

Permitting Software Replacement Project for the Private Sewer Lateral (PSL) Program - Functional Requirements

EBMUD is seeking software that can deliver on the requirements outlined below. Each product feature is described in greater detail in the following sections. Please provide a response to each specific requirement to confirm whether it is currently supported by your software services or requires a custom solution.

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Definitions

“**Cleanout**” a pipe fitting and associated piping connected to a Private Sewer Lateral that provides access to the Private Sewer Lateral for purposes of flushing, rodding, cleaning, and other maintenance, and diagnostic purposes.

“**Compliance Agreement**” an agreement which may be entered into by EBMUD and the Property Owner subject to the Ordinance, which may allow additional time to meet Ordinance requirements.

“**Compliance Certificate**” a certificate issued by EBMUD for a parcel upon its determination that all Private Sewer Laterals associated with a parcel have demonstrated compliance with applicable standards by passing a Pressure Verification Test.

“**Exemption Certificate**”: a certificate issued by EBMUD for a parcel that is exempt from the Ordinance. A Property Owner who holds an Exemption Certificate for a given parcel need not obtain a Compliance Certificate for that parcel during the period the Exemption Certificate remains valid.

“**Lower Sewer Lateral**” the portion of the Private Sewer Lateral extending from the Cleanout near the curb line to the Sewer Main, or from the curb line in the street to the Sewer Main if there is no Cleanout near the curb line. The Lower Sewer Lateral includes the connection to the Sewer Main. A Lower Sewer Lateral is associated with a parcel if it, or any portion of it, is located upon the parcel or conveys sewage and liquid waste from any Structure located on that parcel. More than one Lower Sewer Lateral may be associated with an individual parcel.

“**Parcel Group**” means two or more contiguous or directly adjacent parcels of real property under common ownership.

Personally Identifiable Information (PII) means any information about a person that can be used to identify, contact, or locate that person.

“**Pressure Verification Test**” means a pressure verification test using either water or air witnessed by an EBMUD inspector to verify that a Private Sewer Lateral has been deemed leak-free.

“**Private Sewer Lateral**” means a pipe or pipes and appurtenances that carries sewage and liquid waste from the structure(s) served, whether the structure(s) is or are publicly or privately owned to the Sewer Main.

“**Property Owner**” a person that owns a present interest in a parcel of real property as a sole owner or as a cotenant.

“**Time Extension Certificate (TEC)**” a certificate issued by EBMUD in connection with a Title Transfer transaction to a Property Owner, or to a transferee, that extends the deadline to obtain a Compliance Certificate from the date the Time Extension Certificate is issued. TECs are purchased online for a cost-recovery based fee and require a monetary deposit, which is refunded when a Compliance Certificate is obtained.

“**Upper Sewer Lateral**” the portion of the Private Sewer Lateral extending from the Cleanout near the curb line to the structure(s) served by that Private Sewer Lateral, or from the curb line in the street to the structure(s) served by that Private Sewer Lateral if there is no Cleanout near the curb line. The Upper Sewer Lateral includes all portions of the Private Sewer Lateral upon the parcel containing the Structure(s) served.

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1. User Groups and General Software Requirements

1.1 User Group Responsibilities

The first user group defined below represents a member of the PSL Program staff, and each user may require unique access to the PSL Program application. The system must provide the ability to restrict access to information depending on the users' predetermined credentials. Please note: users may need access to other program features even if not listed in their responsibilities or activities below, so some flexibility will be required for granting or restricting access for PSL Program staff.

The second user group represents the customer, which describes the typical requests and activities most commonly completed by PSL Program customers. Customers visiting the self-service portal should not have to authentic or have access restrictions in order to make PSL Program requests.

PSL Program Staff (EBMUD) User Groups	Responsibilities/Use Activities
PSL Scheduling Admin	<ul style="list-style-type: none"> ▪ Manage inspection appointments ▪ Manage PSL email inbox and hotline ▪ Add new appointments
PSL Inspector Manager	<ul style="list-style-type: none"> ▪ Manage inspector schedules ▪ Modify inspection priorities
PSL Inspector	<ul style="list-style-type: none"> ▪ Track inspection appointments ▪ Conduct onsite sewer lateral inspections ▪ Input inspection results
PSL Administrator Manager	<ul style="list-style-type: none"> ▪ Time Extension Certificate refunds signoff ▪ Compliance Agreement and appeal signoff ▪ Queries data and compiles reports
PSL Administrator	<ul style="list-style-type: none"> ▪ Manage data for three program triggers ▪ Process appeal requests ▪ Process exemption requests ▪ Record manual payments ▪ Queries data and compiles regulatory reports
Accounting Administrator	<ul style="list-style-type: none"> ▪ Time Extension Certificate deposit reports ▪ Time Extension Certificate disbursement authorization processing ▪ Query data and compiles reports
IT Administrator	<ul style="list-style-type: none"> ▪ Application support/bug fixes/maintenance ▪ Query data and compiles reports

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External (Customers) User Groups	Responsibilities/Use Activities
Property Owners	<ul style="list-style-type: none"> ▪ Determine compliance for their property ▪ Determine outstanding balances and pay program fees ▪ Apply for exemption ▪ Apply for Time Extension Certificate ▪ Appeal PSL Program requirement ▪ Find information about program requirements
City Officials	<ul style="list-style-type: none"> ▪ Send notice to withhold Compliance Certificate ▪ Provide permit details pertaining to a customer exemption request ▪
Plumbing Contractors	<ul style="list-style-type: none"> ▪ Schedule inspection and obtain a Compliance Certificate

1.2 General Software Requirements

The table below briefly introduces the high-level product features EBMUD will need the system to provide functionality and the user groups that will be using these features.

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2. Data Management

2.1 Assessor's Parcel Number (Parcel) Information

EBMUD maintains a database with parcel information for properties within the Wastewater Service Area. The new software will utilize this database. The PSL Program requires the property owners of record to obtain a Compliance Certificate for the parcel or parcels they own upon meeting a PSL Program trigger. All program data must be tracked to each individual parcel which includes certificates, program fees, inspection appointments and records, and enforcement action. In some cases, multiple certificates may need to be issued and tracked to one parcel, and in other cases parent-to-child relationships are required to track compliance for parcel(s) or contiguous parcel groups under common ownership. Since inspections are scheduled using a parcel application, it is crucial for EBMUD staff to have the ability to make updates on a regular basis to prevent delays.

Item no.	Requirement	Must have	Nice to have	Required for Go Live
2.1.1	The system must integrate with the EBMUD APN database for Contra Costa County, and Alameda County, specifically the system must at a minimum include the following Cities in our wastewater service area:	X		X
2.1.1.1	Alameda	X		X
2.1.1.2	Albany	X		X
2.1.1.3	Berkeley	X		X
2.1.1.4	El Cerrito	X		X
2.1.1.5	Emeryville	X		X
2.1.1.6	Kensington	X		X
2.1.1.7	Piedmont	X		X
2.1.1.8	Oakland	X		X
2.1.1.9	Richmond Annex	X		X
2.1.2	The system must retain all original parcels that get replaced because of parcel splits and merges to preserve parcel compliance history and inspection records.	X		X
2.1.3	The system must provide EBMUD staff with the ability to manage and create parcel relationships within the parcel application (e.g., HOA common parcel to individual privately owned parcels).	X		X
2.1.4	The system must provide the following minimum information required for parcel record updates:	X		X
2.1.4.1	Parcel Number	X		X
2.1.4.2	County	X		X
2.1.4.3	Property Address	X		X
2.1.4.4	Property City	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
2.1.4.5	Property State	X		X
2.1.4.6	Property Zip	X		X
2.1.4.7	Land use code	X		X
2.1.5	The system must provide the ability to create unique “sub-parcels” that represent a piece of a larger parcel (e.g., to issue certificates for the Port of Oakland or Alameda Point locations) to track certificates for parcels with more than one property owner or lessee.	X		X
2.1.5.1	The system must be able to track parent and child relationship between parcels	X		X
2.1.6	The system must be able to track parcel splits	X		X

2.2 Application Record Keeping Requirements and User Access (Backend)

Data for each parcel will need to be tracked and recorded within the system as property owners work towards obtaining a Compliance Certificate for the parcel(s) they own. The table below provides a list of the required data that will need to be tracked and stored in the system as well as varying levels of access to the data for PSL Program staff.

Item no.	Requirement	Must have	Nice to have	Required for Go Live
2.2.1	The system must have ability to restrict user access and provide varying levels of user credentials for the users listed in Table 1.1 (User Group Responsibilities).	X		X
2.2.2	The system must allow users to have read and write access to PSL records by desktop and mobile device.	X		X
2.2.3	The system must track all the following events to a given parcel:	X		X
2.2.3.1	Inspection bookings	X		X
2.2.3.2	Inspection records (data directly input into system and reports uploaded)	X		X
2.2.3.3	Appeal requests	X		X
2.2.3.4	Customer program fee charges and payments	X		X
2.2.3.5	Date fee assessed, purpose of fee, amount of fee	X		X
2.2.3.6	Date of payment and link to item being paid	X		X
2.2.3.7	Record of all customer communication and actions taken	X		X
2.2.3.8	PSL certificate issuance (Compliance, Exemption and Time Extension certificates)	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
2.2.4	The system must provide the ability to upload PDF documents into the application and attach records to parcel(s). Records must be read-only format.	X		X
2.2.5	The system must have the ability to view data by parcel in geospatial environment (including from an iPad or smart phone while conducting inspections in the field), and include at a minimum the following data:	X		X
2.2.5.1	Compliance Status/Certificate Type(s)	X		X
2.2.5.2	Past inspection reports	X		X
2.2.5.3	Location of PSLs (as drawn by inspectors during prior inspections)	X		X
2.2.5.4	Location of sanitary sewer mains, including easements	X		X
2.2.5.5	Location of sanitary sewer manholes	X		
2.2.6	The system should be able to allow PSL Program staff the ability to enter and record notes regarding customer communication and to allow emails to be sent directly from the application and communications to be logged with parcel in system.		X	
2.2.7	The system should provide the ability to track and manage PSL Program financial data (deposits, fees, refunds) and exchange information with EBMUD financial applications (e.g., Oracle Financial System).		X	

2.3 Historical Program Data

The PSL Program has an existing application with over 10 years of historical data. In the current application there are a total of 74 tables with nearly 2 million records and counting. In addition to collecting and storing future data, the system will also need to accommodate historical PSL Program data. The Program's historical data is crucial to tracking parcel compliance.

