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IA 1 – Drought

Last Revision: September 2002

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IA 1 Tasked Agencies	
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For information on the plan call:

OEM - Plans and Training Section Director (503) 378-2911 or (800) 452-0311

Disclaimers

1 Purpose

To coordinate state and federal agency response to drought emergencies caused by water shortages and to provide water supplies for human consumption/use under conditions of inadequate supply.

2 Operational Concepts

- The basic responsibility for initial response to provide emergency water supplies rests with the local government involved.
- When water supplies are not sufficient, the affected individual/ jurisdiction should contact the Local Emergency Management organization and request assistance.
- Local governments, in accordance with local emergency operations plans and the emergency powers granted by ORS Chapter 401, should then initiate and conduct emergency operations to the full extent of their resource capability.
- Where local resources are insufficient to cope with the situation, additional emergency assistance may be obtained from the State, in accordance with this plan.
- If both State and local resources are inadequate to cope with the emergency, the Governor will request additional assistance from the federal government.

3 Responsibilities

The Director of Oregon Emergency Management (OEM) shall be responsible for coordination of emergency operations of State departments and agencies, and for coordination of emergency assistance from federal or private sources not otherwise addressed in local emergency plans.

Under the provisions of this plan, departments and agencies of state government having the capability of providing emergency assistance will provide that assistance when directed by the Governor or his authorized representative(s).

4 Execution

- Request for Assistance: Local governments requiring emergency assistance from State or major private resources should direct their requests to:
 - Oregon Emergency Management, Salem, 503-378-6377 or 1-800-452-0311.
 - Water Resources Department, Salem, 503-378-8455.
- Transportation: Under the direction and control of the appropriate department head, the following State departments possess water transportation capabilities:
 - Department of Fish and Wildlife
 - Department of Forestry (non-potable), when not being used for firefighting.
 - Department of Transportation
 - Military Department
- Storage. Emergency water storage is the responsibility of the requesting local government or political subdivision. Maximum use should be made of existing storage facilities.
- Treatment. Emergency Water Supplies-Human Consumption.
 - Treatment of emergency water supplies to ensure suitability for human consumption is the responsibility of the requesting local government or political subdivisions.
 - The DHS-Health Services is responsible for evaluation of water quality for human consumption.
- Distribution. Emergency Water Supplies-Human Use.
 - Local governments or political subdivisions requesting emergency water supplies for human use shall:
 - Designate suitable delivery/distribution points where the requested water may be delivered.
 - Provide security for water transportation equipment/water supply as required.

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- The Water Resources Department shall be responsible for designation of “Water Points” where emergency water supplies may be obtained for further distribution to requesting local governments or political subdivisions.

5 Appendices

- Appendix 1 - Preparedness and Response for Drought
- Appendix 2 - Schedule of Oregon Drought Monitoring and Mitigation Activities
- Appendix 3 - Federal Drought Assistance Programs
- Appendix 4 - Guidelines for Water Curtailment Planning and Program Development
- Appendix 5 - Model Water Curtailment Measures for City Water.

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IA 1 – Drought ***Appendix 1 – Preparedness and Response for Drought***

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IA 1. Appendix 1 – Preparedness and Response for Drought**1 Forward**

This document has been prepared as part of Oregon’s Emergency Preparedness Planning effort. It is intended to point out the actions that might be taken by Districts, Cities, Counties, State agencies and the Federal Government, if a serious drought should occur in Oregon. The report describes basic lines of authority and communications, and points out request procedures for state or federal assistance.

This report should be utilized in conjunction with the State Emergency Operations Plan. For more information about these drought programs and actions, contact Oregon Emergency Management, P.O. Box 14370, Salem, OR 97309-5062. Phone: 503 -378-2911.

2 Acronyms

BLM	Bureau of Land Management
BOR	United States Bureau of Reclamation
DEQ	Department of Environmental Quality
DAS	Department of Administrative Services
DHS	Department of Human Services
DHS-HS	DHS-Health Services
DOD	Department of Defense
DOI	Department of Interior
FSA	Farm Service Agency
FEMA	Federal Emergency Management Agency
HHS	Health and Human Services
NRCS	Natural Resource Conservation Service
NWS	National Weather Service
ODFW	Oregon Department of Fish and Wildlife
OOE	Oregon Office of Energy
OEM	Oregon Emergency Management
ODF	Oregon Department of Forestry
RCA	Resources Conservation Act
RD	Rural Development

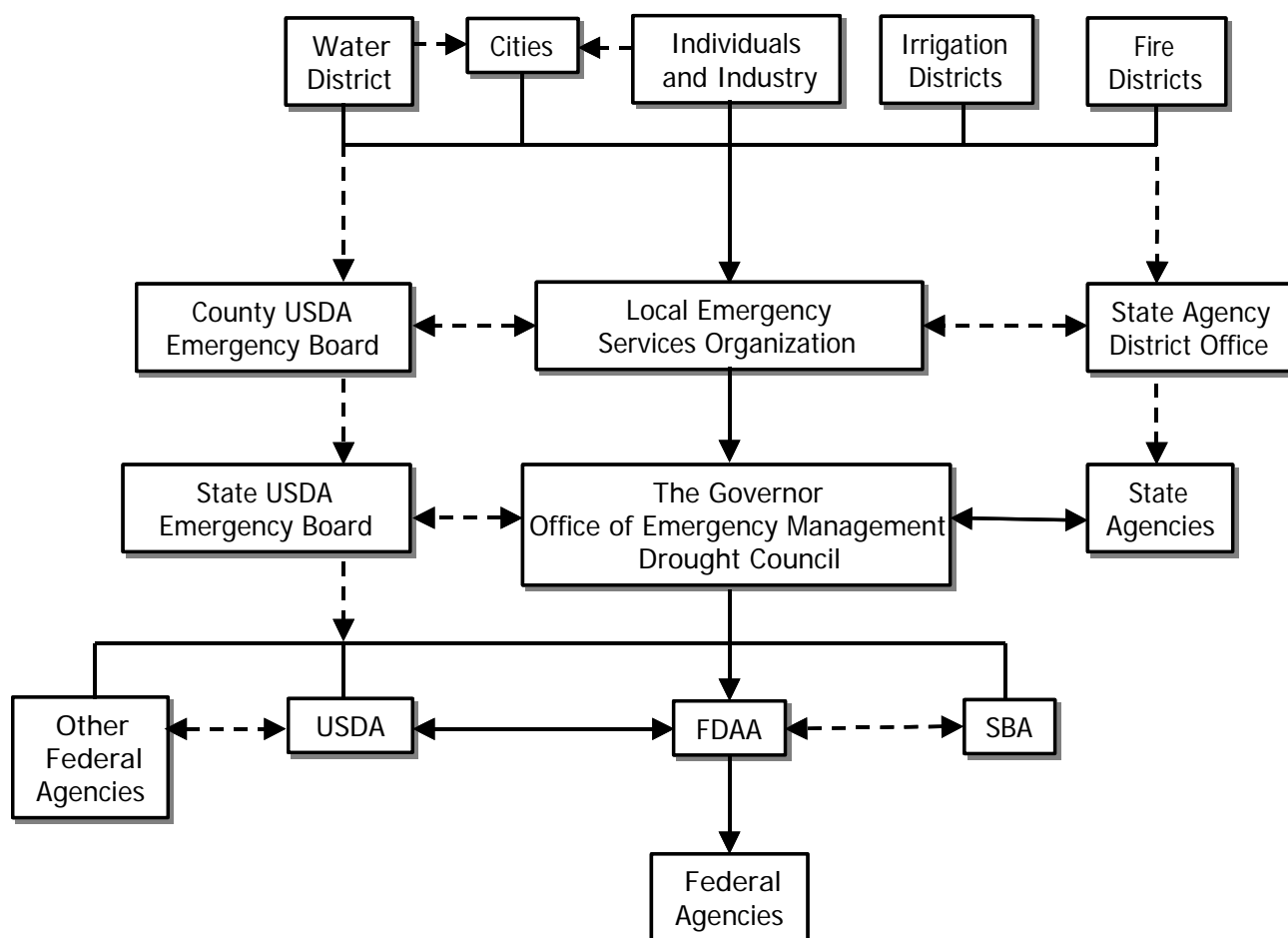
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- SBA Small Business Administration
- SWSI Surface Water Supply Index
- USDA United States Department of Agriculture
- USFS United States Forest Service

3 Organizational Chart

Drought Impact Information and Requests for Assistance

Figure 1 Information flow for Drought Impact Information and Requests for Assistance



4 Drought Assistance Organization

Drought response, like response to other natural disasters and emergencies, progresses from the individual to the closest level of government and thence through progressively higher levels of government up to the presidential level. Only when the capability of each response level has been or is expected to be exceeded should the next level of response take place.

