CEQA Portal Topic Paper

Baseline and Environmental Setting

What Are Baseline and Environmental Setting?

Under CEQA, the impacts of a proposed project must be evaluated by comparing expected environmental conditions after project implementation to conditions at a point in time referred to as the baseline. The changes in environmental conditions between those two scenarios represent the environmental impacts of the proposed project. The description of the environmental conditions in the project study area under baseline conditions is referred to as the environmental setting.

Why Is Baseline Important?

Establishing an appropriate baseline is essential, because an inappropriately defined baseline can cause the impacts of the project either to be under-reported or over-reported. A considerable number of CEQA documents have been litigated over the choice of a baseline for a given project, and many CEQA documents have been invalidated for the use of an inappropriate baseline (see Important Cases below).

Establishing the Baseline in an EIR

The State CEQA Guidelines Section 15125 provides the following guidance for establishing the baseline:

An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.

As the Guidelines section makes clear, ordinarily the appropriate baseline will be the actual environmental conditions existing at the time of CEQA analysis (typically when the Notice of Preparation [NOP] is published). In many cases, establishing this “existing conditions” baseline is a straightforward task. However, there are circumstances that may make this task more complex and challenging. A few are discussed here. Others, which are even more complex, or about which court cases do not provide clear guidance, are discussed below under Areas of Controversy.
Resources That Fluctuate over Time

Some environmental resources evaluated in a CEQA document are constant over the time frames typically evaluated (e.g., geological conditions; types of soil underlying the project site; cultural resources present on the site). Other resources fluctuate over long periods of time (e.g., types of public services and utilities provided, population, housing units, number of existing buildings, tree populations). However, there are a number of environmental resources that are subject to substantial fluctuations over the course of days, months, or seasons. It may be difficult or misleading to describe the specific condition of these resources as of a specific date. As an example, flows in rivers and streams are never constant, varying by hour, day, season, and from year to year. Describing the exact flows in a stream as of the baseline date (even if you specified the time) would not necessarily provide a complete or useful description of this resource. Therefore, for such resources, the environmental setting may be described in terms of the historical range of flows, perhaps by month, over the period that records have been kept.

Similarly, traffic volumes also vary by hour of day, day of the week, and from year to year. While the counts are not often taken on the baseline date, they should be taken as close to the date as possible, particularly if traffic volumes are changing substantially over time. Further, if substantial daily variation is expected, traffic counts should be taken on more than one day, to try to capture these variations.

Some biological resources, such as wildlife species, may be present on the project site only during specific seasons, so even if the baseline date is established as a specific date, surveys for biological species should be scheduled during the period when the species are anticipated to be present on the site. Similarly, some rare plant species can be definitively identified only during their flowering period, so, if possible, botanical surveys should be undertaken during those times.

Thus, some flexibility is required in establishing the appropriate date for collecting information on baseline conditions for individual resources. As long as the reasoning for deviating from the normal approach is described and supported by substantial evidence, such deviations are typically acceptable.

When Conditions as of the Date of the NOP Are Not Appropriate to Accurately Describe Impacts

The ultimate goal of the analysis in the EIR is to disclose the impacts of the proposed project to the public and decision makers. There may be times when a deviation from the use of the NOP date to establish the baseline is most appropriate in order to present a fair and accurate description of a project’s expected environmental impacts.

An example of a circumstance that may warrant such a deviation would be the case of a project where the NOP was published, but the initiation of work on the CEQA document was delayed until many years later, when environmental conditions had markedly changed. Under such a circumstance, one should make an effort to obtain and report any information about the resources on the site as of the NOP publication date from old reports, historical aerial
photographs, old photographs, and other sources. However, given the practical difficulties associated with describing the biological resources on the project site as of the NOP date, it may be more appropriate to describe conditions existing when the CEQA analysis actually begins. The reasons for the selection of the baseline date should be described in the environmental document and supported by substantial evidence in the record.

Although the baseline should normally be the same for all resource topics, there are circumstances when this would not make sense or would provide distorted results. For instance, if new sensitive receptors have been constructed adjacent to a project since the NOP was published, and that project would generate noise, large amounts of air pollutants, or noxious odors, these receptors must be included in the description of environmental setting, and impacts on these receptors must be analyzed. Also, under these same circumstances, the biological analysis should use a current list of special-status species, rather than only the species that were listed at the time of the NOP, and the most current lists of species occurrences from state and federal databases should be used.

