1. Statement of the need for the proposed major regulation.

Section 25401.9 of the Public Resources Code requires the Energy Commission, to the extent that funds are available, to adopt by January 1, 2019, performance standards and labeling requirements for landscape irrigation equipment, including emission devices, for reducing the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water. Proposing regulations for spray sprinkler bodies, an emission device, will reduce the wasteful use of water by controlling the outlet pressure of spray sprinkler bodies.

2. The categories of individuals and business enterprises who will be impacted by the proposed major regulation and the amount of the economic impact on each such category.

Manufacturers are expected to pass on all incremental costs (see direct costs and benefits). Residential consumers will pay about $5 more for a spray sprinkler body (SSB) upon purchase. However, these consumers will save $22.55 over the 10 year life of the SSB in water utility spending. California businesses will pay $26.6 million per year in incremental costs for more efficient SSBs. However, these businesses will have reduced costs of $182 million per year for water once the stock has turned over. Net direct savings to individuals, businesses and government in the state are expected to be approximately $3.8 billion cumulatively from 2020 to 2029, or $811 million per year once the product stock has fully turned over. Water utilities will have lower sales of $4.4 billion over the analysis period of 2020-2029.

3. Description of all costs and all benefits due to the proposed regulatory change (calculated on an annual basis from estimated date of filing with the Secretary of State through 12 months after the estimated date the proposed major regulation will be fully implemented as estimated by the agency).

In 2020 to 2029 residential consumers and businesses will pay $1.2 billion in incremental costs for more efficient spray sprinkler bodies. Residential consumers will see water utility bill savings of $3.3 billion over the analysis period. California businesses will see water utility bill savings of $1.0 billion between 2020 and 2029. California government will see water utility bill savings of $150 million between 2020 and 2029. Electricity savings will be $396 million between 2020 and 2029. Greenhouse gas emissions and air quality improvements decline in the electric power sector due to the decreased demand for water pumping to supply water to SSB. The proposed standard would result in avoided damages of $107 million from 2020-2029. The reduced demand for water will result in more water available in lakes, rivers and reservoirs. The cumulative benefit is estimated at $63 million from 2020-2029.

4. Description of the 12-month period in which the agency estimates the economic impact of the proposed major regulation will exceed $50 million.

All years of the regulations, once implemented on April 1, 2020, for spray sprinkler bodies, are estimated to have an economic impact that exceeds $50 million. The economic impact of the standards are evaluated for the period from 2020 to 2029.
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5. Description of the agency's baseline:
Researchers at Evergreen Economics utilized the Impact Analysis for Planning (IMPLAN) model and calibrated it to 2016 economic activity data of the California economy. The model includes highly disaggregated representation of firm, household, employment, government, and trade behavior. The baseline for spray sprinkler body efficiency, costs, and savings was based upon market data and expert information about the efficiency of spray sprinkler bodies today. This baseline was developed and described in the Energy Commission staff report and included stakeholder input through written comments and staff-led workshops.

6. For each alternative that the agency considered (including those provided by the public or another governmental agency), please describe:
   a. All costs and all benefits of the alternative
   b. The reason for rejecting alternative

1) More stringent standards
   a) Incremental costs are $187 million higher than proposed standard and yield $175 million more in net savings from 2020-2029.
   b) More stringent levels were developed by staff that do not have performance test data to verify technical feasibility and cost effectiveness. Pursuing the more stringent levels could lead to significant delay, as the Energy Commission would seek to vet the stringent standards with stakeholders before proceeding to the formal rulemaking. This delay would cause a loss of the economic benefit the more stringent standards in the assessment.

2) Less stringent standards
   a) Incremental cost are $700 million less than the proposed standard and yield net savings $4 billion less from 2020 to 2029.
   b) The lower stringency option did not deliver water savings that meet the Energy Commission's objectives to set cost-effective and technically feasible standards that maximize reduction of the wasteful consumption of water from appliances that consume a significant amount of water statewide.

7. A description of the methods by which the agency sought public input. (Please include documentation of that public outreach).
The Energy Commission gathered public input from stakeholders and held three public workshops over the past two years, in addition to numerous stakeholder meetings. Energy Commission staff explicitly sought data, alternative proposals, and reactions to draft proposals.

The process can be found here:
https://www.energy.ca.gov/appliances/2017-AAER-06-13/17-AAER-08.html
https://www.energy.ca.gov/appliances/2017-AAER-05/

8. A description of the economic impact method and approach (including the underlying assumptions the agency used and the rationale and basis for those assumptions).
The Energy Commission is required under the Warren-Alquist Act to develop cost-effective and technologically feasible standards for appliance water and energy efficiency; it estimates statewide costs and savings based upon current and projected sales and stock information about appliances as part of its standard rulemaking process. The sources of data and calculations of water and energy savings are documented in the Energy Commission's revised staff report and will be updated in an upcoming staff report based on stakeholder input. This data was used to generate inputs for the IMPLAN Model. The IMPLAN model was used to generate estimates of impacts to Gross State Product (GSP), employment, business impacts, statewide investment, household income, and environmental impacts.