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Testimony on

***“American Energy Initiative: Identifying Roadblocks to Wind and Solar Energy on Public Lands and Waters,
Part II - The Wind and Solar Industry Perspective”***

June 1, 2011

Exhibit 1 Some Regulatory Categories for Renewable-Energy Permitting

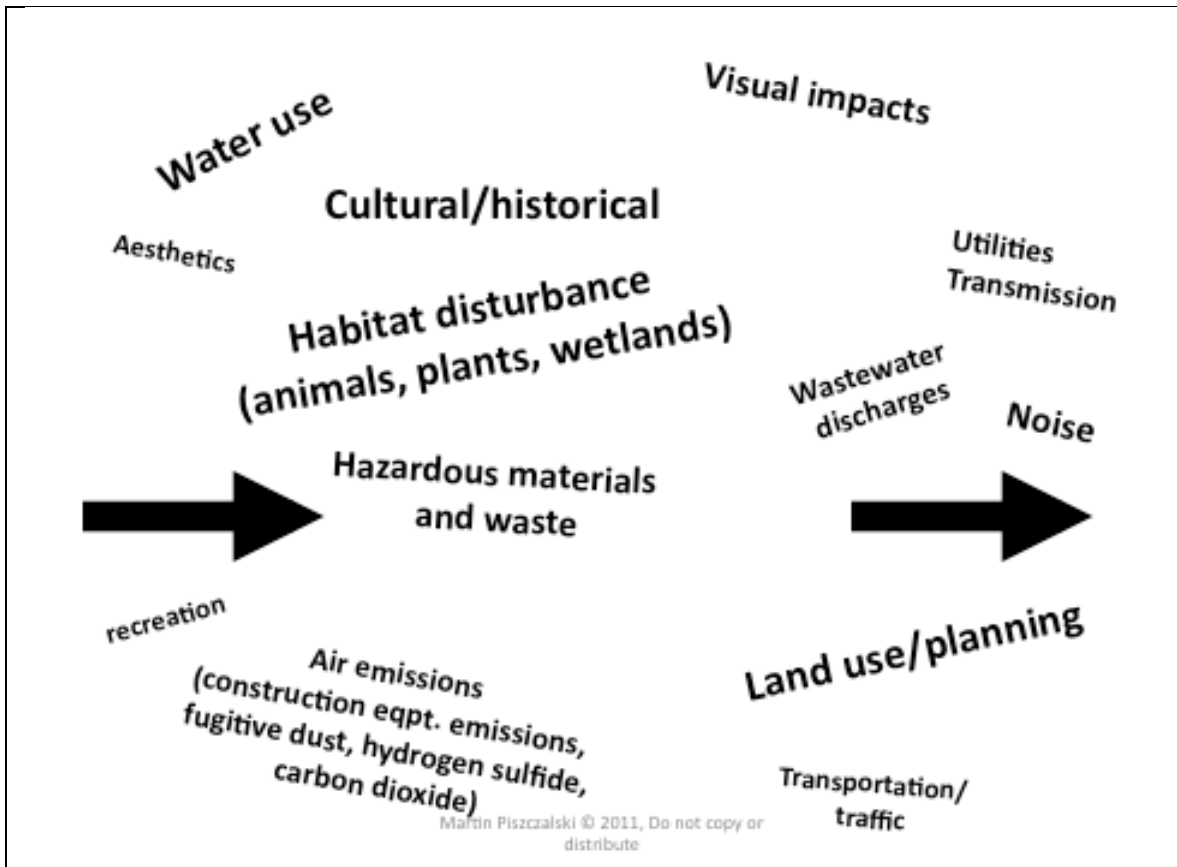
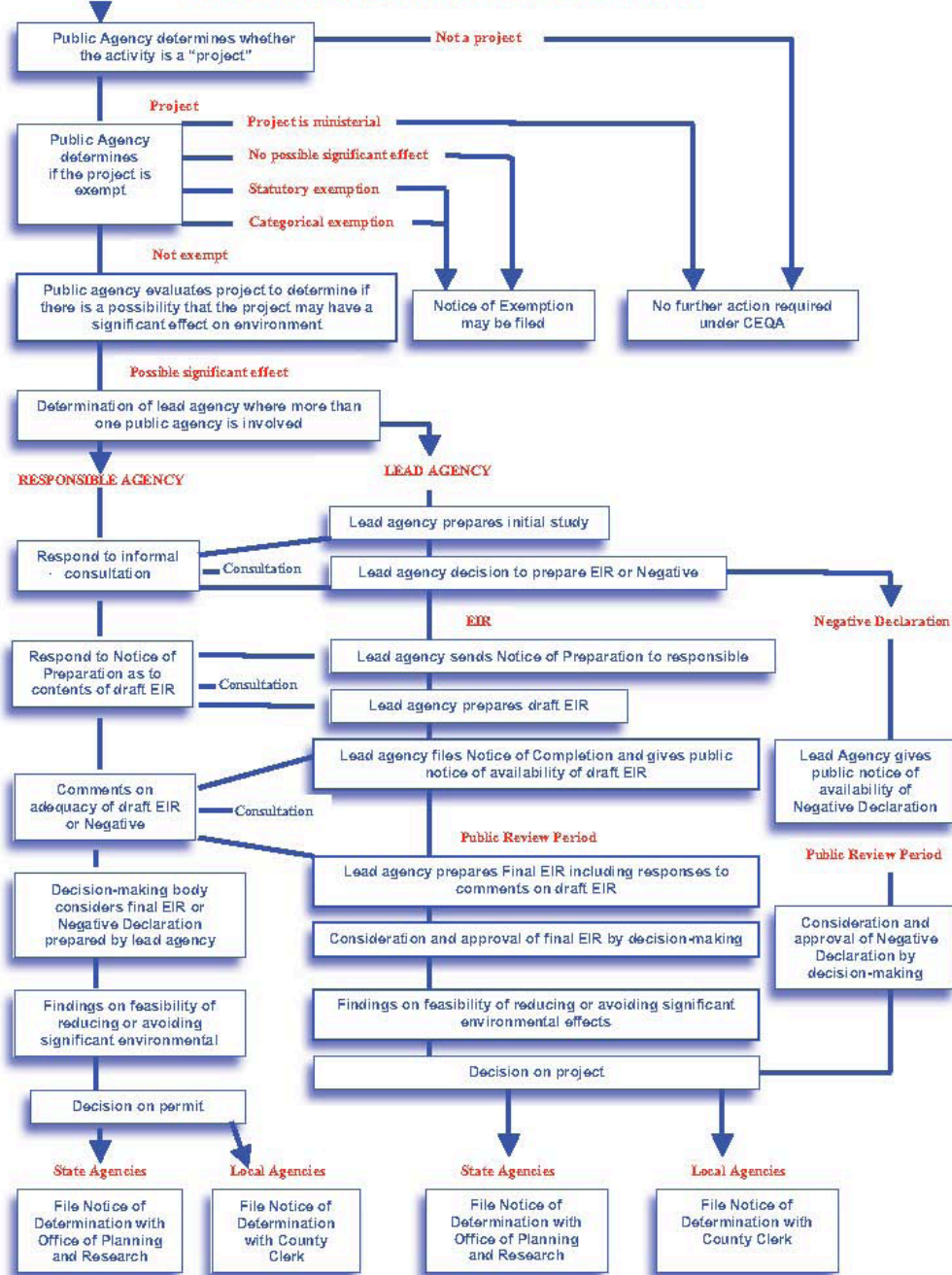