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The Organizational Chart on page 1-3 indicates the levels of assistance that might be called upon during a drought. This chart also indicates the lines of communication for information on the drought situation. As the chart indicates, there are parallel lines of communication from individuals and local governmental units. These lines are generally through: the County and State USDA Emergency Boards to the US Department of Agriculture, through State agencies and their district offices and through the local emergency management organizations and the State of Oregon Emergency Management Office. The latter should be considered the primary emergency request channel while the former two may be very useful for obtaining drought situation or drought impact information or as alternates to the Emergency Services channel.

Lateral assistance and exchange of information should take place at the individual-city-district level, at the county level, and at the State level. At the State level, emergency information and response is normally coordinated by the Governor through Oregon Emergency Management. In a drought, however, because of its slowly occurring nature, the coordinative functions are shared by a “State Drought Council”.

The Organization described here and expanded upon in subsequent sections should provide for coordinated, yet flexible, response and information collection.

4.1 Individuals and Private Industry

Most of the water use in the state is by private individuals and firms who obtain their water from districts, cities, or other private corporations. In addition to being the primary water users, these individuals and firms have the greatest capability to provide emergency water supplies for themselves or to other water users. Many corporations and businesses within the state have equipment or expertise which might be utilized during a drought emergency. Such equipment or services will normally be provided through lease, sale, or other compensation although they maybe partially or fully donated as a public service at the discretion of the individual firm. The type of resources which might be available include:

- Equipment such as pipes, pumping plants, emergency generating systems, water purification systems, and various sizes and types of emergency water containers.
- Equipment or vehicles for the transporting of emergency water supplies, including tank trucks, tank trailers, and railroad tank cars. Such equipment must be suitable for hauling “potable” water.
- Specialized expertise or skills, including engineering design and construction, well location and drilling, agriculture advice, and advice on various consumer services.

Responsibility for locating, obtaining, and reimbursing private firms for providing such services generally rests with the individual needing the service. Local

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governing bodies, through local emergency management organizations, or the Governor's authorized representative, Oregon Emergency Management, may obtain such services where a major public need is involved. Individuals and firms should request assistance through their city or district, or through their local emergency management organization.

4.2 Irrigation Districts

Oregon has over 80 irrigation districts which have the responsibility of providing irrigation water to members of the district. During a drought, assistance to district members will generally consist of allocation of the district's available water, so as to maximize the benefit to all district members insofar as permitted by the individual water rights of the members. The governing body of a district may, in an emergency, provide or conserve water to assist water users who are not district members. The district staff may also encourage or enforce agricultural water conservation practices within the district. If emergency water is needed by the district, it is the responsibility of these districts to request such water on behalf of its members. This request should be passed through the local Watermaster's office. The irrigation districts should estimate their future drought situation and relay such information to their local emergency management organizations and USDA County Emergency Board, along with information on steps taken to alleviate the situation.

4.3 Water Districts and Cities

Over 130 water districts and 240 cities in Oregon provide water for domestic and municipal use to members or residents. During a drought, assistance will most often consist of allocation of existing water supplies so as to maximize the benefit to all water users. Cities and water districts may encourage or enforce water conservation practices or may restrict or curtail certain uses of water in an emergency. When available or anticipated water supplies are inadequate, these cities and districts may seek additional water to augment their supplies. One of the tools available to cities for obtaining these additional supplies is condemnation of the water sources of other water users after just compensation of the user. Cities may provide and distribute emergency water supplies to their residents and visitors through city fire service or other equipment available.

The governing body of a city or water district may authorize provision of emergency water to other cities or districts or to water users outside of the city or water district and may charge water users so assisted for the additional cost of providing such emergency water. Additional water rights may be needed in connection with such assistance. Request of assistance shall be limited to the local Watermaster's office.

It is the primary responsibility of cities or water districts to request assistance in providing emergency water on behalf of their residents or members. Such requests should be made through the county emergency management organizations, except where a district lies within a city, in which case the request should be submitted to

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or through that city. Cities or districts should determine their future supply problems and provided such information to their county emergency management organization. Assistance with water curtailment plans and water conservation practices can be obtained from the Water Resources Department (Appendix 4 & 5).

4.4 Rural Fire Protection Districts

Oregon has over 200 rural fire protection districts. These districts are responsible for providing fire protection for members of their districts. These same organizations, because of their regular responsibility, have equipment which, during a drought might be used for transporting of emergency water, normally on the condition that the equipment is not kept from its primary function (fire protection) for prolonged periods of time. This water transport capability can be made available to citizens of the district, or, in some cases, may be made available for meeting non-district emergency water needs. Request for this type of assistance will normally be made through the local emergency management organization. The Rural Fire Protection Districts should also estimate the impact of a drought on its fire protection capability, caused by possible decreases in water available for fire suppression and provide this information to the local emergency management organization.

4.5 Volunteer Relief Organization

About five volunteer relief organizations are active statewide in Oregon. There are also numerous local relief organizations as well as service clubs, which though not normally “relief” oriented, may be available to serve in relief efforts. These organizations can provide a wide range of assistance to individuals and families adversely affected by droughts including:

- Personnel to distribute emergency drinking water supplies to the aged, handicapped, or others who may not be able to transport water from a distribution point.
- Mass feeding of drought victims when drought conditions prohibit or restrict normal individual preparation of meals.
- Personnel to serve at distribution points for emergency water supplies.
- Shelter of drought victims caused by evacuation from drought-stricken areas.
- Referral service through which individuals seeking or in need of drought assistance, such as emergency drinking water, will be referred to an appropriate governmental agency.

Such assistance will normally be requested through the local emergency management organization or, at the state level, through Oregon Emergency Management, working with Voluntary Agencies Active in Disasters, a volunteer

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coordinating council.

5 County USDA Emergency Boards

Most counties in Oregon have County USDA Emergency Boards (CEB's) which are responsible for the coordination of the programs at the FSA, Extension Service, NRCS, and the USDA's RD mission area. The County USDA Emergency Boards consist of representatives of those agencies. Representatives of local government are usually invited to attend meetings of the boards. The CEB's are responsible for developing the following reports and submitting them to the State Emergency Board.

- Natural Disaster Damage Assessment Reports, which provides estimates of agricultural damages, including crop loss, livestock losses, damages to facilities and damages to agriculture.
- Reports on drought conditions which threaten to develop into significant disaster situations, including estimates of anticipated agriculture impact.

County Emergency Boards are also responsible for maintaining liaison with county government by informing appropriate representatives of the CEB's activities. The CEB Chairman will also invite representatives of the county governing body or its Local Emergency Management staff, and other appropriate local officials to CEB meetings. Requests for county board services or reports may be made by the Governor or the Governor's authorized representative through the State USDA Emergency Board.

6 County Drought Emergency Declaration Process

- In most cases, counties, through their emergency management organizations, are the first line of organized emergency response. In a drought, the County can assist in providing emergency water supplies, usually for cities, water districts, or individual water users. The County emergency management organization may also respond to a wide range of drought-related emergencies not involving emergency water supply. Activities which might be carried out by the County emergency management organization include:
 - Receiving requests from cities, districts, and individual water users for assistance in obtaining, transporting, or distributing emergency water supplies.
 - Providing emergency water services, utilizing county equipment or resources.
 - Obtaining equipment, supplies, or services when not available from the County through the following sources:

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- Private individuals, commercial or industrial firms, or volunteer emergency organizations.
- The State, through Oregon Emergency Management.
- The federal government, through Oregon Emergency Management.
- Counties, through their emergency management organization, should assess the drought within the county. This assessment, particularly of the water supply situation, should be carried out through contact with water users, district representatives of state agencies, and county USDA Emergency Boards. Information concerning the future impact of the drought (Impact Analysis) upon water supplies and systems should be provided to Oregon Emergency Management and the Drought Council. Drought impact analysis information should be updated as frequently as new information or changing situations require
- The county commissioners may request by letter or declaration that the Governor declare a “drought emergency” in their county “due to severe and continuing drought” conditions. This letter or declaration should also ask the Governor for some specific action, such as a U.S. Secretary of Agriculture Natural Disaster determination or support for voluntary conservation or curtailment measures, etc.
 - In arriving at this determination, the commissioners may gather data from as many sources as they can to determine and substantiate the drought situation in their county.
 - County sources of supporting data may be:
 - County USDA Emergency Boards
 - Farm Service Agency
 - Extension Service
 - Natural Resource Conservation Service
 - Rural Development
 - Local Emergency Managers
 - Watermasters
 - Irrigation District Managers
 - Water Districts
 - Chamber of Commerce

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- Local Business Leaders
- State agency sources may be:
 - Water Resources Department
 - Oregon Department of Agriculture
 - Economic and Community Development
 - Oregon Emergency Management
- Copies of county requests will be forwarded to the State Drought Council and to the Department of Agriculture for recommendations and action. Recommendations will be submitted to the Governor’s Office via the Governor’s Natural Resource Advisor, which in turn will recommend to the Governor the action to be taken.
- If approved, the Governor will issue the appropriate declaration.
- The Governor’s declaration provides the basis for requests to the U.S. Secretary of Agriculture and other state and federal government agencies.
- Request for a U.S. Secretary of Agriculture Disaster Declaration for Drought.
 - A request for the Secretary of Agriculture, United States Department of Agriculture, to declare a county a disaster for drought is a fairly simple process. County officials request the Governor’s Office to forward their request to the Secretary for consideration for a disaster declaration.
 - In this process, the Governor, via the Oregon Department of Agriculture, will ask the State and County Food and Agriculture Councils (FAC) to fill out a Damage Assessment Report (DAR) so both the Governor’s Office and the Secretary of Agriculture’s office have a better understanding of the total disaster impact.
 - This will be accomplished by contacting the emergency person for USDA of the state FAC, (this person is the state executive director (SED) of the FSA). The SED will contact the emergency person at the county level, county executive director (CED) FSA, to start the DAR process.
 - Once the DAR is obtained from the county, the state FAC will scrutinize the information. The state FAC will send a copy to the Governor’s Office and a copy to the Secretary of

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Agriculture's office through the Farm Service Agency and Rural Development.

