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STUDY RELATING TO INVERSE CONDEMNATION

PART IV. INVERSE CONDEMNATION: UNINTENDED PHYSICAL DAMAGE

by

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65

OUTLINE

INVERSE CONDEMNATION: UNINTENDED PHYSICAL DAMAGE

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The law of inverse condemnation liability of public entities for unintended physical injuries to private property is entangled in a complex web of doctrinal threads.[1] The stark constitutional mandate that just compensation be paid when private property is "damaged" for public use[2] has induced courts, for want of more precise guidance, to invoke analogies drawn from the law of torts and property as keys to liability vel non.[3] The decisional law contains numerous allusions to concepts of "nuisance",[4] "trespass",[5] and "negligence",[6] as well as to notions of strict liability without fault;[7] seldom do judicial opinions seek to reconcile the divergent approaches. The need for greater uniformity, consistency, and predictability is particularly pressing in the physical damage cases, for they comprise the single most significant class of inverse condemnation claims, whether measured numerically or in terms of the magnitude of potential liabilities. Clarification would also be desirable to mark the borderline between the presently overlapping, and hence confusing, rules governing governmental tort and inverse condemnation liabilities.[8]

Analysis of typical inverse condemnation claims based on unintended tangible property damage will be facilitated by preliminary review of four major strands of doctrinal development: (1) Inverse liability without fault. (2) Fault as a basis of inverse liability. (3) The doctrine of "damnum absque injuria". (4) The significance of private law in the adjudication of inverse liability claims.

A. Inverse Liability Without "Fault"

In 1956, a major landslide occurred in the Portuguese Bend area of Los Angeles County, triggered by the pressure exerted by substantial earth fills deposited by the County in the course of extending a county road through the area. Over five million dollars in residential and related improvements were destroyed by the slide. Although it was known to the County that the surface area overlay a prehistoric slide, competent geological studies had concluded that the land had stabilized and further slides were not reasonably to be expected. In a suit against the County for damages, findings were specifically made to the effect that there was no negligence or other wrongful conduct or omission on the part of the defendant; plaintiffs, however, were awarded judgment on the basis of inverse condemnation. This judgment was affirmed on appeal by the California Supreme Court in Albers v. County of Los Angeles.[9]

Albers thus reconfirmed the previously announced, but often forgotten, principle that liability may exist on inverse condemnation grounds in the absence of fault. Reviewing the prior decisions, the court pointed out that the California courts, from the earliest case[10] interpreting the "or damaged" clause added to California's constitutional eminent domain provision in 1879,[11] had repeatedly held public entities liable for foreseeable[12] physical damages caused by a public improvement project undertaken for public use, whether the work was done carefully or negligently.[13] The problem before the court in Albers was then explicitly stated in these terms:[14]

> The issue is how should this court, as a matter of interpretation and policy, construe article I, section 14, of the Constitution in its application to any case where actual physical damage is proximately caused to real property, neither intentionally nor negligently, but is the proximate result of the construction of a public work deliberately planned and carried out by the public agency, where if the damage had been foreseen it would render the public agency liable.

The conclusion announced was that, in general, "any physical injury to real property proximately caused by the improvement as deliberately designed and constructed is compensable under article I, section 14, of our Constitution whether foreseeable or not."[5]

This conclusion was supported, in the Court's view, by relevant policy considerations:[16]

> The following factors are important. First, the damage to this property, if reasonably foreseeable, would have entitled the owners to compensation. Second, the likelihood of public works not being engaged in because of unseen and unforeseeable possible direct physical damage to real property is remote. Third, the property owners did suffer direct physical damage to their properties as the proximate result of the work as deliberately planned and carried out. Fourth, the cost of such damage can better be absorbed, and with infinitely less hardship, by the taxpayers as a whole than by the owners of the individual parcels damaged. Fifth, . . . 'the owner of the damaged property if uncompensated would contribute more than his proper share to the public undertaking.'

A close reading of the Albers opinion indicates that the rule announced is not as favorable to inverse liability as might appear at first glance. It is clearly not a blanket acceptance of strict liability without fault.[17] Three important qualifications are indicated. First, Albers supports liability absent foreseeability of injury (i.e., without fault) only when inverse liability would obtain on the same facts plus foreseeability (i.e., plus fault). Secondly, the rule is limited to

instances of "direct physical damage". And, finally, the damage must be "proximately caused" by the public improvement as designed and constructed.

The first of these qualifications assumes that inverse liability ordinarily exists-but not invariably[18]- where fault is established. The nature of the "fault" referred to, and thus the dimensions of inverse liability under Albers where fault is not present, are rooted in decisional law that is less than crystal clear. It appears, however, that significant kinds of government projects which ultimately, whether foreseeably or not, produce damage to private property may be undertaken without risk of inverse liability. The Albers opinion explicitly withholds liability, for example, when the public entity's conduct is legally privileged, either under ordinary property law principles or as a non-compensable exercise of the police power.[19]

The second qualification limits the Albers approach to "direct physical damage", thereby excluding instances of non-physical "consequential" damages.[20] The terms, "direct" and "physical", in this context, appear to connote a "definite physical injury to land or an invasion of it cognizable to the senses, depreciating its market value".[21] The cases relied on in Albers, for example, involve structural injury to buildings,[22] erosion of the banks of a stream,[23] waterlogging of agricultural land by seepage from a leaking irrigation canal,[24] and flooding and deposit of mud and silt by an overflowing river.[25] The opinion indicates that non-physical losses, such as decreased business profits or diminution of property values due to diversion of traffic or circuity of travel resulting from a public improvement, are not recoverable under this

rationale.[26]

The third qualification - requiring that the damage be proximately caused by the public improvement as designed and constructed - involves a troublesome conceptual premise. When the defendant's wrongful act or omission does not directly produce the injury complained of, California tort law generally refers to foreseeability of injury as the test of whether the act or omission is sufficiently "proximate" that liability may attach.[27] Recognizing that "cause-in-fact" may, in strict logic, be traced in an endless chain of cause and effect relationships to exceedingly remote events, the reasonable foreseeability test is regarded as a useful mechanism for confining tort liability within rational limits.[28] But the premise of the Albers decision is that neither the harmful consequences of the County's road building project nor the intervening landslide which produced them were foreseeable; the landslide damage was compensable even though wholly unexpected and unforeseeable, and the result of a reasonably formulated and carefully executed plan of construction. Manifestly, the term "proximate cause" must have a special meaning in this context.

Although no decision has been found analyzing in depth the proximate cause concept where inverse liability obtains without fault, the language of several opinions suggests

that it requires a convincing showing of a substantial cause-and-effect relationship which excludes the probability that other forces alone produced the injury.[29] For example, the decisions sometimes speak of the damage in such cases as being actionable if it is the "necessary or probable result" of the improvement,[30] or if "the immediate, direct, and necessary effect" thereof was to produce the damage.[31] Proof that the injurious consequences followed in the normal course of subsequent events, and were predominantly produced by the improvement, seems to be the focus of the judicial inquiry.[32]

The opinion in Albers rejects foreseeability as an element of the public entity's duty to pay just compensation when its improvement project directly sets in motion the natural forces (i.e., landslide) that produce a damaging of private property. Foreseeability may still be a significant operative factor in determining liability in other types of cases, however, such as cases in which independently generated forces, not induced by the entity's actions, contribute to the injury. For example, the construction by a public entity of a culvert through a highway embankment is, by hypothesis, the result of foresight that flooding is likely to occur in the absence of suitable drainage. If the culvert

proves to be of insufficient capacity during normally foreseeable storms, inverse liability obtains because the flooding, as a foreseeable consequence of the project, was proximately caused by the inherently defective design of the culvert.[33] But if at the same location flooding is produced by insufficiency of the culvert to dispose of the runoff of a storm of unprecedented and extraordinary size beyond the scope of human foresight, the project is regarded as not the proximate cause of damage that would not have resulted under predictable conditions.[34] The intervening force, in other words, cuts off and supersedes the original chain of causation; if the public improvement was planned and contructed in a manner reasonably sufficient to cope with foreseeable conditions without causing private damage, the public entity should not be held responsible for damage that results from actual conditions beyond human foresight.[35]

Albers, under this analysis, is not inconsistent with the "act of God" cases. In Albers, the county road project was planned and constructed with reasonable care in light of all foreseeable future conditions; yet, due to unforeseeable circumstances, the project directly set in motion, and thereby substantially caused, the property damage for which compen-

sation was sought. Liability was thus imposed, since, for the policy reasons summarized in the court's opinion, the just compensation clause supports and requires that result where a direct causal connection between a public project and private property damage is established. In the "act of God" cases, however, the direct causal connection is broken by the intervention of an unforeseeable force of nature which, in itself, was not set in motion or produced by the entity's improvement undertaking. Absent causation, compensation is not required. But, to the extent that the intervention of independent natural forces is reasonably foreseeable, the entity's failure to incorporate adequate safeguards for private property into the improvement plan remains a proximate, although concurrent, cause of the resulting damage and thus a basis of inverse liability.

B. Fault as a Basis of Inverse Liability

Most of the pre-Albers decisions in California sustaining inverse liability for unintended physical injury to property are predicated expressly on a fault rationale grounded upon foreseeability of damage as a consequence of the construction or operation of the public project as deliberately planned.[36] On the other hand, a substantial number of

contemporaneous decisions seemingly affirm the proposition that negligence is not a material consideration if, in fact, a taking or damaging for public use has occurred.[37] This apparent inconsistency of basic doctrine, however, appears to be reconcilable.