Item no.	Requirement	Must have	Nice to have	Required for Go Live
2.3.1	The system must be able to migrate historical PSL Program records which includes:	X		X
2.3.1.1	Inspection reports			
2.3.1.2	Certificates			
2.3.1.3	Fee payments			
2.3.1.4	Enforcement			
2.3.2	The system must have the ability to allow PSL Program staff to upload and attach past inspection records to a specific parcel or parcel group.	X		X

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3. PSL Inspection Appointments and Records

3.1 Self-Service Customer Portal

EBMUD receives many unique website visitors each day to www.eastbaypsl.com from customers seeking to learn about program requirements, request certificates, check on compliance status, pay program fees, and schedule sewer lateral inspections. The system must be capable of handling high loads. The system must offer a self-service portal that supports desktop and mobile devices for all features and functionality discussed in this section.

Item no.	Requirement	Must have	Nice to have	Required for Go Live
3.1.1	The system must <u>not</u> require user authentication for customers using the customer self-service portal for certain actions, including:	X		X
3.1.1.1	Checking compliance status	X		X
3.1.2	The system may require a simple sign in (authenticated account) process for the following actions:		X	
3.1.2.1	To schedule or reschedule an inspection appointment.	X		
3.1.2.2	To request a certificate (Compliance, Exemption, Time Extension)	X		
3.1.3	The system must allow customers to view HOA Statements of Responsibility (SOR) on the customer self-service portal. The SOR defines sewer lateral maintenance responsibility between property owners and the governing HOA.	X		X
3.1.4	Customers will be submitting confidential, sensitive, or personal information when applying for an exemption or filing an appeal. The system must provide customers with a tool or mechanism when submitting supporting documentation to PSL Program staff through a secure portal.	X		X
3.1.4.1	Confidential, sensitive, or personal information must be stored on the backend of the application for PSL Program staff to review and download a copy of the records.	X		X
3.1.5	When customers apply for inspection for HOA or parcel or parcel groups with 1000ft the system must require and provide tool for customers to upload sewer maps showing the location of the PSLs to be inspected.	X		X
3.1.5.1	Customers looking to book inspections for HOAs or 1000ft properties alerted that the appointment is pending approval of PSL Program staff confirmation of sufficient documentation received.	X		X
3.1.5.2	PSL Staff alerted that documents for HOA or parcel group with greater than 1000ft are available	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
	for review; allow Staff to approve or deny appointment.			
3.1.6	The system must provide the following minimum data entry fields required to search for property address, determine compliance, and schedule PSL inspection:	X		X
3.1.6.1	Parcel	X		X
3.1.6.2	Property address	X		X
3.1.6.3	Address line 2	X		X
3.1.6.4	Property city	X		X
3.1.6.5	Data entry fields to search for property address, determine compliance, and schedule PSL inspection	X		X
3.1.7	The system must provide a field for customers to list the number of PSLs to be inspected on the parcel. The application must route the appointment request to the right team based on the number of laterals on the property.	X		X
3.1.8	The system must tailor appointment booking depending on the number of sewer laterals needing inspection.	X		X
3.1.8.1	1 standard appointment, customer allowed to book appointment online	X		X
3.1.8.2	> 1 to special appointments process, customer is asked to submit map and call PSL Program staff to schedule the appointment over the phone (e.g., HOA and 1,000ft parcel groups).	X		X
3.1.9	The self-service portal must allow customers and public to view, submit requests, print, and or download program information including but not limited to:	X		X
3.1.9.1	Fields for customers to schedule inspection, request other certificate types, check on outstanding fees, download certificate(s), learn about what is needed to gain compliance or check compliance status by using either parcel or property address	X		X
3.1.9.2	Track compliance by parcel group, for example: customers searching for HOA compliance can view all certificates issued for the development in one view	X		X
3.1.9.3	View available inspection appointment dates and times (without entering any information)	X		X
3.1.10	The system must redact name of refund recipient, applicant name, mailing address, and phone number as displayed on a PSL Program Time Extension Certificate.			
3.1.11	The system must provide notifications to customers to remind them of their PSL appointment(s) the night (7 PM) before and morning (6 AM) on the day of the inspections.	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
	Notifications should go to the person who requested the inspection reservation via text message and email.			
3.1.12	The system must show available reservation dates and times prior to the customer entering any contact information; appointments will be booked in defined hour-hour increments of time. Defined increment of time to be adjustable by PSL Staff	X		X
3.1.13	The system must provide the following required inspection reservation data fields:	X		X
3.1.13.1	Parcel	X		X
3.1.13.2	Address	X		X
3.1.13.3	City	X		X
3.1.13.4	Zip Code	X		X
3.1.13.5	Owner Name	X		X
3.1.13.6	Owner Address	X		X
3.1.13.7	Owner Phone	X		X
3.1.13.8	Owner e-mail	X		X
3.1.13.9	Special instructions or notes	X		X
3.1.13.10	Name of contractor performing verification test	X		X
3.1.13.11	Mailing address	X		X
3.1.13.12	Contractor office number	X		X
3.1.13.13	Contractor mobile number	X		X
3.1.14	The system must provide mobile device integration which includes the following features:	X		X
3.1.15	The system must provide a customizable error message if a customer books an appointment that another customer selects and books	X		X
3.1.15.1	Adjustable display so mobile device (smart phone or tablet) user view entire appointment form without scrolling or paging	X		X
3.1.15.2	Allow data to be saved temporarily locally and then uploaded once connection is available	X		X
3.1.16	The system must prohibit customers from booking more than one appointment for the same parcel in the same appointment booking session.	X		X
3.1.17	The system should provide email address validation to prevent erroneous contact information being submitted by the customer.		X	
3.1.18	The System must integrate with EBMUD.com which provides PSL Program staff the ability to manage and update web content.	X		X

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3.2 Manage Appointments

Inspection requests will need to be assigned to a set of inspectors based on their specific work schedules. Preferably inspector assignments will be done automatically by the system. The inspection appointments available to the customers must operate in real-time and update when changes to reservations occur.

Figure 1 shows the workflow from scheduling and inspection to issuing a Compliance Certificate.

Item no.	Requirement	Must have	Nice to have	Required for Go Live
3.2.1	PSL ADMIN: The system must allow PSL Program staff to define inspector work schedules/inspection slot availability: Inspector schedules, planned leave, number of inspections per window to “pre-load” inspection appointment windows.	X		X
3.2.1.1	The system must then allow PSL Program staff to preset a specific date/time when the inspection appointments are published on the self-service customer portal each week.	X		X
3.2.2	CUSTOMER: The system must provide open inspection windows that may be scheduled by customers.	X		X
3.2.3	The system must account for proximity between inspections for a given inspector and assign appointments that are most proximate. PSL Program staff must be able to edit assigned appointments.	X		X
3.2.4	The system must allow PSL Program staff to view related PSL inspection appointment information on a map that shows points where all the inspections are located for any given inspector, and viewable by the inspector that communicates the following:	X		X
3.2.5	Ability to select a property on the schedule and view parcel data	X		X
3.2.6	View previous inspection results	X		X
3.2.6.1	Event/transaction history (including past PSL certificates)	X		X
3.2.6.2	The system must provide flexibility to control cut off times for making same-day appointments at a time to be determined by PSL Program staff. The appointments scheduled for the day cannot be changed after the set time, but the system must allow PSL Program staff to manually add additional inspection appointments to the calendar.	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
3.2.7	CUSTOMER: The system must provide real-time appointment booking for customers, such that inspection appointments or inspector's availability can update as changes are made (within certain time parameters).	X		X
3.2.8	The system must provide the ability to manually create an inspection appointment on the backend with the following required fields:	X		X
3.2.8.1	Parcel or Address search	X		X
3.2.8.2	Customer Name	X		X
3.2.8.3	Customer Phone	X		X
3.2.8.4	Customer email	X		X
3.2.8.5	Date	X		X
3.2.8.6	Time	X		X
3.2.8.7	Inspector	X		X
3.2.8.8	Note if off-hours, HOA, or multi-lateral inspection appointment	X		X
3.2.8.9	The system must link special appointments (those scheduled manually by PSL Program staff for long duration or off-hour inspections) to an inspector's time slot.	X		X
3.2.8.10	The system must provide a user interface that allows filterable and customizable viewing for PSL Program staff:	X		X
3.2.8.11	Inspection appointments (by date, inspector, city)	X		X
3.2.8.12	Inspection results (by date, inspector, parcel group, parcel)	X		X
3.2.8.13	Certificates (by issue date, expiration date, city, parcel group, parcel)	X		X
3.2.8.14	Parcel group data (by type, compliance deadline)	X		X
3.2.8.15	Events/transactions (by date, contractor, parcel, parcel group)	X		X
3.2.9	The system must allow PSL Scheduling Admin to enter instructions for scheduled inspection appointments.	X		X
3.2.9.1	The system must support the PSL Program's desired inspection workflow (as shown on Figure 1):	X		X
3.2.10	Customer or contractor submits request for PSL inspection and pays certificate fee (and all other outstanding fees, as specified) when booking the inspection appointment. The system must be able to determine if a contractor is on the violation list	X		X

