

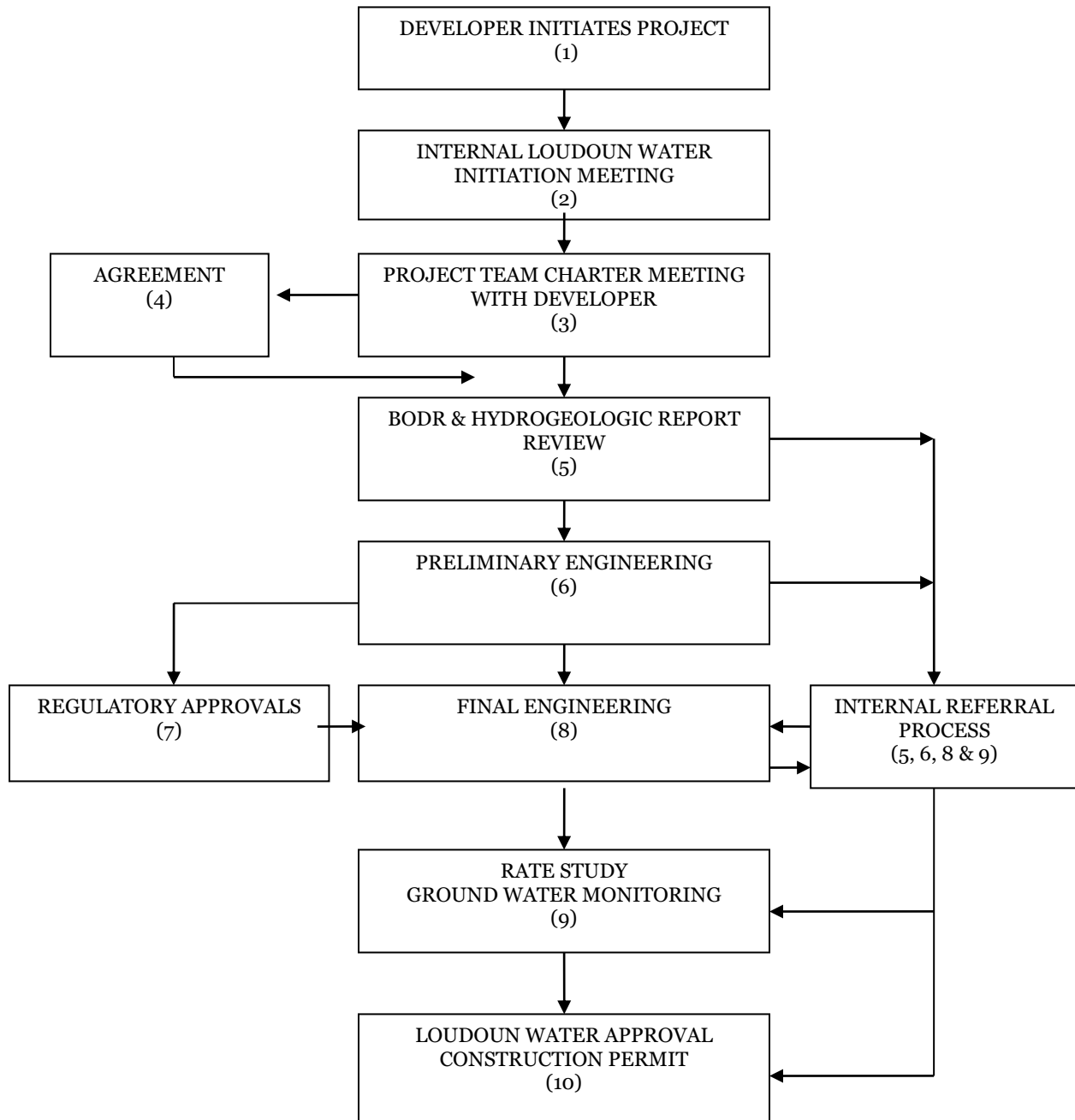
# Community Systems

## Key to Abbreviations

LD	Land Development Program
PM	Project Manager
BODR	Basis of Design Report
VDEQ	Virginia Department of Environmental Quality
VDH	Virginia Department of Health