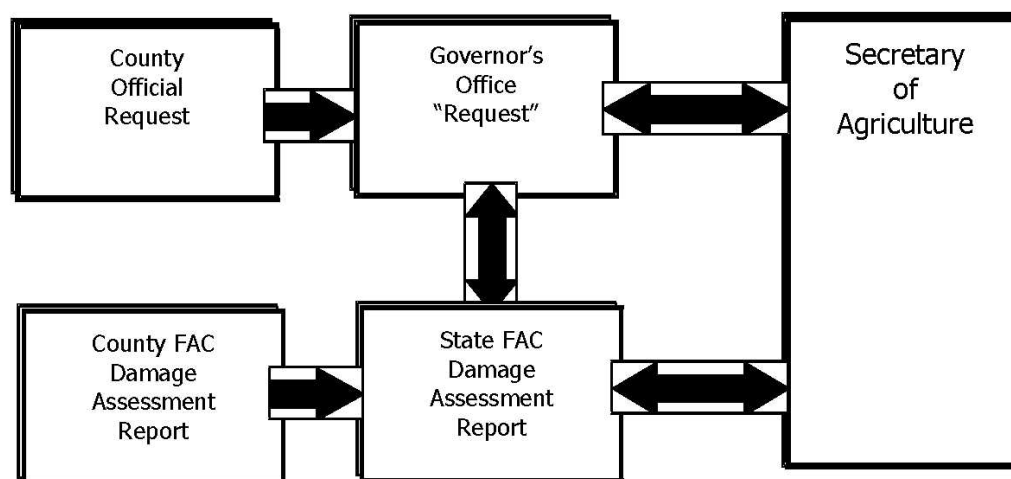


Figure 2 - Request for USDA Drought Disaster Declaration

7 Drought Assistance Available from State Agencies

Many state agencies can supply assistance in a drought through normal agency programs. If major state agency involvement is anticipated, or if federal assistance might be needed, the Governor will declare a state “Emergency”. Such a declaration provides state agencies with more emergency fiscal flexibility and sets the stage for various federal disaster declarations if needed. Requests for state assistance may be to the agency directly, or, in an “Emergency”, through Oregon Emergency Management. Specific examples of state assistance by agency are:

7.1 Oregon Emergency Management

- Coordinate estimates of drought impact.
- Receive requests from local governments and districts for emergency water assistance.
- May coordinate direct assistance relative to emergency treatment, pipelines, and pumping of water.
- Advise the Governor on the need for a Governor’s declaration of a state/regional (drought) “Emergency”.
- Advise state and local agencies on the need for financial record keeping during emergency response.

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- Advise the Governor, in conjunction with other state agencies, of the need for federal assistance or federal disaster declarations.
- Draft, for the Governor, requests for Presidential “Emergency” or “Major Disaster” declarations.
- Provide administrative and coordinative services related to a federal “Major Disaster” or “Emergency”.

7.2 Department of Agriculture

- May assist the Extension Service in providing estimates of the impact of the drought upon agriculture. Will work with OEM to obtain federal assistance if conditions are severe enough.

7.3 Extension Service

- Through the USDA Emergency Board, prepare information on agricultural drought management practices and on agricultural and domestic water conservation practices. Such information will be supplied to drought victims through various sources, including the news media.
- May provide, through the USDA Emergency Board and in conjunction with the U.S. Department of Agriculture, estimates of drought impact on agriculture within the state.
- Provide information on federal assistance available to agricultural drought victims

7.4 Economic and Community Development Department (ECDD)

- May provide, in conjunction with Employment Division (DHR) estimates on the projected loss of jobs due to drought.
- Assist in providing information to business and industry on water conservation.
- In a Presidential “Emergency” or “Major Disaster”, or an Agricultural Disaster, provide information to business and industry on federal loan programs which may become available.

7.5 Division of State Lands

- Will enforce the state’s removal-fill law ensuring that water users have appropriate permits, general authorization or emergency authorization for the altering, removal or fill of material from jurisdictional wetlands and waterways.

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- May provide emergency authorizations for removal or fills within rivers and streams for such activities as “push-up dams” or excavation to allow free flow of water.

7.6 Office of Energy

- May provide estimates of the impact of the drought upon electric power generation capability and expected power supplies.
- Advise the Governor on appropriate allocation of electric power which might need to be curtailed due to the lack of hydroelectric generating capability.

7.7 Department of Environmental Quality

- May provide estimates of the impact of the drought upon water quality.
- Make appropriate recommendations concerning instream flows.
- Monitor, and, as needed, restrict the addition of pollutants into streams, lakes and estuaries.

7.8 Department of Fish and Wildlife

- May provide estimates of the impact of the drought upon fish and wildlife resources.
- Make recommendations for instream flows for fish protection.
- Adjust fishing and hunting regulations as needed to compensate for the drought situation.
- Develop procedures for providing feed and water for wildlife.

7.9 Department of Forestry

- Provide estimates of the impact of the drought on state forest lands; such estimates may take into account the effect of the drought upon fire hazard and suppression.
- Provides emergency weather forecasts to OEM as necessary as long as staff are not providing weather support to fire fighting activities.
- Develop plans to limit forest land access during drought conditions in coordination with landowners.

7.10 Department of Administrative Services

- Authorizes agencies to make purchase in an emergency without competitive bidding.

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- May purchase emergency supplies or equipment on behalf of state agencies.

7.11 Department of Human Services – Health Services

- Inspect municipal water supplies and emergency water sources and facilities and evaluate or make appropriate recommendations concerning the safety of supplies for human consumption.
- May provide advice on the sterilization of emergency water containers and transport equipment.
- May provide, in conjunction with the Water Resources Department, estimates of the impact of the drought on domestic or municipal water supplies.

7.12 Military Department

- The National Guard may provide emergency water treatment and transport the treated water to augment or replace lost or depleted water supplies.

7.13 Water Resources Department

- Will enforce the appropriate water use system, ensuring that water users having prior water rights are given preference over those having junior water rights. In so doing, an attempt is made to adjudicate disputes between water users and to ensure the conservation and greatest possible benefit from the existing water supplies.
- Will protect the interest of the State relative to instream flows for fish protection or water quality. This protection may require curtailment of water users having junior water rights to the date of establishment of the instream flows.
- Will provide, in conjunction with US Geological Survey, the U.S.D.A. Natural Resources Conservation Service, National Weather Service, River Forecast Center, State Climatologist, and applicable state and local agencies information on the drought, its expected severity and its impact on water users and may assist individual water users in analyzing their future water supply situation and identifying alternate water sources.
- Will monitor ground water conditions during the drought period and estimate the effects of the drought on ground water and related water users.
- Will expedite the issuance of temporary water right permit applications (ORS 536.750) requested for emergency water supply

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purposes, providing that the emergency nature of the request is specified. The WRD may also allow temporary transfers pursuant to ORS 536.750.

- Will assist in water curtailment and conservation planning. Will assist in water curtailment and conservation planning and require water curtailment and/or conservation plans as necessary.
- Will coordinate dissemination of public information.
- Make determinations of legally binding restrictions on ground and surface water usage.

