in the Cost section of this quote.

3.5 Software Licensing

All ConserveTrack licenses are for unlimited number of users, for internal use at NCSD only. ConserveTrack software is not to be distributed to any other organization or individual without the written consent of RightThere Inc.

WaterExplorer is licensed by the server and per seat. The base system includes 3 seats.

Source Code Licensing: This quote does not include rights to the ConserveTrack source code. The source code is available under a separate license agreement.

3.6 Deliverables

This quote is a ball park quote. A list of detailed deliverables is not included here but will be when we have discussed your requirements in detail.

4 Schedule

The delivery time is approximately 3-4 months from the start of work. We recommend a two phase development schedule as follows:

- Phase 1: Deliver high priority tools and billing system integration with internet accessible Beta system (Staging site, accessible via the internet and hosted at RightThere). Users will have full access to the system remotely as the system development is completed.
- Phase 2: Final delivery at NCSD or on our RightThere servers.

5 Hosting Options

ConserveTrack is a Client/Server software system which works as a web application. The software is installed on a server which runs 24/7 and is available for users over the Local Area Network and/or the internet (via secure link).

The system can be hosted on a server onsite, on your local area network or we can host the system as a service.

- 1) Hosted Onsite: If you host the application on your LAN:
 - a) NCSD IT staff will provide a computer server and all software licenses to host the ConserveTrack application and database.
 - b) IT Staff will be responsible for managing the environment, power, hardware, backups, and internet connection.
 - c) RightThere will provide support as a part of an annual support agreement.

- 2) ConserveTrack Hosted Option: If we host the system for you:
 - a) We will provide a turnkey system. Users will log into a website and use ConserveTrack via the internet.
 - b) We will provide all required hardware and software (server hardware, OS and DB licenses, software licenses etc.).
 - c) We are responsible for all aspects of the system.
 - d) The system is monitored 24/7.

We recommend the ConserveTrack hosted options for the following reasons:

- 1) We can provide this service very efficiently and at a reasonable cost because we will be hosting and managing many ConserveTrack systems.
- 2) Our network facilities are standardized for hosting ConserveTrack systems. We will manage many systems in exactly the same way.
- 3) We believe the hosted service will be more reliable and the lowest possible cost.

6 Pricing

ConserveTrack is a licensed software product. The license is for an unlimited number of users. Training, Integration, and Minor Customization is included in the pricing.

The table shows the approximate cost of each Module and certain task labor costs.

Support: This monthly price is based on 20% of the initial system cost.

Hosting: The hosting service is based on 15% of the initial system cost.

Nipomo

3/29/2009

ConserveTrack Ballpark Quote

RightThere Software

Purchase Option

ConserveTrack Modular Tools		Unit Cost	Nipomo	Ext. Cost	
Core System & Shared Tools	CaseMatrix,Calendar, Process Manager, Global Reporting, Budgets etc...	4000	1	4000	Required
Retrofits	Retrofits (up to 5 types) RES and/or CII	4000	1	4000	
Res Survey	Residential Surveys	2000	1	2000	
CII Processes	CII Surveys and Process Improvments	2000	1	2000	
GIS Mapping	GIS Mapping 1.0 Tool	6000			
Outreach and EDU	Track Outreach and Educational	2000	1	2000	
Violations	WEE Water Efficiency Enforcement. Track and manage watering restrictions violators and water wasters.	3000			
Water Explorer	Water Explorer to track, analyze, report on water usage	3000	1	3000	
Drought	Manage Drought Response and Rationing (future)	3000			
ROR	Retrofit on Resale (or new Service) Tool	4000			
WDO	ConserveTrack Water Demand Offset Tool	4000			
		<hr/>			
		37000	Nipomo	17000	17000
Customization and Installation Tasks		<hr/>			
Task 1	Define detailed requirements	3000	1	3000	
Task 2	Customization	3000	1	3000 (40 hours)	
Task 3	Integration (billing system)	3000	1	3000 (40 hours)	
Task 4	Data Import and Installation	1000	1	1000	
Task 5	Training	1000	1	1000	
		<hr/>			
			Nipomo	11000	11000
				<hr/>	
				Initial Cost	\$ 28,000
Service and Support					
	User, Technical, Admin Support	Monthly Fee	467		
Hosting Service (turnkey)					
	(2 year agreement) Includes all hardware and software	Monthly Fee	350		

Payment Schedule:

- License Fees: 50% due at start of contract, additional 25 % due after 50% completion and 25% due upon final acceptance.
- Payment for each deliverable will be invoiced upon delivery of each item. Terms are net 30 days.
- Items will be partially invoiced based on percent complete. Individual deliverable items will be declared complete when the NCSD has tested and verified their completeness, possibly through beta testing on the internet staging site.
- Hosting and Support fees are due at the start of each service quarter and are billed by the quarter.

Appendix A: ConserveTrack Overview

This Appendix summarizes ConserveTrack by including a narration and sample screen images.

ConserveTrack is a flexible software system that can be configured to manage a variety of urban water conservation programs. All of the tools are integrated with a core database. A considerable amount of the data is synchronized from the utility billing system, to reduce data entry time and errors such as mismatches between conservation and billing databases.

This appendix provides a brief overview of ConserveTrack.

ConserveTrack Tools

The following lists ConserveTrack tools in categories. Each tool corresponds to a certain type of water conservation program or a general purpose tool that can be used across programs. Note this list is growing as we add new customers with different needs. We also develop custom tools as needed.

Conservation Program Management Modules

Each of these modules allow you to manage a specific type of Water Conservation Program. You can add these modules at any time, as you add new programs.

Each module is also configurable and expandable. For example, in the Retrofit module, you can add new types of rebated devices (e.g. toilets or showerheads) without additional cost or programming.

Note: This is a complete list of all ConserveTrack modules currently available. Not all of these are included in this quote, but each of these is available to be added on at a later date.

