



Informative/Explanatory Writing Performance Task

Teacher Version

Grade	7-8	Title/Subject	The California Drought
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The following sections are included in this Teacher Version:

- **Overview**
- **Process: Day 1, 2 and 3**
- **Teacher Directions for Scoring Rubric and Student Directions and Articles**

Overview

On Day 1 students will engage in a shared reading and note-taking activity using two informative texts and an optional video to learn about the California drought and what it means to California now and in the future. On Day 2, after the group activity, they will be directed to plan, and begin to draft an informative/explanatory writing piece about the California drought utilizing the information they read in the texts, viewed in the video, along with the notes they took during the shared lesson. On Day 3 students will finish their drafts, revise and edit their writing, and if they choose, produce a final copy.

Process

DAY 1: Shared Reading and Note-taking: Up to 60 minutes

Step 1: Connect to Background Knowledge

Provide an introduction to the classroom activity by indicating that after this activity, students will be writing an informative/explanatory writing piece about the California drought. Ask students to discuss this orally. Possible questions could include:

“What do you know about the drought going on in California? How serious is this drought compared to other times in California history? What is California doing to manage the drought now? What is California doing about future prevention measures and methods? What can we citizens do to help the situation now and in the future?”

For active engagement encourage pair or group sharing, before sharing out with whole group.

Step 2: Viewing a video and Accessing the Text

1. Explain: *“Now we will watch a video and read about the California drought. There are two articles available. You will be writing an informative paper to your teacher about the drought, picking a particular aspect of the drought and including information from the articles and video provided in your paper.”* Read the articles with the students and point out facts, details, and features (pictures, captions, etc.) Use ONLY the sources provided in this prompt packet.
2. Show the video clip: www.ask.com/youtube?qsrc=1&o=102593&l=dir&q=california+drought
3. Read the articles with the students as a shared reading. Encourage students to take margin notes as they read.
4. Lead a whole class discussion about the sources.
5. Think-Pair-Share: *“Tell your partner what you learned about the California drought.”* Make sure both partners have time to share with each other.



Informative/Explanatory Writing Performance Task

6. Tell students they will now have the rest of the class period to take notes about what they have learned. Display the following writing prompt to help them organize their thinking and choose which evidence they want to capture for their essays:

How do we know California is in a state of severe drought? What are some of the effects of the drought? What are some ways the people of California can help out during a drought?

DAY 2: Planning and Writing a Draft: Up to 60 minutes

Step 3: Clarify Expectations for the Writing Task:

Explain: *"In a few minutes you will have a chance to look at the sources, plan, and write a draft to demonstrate what you have learned about the California drought. Tomorrow you will have a chance to change and edit your work from today or add more detail."*

Review the student directions and checklist for the writing assignment and give each student a sheet of blank paper for planning and lined paper for writing.

Step 4: Clarify Expectations for the Writing Task:

Tell students to begin planning their writing on the blank sheet of paper. You can remind them of planning strategies you have taught in your classroom such as outlining, lists, or webs. Don't provide a plan yourself just remind them of the strategies for planning.

After 15 minutes, suggest to students that they begin writing their drafts.

Collect all materials from Day 2.

DAY 3: Up to 60 minutes


1. Allow students to access the sources, their notes, the classroom activity charts/key word lists, and their draft.
2. Direct students to re-read their draft from Day 2. Review the task using the student checklist poster.
3. When students are done writing, remind them to reread and edit.
4. Students may create a final draft or use word processing to publish their writing if time allows.
5. Collect all student writing materials.

Teacher Directions for Scoring Rubric:

Use the informative/explanatory writing rubric to score the writing and enter a score for each student into School City.



