

2.1 Introduction

Irrigated agricultural lands include lands where water is applied to produce crops, fiber, or livestock for commercial sale or use. For the purposes of this draft PEIR, irrigated agricultural lands also include managed wetlands, nurseries, and water districts that accept or receive discharges from irrigated lands. Discharges from agricultural lands can include irrigation return flow, flows from tile drains, and storm water runoff. These discharges can affect water quality by transporting constituents of concern, including pesticides, sediment, nutrients, salts (including selenium and boron), pathogens, and heavy metals, from cultivated fields into surface waters. Many surface water bodies are impaired because of pollutants from agricultural sources. Groundwater bodies also have suffered pesticide, nitrate, and salt contamination.

The Lead Agency, the Central Valley Water Board, has developed this draft PEIR in accordance with the State CEQA Guidelines to analyze the potential environmental impacts of several feasible alternatives for a long-term ILRP, to address agricultural discharges. These program alternatives were developed through cooperation with the Workgroup and represent a wide range of possible regulatory approaches, all of which are examined at an equal level of detail within this document. The Central Valley Water Board has not identified a preferred alternative from among those developed by the Workgroup. This level of analysis, which exceeds that of a typical EIR with an identified preferred project, will inform the Central Valley Water Board's decision-making process when they make their final selection of an ILRP.

The Central Valley Water Board staff-recommended ILRP will be selected from the elements of the alternatives considered in this draft PEIR. Rather than the typical EIR approach of starting with a project and then looking at alternatives to that project, this draft PEIR will be used as a tool to inform decision makers during the selection process. In addition to environmental analysis, economics and policy considerations have been evaluated. As part of the policy analysis, each alternative was evaluated to determine how well the alternative implements minimum statutory requirements and other required policy (see Section 5.2, Consistency with Plans and Policies; the *Technical Memorandum Concerning the Economic Analysis of the Irrigated Lands Regulatory Program* [ICF International 2010] [Draft ILRP Economics Report] and the *Draft Irrigated Lands Regulatory Program Long-Term Program Development Staff Report* [CalEPA and Central Valley Water Board 2010] [Staff Report] for an expanded discussion [see Appendix A]).

2.2 Program Background

California's Porter-Cologne Water Quality Control Act (Porter-Cologne Act) established the State Water Board and divided the state into nine regional basins, each with a Regional Water Board, of which the Central Valley Water Board is one (Water Code Section 13200). The State Water Board is the "principle state agency with the primary responsibility for the coordination and the control of water quality" in California (Water Code Section 13201).

The Porter-Cologne Act authorizes the State Water Board to draft state policies regarding water quality and, in accordance with Water Code Section 13263, to develop general WDRs and project-specific WDRs for projects that would discharge into state waters, defined by Water Code Section 13050 as any surface water or groundwater, including saline waters, within the boundaries of the state. Regional Water Boards are authorized to develop general and project-specific WDRs for projects that would discharge into waters within their jurisdiction.

The Water Code requires that Regional Water Boards adopt water quality control plans (Basin Plans) in accordance with Section 13240. The State Water Board is allowed, but not required, to adopt Basin Plans in accordance with Section 13170 of the Water Code.

In January 2000, the State Water Board—in its continuing efforts to control NPS pollution in California—adopted the *Plan for California's Nonpoint Source Pollution Control Program* (NPS Program Plan) (State Water Board 1999), and brought the State into compliance with the requirements of Section 319 of the federal Clean Water Act (CWA) and Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA).

On May 20, 2004, the State Water Board adopted the *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program* (NPS Implementation and Enforcement Policy). The NPS Implementation and Enforcement Policy was adopted by the State Water Board in order to comply with the 1999 amendment of the Porter-Cologne Act to enforce the State's NPS pollution control program. The policy requires the Regional Water Board to regulate all NPS pollution through a program meeting five key elements:

- The ultimate purpose of the NPS pollution control implementation program must be explicitly stated and, at a minimum, must address NPS pollution control in a manner that achieves and maintains water quality objectives.
- The NPS pollution control implementation program must include a description of the water quality management practices (management practices) and other program elements expected to be implemented, along with an evaluation program that ensures proper implementation and verification.
- The NPS pollution control implementation program should include a time schedule and quantifiable milestones, if the Regional Water Board so requires.
- The NPS pollution control implementation program must include sufficient feedback mechanisms so that the Regional Water Board, dischargers, and the public can determine whether the implementation program is achieving its stated purpose(s), or whether additional or different management practices or other actions are required.
- Each Regional Water Board must make clear, in advance, the potential consequences for failure to achieve the objectives of its NPS pollution control implementation program, emphasizing that it is the responsibility of individual dischargers to take all necessary implementation actions to meet water quality requirements.