7.14 Other State Drought Assistance

- Tank trucks or trailers, or other vehicles capable of transporting, pumping or storing emergency water for human use may be provided by:
 - Department of Fish and Wildlife
 - Department of Forestry (non-potable), when not being used for fire fighting.
 - Military Department
 - Department of Transportation
- Information on railroad tank cars, usable to emergency water, and available through private industry may be provided by the Public Utility Commission.
- Information on other equipment or services relating to emergency water, and available through private industry may be provided by:
 - Oregon Emergency Management (emergency equipment)
 - Department of Administrative Services (equipment and supplies)
 - Water Resources Department (well drilling, pipes, pumps)
- Assistance in the development, preparation, and presentation of public education, and public relations programs for power and water conservation may be provided by:
 - Governor's Office
 - Department of Agriculture
 - Economic and Community Development Department

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- Oregon Educational Public Broadcast System
- Office of Energy
- Extension Service (Higher Education)
- Department of General Services (Printing Division)
- American Water Works Association
- League of Oregon Cities
- Water Resources Department
- Oregon Association of Water Utilities

7.15 The State Drought Council

- Drought awareness, preparedness, and planning will be coordinated through the Drought Council under the leadership of the Governor’s Natural Resources Advisor and consisting of members of state and federal agencies which might be involved in drought forecasting, assessment, response, or recovery. The goal of the Council is to:
 - Strive to reduce or mitigate the effects of an impending drought through a coordinated federal/state/local and voluntary effort; consisting of development of pre-drought plans, policies, and procedures, and through coordinated state response.
- In meeting this goal, the Council will:
 - Monitor the meteorologic and hydrologic conditions to determine the current and estimate future severity of the drought.
 - Provide information and awareness on the impact of drought, based on its estimated future severity, on:
 - electric power consumption and generation
 - agriculture
 - human consumption of water
 - industry
 - fish and wildlife
 - state forestry issues
 - other areas as appropriate.

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- When drought conditions exist, develop monthly reports and estimated impacts to the Governor’s Natural Resource Advisor, who will then report to the Governor.
- Develop an inventory of the physical, economic, or other resources available for responding to the expected drought impacts.
- Determine where conflicts arise between water users and initiate actions to minimize such conflicts through laws, policies, or other means.
- Develop or review water and power conservation programs, and develop public information programs to encourage voluntary conservation measures.
- Coordinate the drought response and recovery effort during the drought period.
- Assist the Governor and Oregon Emergency Management in determining the need for various federal disaster declarations and other federal assistance.
- Use existing line of communications to ensure all parties involved are aware of the current status.
- The Drought Council will consist of:
 - State Agencies:
 - Department of Agriculture
 - Economic and Community Development Department
 - Department of Environmental Quality
 - Department of State Lands
 - Extension Service (Higher Education)
 - Department of Fish and Wildlife
 - Department of Forestry
 - Department of Human Services - Health Services
 - Military Department
 - Public Utility Commission
 - Water Resources Department

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- State Climatologist
- Oregon Emergency Management
- Office of Energy
- Federal Agencies:
 - Farm Service Agency
 - United States Department of Agriculture
 - Bureau of Land Management
 - U.S. Army Corps of Engineers
 - Bonneville Power Administration
United States Forest Service
 - USDA - Natural Resource Conservation Service
 - NOAA - National Weather Service
 - NOAA - Northwest River Forecast Center
 - U.S. Geological Survey
Bureau of Reclamation

7.16 State USDA Emergency Boards

- USDA has established, in Oregon, a State USDA Emergency Board to coordinate the disaster activities and programs of the various USDA agencies. These agencies include the Farm Service Agency, Animal and Plant Health Inspection Service, Cooperative Extension Service, Rural Development, Forest Service, Natural Resource Conservation Service, and the Statistical Reporting Service. Each of these agencies has a representative on the Board. The Emergency Board is also responsible for the following:
 - Requesting Natural Disaster Assessment Reports from the County Emergency Boards, followed by the editing and distribution of these reports.
 - Reporting, based on County Emergency Board drought condition reports, on the drought condition and anticipated agricultural impact.
- The State USDA Emergency Board is also responsible for maintaining liaison with State government by informing the Governor, Oregon Emergency Management, the Department of Agriculture, the Drought Council, and others, as appropriate, of the State Emergency Board's activities and reports. The State Emergency Board Chairman will

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invite representatives of the State Department of Agriculture, Oregon Emergency Management, Governor’s Office, and any other appropriate State officials, to the Emergency Board meetings. The services of the State Board may be requested by the Governor or his authorized representative.

7.17 Presidential Declarations

- **PRESIDENTIAL “EMERGENCY” DECLARATION** - available at the request of the Governor, through the Federal Emergency Management Agency when specific federal assistance is needed to alleviate the drought-caused problems. This “Emergency” declaration does not automatically trigger or include SBA or USDA disaster declarations or programs, although those programs could be provided separately if requested.
- **PRESIDENTIAL “MAJOR DISASTER” DECLARATION** - available at the request of the Governor, through the Federal Emergency Management Agency, when accompanied by a statement of the drought damages and problems and a statement indicating state and local action taken and monies expended by state and local governments, provided such actions or expenditures represent a “reasonable” commitment by state and local government.

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Appendix 2 – Schedule of Oregon Drought Monitoring and Mitigation Activities

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For the purpose of definition, the levels of drought severity shall be normal conditions, mild, moderate, severe, and extreme. This shall be known as the “Oregon Drought Severity Index” and these levels shall be established by the Drought Council. The Water Resources Department shall coordinate the procedure used in establishing the severity index and shall provide notifications as appropriate. Levels of severity shall be established for each climate region as defined by the SWSI.

The following is a summary of recommended activities to be followed through the establishment levels of drought severity:

NORMAL CONDITIONS - No activity.

1 Mild Drought

- The Water Resources Department shall convene a Water Availability Committee (WAC) to monitor severity level and weather forecasts. Reports shall be submitted to the chairperson of the Drought Council. This committee shall include the following:
 - Oregon Water Resources Department
 - Oregon Department of Forestry
 - State Climatologist
 - NRCS - Snow Survey Section
 - National Weather Service
 - River Forecast Center
 - USGS
- The Water Resources Department shall take appropriate reservoir release coordination action. This will include notification and forecast coordination with appropriate state agencies, and recommendations to reservoir managers such as the Army Corps of Engineers.
- The Drought Council shall communicate drought severity index levels and forecasts to local jurisdictions, the State Emergency Board, and other appropriate agencies. The State Emergency Board shall communicate local drought-related problems and impacts to the Drought Council.

IA 1. Appendix 2 – Schedule of Oregon Drought Monitoring and Mitigation Activities**2 Moderate Drought**

- The WAC shall continue to monitor drought severity levels and forecast weather conditions. Regular reports and recommendations shall be submitted to the Drought Council.
- Water Resources Department shall convene appropriate agencies for reservoir regulation drought mitigation planning.
- The Drought Council shall consider meeting monthly to discuss and coordinate drought mitigation activities. All state agencies shall report their drought mitigation activities and plans to the Drought Council. The Chair of the Drought Council shall report activities to the Governor's Natural Resource Advisor.
- The State Emergency Board shall begin making regular reports on drought developments to the Drought Council. The Drought Council shall continue to communicate state severity levels and forecasts to the State Emergency Board and other appropriate agencies.
- The Drought Council shall notify local jurisdictions of drought severity levels and forecasts. Local drought plans shall be implemented as appropriate.
- The Water Resources Department shall publish a water conditions report monthly.

3 Severe Drought

- The WAC shall continue to monitor drought severity levels and forecast weather conditions. Regular reports and recommendations shall be submitted to the Drought Council.
- Water Resources Department shall publish a water conditions report monthly.
- The Drought Council shall meet on a regular basis. Regular reports and recommendations, along with the WAC report, shall be submitted to the Governor's Natural Resource Advisor.
- State Emergency Board shall continue to communicate local impacts and problems to the Drought Council. The Drought Council shall continue to communicate state severity levels and forecasts to the State Emergency Board and other appropriate agencies.
- Governor's Natural Resource Advisor shall consider making recommendations to the Governor that may mitigate drought conditions. These would include:

IA 1. Appendix 2 – Schedule of Oregon Drought Monitoring and Mitigation Activities

- General fund reallocation
 - Request for federal assistance
 - Extraordinary powers allowed under a state of emergency declaration.
- The Drought Council shall notify local jurisdictions of drought severity levels and forecasts. Local drought plans shall be implemented as appropriate.
 - The Water Resources Department shall publish a water conditions report monthly.

4 Extreme Drought

- The WAC shall continue to monitor drought severity levels and forecast weather conditions. Regular reports and recommendations shall be submitted to the Drought Council.
- Water Resources Department shall convene appropriate agencies for reservoir regulation drought mitigation planning.
- Drought Council continues to meet on a regular basis. Regular reports and recommendations, along with the WAC reports, shall be submitted to the Governor's Natural Resource Advisor.
- State Emergency Board shall continue to communicate local impacts and problems to the Drought Council. The Drought Council shall continue to communicate state severity levels and forecasts to the State Emergency Board and other appropriate agencies.
- Governor's Natural Resource Advisor shall make recommendations to the Governor that may mitigate drought conditions. These would include:
 - General fund reallocation
 - Request for federal assistance
 - Extraordinary powers allowed under state of emergency
- Drought council shall notify local jurisdictions of drought severity levels and forecasts. Local drought plans shall be implemented as appropriate.
- The Water Resources Department shall publish a water conditions report at least monthly.