Informative/Explanatory Writing Performance Task

Grade		7-8		Informative Writing Rubric	
Level	INFORMATIVE/EXPLANATORY WRITING		LANGUAGE CONVENTIONS		WITH GUIDANCE and SUPPORT FROM ADULTS
4 Exceeds	<input type="checkbox"/> Meets all expectations in level 3 <input type="checkbox"/> Uses well chosen, relevant, and sufficient facts <input type="checkbox"/> Maintains a formal style and objective tone in argument <input type="checkbox"/> Document is very well presented and documented with excellent organization		Mostly correct use of language conventions, and some above grade level skills used, for example: <input type="checkbox"/> Meets all expectations in level 3 <input type="checkbox"/> Uses verbs in active/passive voice and in conditional/subjunctive mood to achieve particular effects		<p style="text-align: center;">Guidance & Support</p>  <p>Level of guidance and support from adults before writing:</p> <p>Check off what was done before the student wrote the piece being scored.</p> <input type="checkbox"/> Discussion <input type="checkbox"/> Read aloud or shared reading <input type="checkbox"/> Drawing <input type="checkbox"/> Vocabulary word bank <input type="checkbox"/> Shared or interactive writing <input type="checkbox"/> Graphic organizer <input type="checkbox"/> Language frames
	<p style="text-align: center;">INFORMATIVE/EXPLANATORY WRITING (W2)</p> <input type="checkbox"/> Introduces topic or thesis statement clearly, previewing what is to follow (W2a) <input type="checkbox"/> Organizes ideas, concepts, and information using strategies such as definition, classification, compare/contrast, cause and effect (W2a) <input type="checkbox"/> Includes formatting (headings), graphics (charts/tables), and multimedia when aid comprehension (W2a) <input type="checkbox"/> Develops topic with relevant facts, definitions, concrete details, quotations, and other information/examples (W2b) <input type="checkbox"/> Uses appropriate transitions to create cohesion and clarify relationships among ideas/concepts (W2c) <input type="checkbox"/> Uses precise language and domain-specific vocabulary to inform/explain about topic (W2d) <input type="checkbox"/> Establishes and maintains a formal style (W2e) <input type="checkbox"/> Provides a concluding statement or section that follows from and supports the information or explanation presented (W2e)		Adequate use of correct sentence formation, punctuation, capitalization, grammar usage and spelling for grade level, for example: <input type="checkbox"/> Chooses among simple, compound, complex, and compound-complex sentences to signal differing relationships between ideas (L3b) <input type="checkbox"/> Places phrases and clauses within a sentence, recognizing and correcting misplaced or dangling modifiers (L1b) <input type="checkbox"/> Uses a comma to separate coordinate adjectives (L2a) <input type="checkbox"/> Spells correctly (L2b) <input type="checkbox"/> Chooses language that expresses ideas precisely and concisely (L3a) <input type="checkbox"/> Eliminates wordiness and redundancy (L3a)		
	<p style="text-align: center;">WRITING PROCESS (W4-W8)</p> <input type="checkbox"/> Writes clearly and coherently and organization and style are appropriate to task, purpose and audience (W4) <input type="checkbox"/> WGASFA* Develops and strengthens writing as needed, by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed (W5) <input type="checkbox"/> Uses technology to produce writing and link to and cite sources (W6) <input type="checkbox"/> Assesses credibility of each source and quotes/paraphrases the data/conclusions of each source (W8) <input type="checkbox"/> Avoids plagiarism and follows a standard format for citation (W8)				
	3 Meets				
2 Almost Meets	<input type="checkbox"/> Introduction to topic or thesis statement is present but not clear <input type="checkbox"/> Has some facts and details but may not be logical or relevant <input type="checkbox"/> Does not establish or maintain a formal style <input type="checkbox"/> Concluding statement may be unclear or not well supported <input type="checkbox"/> Writing may not fully address audience, task, or purpose <input type="checkbox"/> Language may not be precise or domain-specific		Limited use of correct sentence formation, punctuation, capitalization, grammar usage and spelling for grade level, for example: <input type="checkbox"/> Contains some run-on sentences <input type="checkbox"/> Uses mostly simple or compound sentences <input type="checkbox"/> Language may not always be precise or appropriate <input type="checkbox"/> Contains some punctuation errors <input type="checkbox"/> Contains some capitalization and/or spelling errors		
	1 Does Not Meet		Infrequent use of correct sentence formation, punctuation, capitalization, grammar usage and spelling for grade level, for example: <input type="checkbox"/> Contains many run-on sentences <input type="checkbox"/> Contains many punctuation errors <input type="checkbox"/> Contains many capitalization and/or spelling errors		

• **WGASFA:** “with guidance and support from adults”

This rubric was adapted from rubrics at sbusd.org and information from Smarter Balanced Assessments (www.smarterbalanced.org) using the California Common Core Standards at www.cde.ca.gov.