The Regional Water Boards have primary responsibility for ensuring that appropriate NPS pollution control implementation programs are in place throughout the state. Regional Water Board responsibilities include, but are not limited to, issuing WDRs or a waiver of WDRs for individual discharges or a category of NPS discharges, or adopting a Basin Plan amendment that addresses NPS discharges.

Since 1982, the Central Valley Water Board has regulated NPS discharges from agricultural lands through a waiver of WDRs. SB 390 involved changes to Section 13269 of the Water Code relating to how the Central Valley Water Board adopts waivers. The legislative change requires that, if the Central Valley Water Board adopts waivers, they must comply with the new Section 13269—or the dischargers operating under the 1982 waivers would need to submit Reports of Waste Discharge and obtain WDRs, or comply with the Water Code. To comply with the requirements of SB 390, the Central Valley Water Board adopted a Conditional Waiver of Waste Discharge Requirements for Discharges from Irrigated Lands (Conditional Waiver) in 2003.

As part of the 2003 Conditional Waiver, the Central Valley Water Board directed staff to prepare an EIR for a long-term ILRP. The 2003 interim waiver program expired in 2006. In 2006, the Central Valley Water Board adopted a new Conditional Waiver for discharges from irrigated agricultural lands that continues the Conditional Waiver interim program until 2011. In the 2006 Conditional Waiver, the Central Valley Water Board reaffirmed the goal to develop a long-term ILRP and EIR. This draft PEIR is the result of those efforts.

2.3 Program Location

The program location is described in detail in the *Existing Conditions Report* (ECR), released by the Central Valley Water Board in 2008 (ICF Jones & Stokes 2008). This report, incorporated herein by reference, comprises the baseline condition for this analysis.

The jurisdiction of the Central Valley Water Board stretches from the Oregon border to the northern tip of Los Angeles County (Figure 2-1). Three major watersheds have been delineated within this region, namely the Sacramento River Basin (Figure 2-2), the San Joaquin River Basin (Figure 2-3), and the Tulare Lake Basin (Figure 2-4). The three basins cover approximately 40 percent of the total area of the state and approximately 75 percent of the irrigated acreage (Central Valley Water Board 2002a).

The crests of the Sierra Nevada on the east and the Coast Ranges and Klamath Mountains on the west border the Sacramento and San Joaquin River Basins. The Sacramento and San Joaquin River Basins cover approximately one-fourth of the total area of the state and contain over 43 percent of the state's irrigable land. Surface waters from these two basins meet and form the Sacramento–San Joaquin River Delta (Delta), which ultimately drains to San Francisco Bay. Major groundwater resources underlie both river valley floors.

The Sacramento River Basin covers approximately 27,210 square miles. The principal streams in the basin are the Sacramento River and its larger tributaries: the Pit, Feather, Yuba, Bear, and American Rivers on the east; and Cottonwood, Stony, Cache, and Putah Creeks on the west. Major reservoirs include Shasta, Oroville, and Folsom.

The San Joaquin River Basin covers approximately 15,880 square miles. The principal streams in the basin are the San Joaquin River and its larger tributaries and the Cosumnes, Mokelumne, Calaveras, Stanislaus, Tuolumne, Merced, Chowchilla, and Fresno Rivers. Major reservoirs include Pardee, New Hogan, Camanche, Millerton, McClure, Don Pedro, and New Melones.