# Community Systems Design Review Process

\*Note: General Water Review Process Shown – Actual Process May Vary



## Community Systems Design Review Process

**\*Note: General Water Review Process Shown – Actual Process May Vary**

<u>Box #</u>	<u>Description</u>
1	Developer/Applicant initiates project; provide required information Indicated on Project Initiation form
2	Loudoun Water initiation meeting facilitated by LD-determine scope of project; determine PMs, establish roles & responsibilities
3	Team Charter meeting with developer – PMs attend – discuss Developer and Loudoun Water roles & responsibilities, develop schedule - initiate agreement process, prepare organizational chart (see attached meeting outline)
4	Agreement sent by LD to developer for execution (use standard form unless necessary changes have been identified in boxes #1 thru #3)
5	Developer submits hydrogeologic & BODR to LD for referral distribution as needed ; comments provided to LD for developer to address; BODR finalized
6	Developer submits preliminary (30%-50%) engineering to LD for referral distribution as needed and pays all applicable review fees. ; LD work with developer's engineer to finalize.
7	Developer submits Loudoun Water approved BODR and preliminary engineering to VDEQ/VDH for approval, LD to track and distribute VDEQ/VDH comments
8	Developer submits final (95%) engineering to LD for referral distribution as needed (stakeholders meetings if necessary);LD work with developer's engineer to finalize
9	Developer submits rate study and groundwater monitoring plan to LD, for referral distribution as needed for review and approval

## Community Systems Design Review Process

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<u>Box #</u>	<u>Description</u>
10	LD issues approval letter and issues construction permit based on: <ul style="list-style-type: none"><li>• final engineering plans/specs approved</li><li>• rate study approved</li><li>• groundwater monitoring plan approved</li><li>• record plats/deeds approved and recorded</li><li>• easements recorded</li><li>• developer submits construction cost estimate based on</li><li>• contractor's pricing, pays lab fees, inspection fees, reconciles design fees.</li><li>• developer posts bonds</li><li>• developer sends proof of insurance</li><li>• developer executes Loudoun Water agreement</li><li>• all applicable permits including VDH/DEQ issue certificates to construct</li></ul>

## Community Systems Project Initiation Information

**Project Title:** \_\_\_\_\_

**Developer Contact Information:**

Company name: \_\_\_\_\_

Company address: \_\_\_\_\_

\_\_\_\_\_

Contact name: \_\_\_\_\_

Phone: \_\_\_\_\_

E-mail: \_\_\_\_\_

**Project Location:**

\_\_\_\_\_

(Attach 8 1/2" x 11" ADC or USGS map)

**Types and Number of Units:**

\_\_\_\_\_

**Status of County Approvals:** \_\_\_\_\_

\_\_\_\_\_

**Water System :**

- Community wells
- Individual wells
- Other (specify)

**Sewer System:**

- Community discharging
- Community non-discharging (land application)
- Individual non-discharging (land application)
- Other (specify)

**Schedule:** Hydrogeological Report Submitted \_\_\_\_\_ (date)

BODR Submitted \_\_\_\_\_

Final Design Submitted \_\_\_\_\_

First unit delivered \_\_\_\_\_

Project build-out \_\_\_\_\_

Rate study \_\_\_\_\_

Ground water monitoring study \_\_\_\_\_

# Community Systems Project Initiation Meeting

(Project Title)

(Project ID#)

Location:

Date:

Time:

## AGENDA

### 1. Attendees:

- Developer
- Design engineer
- Loudoun Water – Project Manager and Internal Team

### 2. Confirm meeting objectives

### 3. Review data provided on project initiation form

- Address comments and any missing information
- Provide organizational chart
- Confirm schedule
- Provide copy of submittal/review guidelines

### 4. Developer's responsibilities (to obtain construction permit):

- Executed agreement
- Schedule (detailed)
- Hydrogeological report
- BODR
- LW requested submittals
- Preliminary engineering report for sewer-per VDEQ SCAT regulations
- Engineer's report and preliminary plans-water-per VDH Waterworks regulations
- Final construction specifications and plans – water/sewer
- Rate study
- Groundwater monitoring plan
- County and VDOT approvals
- Engineer's cost estimate
- Plats/deeds recorded
- Fees:
  - Design Review: 2.5% of Estimated Construction Cost
  - lab: Reference
  - Inspection: Reference
- Bonds
- Proof of insurance