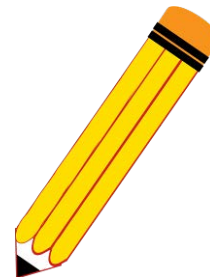
Informative/Explanatory Writing Performance Task

Student Version			
Grade	7-8	Title/Subject	The California Drought

Student Prompt:

How do we know there's a drought? What are some of the effects of the drought? What are some ways the people of California can help out during a drought?

Write a multi-paragraph essay to respond to one, two or all three of the questions. Include information from the articles as you write.



Writing Tips:

- Be sure to introduce the topic or thesis statement and group related facts together.
- Use evidence from the two sources to develop your argument.
- Use linking words such as *also*, *another*, *and*, *more*, *but*, *another*, *for example*, *because*, *in contrast*, *especially* to connect ideas.
- Use definition, classification, compare/contrast, and cause/effect to organize your ideas.
- Maintain a formal style throughout your document.
- End with a conclusion.

Reminders:

- You can look at the sources and your key word list to help you with your writing.
- You might begin by making a plan or drawing a graphic organizer help you with your thinking.
- Do not copy sentences from the sources.

Step 1: Plan

Plan: review the texts and your notes

- Make a plan on the blank paper for your writing.



Informative/Explanatory Writing Performance Task

Student Version			
Grade	7-8	Title/Subject	The California Drought

Step 2: Draft

- Introduce your subject and what you want to explain.
- Include evidence, facts, definitions, and concrete details to support your explanation.
- Group information together as you write.
- Use precise language and domain-specific vocabulary to inform or explain your topic.
- Write a concluding sentence or paragraph.
- Write a bibliography of sources for your paper.

Step 3: Reread and Revise

Reread your writing and revise:

- Does it make sense?
- Have you used science words from the text?
- Is there missing information you want to add?

Step 4: Edit

Reread your writing and revise:

- Capitals at the beginning of sentences
- Capitals for proper nouns, holidays, titles, etc.
- Punctuation: (end points) **. ! ?**
- Commas **,** quotation marks **" "**
- Spelling
- Complete sentences (avoid fragments and run-ons)
- Use verb tenses to show time, states, and conditions
- Use underlining, quotation marks or italics to indicate titles of works

Step 5: Final Draft

- Recopy/type and fix your mistakes.

Good work!



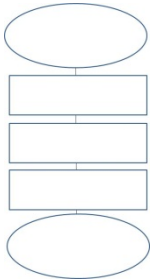


Informative Writing Performance Task

Informative Writing Poster



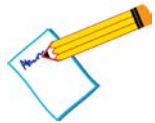
1. *Learn about a topic through research.*



2. *Take notes about what you learned on a graphic organizer or in the margins of the text.*



3. *Choose the information you want to include which goes with your explanation.*



4. *Plan your essay with an outline.*



5. *Write paragraphs to go with each section.*

6. *Use linking words to connect your ideas:*



7. *Write a conclusion to remind the reader of the explanation you wrote about.*



8. *Reread and revise: Does it make sense? Is there any missing information?*



9. *Reread and edit: Check*



- *capitals*
- *spelling*
- *punctuation*

☆	☆	☆	☆	☆
Punctuation	Capitals only where they go	Spelling	Spaces between all words	Paper is Neat
. ? ! " ,	<ul style="list-style-type: none"> • Beginning of sentence • Names • Months • Days of the week 	<ul style="list-style-type: none"> • All word wall words • Harder words spelled using the sound cards and/or attempted spelling 		<ul style="list-style-type: none"> • Handwriting • No smudges

10. *Type or write a final draft!*



11. *Be proud of your hard work!*





Informative Writing Performance Task

Student Reading Text			
Grade	7-8	Title/Subject	The California Drought – article 1

National Geographic

<http://news.nationalgeographic.com/news/2014/02/140213-california-drought-record-agriculture-pdo-climate/>

Could California's Drought Last 200 Years?