The Tulare Lake Basin comprises the drainage area of the San Joaquin Valley south of the San Joaquin River and encompasses approximately 17,650 square miles. The valley floor makes up slightly less than one-half the total basin land area. The Kings, Kaweah, Tule, and Kern Rivers, which

drain the west face of the Sierra Nevada, provide the bulk of the surface water supply native to the basin. Major reservoirs are Pine Flat, Kaweah, Success, and Isabella. Imported surface water enters the Tulare Lake Basin through the San Luis Canal/California Aqueduct System, Friant-Kern Canal, and Delta-Mendota Canal. This subwatershed comprises the entire valley floor and is called the South Valley Floor Subwatershed.

2.4 Scope and Purpose of This CEQA Document

The purpose of this draft PEIR is to support the Central Valley Water Board's development and implementation of a long-term ILRP through analysis of potential environmental impacts of the program. Unlike a project EIR, which examines the environmental impacts of a specific development project, a PEIR is prepared on a series of actions that can be characterized as one large project. Subsequent activities in the program will be examined in light of the draft PEIR to determine whether an additional environmental document must be prepared. If the lead agency finds that no new effects would occur and no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the draft PEIR.

In accordance with State CEQA Guidelines Section 15126.6(a), EIRs must evaluate a "range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project." State CEQA Guidelines Section 21061.1 defines *feasible* as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." Selecting a range of project alternatives for evaluation is the responsibility of the Lead Agency, which must "publicly disclose its reasoning for selecting those alternatives." (State CEQA Guidelines Section 15126.6[a]).

State CEQA Guidelines Section 15126.6(c) also directs that EIRs should "identify any alternatives that were considered... but were rejected as infeasible" and "briefly explain the reasons" for the determination. It explains that alternatives may be rejected due to "(i) failure to meet most of the basic project objectives, (ii) infeasibility, and (iii) inability to avoid significant environmental impacts." The factors that will be weighed to determine the feasibility of ILRP alternatives include economic viability, consistency with existing plans or planning documents, regulatory limitations, and jurisdictional authority.

An EIR "shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project" [State CEQA Guidelines Section 15126.6(d)]. The State CEQA Guidelines Section 15126.6(b) provides that the discussion of alternatives should focus on alternatives "which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives could impede to some degree the attainment of the project objectives or would be more costly." The final decision regarding the feasibility of alternatives lies with the decision maker for a given project, who must make the necessary findings addressing the potential feasibility of reducing the severity of significant environmental effects. (Public Resources Code [PRC] 21081, State CEQA Guidelines Section 15091).

2.4.1 "No Project" and "Preferred Project" Alternatives

Considered alternatives must include the specific alternative of "No Project." When the project is the revision of an existing land use or regulatory plan, policy, or ongoing operation, the "No Project" Alternative is the continuation of the existing plan, policy, or operation into the future. (State CEQA



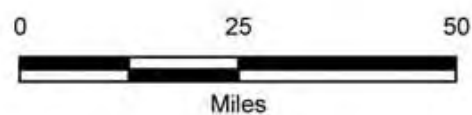
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Figure 2-1
Program Boundaries and Subdivisions



Legend

- Cities
- US Highway
- Interstate
- Subwatershed Boundaries
- County Lines



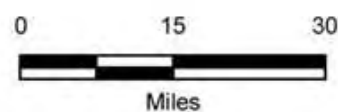
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Figure 2-2
Sacramento River Basin Subwatersheds



Legend

- Cities
- ⚡ US Highway
- ⚡ Interstate
- 🔴 Subwatershed Boundaries
- 🟡 County Lines



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Figure 2-3
San Joaquin River Basin Subwatersheds



Legend

- Cities
- US Highway
- Interstate
- Subwatershed Boundaries
- County Lines



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Guidelines Section 15126.6[d]–[e]). In this instance, the “No Project” scenario represents Alternative 1, full implementation of the present program into the future.

In many CEQA documents, the Lead Agency has identified a “preferred project,” and thus the alternatives may typically receive a reduced level of analysis in comparison. In this document, however, no preferred project has been identified by the Lead Agency from among the considered alternatives. Consequently, each program alternative is analyzed at the same level of detail in this draft PEIR, to the extent necessary to determine and compare all anticipated impacts.