Module	Description
Residential Retrofits	The Retrofit Module allows you to manage residential water fixture retrofits including: <ul style="list-style-type: none">• HET High Efficiency Toilets• ULFT Ultra Low Flow Toilets (for historical data)• HECW High efficiency Clothes Washers• ShHeads Efficient low flow shower heads• Aerators Efficient low flow faucet aerators• WBIC Weather Based Irrigation Controllers• Turf Turf buyback• SynTurf Synthetic Turf• Cisterns Water collection cisterns

This module tracks the retrofit device type, make and model, date of replacement, and many other related fields. You can use various types of Funding or Incentive Methods:

- Rebates
- Vouchers
- Discounted sales
- Direct installations (free to customers) Free give-aways
- Exchange (e.g. showerhead exchange, a type of free giveaway)

CII Retrofits

The Commercial, Industrial and Institutional Retrofits module is identical to the Residential module except it includes different types of devices:

- High Efficiency Commercial Toilets
- High efficiency Commercial Clothes Washers
- Efficient low flow shower heads
- Efficient low flow faucet aerators
- Irrigation Controller Override Device
- Weather Based Irrigation Controllers
- General Irrigation equipment rebates
- Turf buyback
- Synthetic Turf
- Water collection Cisterns
- Water Broom
- Cooling Tower retrofits and upgrades
- Ice Machines
- Restaurant Pre-rinse Spray Valves

Often in the case of commercial or industrial settings, there are a large number of identical items replaced in the same Case (for example, 100 toilets replaced at a hotel). ConserveTrack tracks the cost and expected water savings for these multiple retrofit cases.

Residential Surveys (Audits)

This module allows you to track Surveys of houses including all water using devices, leaks etc. The survey includes both indoor and outdoor water uses. The survey tracks 'potential water savings' for each room and device, as well as outdoor irrigated areas, pools, etc. It also tracks potential savings due to fixed leaks.

CII Process Improvements	<p>Process improvements at CII facilities are generally ‘one of a kind’, unique at each location. This tool allows inspectors to capture general information about potential process improvements and predicted water savings.</p> <p>Predicted water savings are tracked and summarized in reports. Status of the process improvements can be tracked.</p> <p>Interactions with customers can be recorded and tracked.</p> <p>Types of improvements include:</p> <ul style="list-style-type: none"> • Recycling/Re-using Process water • Leak fixes • Use of Reclaimed water • Multi-Step Water Re-use (e.g. using once used water in pre-rinse steps)
Watering Restrictions Management	<p>Manages the implementation of irrigation watering restriction ordinances. Includes tracking of cases, notification letters, warning letters, issuing fines etc.</p>
Drought Management	<p>Implements drought response methods such as detailed tracking of high users, notification letters on a large scale etc. (future module)</p>
Outreach Modules	<p>Manages and tracks public outreach programs, including advertisements, educational visits, adult education, workshops etc.</p> <p>There are several types of Outreach Programs and each can be managed by the appropriate Outreach Module, including:</p> <ul style="list-style-type: none"> • Educational Visits (schools, workshops, HOAs, irrigation sites) • Advertising (by type, date, costs etc.) • Materials Distribution (brochures, handouts at fairs etc.) • Direct Mailings • Vendor Visits (to manage/encourage program participation, stocking water efficient fixtures etc.) <p>These modules also includes many system administrative features such as the types of brochures, the schools in the system, types of workshops, and other user menu selections.</p>

Special-Programs Modules

These modules implement special, powerful Water Conservation Programs. Generally these are programs that require more detailed, intricate tracking of interrelated data. These types of programs will be very difficult to manage without an appropriately designed database system.

Module	Description
<p>Retrofit on Change</p>	<p>The ROC Module manages the enforcement of required retrofits when a property is sold, or when new service is requested, or when some other change occurs. This special program type is effective for gradually retrofitting older properties as they are sold, or when a new tenant moves in.</p> <p>This type of program normally requires a series of legally binding letters be mailed to the property owner, at specific time intervals. ConserveTrack implements a workflow process which allows the user to track the properties as they are moved through the process of sending letters and waiting periods.</p> <p>The system creates mail merged letters and tracks all correspondence with the property owners. The status of each enforcement trail is tracked in detail. The system can also create legal ‘filings’ with the county records department.</p>
<p>Water Demand Offset</p>	<p>The WDO module manages a program where developers of building projects are required to implement retrofits at existing properties. The retrofits generate saved water which ‘offsets’ the new water demand from the developer’s project.</p> <p>The WDO Module tracks the development projects, calculates and stores their new water demand, and matches these to available Retrofit Candidate Properties. When retrofits are completed the water savings is matched to the assigned Development Project until the total new demand is offset. Then the Project can be approved and a permit granted.</p> <p>ConserveTrack tracks all information and the status of each Project and Retrofit. As retrofits are completed they become unavailable for other Projects.</p> <p>This program is especially useful for communities who have reached their water volume limit, but would like to allow additional development.</p> <p>Other implementations will include a general purpose ‘water savings bank’ which will put the Retrofit Savings into the Water Bank. Then developers can purchase these as credits toward their new development projects.</p>

Other Included Modules

These modules are included in all ConserveTrack implementations. They are shared modules that are used in support of the Water Conservation Program Modules.

Tool	Description
Global Reporting	Reporting across multiple programs for costs and water savings.
Search Matrix	Case Matrix to search and view property (Sites) participation history in all programs.
Budget Tracker	Financial Budget Tracker – track budgets for each program
Calendar	Shared Calendar for scheduling inspections, installations etc.
WaterExplorer	Water consumption data warehouse for fast water consumption querying and analysis across cities, zip codes, sic codes etc.
Process Manager	Integrated process manager implements custom process workflows for each program type (e.g. Retrofits). Each program Case is managed through the workflow process steps.
Savings Calculator	<p>This tool allows users to calculate the dollar savings resulting from a decrease in water usage based on these and other model parameters:</p> <ul style="list-style-type: none"> • Billing rate with tiers • Property type (if rates are dependent on this)
System Administration	<p>ConserveTrack is a configurable system. Some configurations are controlled by user-accessible ‘System Administration’ tools. Many such tools are included in a special area which can be accessed by a limited number of staff.</p> <p>The administration tools allow the system administrator(s) to control dozens of options such as user menus, device models, as well as entire programs.</p> <p>The system administration options are quite extensive.</p>
Device Model Database	<p>The ConserveTrack system makes use of many different types of water using devices such as toilets, showerheads, etc. The system includes a dedicated database of these devices and their characteristics.</p> <p>The system breaks down the models into efficiency levels and includes the</p>

'predicted savings factors' for each efficiency level. This allows users to categorize and store hundreds of device models and use them in rebate and other programs. This enables reporting and analysis of water savings for all programs with standardized device models.

Optional Modules

These modules are Optional and can be included in the ConserveTrack system if needed. They are general tools that can be used in support of the Water Conservation Program modules, and the Outreach tools.