Clues from the past suggest the ocean's temperature may be a driver.



The cracked-dry bed of the Almaden Reservoir near San Jose shows the strain of California's megadrought. The governor has declared a drought "state of emergency."

PHOTOGRAPH BY MARCIO JOSE SANCHEZ, AP

Thomas M. Kostigen

for [National Geographic](#)

PUBLISHED FEBRUARY 13, 2014

Two years into California's drought, Donald Galleano's grapevines are scorched shrubs,

their charcoal-colored stems and gnarled roots displaying not a lick of life. "I've never seen anything like this," says Galleano, 61, the third-generation owner of a 300-acre [vineyard in Mira Loma](#), California, that bears his name. "It's so dry ... There's been no measurable amount of rain."

California is experiencing its worst drought since record-keeping began in the mid 19th century, and scientists say this may be just the beginning. [B. Lynn Ingram](#), a paleoclimatologist at the University of California at Berkeley, thinks that California needs to brace itself for a megadrought—one that could last for 200 years or more.

As a paleoclimatologist, Ingram takes the long view, examining tree rings and microorganisms in ocean sediment to identify temperatures and dry periods of the past millennium. Her work suggests that droughts are nothing new to California.



PHOTOGRAPH BY GEORGE ROSE, GETTY



Informative Writing Performance Task

Lake Mendocino, a major water storage lake near Ukiah, California, is nearly dry.

"During the medieval period, there was over a century of drought in the Southwest and California. The past repeats itself," says Ingram, who is co-author of *The West Without Water: What Past Floods, Droughts, and Other Climate Clues Tell Us About Tomorrow*. Indeed, Ingram believes the 20th century may have been a wet anomaly.

"None of this should be a surprise to anybody," agrees Celeste Cantu, general manager for the [Santa Ana Watershed Project Authority](#). "California is acting like California, and most of California is arid." (Related: "[Behind California's January Wildfires: Dry Conditions, Stubborn Weather Pattern](#).")

Unfortunately, she notes, most of the state's infrastructure was designed and built during the 20th century, when the climate was unusually wet compared to previous centuries. That hasn't set water management on the right course to deal with long periods of dryness in the future.

Given that California is one of the largest agricultural regions in the world, the effects of any drought, never mind one that could last for centuries, are huge. About 80 percent of California's freshwater supply is used for agriculture. The cost of fruits and vegetables could soar, says Cantu. "There will be cataclysmic impacts." (Related: "[Epic California Drought and Groundwater: Where Do We Go From Here?](#)")



PHOTOGRAPH BY DAVID MCNEW, GETTY

Farms, like this one near Bakersfield, California, have been unable to sustain crops or livestock due to the driest conditions in decades.

What's causing the current drought?

Ingram and other paleoclimatologists have correlated several historic megadroughts with a shift in the surface temperature of the Pacific Ocean that occurs

every 20 to 30 years—something called the Pacific Decadal Oscillation (PDO). The PDO is similar to an El Niño event except it lasts for decades—as its name implies—whereas an El Niño event lasts 6 to 18 months. Cool phases of the PDO result in less precipitation because cooler sea temperatures bump the jet stream north, which in turn pushes off storms that would otherwise provide rain and snow to California. Ingram says entire lakes dried up in California following a cool phase of the PDO several thousand years ago. Warm phases have been linked to numerous storms along the California coast.

"We have been in a fairly cold phase of PDO since the early 2000s," says Brian Fuchs, a climatologist at the [National Drought Mitigation Center](#), "so the drought we are seeing now makes sense."

That said, scientists caution against pinning the current drought on the PDO alone. Certainly ocean temperatures, wind, and the weather pattern in the Pacific have contributed to the drought, says [Nate Mantua](#), of NOAA's National Marine Fisheries Service in Santa Cruz, California, where the PDO pattern was first discovered and named. "But it's more nuanced than saying the PDO did this." After all, as its name suggests, the PDO is decades in the making.



