



DEPARTMENT OF THE NAVY

NAVAL AIR STATION
LEMOORE, CALIFORNIA 93246-5001

IN REPLY REFER TO:

NASLEMINST 11300.3 CH-1
50200

28 DEC 1992

NAS LEMOORE INSTRUCTION 11300.3 CHANGE TRANSMITTAL 1

From: Commanding Officer, Naval Air Station, Lemoore

Subj: **WATER CONSERVATION**

1. Purpose. To issue pen and ink change to the subject instruction.
2. Action. Page 2, paragraph 4b(2), line 6, change "1200" to "1300".


A. R. GORTHY

Distribution: (NASLEMINST 5215.2S)
Lists A, B & E





DEPARTMENT OF THE NAVY

NAVAL AIR STATION

LEMOORE, CALIFORNIA 93246-5001

IN REPLY REFER TO:

NASLEMINST 11300.3
50300

18 JUN 1991

NAS LEMOORE INSTRUCTION 11300.3

From: Commanding Officer, Naval Air Station, Lemoore

Subj: WATER CONSERVATION

Encl: (1) Water Use Contingency Plan

1. Purpose. To establish water conservation policies and procedures for Naval Air Station, Lemoore.

2. Applicability. This instruction applies to commands, departments, and tenant activities aboard Naval Air Station, Lemoore.

3. Background. California has and will continue to experience substantial population growth and climatic conditions that place added burden on available water supplies. In times of substantial water shortfalls Naval Air Station, Lemoore is in a unique position to effect water conservation for itself and serviced activities. Approximately 52 percent of the station water supply is used in family housing, 32 percent is used in the administration area and 16 percent is utilized in the operations area. Naval Air Station Lemoore has and will continue to experience substantial growth and with growth comes increased water demands. Only by actively implementing water conservation actions now will Naval Air Station, Lemoore be able to minimize the consequences of future water shortfalls.

4. Action.

a. General Water Conservation

(1) Commands, departments and tenant activities will institute local procedures to implement enclosure (1) when notified to do so by the Public Works Officer (PWO).

(2) Commands, departments and tenant activities will institute procedures to regularly inspect water using equipment, toilets, faucets, hose bibs, etc., for leaks and arrange for prompt repairs. Even slow drips can waste 50 or more gallons per day, and a 1/8-inch stream can waste 2,800 gallons per day at nominal pressure. Commands, departments and tenant activities shall evaluate water using equipment or procedures for water conservation measures, summarize these measures and submit to the Public Works Department for review and potential implementation.

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(3) Hoses will be equipped with automatic shutoff nozzles. This includes hoses used at aircraft washracks. Fresh water will not be used for hosing down streets, driveways, patios, parking lots, buildings or other water wasting activities except to alleviate immediate fire or sanitation hazards.

(4) Contractors will be closely monitored for water waste. Immediately report waste to the Contracting Officer.

(5) Dining facilities will serve drinking water only on request.

(6) Family Housing newsletter will regularly mention the continuing need for water conservation and provide assistance through meetings and literature on methods of water conservation in the home.

(7) Personnel will utilize only full loads in washing machines and dishwashers.

(8) Personnel will report water conservation problems (e.g., water pipes or sprinkler system leaks or watering of pavement, etc.) to the air station Water Waste Hotline (Ext. 4076).

b. Irrigation Water Conservation

(1) Base Architectural Plans shall specify that any vegetation used shall require very little water and shall encourage xeriscape (low moisture) landscape designs. This applies to new landscaping. Existing landscaping shall be converted when replanting or extensive maintenance is required.

(2) Watering should normally be performed 2 to 3 hours before dawn to reduce wind evaporation losses. It should be performed only as needed to force deeper rooting. Irrigation timers and moisture sensors should be used to accomplish watering if feasible. When irrigation timers are not available, watering should occur before 1200, or after 2000 to minimize evaporation. Overspray onto gutters, sidewalks, and other areas not requiring irrigation shall be eliminated.

c. Designing for Water Conservation

(1) Any equipment and/or systems utilizing water shall first be reviewed and approved for site installation by the Public Works Department, Engineering Division prior to procurement.

(2) Designs shall incorporate conservation to the maximum extent feasible. This applies to designs done by contract, in-house forces, service chits, self-help and Naval Construction Battalion Unit designs.