Appellate cases have determined the propriety of deviating from a baseline of existing conditions on the NOP publication date in a variety of circumstances, including the following:

- Rejecting use of pollutant emission levels allowed under prior permits, but not reflective of actual existing emissions, as a baseline (Communities for a Better Environment v. South Coast Air Quality Management Dist. (2010) 48 Cal.4th 310.)
- Upholding use of a traffic baseline that assumed full occupancy of a department store that was vacant on the NOP publication date based on historical occupancy information. (North County Advocates v. City of Carlsbad (2015) 241 Cal.App.4th 94.)
- Upholding use of 5-year average of annual mining volumes instead of the mining volumes from the year the NOP was published as the baseline for determining environmental impacts. (San Francisco Baykeeper, Inc. v. State Lands Commission (2015) 242 Cal.App.4th 202.)

As a practice pointer, any deviation from the use of conditions existing on the “NOP date” as a baseline should be done only where it presents a better, more accurate presentation of the project’s expected impacts, and should never mask or distort project impacts. Further, it is very important that the reasons for any such deviation be fully explained in the EIR and that the decision to utilize a different baseline be supported by substantial evidence.

**Use of Future Baselines**

For projects that may be implemented over a period of years, or even decades, simply comparing the effects of such a project to a baseline representing existing conditions may not provide a full and accurate picture of the project’s impacts. As an example, if a large development project is intended to be constructed over a 20-year time frame, comparing the traffic generated by the project at full buildout to existing traffic conditions could be misleading, particularly if background traffic levels are projected to grow over time or fully-funded infrastructure improvements are scheduled to be constructed in the interim.
In *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013), 57 Cal.4th 439, the California Supreme Court provided some guidance on the use of a future baseline. In *Neighbors for Smart Rail*, a transportation agency approved a project to construct a light rail line between Culver City and Santa Monica. The line was anticipated to be completed in 2015. When preparing the EIR for that project, the agency used, as a baseline, projected traffic and air quality conditions in the project area in the year 2030, reflecting the Southern California Association of Governments' (SCAG's) 2030 regional demographic projections and its list of transit service and road improvements expected to be in place by 2030. An environmental group sued, arguing that the exclusive use of this “future” baseline was inappropriate because the agency failed to disclose the impacts the project would have on existing environmental conditions in the project area. In siding with the agency, the Supreme Court held that the use of only a future baseline for traffic analyses (and presumably other topic analyses) may be permissible under certain circumstances where an agency can show that an analysis based on existing conditions would tend to be “misleading or without informational value.” In recognition of the Court’s conclusion that the exclusive use of a future baseline is a “departure from the norm stated in Guidelines section 15125(a),” and should apply only to situations where “justified by unusual aspects of the project or the surrounding conditions,” parties should proceed with caution before completely omitting a discussion of existing conditions. The authors offer the following guidance on the steps to be followed when employing a future baseline:

**Show Your Work.** This is always good advice, but this case highlights the need for an EIR to contain a clear explanation of any deviation from normal assumptions or methods. In this case, explain why a future baseline is reasonable and/or necessary.

**Be Specific.** The Supreme Court has set out the circumstances under which a future baseline can be justified. The EIR should include a discussion of how the baseline was established, including the specific unusual aspects of the project or surrounding conditions that justify using a future baseline. In addition, explain how using a future baseline is necessary in order to prevent misinforming or misleading the public and decision makers, and why the particular future baseline date was selected and appropriate. The description/explanation must be supported by substantial evidence in the record.

**Be Reasonable.** Don’t rely exclusively on a future baseline that’s many years beyond the date at which the project would begin operations. The more distant the baseline year, the more difficult it will be to justify. Explain why the projections that the future baseline relies on are indeed reliable and consider using multiple baselines as well to ensure that all impacts are accurately described.

**Evaluate a Mid-Point as Well (Multiple Baselines).** When a future baseline is well beyond the beginning of operations for a project, the EIR must examine the impacts, if any, that would occur

---

1 Based on analysis in The Proper Baselines for Analyzing Traffic and Related Impacts under CEQA (Rivasplata et al. 2013).

2 This court case involved an EIR, but this guidance may apply equally to Initial Studies.
between the commencement of construction and the beginning of operations, and ultimately, buildout. If the project is divided into phases, these provide convenient dates for mid-point analyses. As is true for the analysis at the baseline date, the EIR should disclose whether the impacts at this mid-point are significant and should include appropriate mitigation measures. This can be very useful in determining the timing of needed improvements for projects that may take many years or even decades to reach full implementation.