The key to understanding of the cases, it is believed, is the fact that negligence is only a particular kind of fault. What the courts appear to be saying, although somewhat inexactly perhaps, is that it is not necessary to inquire into the exact nature or quality of the fault upon which inverse liability is predicated, where the facts demonstrate that some form of actionable fault does exist.[38] When the probability of resulting damage is reasonably foreseeable, the adoption and non-negligent execution of a risk-prone plan of public improvement can rationally be deemed, with certain exceptions to be discussed, either (a) negligence in adopting an inherently defective plan, or in failing to modify it or incorporate reasonable safeguards to prevent the anticipated damage,[39] (b) negligent "failure to appreciate the probability that, functioning as deliberately conceived, the public improvement . . . would result in some damage to private property,"[40] (c) "intentional" infliction of the damage, by deliberate adoption of the defective plan

with knowledge that damage was a probable result,[41] or (d) inclusion in the plan, whether negligently or deliberately, of features that violate a recognized legal duty which the public entity, like private persons similarly situated, owes to neighboring owners as a matter of property law.[42] But, in each instance, it is not materially significant whether the "inherently wrong" plan[43] was the product of inadvertence, negligent conduct, or deliberation, for the same result -- inverse liability --- follows in any event, absent a sufficient showing of legal justification for infliction of the harm.

Some form of fault is thus a conspicuous characteristic of inverse liability under California law. The Albers decision does not purport to change this general approach or to reject entirely the frequently expressed position that a public entity defendant "is not absolutely liable"[44] under the just compensation clause irrespective of its involvement in the plaintiff's damage. It merely recognizes an additional occasion for inverse liability by holding that lack of foreseeability does not preclude recovery for directly caused physical property damage which would have been recoverable under a fault rationale had that damage been foreseeable. In effect under Albers, fault is judged

by hindsight rather than by foresight.[45]

C. Damnum Absque Injuria

Two lines of California decisions recognize that public entities are privileged, in certain situations, to inflict physical damage upon private property for a public purpose without incurring inverse liability. In effect, these cases establish two judicially created exceptions to the otherwise unqualified language of the constitutional command that just compensation be paid.

(1) The "police power" cases. In sustaining the liability of Los Angeles County for landslide damage in the Albers case, the Supreme Court explicitly distinguished "cases . . . like Gray v. Reclamation District No. 1500 . . . where the court held the damage noncompensable because inflicted in the proper exercise of the police power."[46] In Gray,[47] plaintiffs' lands were threatened with temporary inundation from Sacramento River flood waters which, due to a partially completed system of levees being built by the defendant reclamation district, would be prevented from continuing, as in the past, to spread out harmlessly over lower lands leaving plaintiffs' property unharmed. In reversing an injunction against the maintenance of

the levees, the court concluded that any damage sustained by plaintiffs would be the consequence of a proper exercise of the police power for which the district was not liable.[48] As an independent alternative ground of decision, it was determined that construction of the district's levees constituted the exercise of a legal right to protect the district's lands against the "common enemy" of escaping flood waters, and for that reason also was noncompensable.[49] The latter ground alone adequately supported the result on appeal; but the opinion discusses, at some length, the scope of the "police power" rationale.

Briefly summarized, Gray reasons that (1) governmental flood control, navigational improvement, and reclamation work is "referable to the police power";[50] (2) damage resulting from a legitimate exercise of the police power is noncompensable, provided the "proper limits" of that power have not been exceeded:[51] and (3) the balance of interests relating to the facts at hand required the conclusion that the damage in question was noncompensable under this test.[52] The factual elements cited as persuasive of this conclusion included the temporary nature of the flooding complained of; the fact that future flooding would be eliminated as soon as the balance of the project was

completed; the availability to plaintiffs of the right of self-protection under the "common enemy" rule; the "vast magnitude and importance" of the flood control project to the state as a whole; and the fact that plaintiffs, like other landowners within the project area, would derive substantial long-term benefits from the abatement of flood damage and improvement of navigation which completion of the project would assure.[53]

Manifestly, Gray does not stand for the proposition that property damage caused by a public improvement based upon the police power is necessarily damnum absque injuria. It suggests, at most, that judicial classification of the project as an exercise of the "police power" adds persuasiveness to the public interest which must be weighed against private detriment in adjudicating compensability. The very term, "police power", is inherently undefinable in any event;[54] its semantic role in the present context is to serve as a shorthand expression denoting the assertion of governmental power to advance public health, safety, and welfare in a qualitatively substantial sense. The interests represented by these public objectives simply outweighed those asserted by the property owners in Gray. Unfortunately, loose language in the opinion,[55] when taken

out of context, fails to convey a correct impression of the actual holding, a defect also perpetuated by some later decisions fully reconcilable on their facts.[56]

The implications of the "police power" exception were subjected to thorough reconsideration by the Supreme Court some twenty-five years later.[57] The factual context was quite different, however. Property owners were seeking inverse recovery for losses of property values (i.e., non-physical damage) allegedly caused by highway improvements. Defendant public entities, relying upon dicta in Gray and its progeny, sought refuge in the doctrine that losses caused by an exercise of the police power were damnum absque injuria. The argument was rejected on the facts before the court, although the continued vitality of the doctrine as properly conceived, was reaffirmed. The police power, said the court, "generally ... operates in the field of regulation, except possibly in some cases of emergency. . . ."[58] The constitutional guarantee of the just compensation clause would be vitiated by a broader view; hence, "the police power doctrine cannot be invoked in the taking or damaging of private property in the construction of a public improvement where no emergency exists."[59] This verbal equivalency of "emergency" and

"police power" is not inconsistent with the interest-balancing approach taken in Gray. It treats governmental action to cope with emergencies as entitled to judicial preference, although not necessarily controlling significance, in the interest-balancing process.

This judicial restatement of the police power theory was reaffirmed, and directly applied, in the 1944 decision in House v. Los Angeles County Flood Control District.[60] Physical damage attributed to levee improvements along the Los Angeles River, which allegedly caused flooding and erosion of plaintiff's land, was held, on demurrer, to be recoverable in inverse condemnation. The court again cautioned that private property damage may be noncompensable when inflicted by government "under the pressure of public necessity and to avert public peril".[61] But plaintiff had alleged that the improvements in question were constructed negligently, pursuant to a plan which was contrary to good engineering practice. Accordingly, under the pleadings, it appeared that "defendant district, with time to exercise a deliberate choice of action in the manner of its installation of the river improvements, followed a plan 'inherently wrong' and thereby caused needless damage" to plaintiff's property.[62] Needless damage,

however, is not damage required by the public necessity that motivates the exercise of the police power. Thus, a cause of action for inverse condemnation was stated since "the principles of nonliability and damnum absque injuria are not applicable when, in the exercise of the police power, private, personal and property rights are interfered with, injured or impaired in a manner or by a means, or to an extent that is not reasonably necessary to serve a public purpose for the general welfare."[63]

The House approach has been consistently followed in later decisions. Thus, in the absence of a compelling emergency, the police power doctrine will not shield a public entity from inverse liability where physical damage to private property could have been avoided by proper design, planning, construction and maintenance of the improvement.[64] The kind of emergency which will preclude inverse liability is, moreover, narrowly circumscribed. Illustrations given in the House opinion itself are limited to "the demolition of all or parts of buildings to prevent the spread of conflagration or the destruction of diseased animals, of rotten fruit, or infected trees where life or health is jeopardized."[65] In the generality of situations within the purview of the present article, it

seems evident that the police power exception is of negligible significance.

(b) The "legal right" cases. A second justification for denying compensation for physical damage caused by public improvements is adduced from analogies to private law. When a private person would be legally privileged to inflict like damage without tort liability a public entity may do so without obligation to pay just compensation.[66] By hypothesis, such damage does not constitute the violation of any right possessed by the injured party.[67] This rule, which is reaffirmed in Albers,[68] has been applied to deny inverse liability in a variety of situations. Examples include cases involving damages caused by public improvements designed to accelerate the flow of a natural watercourse,[69] control the overflow and spread of flood waters,[70] and collect and discharge surface storm waters through natural drainage channels.[71]

The rationale of these "legal right" cases, however, does not imply that the absence of a cause of action against a private person necessarily or invariably precludes a claim for inverse compensation against the state. Broad statements in several decisions, purporting to so declare, were expressly disapproved in the Albers case as stating

the rule "much more broadly than required by the facts."[72] The holding of liability in Albers, in fact, was expressly based upon the assumption that a private person in the position of the defendant county would not be liable.[73] That assumed result, however, was based on findings of fact that denied the existence of fault, a normal prerequisite to private tort liability in all but certain exceptional situations.[74] It was not based on the premise -- which is at the root of the "legal right" cases -- that the defendant was legally privileged to inflict the particular injury. The court's conclusion in Albers thus represents an interpretation of the just compensation clause of the constitution as imposing a broader range of public responsibility than the law of private torts.

D. Private Law as a Basis of Inverse Liability

The private law analogy supporting the "legal right" cases has a reverse side. Inverse liability of public entities has often been sustained on the ground that the entity breached a legal duty, derived from private law, which it owed to the plaintiff.[75] For example, a private person is under a duty to refrain from obstructing a natural stream so as to divert it upon his neighbor's lands.[76] Correspondingly, a public entity that obstructs or diverts

a stream may be liable in inverse condemnation for the resulting damages.[77] Moreover, even when the entity is engaged in privileged conduct, such as the erection of protective works against flood waters, it like private persons, must act reasonably and non-negligently to escape liability.[78]

Use of private legal concepts as a framework for resolving inverse condemnation claims is a reflection, in part, of the judicial expansion of inverse condemnation as a means for avoiding the discredited doctrine of sovereign tort immunity.[79] The constitutional mandate to pay just compensation when private property is "damaged for public use" provides a strong and ready peg upon which to hang a cloak of liability despite a claim of governmental immunity. But the need to establish rational limits to the apparently unqualified constitutional mandate suggests the usefulness of rules of law limiting private tort liability as analogues for denying inverse liability in similar situations. Not unexpectedly, then, inverse condemnation came to be thought of as merely a waiver of governmental immunity, as a self-executing remedy which the injured property owner would not otherwise have against the state and its agencies.[80] As the edifice of govern-

mental immunity began to crumble beneath the weight of exceptions admitted by judicial decisions and occasional legislation, a considerable degree of overlapping of inverse and non-immune tort liabilities became commonplace.[81] Plaintiffs often sued alternatively on inverse and tort theories, with considerable success [82] thereby confirming the notion that inverse condemnation was merely a remedy to enforce substantive standards found in the law of private torts.