Tool	Description
GIS Mapping	<p>GIS Integration with ESRI Shapefiles for viewing conservation efforts on maps. This is a web based GIS system specifically designed for and integrated with ConserveTrack. Features include:</p> <ol style="list-style-type: none"> 1. Display properties on GIS Maps <ul style="list-style-type: none"> ○ Selected from ConserveTrack\ ○ By program participation, many other filters. ○ E.g.: display this month's Rebate customers on the map 2. Select Parcels from Maps <ul style="list-style-type: none"> ○ Use selection in ConserveTrack ○ Combine with other search criteria ○ E.g.: find top users in the selected map region 3. Measure areas and distances <ul style="list-style-type: none"> ○ Irrigated areas ○ Lot sizes ○ New project sizes 4. Standards: Integrate with existing ESRI GIS Server <ul style="list-style-type: none"> ○ Direct server connection or ○ Independent Shape Files
WaterExplorer	<p>Water consumption data warehouse for fast water consumption querying and analysis across cities, zip codes, sic codes etc.</p> <p>This tool allows users to instantly explore water consumption history for the entire water utility in many ways. Actual meter reads are used to populate the database. These are correlated to multiple dimensions, such as zip code, Property Type, Service Type, SIC codes, subdivision, etc.</p> <p>Users can explore patterns of water use by time (year, quarter and month) and many other parameters. This tool can also be used in conjunction with leak detection tools to identify potential leak locations.</p> <p>The WaterExplorer can be used to help identify high usage areas and to target key groups that might be very difficult to find manually.</p>

Appendix B: WaterExplorer Data Warehouse

This appendix summarizes the WaterExplorer tool. WaterExplorer is an optional add-on to ConserveTrack, or it can act as a stand alone system you can use to “slice and dice” water use history information with many parameters.

The WaterExplorer is a natural outgrowth of our work in conservation. In working with conservation programs, it quickly became apparent that water consumption history was key. We have worked with detailed water consumption for several years now and are quite familiar with the data and issues around it. We developed the WaterExplorer initially for use with Water Conservation programs, but it is useful for many other purposes, not the least of which is demand planning and leak detection.

Inside WaterExplorer is a water consumption data warehouse system with OLAP capabilities. The WaterExplorer has at the core a pre-aggregated multi-dimensional cube of water consumption data. The water consumption history data comes from the billing system’s meter reads, and is processed through several steps before being stored in the WaterExplorer.

The system allows users to report on water consumption in an exploratory manner. Users can change filters and groupings and see results immediately. Exploring water usage history becomes quick and easy. Results can be summarized by geography (country, province/state, county, city, zip, street, block/lot, pressure zone), time (year, quarter, month), and other parameters (reservoir, pressure zone, property type, service type, size, neighborhood, region, SIC code, meter size etc.).

Users can view tables of results, or charts. Each dimension (e.g. Time, geography etc.), can be drilled-down, to allow users to see the big picture but also the details when needed. An example might be to quickly find the consumption in 2000 versus 2005, for commercial properties, with Irrigation service, with meters sized 2” or larger, and grouped and totaled by zip code. This type of query/report would require a few minutes to configure, and a few seconds to display.

Results can be displayed on screen nearly instantly. Tables and graphics can then copied/pasted into Word or PowerPoint. Reports definitions can be stored, including parameter settings, dimension choices, report styles, colors etc. All data and graphs can be exported to Excel or PDF.

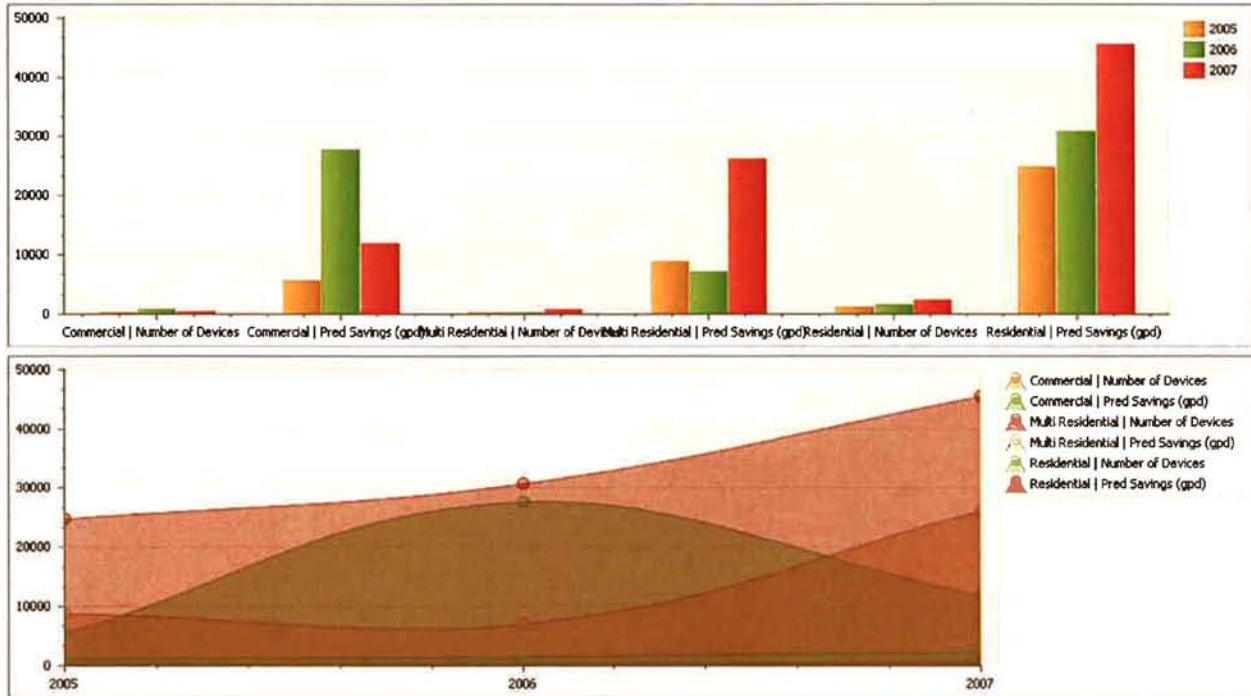
This type of functionality is very helpful in water conservation, but is also useful in planning and reporting on water usage. It also has uses in leak search and detection.