2.4.2 Intended Uses of This Draft PEIR

In general, a CEQA document is an informational document that informs a public agency’s decision-makers, and the public generally, of potentially significant adverse environmental effects of a program; identifies possible ways to avoid or minimize the significant effects; and describes reasonable alternatives to the program (CEQA Guidelines Section 15121). A public agency’s decision-makers must consider the information in a CEQA document prior to making a decision on the program. Accordingly, this draft PEIR is intended to:

- Provide the Central Valley Water Board and the public with information on the environmental effects of the proposed program, and
- Be used as a tool by the Central Valley Water Board to facilitate decision making on the proposed program.

2.4.3 Responsible and Trustee Agencies

In addition to Central Valley Water Board’s action as the Lead Agency, this draft PEIR may be used by other agencies to determine the effects of the proposed action. Responsible Agencies are those agencies subject to the jurisdiction of California with a legal responsibility to approve the program or project. These agencies are required to rely on the Lead Agency’s environmental document in acting on whatever aspect of the program or project that requires their approval but must prepare and issue their own findings regarding the program or project approval (State CEQA Guidelines Section 15096). Trustee Agencies are agencies that have jurisdiction over certain resources held in trust for the people of California but do not necessarily have legal authority over approving or carrying out the program or project.

No Responsible Agencies, with a legal responsibility to approve the ILRP, have been identified. Likely Trustee Agencies for the program are presented in Table 2-1.

Table 2-1. Likely Trustee Agencies for the Long-Term Irrigated Lands Regulatory Program

Agency	Jurisdiction
California Department of Fish and Game	Fish and wildlife Native plants designated as rare or endangered Game refuges Ecological reserves
California Department of Pesticide Regulation	Regulation of pesticide usage
California Department of Water Resources	State Water Project
California State Office of Historic Preservation	Historic and cultural resources
California State Water Resources Control Board	Water rights and quality oversight

Federal agencies that may be involved in the action include the U.S. Fish and Wildlife Service (USFWS); National Marine Fisheries Service (NMFS); U.S. Environmental Protection Agency (EPA); and U.S. Department of the Interior, Bureau of Reclamation (Reclamation).

2.5 Program Goals and Objectives

Prior to CEQA analysis of a proposed program, the program's goals and objectives must be identified. ILRP goals and objectives were developed through a public participation process described in Section 2.6.3, Alternatives Development Process. Understanding that irrigated agriculture in the Central Valley provides valuable food and fiber products to communities worldwide, the overall goals of the ILRP are to (1) restore and/or maintain the highest reasonable quality of state waters considering all the demands being placed on the water; (2) minimize waste discharge from irrigated agricultural lands that could degrade the quality of state waters; (3) maintain the economic viability of agriculture in California's Central Valley; and (4) ensure that irrigated agricultural discharges do not impair access by Central Valley communities and residents to safe and reliable drinking water.

In accordance with these goals, the objectives of the ILRP are to:

- Restore and/or maintain appropriate beneficial uses established in [Central Valley Water Board water quality control plans](#) by ensuring that all state waters meet applicable water quality objectives.¹
- Encourage implementation of management practices that improve water quality in keeping with the first objective, without jeopardizing the economic viability for all sizes of irrigated agricultural operations in the Central Valley or placing an undue burden on rural communities to provide safe drinking water.
- Provide incentives for agricultural operations to minimize waste discharge to state waters from their operations.
- Coordinate with other Central Valley Water Board programs, such as the Grasslands Bypass Project WDRs for agricultural lands total maximum daily load development, CV-SALTS, and WDRs for dairies.
- Promote coordination with other regulatory and non-regulatory programs associated with agricultural operations (e.g., DPR, the California Department of Public Health [DPH] Drinking Water Program, the California Air Resources Board [ARB], the California Department of Food and Agriculture, Resource Conservation Districts [RCDs], the University of California Extension, the Natural Resources Conservation Service [NRCS], the USDA National Organic Program, CACs, State Water Board Groundwater Ambient Monitoring and Assessment Program, the U.S. Geological Survey [USGS], and local groundwater programs [SB 1938, Assembly Bill [AB] 3030, and Integrated Regional Water Management Plans]) to minimize duplicative regulatory oversight while ensuring program effectiveness.