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	and block the contractor from making an appointment. The system must evaluate whether a parcel is in an HOA or is a multilateral property (>1,000) and prohibit an inspection appointment to be scheduled – Pop-up message to submit map and call PSL scheduling line to book appointment.			
3.2.11	Customer receives email notification confirming appointment has been booked and receipt confirming payment for the inspection. Appointment reminders are sent to the customer prior to their appointment via email and text message.	X		X
3.2.11.1	Inspection is scheduled and an inspector is assigned to the inspection. The system must be able to autogenerate maps and Inspection Reports and send to the assigned inspector.	X		X
3.2.11.2	Inspection failed – failed verification test, inspector needs additional information (possible illicit connect(s), or customer no show – customer required to reschedule/retest, inspector enters results and reschedule fee is automatically applied to account.	X		X
3.2.11.3	Inspection passed – inspector submits results and Compliance Certificate is issued. If remaining program fees are still owed or assessed after the inspection has been completed; the fees must withhold the Compliance Certificate until after the fees have been paid.	X		X
3.2.11.4	Customer who booked PSL appointment receives email (and optional text message) with link to download a copy of their Certificate.	X		X
3.2.11.5	The system must be able to provide a “ticket”, issued by PSL staff, to customers reserving an appointment for HOA and multilateral properties. The ticket will be issued to the customer once PSL staff have verified all documents have been submitted/complete so they can schedule an inspection.	X		X
3.2.11.6	The system must be able to automatically update fees for Compliance Certificate and	X		X

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	additional laterals. The PSL staff must be able to update/edit.			
3.2.11.7	The system must be able to provide solutions for the PSL inspection workflow when unusual circumstances occur including, but not limited to:	X		X
3.2.11.8	If customer submits request for inspection but doesn't make payment – inspection appointment must be cancelled, and the timeslot should reopen for other customers to book after 15 minutes.	X		X
3.2.12	Customer must be limited to booking only one inspection per parcel, and the system must prevent double booking.	X		X
3.2.12.1	INSPECTORS: The system must automate alerts for PSL Program inspectors for same-day inspection rescheduled for another day or cancellations of appointments for current day, preferably text message alerts.	X		X
3.2.12.2	AUXILIARY: The system must send twice daily email notifications at 7am and 2pm with upcoming PSL inspection appointments to a specified email list that can be easily amended by a PSL Program staff.	X		X
3.2.13	Tailor emails based on custom email lists, based on which city the property is in and send list of all inspections scheduled for the current and next days.	X		X
3.2.14	The system must allow PSL Program staff to update agency email addresses for all notifications to both internal and external contacts.	X		X

3.3 Inspection Records

The system must provide ability to create inspection forms and enter inspection records. Inspection records must be tied to the specific parcel for which the inspection was completed. The system must be mobile-friendly to allow ease of use in the field when completing inspection reports.

Item no.	Requirement	Must have	Nice to have	Required for Go Live
3.3.1	The system must retain data entry for previous inspections with the parcel.	X		X

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3.3.2	The system must allow PSL Program staff to enter data for more than one sewer lateral in the cases where there are multiple upper or lower laterals that were inspected for a given parcel.	X		X
3.3.3	The system must provide the following required inspection data entry fields:	X		X
3.3.3.1	Inspector name	X		X
3.3.3.2	Test date	X		X
3.3.3.3	Time of arrival	X		X
3.3.3.4	City permit number	X		X
3.3.3.5	City inspection issues - yes/no	X		X
3.3.3.6	Contractor license number	X		X
3.3.3.7	Contractor name	X		X
3.3.3.8	Parcel type: Single-family, Duplex/Triplex, Multi-unit Condominiums, Individual condominium, Apartment complex, government/public, institution, Homeowners association, Lateral over 1,000ft, Lot with no sewer connection, other	X		X
3.3.3.9	Sewer main location	X		X
3.3.3.10	Ability to add a note for location of the sewer main	X		X
3.3.3.11	Upper lateral	X		X
3.3.3.12	Lower lateral	X		X
3.3.3.13	Ability to add data for multiple upper and lower laterals	X		X
3.3.3.14	Check box: Full or Partial	X		X
3.3.3.15	Total lateral length (in feet)	X		X
3.3.3.16	Pipe diameter (in inches)	X		X
3.3.3.17	PSL, replaced or repaired?	X		X
3.3.3.18	Need ability to note the description and extent of the sewer lateral repair	X		X
3.3.3.19	Material used for PSL replacement: clay pipe, abs pipe, PVC SDR 16, HDPE SDR 17, CIP liner, DIP iron pipe, other	X		X
3.3.3.20	Replacement method – CIP lined, Pipe burst, trench, other	X		X
3.3.3.21	Manhole(s)	X		X
3.3.3.22	Old pipe material – ABS, clay, clay/iron, iron, pvc, other, unknown	X		X
3.3.3.23	Test Equipment/set-up – pass/fail/no result	X		X
3.3.3.24	Observable illicit connections – yes/no/unknown	X		X
3.3.3.25	Upper cleanout present – yes/no	X		X
3.3.3.26	Lower cleanout present – yes/no	X		X
3.3.3.27	Test method – air/water	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
3.3.3.27.1	If water: Standpipe 5 feet – yes/no Observable water loss – yes/no	X		X
3.3.3.27.2	If air: Starting pressure (psi) Ending pressure (psi)	X		X
3.3.3.28	Lateral test results: Inspector may select “No Result” or System determines: “Pass” if “NO” or “UNKNOWN” Observable illicit connections (1.6.3.24) AND ending pressure minus starting pressure < x psi; or water test “NO” observable water loss Fail if: “YES” Observable illicit connections (1.6.3.24) OR ending pressure minus starting pressure > x psi; or water test “YES” observable water loss	X		X
3.3.3.29	Inspector’s comments	X		X
3.3.3.30	Map for the parcel showing both satellite and GIS sewer information, with ability to annotate and save	X		X
3.3.3.31	Ability to add photo from mobile phone or tablet and then annotate photo and save as part of inspection record	X		X
3.3.4	The system must have the ability to add or revise inspection data fields.	X		X
3.3.5	The system must provide the ability to view past PSL inspection results, but lock results once submitted such that records cannot be changed or edited.	X		X
3.3.6	The system must provide ability to submit inspection results, but schedule a specific time when the Compliance Certificate gets issued and made available to the customer (e.g., all Compliance Certificates regardless of when inspection results were submitted get issued after 4PM).	X		X
3.3.7	The system must have the ability to preview Compliance Certificate type prior to inspectors submitting results.	X		X
3.3.8	To prevent data entry errors, the PSL Admin must be able to determine which fields allow autocomplete features when inspectors are entering data for an inspection report.	X		X
3.3.9	The system must have the ability to automatically send electronic PSL inspection receipts to customers upon completion of an inspection. Receipt must be read only and cannot be edited by the customer.	X		X
3.3.10	The system must be able to track inspection results for all laterals on a property, regardless of how many there are, so	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
	the application generates the correct number of input forms for collecting all the facts specific to an individual lateral.			
3.3.11	The system must provide users the ability to upload documents to specific parcels, including, but not limited to:	X		X
3.3.11.1	Inspection reports	X		X
3.3.11.2	Photos	X		X
3.3.12	The system must provide the ability to create forms for data entry including, but not limited to:	X		X
3.3.12.1	Inspection report forms	X		X
3.3.12.2	HOA Statement of Responsibility forms	X		X
3.3.13	The system should provide the ability for users to access version-controlled SOPs on PSL Program procedures from a SharePoint site.		X	
3.3.14	The system must provide the ability to show inspection data when PSL Program staff need to retrieve prior inspection results.	X		X
3.3.15	The system must provide access through Mobile Device for the following features and functions:	X		X
3.3.15.1	Live electronic data entry into the system during inspections	X		X
3.3.15.2	View map with location of all nearby utilities, including sanitary sewer mains and manholes	X		X
3.3.16	The system must provide the ability to add inspection data to a geospatial environment map to document the following content:	X		X
3.3.16.1	Location of upper and lower sewer laterals	X		X
3.3.16.2	Location of upper and lower cleanouts	X		X
3.3.16.3	Allow data to be saved temporarily locally and then uploaded once connection is available – support offline data entry	X		X

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4. PSL Program Certificate Types

The system must issue certificates with unique identification numbers, text, and issue/expiration dates. Each certificate must be linked to a parcel, parcel group or defined geographical area. There are three types of certificates issued by EBMUD with different attributes. When certificates expire the system must have functionality to trigger communication to the property owner to take additional action. Each certificate type must be available for request and/or purchase from the self-service customer portal.

4.1 Compliance Certificate

The PSL Program Compliance Certificate is issued to a parcel or parcels that have successfully completed a pressure verification test with EBMUD. There are several variations of the Compliance Certificate that are issued to parcels depending on the work performed to bring the PSL into compliance. The table below summarizes the types of Compliance Certificates and logic that the system must support.