The following figures illustrate some of the WaterExplorer pages.

Category	July	August	September	October	November	December	January	February	March	April	May	June	2007 Total
Construction	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0
Manufacturing	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	252.0
Public Administration	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	24.0
Other	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	120.0
Total	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	420.0

The following figure shows a graph generated in WaterExplorer. In this case the graph is linked to the interactive table in the previous figure. It shows water consumption since 1988 by Residential and Multi-Residential (total for a city).

Typically these interactive displays require 10 seconds to be calculated and rendered. This speed makes it possible to truly explore your water data interactively. The following figure illustrates the type of interactive charting available with the WaterExplorer.



Appendix C: ConserveTrack Terminology

The following table defines certain key terms used in the ConserveTrack system.

Term	Description
Program	A long term, usually multi-year effort for water conservation, which focuses on a certain method for conservation. For example, an ongoing toilet retrofit program.
Phase	A short term portion of a Program, such as a one year phase of a toilet retrofit program. The Phase concept can also be used as a ‘container’ for a grant program or other short term, separately funded project that otherwise fits into a long term program. Budgets are tracked by Phase.
Case	One participation of a single account or property, in a single phase/program. An example is a toilet retrofit at one house or apartment. A case can also be a multi-year Irrigation retrofit at an HOA. Properties, Accounts etc, can all be grouped and attached to a case. One property may have many cases over time. A Case may contain multiple ‘interventions’.
Intervention	An intervention is one action that is done to save water. Examples include: a single retrofitted device (e.g. toilet), an education event, a visit to a home where advice or brochures are given, fixing a leak etc. Interventions are grouped by type. One Case may have several interventions.
Device	Any water using device: toilets, faucets, dish washers, pre-rinse spray valves, clothes washers, cooling towers. Devices can be retrofitted, purchased, installed etc. Devices are grouped by type, such as toilets, faucets, etc.
Account	The financial water account. Accounts are linked to properties, service points, account holder (People). They can also be linked to many Cases.
Property	A Property is an identifiable, physical location where water conservation can occur. It is specifically NOT an Account, NOT a tax Parcel, and NOT a Service Point. Examples are Single Family Homes, Apartments, Properties are usually linked to an Account, and can be linked to a Parcel (if Parcel data is available). These links are NOT always “One to One”.

<p>Master Property</p>	<p>This is a special term for groups of properties that are linked together for various purposes. The most common is for grouping them for a CASE, where all the properties and associated accounts, and Service Points, will be treated as one.</p> <p>An example is a mixed use building that has 3 commercial businesses, and 5 residential units all sharing the same account (or accounts) and single Service Point(s). CT would have a Master Property that combines all of them (grouping). The grouping is useful for viewing total water consumption, and predicted and actual water savings as needed.</p>
<p>Service Point</p>	<p>The Service Point concept is needed because often one Property may be served by more than one meter. The meter is at the Service Point. However Meters (serial numbered meters) can be changed out. Therefore CT treats meters and the point of service separately.</p> <p>Meter reads are said to be linked to the Service Point.</p> <p>Meters (serial number) are not tracked internally with CT as they are in some utility billing systems.</p>
<p>Meters and Meter Reads</p>	<p>A meter is the device installed at a water Service Point, to measure water consumption. Each meter has a size, type, serial number, etc. Meters are read at regular intervals, usually one or two months.</p> <p>Meter readings are saved in the utility billing system and sent to CT periodically.</p> <p>Meter readings take place at various days of the month (e.g. Feb 12th, March 15th, April 10th, May 4th...). In addition, meter readings are sometimes missing and are 'made up' in the following period.</p>
<p>Monthly Consumption</p>	<p>Monthly Consumption (MC) is the interpolated averaged water consumption calculated from meter readings. Generally the MC will be a more reliable method for comparing consumption between properties and accounts.</p>
<p>Parcel</p>	<p>A Parcel is an official, legal tax parcel of land. A parcel usually contains one property, one account, one service point, and one customer (e.g. a single family home). However in general a Parcel may include multiple accounts, service points and properties. Parcels are useful for integration with GIS because normally GIS systems include detailed information on parcels.</p> <p>Often it is problematic to map (link) accounts and properties to Parcels. In CT, this is done when the required linking data is in place.</p>
<p>Retrofit</p>	<p>A type of intervention that involved replacing an existing device with a newer, more</p>

	efficient device.
Rebate	A type of incentive for encouraging Retrofits.
Incentives	<p>A financial or other method of encouraging water savings interventions. Incentive types include:</p> <ul style="list-style-type: none"> • Rebates (money is paid to the customer after a retrofit or other action is taken). • Voucher (money is given to the customer in the form of a voucher that is used in the purchase of an efficient device) • Direct Install (new devices are installed by the sponsor at no cost to the customer) • Discount (customer purchases device directly from the sponsor at a discounted price) • Free pickup (customer picks up a free device from the sponsor)
SFH	Single Family Homes. SFH's often have just one service or even share a service with another home. In some cases a SFH will have multiple meters, often a second meter is for irrigation only.
MR	Multi-Residential – Condo's, Apartments
HOA	Home owners association. Often HOAs have several meters serving common areas, and shared meters for multiple units.

Questions For ConserveTrack References

Customers: 15,000 (10% commercial, 90% residential)

Decision Making:

- 1. How did you learn about ConserveTrack?** Staff talked to Santa Cruz Water District and did a site visit. The software they reviewed was Joe Miller's program for retrofit at the time of sale tracking program. Soquel staff knew they would not be able to adequately track the program without software specific for that type of conservation program. Soquel staff were also concerned about problems (liability) that might arise if the program's operations were not sufficiently able to track the multi-step retrofit program.
- 2. Who was involved in the decision-making process for purchase of Conserve Track?** The initial version involved Chris Regan, now Assistant General Manager for Laguna.
- 3. What other water conservation software did you evaluate?** None. The only other programmer they heard about worked on his own and only did custom programs, which are very expensive. Considering the problems companies have had with fly-by-night programmers and programs that did not work as promised, Mr. Duncan said he would "cringe at the thought of going with anybody else but Joe Miller." Any programmer must know utility billing issues, code requirements, and how water conservation programs work.
- 4. Did you do a site visit of another institution that was using the software before purchase?** Santa Cruz.
- 5. If you sole-sourced, what were your reasons? Did you contact others who had sole-sourced before you?** We didn't have a choice. There are no other programmers with Joe Miller's knowledge and experience with utilities and water conservation, and no other programs like ConserveTrack. Talked to many utilities that sole-sourced to JM's software.
- 6. What were your initial reasons for buying the software?** To track the water-demand offset program.
- 7. Were your initial reasons met by the software after it was up and running?** Absolutely.
- 8. Which models did you initially purchase?** Water demand offset program.
- 9. Have you subsequently purchased more modules?** Plumbing Retrofit at the Time of Sale; Program to track Weather-Based Irrigation Controller program. "Cash for Grass" Program tracking. In the process of buying a full version of Conserve Track.
- 10. Why?** Could not adequately track the programs without software assistance, and was very happy with Joe Miller's previous software.