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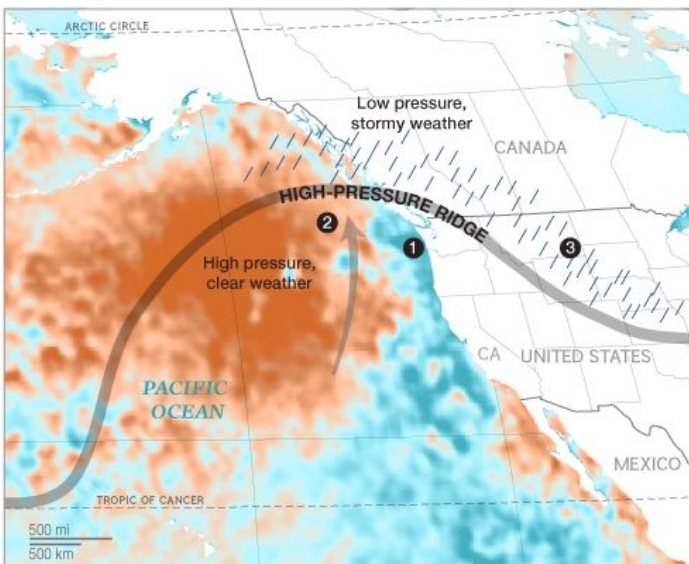
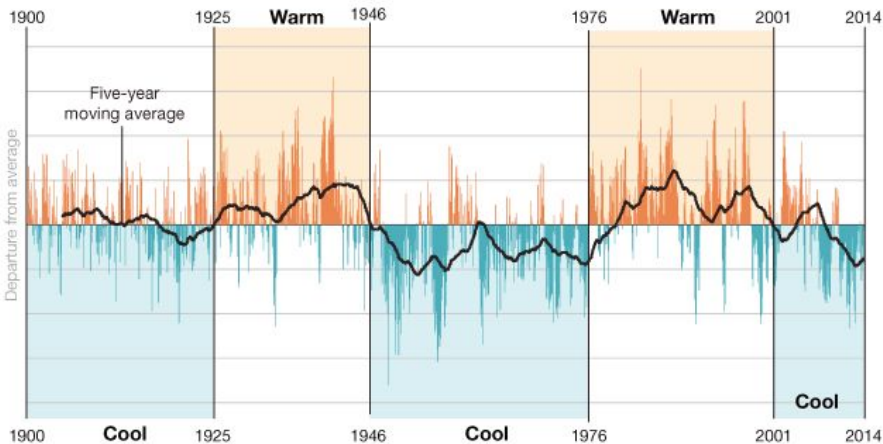
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Informative Writing Performance Task

Measuring Ocean Trends

This Pacific Decadal Oscillation (PDO) index represents a monthly pattern of anomalies in sea surface temperature. The PDO waxes and wanes approximately every 20 to 30 years. Scientists think we are now in a cool phase.



Pacific Decadal Oscillation, February 2014

- 1 Cooler than average water along the coast wraps around a core of warmer than average water.
- 2 This creates a high-pressure ridge that pushes north.
- 3 Rain falls north of the ridge, leaving the southwest U.S. dry.

Water temperature anomaly
 Warmer than average
 Cooler than average

NGM STAFF. SOURCES: JOINT INSTITUTE FOR THE STUDY OF THE ATMOSPHERE AND OCEAN, UNIVERSITY OF WASHINGTON; NOAA

NG STAFF

What can Californians expect?

Yet it's only natural to want hints of what's to come. "Water managers need to know how much water they can expect in their lakes and reservoirs," says Fuchs.

Ultimately, how long the current California drought will last is anyone's guess. Cantu says the Santa Ana Watershed Project Authority is stymied by that uncertainty. "We need to import water, and we need to know how much we can move around," she says. Some 4.5 million people rely on that southern California water supply, including ranchers and farmers like Galleano.

He says it would be nice to know if he is going to be able to grow any grapes at all in 2014. Asked how he would deal with a long bout of dryness, Galleano says he'd just have to "drink the wine."



