



Fire Chiefs Association

FIRE PREVENTION OFFICERS SECTION

of Santa Cruz County

<b>FIRE PREVENTION STANDARDS</b>	DATE: 08/21/96	NUMBER: FP0-007
	APPROVED:	REVISED:
	TITLE: Water Storage for non/sprinklered dwellings	

**Guide to Water Storage Requirements  
For  
Single and Two Family Dwellings  
(Non-Sprinklered)**

These are the basic requirements for water storage for fire protection.

1. Plans shall be submitted a minimum of 14 days before installation for approval. Approval shall be obtained from the Fire Prevention Office, (fire department address and telephone number).
2. The National Standard for water storage requirements is the latest edition of NFPA 24.
3. The following information is required when submitting plans for a water storage tank.

**System Design Requirements**

**A. Water Supply (Storage Tank)**

1. Minimum required amount of stored fire protection water for one and two family dwellings is 4,000 gallons.

**Domestic water storage requirements shall be added to the minimum fire protection storage requirements. (i.e. 1,000 gallons domestic water and 4,000 gallons fire protection water = 5,000 gallon tank)**

2. For more than two dwellings, contact the Fire Department having jurisdiction.

3. Domestic Water Storage:

The water tank shall be used for domestic water storage in conjunction with fire protection water storage and designed to the following standards:

- a. The tank is equipped with a minimum 1-inch fill line and a float valve to insure that the tank is kept a minimum of 80% full.

4. Tank Location:

The location of the tank shall be approved by the Fire Department having jurisdiction.

**B. Fire Department Connection (Hydrant)**

1. The fire hydrant location shall be a minimum of 50 feet to a maximum of 150 feet from the protected structure and not more than six to eight feet from the edge of the driveway or roadway. Location subject to the approval of the Fire Department having jurisdiction.

**NOTE:** The location of the fire hydrant cannot make the driveway or roadway impassible to other traffic by the parking of fire apparatus using the hydrant.

2. The fire department connection (hydrant) may be located at the base of the tank if accessible to fire department equipment and approved by the Fire Department having jurisdiction.
3. The fire department connection (hydrant) must be equipped with a minimum of one 2 ½" National Standard Thread outlet. The outlet will be 30 to 36 inches above surrounding grade level and be equipped with a cap. Contact the Fire Department having jurisdiction for further information.
4. All fire department connections (hydrants) shall be painted to conform to the requirements of the Fire Department having jurisdiction.

**C. Fire Department Connection (Hydrant) Piping**

1. The minimum size pipe and tank outlet for a fire line is 4 inches. For remote hydrants, a larger size may be required upon review of the systems' hydraulic calculations. Contact Fire Department having jurisdiction with any questions. Indicate on plans with a detailed drawing.
2. Minimum underground pipe depth is 30 inches. Where piping passes under access roads or areas subject to heavy loads, the minimum bury is 36 inches.

3. Schedule 40 PVC is allowed for supply line from the tank to the bottom of the hydrant riser when the line is buried and installed per NFPA 24.
4. All transition from metal to plastic will be through schedule 80 plastic fittings. Metallic pipe to extend 6 inches below grade level. No exposed PVC pipe allowed.

**EXCEPTION:** An approved AWWA Dressler coupling may be used in lieu of schedule 80 plastic fitting if approved by the Fire Department having jurisdiction.

5. Concrete thrust blocks or other approved listed devices shall be required to stabilize the underground pipe.

**NOTE:** Underground metallic pipe shall be wrapped in accordance with the requirements of the Uniform Plumbing Code.

6. A concrete pad 24" by 24" by a minimum of 4".
7. An approved full flow hydrant line shut off valve shall be installed at the tank.
- 8. All underground piping systems shall be inspected before back fill by the Fire Department having jurisdiction to verify compliance.**
9. Underground pipe shall be flushed with water until water runs clear, insuring the line is free of contamination.

The appropriate local agency shall be contacted regarding local requirements and permit amounts. Refer to the table below to determine which fire agency will oversee plan review, installation activities, perform compliance inspections and collect permit fees if any. For those agencies marked with an (\*) on the following table, CDF/Santa Cruz County Fire Department is the agency responsible for all installations.

Location	Fire Agency Name	Address	Telephone
Aptos	Aptos/La Selva FPD	6934 Soquel Drive Aptos, CA 95003	(831) 685-6690
*Ben Lomond	CDF/Santa Cruz County Fire Dept.	P.O. Drawer F-2 Felton, CA 95018	(831) 335-5353
*Bonny Doon	CDF Santa Cruz County Fire Dept.	P.O. Drawer F-2 Felton, CA 95018	(831) 335-5353
Boulder Creek	Boulder Creek FPD	P.O. Box 175 Boulder Creek, CA 95006	(831) 338-7222
*Branciforte	CDF/Santa Cruz County Fire Dept.	P.O. Drawer F-2 Felton, CA 95018	831) 335-5353
Brookdale	Boulder Creek FDP	P.O. Box 175 Boulder Creek, CA 95006	(831) 338-7222

Capitola	Central FDP	930 17 <sup>th</sup> Ave. Santa Cruz, CA 95062	(831) 479-6843
*Corralitos	CDF/Santa Cruz County Fire Dept.	P.O. Drawer F-2 Felton, CA 95018	831) 335-5353
*Davenport	CDF/Santa Cruz County Fire Dept.	P.O. Drawer F-2 Felton, CA 95018	(831) 335-5353
Felton	Felton FPD	131 Kirby St. Felton, CA 95018	(831) 335-4422
*Freedom	CDF/Santa Cruz County Fire Dept.	P.O. Drawer F-2 Felton, CA 95018	(831) 335-5353
La Selva Beach	Aptos/La Selva FPD	6934 Soquel Drive Aptos, CA 95003	(831) 685-6690
Live Oak	Central FPD	930 17 <sup>th</sup> Ave. Santa Cruz, CA 95062	(831) 479-6843
Mount Herman	Felton FPD	131 Kirby St. Felton, CA 95018	(831) 335-4422
Rio Del Mar	Aptos/La Selva FPD	6934 Soquel Drive Aptos, CA 95003	(831) 685-6690
*Salispuedes	CDF/Santa Cruz County Fire Dept.	P.O. Drawer F-2 Felton, CA 95018	(831) 335-5353
Santa Cruz City	Santa Cruz FD	711 Center Street Santa Cruz, CA 95060	(831) 429-3600
Scotts Valley	Scotts Valley FPD	7 Erba lane Scotts Valley, CA 95066	(831) 438-0211
Soquel	Central FPD	930 17 <sup>th</sup> Ave. Santa Cruz, CA 95062	(831) 479-6843
Watsonville	Watsonville FD	374 Airport Blvd. Watsonville, CA 95076	(831) 728-6060
*Zayante	CDF/Santa Cruz County Fire Dept.	P.O. Drawer F-2 Felton, CA 95018	(831) 335-5353