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(3) Landscaping designs shall be per NAVFAC DM-5.11, "Civil Engineering Design Manual: Soil Conservation", Base Architectural Plans and Natural Resources Management Plan. Designs requiring irrigation shall require low-gallonage heads, irrigation timers and moisture sensors, however, designs shall attempt to eliminate requirements for irrigation if possible.

(4) Facilities shall be designed to minimize the use of water. Plumbing shall be designed per NAVFAC Guide Specification 15400 (except as modified by this instruction). Water closets shall be designed for minimal water usage (3.5 gallons per flush maximum). Showers shall be designed with low-flow shower heads (not to exceed 2.75 gallons per minute) with integral shut-off valve. Flow restrictors/aerators shall be specified for all public washrooms.

(5) Cooling systems shall be designed to minimize the use of water. Once-through cooling systems are not permitted. Controls should be specified to control water flow and blowdown rates.

(6) Industrial processes shall be designed to minimize the use of water and discharge of effluent. Systems shall be designed for cascading or for recycling of effluent if possible.

d. Maintenance Water Conservation - Public Works shall:

(1) Conduct leak detection surveys of water distribution systems and repair leaks. Based upon condition of the distribution system, reschedule leak detection surveys on a weekly basis. All departments and tenant commands shall assist.

(2) Maintain water systems per NAVFAC MO-210, "Maintenance and Operation of Water Supply, Treatment, and Distribution Systems". Ensure supply pressures are properly adjusted to the minimum pressure consistent with fire fighting and operational requirements.

(3) Maintain cathodic protection per NAVFAC MO-307, "Cathodic Protection Systems Maintenance".

(4) Ensure grounds maintenance contracts reflect irrigation requirements of section 4.b. Contract inspectors should make these requirements frequent inspection items.

(5) Ensure Family Housing maintenance contracts reflect these change-of-occupancy maintenance items. (Departments and tenant commands shall assist in identifying requirements.)

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- (a) Installation of low-flow shower heads.
- (b) Installation of low identifying aerators on all faucets.
- (c) Check for leaks on faucets (and hose bibs).
- (d) Check toilets for running or leaks (use a little food coloring in tank to check seal).
- (e) Equip toilets that are not low-flow with water displacement bags inside tank.
- (6) Shall ensure cooling systems and industrial processes are maintained for minimal water use. Promptly correct any water wasting situations and recommend water saving equipment modifications to use less water.
- (7) Shall ensure repair/replacement of equipment will meet the water conservation requirements of this instruction (public washrooms faucet replacements shall be of the automatic shutoff type, only low-flow shower heads shall be installed; flushometers shall be adjusted for minimal water usage, etc.)
- (8) Cap-off abandoned water lines rather than relying on valve closure.



J. E. HART

Distribution: (NASLEMINST 5215.2R)
LISTS A, B & E

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WATER USE CONTINGENCY PLAN

1. Supply shortages, drought conditions, or a major failure of the water distribution system can cause a water shortage for Naval Air Station Lemoore. Water suppliers have statutory authority to mandate required water conservation actions in the event of shortages. This contingency plan identifies required actions in the event of notification of a water shortage by the Public Works Officer (PWO).

2. In the event of a water shortage, Naval Air Station Lemoore will be notified by water supplier of the need to implement the Water Shortage Contingency Plan. The plan is a 4-stage plan identified below. The severity of the shortage will dictate which stage of the plan is in effect. The Public Works Department will notify activities which stage to implement. Available water resources must be put to the maximum beneficial use; waste or unreasonable use of water is prohibited.

a. Stage 1 - Voluntary Conservation. During Stage 1 all elements of Stage 2 shall apply on a voluntary basis.

b. Stage 2 - Mandatory Compliance - WATER ALERT. During Stage 2 the following water conservation measures shall apply (except when reclaimed water is used):

(1) Maintained areas, school grounds and recreational field lawn watering and landscape irrigation (including construction irrigation) are permitted only on designated irrigation days as directed by the Public Works Officer. Lawn watering and landscape irrigation in these areas will be permitted between the hours of 2000 and 1200. Family Housing residential lawn watering and landscaping irrigation are permitted only on designated irrigation days and hours as directed by the Housing Office. The requirements specified above do not apply to leased agricultural land.

(2) Washing of government vehicles, trailers and other types of mobile equipment is permitted once a month and only between the hours of 0600 and 1200. Washing of POVs (privately owned vehicles) is permitted at the base carwash anytime, limited only by hours of operation. Washing of POVs within the housing area shall be permitted only on designated days and hours as directed by the Housing Office. Washing of military equipment at hangar wash racks shall be permitted as notified by the Public Works Officer. All washings, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses. Washings are exempt from the above requirements where health, safety, and welfare are contingent upon frequent vehicle cleaning (such as garbage trucks and vehicles used to transport food and perishables).