## Community Systems Project Initiation Meeting

5. Loudoun Water responsibilities:

- Draft agreement
- Review/comment/approve :

Detailed schedule

Hydrogeologic report

BODR

Preliminary engineering report and plans -sewer

Preliminary engineering report and plans - water

Final construction specifications and plans

Rate study

Ground water monitoring plan

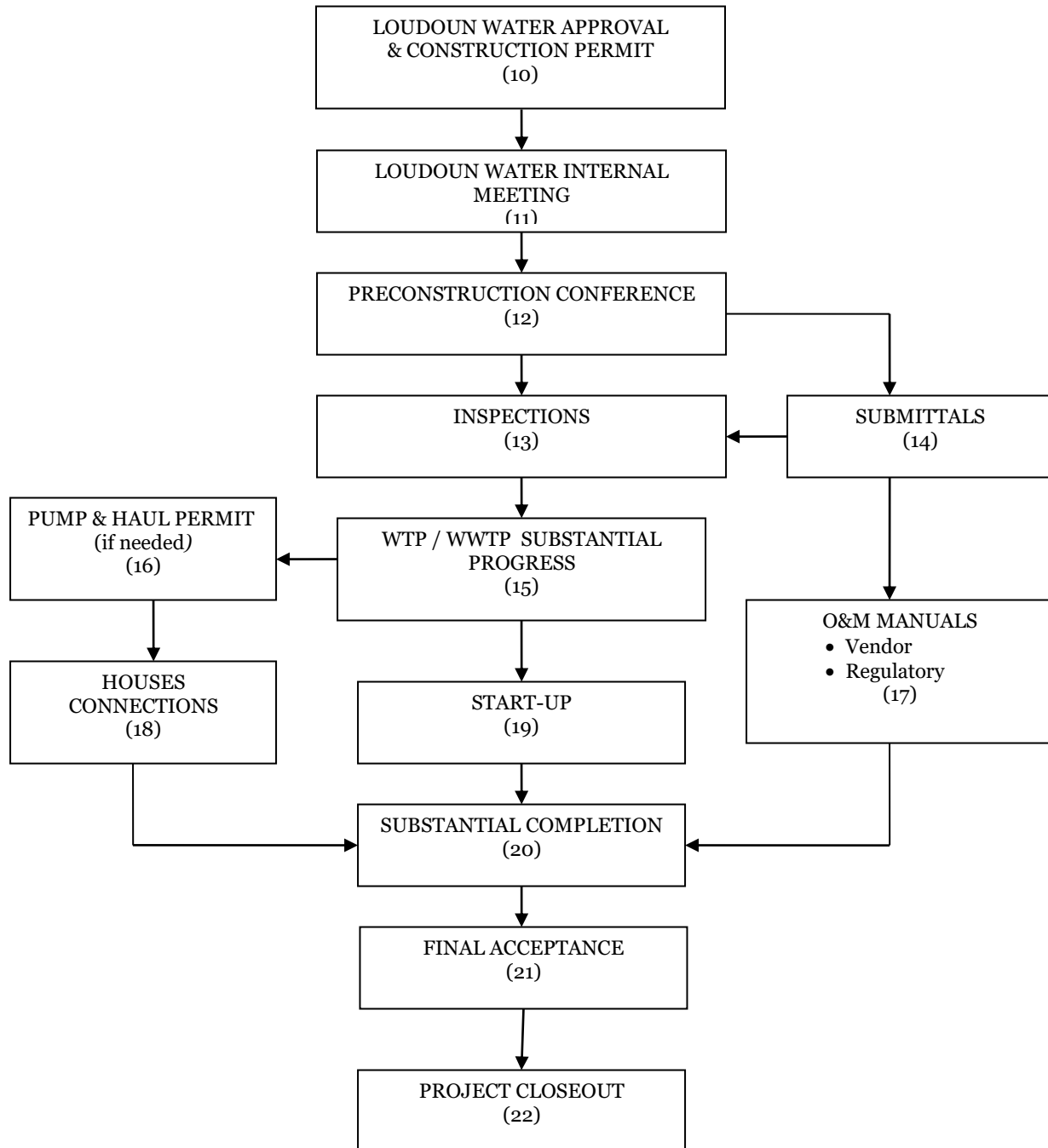
Plats/deeds

- Approval letter

6. Submission procedures and points of contact within Loudoun Water

7. Status of review process at other agencies (Loudoun County, VDEQ, Corps. Of Engineers, VDOT, etc.)

## Community Systems Construction Process





## Community Systems Construction Process

<u>Box #</u>	<u>Description</u>
11	Loudoun Water internal meeting
12	Preconstruction Conference
13	Inspections during construction Inspector is point of contact
14	Construction submittals from Developer Engineer to LD for routing to– approved submittals to inspector and returned to Developer
15	At the agreed stage of completion, houses may connect to the permanent water or sewer treatment facilities; operations bond must be in place
16	Pump and Haul permit application, Developer’s responsibility – LD writes letter of support/monitors
17	Vendor O&M manuals submitted and Operations manual prepared by Developer/ Engineer and submitted to LD for distribution to CS, CP; Loudoun Water – approved Operations manual forwarded by Developer to VDEQ for their approval
18	LD tracks house connections – number limited based on capacity of facilities
19	Approved start-up plan and procedures and Loudoun Water training implemented, include representatives from VDEQ (sewer), VDH (subsurface), and VDH (water) <ul style="list-style-type: none"> <li>• Performance testing</li> <li>• Reliability testing</li> <li>• Training</li> </ul>

## Community Systems Construction Process

<u>Box #</u>	<u>Description</u>
20	Substantial completion attained, punch lists generated; regulatory inspection and CTO issued, pump and haul shut down <ul style="list-style-type: none"> <li>• All alarms/controls operational</li> <li>• All safety equipment installed</li> <li>• All security items installed</li> <li>• Performance bond reduced to 20%</li> </ul>