The Albers decision, of course, qualified this conception, reaffirming the original position that inverse liability has an independent substantive content which obtains even when private tort liability does not.[83] Shortly before Albers, moreover, the underlying premise of the remedy approach had been largely removed by the final demise of sovereign immunity.[84] In California, as in a number of other states, the old immunity rule has now been supplanted by a comprehensive statutory system of governmental tort liability that is in certain respects broader and in other respects narrower than its private counterparts.[85] As a result, to the extent that the legal principles applied in inverse condemnation litigation remain tied to private tort law analogies, a significant incongruity and source of confusion can be observed between the scope

of governmental tort and inverse liabilities. A conspicuous illustration relates to defects in the plan or design of public improvements, which on private law principles have been held in the past to support inverse liability,[86] but which, under present statutory provisions, ordinarily provide no basis for statutory tort liability.[87]

II. Scope of Inverse Liability: The Experience

The interweaving of the different theoretical strands that make up the tapestry of inverse condemnation law is best revealed by a closer examination of the decisional pattern. For convenience, the cases are here grouped in four categories having similar factual characteristics. First, the water damage cases, probably the single most prolific source of inverse litigation, are examined. Second are cases dealing with physical disturbance of site stability by landslides, loss of lateral support, and like causes. The third group involves physical deprivation of advantageous conditions associated with land ownership, such as loss of water supply, annual accretions, or potability of water (i.e., water pollution). Finally, decisions relating to miscellaneous forms of temporary or "one-time" physical injury to property are reviewed.

A. Water Damage

A significant feature of the inverse condemnation decisions dealing with property damage caused by water -- whether it be damage due to flooding, soaking, silting, erosion, or hydraulic force -- is the tendency of the courts to rely upon rules of private water law. Although the facts do not always lend themselves to this approach, inverse liability of public agencies is determined in the main by the peculiarities of private law rules governing interference with "surface waters", "flood waters", and "stream waters".[88] The judicial disposition to thus blend the complex rules of water law with those governing inverse liability is ordinarily defended on the ground that public entities, in the management and control of their property, should not be subjected to different or more onerous rules of liability than private persons similarly situated.[89] A review of the cases however, suggests that treating public agencies as if they were private individuals, for the purpose of applying rules of water law, has often proved unsatisfactory and confusing. In a number of situations, therefore, the courts have departed from the strict letter of the private rules where overriding policy reasons have been perceived for according

special treatment to public agencies.

(1) Surface water. Water which is "diffused over the surface of the land, or contained in depressions therein, and resulting from rain, snow, or which rises to the surface in springs" is classified as surface water.[90] Private liability for interference with surface water is governed by a wide range of diverse rules throughout the United States, each replete with its own variations.[91] The so-called common law or "common enemy" doctrine accepted in many states, under which each landowner is privileged to fend off surface waters as he sees fit, without regard to the consequences for his neighbors, has generally been rejected by California decisions.[92] Instead, the "civil law rule", which recognizes a servitude of natural drainage as between adjoining lands and postulates liability for interference therewith, has been the traditional California approach, in cases involving private litigants[93] as well as in inverse condemnation actions.[94] Under this rule, the duty of both upper and lower landowners is to leave the flow of surface water undisturbed.

In the recent important decision in Keys v. Romley,[95] the Supreme Court, after careful reconsideration of the competing rules and their supporting policies, reaffirmed

California's acceptance of the civil law rule. This rule, the court observed, was consistent with the normal expectation that buyers should take land subject to the burdens of natural drainage; it also had the advantage of greater predictability and correspondingly diminished opportunity for contests than the common law rule. On the other hand, a rigid application of the civil law rule might inhibit property development, since improvements would frequently cause a change in the drainage pattern and thus incur potential liability, especially in urban areas. The court concluded, therefore, that the application of the civil law rule must be governed by a test of reasonableness, judged in light of the circumstances of each case. "No party, whether an upper or a lower landowner, may act arbitrarily and unreasonably in his relations with other landowners and still be immunized from all liability."[96]

Under this modified civil law rule, the issue of reasonableness is "a question of fact to be determined in each case upon a consideration of all the relevant circumstances . . . ."[97] Factors to be taken into account include extent of the damage, foreseeability of the harm, the actor's purpose or motive, and relative utility of the actor's conduct as compared to the gravity of the

harm caused by his alteration of surface water flow. In this balancing of interests, said the court,[98]

> If the weight is on the side of him who alters the natural watercourse, then he has acted reasonably and without liability; if the harm to the lower landowner is unreasonably severe, then the economic costs incident to the expulsion of surface waters must be borne by the upper owner whose development caused the damage. If the facts should indicate both parties conducted themselves reasonably, then courts are bound by our well-settled civil law rule and the upper landowner who changed the drainage pattern is liable for the resulting injuries .

Although the Keys decision involved only private landowners, it presumably affects public entities as well, since inverse liability based on interference with surface waters have generally been resolved in the past by a relatively strict application of the civil law rule. Obstructing the flow of surface waters by a street improvement and thereby causing flooding of lands that otherwise would not have been injured has been held actionable on this rationale.[99] A public entity that gathered surface waters together and discharged them upon lower lands with increased volume or velocity by a drainage system which did not conform to the natural drainage pattern was likewise liable.[100] Similarly, public entities have been held not privileged to collect surface waters by paving of streets and, without providing adequate drains, conduct

them to a low point where they are cast in unusual quantities upon private property that would otherwise not be flooded.[101] But if the gathered waters were discharged into a natural watercourse that was their normal means of drainage, lower owners injured because the channel was inadequate to handle the increased flow were held to have no recourse.[102]

The courts generally applied the civil law rule in a somewhat mechanical manner, apparently without weighing the competing interests identified as relevant to the new rule of reason. It is possible that different results might have been reached had the balancing process been used. For example, the construction of a drainage system by an upper improver that discharges surface waters upon adjoining property in a concentrated stream, where no other feasible alternative is available, may be reasonable and, if relatively slight harm results, non-compensable under the rule in Keys v. Romley.[103] Conversely, the gathering of surface waters into a system of impervious storm drains which follow natural drainage routes may result in greatly increased volume, velocity, and concentration of water, and thus may constitute an unreasonable method for disposing of such water when

weighed against the seriousness of the resulting harm to lower landowners whose property is damaged as a result.[104]

The inverse condemnation cases decided prior to Keys were not entirely consistent, however; some of them departed somewhat from the strict letter of the civil law rule. For example, a few decisions advanced the view that interferences with the flow of surface waters would not be a basis of inverse liability where the obstruction was erected in the exercise of the police power.[105] Other like decisions, reflecting judicial concern that development of an adequate system of public streets and highways not be deterred,[106] tended to relieve public entities from liability for blocking the ordinary discharge of surface waters by the grading and paving of streets, with resulting flooding of lands below street grade.[107] These decisions seem to imply a judicial balancing of interests, similar to the process required by the Keys case, but with the results formulated in different terminology.[108] The label, "police power", for example, assimilates value judgments regarding the importance and social merit of the particular governmental conduct which would be appropriate under the Keys test.

It is thus possible to speculate that the Keys decision may not have fully impaired the authority of all of the earlier surface water decisions; but such conjecture is a flimsy basis for prediction. It is probable, however, that future cases in this area will be resolved by a balancing of interests rather than by mechanical application of arbitrary rules. The principal uncertainties appears to revolve around the degree of weight that will be judicially assigned to the public interest objectives behind governmental improvement projects, and the extent to which the courts will undertake review of the reasonableness of the governmental plan or design which exposed the owner's land to the risk of surface water damage.[109]

(2) Flood water. "It is well established," said Justice Traynor in a leading case, "that the flood waters of a natural watercourse are a common enemy against which the owner of land subject to overflow by those waters may protect his land by the erection of defensive barriers, and that he is not liable for damage caused to lower and adjoining lands by the exclusion of the flood waters from his own property, even though the damage to other lands in increased thereby."[110] Governmental entities acting

for landowners in a particular area may likewise provide flood protection against the common enemy without incurring inverse liability for resulting damages.[111] For the purpose of applying this rule, flood waters are deemed the extraordinary overflow of rivers and streams.[112] Although the terms normally refers to waters overflowing the natural banks of a river, artificial banks or levees maintained over a substantial period of time are treated as natural banks where a community of property owners, in reliance upon their continued existence, has conformed thereto in its land-use activities and in the construction of improvements.[113]

The "common enemy" rule reflects judicial apprehension that property development would be stifled unless an individualistic view were taken by the law. "Not to permit an upper landowner to protect his land against the stream would be in many instances to destroy the possibility of making the land available for improvement or settlement and condemn it to sterility and vacancy."[114] The rule taken literally, contemplates that each landowner has a reciprocal right to protect his own land, without regard for the consequences which his acts may visit upon others; but, conversely, no landowner may stereotype the condition of the river by erecting flood barriers adequate for the moment, and thereby prevent others from later putting up levees of their own that raise the water level and thus make the former works insufficient.[115] An important corollary of the rule recognizes that no liability is

incurred merely because flood control improvements do not provide protection to all property owners.[116] The state, in undertaking to control floods, does not become an insurer of the protected lands;[117] and there are practical limits to the degree of protection that can be provided.[118] In effect, the law recognizes that some degree of flood protection is better than none.