Item no.	Requirement	Must have	Nice to have	Required for Go Live
4.1.1	The system must allow for Compliance Certificates to be issued for Cities (Alameda and Albany) that <u>only</u> require pressure verification testing for upper sewer laterals.	X		X
4.1.2	The system must ensure that the effective date of a Compliance Certificate is the date the inspection was conducted, not the day the inspection results were submitted.	X		X
4.1.3	The system must provide the following certificate types:	X		X
4.1.3.1	Replaced Sewer Lateral (effective for 20-years)	X		X
4.1.3.2	Repaired Sewer Lateral (effective for 7-years)	X		X
4.1.3.3	Passed as-is (effective for 7-years)	X		X
4.1.3.4	renew – Replaced Sewer Lateral (effective for 20-years, but must be renewed upon expiration)	X		X
4.1.3.5	renew – Repaired Sewer Lateral (effective for 20-years, but must be renewed upon expiration)	X		X
4.1.3.6	renew – Passed as-is (valid for 20-years, but must be renewed upon expiration)	X		X
4.1.4	The system must provide a reminder to PSL Admin 24 months prior to expiration of a “renew” type Compliance Certificate.		X	
4.1.4.1	System prepares a draft email for PSL Program staff to send to customers regarding sewer lateral recertifications.		X	
4.1.5	The system must provide the ability to create new certificate types or modify existing certificate types.	X		X
4.1.6	The system should have an option to establish a secure portal for City agencies to submit notifications to PSL Program Staff to withhold a Compliance Certificate when sewer lateral code requirements have not been met as determined by City officials.		X	

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
4.1.6.1	If City officials submit request to withhold issuance of a Compliance Certificate, the system must provide automated notifications to PSL Program staff to alert them of the City's request, so staff do not proceed with releasing the certificate prior to sewer lateral code requirements being addressed.		X	
4.1.6.2	The system must provide ability for City officials to submit updates on the status of a parcel(s) sewer lateral code compliance and notify PSL Program staff that code requirements have been met so the Compliance Certificate can be released to the customer.		X	
4.1.7	The system must provide PSL Program staff the ability to revoke or modify a previously issued Compliance Certificate at any time.	X		X
4.1.7.1	EBMUD staff initiates the process in the system and the system generates a form letter based on information stored on the parcel. PSL staff mails letter to property owner.		X	
4.1.7.2	EBMUD staff enters new terms to modify the Compliance Certificate or indicates it should be revoked and enters the effective date		X	
4.1.8	The system must be able to issue Compliance Certificates based on the following certificate logic criteria:	X		X
4.1.8.1	Upper Sewer Lateral (UL) and Lower Sewer Lateral (LL) Replaced = 20-year certificate	X		X
4.1.8.2	UL replaced and LL Repaired = 7-year certificate	X		X
4.1.8.3	UL replaced and LL as-is = 7-year certificate	X		X
4.1.8.4	UL as-is, and LL as-is = 7-year certificate	X		X
4.1.8.5	UL repaired and LL replaced = 7-year certificate	X		X
4.1.8.6	UL as-is, and LL replaced = 7-year certificate	X		X
4.1.8.7	UL replaced and no LL = 20-year certificate	X		X
4.1.8.8	UL repaired and no LL = 7-year certificate	X		X
4.1.8.9	UL as-is and no LL = 7-year certificate	X		X
4.1.9	The system must track compliance and only issue Compliance Certificates for HOAs or parcel or parcel groups with 1,000 foot of lineal sewer lateral after all sewer lateral inspections have been completed.	X		X
4.1.10	The system must provide PSL Program staff the ability to complete batch uploads of Compliance Certificates to parcel(s) or parcel groups.	X		X
4.1.11	The system must issue certificates to HOAs and parcel or parcel groups with 1,000 feet of lineal sewer lateral valid	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
	for 20 years regardless of work performed on the sewer lateral(s).			
4.1.12	The system must have a method for tracking certificate expirations for HOA and 1,000ft parcel groups.	X		X
4.1.13	The system must support Compliance Certificate issuance for HOA and parcel or parcel groups with 1,000 feet of lineal sewer lateral based on the following certificate logic:	X		X
4.1.13.1	UL and LL replaced = 20-year renew certificate	X		X
4.1.13.2	UL replaced and LL Repaired = 20-year renew certificate	X		X
4.1.13.3	UL replaced and LL as-is = 20-year renew certificate	X		X
4.1.13.4	UL as-is, and LL as-is = 20-year renew certificate	X		X
4.1.13.5	UL repaired and LL replaced = 20-year renew certificate	X		X
4.1.13.6	UL as-is, and LL replaced = 20-year renew certificate	X		X
4.1.13.7	UL replaced and no LL = 20-year renew certificate	X		X
4.1.13.8	UL repaired and no LL = 20-year renew certificate	X		X
4.1.13.9	UL as-is and no LL = 20-year renew certificate	X		X
4.1.14	The system must have the ability to update property owner contact information in the event property sells before Compliance Certificate expires.	X		X

4.2 Time Extension Certificates (TECs)

Customers who meet the Title Transfer trigger can purchase a TEC online, which provides the customer with an extension. The customer would visit the customer self-service portal to submit information, pay the fee, and then transfer funds to EBMUD for the required monetary deposit. Figure 2 shows the TEC workflow from purchasing a TEC and transferring the required deposit via the self-service portal, and EBMUD refunding the deposit. System must provide ability to track parcels who successfully completed sewer lateral inspections and process refunds for the monetary deposits.

Item no.	Requirement	Must have	Nice to have	Required for Go Live
4.2.1	The system must make TECs available on customer self-service portal for purchase and download.	X		X
4.2.2	The system must be able to issue TECs valid for "N"-days from date of purchase.	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
4.2.3	The system must allow the length of the extension and deposit amount to be configurable.	X		X
4.2.4	The system must record the following information with purchases of TECs including:	X		X
4.2.4.1	Refundable deposit id	X		X
4.2.4.2	Purchase transaction	X		X
4.2.4.3	Customer Name	X		X
4.2.4.4	Customer Email	X		X
4.2.4.5	Customer Phone Number			
4.2.4.6	Mailing address	X		X
4.2.4.7	City, State Zip	X		X
4.2.4.8	Parcel Number	X		X
4.2.4.9	Property Address (property triggering PSL Ordinance)			
4.2.4.10	Refund Recipient Name			
4.2.4.11	Refund Recipient Mailing Address (with City, State, Zip Code)			
4.2.4.12	Refund Recipient Phone Number			
4.2.4.13	Refund Recipient email address			
4.2.5	The desired TEC workflow is as follows when a title transfer occurs (shown on Figure 2):	X		X
4.2.5.1	Customer who does not currently have a valid Compliance Certificate for their property purchases a TEC prior to close of escrow	X		X
4.2.5.2	The monetary deposit is submitted online to EBMUD (TEC only issued once paid for and deposit is received)	X		X
4.2.5.3	Compliance Certificate is issued	X		X
4.2.5.4	TEC expires without a Compliance Certificate being obtained	X		X
4.2.5.5	Customer enters enforcement	X		X
4.2.5.6	Deposit is refunded back to customer once Compliance Certificate is obtained	X		X
4.2.6	The system must allow TECs to be paid with credit or with debit card, but not the monetary deposit.	X		X
4.2.7	The system should have functionality to accept and track monetary TEC deposits paid by Automated Clearing House (ACH) or other electronic transfer through a third-party portal that can link the acceptance of funds to the parcel number and name and address of the refund recipient.	X		X
4.2.8	The system must be the financial system of record and be able to exchange data with ACH, the Oracle-	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
	based financial system, and any third-party payment processors. The system must provide compatibility and integration with the EBMUD's Oracle-based financial and accounting system so that when checks, credit cards, or ACH payments are received the deposit information is imported to the system for tracking and refund processing.			
4.2.9	The system must provide ability to track monetary TEC deposits mailed to EBMUD by title company or personal checks and link the record to the parcel (checks contain parcel number when submitted to EBMUD) and then issue TECs manually once deposit is received.	X		X
4.2.10	The system must provide a daily file to District's Oracle-based financial system to document deposits received along with associated information.	X		X
4.2.11	The system must provide PSL Program staff the ability to:	X		X
4.2.11.1	Check TEC deposit refund status	X		X
4.2.11.2	Check to see if TEC deposits have been cashed by customers	X		X
4.2.12	The system must provide solution for tracking TEC deposits within the system, and if TEC deposit is not received within 14 days from purchase, the system sends an email automatically notifying the customer they still need to submit the monetary deposit to EBMUD. The email must also include instructions for how to submit ACH or where to mail the deposit.	X		X
4.2.13	The system must provide solution when a deposit check is returned by the bank, and the document event in the system so that staff know a refund check shouldn't be issued, until a replacement deposit check is received from the customer.	X		X
4.2.14	The system must prohibit the same parcel from obtaining more than one active TEC (e.g., one TEC per title transfer).	X		X
4.2.15	For TEC deposits by check, the system must have ability to store the following details regarding the monetary TEC deposits from the Oracle-based financial system:	X		X
4.2.15.1	Accounting ID (numeric code)	X		X
4.2.15.2	Deposit Date	X		X
4.2.15.3	Customer Name	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
4.2.15.4	Property Address (property triggering PSL Ordinance)	X		X
4.2.15.5	Customer Mailing Address	X		X
4.2.15.6	Customer Phone Number	X		X
4.2.15.7	Customer Email	X		X
4.2.15.8	Time Extension Certificate expiration date	X		X
4.2.16	The system must automatically move expired TECs to enforcement immediately after the extension has expired (see the Enforcement section for more details) unless a Compliance Agreement has been issued.	X		X
4.2.17	The system must evaluate compliance and need to refund deposit, based on the following: Parcel is compliant, there is a TEC with an unrefunded deposit, and all fees are paid: Compile file to upload to Oracle-based financial database with the following information:	X		X
4.2.17.1	Internal approvals with the following data fields: Vendor Code (numeric value), Remit Name, Remit Address, Date Prepared, Settlement amount, Invoice number (parcel), invoice date, fund name, account number, and (electronic) signatures of approval.	X		X
4.2.17.2	Copy of TEC certificate and it must be stored within the application to be retrieved at anytime	X		X
4.2.17.3	Copy of deposit check or ACH or other electronic transfer receipt	X		X
4.2.17.4	Refund recipient name and mailing address (to validate disbursement authorization since customer information is not visible due to privacy protection)	X		X
4.2.18	PSL Program staff must be able to access the system to perform a query at any time to identify TEC holders who have obtained a Compliance Certificate.	X		X

4.3 Exemption Certificates

Similar to the other two certificate types, customers must be able to apply for an exemption using the customer self-service portal. The system must provide ability to communicate with customers during the exemption review and processing phases. The exemption certificate is then recorded with the parcel and will have an expiration date. Figure 3 shows the exemption certificate workflow from requesting an exemption certificate via the self-service portal to EBMUD approving or denying the exemption request.