¹ This objective did not receive Workgroup consensus and consequently was not recommended by the Workgroup. In general, concerns regarding this proposed objective have to do with whether there should be some qualifier that accounts for the feasibility and reasonableness of restoring all state waters to applicable water quality objectives.

2.6 Development of This Draft PEIR

This draft PEIR and its supporting documents were developed with extensive assistance and comment from affected agencies, the regulated industry, and the public.

2.6.1 Notice of Preparation

The Central Valley Water Board released an NOP on February 14, 2003.

2.6.2 Scoping

On March 5 and 6, 2003, CEQA scoping meetings were held in Fresno and Sacramento to solicit and receive public comment on the scope of this draft PEIR, as described in the NOP. Following the scoping meetings, the Central Valley Water Board began preparation of the draft ECR in 2004 to assist in defining the baseline condition for environmental analyses in this draft PEIR. The draft ECR was circulated in 2006, public comment on the document was received and incorporated, and the document was released by the Central Valley Water Board in 2008.

In March and April 2008, the Central Valley Water Board staff conducted [another series of CEQA scoping meetings](#) to generate recommendations on the scope and goals of the long-term ILRP. Information also was gathered as to how stakeholders would like to be involved in development of the long-term program. Stakeholders indicated in these scoping meetings that they would like to be actively involved in developing the program. To address this interest, the Central Valley Water Board initiated a series of Workgroup meetings, described below.

2.6.3 Alternatives Development Process

Stakeholder Advisory Workgroup

Alternatives to be evaluated in this draft PEIR needed to meet the goals and objectives for the ILRP and be sufficiently different to allow for a meaningful comparison of the alternatives. In fall 2008, the Central Valley Water Board convened the Workgroup to provide staff with input on development of the ILRP. The Workgroup included a range of stakeholder interests representing local government, industry, agricultural, and environmental coalitions throughout the Central Valley.

The Workgroup operated under a [charter](#) document that contains a plan for communicating Workgroup recommendations to the Central Valley Water Board, establishes the Workgroup structure, and clarifies the roles and responsibilities of its members. Workgroup meetings conducted to date are summarized here.

- October 9, 2008: [Organizational Workgroup Meeting](#).
- December 17, 2008: [Workgroup Meeting to Discuss Strategy](#).
- February 2, 2009: [Groundwater Information Session](#).
- February 17, 2009: [Workgroup Meeting to Present Participant-Proposed Alternatives](#).
- April 15, 2009: [Groundwater Nitrate Information Session](#).
- May 19, 2009: [Workgroup Meeting to Discuss Proposed Long-Term ILRP Alternatives](#).

- August 20, 2009: [Final Workgroup Meeting to Discuss Proposed Long-Term ILRP Alternatives](#).

The Workgroup meetings provided a forum for stakeholder input and deliberation. Because the ILRP is complex, information sessions were arranged to share technical information.

Central Valley Water Board staff developed a template and program matrix to assist Workgroup participants in developing alternatives. The template and matrix were included in a [Workgroup Strategy Document](#) dated January 9, 2009. The Workgroup Strategy Document included a discussion of minimum requirements for alternatives, a Workgroup meeting schedule, and a process for selecting ILRP alternatives for analysis in an EIR.

Alternatives Screening and Program Selection

To be considered as an alternative under CEQA, ILRP alternatives must meet the goals and objectives of the project as defined above. Alternatives must also meet statutory requirements established in applicable state policy and regulations (e.g., the [Water Code](#); the [The Water Quality Control Plan \(Basin Plan\) for the California Regional Water Quality Control Board Central Valley Region](#) [Basin Plan] [Central Valley Water Board 2009], the [State Water Resources Control Board Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program](#) [State Water Board 2004], and the [State Antidegradation Policy](#) [State Water Board 1968]).