IA 1. Appendix 2 – Schedule of Oregon Drought Monitoring and Mitigation Activities

5 Drought Severity Index

The Oregon Drought Severity Index, SWSI, level shall be established by the Natural Resource Conservation Service (NRCS) and provided to the Water Availability Committee (WAC). The WAC shall use the SWSI in developing their report on water conditions to the Drought Council.

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Appendix 3 – Federal Drought Assistance Programs

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IA 1. Appendix 3 – Federal Drought Assistance Programs

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IA 1. Appendix 3 – Federal Drought Assistance Programs**1 Federal Drought Assistance Authorities****Background**

The Federal Emergency Management Agency (FEMA) was effectively taken out of the drought assistance in 1977, when Congress passed legislation that enabled the U.S. Department of Agriculture to acquire more program response capabilities to assist farmers affected by droughts. One such program was the Emergency Feed Program, authorized by the Act of 1977, and implemented at the discretion of the Secretary of Agriculture. This program provides for necessary feed, including hay, on a cost-sharing basis, after stringent criteria have been met.

While primary responsibility in water shortage situations rests with state and local authorities, some additional federal assistance, primarily of an advisory nature, may be available to supplement their efforts.

1.1 Federal Emergency Management Agency (FEMA)

While the Disaster Relief Act of 1974 provides the President with the latitude to provide assistance in those circumstances that are warranted, implementation of PL 93-288 at this time is not envisioned. Congress has expanded the programs of other federal agencies, primarily those of USDA, that the President need not enact the provisions of PL 93-288.

1.2 Agriculture, Department of (USDA)

USDA has a publication titled “Natural Disaster Assistance Available from the USDA” (program aid #1328) which explains the procedures necessary to apply for assistance from them. (OMB Cat. 10.054, 10.062, 10.063, 10.068, 10.404, 10.414, 10.416, 10.418, 10.419, 10.423, 10.900, 10.901, 10.902, 10.906, 10.907, and 10.908.)

1.2.1 Natural Resource Conservation Service (NRCS)

NRCS provides technical assistance through local conservation districts to farmers, ranchers, and local governments under various authorities. In drought-stricken areas, technical assistance emphasis is shifted to drought-related activities.

Farmers and ranchers in drought-stricken counties should contact local NRCS or conservation offices to find out the specific technical and financial assistance available to them under NRCS programs.

The Resources Inventory Division of the National Headquarters of NRCS compiles reports of short-duration natural phenomena, including droughts.

Programs and legislative authorities authorizing these programs are described in the following paragraphs:

IA 1. Appendix 3 – Federal Drought Assistance Programs**1.2.1.1 Inventory and Monitoring**

Authority: PL 74-76; PL 92-419, Title II, Section 302; PL 95-192.

Inventory and monitoring objectives are to provide for the field collection, interpretation, and publication of natural and related resource data. These data and interpretations serve many agency and department needs as well as those of individuals, groups, and units of government.

They permit users to examine the relations and interactions of natural and related resources to determine how they are used and how they are managed, to define resource problems, and to identify resource potentials.

1.2.1.2 Resources Appraisals and Program Development

(Resources Conservation Act) (RCA) Authority: PL 95-152, Soil and Water Resources Conservation Act of 1977.

The objective of RCA is to ensure that USDA Soil and Water Conservation programs administered by the Secretary of Agriculture and responsive to the long-term needs of the nation, and will further conserve, protect, and enhance the nation's soil, water, and related resources.

1.2.1.3 Snow Survey and Water Supply Forecasting

Authority: PL 74-76, Soil Conservation and Domestic Allotment Act.

The program objectives are to provide information on forthcoming seasonal water supplies from streams that derive most of their runoff from snow melt; help farm operators, rural communities, and municipalities use water-supply forecasts in managing water resources; and provide hydro-meteorological data for regulating reservoir storage and managing streamflow.

1.2.1.4 Great Plains Conservation Program

Authority: PL 74-76, Soil Conservation and Domestic Allotment Act, as amended by the Great Plains Act of August 7, 1956; PL 84-1021 and other amendments. The Great Plains Conservation Program Objective is to conserve and develop the soil and water of the Great Plains area by providing technical and financial assistance to farmers, ranchers, and others in planning and implementing conservation practices.

1.2.1.5 Soil and Water Conservation

Authority: PL 74-76, 89-560, and Appropriations Act prior to 1935. The Soil Survey program objective is to provide published soil interpretations for widespread use by interested agencies, organizations, and individuals.

1.2.1.6 Watershed Protection and Flood Prevention

(Small Watershed/PL 566 Program Authority: PL 83-566, Watershed Protection and Flood Prevention, amended. The objective of the PL 566 program is to provide technical and financial assistance to local organizations for planning and

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carrying out watershed projects. Project purposes include watershed protection, flood prevention, agricultural water management, recreation, municipal and industrial water supply, and fish and wildlife development to properly utilize water and related land resources in small watersheds.

1.2.1.7 River Basin Surveys and Investigations

(River Basin Program) Authority: Section 6, PL 83-566, as amended. The objective of the river basin program is to assist state and local agencies in collecting decision-making information and developing a plan of action regarding water and related land resources for economic development and environmental quality.

1.3 Farm Service Agency

Authorities: Consolidated Farm and Rural Development Act of 1972, as amended, and Title II of the Agricultural Credit Act of 1978, as amended.

FSA has several programs which can alleviate drought and water shortage conditions in rural areas. The Agency's Emergency, Farm Ownership, and Operating loan programs permit loan funds to be used to enable farmers to establish wells. These programs can also be used to help farmers overcome financial difficulties. Loan guarantees available through FSA can also help agricultural lenders make loans for these purposes.

FSA can make emergency loans in counties where physical property damages and/or severe production losses occur as a result of a natural disaster that substantially affects farming, ranching, or aquaculture operations. There are three ways by which emergency loans are made available.

- Under a major disaster or emergency declaration by the President. Emergency loans will be made available to applicants having qualifying severe physical and/or production losses within a county named by FEMA as eligible for federal assistance (i.e., Individual and/or Public Assistance);
- Under a natural disaster designation by the Secretary of Agriculture, emergency loans will be made available to applicants having qualifying severe physical and/or production losses within a county named by the Secretary.
- Under a natural disaster designation by the FSA Administrator, emergency loans will be made available to applicants having qualifying severe physical losses only prior to action by the President or the Secretary. Details of all FSA programs can be obtained from any county FSA office.

FSA also provides assistance to farmers and ranchers for drought-related disasters through several other types of programs.

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The Non-insured Assistance Program (NAP) can assist producers of non-insurable crops in a drought situation. When wide-spread drought occurs, NAP payments are made to eligible producers when individual crop losses are in excess of 50 percent of the producer's approved yield at 60 percent of the non-insured crop's average market price.

In some counties, cropland acreages are reduced under production adjustment programs or conservation programs, and placed under an acreage Conservation Reserve Program (CRP). Haying and grazing of eligible cover crops is permitted in drought emergencies. Authority to implement haying and grazing of CRP acreage designated under the Agriculture and Food Act of 1981 is vested in the Executive Director for State and County Operations, but may be delegated to State Committees of FSA.

The Emergency Conservation Program (ECP) may provide cost-sharing funds during a drought emergency to develop water supplies for grazing livestock, and may also assist in preventing wind-erosion damage to farmland caused by drought. Authority to approve cost-share assistance rests with the County Committees of FSA.

Other ad-hoc forms of drought relief, livestock assistance, or crop damage assistance programs may be channeled through FSA for delivery to drought victims, when authorized by Congress.

The Agency's Water and Sewer; Irrigation, Drainage and Soil Conservation; business and industry; and Community Facility loan programs may permit groups, including governmental bodies under some of these programs, to obtain loans for purposes which could contribute to alleviating water shortages in rural areas.

The Agency provides financial guidance to applicants. Technical advice is limited to accessing the feasibility and technical compliance requirements associated with a proposed loan. The Agency provides no technical guidance to the general public or governmental bodies, and does not have sufficient resources to provide significant help in the area.

1.4 Rural Development (RD)

The USDA's Rural Development mission area administers Water and Sewer; Irrigation, Drainage and Soil Conservation; business and industry; and Community Facility loan programs. These loan programs may permit groups, including governmental bodies under some of these programs, to obtain loans for purposes which could contribute to alleviating water shortages in rural areas.

Rural Development provides financial guidance to applicants. Technical advice is limited to accessing the feasibility and technical compliance requirements associated with a proposed loan. RD provides no technical guidance to the general public or governmental bodies, and does not have sufficient resources to provide significant help in the area.

IA 1. Appendix 3 – Federal Drought Assistance Programs**1.5 American Red Cross (ARC)**

Authority: American Red Cross Charter: U.S. Congress, Act of January 5, 1905, as amended, 36 U.S.C. The disaster services of the Red Cross during a drought or water shortage will be in support of, and in cooperation with, general community-based response efforts initiated to reduce suffering or meet basic human needs.

