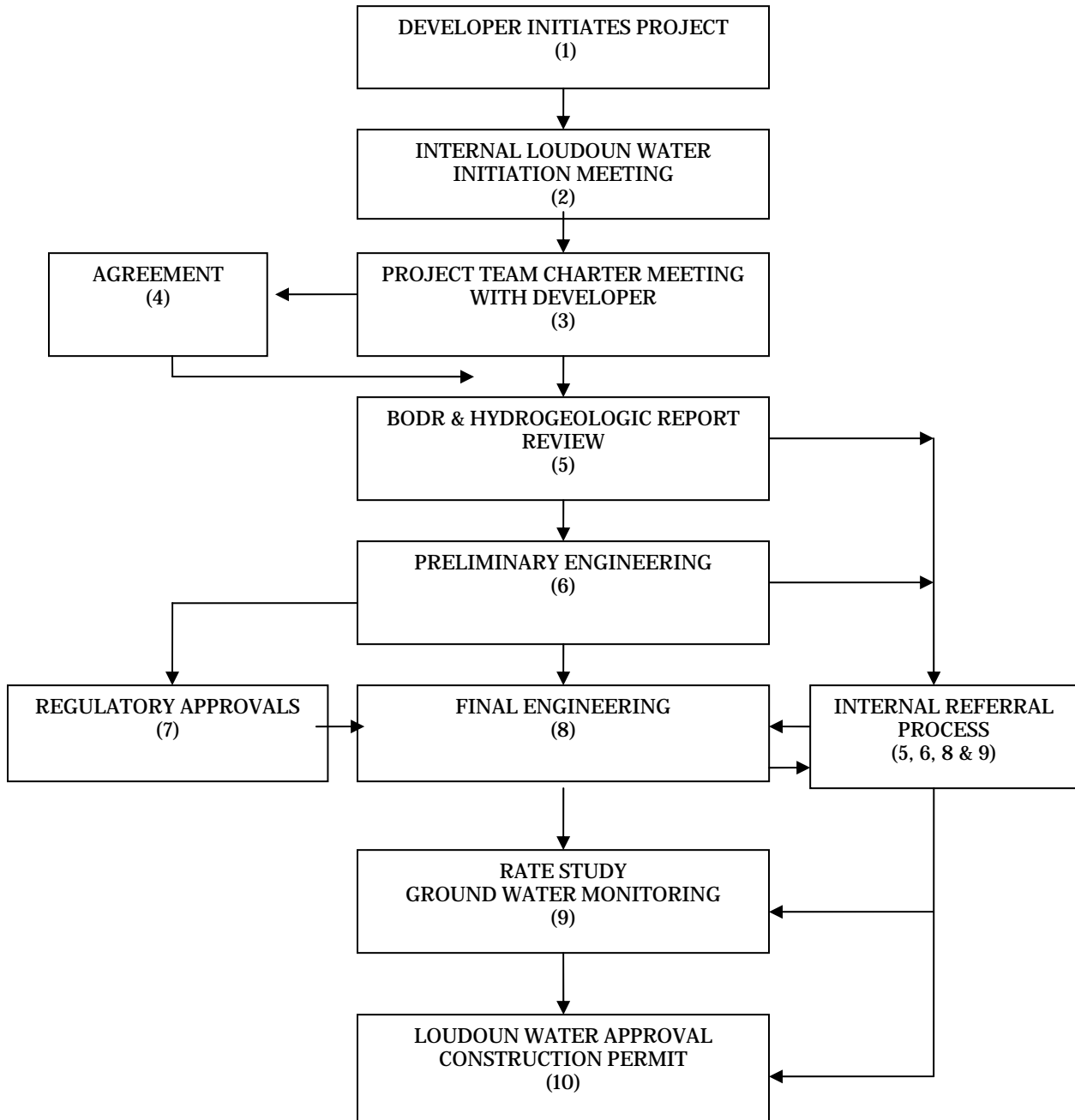


Community Systems

Key to Abbreviations

LD	Land Development Program
CS	Community Systems
OM	Operations and Maintenance
PM	Project Manager
BODR	Basis of Design Report
VDEQ	Virginia Department of Environmental Quality
VDH	Virginia Department of Health

Community Systems Design Review Process



Community Systems Design Review Process

<u>Box #</u>	<u>Description</u>	<u>Loudoun Water Responsibility</u> (listing denotes order of responsibility*)
1	Developer initiates project; CS determines if Engineering Division support is needed; provide required information Indicated on Project Initiation form	CS, LD
2	Loudoun Water initiation meeting facilitated by LD-determine scope of project; determine PMs, establish roles & responsibilities	CS, LD
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)	LD, CS
4	Agreement sent by LD to developer for execution (use standard form unless necessary changes have been identified in boxes #1 thru #3)	LD
5	Developer submits hydrogeologic & BODR to LD for referral distribution as needed to CS, OM; comments provided to LD for developer to address; \$5,000 initial fee required; BODR finalized	LD, CS, OM
6	Developer submits preliminary (30%-50%) engineering to LD for referral distribution as needed to CS, OM for comments (internal and/or stakeholder meetings if necessary); LD, CP work with developer's engineer to finalize	LD, OM, CS
7	Developer submits Loudoun Water approved BODR and preliminary engineering to VDEQ/VDH for approval, LD to track and distribute VDEQ/VDH comments	LD
8	Developer submits final (95%) engineering to LD for referral distribution as needed to CP, CS, OM for comments (stakeholders meetings if necessary); LD work with developer's engineer to finalize	LD, CS, OM
9	Developer submits rate study and groundwater monitoring plan to LD, for referral distribution as needed to CS for review and approval	LD, CS