On February 17, 2009, Workgroup participants presented proposed ILRP alternatives to the Central Valley Water Board. After the February 17 Workgroup meeting, Central Valley Water Board staff began working with the Workgroup participants who proposed alternatives to develop the details of their alternatives. Central Valley Water Board staff also developed additional alternatives as necessary to represent a range of possible programs to be evaluated in this draft PEIR (per requirements of the State CEQA Guidelines). Many of the participant-proposed alternatives were combined, or additional features were added, to develop complete alternatives that could meet the goals and objectives of the program. During this process, proposed program elements that did not meet the goals and objectives were discussed and rejected.

At the final Workgroup meeting on August 20, 2009, the Workgroup voted on the proposed range of alternatives and on each program goal and objective. The Workgroup came to consensus that the proposed range of alternatives should be evaluated in this draft PEIR. The Workgroup also reached consensus on each of the proposed program goals and all but one of the proposed objectives (see the first objective listed in “Program Goals and Objectives” above). In December 2009, the Central Valley Water Board issued the [Proposed Long-Term Irrigated Lands Program Alternatives](#) (Central Valley Water Board 2009), incorporated herein by reference, which documents the decisions made by the Regional Water Board and the Workgroup regarding which alternatives should be evaluated in this draft PEIR.

As required under the State CEQA Guidelines Section 15126.6(c), this draft PEIR briefly describes those alternatives that were considered but rejected as infeasible. The reasons for their infeasibility are summarized in Chapter 3, Program Description.

2.6.4 Known Areas of Controversy

In accordance with State CEQA Guidelines Section 15123(b)(2), the areas of controversy known to the Lead Agency, including issues raised by agencies and the public, shall be identified in the EIR.

Through public scoping, the efforts of the Workgroup, and other outreach efforts, the following areas of controversy were identified:

- The costs to growers of implementing a more stringent ILRP will be prohibitive, and suppress the economic sustainability or growth of agriculture.
- Adding a groundwater monitoring element to the ILRP would be unnecessarily duplicative of existing monitoring efforts.
- The alternatives do not contain a clear methodology for defining a groundwater discharger or determining the nature of discharges to groundwater.
- The program does not take adequate steps to offset the costs to rural communities for cleanup of existing water quality impairments that can be linked back to historical agricultural discharges.

2.6.5 Public Comment on This Draft PEIR

This draft PEIR was made available for public review and comment on July 23, 2010. In addition, the Central Valley Water Board will conduct public hearings on the draft document. Comments received at the hearings or received in written form will be considered in development of a final PEIR.

Comments may be sent to:

ILRP Comments
Ms. Megan Smith
630 K Street, Suite 400
Sacramento, CA 95814

Email: ILRPcomments@icfi.com

Fax: (916) 456-6724

2.7 Organization of This Draft PEIR

This draft PEIR contains the following chapters:

- Chapter 1, Summary
- Chapter 2, Introduction
- Chapter 3, Program Description
- Chapter 4, Environmental Setting
- Chapter 5, Environmental Impacts and Mitigation Measures
- Chapter 6, Cumulative and Growth-Inducing Impacts
- Chapter 7, List of Preparers
- Chapter 8, References

Each section in Chapter 5, Environmental Impacts and Mitigation Measures, focuses on a separate resource area and describes the regulatory and environmental setting for that resource area

pursuant to the requirements of CEQA. The State CEQA Guidelines have been considered in determining appropriate thresholds of significance for assessing environmental impacts, including direct, indirect, short- and long-term, cumulative, and unavoidable impacts. Also per the State CEQA Guidelines, feasible mitigation measures are identified wherever possible to reduce significant and potentially significant environmental impacts to a less-than-significant level. Technical information is included as appendices to provide additional details related to key topical areas.

The Central Valley Water Board determined that the program could result in potentially significant impacts on the following resources, which thus warrant close scrutiny:

- Cultural resources
- Noise
- Air quality
- Climate change
- Vegetation and wildlife
- Fisheries
- Hydrology and water quality
- Agriculture resources

The Central Valley Water Board has determined that the program will result in no or less-than-significant direct impacts and no indirect impacts on the following resources, which thus do not warrant close scrutiny:

- Aesthetics
- Geology and soils
- Hazards and hazardous materials
- Land use and planning
- Mineral resources and energy
- Population and housing
- Public services
- Recreation
- Transportation and circulation
- Utilities and service systems