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(3) Filling or refilling swimming pools, spas, ponds, and artificial lakes is permitted only on designated days as notified by the Public Works Officer and will be permitted between the hours of 0600 and 1200. Pool water levels shall be maintained well below the overflow gutter to prevent water waste during active use.

(4) Use of water from fire hydrants shall be limited to fire fighting, authorized construction, and other activities necessary to maintain the health, safety, and welfare of personnel.

(5) The operation of any ornamental fountain or similar structure is prohibited.

c. Stage 3 - Mandatory Compliance - WATER WARNING. During Stage 3 the following water conservation measures shall apply (except when reclaimed water is used):

(1) Maintained areas, school grounds and recreational field lawn watering and landscape irrigation (including construction irrigation) are permitted only on designated irrigation days as directed by the Public Works Officer. Lawn watering and landscape irrigation in these areas will be permitted between the hours of 2000 and 0700. Family Housing residential lawn watering and landscaping irrigation are permitted only on designated irrigation days and hours as directed by the Housing Office. The requirements specified above do not apply to leased agricultural land.

(2) Washing of government vehicles, trailers and other types of mobile equipment is prohibited. Washing of POVs is permitted at the base carwash on weekends only, and limited by hours of operation. Washing of POVs within the housing area shall be permitted only on designated days and hours as directed by the Housing Office. Washing of military equipment at hangar wash racks shall be permitted as notified by the Public Works Officer. All washings, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses. Washings are exempt from the above requirements where health, safety, and welfare are contingent upon frequent vehicle cleaning (such as garbage trucks and vehicles used to transport food and perishables).

(3) Filling or refilling swimming pools, spas, ponds, and artificial lakes is permitted only on designated days as notified by the Public Works Officer and will be permitted between the hours of 0600 and 1200. Pool water levels shall be well below the overflow gutter to prevent water waste during active use.

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(4) Use of water from fire hydrants shall be limited to fire fighting, authorized construction, and other activities necessary to maintain the health, safety, and welfare of personnel.

(5) The operation of any ornamental fountain or similar structure is prohibited.

(6) Potable construction water shall not be used for earth work or road construction purposes unless authorized by the PWO.

(7) The Public Works Department will attempt to utilize and make available the Industrial Waste Plant effluent for construction earth work, road construction or other non-potable water uses in an attempt to conserve the use of fresh water.

d. Stage 4 - Mandatory Compliance - WATER EMERGENCY. During Stage 4 the following restrictions shall apply (except when reclaimed water is used):

(1) Maintained areas, school grounds and recreational field lawn irrigation (including construction irrigation) is prohibited. Watering of trees and shrubs in these areas is permitted only on designated days as notified by the Public Works Officer. Family Housing lawn watering is prohibited, tree and shrub irrigation is permitted only on designated irrigation days as directed by the Housing Office. Landscape irrigation will be permitted between the hours of 2400 and 0700.

(2) Washing of government vehicles, trailers and other types of mobile equipment is prohibited. Washing is prohibited at the base carwash. Washing of POVs within the housing area shall be permitted but limited to once a month. Washing of military equipment at hangar wash racks shall be permitted as notified by the Public Works Officer. All washings, when allowed, shall be done with a hand-held bucket or a hand-held hose equipped with a positive shutoff nozzle for quick rinses. Washings are exempt from these requirements where health, safety, and welfare are contingent upon frequent vehicle cleaning (such as garbage trucks and vehicles used to transport food and perishables).

(3) Filling or refilling swimming pools, spas, ponds, and artificial lakes is prohibited (if this presents a potential health problem in the operation of swimming pools or spas, such areas may be closed). Pool water levels shall be maintained well below the overflow gutter to prevent water waste during active use.

(4) Use of water from fire hydrants shall be limited to fire fighting, authorized construction, and other activities necessary to maintain the health, safety, and welfare of personnel.

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(5) The operation of any ornamental fountain or similar structure is prohibited.

(6) Construction water shall not be used for earth work or road construction purposes, unless authorized by the PWO.

(7) The Public Works Department will attempt to utilize and make available the Industrial Waste Plant effluent for construction earth work, road construction or other non-potable water uses in an attempt to conserve the use of fresh water.