The "common enemy" rule, however, is not applied as an unlimited rule of privileged self-help. Mindful of the enormous damage-producing potential of defective public flood control projects, the courts have insisted that public agencies must act reasonably in the development of construction and operational plans so as to avoid unnecessary damage to private property.[119] Reasonableness, in this context, is not entirely a matter of negligence, but represents a balancing of public need against the gravity of private harm.[120] In an imminent emergency, for example, a reduction in stream level by the deliberate flooding of unimproved private lands in order to prevent substantial and widespread destruction of the entire community by otherwise uncontrolled flood waters may be regarded as a reasonable, and thus noncompensable, exercise of the police power.[121] But a permanent system of flood control that deliberately incorporates a known substantial risk of overflow of flood waters upon private property that in the absence of the improvements would not be harmed exceeds "the humane limits of the police power" and constitutes a compensable taking of an easement

for flowage.[122] The "common enemy" rule likewise does not permit a public entity to establish a system of improvements designed to divert both actual flood waters and natural stream waters out of their natural channel upon property that would not otherwise have been inundated.[123] It is also settled that flood control improvements which are designed or operated in accordance with a negligently conceived plan that causes damage to private property while functioning as deliberately conceived, are a basis of inverse liability even though their object is to control the "common enemy" of flood waters.[124]

The noticeable judicial tendency to reject an unqualified application of the "common enemy" rule may be attributed, in part, to the difficulty of making a sharp factual distinction between flood waters and other waters. For example, when a watercourse which has been improved by flood control measures overflows, it is not always an easy matter to decide whether the flooding resulted from legally privileged efforts to repel the "common enemy" or from an unprivileged diversion of natural stream water.[125] Moreover, in the well-known Archer case, the prevailing opinion explicitly predicates denial of liability for downstream flooding upon the privilege of upstream owners to deposit gathered surface waters into natural watercourses; later decisions, however, have explained Archer

as a case of non-liability under the "common enemy" rule governing flood waters.[126] But, apart from difficulties or classification, the trend also appears to represent a judicial conviction that the "common enemy" rule, unmodified by a test of reasonable conduct, would be an unacceptable basis for arbitrary disruption of rationally grounded expectations of private property owners as a consequence of governmental projects the magnitude of which far exceeds the scope of flood protection works reasonably to be anticipated at the hands of neighboring private landowners."[127]

It is generally realized that a strict and literal assertion of the rule, as applied to government flood control projects, could well be disastrous to private interests; accordingly, it has been said, "No court has ever so abused the 'common enemy' doctrine as to constitute it the common enemy of the riparian owner."[128] Finally, the modern approach appears to accept the fact that a rational ordering of duties and liabilities with respect to flood waters is better achieved by the balancing of interests represented in the varying circumstances of individual cases than by a more rigid and inflexible application of defined property rights.[129]

(3) Stream water.[130] The prevalence of natural watercourses makes it inevitable that public improvements will affect the flow of stream waters in a variety of circumstances, causing flooding and erosion to private property. While early cases intimated that such consequences did not amount to a constitutional "taking,"[131] it is now accepted that injuries of this kind, where shown to have been caused by public improvements,[132] can amount to a "damaging" for which just compensation must be paid.[133] The decisions appear to distinguish between governmental improvements that deliberately divert stream waters onto private lands, improvements that obstruct the stream and thus result in overflow and flooding of private lands, and those that merely change the force or direction of the current with resulting erosion of channel banks.

As a rule, "when waters are diverted by a public improvement from a natural watercourse onto adjoining lands the [public] agency is liable for the damage to or appropriation of such lands where such diversion was the necessary or probable result even though no negligence could be attributed to the installation of the improvement."[134] In such cases, the private property "is as much taken or damaged for

a public use for which compensation must be paid as if it were condemned for the construction of a highway or school."[135] Permanently established artificial watercourses are treated like natural ones under this rule, where substantial reliance interests have been generated by passage of time.[136]

Judicial acceptance of inverse liability without fault in diversion cases appears to reflect the strength of the interests of property owners who have acquired and developed land in justifiable reliance upon the continuance of existing watercourses as means of natural drainage.[137] The risk of damage from disturbance of the established stream pattern is regarded as one that cannot with impunity be shifted to the property owner, even under a claim of exercise of the police power, merely to promote the community welfare.[138] The detrimental impact of the contrary rule in discouraging property improvements is apparently regarded as too onerous to permit a withholding of just compensation. Analysis and weighing of the respective interests in the light of the particular facts before the court, however, is not characteristic of these decisions; the rule of liability for diverting stream waters is generally applied in a strictly formal fashion.[139]

Obstructing a natural or artificial[140] watercourse by the construction of a public improvement, on the other hand, has ordinarily been regarded as a basis of inverse liability only when some form of fault is established.[141] For example, the construction of a dam designed to store water constitutes a deliberate taking of the lands thereby inundated[142] as well as of downstream water rights that are destroyed.[143] Likewise, the construction, maintenance, or operation of drainage improvements according to a negligently conceived plan which exposes

private property to a substantial risk of damage by interfering with the flow of water therein is actionable.[144] Again, the building of a street embankment across a known watercourse without providing culverts or other means of drainage, so that foreseeable back-up flooding occurs, requires payment of compensation.[145] Even if culverts are provided, inverse liability obtains if their design characteristics, contrary to sound engineering standards, are insufficient to allow the drainage of reasonably predictable volumes of water flowing in the stream from time to time.[146] Mere routine negligence in maintenance, however, such as the negligent failure to clear debris from an improved flood control channel where the accumulation of such debris is not part of a deliberately conceived program for controlling the flow of storm waters, is not a basis of inverse liability, although it may support liability on a tort theory.[147]

The necessity for pleading and proof of fault in the obstruction cases, while no fault is required for liability in the diversion cases, has caused a certain amount of confusion in the California case law. It is obvious that many kinds of stream obstructions may cause a diversion of stream waters, and diversion normally requires an obstruction of some kind. Whether fault must be shown by the injured property owner thus depends, to some extent, upon how the facts are classified. A deliberate program intended to alter the course of a stream for a public purpose is ordinarily treated under the "diversion" rubric, while unintended flooding is usually attributed to a negligently planned project that creates an "obstruction."[148] The distinction, however, is not a sharply defined one, and plaintiffs have sometimes sought recovery alternatively on both theories grounded in the same facts.[149]

Regardless of the factual approach employed, inverse liability for

interference with stream waters depends upon a showing of proximate causation. In the principal litigation against the State arising our of the virtual destruction of the town of Klamath in the great flood of December, 1964, for example, the trial court denied liability on the alternative grounds that any obstruction to the flow of water allegedly created by either an old bridge, or by a partially completed new bridge, located near the townsite "did not constitute a substantial factor" in causing plaintiffs' damages,[150] and that in any event the damage was caused by the intervention of a superseding force consisting of an extraordinary and unprecedented storm.[151]

A third group of cases dealing with stream waters is concerned with the downstream consequences of natural channel improvement. The narrowing and deepening of a natural watercourse, with construction of a concrete stream bed, for example, may, by preventing absorption of stream waters and eliminating natural impediments to stream flow, greatly increase the total volume, velocity, and concentration of water running in the channel, thereby creating a substantial risk of downstream damage due to overflow or intensified erosion of the stream banks. For policy reasons, centered upon the fear of discouraging upstream land development, this kind of channel improvement (at least insofar as downstream damage results from increased volume of water) is regarded as not an actionable basis for inverse liability[152] unless it is constructed according to an inherently defective or negligently conceived plan.[153] Here again, however, classification of the facts plays a significant role. If the improvements are regarded as causing an alteration in the direction or force of the normal current within the channel, they may readily be . . thought of as having "diverted" the stream; this approach

supports a holding of inverse liability without fault for resulting downstream erosion of the banks.[154] By describing the channel improvements as measures to fight off the common enemy of flood waters, however, attention is focused upon the issue of fault and the alleged defective nature of the improvement plan.[155] The result is to make liability vel non turn ostensibly upon the unarticulated premises that control the classification process, rather than upon a conscientious appraisal of the relativity of public advantage and private harm in the particular factual situation.

(4) Other escaping water cases. The prevailing ambivalent approach, under which some water damage situations are exposed to a "liability without fault" rationale, while others require a showing of intentional or negligent fault, is also observable in cases that do not fit neatly into the foregoing categories. Damage resulting from the overflow of sewers, for example, is recoverable in inverse condemnation if the plaintiff establishes that the sewers were deliberately or negligently designed so as to be inadequate to accommodate the volume of sewage and storm waters reasonably foreseeable in their service area.[156] The element of fault as the basis of liability is underscored by the corollary rule: Inadequacy due to an unprecedented volume of water that could not reasonably be anticipated in the planning process constitutes no basis for inverse liability.[157]

On the other hand, there are also many decisions that flatly approve inverse liability for property damage caused by the seepage of water from irrigation canals, "with or without negligence."[158] The leading case to this effect involves a ruling of the District Court of Appeal that inverse liability for water seepage may be predicated upon a showing of negligent construction or maintenance by an irrigation district. On denying the district's petition for hearing, the Supreme Court, in a unanimous opinion,

expressly disapproved the court's intimations as to the necessity of negligence.[159] Where the damage is "caused directly" by seepage from the district's canal, inverse liability obtains without any showing of fault: "In such cases the care that may be taken in the construction of the public improvement which causes the damage is wholly immaterial to the right of the plaintiff to recover damage, if the improvement causes it."[160] The sudden escape, as distinguished from gradual seepage, of water from a public entity's irrigation canal, however, has been held actionable only upon allegations and proof of defective design or operational plan.[161]

Under the cases, then, inverse liability for water that escapes from irrigation channels or other conduits is sometimes based on fault and sometimes obtains without fault; the choice of rule appears to be a function of classification of the facts, rather than the application of a consistent theoretical rationale. Liability without fault in these situations appears in theory to be an application of the doctrine announced in the famous English case of Rylands v. Fletcher,[162] under which a landowner is strictly liable without fault for damage done to the property of others by the escape of substances with a mischief-producing capacity, such as water, collected and impounded upon his land for some "non-natural" purpose.[163] The theory, however, has little support in other decisional law, for the California courts appear to have rejected the Rylands doctrine as applied to escaping waters.[164] The use of water for irrigation purposes in a semi-arid state such as California, it is said, is not only a "natural" use of land but is useful and beneficial to a degree that should not be deterred by threat of strict liability.[165] Yet, as noted above, the same courts have displayed no reluctance in approving inverse liability for irrigation water seepage without regard for

negligence,[166] and, upon similar facts, also have regularly imposed tort liability without fault on a nuisance theory.[167]

This seeming inconsistency of approach may possibly be reconcilable. An irrigation ditch built and maintained in a careful manner may, nonetheless, be necessarily located where natural conditions (e.g., porous subsoil) make percolation or seepage a predictable risk of the improvement.[168] Proof of fault may then be regarded as immaterial from either an inverse liability or nuisance law viewpoint, because the existence of damage caused by the irrigation improvement supports an inference, as a matter of law, that the defendant either deliberately exposed the plaintiff to the risk of foreseeable harm or negligently adopted a defective plan of improvement that incorporated that risk.[169] Moreover, statutory policy supports the view that seepage damage should be treated as a cost of the water project.[170] On the other hand, when the escaping water is not attributable to some inherent risk of the project as planned, but results from an unexpected deficiency in its practical operation, a specific factual showing of fault may be necessary because the basis for the legal inference is no longer present.[171]

B. Interference With Land Stability

As in water damage cases, the judicial process has had little success in bringing order and consistency to the law of inverse condemnation for damage caused by a disturbance of soil stability. Here, too, the California cases exhibit a schizophrenic tendency to vacillate between a theory of liability based on fault and one that admits liability without fault.