Informative Writing Performance Task

Student Reading Text			
Grade	7-8	Title/Subject	The California Drought – article 2

The California Drought



<http://www.californiadrought.org/>

What is Drought?

From “What Californians Can Expect from the Drought,” by Pacific Institute President Peter Gleick for the [Pacific Institute Insights](#) blog.

California has a “Mediterranean” climate, which means that each year it has a concentrated rainy season, followed by a long temperate and dry period. California’s rainy season typically runs from early October to late March, with very little precipitation outside of these months. (Figure 1 shows the average monthly rainfall for California.) It is now early 2014 and the rains have not come, for the third year in a row. While the [definition of “drought”](#) varies from place to place, it is safe to say that California is currently suffering from a severe – and by [some measures, unprecedented](#) – drought.

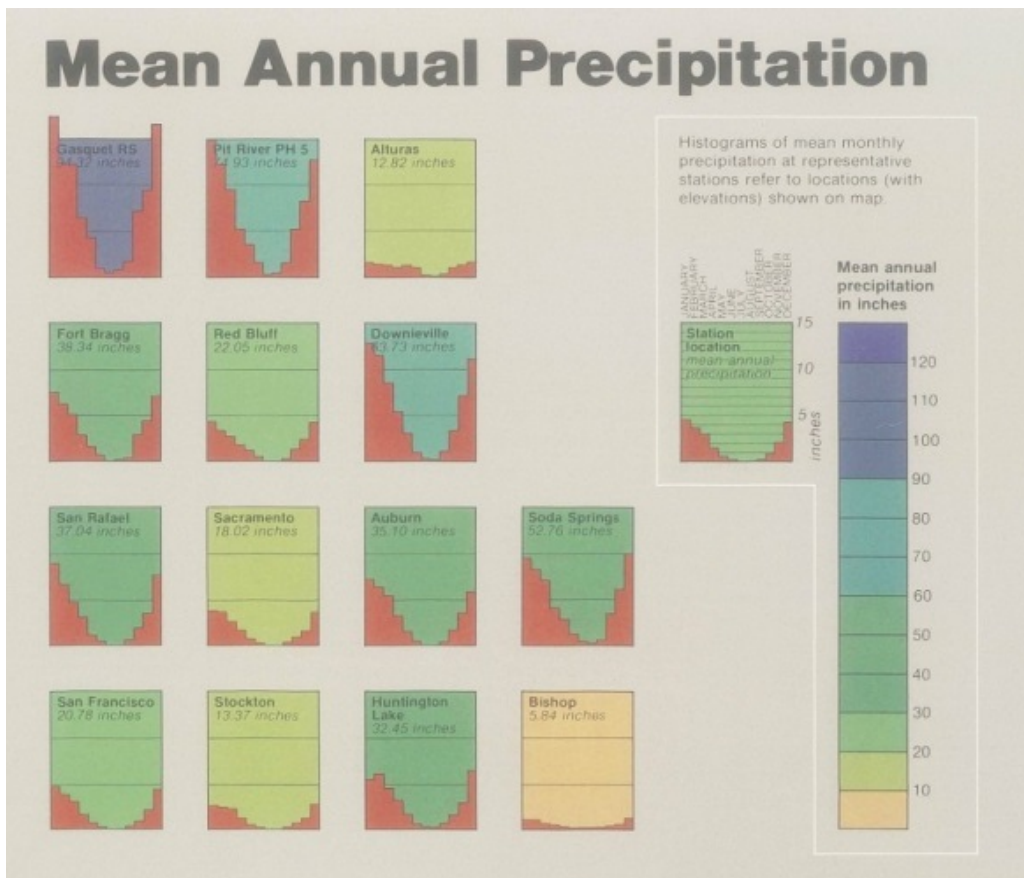


Figure 1: Monthly average precipitation showing the seasonality of precipitation in different parts of California, from the iconic California Water Atlas.

It is not too late for some big storms off the Pacific Ocean to bring relief. But the odds are against it and [current meteorological conditions are not encouraging](#). If the rest of the winter months are dry, or even of average wetness, the state will have much less water than normal, and much less than water users want – from cities to farms to our natural ecosystems.