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
4.3.1	The system must provide ability to see what actions have been taken, track any communication, and can change the state to one of the states in the PSL Exemption lifecycle.	X		X
4.3.2	The system shall provide PSL Program staff the ability to update and/or edit all automated email communication with customer.	X		X
4.3.3	The system must send an automated email that goes to customer to confirm the exemption request has been submitted successfully.	X		X
4.3.4	The system must allow customers to upload supporting documentation through a secure portal when requesting an exemption.	X		X
4.3.5	The system must send an automated email to customer when decision is made, and exemption is processed either approved or denied.	X		X
4.3.6	The system must provide ability for PSL Program staff to track and store communication with customers throughout the exemption processing phase.	X		X
4.3.7	The system must present the customer with the following criteria for customers to select when requesting the exemption from PSL requirements. The following is a list of all currently approved reasons for being exempt from Ordinance requirements.	X		X
4.3.8	For each criteria, when selected the system will generate a pop-up (or similar) to indicate the type of documentation that is required to be uploaded		X	
4.3.8.1	Past PSL work within 10 years (Alameda & Albany only)	X		X
4.3.8.2	Title transfer via lineal consanguinity	X		X
4.3.8.3	Pressurized PSLs	X		X
4.3.8.4	Vacant parcel(s)	X		X
4.3.8.5	No sewer connection (septic)	X		X
4.3.8.6	Partial interest transfer	X		X
4.3.8.7	Will or inheritance transfer	X		X
4.3.8.8	Co-owner title transfer	X		X
4.3.8.9	Trust	X		X
4.3.8.10	Divorce	X		X
4.3.8.11	Foreclosure	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
4.3.8.12	Transfer between business entity (LLC)	X		X
4.3.8.13	Other – the system must provide ability to add new approved criteria for exemptions or for customers to customize their response for requesting an exemption.	X		X
4.3.9	The system must support the following desired exemption workflow (shown on Figure 3):	X		X
4.3.9.1	Customer submits exemption request online and uploads required document(s)	X		X
4.3.9.2	Customer receives automated email from EBMUD confirming receipt of exemption request	X		X
4.3.9.3	Exemption request shows up on dashboard for PSL Program staff to manage	X		X
4.3.9.4	If necessary, PSL Program staff sends email via PSL application to customer to request additional details or sends email to Satellite confirming certificate details	X		X
4.3.9.5	Sufficient information provided via customer portal – decision to approve or deny	X		X
4.3.9.6	If approved, PSL Program system adds issue and expiration date, and determines reason from granting exemptions by selecting one of the criteria as listed above under 1.9.8.	X		X
4.3.9.7	Exemption duration auto populated based on compliance status	X		X
4.3.9.8	6-month exemption issued for non-Title Transfers:	X		X
4.3.9.8.1	No PSL ever existed on the parcel	X		X
4.3.9.8.2	No PSL associated with the parcel is connected to the public sewer	X		X
4.3.9.8.3	All PSLs associated with the parcel are pressurized.	X		X
4.3.9.8.4	1-month exemption issued for all other cases.	X		X
4.3.9.9	Customer gets autogenerated email with final decision, if decision is	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
	denied customer is provided option to appeal; if decision is approved customer is provided a direct link to download a copy of the exemption certificate.			

5. Appeals and Compliance Agreements

The PSL Program allows for customers to appeal PSL Program requirements or ask for additional time to obtain a Compliance Certificate. Customers seeking additional time can enter into a Compliance Agreement which grants the property owner time beyond the extension provided by the TEC. Compliance agreements may require an additional deposit or assignment of the existing TEC deposit that is held by EBMUD for that same parcel. Some Compliance Agreements will have interim milestones that require the customer to submit supporting documentation to EBMUD. Figure 4 shows the appeals and Compliance Agreement workflow from requesting an appeal or additional time to comply via the self-service portal to EBMUD approving or denying the request.

Item no.	Requirement	Must have	Nice to have	Required for Go Live
5.1.1	The system must provide option to appeal for additional time through the customer self-service portal and present the customer with the criteria listed in section 1.9.11 when requesting an appeal.	X		X
5.1.2	For each criteria, when selected the system will generate a pop-up (or similar) to indicate the type of documentation that is required to be uploaded.	X		X
5.1.2.1	Redevelopment and remodel	X		X
5.1.2.2	House fire	X		X
5.1.2.3	203K loan and Fannie Mae	X		X
5.1.2.4	City issued stop work order	X		X
5.1.2.5	Squatters or tenants on property inhibiting work	X		X
5.1.2.6	Shared lateral through neighbor's parcel, city requirement to disconnect	X		X
5.1.2.7	Other	X		X
5.1.3	The system must have the ability to track appeal decision with PSL non-compliance enforcement process, see Enforcement section for more details.	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
5.1.4	The system must have the ability to track and process all PSL appeal requests and Compliance Agreements within an application dashboard.	X		X
5.1.5	The system must provide customers ability to submit appeal(s) via self-service customer portal and must provide the following information and auto-populate certain information as indicated based on Parcel number:	X		X
5.1.5.1	Parcel Number	X		X
5.1.5.2	Property owner name	X		X
5.1.5.3	Property owner email	X		X
5.1.5.4	Property owner phone number	X		X
5.1.5.5	Property address (auto-populate)	X		X
5.1.5.6	Contact Name	X		X
5.1.5.7	Contact Mailing Address	X		X
5.1.5.8	Contact Email	X		X
5.1.5.9	Contact phone number	X		X
5.1.5.10	Request extension of time – date	X		X
5.1.5.11	Appeal decision made by EBMUD – nature of decision	X		X
5.1.5.12	Have you obtained a TEC Yes/No? (auto-populate)	X		X
5.1.5.13	Have you sent in a deposit Yes/No? (auto-populate)	X		X
5.1.5.14	TEC number and expiration date (auto-populate, if applicable)	X		X
5.1.5.15	Explain reasons for appeal	X		X
5.1.5.16	Describe specific request	X		X
5.1.5.17	Electronic signature	X		X
5.1.5.18	Submit supporting documentation	X		X
5.1.6	The system must send an automated email to the customer confirming the appeal request has been submitted successfully.	X		X
5.1.7	The system must prepare a template email to the customer if determined that additional information is needed. The system shall provide PSL Program staff the ability to update and/or edit all automated email communications with customer.	X		X
5.1.8	The system must have stages of approval and review for PSL Program staff and track actions taken within the system (e.g., Appeal/Compliance Agreement dashboard).	X		X
5.1.9	The system must have the ability to create and store Compliance Agreement templates and form letters. PSL staff shall have the ability to update and/or edit template forms.	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
5.1.10	The system must provide the following fields for entering information into the Compliance Agreement template:	X		X
5.1.10.1	Property owner name	X		X
5.1.10.2	Reason for obtaining Compliance Agreement	X		X
5.1.10.3	Current expiration (linked to parcel attributes)	X		X
5.1.10.4	Extended deadline under Compliance Agreement	X		X
5.1.10.5	Milestones (description, and due date)	X		X
5.1.10.6	Parcel number	X		X
5.1.11	The system must interface with EBMUD's DocuSign account to accept digital signatures for authorizing Compliance Agreements or other legal documents.	X		
5.1.12	After the Compliance Agreement is approved and drafted, the system must support the following events:	X		X
5.1.12.1	The system must send a copy of the Agreement to the property owner to sign (print or digital signature), and pay the Compliance Agreement processing fee.	X		X
5.1.12.2	Once the Compliance Agreement is signed and fee is paid by property owner; PSL Program staff are notified via email by the system and allows PSL Administrator Manager to sign agreement via digital signature.	X		X
5.1.12.3	Email a copy of fully executed Compliance Agreement to property owner and saved in the system.	X		X
5.1.13	For Compliance Agreements not executed with digital signatures the system must provide ability to manually upload electronic scan of executed agreement.	X		X
5.1.14	The system must support the following Compliance Agreement tasks:	X		X
5.1.14.1	Ability to track monetary deposits for extensions regardless of dollar amount	X		X
5.1.14.2	Track milestones established by the Compliance Agreement	X		X
5.1.14.3	Customer and PSL Program staff gets notifications (automated emails) about upcoming milestone deadlines (x-days) and one month prior to expiration of Compliance Agreement	X		X
5.1.14.4	The system must allow customers to upload supporting documentation if additional information is required for each milestone check-in. PSL staff must have the ability to review submitted documents via Dashboard and submittals must be flagged as a new entry so that PSL staff is aware of the new submittal.	X		X

Permitting Software Replacement Project for the Private Sewer Lateral (PSL) Program - Functional Requirements

Item no.	Requirement	Must have	Nice to have	Required for Go Live
5.1.14.5	Expired Compliance Agreements that have not obtained a Compliance Certificate automatically enter enforcement	X		X
5.1.15	The system must track Compliance Agreement expiration, milestones, and extension deposits.	X		X

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6. Enforcement

Parcels that meet a PSL Program trigger, but do not have a valid Compliance Certificate (or valid Time Extension Certificate, Exemption Certificate, or Compliance Agreement), must enter enforcement. This requires uploading data on recent triggers into the system and then the system comparing each flagged parcel to determine which are not in compliance. EBMUD then issues a series of letters reminding property owners of their obligation to obtain a Compliance Certificate for their parcel. Once a third notice is issued (Notice of Violation and Order), non-compliance fees are assessed to the parcel for continued non-compliance. Once a valid Compliance Certificate is obtained, the parcel is removed from enforcement assuming all program fees have been paid (including non-compliance fees). Figure 5 shows the enforcement workflow from parcels entering in enforcement based on meeting a PSL Program trigger with no valid Compliance Certificate to EBMUD issuing non-compliance violation fees.