In Reardon v. San Francisco[172] (the earliest California decision interpreting the "or damaged" clause of the 1879 constitution), the city, in the course of a street grading and sewer installation project,

deposited large quantities of earth and rock upon the street surface to raise its grade, causing the unstable subsurface to shift and damage the foundations of plaintiffs' abutting buildings. Although the damage was both foreseeable and foreseen (the city had been warned that it was occurring), the city took no steps to protect plaintiffs' property. The Supreme Court affirmed a judgment for plaintiffs, but did not predicate its decision upon fault. On the contrary, it held that when a landowner is damaged as a consequence of public work, "whether it is done carefully and with skill or not, he is still entitled to compensation for such damage" under the command of the just compensation clause of the constitution.[173] The opinion is a square holding on this point;[174] the court preliminarily had concluded that plaintiffs could not recover on common law tort principles, since no breach of duty owed to them was shown, and that they could not recover inverse damages for a "taking", since no physical invasion of their land had occurred. Plaintiffs' judgment was thus sustained solely upon the ground that their property had been constitutionally "damaged."

The approach taken in Reardon, making fault immaterial to inverse liability for physical damage directly caused by public improvement projects, has been widely accepted in states which, like California, have expanded the just compensation clause of the state constitution to include "damaging" as well as "taking."[175] On almost identical facts, for example, the Supreme Court of Washington has reached the same result as in Reardon.[176] This approach has also been followed extensively in subsequent California decisions,[177] but in an uneven pattern. The collapse of a building due to construction of a tunnel beneath it, for example, has been regarded as a basis of inverse liability without fault.[178] Moreover, affirmance of landslide liability in the recent

Albers decision makes it clear that the Reardon doctrine of inverse liability without fault is part of the current constitutional law of California.[179] Yet, numerous other California decisions exist that seem to affirm fault as an essential prerequisite, at least in some circumstances, to inverse liability.[180]

Even in cases closely analogous to Reardon, dealing with damage resulting from shifting soil, fault has been emphasized as a criterion of inverse liability. Damage to a house caused by excavation in the street for installation of a sewer, which removed lateral support for the plaintiff's land, was held recoverable, for example, because the city's construction plans were "intrinsically dangerous and inherently wrong" according to expert engineering testimony adduced by plaintiff.[181] In sustaining inverse liability under similar circumstances, an attempted police power justification for destruction of lateral support was rejected on the ground that "there is no reason to invoke the doctrine of police power to protect public agencies in those cases where damage to private parties can be averted by proper construction and proper precautions in the first instance."[182] These cases may possibly be explained as a product of unnecessary judicial preoccupation with private law analogies in the development of inverse condemnation law.[183] The opinions themselves, however, contain no intimation of a judicial willingness to recognize inverse liability on any basis other than fault; only by a subtle and sophisticated analysis can they be reconciled with the rationale of the Reardon and Albers decisions.

C. Loss of Advantageous Conditions

The value of real property is often directly dependent upon advantageous conditions physically associated with it, such as an adequate supply of potable water. Government activities, however, may

impair or terminate the existence of such physical attributes and thereby substantially diminish the sum total of the value-enhancing features that comprise the owner's property interest. In an illustrative California case, for example, the construction of a tunnel as part of a minicipal water supply project diverted an underground stream which fed natural springs used by a farmer for irrigation purposes; loss of this valuable water supply source was held to be a compensable damaging of property, although there was no evidence that the city had acted negligently or unreasonably.[184] Similarly, upstream improvements, such as a dam, that divert stream water to governmental purposes in derogation of established water rights of downstream riparian owners also may constitute a basis of constitutional liability.[185] Loss of water supply, however, is recognized as a basis of inverse liability only so far as the injured party is recognized to possess a property right therein.[186]

The crucial significance of private property law concepts in the disposition of cases of this kind is underscored by the recent state Supreme Court case of Joslin v. Marin Municipal Water District.[187] This decision denied compensation to downstream riparian owners for damage caused by loss of accretions of commercial sand and gravel deposits upon their land, which had formerly been carried in suspension by the waters of Nicasio Creek. The defendant district, in order to develop a municipal water supply, had constructed a dam across the creek which obstructed the normal flow of waters and thus terminated the periodic replenishment of sand and gravel used by plaintiffs in their business. The value of plaintiffs' land was allegedly diminished in the amount of $250,000. Inverse liability was denied on the ground that under the prevailing California doctrine of reasonable beneficial use which governs the relative property interests

of riparian owners (such as plaintiffs) and upstream appropriators (such as the defendant district),[188] the plaintiffs' use of the stream waters for acquisition of commercial sand and gravel - commodities in plentiful supply for which no significant interest in development and conservation by stream water usage could be identified - was clearly unreasonable and therefore subordinate, as a matter of law, when contrasted with the district's interest in beneficial use of those waters for domestic and industrial purposes. In effect, no compensable property right of plaintiffs had been taken or damaged.[189]

In Joslin, the court distinguished two important cases relied on by plaintiffs. The first, a decision of the United States Supreme Court, declared that loss of natural irrigation through seasonal overflow of riparian lands, caused by the construction of an upstream dam, constituted a compensable "taking" of the landowners' riparian property interest.[190] Reliance upon seasonal flooding of a stream for agricultural irrigation purposes is a reasonable beneficial use of river water[191] and thus a compensable interest; use for sand and gravel accretions, however, is not reasonable.[192] The second case, a California decision, held that loss of accretions of sand and gravel as the result of the construction of a concrete flood control channel in the bed of a natural watercourse, thereby preventing overflow of the waters and deposit of their contents upon plaintiffs' land, constituted the taking of a property right the value of which was required to be included in severance damages in the flood control district's eminent domain suit to condemn the channel easement.[193] This decision, however, did not involve a clash between a riparian owner and an upper appropriator in light of the "reasonable and beneficial use" test, but was concerned only with the question of the extent to which the land not taken for flood control purposes, on which plaintiff's long-established gravel

business was situated, had sustained severance damages by reason of the flood control channel project. The Supreme Court in Joslin expressly disapproved any language in that case which intimated that the use of stream flow for replenishment of sand and gravel accretions was a reasonable one or could be regarded as giving rise to a property right as against an appropriator who was putting the water itself to reasonable and beneficial use.[194]

The critical determination whether a particular use of water is reasonable and beneficial "is a question of fact to be determined according to the circumstances in each particular case."[195] Ample room for weighing of relevant policy factors is thus allowed by the rule. For example, in light of the importance to the state's economy and to the health and welfare of its citizens of natural facilities for recreation, the use of navigable lake waters for recreation and as an adjunct to the scenic and recreational use of littoral lands (whose value for that purpose directly depended on the continued existence of the lake) was regarded in the Aitken case as a reasonable beneficial use where the waters were so impregnated with minerals and alkali as to be virtually unusable for domestic or irrigation purposes.[196] The diversion of tributary rivers feeding the lake thus damaged the property rights of littoral owners, requiring just compensation to be paid, even though the diversion was for a clearly reasonable and even more important beneficial use for municipal water supply. The court's opinion relied heavily upon the fact that substantial investments threatened with nearly total loss had been made in reasonable and good-faith reliance upon continuance of the natural lake level.

The inherent uncertainty of the reasonable beneficial use test, as the criterion of compensable water rights, has been substantially

reduced by statutory provisions. The principle in the Aitken case, for example, has been codified in expanded form. Section 1245 of the Water Code makes every municipality that appropriates water from any watershed or its tributaries fully liable to persons within the watershed area for "injury, damage, destruction or decrease in value of [their] property, business, trade, profession or occupation" caused by the appropriation. Priority of appropriative rights to surplus stream water, moreover, is now governed by an application-permit procedure,[197] administered by the State Water Rights Board, which applies to all appropriators including municipalities[198] and seeks to allocate competing claims on "such terms and conditions as . . . will best develop, conserve, and utilize in the public interest the water sought to be appropriated."[199] The concept of beneficial use has also been given greater specificity by statutory declarations to the effect that "domestic use is the highest use and irrigation is the next highest use of water,"[200] together with statutory preferences for appropriations by municipalities for domestic consumption purposes.[201] Finally, provision is made for administrative adjudication of competing claims to water by, as well as for court referral of water rights controversies to, the State Water Rights Board.[202] The existing statutory structure thus appears to provide a stable and orderly basis for determination of water rights and, in connection therewith, for the evaluation of claims to inverse liability based upon loss of enjoyment of rights in stream waters due to governmental activities.