Exhibit 2, Which Agencies? California Environmental

FIGURE 3. CEQA PROCESS FLOW CHART



*http://ceres.ca/gpv/ceqa/images/CEQA_process_chart.gif

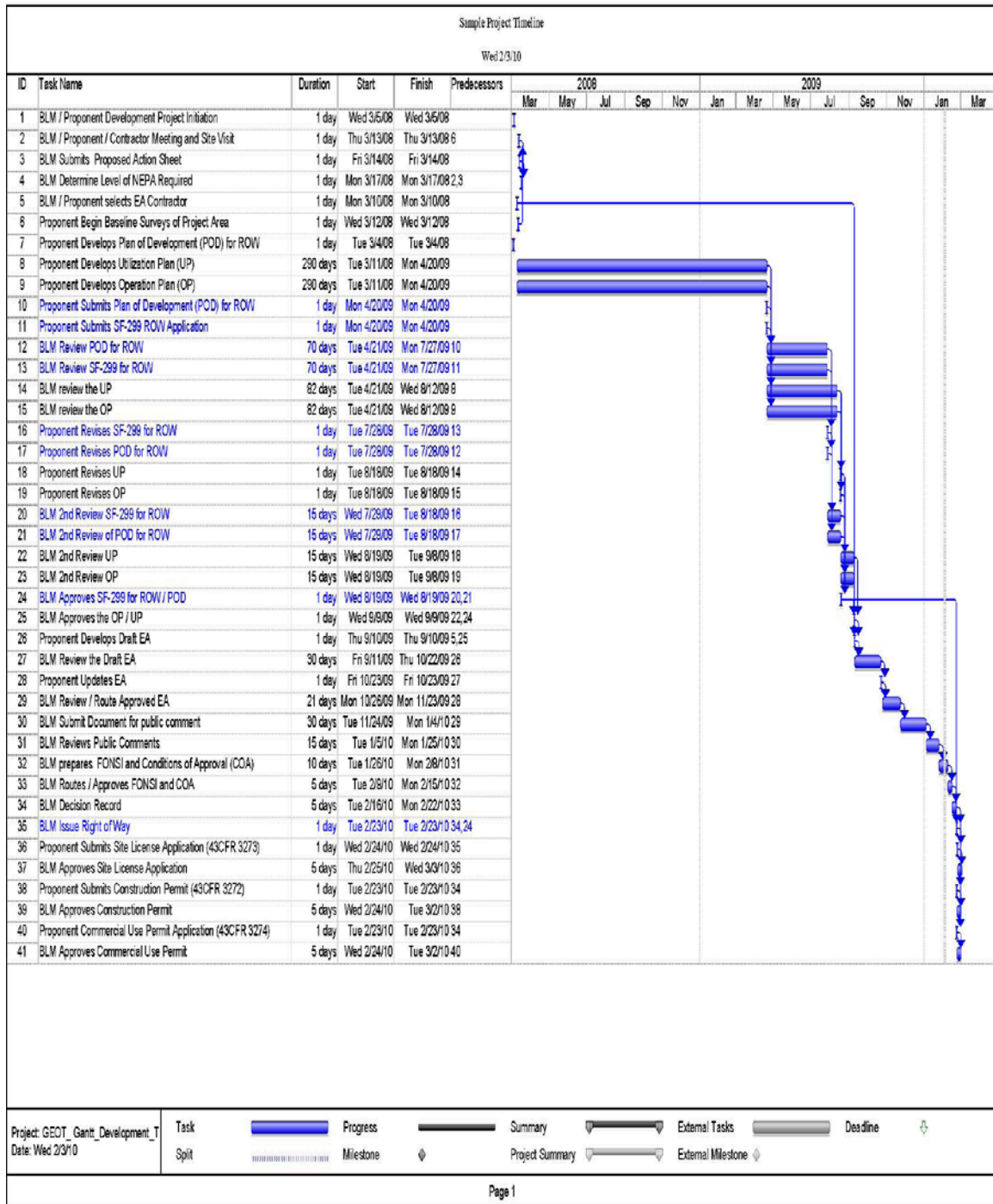
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Exhibit 3, Which Agencies Participate? Some Factors

- Geographical location of project (which state, county...)
- Owner(s) of the resources (Federal, private, State, tribal,...)
 - o Which Federal agency is owner?
- Specific owner for each right: mineral, surface, and water at the site
- Agency funding the development
- Particular technology
- Cultural, Native-American issues
- Endangered, threatened species
- For geothermal: depth of well, water temperatures, resource chemistry
- Power plant size
- Etc.

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Exhibit 4, Sample Project Timeline, BLM NV



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Exhibit 5 'Permitting Risk,' A Definition

I define "permitting risk" as all things that unexpectedly delay getting approval.

From a developer perspective these include all the unexpected i.e., after the project is well underway:

- new study ordered
- new set of regulations that must be met
- a new form or application that must be submitted
- unexpected mitigation
- A regulatory requirement takes much longer than planned or expected
- another agency that must give an approval (i.e., an agency which the developer had not known was part of the process)
- learning that the submitted application is incomplete
- uncertain if agency has regulatory authority to issue permit/approval
(hence, agency may not act)
- discovering that the expected process, procedure or sequence is different than what is actually required by an agency
- learning that one agency's approval is contingent on the action/approval of another agency
- surprised by new stakeholders that previously had not been identified
- a citizen court challenge either to the developer or challenging one of the regulatory agencies
- miscalculating the time, effort, cost to secure approval

In the most severe form, permitting risk is getting denied the necessary approval(s).

Alternately, it could have approval contingent on conditions so onerous that they knock the project out from being commercially viable.

My definition of "permitting risk" is not intended to blame anyone. Rather permitting risks are mainly delays. They negatively impact financing. They impact the time value of money and greatly increase debt service costs. Some developers have a "burn rate" alone of \$2 million/month.

Considering that one project was recently cited as requiring 100 permits and approvals, it should be easy to see how multiple delays occurred, that cumulatively added years to the project. Those delays add millions of dollars to project costs. For instance, Bronicki of Ormat said a geothermal project takes "6 or more years & half of that is taken up in permitting."

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