21	Final acceptance procedures: <ul style="list-style-type: none"> <li>• Developer posts 5% maintenance bond</li> <li>• Loudoun Water releases performance bond</li> <li>• Deeds to transfer facilities to Loudoun Water</li> <li>• Equipment warranties transferred to Loudoun Water</li> <li>• As-built drawings completed</li> <li>• Punch list items corrected or completed</li> </ul>
22	Project closeout procedures following final acceptance: <ul style="list-style-type: none"> <li>• Loudoun Water inspects at 11 months to identify warranty items prior to 1 year deadline</li> <li>• Maintenance bond (5%) released once all warranty items corrected</li> <li>• Developer receives and pays invoices – operational bond released once 90% of units sold</li> </ul>

\*Priority of responsibility may be re-assigned by the project manager on a case-by-case basis, anytime after Loudoun Water internal meeting (11).

# Community Systems Preconstruction Conference

(Project Title)

(Project ID#)

Location:

Date:

Time:

## AGENDA

1. Introduction/Points of Contact
  - a. Owner – Loudoun Water
    - Project Manager
    - Inspectors
  - b. Developer
  - c. Engineer
  - d. Contractor
2. Lines of Communication and Responsibility (office and field)
  - a. Updated organizational chart
  - b. Record documents
  - c. LD Workflow Package
3. Contract Information
  - a. Description of Work
  - b. Contract time
  - c. Early Milestones
  - d. Substantial Completion Date
  - e. Final Completion Date
4. Submittals
  - a. List (to include project construction schedule, concrete test results)
  - b. Review procedures/schedule
  - c. Timing
  - d. O&M manuals
  - e. Record drawings

## **Community Systems Preconstruction Conference**

5. Work
  - a. Sequence of critical work
  - b. Site conditions
  - c. Field orders/Change orders
  - d. Requests for Interpretation (RFI)
6. Progress Meetings
7. Project Substantial Completion
  - a. Loudoun Water substantial completion requirements
  - b. Start-up schedule
  - c. Testing
  - d. Training
  - e. Punch list
  - f. Operation bond
9. Project Final Acceptance and Closeout
  - a. Performance bond reduction/release
  - b. Loudoun Water 1-year inspection
  - c. Deeds and equipment warranties transferred to Loudoun Water
10. Miscellaneous Items
  - a. Pump and Haul
  - b. Tax Exemption
  - c. Spare Parts
  - d. Asset Management
  - e. Easement/Limits of Disturbance
  - f. Shutdown Procedures
  - g. Special Inspections