The recognition of water rights as compensable property interests has, in recent years, been accompanied by a growing body of law likewise giving effect to the landowner's interest in the purity of both water and air. Pollution, ordinarily comprised of domestic and industrial wastes, and sometimes of silt, is often attributable to governmental

functions, such as the collection of waste matter in sanitary sewer systems for concentrated discharge (ordinarily after some form of treatment) at a relatively few outlets, or (in the case of silting) public construction projects without adequate erosion controls.[203] Sewage disposal, in addition, sometimes produces pollution of the atmosphere by noxious odors which drastically impair the usability and value of property subjected thereto.[204]

Governmental liability for environmental pollution has often been sustained on a tort theory of nuisance.[205] California case law provides support for this approach.[206] However, it is no longer entirely clear whether governmental nuisance liability will be recognized in California in light of the legislative decision in 1963 placing all governmental tort liability upon a statutory basis and omitting to provide explicitly for liability on a nuisance theory.[207] Inverse condemnation appears to offer an acceptable alternate remedy that would survive legislative disapproval.[208] Before abrogation of sovereign immunity from tort liability, the California cases recognized nuisance liability as an exception to the general rule of tort immunity; but the exception was largely an evolutionary development rooted in inverse condemnation liability for property damage.[209] To the extent that nuisance and inverse liability overlap one another, the inverse remedy would still be available in pollution cases.[210]

Elsewhere, public entities have been held liable on inverse condemnation grounds in such diverse situations as sewage contamination of oyster beds,[211] pollution of private water resources,[212] ocean salt water intrusion upon agricultural lands riparian to a river because of upstream diversion of fresh water,[213] silting of a private lake from erosion of an unstabilized highway embankment,[214]

and persistent pollution of the atmosphere by noxious and offensive odors from a sewage disposal plant.[215] Negligence or other fault is not regarded as essential to liability in these cases; regardless of the care with which the public improvement is operated, if it in fact creates a condition that substantially damages property values, the public entity must absorb the resulting cost.[216] In addition, by placing these decisions upon the constitutional compulsion to pay just compensation, the courts have blocked municipal contentions that liability should not attach to the performance of essential "governmental" functions, such as sewage disposal,[217] and that liability should not be recognized for governmental activities expressly authorized by statute.[218]

The persistence of a nuisance rationale at the heart of the inverse condemnation decisions dealing with environmental pollution damage introduces into the law of inverse liability the same vagaries, uncertainties, and obscurities of decisional processes that plague ordinary tort litigation pursued on a nuisance theory.[219] It may, in addition, blur significant distinctions between the interests represented by public agencies and those which pertain to private persons, that relate to nuisance liability; for example, a comparison of public and private defendants may disclose substantial differences of size, legal responsibility, territorial impact, fiscal resources, and of available practical alternatives, that should be considered in a rational balancing process. On the other hand, the nuisance analogue usefully directs attention to the remedial resources inherent in the powers of equity to abate the source of harm rather than merely award just compensation and thereby confirm the permanence of the injury.[220]

D. Miscellaneous Physical Damage Claims

The factual setting of inverse liability claims is not complete without at least brief attention to a variety of other circumstances in which physical injuries to property have been conceptualized as constitutional "damagings."

(1) Concussion and vibration. Property damage caused by shock waves from blasting and other activities has resulted in varying judicial views.[221] In jurisdictions that recognize inverse liability only for a "taking," structural damage as the result of vibrations from heavy equipment (e.g., a pile driver)[222] or from shock waves caused by blasting,[223] are ordinarily held to be noncompensable. Consistent with the widely recognized rule that injuries caused by blasting in a populated area are an occasion for absolute tort liability,[224] however, California regards such injuries as an inversely compensable "damaging" of property without regard for the care or negligence of the public entity causing them.[225] Moreover, the California decisions have rejected efforts to limit strict liability to damages from blast-projected missiles[226] ruling that plaintiff's right to recovery does not turn on whether the damage was caused by atmospheric concussion, vibration of the soil, or throwing of debris, but upon the extrahazardous nature of the defendant's activities.[227] The same conclusions have been reached with respect to subterranean damage caused by the vibration of a large rocket motor undergoing testing.[228]

The rationale of strict inverse liability for concussion and vibration damage caused by blasting or similar activities has recognized limits; thus, California requires a showing of negligence as a basis of liability where the blasting occurred in a remote or unpopulated area.[229] Activities of this type undertaken in a

residential area are deemed to create a risk of substantial harm which cannot be entirely eliminated even by the use of utmost care; hence, the policies of negligence deterrence and loss distribution support a rule placing strict liability upon the enterprise which exposes property owners to that risk and which is ordinarily in a position best able to administer the loss.[230] In remote and unsettled areas, however, the risk is minimized by environmental conditions; the social utility of property development overrides the relatively slight risk and justifies withholding of liability unless fault is established.[231] This dual rationale incorporates a rough balancing technique of limited scope that may well achieve equitable results, as well as predictability, in allocating losses from blasting and like conduct by private individuals.[232] The cases, however, indicate a judicial disposition to apply the same rules to the solution of inverse liability claims against public entities, without taking into account significant differences between private and public undertakings that may alter the balance of interests.[233]

(2) Escaping fire and chemicals. Claims against public entities for negligently permitting fire to escape from the control of public employees and damage nearby property are deemed to be grounded upon tort theory in California.[234] Until recently, such claims have ordinarily withered on the vine of sovereign immunity.[235] Although the courts have generally refused to regard escaping fire as a basis for inverse liability,[236] it is clear that in a proper case the inverse remedy would be fully applicable. For example, it has been held that a public rubbish disposal dump operated pursuant to a plan that deliberately keeps fire burning to consume trash deposited therein can expose the public entity to statutory tort liability for maintaining a dangerous condition of public property.[237] The same rationale,

however, clearly supports inverse condemnation liability.[238] Fault, in the form of an inherently defective plan involving the use of fire for a public purpose, is the conceptual basis of this application of the just compensation clause. The water seepage cases, which typically impose inverse liability without fault, are regarded as distinguishable.[239] Water seeping from an irrigation ditch creates a relatively permanent condition reducing the utility of the affected land as a direct consequence of the functioning ("public use") of the ditch; fire escaping from control of public employees, however, does not promote the public purpose for which it is employed unless the plan of use itself includes the risk of its escape as an inherent feature of the project functioning as conceived.[240]

Judicial handling of damage claims resulting from drifting of chemical sprays employed for such public objectives as weed or insect control tend to adhere to the same approach as in the escaping fire cases.[241] Mere routine negligence will not support inverse liability, but/deliberately adopted plan of use which includes the prospect of property damage as a necessary consequence of the application of chemicals is recognized as actionable.[242] The trend of the private law cases, however, appears to be toward imposition of strict liability.[243] The tendency of the courts to employ private law analogies in inverse liability cases suggests that the latter decisions may follow suit.

The escaping fire and chemical drift cases further illustrate the overlap of tort and inverse remedies against public entities in California. Under current statutory law, however, the overlap is of little current importance, for an injured property owner today appears to have fully adequate remedial weapons in tort litigation with respect to both escaping fire[244] and chemical drift.[245] There may be some procedural advantages, however, in pursuing the inverse remedy

in certain situations.[246]

(3) Privileged entry upon private property. In the course of performing their duties, public officers often have need, and are commonly authorized by statute, to enter private property to make inspections and surveys, abate public nuisances, and perform other governmental functions.[247] These official entries and related activities on private property, if restricted to reasonable performance of public duties, are privileged and do not constitute a basis of personal tort liability of the public officer.[248] When the privilege is abused, by the commission of a tortious act in the course of the entry, the common law regards the officer as personally liable ab initio for the original trespass and all resulting injuries.[249] The Tort Claims Act of 1963 rejects the ab initio approach, but recognizes liability of both the public entity and its employee for tortious injuries inflicted by the latter during an otherwise privileged entry.[250]

Freedom from trespass liability, however, does not absolve government from inverse condemnation liability. For example, although a public entity may be privileged to enter and remove obstructions from drainage channels running through private property as a means of promoting flood protection, damage sustained by adjoining private property as a result of the work (e.g., piling of rock and debris on channel banks) is compensable.[251] Similarly, a public entity acts fully within its rights in undertaking to install storm drains within an easement traversing private land, until its operations substantially obstruct normal use of the land in ways not shown to be essential to the performance of the work.[252]

The fact that the entry is pursuant to statutory authority does not alter the result. Statutory authorizations for official entries upon private lands are generally held to be valid on their face,[253]

since the courts feel constrained to assume that the contemplated interference with private property rights ordinarily will be slight in extent, temporary in duration, and de minimis in amount. As the leading California case of Jacobsen v. Superior Court[254] declares, the privilege of entry for official purposes will be construed to extend only to "such innocous entry and superficial examination . . . as would not in the nature of things seriously impinge upon or impair the rights of the owner to the use and enjoyment of his property."[255] Minor and trivial injuries, in effect, are noncompensable; the public purpose to be served by the entry requires subordination of private property rights to this limited extent, at least.[256]

The threatened entry which the owner was seeking to prevent in Jacobsen contemplated the occupation of parts of the owner's ranch for two months by municipal water district employees, and the use of power machinery to make test borings and excavations to determine the suitability of the premises for use as a possible water reservoir. Recognizing that the resulting damages could not be a basis of tort liability, absent negligence, wantonness, or malice, the Supreme Court nevertheless concluded that they would constitute a compensable damaging of the owner's right to possession and enjoyment of his property. The district's argument grounded on necessity was rejected; the fact that extensive soil testing, to depths up to 150 feet, was deemed essential to an intelligent evaluation of the suitability of the site for reservoir purposes - a determination that necessarily must precede any decision to institute condemnation proceedings - was insufficient to justify an uncompensated interference with private property of this magnitude.

The specific holding in the Jacobsen case has been obviated by a special statutory procedure, enacted in 1959, as Section 1242.5 of

the Code of Civil Procedure. Public entities with power to condemn land for reservoir purposes are authorized to petition the superior court for an order permitting an exploratory survey of private lands to determine their suitability for reservoir use, when the owner's consent cannot be obtained by agreement. The order, however, must be conditioned upon the deposit with the court of cash security, in an amount fixed by the court, sufficient to compensate the owner for damage resulting from the entry, survey, and exploration, plus costs and attorneys fees incurred by the owner.