General Questions About Software:

- 1. How long have you used the software?** Five years.
- 2. What other software uses were discovered when using it?** Didn't fully appreciate the importance of having letters and notifications automatically produced and documented. Subsequently found having a paper trail saved a lot of grief when a customer would claim that they had not been told something when they had been told.
- 3. Can you name 3 of your top favorite things about the software?** 1) Easy to use. 2) Savings from not having to hire more staff. 3) Helps settle disputes with customers. 4) Software is very dependable, especially in being able to import billing software's data.
- 4. Can you name 3 of your least favorite things about the software?** Installation of the other modules is one month behind, partly because Soquel's IT has not supplied the info Joe Miller needs to do the interface, and partly because Joe has become very busy because utilities are realizing that they cannot do some of the water conservation programs without software help.
- 5. Was the software difficult to learn?** No, very easy.
- 6. How long would you say it took before you felt comfortable with the software?** It depends on the complexity of the program; hours to an anticipated week or two to learn all of the new modules' features and operations.
- 7. Have you had any problems with the software itself, such that new software had to be loaded?** No problems with CT software. JM has written updates when Soquel's programs changed or when they added new features to the programs.
- 8. Any system crashes, hang-ups?** No. Very solid.
- 9. Can you briefly describe how you've found each module to be beneficial to your agency?**
- 10. Do you use the Rebate function?** Yes. Works well.

Installation:

- 1. What length of time was required for the installation of software, training, and getting the program ready to actually go to work?** It depends on the program's complexity and interaction with their own IT. Days to anticipated weeks for all of the new CT modules they will be getting at once.
- 2. What was your experience with ConserveTrack management and programmers?** JM is very responsive, and will return calls immediately. The IT person he sent out to install and test the upgrade was very good.
- 3. Were they responsive to your concerns and questions?** Very.
- 4. Did you encounter problems during that time?** No.
- 5. How has the import of consumption figures worked out? Can you describe the process?** The importing process is very smooth; no problems.
- 6. Did they commit to an installation time schedule?** They gave an approximate ETA.
- 7. Did they meet the time goals?** Prior installations were done well before the target date. Purchase of larger program is behind schedule for reasons as previously stated.
- 8. If not, did they keep you updated regarding ETA?** Yes.

Experience with Personnel:

- 1. Overall, what has been your experience with Conserve Track's personnel?** Very positive
- 2. Have they promptly returned your calls?** Absolutely.
- 3. Have your questions and concerns been adequately addressed?** Yes.
- 4. Has there been an update in software? How did that go?** Have had six updates, all of which were to address conservation program measures changes and new requirements. They all went well.

Summary of Experience with Conserve Track Software:

- 1. Overall, what has been your experience with ConerveTrack?** Experience with JM and his software has been very good. He said he would rate it an "A" and he doesn't give "A's" very often. It is a good product, easy to sue, with rapid response from the company when needed.
- 2. Have your overall expectations been met?** Absolutely.
- 3. Do you feel confident in the company, its personnel, and its products?** Yes.
- 4. If you had it to do all over again, would you buy Conserve Track software?** Absolutely.
- 5. If you had it to do all over again, would you do things differently in the purchase, installation, etc.?**

Stated they were going to pay for total package up front (that's how it was invoiced), but decided to specify 50% up front, and 50% of payment at 50% product delivery.

Questions For ConserveTrack References

NOTE: City of Santa Cruz does not have ConserveTrack, but uses a program for toilet retrofit at time of sale that Joe Miller developed for them.

Decision Making:

- 1. How did you learn about ConserveTrack?** Joe Martin (JM) had been brought in to fix programming mistakes by another programmer who previously wrote a program for Engineering. JM did a very good job, and when in 2003 a requirement was passed for plumbing retrofit at the time of sale, they asked him to write a program to process the retrofit program.
- 2. Who was involved in the decision-making process for purchase of Conserve Track?** Mr. Goddard.
- 3. What other water conservation software did you evaluate?** They did not put it out to bid because they were so satisfied with JM's work with Santa Cruz's Engineering Department, and because JM had extensive knowledge of water agency and water conservation issues and requirements, as well as the needs of people who work in the agency with customer support.
- 4. Did you do a site visit of another institution that was using the software before purchase?**
N/A
- 5. If you sole-sourced, what were your reasons? Did you contact others who had sole-sourced before you?** See #3, above.
- 6. What were your initial reasons for buying the software?** See #1, above.
- 7. Were your initial reasons met by the software after it was up and running?** Yes. They knew they would not be able to do an adequate job with the retrofit program without automation. Mr. Goddard estimates the program for retrofit saves the equivalent of one staff member.
- 8. Which models did you initially purchase?** N/A.
- 9. Have you subsequently purchased more modules?** N/A.
- 10. Why?** N/A.

General Questions About Software:

- 1. How long have you used the software?** Since 2003.
- 2. What other software uses were discovered when using it?** N/A.
- 3. Can you name 3 of your top favorite things about the software?**
 - a. The program is stable and it reliably works.
 - b. It is designed for water utility people and what they need. In the retrofit program, if a person calls in and wants to know where they are in the retrofit process, the program quickly searches and finds.
 - c. Does the work of at least one full-time staff person.
- 4. Can you name 3 of your least favorite things about the software?** No least favorite things. It dependably does what it is supposed to do.
- 5. Was the software difficult to learn?** No. Very user friendly.
- 6. How long would you say it took before you felt comfortable with the software?** Since the program was being written from scratch, it was developed in stages and fine-tuned along the way.
- 7. Have you had any problems with the software itself, such that new software had to be loaded?** No.
- 8. Any system crashes, hang-ups?** No. Very stable.
- 9. Can you briefly describe how you've found each module to be beneficial to your agency?** N/A.
- 10. Do you use the Rebate function?** A toilet-retrofit-at-time-of-sale program is similar to a rebate.