Depending on a community's need, Red Cross activities may include:

- Providing technical consultation and guidance to local and state government agencies or officials when planning for the distribution of water from central sites to community residents.
- Establishing and staff first-aid stations at community sites designated for the distribution of water to residents.
- Coordinating voluntary agency activities designed to support local community response efforts.
- Providing voluntary personnel to assist local government response actions.

If drought conditions should lead to the lack of hydrant pressure or sufficient water for fighting residential fires in a community, the Red Cross will provide its normal mass care services and individual assistance to the fire victims.

Red Cross does not provide assistance to commercial, industrial, or agricultural corporations with drought or water-shortage caused losses.

1.6 Department of Commerce (DOC), National Weather Service

The National Weather Service (NWS) provides information on current weather and river conditions, forecasts, and outlooks.

When seasonal precipitation accumulations drop below 70 percent, biweekly statements will be issued by the National Weather Service Forecast Office in Portland, documenting the meteorological and hydrological conditions in the State of Oregon.

When seasonal precipitation accumulations drop below 60 percent, weekly meteorological and hydrological conditions for the State of Oregon will be summarized. This statement will include Northwest River Forecast Center hydrologic forecasts and extended outlooks as available.

1.7 Defense, Department of (DOD)

(OMB Cat. 12.106 and 12.110)

After all local, state and federal programs and assistance have been exhausted, the Secretary of the Army, for Civil Works, acting through the Chief of Engineers, has the authority to transport water or drill wells for communities in areas

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determined to be drought-distressed. The water is provided for human consumption only. The transportation of water is a temporary activity, that will be taken over by the recipients within 30 days or as soon as practicable.

In addition, the U.S. Army Corps of Engineers (USACE) has developed policy and guidance for the preparation of drought contingency plans as an integral part of the overall water control management system for USACE reservoirs. Water control management considers the following:

- water quality: life safety, municipal, industrial and wastewater;
- Endangered Species Act species protection: juvenile and adult passage;
- navigation: life safety and economic (channel depths, locks and moorings);
- irrigation: quantity and scheduling;
- power: seasonal loads and peaking;
- recreation: life safety and economic.

Permits obtained from Portland District for Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 activities, that are associated with drought relief activities, are expedited to the greatest extent possible.

Information, technical expertise and guidance on these specific water and related resource problems are available from USACE. You may get up to date information about the Willamette, Rogue, and Columbia River at: <http://www.nwd-wc.usace.army.mil/nwp/> .

1.8 Health and Human Services, Department of (HHS)

(OMB Cat. 13.808)

Public Health Service personnel from the Food and Drug Administration, the Center for Disease Control, and the Health Resources and Services Administration are prepared to assist state health officials and other federal officials with health-related problems. The officials are located in the

HHS Regional Offices or in the states, and can provide advice, guidance, and technical engineering assistance-related to the assessment of actual or potential health problems and provisions of appropriate medical care.

Social Security Administration district offices are also located throughout the states and officials work closely with state agencies in providing whatever financial assistance and other human services may be available under existing programs.

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The Older American Act authorizes the Secretary to pay for part or all of the costs of developing model projects which show promise of relieving older individuals of the excessive burdens of high utility service and home heating costs. Special consideration is given to projects under which a business concern engages in providing utility services to low-income, older individuals at a cost which is substantially lower than providing utility service to other individuals.

1.9 Interior, Department of the (DOI)

Geological Survey (OMB Cat. 15.804)

The USGS Water Resources Division has the principal responsibility within the federal government for providing hydrologic information and appraising the nation's water resources. The legislative authority for this mission is an outreach of the act of March 3, 1879 (43 U.S.C. 31), establishing the Geological Survey which has neither regulatory nor developmental authority.

A major part of the work of the Survey's Water Resources Division is accomplished through cooperation with state and local agencies, the "Federal-State Cooperative Program" (OMB Cat. 15.804). These water-resources investigations by the Geological Survey are jointly funded, at least 50 percent of the financial support coming to the USGS from the cooperating state and local agency. The objectives are to provide water information for economic development and best use of water resources, and to carry on research in hydrology. The technical information produced in the above investigations provides the physical basis for effective planning of programs for development and management of water resources, and efficient operation of interrelated projects at federal, state, and local levels.

1.10 Small Business Administration (SBA)

(OMB Cat. 59.002 and 59.008)

Disaster loans to homeowners and businesses to restore or replace their real and/or personal property damaged or destroyed in a physical disaster, when declared by the President, the Administrator of SBA, or in certain limited circumstances, by the Secretary of Agriculture.

In the event of a declaration by the President, SBA assistance would be limited to providing funds for the drilling of replacement wells (or the redrilling of existing wells) in non-agriculture situations. This would include assistance to private, not public, water companies, provided that eligibility criteria are met. By statute, SBA can no longer provide disaster assistance to agricultural enterprises.

Under SBA's Economic Injury Disaster Loan authority, assistance could be rendered to small businesses without credit elsewhere available to cover additional expenses incurred as a result of the adverse effect on farmers/ranchers in the area, provided the applicant business can make a showing of substantial economic injury as a result of the disaster declared by the President or the

IA 1. Appendix 3 – Federal Drought Assistance Programs

Secretary of Agriculture.

The SBA does not have the means to provide any technical assistance to the states to assist them in coping with this situation.

SBA does not provide financial assistance to restore or replace municipal or other public water facilities.

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Appendix 4 – Guidelines for Water Curtailment Planning and Program Development Water Utilities

Last Revision: April 1988

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Program Development Water Utilities**

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IA 1. Appendix 4 – Guidelines for Water Curtailment Planning and Program Development Water Utilities

1 General Discussion

The development of a good plan requires that a utility consider all aspects of water curtailment carefully. The purpose of the step-by-step procedure presented in these guidelines is to provide a utility with a consistent method that can be used to develop a plan containing all needed elements. The utility should review and consider the contents of each step of the procedure to determine the items that are applicable to its unique situation.

2 Where to Begin

2.1 Date Requirements

Before beginning the five-step procedure (See paragraph 3, 1-5 Page 4-5) for water curtailment planning, it will be necessary to gather certain information about utility and community service characteristics. Much of this information should be available from the files and records of the utility, but some information may need to be updated. To start the planning process, the following data should be available.

2.1.1 Population and Water Use

- Population (current estimate):
 - Service area of the utility
 - Area served by utility but not in city limits or political subdivision
- Current number and type of connections in the service area.
- Average rate of new connection additions during the last five years (total number of new connections added during the last five years divided by five);
- Water-Use Data
 - Average annual water production for the last two years and average monthly data for the last two years (in gallons).
 - Estimated total monthly and annual water sales in the following user categories (in gallons):
 - Residential and commercial
 - Industrial or manufacturing.
 - Public and institutional, i.e., schools, public parks, an other public institutions

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- Sales to other political subdivision
- Unaccounted for water use
- Other (specify)
- Peak daily and peak hourly total use (in gallons) experienced during each of the past few years
- Peak daily to average daily use ratio for each of the six categories listed in 4(b) (peak daily use divided by annual average daily use).

2.1.2 Supply and System Capacity

- System yield (the amount of water which can be annually withdrawn without depleting the source, exceeding system capacity, or exceeding existing permits or contracts) and total amount of elevated and non-elevated (ground level) storage in gallons.
- Peak daily capacity of water supply (in gallons).
- Major high-volume water customers and their annual water use during the last year (in gallons per year).
- Population and water use volume projections for service area and source of information.
- Potable water distribution constraints (i.e. distribution lines, pump stations, water towers, etc.).

2.1.3 Financial Information

(for use in designing rate structures and calculating conservation benefits)\

- Metering and Billing:
 - What percent of system is metered, by user category:
 - Residential and commercial
 - Industrial or manufacturing
 - Public and institutional.
 - Other (specify).
 - Water rate schedule by user category listed in 1. (a) above; and
 - Annual revenues by user category.

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- Amount of annual revenue received by the utility from the following sources during the last calendar year:
 - Water utility bill
 - Subsidies (including use of general tax revenue, etc.)
 - Rental income
 - Special capacity fees or water availability charges
 - Hook-up fees or vital recovery charges
 - Other (specify).
- Total annual costs to run the utility:
 - Fixed costs (bond payments, etc.)
 - Variable costs (energy, chemicals, repairs, and some labor costs).
- Community use of water utility revenues for other community purposes and programs.

2.1.4 General Information

- Copies of applicable local public health, fire department, and other agency regulations pertaining to water supply.
- Copies of applicable state and federal regulations pertaining to public health, fire, and water quality which place constraints on average or peak system use.
- Special situations or unique information that may be helpful.

The preceding characteristics of each utility type are important because they determine the relationship between revenues and costs and the groups to which the utility is accountable, and they provide a basis for evaluating the available conservation options.