Section 1242.5 is limited to reservoir site investigations; yet other types of privileged official entries may also cause substantial private detriment.[257] As suggested below, however, this provision constitutes a useful starting point for generalized legislative treatment of the problem of damage from privileged official entries upon private property.

(4) Physical occupation or destruction by mistake. It is well settled that, absent an overriding emergency, the intentional seizure or destruction of private property by a governmental entity acting in furtherance of its statutory powers subjects it to inverse condemnation liability.[258] De facto appropriations of this type, however, often represent an erroneous exercise of governmental power based upon a negligent, or otherwise mistaken, assumption that the government owns the property taken. In such cases, the view that the entity's actions are merely tortious (and thus nonactionable as against the immune sovereign) have generally been rejected where the dispossession is a permanent one to which a public use has attached.[259] For example, inverse liability obtains where the entity constructs public improvements upon private land which its project officers negligently assume have been acquired for

that purpose.[260] The same result has been reached where the mistake was purely one of law in that the officers acted in the mistaken belief that under pending condemnation proceedings an immediate entry was authorized.[261] Destruction of buildings and other improvements on a private ranch by naval personnel engaged in aerial gunnery and bombing practice, in the erroneous belief that the ranch was included within a naval gunnery range, has also been held a compensable taking.[262]

Although the cited cases appear to be analogous to private trespass actions,[263] significant differences may be noted. Although the public trespass may be capable of being discontinued, the injured party does not have the option, ordinarily open to private litigants, to seek recovery for past damages together with specific removal of the offending structure or condition.[264] Where a public use has intervened, the courts ordinarily refuse to enjoin continuance of the invasion, and relegate the plaintiff instead to recovery of compensation for whatever property damage, past and future, has been inflicted.[265] On the other hand, plaintiffs in factually similar private tort litigation may recover not only for property damage but also for personal discomfort and annoyance caused by the trespassory invasion,[266] while these elements of damage are generally excluded from the purview of inverse condemnation.[267] The overlap of the tort and inverse remedies under present California law is thus somewhat less than complete duplication.[268]

III. Conclusions and Recommendations

The foregoing review of California inverse condemnation law, as applied to claims based on unintentional damaging of private property, discloses three major areas of difficulty to which legislative reform efforts should be directed:

A. Basis of liability:

One of the most striking features of California decisional law in this area is the dual approach to inverse liability. In some kinds of cases (e.g., landslide, water seepage, stream diversion, concussion), present rules appear to impose inverse liability without regard for fault; in others (e.g., drainage obstruction, flood control, pollution) an element of fault is required to be pleaded and proven by the claimant. The confusion produced by this judicial ambivalence has been, in part, compounded by an understandable tendency of counsel to pursue the "safe" course of action. Faced by appellate dicta to the effect that an inverse liability claimant cannot recover against a public entity without pleading and proof of a claim actionable against a private person under analogous circumstances,[269]

plaintiffs' lawyers have often, it seems, proceeded on the erroneous assumption, readily accepted by defense counsel and thus by the court, that a showing of fault was indispensable to success. Appellate opinions in such cases, after trial, briefing, argument, and decision predicated upon that assumption, do little to dispel the theoretical cleavage.[270] Only occasionally have reported opinions explicitly noted, ordinarily without attempting to reconcile, the interchangeability of the "fault" and "no fault" approaches to inverse liability.[271] Even the recent Albers decision, which at least set the record straight by revitalizing the position that inverse liability may be imposed without fault, did not undertake a thorough canvass of the law but left many doctrinal ends dangling. Uniform statutory standards for invocation of inverse condemnation responsibility would thus be a significant improvement in California law, both as an aid to predictability and counseling of claimants and as a guide to intelligent planning of public improvement projects.

It has already been suggested above that the concept of fault, as reflected in the reported decisions discussing it as a basis of inverse liability, includes a broad range of liability-producing acts and omissions which, in

individual cases, are not required to be identified with precision provided the operative facts are located within the extremes.[272] If private property is damaged by the construction of a public improvement, the cases tell us that "the state or its agency must compensate the owner therefor . . . whether the damage was intentional or the result of negligence on the part of the governmental agency."[273] In this typical pre-Albers statement, the kind of fault becomes immaterial, but fault is assumed to be essential. Yet, the case[274] cited in principal support of the quoted statement is also the chief authority relied upon in Albers to sustain liability without fault. Reconciliation of the seeming inconsistency, it is believed, is possible in a manner consistent with acceptable policy considerations.

Each of the variant kinds of fault which are recognized as a potential basis for inverse liability includes the fundamental notion that the public entity, by adopting and implementing a plan of improvement or operation, either negligently or deliberately exposed private property to a risk of substantial but unnecessary loss. Negligence in this context, often appears to be an after-the-fact explanation, couched in familiar tort terminology, of what originally amounted to the deliberate taking of a calculated risk.[275]

Foreseeable damage is not necessarily inevitable damage. Plan or design characteristics that incorporate the probability of property damage under predictable circumstances may later be judicially described as "negligently" drawn; yet, in the original planning process, the plan or design with its known inherent risks may have been approved by responsible public officers as adequate and acceptable for non-legal reasons. For example, the damage, although foreseeable, may have been estimated at a low order of probability, frequency, and magnitude, while the added cost of incorporating minimal safeguards may have been unacceptably high in proportion to available manpower, time and budget.[276] Again, additional or supplementary work necessary to avoid or reduce the risk, although contemplated as part of long-term project plans, may have been deferred due to more urgent priorities in the commitment of public resources. The governmental decision (whether made by design engineers, departmental administrators, budget officers, or elected policy-makers) to proceed with the project under these conditions may thus have represented a rational (and hence, by definition non-negligent) balancing of risk against practicability of risk avoidance.[277]

When the government, acting in furtherance of public objectives, has thus taken a calculated risk that private property might be damaged, and such damage has eventuated, a decision as to inverse liability should be preceded by a discriminating appraisal of the relevant facts. The usual doctrinal approach is surely consistent with this view: "The decisive consideration is whether the owner of the damaged property if uncompensated would contribute more than his proper share to the public undertaking."[278] But whether the loss constitutes more than a "proper" share depends on a careful balancing of the public and private interests involved, so far as those interests are identified, accepted as relevant, and exposed to factual scrutiny.

Assuming foreseeability of damage, the critical factors in the initial stage of the balancing process, as already suggested, relate to the practicability of preventive measures including possible changes in design or location. If prevention is technically and fiscally possible, the infliction of avoidable damage is not "necessary" to the accomplishment of the public purpose.[279] The governmental decision to proceed with the project without incorporating the essential precautionary modifications in the plan thus represents more than a mere determination that effective damage prevention

not expedient It is also a deliberate policy decision to shift the risk of future loss to private property owners in preference to its present absorption as part of the cost of the improvement paid for by the community at large. In effect, that decision treats private damage costs, anticipated or anticipatable but uncertain in timing or amount or both, as a deferred risk of the project. If and when they materialize, however, the present analysis suggests that those costs should be recognized as planned costs inflicted in the interest of fulfilling the public purpose of the project, and thus subject to a duty to pay just compensation.[280]

On the other hand, if the foreseeable damage is deemed technically impossible or grossly impracticable to prevent within the limits of fiscal capability of the public entity, the decision to proceed with the project despite the known danger represents an official determination that public necessity overrides the risk of private loss. The shifting of the loss, to private resources is not sought to be supported on grounds of mere prudence or expedience but on the view that the public welfare requires the project to move ahead despite impossibility of more complete loss prevention. In this situation, an additional variable affects compensation

policy. The magnitude of the public necessity for the project at the particular location, with the particular design or plan conceived for it, must be assessed in comparison to available alternatives for accomplishing the same underlying governmental objective with lower risk, but presumably higher costs (i.e., higher construction and/or maintenance expense, or diminished operational effectiveness).[281] Unavoidable damage of slight or moderate degree, especially where widely shared or offset by reciprocal benefits, does not always demand compensation under this approach, for such damage may be reasonably consistent with the normal expectations of property owners and with community assumptions regarding equitable allocation of public improvement costs. But relevant reliance interests ordinarily do embrace an understanding that the stability of existing property arrangements will not be disturbed arbitrarily, or in substantial degree, by governmental improvements, and that project plans will ordinarily seek to follow those courses of action, among acceptable alternatives, which will minimize unavoidable damage so far as possible.[282]

The importance of the project to the public health, safety and welfare, in relation to the degree of unavoidable risk and magnitude of probable harm to private property,

thus constitute criteria for estimating the reasonableness of the decision to proceed. A change in location of a highway, for example, may add only slightly to length and total construction costs, yet may substantially reduce the frequency or extent of property damage reasonably to be anticipated from interference by the highway with storm water runoff. Alternately the change might make it possible to include more adequate drainage features in the project plans without exceeding budgetary limits. On the other hand, the erection of a massive water storage tank at a particular location may entail a relatively low risk of landslide under foreseeable conditions, yet be justified by emergency considerations (e.g., impending failure of other facilities), the need for adequate hydrostatic pressure peculiarly available by storage at that location, and the costs which pumping equipment, together with longer distribution lines and access roads, would entail if a less suitable location were selected. The calculated risk implicit in such governmental decisions appears capable of rational judicial review, particularly if aided by statutory standards relevant to compensation policy. The factual elements deserving consideration, for example, do not appear unlike those specified in present statutory rules governing

the liability in tort of public entities for dangerous conditions of public property.[283]

Although the preceding discussion has centered chiefly upon the concept of fault as a basis of inverse liability, it seems evident that the risk analysis here advanced could be fruitfully applied also in cases, like Albers, in which inverse liability obtains notwithstanding unforeseeability of injury and absence of fault. Albers may simply embody an implicit hypothesis that practically every governmental decision to construct a public improvement involves, however remotely, at least some unforeseeable risks that physical damage to property may result. In the presumably rare instance where substantial damage does in fact eventuate "directly" from the project,[284] and is capable of more equitable absorption by the beneficiaries of the project (ordinarily either taxpayers or consumers of service paid for by fees or charges) than by the injured owner,[285] absence of fault may be treated as simply an insufficient justification for shifting the unforeseeable loss from the project that caused it to the equally innocent owners. Absence of foreseeability, like the other factual elements in the balancing process, is, in effect, merely a mitigating but not necessarily exonerating circumstance.