Installation:

- 1. What length of time was required for the installation of software, training, and getting the program ready to actually go to work?** Program was written from scratch, so it was a development time frame.
- 2. What was your experience with ConserveTrack management and programmers?** Very positive. Very responsive to requests. JM already knew a lot about water agencies and water conservation, so there was no learning curve for him.
- 3. Were they responsive to your concerns and questions?** Yes. Specifically, calls with questions or problems are almost immediately answered.
- 4. Did you encounter problems during that time?** No.
- 5. How has the import of consumption figures worked out? Can you describe the process?** It works without problems. The program has to import house sales information from one vendor with which Santa Cruz contracts, and billing information from Santa Cruz's billing program. They switched billing software (they use EDEN now) and JM easily set up import of that information, as well.
- 6. Did they commit to an installation time schedule?** N/A.
- 7. Did they meet the time goals?** N/A.

Only "bad" thing: JM's work is very popular, but he does what he says, and delivers when he says he will deliver.

Experience with Personnel:

- 1. Overall, what has been your experience with Conserve Track's personnel?** Prompt, professional, and they know what they are doing. They also know their own limitations, and will ask questions if they do not completely understand what you want them to program for you.
- 2. Have they promptly returned your calls?** Yes.
- 3. Have your questions and concerns been adequately addressed?** Yes, always.
- 4. Has there been an update in software? How did that go?** N/A.

Summary of Experience with Conserve Track Software:

- 1. Overall, what has been your experience with ConserveTrack?** They are knowledgeable, they know the water utility industry, and the software product is reliable, easy to learn, and fun to work with.
- 2. Have your overall expectations been met?** Yes.
- 3. Do you feel confident in the company, its personnel, and its products?** Yes.
- 4. If you had it to do all over again, would you buy Conserve Track software?** Yes.
- 5. If you had it to do all over again, would you do things differently in the purchase, installation, etc.?** No.

Questions For ConserveTrack References

Customers: 16,000

Program: Plumbing Retrofit at Time of Account Change (Access Version)

Decision Making:

- 1. How did you learn about program?** Program was present when Ms. Mrosek assumed the position. Program was brought online in 2004 or 2005.
- 2. Who was involved in the decision-making process for purchase of Conserve Track?** WC Director and WC specialist. They could not find another program to track the plumbing retrofit requirement, and had Joe Miller (JM) design one.
- 3. What other water conservation software did you evaluate?** They couldn't find any other software.
- 4. Did you do a site visit of another institution that was using the software before purchase?**
N/A
- 5. If you sole-sourced, what were your reasons? Did you contact others who had sole-sourced before you?** N/A
- 6. What were your initial reasons for buying the software?** To track plumbing retrofit program.
- 7. Were your initial reasons met by the software after it was up and running?** Yes.
- 8. Which modules did you initially purchase?** They had JM design program for plumbing retrofit.
- 9. Have you subsequently purchased more modules?** They have used another of his programs for rebates.

General Questions About Software:

- 1. How long have you used the software?** Since assuming the position.
- 2. What other software uses were discovered when using it?** Only had one use: plumbing retrofit.
- 3. Can you name 3 of your top favorite things about the software?**
 - a. Integrates with billing database.
 - b. Customized letters and processes.
 - c. Easy to use; simple to learn.
- 4. Can you name 3 of your least favorite things about the software?** No problems with the JM-programmed software, but their agency switched billing software (Eden to Springbrook) and Springbrook has "glitches" with consistency of accessing customers names, addresses, etc. It occurs in the billing program, where addresses on bills will be in gibberish or just not there. JM has been very responsive to design ways around Springbrook's problems.

A problem they have with the Billing Dept. concerns Billing backdating final services (they have a complicated back-dating process), and if Ms. Mrosek processes letters or information on the plumbing retrofit program the same day, the recently back-dated accounts may not get picked up by software. This is a function of the Springbrook system because it holds input data for an unknown amount of time before processing it. The problem did not occur with Eden software.
- 5. Was the software difficult to learn?** No.
- 6. How long would you say it took before you felt comfortable with the software?** Very quickly.
- 7. Have you had any problems with the software itself, such that new software had to be loaded?** Not with JM's software itself, but she has had to ask JM to help her work around Springbrook's problems, which he has done without charge. Springbrook charges for every little request, no matter how small, and even if it is a problem with the Springbrook software itself.
- 8. Any system crashes, hang-ups?** No. Reliable.
- 9. Can you briefly describe how you've found each module to be beneficial to your agency?** There were two full-time employees doing the plumbing retrofit program before they got the software. She now has one part-time assistant who does a range of things for her.
- 10. Do you use the Rebate function?** N/A

Installation:

- 1. What length of time was required for the installation of software, training, and getting the program ready to actually go to work?** Doesn't know (the software was in place and operational by the time she was transferred to the department).
- 2. What was your experience with ConserveTrack management and programmers?** Experience with JM's plumbing retrofit program software has been really good. JM returns calls immediately, and is willing to do what it takes to get the problem fixed, even if it is with another software that his software just has to pull information from.
- 3. Were they responsive to your concerns and questions?** Yes.
- 4. Did you encounter problems during that time?** As above. Problems started when switched to Springbrook billing software.
- 5. How has the import of consumption figures worked out? Can you describe the process?** It worked well until they changed billing software. JM has helped work around some of Springbrook's problems.
- 6. Did they commit to an installation time schedule?** Doesn't know.
- 7. Did they meet the time goals?** Doesn't know.

Experience with Personnel:

- 1. Overall, what has been your experience with Conserve Track's personnel?** Very good. Very responsive, very helpful.
- 2. Have they promptly returned your calls?** Yes.
- 3. Have your questions and concerns been adequately addressed?** Yes.
- 4. Has there been an update in software? How did that go?** N/A

Summary of Experience with Conserve Track Software:

- 1. Overall, what has been your experience with ConerveTrack?** Very good.
- 2. Have your overall expectations been met?** Yes.
- 3. Do you feel confident in the company, its personnel, and its products?** Very confident in JM and his software they are using. No experience with CT, except the plumbing-retrofit-at-the-time-of-sale program.
- 4. If you had it to do all over again, would you buy Conserve Track software?** N/A
- 5. If you had it to do all over again, would you do things differently in the purchase, installation, etc.?** N/A

Questions For Conservetrack References

of Meters: 145,000 to 150,000 (currently down because of the recession).