**Use of Future Baseline Is Unusual.** Using an existing conditions baseline is still warranted in most cases. The Supreme Court, in creating this “unusual aspects of the project/misleading information” rule, is establishing an approach that is applicable only under narrow circumstances. Don’t get carried away and attempt to apply this approach to every impact analysis.

**Establishing a Baseline when Unpermitted or Illegal Activities Occurred before the Baseline Date**

Although rare, occasionally a question arises regarding how to characterize the baseline where the existing conditions (either on-site physical conditions or operations) are the result of illegal activity, including activity inconsistent with existing permits. This issue was addressed in *Fat v. County of Sacramento* (2002), 97 Cal.App.4th 1270, where the court (citing *Riverwatch v. County of San Diego* (1999) 76 Cal.App.4th 1428) noted that the preparation of a CEQA document is not a forum for determining the nature and consequences of the prior conduct of a project applicant and upheld the County’s selection of the NOP issuance date as the baseline date for the IS/MND, despite the fact that the Conditional Use Permit for the airport in question had expired many years earlier. Lead agencies must evaluate impacts against actual conditions existing at the time of CEQA review and are not required to “turn back the clock” and evaluate impacts compared to a baseline condition that predates the illegal activity.

**What Information Should Be Included in the Environmental Setting?**

A description of the environmental setting should be provided for every resource discussed in an Initial Study or EIR. The description of the environmental setting is intended to provide context for the reader to understand the impacts discussed, and for the significance conclusions that are provided. Thus, the preparer should be thoughtful about how much information is included in the environmental setting. Too little information may deprive the reader (and perhaps a judge) of the information needed to understand what circumstances led the writer to conclude that an impact was either significant or less than significant, and why the proposed mitigation would sufficiently address the identified significant impacts. On the other hand, providing too much information may make it unnecessarily difficult for the reader to find the information they need to understand the context (as described earlier). To strike this balance, it is advisable for the writer to view the text from the perspective of a relatively uninformed reader, and to select that setting information which is required to provide the reader with context to understand the
project’s impacts on the resource topic and the circumstances that led to the author’s impact conclusions.

As a simple example, it is not necessary or advisable to provide a great deal of setting information for species you will ultimately determine could not exist in the study area. Similarly, if the proposed project would not have any effect on public services, it is necessary to provide only a brief summary of the public services available in the study area and the entities providing those services.

As another example, it is often necessary to provide an extensive discussion of the history and prehistory of the study area in cultural resources technical reports, as this information is required for reports submitted to the State Historic Preservation Office. However, only that information directly relevant to the impacts of the proposed project on cultural resources need be included in the environmental setting of the Initial Study or EIR.

Similarly, biological resource technical reports typically provide a list of all of the species identified during field surveys conducted at the project site, including both common species and special-status species. Discussions of common species in an Initial Study or EIR is not necessary, as these species are generally not protected, and impacts on them are not considered significant and do not require mitigation. Thus, the discussion of existing conditions in the IS or EIR should focus on special-status species.

The environmental setting should not be confused with the No-Project Alternative, which also provides a baseline of sorts against which the proposed project and other alternatives may be compared. In circumstances where the physical environment in the study area is not projected to change over time, the environment may be the same under the environmental setting and the No-Project Alternative. However, this is often not the case, so the No-Project Alternative should not be used to measure the impacts of the proposed project, establish the significance of impacts, or to establish mitigation measures (State CEQA Guidelines Section 15126.6(e)(1)).

### How Are Baseline and Environmental Setting Addressed in an IS/ND or MND?

Although not explicitly stated, the guidance provided in Section15125 of the State CEQA Guidelines applies to both Initial Studies and EIRs. Because the issuance of an NOP is not required when an Initial Study is prepared, the date that the environmental analysis is begun is typically used as the baseline date. This interpretation is supported by the court’s decision in Fat v. County of Sacramento, which supported the use of the date when environmental analysis began as the baseline for the preparation of an IS/MND.

The guidance used for describing the environmental setting in an EIR as described above under Establishing the Baseline in an EIR applies equally to an Initial Study.
Baseline and Environmental Setting under NEPA

NEPA (40 CFR 1502.14(d)) requires federal agencies to include an analysis of "the alternative of no action" in the analysis of alternatives in Environmental Assessments and Environmental Impact Statements. Commonly referred to as the "No-Action Alternative," this alternative represents conditions that would result if the agency continued existing policy or did not implement the proposed federal action, and, unlike under CEQA, serves as a baseline against which the effects of implementing the proposed action and other alternatives are measured.