Item no.	Requirement	Must have	Nice to have	Required for Go Live
6.1.1	The system must provide the ability to upload data for parcels meeting a program trigger for the following events:	X		X
6.1.1.1	Title transfer trigger - monthly upload of property sales within EBMUDs wastewater service area	X		X
6.1.1.2	Water meter trigger - data to be entered into the system by EBMUD staff (New Business Office)	X		X
6.1.1.3	\$100K remodel trigger – quarterly upload of permit data received from Cities in wastewater service area	X		X
6.1.1.4	Expired Time Extension and Compliance Agreement Certificates automatically enter enforcement	X		X
6.1.2	The system must be able to automatically determine compliance status (date of trigger not uploaded date) for parcels uploaded into the system	X		X
6.1.3	The system must provide search and filter tools allowing PSL Administrator to filter enforcement data	X		X
6.1.4	The system must allow PSL administrators the ability to edit customer data records. When enforcement notices are returned to EBMUD in the mail the system must provide ability for PSL Program staff to update mailing address/property owner contact information to then restart enforcement from the first notice.	X		X
6.1.5	The system must provide PSL Administrator the ability to modify enforcement steps (forwards and backwards) to change the enforcement status (step) of any parcel as needed, and not necessarily in any stepwise fashion.	X		X
6.1.6	The system must support the following enforcement workflow (shown on Figure 5):	X		X
6.1.6.1	Parcel enters enforcement module for not obtaining a Compliance Certificate upon meeting	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
	one of the three program triggers (or expired Compliance Agreement, expired TEC, etc.)			
6.1.6.2	Autogenerate 1st Courtesy notice is created for printing with specific fields for each property.	X		X
6.1.6.3	Autogenerate 2nd Courtesy notice (sent 30 days after 1st courtesy notice but must have the ability to change duration) is created for printing with specific fields for each property	X		X
6.1.6.4	Autogenerate Notice of Violation and Order (NOVO) (sent 30 days after 2nd courtesy notice but must have the ability to change duration) and assess fee. The PSL system must have the ability to autogenerate an invoice.	X		X
6.1.6.5	Autogenerate 1st Continuing non-compliance (sent 60 days after NOVO but must have the ability to change duration) and assess fee is created for printing with specific fields for each property. The PSL system must have the ability to autogenerate an invoice.	X		X
6.1.6.6	Autogenerate 2nd Continuing non-compliance (sent 60 days after 1st continuing non-compliance but must have the ability to change duration) and assess fee is created for printing with specific fields for each property	X		X
6.1.6.7	Autogenerate 3 rd or more Continuing non-compliance (sent 60 days after last continuing non-compliance but must have the ability to change duration) and assess fee is created for printing with specific fields for each property. The PSL system must have the ability to autogenerate an invoice.	X		X
6.1.7	The system must have flexibility to add additional enforcement steps as needed	X		X
6.1.8	The system must provide ability to autogenerate enforcement courtesy notices (1 st and 2 nd notices only) into a compiled PDF which can be downloaded and sent over to the EBMUD mail room for printing/mailing.	X		X
6.1.9	The system must be able to assess enforcement fees to the non-compliant parcel(s) and provide customers the ability to pay for the fees in the self-service portal. The system must have the ability to autogenerate invoices.	X		X
6.1.10	The system must remove parcels automatically from enforcement when one of the following valid program certificates or appeals for additional time are granted:	X		X
6.1.10.1	Time Extension Certificate	X		X
6.1.10.2	Exemption Certificate	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
6.1.10.3	Compliance Certificate	X		X
6.1.10.4	Compliance Agreement	X		X
6.1.10.5	Other (e.g., >1,000 HOA and non-HOA documents)	X		X
6.1.11	The system must provide the ability to utilize templates and PSL staff must have the ability to update and/or edit the templates, and automatically generate letters for a list of non-compliant parcels who are due to receive enforcement, the letter must be able to compile parcel specific information for each enforcement letter which includes the following:	X		X
6.1.11.1	Property owner name and address	X		X
6.1.11.2	Reason for noncompliance	X		X
6.1.11.3	Date triggering event	X		X
6.1.11.4	Account balance of outstanding fees	X		X
6.1.12	The system must provide the ability to track return mail and allow users to enter information related to mailing so the data can be tracked within the system.	X		X
6.1.13	The system must be able to send and track communication with customers so PSL Program staff can follow customer correspondence throughout the enforcement process.	X		X
6.1.14	The system must have the following information to track customers in the enforcement process:	X		X
6.1.14.1	Parcel Address	X		X
6.1.14.2	Parcel Number	X		X
6.1.14.3	Property Owner Name	X		X
6.1.14.4	Property Owner Address	X		X
6.1.14.5	Ability to modify billing fees and frequency	X		X

7. Program Accounting

7.1 Processing Payments, Refunds, and Fees

The PSL Program has a need to track billing and payments for all program fees. The table below summarizes the features needed for processing payments and refunds as well as the listing of current program fees.

Item no.	Requirement	Must have	Nice to have	Required for Go Live
7.1.1	The system must provide a report that accurately records customer transactions and fees assessed to a parcel in chronological order visible on both the customer self-	X		X

Permitting Software Replacement Project for the Private Sewer Lateral (PSL) Program - Functional Requirements

Item no.	Requirement	Must have	Nice to have	Required for Go Live
	service portal as well as the backend of the system for PSL Program staff.			
7.1.2	The system must have ability to integrate with a third-party payment processor for customers to pay fees online through the self-service portal using third-party payment processor. Our current PSL application uses Authorize.net to process customer credit/debit card payments. ACH Payments for deposits should be recorded via an integration with the third-party.	X		X
7.1.3	All outstanding fees that have been applied to a Parcel must be paid prior to making additional requests including Certificates, or scheduling inspection appointments.	X		X
7.1.4	The system must allow customers the ability to select which fees they want to pay or make partial payments.	X		X
7.1.5	The system must allow the PSL Program staff to manually apply and/or refund program fees for a given parcel or parcel group.	X		X
7.1.6	The system must require program fees to be paid within 15 minutes after booking an inspection, otherwise the appointment is automatically cancelled.	X		X
7.1.7	The system must be able to automatically apply fees to a parcel, example scenarios include:	X		X
7.1.8	System must support integration with third-party payment processor so all payments can be recorded to specific customers. Additionally, system must provide infrastructure to allow integration with the Oracle Cloud Financial Management System (Elsie) for automated processing of refunds and provide reporting/files for batch recording of payments.			
7.1.8.1	HOA Oversight fee is applied when customer confirms appointment for pressure verification tests for HOA development.	X		X
7.1.8.2	The system must apply a reschedule fee automatically and require payment upon inspection booking request each time a customer requests to reschedule an appointment under the following circumstances:	X		X
7.1.8.2.1	Customer reschedules inspection on the same day it was scheduled	X		X
7.1.8.2.2	Customer fails pressure verification test	X		X
7.1.8.2.3	Customer doesn't show up to inspection appointment	X		X

Permitting Software Replacement Project for the Private Sewer Lateral (PSL) Program - Functional Requirements

Item no.	Requirement	Must have	Nice to have	Required for Go Live
7.1.9	The system must be able to apply the following PSL Program fees to a parcel or parcel group:	X		X
7.1.9.1	Compliance Certificate fee	X		X
7.1.9.2	Time Extension Certificate fee	X		X
7.1.9.3	Reschedule fee	X		X
7.1.9.4	Extra lateral fee	X		X
7.1.9.5	Off hours fee	X		X
7.1.9.6	Specific appointment time fee	X		X
7.1.9.7	HOA oversight fee	X		X
7.1.9.8	Compliance Agreement fee	X		X
7.1.9.9	Notice of Violation and Order Fee	X		X
7.1.9.10	Continuing Non-Compliance Fee	X		X
7.1.9.11	Other fee - Ability to create new fee types	X		X
7.1.10	The system must have the ability to enter any dollar amount for “other fee”.	X		X
7.1.11	The system must allow PSL Program staff to select how many of each fee type they want to apply to a parcel, rather than requiring the user to apply only one fee at a time.	X		X
7.1.12	The system (with appropriate internal approvals) must be able to refund the full fee amount or specific dollar amounts.	X		X
7.1.13	The system must be able to incorporate an EBMUD Disbursement Authorization template to assist PSL Program staff when processing customer refunds, which is necessary when the credit card charge is > 6 months old, or if we are refunding a duplicate TEC deposit.	X		X
7.1.14	The system must have the ability to update and modify program fees as a result of increased program fees. Fee updates should not impact existing fees on record that are not paid, and should retain correct dollar amounts for all historical fees applied to a parcel or parcel group.	X		X
7.1.15	The system must allow PSL Program staff to enter payment details and record the transaction manually.	X		X
7.1.16	The system must have the ability to generate receipt for payment of the PSL program fee that is sent to customer electronically via email and text message.	X		X
7.1.17	The must provide payment receipts which must include the following:	X		X
7.1.17.1	Customer name	X		X
7.1.17.2	Customer mailing address	X		X
7.1.17.3	Payment type and amount paid	X		X
7.1.17.4	Date of transaction	X		X
7.1.17.5	Transaction ID number	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
7.1.17.6	Parcel Number	X		X

Permitting Software Replacement Project for the Private Sewer Lateral (PSL) Program - Functional Requirements

8. Regulatory Reporting

8.1 Predefined Reports and Ad-hoc Queries

EBMUD submits an annual report each year due on September 30th which summarizes PSL Program events and statistics occurring each fiscal year from (July 1 – June 30). The system must provide analytics to allow users to query data and/or establish pre-set reports to compile data needed for regulatory reporting or reporting to EBMUD management and Board of Directors. Below is a list of specific reports and query features needed to satisfy reporting requirements.