Res: 87% Commercial: 13%

Decision Making:

- 1. How did you learn about ConserveTrack?** About four years ago she met JM at a AWWA conference. They talked about water-conservation program software he had developed. Over the next two years they frequently talked and Gina gave him advice about what his programs must be sure to contain to make sure they work well for water agencies.
- 2. Who was involved in the decision-making process for purchase of Conserve Track?** Mainly Gina. JM presented a demo at the company, and it had to be approved by the County Board of Supervisors. IT had to approve the software, as well. Initially the program was based on Access; now its internet based, and is hosted on ConserveTrack's website.
- 3. What other water conservation software did you evaluate?** They sent it out to bid. JW's was the only one that qualified. A couple of other respondents responded but on interview it was discovered that they didn't actually have a working product, and had no knowledge of the water utility business.
- 4. Did you do a site visit of another institution that was using the software before purchase?** No. He did a WC program in California for the toilet-retrofit-at-the-time-of-sale program (Big Bear), and she talked with them extensively about their software.
- 5. If you sole-sourced, what were your reasons? Did you contact others who had sole-sourced before you?** No.
- 6. What were your initial reasons for buying the software?** Track WC customers and programs; quantify water savings. On a yearly basis she has to report to each of six County commissioners with figures from their district. It would take three months of preparation before the software. It was the compiling of data and analyzing it that took the most time.
- 7. Were your initial reasons met by the software after it was up and running?** Yes.
- 8. Which modules did you initially purchase?** Toilet retrofit voucher program.
- 9. Have you subsequently purchased more modules?** Plan to purchase modules for a for showerhead-exchange-program and water-restriction-enforcement programs in October, depending on funding. They are also interested in a program that can track their education efforts (i.e, for workshops, tracking who attends, what commissioner's district the attendees are in, etc.).
- 10. Why?** Programs' savings tracking and efficient management cannot be performed without greatly increasing WC staff or using software to do the work.

General Questions About Software:

- 1. How long have you used the software?** Since January 2009.
- 2. What other software uses were discovered when using it?** Daily she finds new ways to do things, and ways to combine modules. She is very excited by the wide range of things she is discovering she can do.
- 3. Can you name 3 of your top favorite things about the software?** a) Steps in processing vouchers; very organized and easily accomplished. b) Quantify usage and savings. c) Logicality of the way the modules work (if you learn one module, the others use the same logic).
- 4. Can you name 3 of your least favorite things about the software?** If they make a lot of changes to a conservation program and the changes are installed all at once, sometimes she will get error messages. She then copies them, sends them to JM, and within an hour he has it fixed.
- 5. Was the software difficult to learn?** No. Very logical.
- 6. How long would you say it took before you felt comfortable with the software?** One week to 10 days for the toilet voucher program.
- 7. Have you had any problems with the software itself, such that new software had to be loaded?** No.
- 8. Any system crashes, hang-ups?** Just an occasional error message.
- 9. Can you briefly describe how you've found each module to be beneficial to your agency?** Tracking water savings and customers in the WC programs.
- 10. Do you use the Rebate function?** Voucher program.

Installation:

- 1. What length of time was required for the installation of software, training, and getting the program ready to actually go to work?** There was a 6-month delay in installation secondary to their staff not getting billing data to JM. By the time they got the data to him, he was in the middle of other projects with their own deadlines, so he had to work them in.
- 2. What was your experience with ConserveTrack management and programmers?** Very professional.
- 3. Were they responsive to your concerns and questions?** Yes.
- 4. Did you encounter problems during that time?** See #1. Above.
- 5. How has the import of consumption figures worked out? Can you describe the process?** It has worked well except for problems in their utility billing program; addresses are not linked to accounts in some cases. When JM was setting up the program, he flagged the ones he encountered so she could address them.
- 6. Did they commit to an installation time schedule?** Yes.
- 7. Did they meet the time goals?** No, mainly because of their own agency's inability to get the data to JM as scheduled.
- 8. If not, did they keep you updated regarding ETA?** Yes. They are very good about that.

Experience with Personnel:

- 1. Overall, what has been your experience with Conserve Track's personnel?** Good. Very responsive. Their staff is limited, but they get the job done.
- 2. Have they promptly returned your calls?** Yes.
- 3. Have your questions and concerns been adequately addressed?** Yes.
- 4. Has there been an update in software? How did that go?** Updates were due to changes in water conservation programs. If an update involves a lot of changes across many screens, there may be an occasional error message, which JM promptly fixes.

Summary of Experience with Conserve Track Software:

- 1. Overall, what has been your experience with ConerveTrack?** Very good software for tracking use and water savings. JM continues to add modules, and she is eager to continue using it.
- 2. Have your overall expectations been met?** Yes.
- 3. Do you feel confident in the company, its personnel, and its products?** Yes.
- 4. If you had it to do all over again, would you buy Conserve Track software?**
- 5. If you had it to do all over again, would you do things differently in the purchase, installation, etc.?**

Orange County is leasing (i.e, their software is on JM's internet domain) and they strongly recommend that approach. This enables him to do a lot of very quick adjustments, programming and fixes. With leasing, he automatically upgrades and adds new modules. They pay \$12,000 per quarter.

QUESTIONS FOR CONSERVETRACK REFERENCES

of Meters: 145,000 to 150,000 (currently down because of the recession).