The President’s Council on Environmental Quality (CEQ) Memorandum: Questions and Answers about the NEPA Regulations (“40 Questions”), provides further clarifications regarding the No-Action Alternative. It states:

There are two distinct interpretations of "no action" that must be considered, depending on the nature of the proposal being evaluated. The first situation might involve an action such as updating a land management plan where ongoing programs initiated under existing legislation and regulations will continue, even as new plans are developed. In these cases "no action" is "no change" from current management direction or level of management intensity... Therefore, the "no action" alternative may be thought of in terms of continuing with the present course of action until that action is changed. Consequently, projected impacts of alternative management schemes would be compared in the EIS to those impacts projected for the existing plan. In this case, alternatives would include management plans of both greater and lesser intensity, especially greater and lesser levels of resource development.

The second interpretation of "no action" is illustrated in instances involving federal decisions on proposals for projects. "No action" in such cases would mean the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward.

The federal agency has wide discretion to determine the time frame of the No-Action Alternative, which need not represent “existing conditions.” In fact, it is not uncommon for the No-Action Alternative to reflect future conditions, if the proposed action would not be implemented immediately, or would take many years to implement.

Baseline and Environmental Setting in a Joint CEQA/NEPA Document

There may be circumstances where the NEPA No-Action Alternative and CEQA baseline are not the same. The CEQA and NEPA Lead Agencies should meet to discuss the structure and content of the joint document early in the environmental review process, and this discussion should include a determination whether the NEPA No-Action Alternative and the CEQA baseline will be the same or different. For simplicity, it is best if they are the same, but this cannot always
be accommodated, and under such circumstances, it may be necessary to have two impact analyses, one using the CEQA baseline, and the other using the NEPA No-Action Alternative. It should be recognized that, under these circumstances, the CEQA impacts and mitigation measures might be quite different from the NEPA effects analysis and mitigation.

Areas of Controversy Regarding Baseline and Environmental Setting

In upholding the use of a future baseline, *Neighbors for Smart Rail* left unanswered a variety of questions, including the circumstances in which existing conditions would be “uninformative” or “misleading” such that use of an exclusive future baseline is appropriate; how far in the future an EIR may set the baseline when relying on conditions predicted to exist at project opening; and the appropriate point for use of a mid-term baseline. These involve fact-specific questions that are likely to be fleshed out in future published decisions. Until more direction is provided, and because case law cannot address every conceivable situation a Lead Agency might encounter, environmental professionals should be mindful of the importance of clearly explaining the rationale and evidence supporting the decision to use a baseline other than physical conditions existing at the time of the NOP. The adequacy of a document’s baseline is a factual issue to be determined based on whether there is substantial evidence in the record supporting the agency’s determination, and thus a reasonable decision supported by substantial evidence and adequate analysis in the EIR itself should be upheld.

Important Cases

The following published cases involve issues related to baseline and environmental setting:

- *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439:

  A lead agency may rely on a future baseline only if using existing conditions would be uninformative or misleading. The adequacy of that baseline, as well as any decision to use additional future baselines (e.g., a midpoint) will be upheld if supported by substantial evidence. This EIR did not adequately justify its reliance on a baseline representing conditions 15 years after commencement of the project; the EIR neglected any consideration of impacts that might occur during construction or the first 15 years of operation.


  The court upheld a city’s decision not to update the baseline for an EIR’s urban decay analysis despite a substantial delay (7 years) between issuance of the NOP and release of the Draft EIR, where the decision was supported by substantial evidence in the form of a consultant’s report.
Communities for a Better Environment v. South Coast Air Quality Management Dist. (2010) 48 Cal.4th 310:

For modifications to an existing facility, the baseline should represent existing physical conditions, not the maximum operations authorized under the facility’s permit. The court invalidated the agency’s use of permitted emission levels that had never been reached as the baseline for analysis of a proposed expansion. The court recognized that for resources that fluctuate over time, effects might be compared to a point other than the precise time of commencement of CEQA review, if reasonable and supported by substantial evidence.


For a proposal to develop a former farm, the EIR’s use of the landowner’s adjudicated groundwater right of 1,484 acre feet per year (afy) as baseline was upheld despite fact that actual water use at time of NOP was much lower (50 afy) because the adjudicated amount approximated historical water use when the farm was operating and the adjudicated amount was therefore not a “hypothetical” baseline.