2.1.5 Public Involvement

In addition to basic descriptive data, a list should be developed of the interested groups and individuals in the community that need to be involved in the assessment of water conservation plans and measures. Because experience has shown that the success of a water conservation program is highly dependent on involving local interests, at-large public involvement should begin as early in the planning process as possible. Local involvement is particularly important in a voluntary program where only cooperation from water users is being requested to achieve the conservation goal. Detailed guidelines are not available on who

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should be involved or by what means they should become involved in developing the community program. Much of the choice depends on whether service is predominately rural or urban and whether the utility is small or large, a water district, a utility district, or a water supply corporation. However, in most cases, some combination of the following groups, in conjunction with the utility's list of regular contracts, could be used to establish an advisory group.

- Elected officials from all the jurisdictions directly affected by the process (cities, counties, districts, etc.).
- Staff employees from the utility and key local, state, and federal government representatives when necessary.
- Representatives from major local economic interest groups, such as major industries, the chamber of commerce, the builders association, the board of realtors, and financial institutions.
- Representatives from major community forces, such as civic associations, neighborhood associations, school boards, local press, and environmental groups.
- Local professionals with credibility such as engineers, geologists, agricultural specialists, architects, etc.

3 Water Curtailment Plan Procedures.

Water shortages adversely affect everyone. The entire community, from homeowners to the utility, suffers from curtailed water uses and revenues. The key ingredients to coping with an emergency are advanced planning and community cooperation. Without this any curtailment plan will be only partially effective. Five steps leading to the preparation of an operative water curtailment program include:

1. Identifying system constraints.
2. Locating and assessing alternative sources.
3. Assessing system management and ranking severity of impacts.
4. Designing a water curtailment plan.
5. Evaluating procedures and regulations and implementing the plan.

Each of the five steps is divided into three parts, objective, procedure, and discussion.

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Appendix 5 – Model Water Curtailment Measures for City Water Utilities

Last Revision: April 1988

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IA 1. Appendix 5 – Model Water Curtailment Measures for City Water Utilities**1 First Level of Concern****Voluntary Reduction in Water Use**

The governing board (mayor, city council, board of directors) of the agency should issue a general request for a voluntary reduction in water use by all water users. The request should be made at a time when there is a strong indication that the agency's water supply will be reduced beyond the capacity to provide adequate service to all water customers.

The request should include a summary of the current water situation, the reason for the request cutback in use, and a warning that mandatory cutbacks will be required if the voluntary measures do not sufficiently reduce water usage. (Suggest a percentage reduction).

The request for voluntary reduction of water use should be widely distributed to water users to assure public knowledge of the request. Local radio and TV stations, as well as newspapers, should be asked to run periodic announcements of the request. Leaflets should also be distributed either house to house, or to banks, stores, supermarkets, and public buildings. Water conservation suggestions should be included with the announcements and leaflets.

2 Second Level of Concern**Ordinance Prohibiting Times and Types of Outside Water Use**

The governing body of the agency should pass an ordinance which restricts the irrigation of lawns, gardens and landscaped areas according to odd-even water days. (Potentially for only limited hours).

The ordinance should also prohibit certain outside uses of water, such as car washing, washing down sidewalks or parking lots, filling swimming pools, using water for dust control, and other uses.

The ordinance should discontinue the addition of water service connections to the water system for the term of the ordinance.

The ordinance should include penalties for violation of the ordinance, including a warning, the installation of a flow restriction, and the disconnection of water service.

A model ordinance follows at Tab 1.

3 Third Level of Concern**Ordinance Prohibiting All Outside Uses of Water**

The governing body of the agency should pass an ordinance which restricts all outside use of water, including watering lawns, gardens, or other landscaped areas.

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The ordinance should follow the same format at the ordinance in Step 2, except for Section 4, which should read as follows:

“Section 4. Prohibition on Sprinkling and Watering. No person or customer shall sprinkle, water or irrigate any shrubbery, trees, lawns, grass, ground covers, plants, vines, gardens, vegetables, flowers or any other vegetation.”.

4 Fourth Level of Concern

Ordinance Reducing All Water Uses

The governing body of the agency should adopt an ordinance requiring the mandatory reduction of water usage.

For residential customers, the ordinance would set a maximum daily allotment for the amount of water used per resident. If a resident used more than its allotted number of gallons per day, the resident could have water service disconnected or be fined.

An allotment for commercial water users would be set at 75% of the water used during the same time period of the previous year.

Along with the implementation of such an ordinance, the agency should make available to the water users, either free or for a nominal fee, water conservation kits (including shower flow restrictors and toilet damming devices) to help reduce the amount of water used.

5 Tabs

- Tab 1 - Model Ordinance Prohibiting Nonessential Uses of Water
- Tab 2 – Model Ordinance Reducing All Water Uses

IA 1. Appendix 5 – Model Water Curtailment Measures for City Water Utilities

Tab 1 Model Ordinance Prohibiting Nonessential Uses of Water

ORDINANCE NO. _____

An Ordinance of the _____ (agency), Declaring a Water Shortage Emergency, Establishing Rules and Regulations Prohibiting or Limiting Nonessential Uses of Water, and Providing Penalties for Violation Thereof.

The _____ (governing body) of _____ (agency) does enact as follows:

Section 1. Purpose and Intent. The _____ (governing body) of _____ (agency) hereby declares that a water shortage (agency) due to drought conditions prevailing throughout this region and that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the _____ (agency) to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

In order to conserve the water supply for the greatest public benefit with particular regard to domestic use, sanitation, and fire protection, this _____ (governing body) adopts the following regulations and restrictions on the delivery and consumption of water to take effect immediately and remain in effect until rescinded by ordinance.

The specific uses regulated or prohibited in the Ordinance are nonessential, if allowed would constitute wastage of water, and should be prohibited.

Section 2. Definitions. For the purpose of the Ordinance, the following terms have the meaning given:

“Customer” any person using water supplied by the _____ (agency).

“Chief Officer” the _____ (Chief Officer) of the _____ (agency)

“Person” any person, firm, entity, partnership, association, corporation, company, or organization of any kind.

“Water” water from the _____ (agency), unless expressly provided otherwise or required by the contract.

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- Section 3. Application. The provisions of this Ordinance shall apply to all customers using water provided by the _____ (agency).
- Section 4. Regulation of Sprinkling and Watering. No person or customer shall sprinkle, water, or irrigate any shrubbery, trees, lawns, grass, ground covers, plants, vines, gardens, vegetables, flowers, or any other vegetation except as follows:
- (a) Such irrigation, sprinkling, and watering shall be permitted by _____ (even-numbered addressed residences or certain locations) or even-numbered days of the calendar.
 - (b) Such irrigation, sprinkling, and watering shall be permitted by _____ (odd-numbered addressed residences or certain locations) on odd-numbered days of the calendar.
- Section 5. Nonessential Residential Water Use. The following residential water uses are hereby determined to be nonessential and are prohibited:
- (a) The use of water to wash any motorbike, motor vehicle, boat, trailer, airplane, or other vehicle, except at a commercial fixed washing facility.
 - (b) The use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts or other hard surfaced area, or building or structure.
 - (c) The use of water to fill, refill or add to any indoor or outdoor swimming pools or Jacuzzi pools except for neighborhood fire control, where the pools have recycling water systems and evaporative covers, or where the use of the pool is required by a medical doctor's prescription.
 - (d) The use of water in a fountain or pond for aesthetic or scenic purposes except where necessary to support fish life.
- Section 6. Nonessential Commercial or Industrial Use. The following commercial or industrial water uses are hereby determined to be nonessential and are prohibited:
- (a) The use of water to serve a customer in a restaurant unless requested by the customer.
 - (b) The use of water for scenic and recreational ponds and lakes, except for the minimum amount required to support fish life.

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(c) The use of water from hydrants for construction purposes, fire drills, or any purpose other than firefighting.

(d) The use of water by a golf course to irrigate any portion of its grounds except those areas designated as tees and greens.

(e) The use of water for dust control.

Section 7. Gutter Flooding. No person or customer shall cause or permit water to run to waste in any gutter or drain.

Section 8. Regulation of Applications for New Water Service. No applications for new, additional, further expanded, or increased-in-size water service connections, meters, service lines, pipelines extensions, mains, or other water service facilities of any kind shall be allowed, approved, or installed.

Section 9. Discontinuance of Service. The _____ (Chief Officer) may, after one warning by certified mail or in person by staff, disconnect the water service of any person or customer whenever he determines that such person or customer has failed to comply with any provisions of this Ordinance. Service so disconnected shall be restored only upon payment of the turn-on charge, hereby fixed at \$10.00 during office hours or \$20.00 after office hours, or as otherwise specified by law, and any other costs incurred by the _____ (agency) in the discontinuance of service and the giving of suitable assurance to the _____ (agency) that the action causing the discontinuance will not be repeated.

In addition to the foregoing, the _____ (agency) may, prior to restoration of service, install a flow-restrictive device on the customer's service.