Res: 87% **Commercial:** 13%

Decision Making:

1. **How did you learn about ConserveTrack?** About 4 years ago met JM at a AWWA conference. They talked about software he had developed. Over the next 2 years, they frequently talked and Gina gave him advice about what his programs must be sure to contain to make sure they work well for water agencies.
2. **Who was involved in the decision-making process for purchase of Conserve Track?** Mainly Gina. JM presented a Demo at he company, and it had to be approved by the County Board of Supervisors. IT had to approve the software, as well. Initially the program was based on Access; now its internet based, and is hosted on ConserveTrack's website.
3. **What other water conservation software did you evaluate?** They sent it out to bid. JW's was the only one that qualified. A couple of other respondents didn't actually have a working product, and had no knowledge of the water agency business.
4. **Did you do a site visit of another institution that was using the software before purchase?** No. He did a WC program in Californi for the toilet retrofit at the time of sale (Big Bear), and she extensively talked with them about their software.
5. **If you sole-sourced, what were your reasons? Did you contact others who had sole-sourced before you?** No.
6. **What were your initial reasons for buying the software?** Track WC customers and programs; quantify water savings.
7. **Were your initial reasons met by the software after it was up and running?** Yes.
8. **Which modules did you initially purchase?** Toilet retrofit voucher program.
9. **Have you subsequently purchased more modules?** Plan to purchase a program for showerhead exchange program and water restriction enforcement modules in October, depending on funding. They are also interested in a program that can track their education efforts (i.e, for workshops, tracking who attends, what commissioner's district they are in, etc.).
10. **Why?** Programs' savings tracking and efficient management cannot be performed without greatly increasing WC staff or using software to do the work.

Agency: Orange Co,FL **Contact:** Gina Wright eugenia.wright@co.orange.fl.us **Phone:** 407-254-9840

General Questions About Software:

1. **How long have you used the software?** Since January.
2. **What other software uses were discovered when using it?** Daily she finds new ways to do things, and ways to combine modules.
3. **Can you name 3 of your top favorite things about the software?** 1) Steps in processing vouchers; very organized and easily accomplished. 2) Quantify usage and savings. 3) Logicality of the way the modules work (if you learn one, the others use the same logic).
4. **Can you name 3 of your least favorite things about the software?** If they make a lot of changes to a conservation program and the changes are installed all at once, sometimes she will get error messages. She then copies them, sends them to JM, and within an hour he has it fixed.
5. **Was the software difficult to learn?** No. Very logical.
6. **How long would you say it took before you felt comfortable with the software?** One week to 10 days for the toilet voucher program.
7. **Have you had any problems with the software itself, such that new software had to be loaded?** No.
8. **Any system crashes, hang-ups?** Just an occasional error message.
9. **Can you briefly describe how you've found each module to be beneficial to your agency?** Tracking water savings and customers in the WC programs.
10. **Do you use the Rebate function?** Voucher.

Installation:

1. **What length of time was required for the installation of software, training, and getting the program ready to actually go to work?** There was a 6-month delay in installation secondary to their staff not getting billing data to JM. By the time they got the data to him, he was in the middle of other projects with their own deadlines, so he had to work them in.
2. **What was your experience with ConserveTrack management and programmers?** Very professional.
3. **Were they responsive to your concerns and questions?** Yes.
4. **Did you encounter problems during that time?** See #1. Above.
5. **How has the import of consumption figures worked out? Can you describe the process?** It has worked well except for problems in their billing program with not having addresses linked to accounts in some cases. When JM was setting up the program, he flagged the ones he encountered for them.
6. **Did they commit to an installation time schedule?** Yes.
7. **Did they meet the time goals?** No, mainly because of their own agency's inability to get the data to JM as scheduled.
8. **If not, did they keep you updated regarding ETA?** Yes. They are very good about that.

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Experience with Personnel:

1. **Overall, what has been your experience with Conserve Track's personnel?** Good. Very responsive. Their staff is limited, but they get the job done.
2. **Have they promptly returned your calls?** Yes.
3. **Have your questions and concerns been adequately addressed?** Yes.
4. **Has there been an update in software? How did that go?** Updates were due to change in water conservation programs. If it involves a lot of changes across many screens, there may be an occasional error message, which JM promptly fixes.

Agency: Orange Co,FL **Contact:** Gina Wright eugenia.wright@co.orange.fl.us **Phone:** 407-254-9840

Summary of Experience with Conserve Track Software:

1. **Overall, what has been your experience with ConerveTrack?** Very good software for tracking use and water savings. JM continues to add modules, and she is eager to continue using it.
2. **Have your overall expectations been met?** Yes.
3. **Do you feel confident in the company, its personnel, and its products?** Yes.
4. **If you had it to do all over again, would you buy Conserve Track software?**
5. **If you had it to do all over again, would you do things differently in the purchase, installation, etc.?**

Orange County is leasing, and has their programs on JW's internet domain. This enables him to do a lot of very quick adjustments, programming and fixes. With leasing, he automatically upgrades and adds new modules. They pay \$12,000 per quarter' based on the number of accounts.

**NIPOMO COMMUNITY SERVICES DISTRICT
RESOLUTION NO. 2009-XXXX**

**A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE NIPOMO COMMUNITY SERVICES DISTRICT
AUTHORIZING THE PURCHASE OF WATER CONSERVATION SOFTWARE
AS A SOLE SOURCE ACQUISITION**

WHEREAS, an important part of the Nipomo Community Services District ("District") water conservation program is accountability and measurement, where possible, of water savings related to water conservation programs implemented by the District; and

WHEREAS, District staff has researched computer programs that related to water conservation that:

- A. Provide tracking of implemented water conservation measures, including mandatory water restriction programs, rebates and water-demand offset programs; and
- B. Are capable of being integrated with existing District computer billing software programs.

WHEREAS, District staff has only been able to locate one program "ConserveTrack" that fulfills the District's requirements; and

WHEREAS, District staff has been advised by other water districts that "ConserveTrack" is the only available program that provides the accountability and measurement of water savings related to water conservation programs; and

WHEREAS, based on the Staff Report, staff testimony, and public comment, the District Board of Directors finds as follows:

- A. The purchase/lease price of "ConserveTrack" is reasonable; and
- B. District staff has researched available programs and "ConserveTrack" appears to be the only program available to meet the District's requirements.

NOW, THEREFORE, BE IT RESOLVED, DETERMINED AND ORDERED, by the Board of Directors of the District as follows:

Section 1. The above Recitals are true and correct and are incorporated herein by this reference. The Recitals and referenced reports and studies contained therein constitute and support the findings of the District in support of this Resolution.

Section 2. The General Manager or his/her designee is authorized to enter into a contract with "ConserveTrack" pursuant to Option 1 in the Staff Report.

Upon the motion of Director _____, seconded by Director _____ and on the following roll call vote, to wit:

AYES:
NOES:
ABSENT:
CONFLICTS:

the foregoing resolution is hereby adopted this ____ day of _____ 2009.

James Harrison, President
Nipomo Community Services District
Board of Directors

ATTEST:

APPROVED AS TO FORM

Donna K. Johnson
Secretary to the Board

Jon S. Seitz
District Legal Counsel