San Joaquin Raptor Rescue Center v. County of Merced (2007) 149 Cal.App.4th 645:

An EIR must plainly identify the specific assumptions included in its baseline.

Fat v. County of Sacramento (2002) 97 Cal.App.4th 1270:

The baseline includes existing activities at the project site, even if unlawful (here, airport operations unauthorized by the facility’s conditional use permit)

Save Our Peninsula Committee v. Monterey County Bd. of Supervisors (2001) 87 Cal.App.4th 99:

The Court invalidated the EIR’s baseline for water use, where the EIR presented an array of potential baselines. Decision makers ultimately relied on information provided after commencement of CEQA review, which showed that substantially higher water use had occurred. That information was provided at the end of the environmental review period, not in the EIR itself and therefore not subject to public review. Moreover, no evidence was provided in the record to indicate that the higher use accurately represented historical conditions on the property or those existing at the start of CEQA review.

County of Amador v. El Dorado County Water Agency (1999) 76 Cal.App.4th 931:

The Court found the EIR’s reliance on information concerning only one element of historical water project operations (lake levels and associated related regulatory requirements) as the baseline for evaluation of impacts associated with changes to the water project, was inadequate because it did not contain sufficient information or analysis about historical water releases to adequately assess effects on fish and recreation from proposed changes to project operations.

Riverwatch v. County of San Diego (1999) 76 Cal.App.4th 1428:

Prior illegal activity by an applicant that affects physical conditions to the project site (in this case, illegal dredging) is not relevant to determining the CEQA existing conditions baseline.
The lead agency is not required to turn back the clock and analyze impacts compared to the conditions that existed prior to any unlawful activity.

- **Black Property Owners Ass’n v. City of Berkeley** (1994) 222 Cal.App.4th 974:
  In amending a plan, CEQA review extends only to environmental impacts associated with the amendments. The re-adoption of previously adopted policies without change does not require environmental review.

- **Fairview Neighbors v. County of Ventura** (1990) 70 Cal.App.4th 236:
  For changes to an existing operation, the baseline may reasonably include the facility’s established levels of permitted use. In an EIR for a mining project, the Court allowed traffic numbers occurring when the mine operated at peak capacity pursuant to a prior use permit as the “baseline,” since mine operations varied widely depending on market factors and the peak capacity was actually achieved in prior years.

- **Environmental Planning & Information Council v. County of El Dorado** (1982) 131 Cal.App.3d 350:
  The baseline for analysis of impacts of development under a new General Plan is the existing physical development in the General Plan area, not the level of development that could occur under the existing General Plan, even where the proposed changes would reduce the authorized level of development compared to the existing plan.

### Baseline and Environmental Setting in the State CEQA Guidelines

- **Section 15125(a)**—Requires EIRs to contain a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the NOP is published, or if no NOP is published, at the time environmental analysis is commenced, from both a local and regional perspective.

- **Section 15125(b)**—Indicates that establishing baseline for military base reuse EIRs should consider the principle contained in Section 15229.

- **Section 15125(c)**—Indicates that emphasis should be placed on rare or unique environmental resources when describing the environmental setting.

- **Section 15125(e)**—Provides guidance for establishing baseline when the proposed project is compared to an adopted plan.

- **Section 15126.6(e)(1)**—Clarifies that the No-Project Alternative should not be used as the baseline for the purposes of analyzing the impacts of the proposed project.

- **Section 15229**—Provides guidance for establishing baseline for military base reuse EIRs.
Related CEQA Portal Topics

- Alternatives (in process)

Authors

Craig Stevens, Stevens Consulting—craig@cdstevens.com
Antero Rivasplata, ICF International—Ron.Bass@icfi.com

Reviewers

Kate Wheatley, Taylor & Wiley—kwheatley@taylor-wiley.com
Kelley Taber, Somach Simmons & Dunn—ktaber@somachlaw.com
Demar Hooper, Law Offices of B. Demar Hooper—demar@bdhooperlaw.com

Sources


Date Updated: August 23, 2016

Legal Disclaimer

*The AEP-sponsored CEQA Portal, this topic paper, and other topic papers and information provided as part of the CEQA Portal are not intended as legal advice. The information contained herein is being provided as a public service and has been obtained from sources believed reliable. However, its completeness cannot be guaranteed. Further, additional facts or future developments may affect subjects contained herein. Seek the advice of an attorney before acting or relying upon any information provided herein.*