Informative Writing Performance Task

We've had dry periods before – they are a recurring feature of our variable climate. The difficulty, expense, and pain of droughts, however, depend on two things: how severe they are and how we react. The Pacific Institute has spent many years studying the effects of droughts in California and has published several analyses of past impacts and responses ([here](#) and [here](#)).

Based on past experience, here is (part of) what Californians can expect this year if it remains as dry as it is now.

1. Prices of water are likely to rise, in part because of the real cost of water scarcity, and in part because our water rate designs still too often penalize efforts to conserve water, leading to higher rates during droughts even when water use goes down. [The Pacific Institute has described water rate strategies to address this problem](#), but more could be done to improve rate designs.
2. Wildfires could be more frequent or severe, and the wildfire season may expand into normally wet months. Soil moisture is already extremely low; vegetation is likely to die in the foothills, coastal ranges, and Sierra; and these factors can increase fire danger.
3. During past droughts, political pressures have been applied to increase diversions of water away from ecosystems. Some groups and politicians have pointed to legal decisions restoring some minimum flows to ecosystems as the cause of hardship to some California agricultural interests and used droughts to push for exemptions from these decisions, increasing ever-present tensions among different California water interests. This is also likely to reoccur this year.
4. Natural ecosystems are likely to suffer severely, especially fisheries in the Sacramento-San Joaquin river delta (the "Delta"). These ecosystems are already under severe pressures due to water diversions and other stresses. The California Department of Water Resources described some of these past drought impacts [here](#).
5. The generation of hydroelectricity at California dams will drop dramatically from average levels because it varies directly with streamflow. Because renewable hydropower is among the cheapest and most versatile of electricity sources, California ratepayers will have to pay for more costly fossil fuels to make up for the difference. In the past, the drop in hydropower has been largely made up by burning more natural gas, costing Californians billions of dollars in added energy costs and generating more greenhouse gases to the atmosphere. The same is likely to happen this year.
6. Some farmers and water districts with "junior" water rights will see water allocations from state and federal irrigation projects severely cut; some growers with "senior" water rights will see modest or even no shortages at all. Farmers with water shortages have some options: seek temporary water transfers from other users, increase pumping of local groundwater, change the kinds of crops they grow, or leave some lands fallow. These actions can impose local economic hardships, especially for low-income communities in affected regions. (Interestingly, however, recent severe drought from 2007-2009 did not lead to a significant drop in total statewide agricultural revenue or production. Figures 2 and 3 show total California agricultural revenue and revenue for the four major Central Valley counties for the period 2000 to 2009, showing the economic resilience of the sector during the 2007-2009 drought because of the buffering effect of some high crop prices, temporary use of expanded groundwater pumping, water transfers, and other factors.)
7. Urban water agencies will (and are beginning to) roll out a wide range of voluntary and mandatory water "conservation" programs. These typically ask customers to limit discretionary water uses such as watering gardens and washing cars and sidewalks. As droughts worsen, agencies expand these programs to offer incentives for both structural and behavioral changes: purchase more water-efficient appliances, remove grass and plant water-efficient gardens, cut shower times, and more. In the past, these kinds of programs and educational efforts have temporarily cut urban water use by between 10 and 25% depending on the programs and level of effort.