Community Systems Design Review Process

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

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 representatives for CS, LD

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 (bring copies of required submittals for developer to review)
- 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:
 - \$5,000 up-front
 - Design review/lab/inspection
- 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

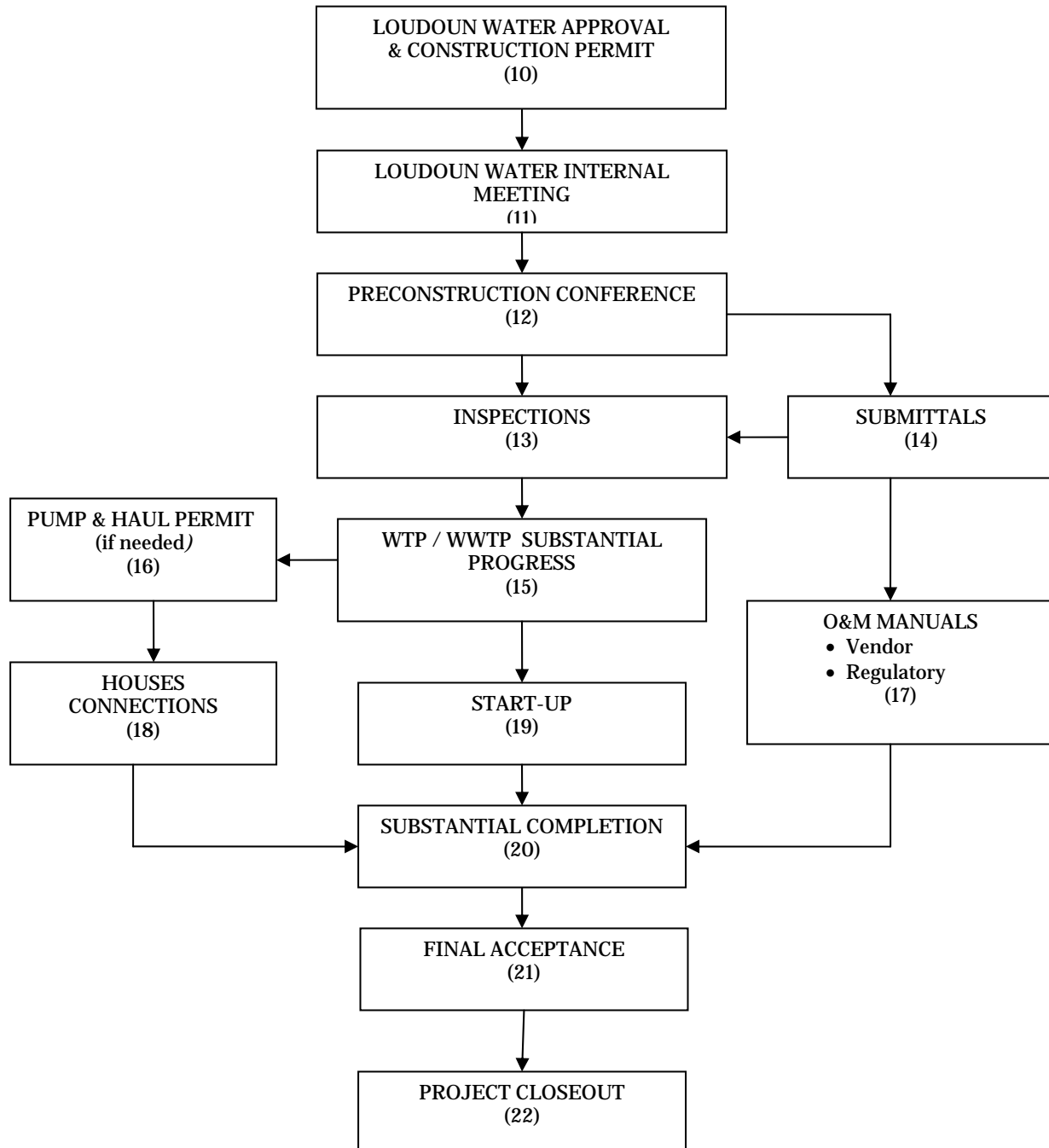
Plats/deeds

- 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>	<u>Loudoun Water Responsibility</u> (listing denotes order of responsibility*)
11	Loudoun Water internal meeting	LD, OM, CS
12	Preconstruction Conference	LD, OM, CS
13	Inspections during construction Inspector is point of contact	OM, LD, CS
14	Construction submittals from Developer Engineer to LD for routing to CS – comments returned to LD – approved submittals to inspector and returned to Developer	LD, CS, OM
15	At the agreed stage of completion, houses may connect to the permanent water or sewer treatment facilities; operations bond must be in place	OM, LD
16	Pump and Haul permit application, Developer’s responsibility – LD writes letter of support/monitors	LD
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	LD, CS
18	LD tracks house connections – number limited based on capacity of facilities	LD
19	Approved start-up plan and procedures and Loudoun Water training implemented, include representatives from VDEQ (sewer) and VDH (water) <ul style="list-style-type: none"> • Performance testing • Reliability testing • Training 	LD, CS

Community Systems Construction Process

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

*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 (O&M, Community Systems)
 - b. Developer
 - c. Engineer
 - d. Contractor
2. Lines of Communication and Responsibility (office and field)
 - a. Updated organizational chart
 - b. Record documents
3. Status of Required Permits and Regulatory Approvals
 - a. Review of Loudoun Water/Developer Agreement
 - b. Loudoun County grading
 - c. Loudoun County building
 - d. VDOT
 - e. VDEQ
 - f. VDH
 - g. Others (NVRPA, Dominion Virginia Power, NOVEC, etc.)
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