Item no.	Requirement	Must have	Nice to have	Required for Go Live
8.1.1	The system must provide summary reports for each of the following data requests with totals organized by City for each fiscal year (July 1 – June 30):	X		X
8.1.1.1	Total miles of PSL certified	X		X
8.1.1.2	Total number of Condition Assessment Plans	X		X
8.1.1.3	Total number of Corrective Action Work Plans	X		X
8.1.1.4	Total number of Compliance Certificates issued – total number should not include recertifications	X		X
8.1.1.5	Total number of exemption certificates issued by exemption type	X		X
8.1.1.6	Total number of Time Extension Certificates issued organized by: active, expired/compliant, and expired/non-compliant	X		X
8.1.1.7	Total number of program triggers: Title transfers, \$100K remodel, and water meters	X		X
8.1.1.8	Projected vs issued Compliance Certificates	X		X
8.1.1.9	Sales and compliance rates by month	X		X
8.1.1.10	Total certificates issued for voluntary compliance	X		X
8.1.1.11	1000ft parcel groups – Condition Assessment Plans, Corrective Action Work Plans, and compliance status	X		X
8.1.1.12	Number of HOAs and compliance status	X		X
8.1.1.13	Port of Oakland and Alameda Point parcel compliance	X		X
8.1.1.14	Compliance status for parcel or parcel groups with greater than 1,000 feet	X		X
8.1.1.15	Compliance status for parcels associated with HOAs	X		X
8.1.2	The system must provide a query or queries to look up the following information:	X		X
8.1.2.1	Daily inspection reservations	X		X
8.1.2.2	Whether a Parcel has an existing Certificate	X		X
8.1.2.3	Prior inspection results for a Parcel	X		X

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Item no.	Requirement	Must have	Nice to have	Required for Go Live
8.1.2.4	Parcel information pertaining to property type or division of sewer lateral responsibility (e.g., HOAs)	X		X
8.1.2.5	City notes to withhold Compliance Certificate	X		X
8.1.2.6	General waivers from City (i.e., City replace Lower Lateral – Property owner replace upper lateral)	X		X
8.1.3	The system must provide a tool that provides summary statistics on the following enforcement activities:	X		X
8.1.3.1	Number of parcels presently in enforcement, categorized by enforcement trigger type and enforcement trigger date	X		X
8.1.3.2	Number of parcels that entered each stage of enforcement, categorized by enforcement trigger type and enforcement trigger date	X		X
8.1.3.3	Number of parcels that were formerly in enforcement, but are now compliant, and percent of total, categorized by enforcement trigger type and enforcement trigger date	X		X
8.1.3.4	Average amount of time between each enforcement stage and compliance, by enforcement trigger type and enforcement trigger date	X		X
8.1.4	The system must provide PSL Program staff with the ability to create customized queries within the application (ad-hoc)	X		X
8.1.5	The system must provide a tool that provides a summary of TEC monthly deposit activities:	X		X
8.1.5.1	Third-party payment processor must be able to provide monthly report which includes all credit/debit card transactions and refunds.	X		X
8.1.5.2	List of all deposits and refunds with TECs	X		X
8.1.5.3	List of parcels with deposit but no TEC	X		X
8.1.5.4	List of outstanding deposits	X		X
8.1.5.5	List of PSL financial data discrepancies between EBMUD financial applications (e.g., Oracle Financial System) and new PSL application.	X		X
8.1.6	Inspection Status Dashboard/Reports		X	
8.1.6.1	Status of daily or weekly inspections, including APN, address, inspector, appointment window, special instructions, date, and time results submitted, notes, fees added		X	
8.1.6.2	Ability to sort inspection status by date, inspector, and status		X	

Permitting Software Replacement Project for the Private Sewer Lateral (PSL) Program - Functional Requirements

Item no.	Requirement	Must have	Nice to have	Required for Go Live
8.1.7	Track actual Compliance Certificates issued each fiscal year against future projections. Projection totals out to FY2037 have already been calculated.		X	

9. Business Requirements

9.1 Training

The Vendor shall provide training including a user/administrator manual to allow EBMUD staff to train on the system.