Informative Writing Performance Task

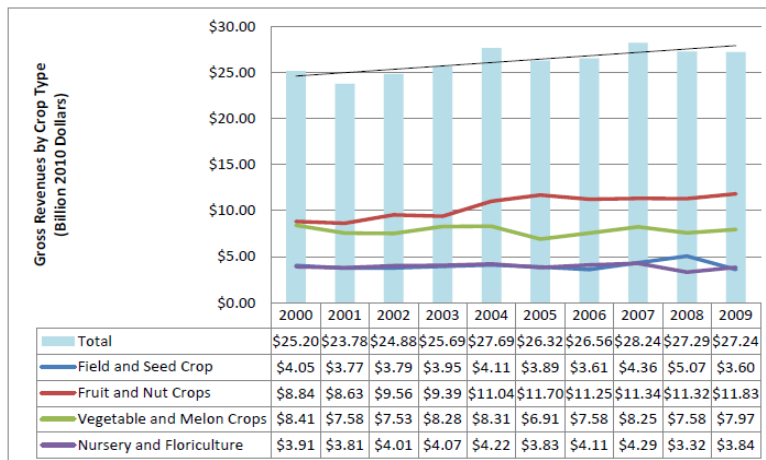


Figure 10: Gross revenues from harvested crops in California, 2000-2009.
 Source: USDA NASS California Agricultural Statistics, Crop Years 2000-2009. (USDA-NASS 2000-2009)

Figure 2: Agriculture revenue by crop type in California, 2000-2009, including during the 2007-2009 drought (billion 2010 dollars).

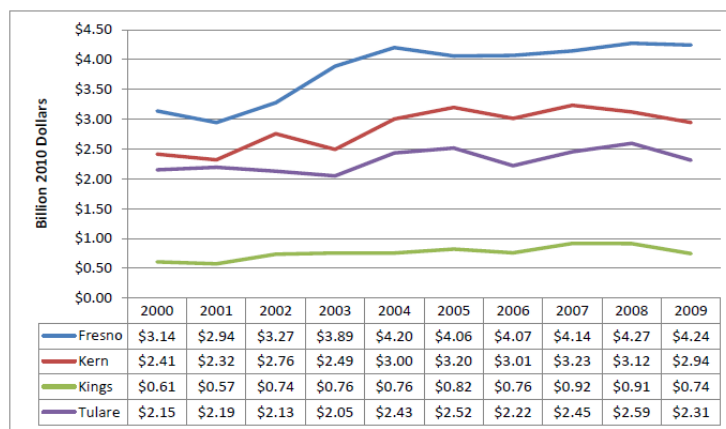


Figure 14. Comparison of total gross revenue for harvested, irrigated crops in Fresno, Kern, Kings, and Tulare Counties, 2000-2009
 Source: Fresno, Kern, Kings, and Tulare County Annual Crop Reports, years 2000, 2007-2009, County Agricultural Commissioner's Office for Fresno, Kern, Kings, and Tulare Counties. (Fresno County 2000-2009, Kern County 2000-2009, Kings County 2000-2009, Tulare County 2000-2009)

Figure 3: Agriculture revenue in four major agricultural counties in California, 2000-2009, including during the 2007-2009 drought (billion 2010 dollars).

Droughts are a natural part of our climate, even without the complication of climate change, which has the potential to significantly alter the patterns of both water availability and demand in the coming years. In part, our massive water infrastructure (dams, reservoirs, aqueducts, and management institutions) has been built to help us manage this natural variability. But we could all be doing much more to reduce our vulnerability to extreme events.

In the short term, water agencies, managers, and users will look to the temporary fixes mentioned above, including behavioral changes, to help cut demand for water to a level that more closely matches reduced supply – and we should not sacrifice our natural ecosystems for short-term water needs.



Informative Writing Performance Task

In the long term, we need to make permanent fixes (and prepare for climatic changes). Despite our efforts in recent decades, California water use still remains unnecessarily profligate and inefficient. Many of us still have old toilets, showerheads, washing machines, and other appliances and we must replace them. We still grow water-hungry field crops and even some fruits, nuts, and vegetables with flood irrigation and we must further improve irrigation efficiency. Some homeowners still insist on having lawns that mimic those in the humid East (or more accurately in far wetter England), and in our current climate we should instead plant native vegetation that uses less water. Most of us still pay too little for our water. Higher prices would more properly reflect the true cost of getting, treating, and using water in California, though we must also protect economically disadvantaged communities. And we must seek out and explore new, renewable sources of water, including especially water treatment and reuse, rainwater harvesting, and brackish water desalination. The reuse of water – already underway in some places around the world, including some efforts in California – is one of the most promising ways of expanding the apparent supply of water for many non-potable, and even potable, uses.

California is a spectacular home, and we choose to live in its dry and variable climate. Our water behaviors should match and respect this environment, even during normal times, but especially, and critically, during drought times.