Meter Reading to Billing and Beyond

Collecting data

Q/A of Billing data

Reporting Billing data

Customers concerns and questions

Meter Reading Steps

Consumption Clerk Initiates: Loads routes

- Approximately 11,656 Gas, Water and Reclaimed water meters are read weekly
- Las Vegas, Watrous, Wagon Mound and Montezuma

Automated Meter Reading

- *Collection personnel*
  - Field Customer Service Supervisor, Field Customer Service Rep III, Field Customer Service Rep II
- *Data collection devices*
  - Laptop
  - Hand Held Devices
- *Process*
  - Drive every road and alley collecting transmitted data on the laptop
  - Export Data collected to Flash Drive for the Consumption Clerks Process

Meter Reading Steps

Missed Reads

- Lack of AMR
- Blocked Antenna
- Failed register
- Use Handheld device or read Manually

Manual Meter Reading

- Read Manually and input into device
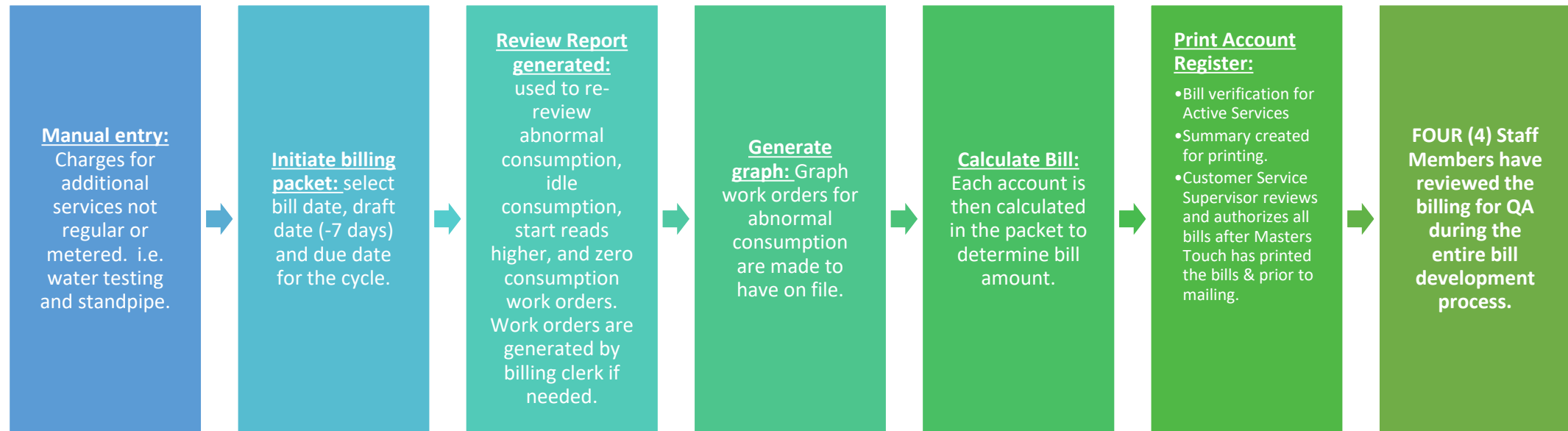- Use Hand Held Device to upload

Reread Work Orders

- If collected data is not coinciding with previous read from all three different processes (laptop, handheld or manual) then a reread work order is generated.
- Meter is reread and provided to the Consumption Clerk for the review and report processes

Uploading – System Entry

- Consumption Clerk downloads, saves and backs up data from USB and Handheld devices completing the billing process for specific cycle and route.

- An Error-55 Report is generated for non – billable reads and provided to the Customer Service Manager.

- Review Report is printed.
  - Abnormal Consumption - ACO, Idle Service with Consumption - IDC, No end reads - NER, invalid number - NOD, no start read - NSR, start read higher than end read - SRH, zero consumption - ZRC.

- Each account is reviewed by comparing consumption for last month and same month last year.

- Work orders for the Customer Service Field Supervisor generated for Error 55s and from the Review report

- For accounts with abnormal consumption the customer is mailed a notification and a letter is filed in their folder.

- Work orders are completed, returned by the Field Customer Service personnel, notes & meter rereads are recorded into the Service order notes and work orders are filed.

Bill development procedures

Manual entry: Charges for additional services not regular or metered. i.e. water testing and standpipe.	**Initiate billing packet:** select bill date, draft date (-7 days) and due date for the cycle.	**Review Report generated:** used to re-review abnormal consumption, idle consumption, start reads higher, and zero consumption work orders. Work orders are generated by billing clerk if needed.	**Generate graph:** Graph work orders for abnormal consumption are made to have on file.	**Calculate Bill:** Each account is then calculated in the packet to determine bill amount.	**Print Account Register:** •Bill verification for Active Services •Summary created for printing. •Customer Service Supervisor reviews and authorizes all bills after Masters Touch has printed the bills & prior to mailing.	**FOUR (4) Staff Members have reviewed the billing for QA during the entire bill development process.**

Leak Detection Process

Leak Detection Service

The Weekly Leak Detection Program utilizes data collected during each billing cycle.

- The system will flag accounts with high consumption generating a report. Must have a history for the computer to assess against.
- High consumption report reviews the entire system each cycle for the city of Las Vegas.
- Check for leak - work orders generated.

Work orders - Check for Leak Process:

- Compare Manual read to AMR Read.
- AMR shows the leak indicator Icon flashing either faucet or stationary faucet. ARM recognizes active leaks scales rate up to $1/100^{th}$ of gallon
- In instances where the leak indicator icon is not present Field Customer Service Rep will check the register for flow.

Leak Detection Process

Leak Detection Service

Check for flow determining amount of leak

- The Field Customer Service Rep will then conduct a 5 min clock test.
- Contact and inform customer by letter if < 1 gal/min or in Person and by letter if > 1 Gal

Customer Reporting

- Customers receive their bill and can compare to previous months for change in consumption
- Customers can meet with staff for more detailed printouts, history and leak detection support such as audits

Audits

- Staff perform audits
  - Review History
    - 90 Day Graphs
  - Dye Tabs
  - Isolate home if possible

- 90 Day Graph Work Orders
  - The 90-day graph monthly consumption can be broken down to a daily to hourly water consumption.

- Home Audit Work Orders: A home audit work order is usually generated when a check for leak work order is completed. It verifies information on the increased consumption. The City of Las Vegas performs these audits as a courtesy in efforts to assist customers and conserve water that is being lost due to private service line water leaks.
  - Field Customer Service Rep. and Customer attempt to verify possible leak location.
  - Any documents developed during the audit as well as the work order with pertinent information are submitted to Consumption Clerk for recording and addition to the customers record.

Adjustment Requests

- Staff follow City regulations (A-17-229) on below ground leak adjustment procedures
    - Customer provides a letter requesting adjustment W/I 30 days of bill or notification.
    - Provide photographic documentation before and after the repair, staff will verify.
    - There are limitations such as the leak must be underground, 5K gal+ above normal consumption and have been repaired. Customer is limited to 1 credit in a 2-year period covering up to 2 billing periods.
    - Request for credit is run through customer service rep for calculations, through the distribution manager for verification, through the customer service manager for recommendation, through the utility director for review and finally to the City Manager for Approval.
    - If an adjustment request does not meet requirements and the customer is responsible for the bill, staff work with the customer to understand the increased consumption (when possible) and assist the customer with a payment plan to minimize the impact of the increased consumption.