END OF FUNCTIONAL REQUIREMENTS

Figure 1: Scheduling to Issuing Compliance Certificate Flowchart

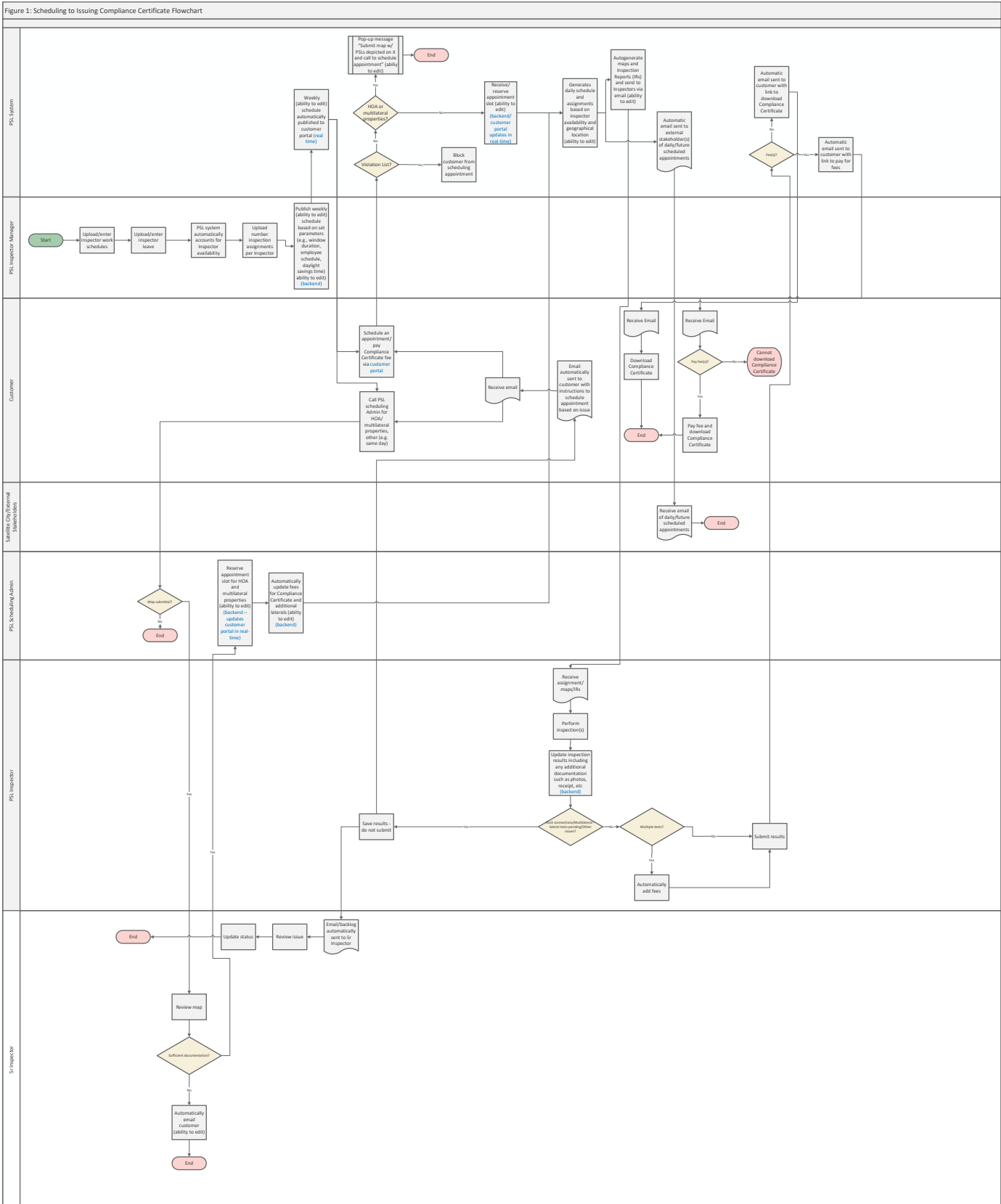


Figure 2: Time Extension Certificate Flowchart

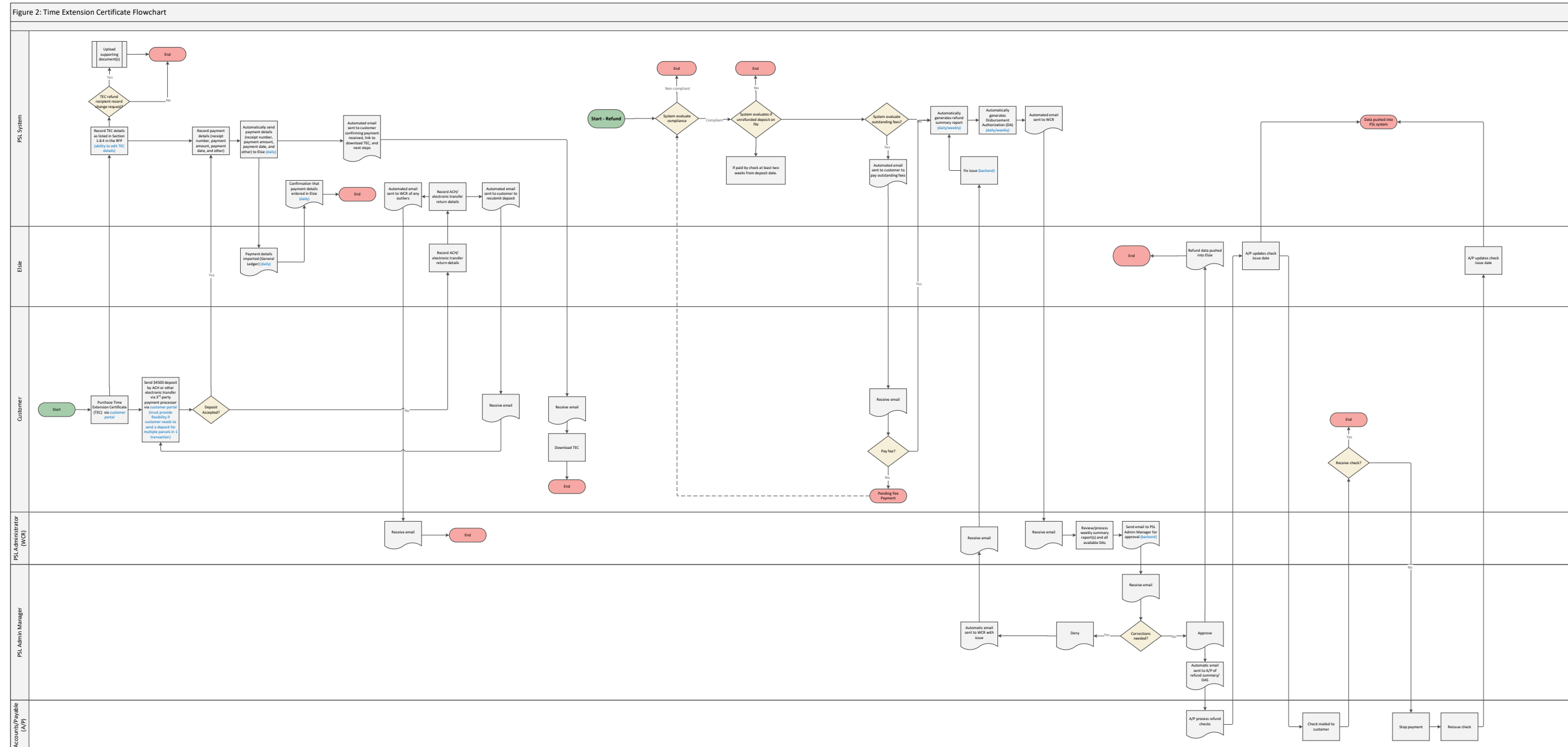


Figure 3: Exemption Certificates Flowchart

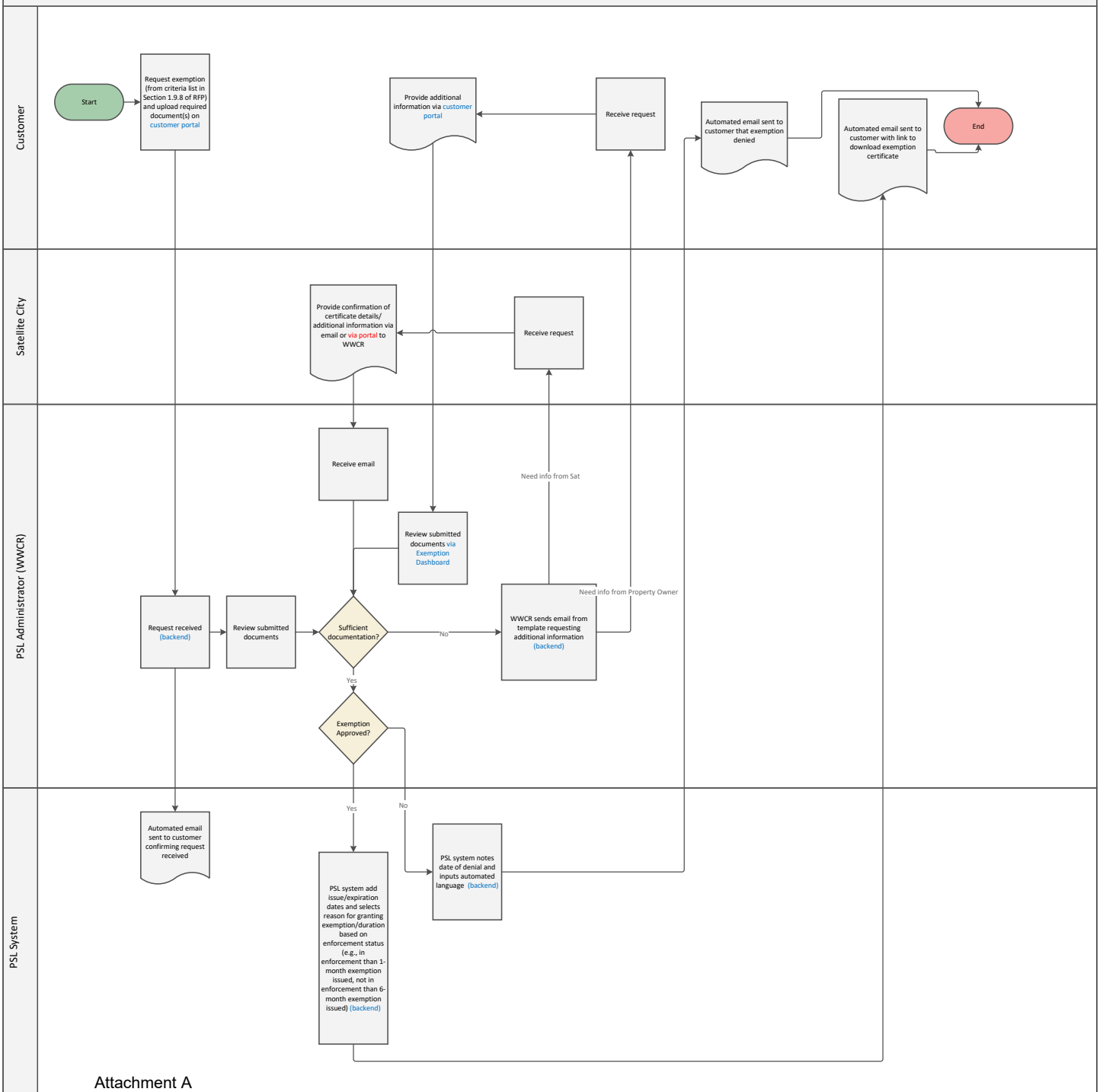


Figure 4: Appeals and Compliance Agreement Flowchart

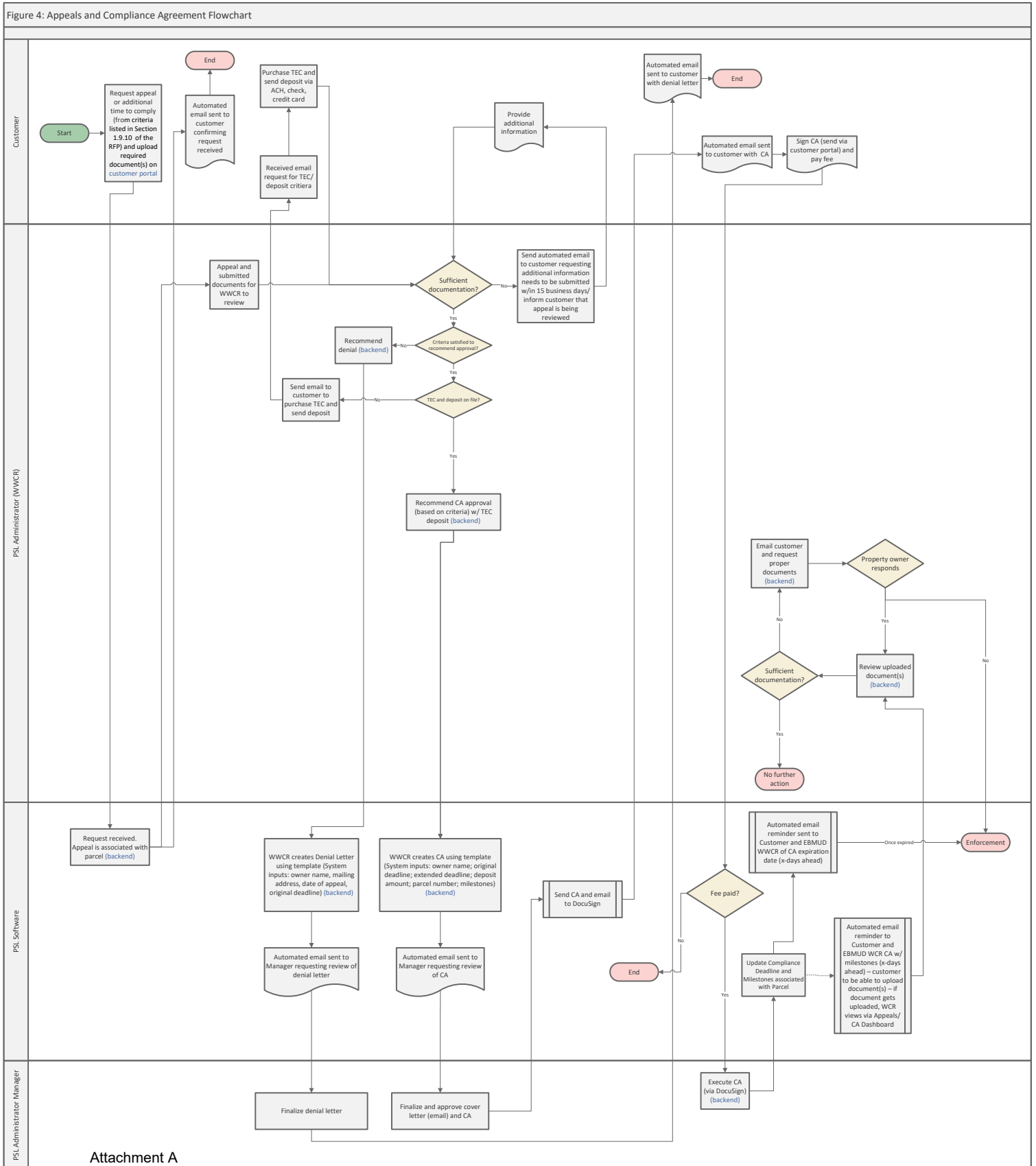


Figure 5: Enforcement Flowchart