Section 10. Variances. The _____ (Chief Officer) may, in writing, grant temporary variances for prospective uses of water otherwise prohibited after determining that due to unusual circumstances to fail to grant such variance would cause an emergency condition affecting health, sanitation, or fire protection of the applicant or the public.

The _____ (governing body) shall ratify or revoke any such variance or adjustment at its next scheduled meeting. Any such variance or adjustment so ratified, may be revoked by later action of the _____ (governing body).

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No such variance shall be retroactive or otherwise justify any violation of this Ordinance occurring prior to issuance of said temporary variance.

Section 11. Emergency Ordinance. This Ordinance is hereby declared to be necessary for the immediate preservation of the public peace, health, and safety and shall take effect and be in force upon its adoption by the members of the _____ (governing body). Due to severe drought conditions in the area, it is imperative that this Ordinance become effective immediately to protect existing water supplies for human consumption, sanitation, and fire protection.

Section 12. Ordinance Controlling. The provisions of this Ordinance shall prevail and control in the event of any inconsistency between this Ordinance and any other rules or regulations of the _____ (agency).

Section 13. Severability Clause. If any section, subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be unconstitutional, such decision shall not affect the remaining portions of this Ordinance. The _____ (governing body) of the _____ (agency) declares that it would have passed each phrase thereof, irrespective of the fact that any one or more such provisions be declared unconstitutional.

Section 14. Publication. The _____ (Clerk’s full title) is hereby directed to publish this Ordinance for the period and in the manner required by the _____ (appropriate legal reference).

ORDER PUBLISHED THIS _____ day of _____ 20_____.

ADOPTED THIS _____ day of _____ 20 _____, (by the following vote):

AYES:

NOS:

ABSENT:

Signed: _____

Attest: _____

(Clerk)

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Tab 2 Model Ordinance Reducing All Water Uses

ORDINANCE NO. _____

An Ordinance of the _____ (agency), Declaring a Water Shortage Emergency, Establishing Rules and Regulations for Allocating Available Water Resources, and Providing Penalties for Violations Thereof.

The _____ (governing body) of _____ (agency) does enact as follows:

Section 1. Purpose and Intent. The _____ (governing body) of _____ (agency) hereby declares that a water shortage emergency condition prevails in the area served by the _____ (agency) due to drought conditions and that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the _____ (agency) to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.

In order to conserve the _____ (agency) water supply for the greatest public benefit with particular regard to domestic use, sanitation, and fire protection, this _____ (governing body) adopts the following regulations and restrictions on the delivery and consumption of water to take effect immediately and remain in effect until rescinded by ordinance.

The specific uses regulated or prohibited in the Ordinance are nonessential, and if allowed would constitute wasted water, and should be regulated.

Section 2. Definitions. For the purpose of the Ordinance, the following terms shall have the meaning given herein:

“Customer” any person using water supplied by the _____ (agency).

“Chief Officer” the _____ (Chief Officer) of the _____ (agency).

“Person” any person, firm, entity, partnership, association, corporation, company, or organization of any kind.

“Water” water from the _____ (agency), unless expressly provided otherwise or required by the contract.

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- Section 3. Application. The provisions of this Ordinance shall apply to all customers using water provided by the _____ (agency).
- Section 4. Prohibiting Nonessential Water Use. Uses of water for residential purposes in excess of the following daily usage allotment are determined to be nonessential and are prohibited.
- Section 5. Nonessential Residential Uses Defined. Uses of water for residential purposes in excess of the following daily usage allotment are determined to be nonessential:
- (1) One or two residential units - Daily usage allotment
 - a. one permanent resident _____ gallons
 - b. two permanent residents _____ gallons
 - c. three permanent residents _____ gallons
 - d. each additional permanent resident _____ gallons
 - (2) Multi-residential units - Daily usage allotment
(three or more) for each permanent residence _____ gallons

Each customer in whose name water is supplied to a residence, or residences or apartments or other dwelling units, shall upon request of the _____ (Chief Officer) advise the utility under penalty of perjury the number of permanent residents using water supplied to the residence, residences, apartments, or other dwelling units. If the customer fails to advise the _____ (Chief Officer), each residence, apartment or dwelling unit shall be permitted the water allocation herein provided for one permanent resident.

(The usage allotments established for three or more residential units should be based on the number of residential units rather than number of persons because the method of computation of allotments will more accurately reflect the true number of permanent residents living in the units over a period of time in light of the turnover and vacancy rates, the difficulty of ascertaining the true number of permanent residents residing and the available census and other statistical data).

- Section 6. Nonessential Commercial uses Defined. Uses of water for commercial purposes in excess of the following amounts are determined to be nonessential and are prohibited:
1. The use of water for schools, parks, recreation areas, golf courses, community food gardens, residential gardens,

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cemeteries, and similar recreation or memorial type facilities in excess of 75% of the amount consumed in (the same time period of the previous year).

2. The use of water for nursery facilities, restaurants, shopping centers, filling stations, health and swim clubs, and all other commercial uses in excess of 75% of the amount consumed in (the same time period as the previous year).

Section 7. Nonessential Industrial Uses Defined. Uses of water for industrial purposes in excess of the following amounts are determined to be nonessential:

1. The use of water for manufacturing, food processing, cooling or cleaning of equipment in excess of 75% of the amount consumed in (the same time period as the previous year).

2. The use of water for agricultural irrigation in excess of 75% of the amount consumed in (the same time period as the previous year).

Section 8. Other Nonessential Uses. All other uses of water not expressly set forth in this Ordinance in excess of 75% of the amount consumed in (the same time period as the previous year) are determined to be nonessential.

Section 9. Determination of Amount of Prior Water Consumption. The amount of water consumed in (the same time period as the previous year) shall be determined by _____ (agency) from its records. Where no such records exist, the amount shall be the average use of similar existing services as determined by the _____ (agency) from its records.

Section 10. Regulation of Applications for New Water Service. No applications for new, additional, further expanded, or increased-in-size water service connections, meters, service lines, pipeline extensions, mains, or other water service facilities of any kind shall be allowed, approved, or installed during the time this Ordinance is in effect.

Section 11. Penalties and Discontinuance of Service. Violations of any provision of this Ordinance shall be punished as follows:

First violation	Fine - _____
Second violation within 6-month period	Fine - _____
Third violation, and subsequent violations	Fine - _____

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The _____ (Chief Officer) may, after written or personal warning disconnect the water service of any customer that repeatedly violates this ordinance. Water service disconnected shall be restored only upon payment of any turn-on charge and any other costs incurred by the _____ (agency) and suitable assurances that the action causing the discontinuance will not be repeated.

In addition to the foregoing, the _____ (agency) may, prior to restoration of service, install a flow-restrictive device on the customer's service.

- Section 12. Enforcement. Each _____ (appropriate law officer) of the _____ (appropriate police force) shall diligently enforce the provisions of this Ordinance.

The _____ (Chief Officer) and all employees of the _____ (agency), Public Works Department, and Fire Department, have the duty and are hereby authorized to enforce the provisions of this Ordinance.

- Section 13. Variances. The _____ (Chief Officer) may, in writing, adjust any consumer's usage allotment if it is determined that due to unusual circumstances to fail to do so would cause an emergency condition affecting health, sanitation, or fire protection of the applicant or the public; and may grant such adjustment in the case of a mixed residential and nonresidential use if it is found that such adjustment is necessary to place an equivalent allotment burden on consumers.

The _____ (governing body) shall ratify or revoke any variance or adjustment. Any variance or adjustment so ratified, may be revoked by later action of the _____ (governing body).

No variance or adjustment shall be retroactive or otherwise justify any violation of this Ordinance occurring prior to issuance of temporary variance or adjustment.

- Section 14. Emergency Ordinance. This Ordinance is hereby declared to be necessary for the immediate preservation of the public peace, health, and safety and shall take effect and be in force upon its adoption by the members of the _____ (governing body). Due to severe drought conditions in the area _____ (agency), it is imperative that this Ordinance become effective immediately to protect existing water supplies for human consumption, sanitation, and fire protection.

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Section 15. Ordinance Controlling. The provisions of this Ordinance shall prevail and control in the event of any inconsistency between this Ordinance and any other rules or regulations of the _____ (agency).

Section 16. Severability Clause. If any section, subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be unconstitutional, such decision shall not affect the remaining portions of this Ordinance. The _____ (governing body) of the _____ (agency) declares that it would have passed each phrase thereof, irrespective of the fact that any one or more such provisions be declared unconstitutional.

Section 17. Publication. The _____ (Clerks full title) is hereby directed to publish this Ordinance for the period and in the manner required by the _____ (appropriate legal reference).

ORDERED PUBLISHED THIS _____ DAY OF _____, 20____.

ADOPTED THIS _____ DAY OF _____, 20____, (by the following vote):

AYES:

NOS

ABSENT

Signed: _____

Attest: _____

(Clerk)

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