The risk analysis here advanced, it is submitted, reconciles most of the seemingly inconsistent judicial pronouncements as to the need for fault as a basis of inverse liability. Consistent with the intent of the framers of the just compensation clause to protect property interests against even the best intentioned exercises of public power,[286] it also avoids a fruitless search for the somewhat artificial moral elements inherent in the tort concepts of negligence and intentional wrongs. It assumes that in the generality of cases, the governmental entity with its superior resources is in a position better to evaluate the nature and extent of the risks of public improvements than are potentially affected property owners, and is ordinarily the more capable locus of responsibility for striking the best bargain between efficiency and cost (including inverse liability costs) in the planning of such improvements.[287] Reduction in total social costs of public improvements may also be promoted by this approach, since political pressure generated by concern for inverse liability costs imposed upon taxpayers may be expected to produce both a reduction in the number of risk-prone projects undertaken and an increase in the use of injury-preventing plans and techniques.[288]

It may be objected, of course, that the risk analysis

assumes the competence of judges and juries to sit in review upon basic governmental policy decisions involving a high degree of discretion and judgment -- a competence explicitly denied by prevailing legislation dealing with governmental liability in tort.[289] However meritorious the objection may be in considering statutory tort policy,[290] it fails in the face of settled constitutional policy regarding eminent domain. The cases are legion which approve inverse condemnation liabilities grounded precisely upon determinations of judges or juries that the consequences of carefully considered discretionary decisions of public officials, including decisions relating to the plan or design of public improvements, amounted to a "taking" or "damaging" of private property for public use.[291] To deny adjudicability in such cases would effectively remove from the purview of the just compensation clause most, if not all, of the very kinds of siutations in which compensation was clearly intended to be available for the protection of property owners.[292] In any event, the risk approach does not directly interfere with official power or discretion to plan or undertake public projects; it merely determines when resulting private losses must be absorbed as part of the cost of such projects.

Certainty and predictability would be significantly improved by the enactment of general legislative standards for determination of inverse liability. The "risk theory" of inverse liability, here suggested, provides a possible approach to uniform guidelines that would eliminate arbitrary distinctions based on fault, absence of fault, and varieties of fault.

Moreover, since it seems likely that the practical impact of the Albers decision will be more frequent imposition of inverse liability without fault,[293] it is noteworthy that the American Law Institute has under consideration a proposal to restate the law of strict tort liability for abnormally dangerous activities by reference to factors not unlike those suggested as appropriate to the "risk theory". Determination whether an activity is "abnormally dangerous", for example, would be determined as a matter of law (i.e., not as a jury question) by considering such factors as the degree of risk, gravity of potential harm, availability of methods for avoiding the risk, extent of common participation in the activity, its appropriateness to the locality, and its social and economic importance to the community.[294] Limitations upon strict liability have also been recommended where the damage was caused by the intervention of an unforeseeable force of nature (i.e., "act of God"),[295] where

plaintiff assumed the risk,[296] and where the injury was due to the abnormally sensitive nature of the plaintiff's activities.[297]

A somewhat similar approach is suggested by the prevailing interpretation of Massachusetts statutes authorizing compensation for "injury . . . caused to . . . real estate" by state highway work.[298] Proceeding from the premise that statutory authority for construction of highways contemplates the use of reasonable care, the Massachusetts courts have concluded that statutory compensation is available only when the claimed damage was a "necessary" or "inevitable" result of the work when performed in a reasonably proper manner.[299] To recover, the claimant must show that the damage was either (a) unavoidable by exercise of due care, or (b) economically impracticable to avoid in fact even if technically avoidable.[300] This dual approach thus imposes inverse (statutory) liability where the plan, design, or method of construction of the public improvement incorporates a deliberately accepted risk of private property injury, but relegates to tort litigation any injuries caused by mere negligence in carrying out the public entity's program.[301]

Private law analogies. The existing judicial gloss on the just compensation clause is, to a considerable degree,

a reflection of legal concepts derived from the private law of property and torts. The analogues, however, are unevenly drawn, sometimes disregarded, and occasionally confused. There is no compelling reason why rules of law designed to adjust jural relationships between private persons should necessarily control the rights and duties prevailing between government and its citizenry.[302] Indeed, the practical significance of the constitutional term, "property" - a term which merely connotes the aggregate of legal interests to which courts will accord protection[303] - is often different, when damage has resulted from governmental conduct, from its meaning when comparable private action caused the injury. For example, the "police power" may immunize government from liability where private persons would be held responsible;[304] conversely, public entities may be required to pay compensation for harms which private persons may inflict with impunity.[305] Yet, in other situations (notably the water damage cases) private law principles are invoked without hesitation as suitable resolving formulae for inverse liability claims.[306]

The present uneasy marriage between private law and inverse condemnation has none of the indicia of a comprehensively planned or carefully developed program of legal cohabitation. Its current status may perhaps best be understood

as the product of episodic judicial development by a process which often regards factual similarity as more important than doctrinal consistency. In this process, the doctrinal treatment invoked in flooding cases tends to beget like handling of other flooding cases, in seepage cases of other seepage cases, and in pollution cases of other pollution cases; cross-breeding between genealogical lines is relatively rare. The interchangeability of private and public precedents has, of course, some superficially deceptive virtues, including consistency and predictability. These apparent advantages, however, are obtained at the risk that significant differences between the interests represented by governmental functions and like private functions may be overlooked and the legal rules correspondingly distorted in their application.

The water damage cases provide a useful illustration of the point. The "common enemy" rule, which California decisions invoke to absolve riparian owners from liability for damage caused by reasonable flood protection improvements, may arguably possess merit as applied to individual proprietors; in the interest of promoting useful land development through individual initiative, the law should not discourage private efforts to take protective action against the emergency of menacing flood waters even though other owners who act less

diligently or are unable to command the resources to protect themselves may sustain losses as a result.[307] Indeed, during the early development of the State, prior to the proliferation of governmental agencies explicitly charged with flood control duties, the owner's privilege to construct protective works was perhaps indispensable to the safeguarding of valuable agricultural lands from destruction.[308] Moreover, potential damage resulting from the undertakings of individuals in this regard is not likely to be extensive or severe.

The rationale of the "common enemy" rule, however, is of dubious validity when considered in the context of governmentally administered flood control projects developed for the collective protection of entire regions. The aggregation of resources and comprehensive nature of most flood control district developments imports a quantum jump in damage potential. For example, a major project may well entail massive outlays of public funds over an extended period of years for the construction of an area-wide network of interrelated check dams, catch basins, stream bed improvements, drainage channels, levees, and storm sewers, all programmed for completion in a logical order dictated primarily by engineering considerations. The realities of public finance may, at the same time, require the cost to be distributed

over a substantial time span, either in the form of accumulations of proceeds from periodic tax levies for capital outlay purposes or through one or more bond issues.

Piecemeal construction, often an inescapable feature of such major flood control projects, creates the possibility of interim damage to some lands left exposed to flood waters while others are within the protection of newly erected works.[309] Indeed, the partially completed works, by preventing escape of waters that previously were uncontrolled, may actually increase the volume and velocity of flooding with its attendant damage to the unprotected lands, often to such a degree that private action to repel the onslaught is completely impracticable.[310] The prevailing private law doctrine embodied in the "common enemy" rule, however, imposes no duty upon the public entity to provide complete protection against flood waters; like private riparians, the entity is its own judge of how extensively to proceed with its improvements. Increased or even ruinous damage fortuitously incurred by (or even designedly imposed upon) the temporarily unprotected owners, due to the inability of the improvements to provide adequate protection to all, is thus not a basis of inverse liability.[311] The constitutional promise of just compensation for property damaged for public use thus yields to the overriding supremacy of an anomalous rule of private law.

Assimilation of private concepts into inverse condemnation law may also produce governmental liability in circumstances of dubious justification. This result, in part, can be caused by the blurred definitional lines which distinguish the various categories of factual circumstances (e.g., "surface water", "stream water", flood water) to which disparate legal treatment is accorded under private law rules.[312] But it also is a consequence of the failure of the private law rules, in their usual articulation, to accord appropriate weight to the special interests that attend the activities of governmental agencies. For example, it is arguable that strict liability for damage resulting from the diversion of water flowing in a natural watercourse may be reasonably sensible as applied to adjoining riparian owners; a contrary view would expose settled reliance interests to the threat of repeated and diverse private interferences that could discourage natural resource development. Stream diversions, however, may be integral features of coordinated flood control, water conservation, land reclamation, or agricultural irrigation projects undertaken on a large scale by public entities organized for that very purpose.[313] Where this is so, the over-all security and welfare of the community

as against water damage or water shortage may well be hurt more by general fiscal deterrents in the form of indiscriminately imposed strict liabilities than by specifically limited liabilities determined by the reasonableness of the risk assumptions underlying each diversion.

Liability in water damage cases, it is submitted, should not be reached by mechanical application of private law formulas, but should be based upon a conscientious appraisal of the overall public purposes being served, the degree to which the loss is offset by reciprocal benefits, the availability to the public entity of feasible preventive measures or of adequate alternatives with lower risk potential, the severity of damage in relation to risk-bearing capabilities, the extent to which damage of the kind sustained is generally regarded as a normal risk of land ownership, the degree to which like damage is distributed at large over the beneficiaries of the project or is peculiar to the claimant, and other factors which in particular cases may be relevant to a rational comparison of interests.[314]

Recent Supreme Court decisions indicate that a balancing approach along these lines will henceforth be taken in cases involving loss of stream water supply and claims of damage resulting from interferrence with surface water.[315]

But it is far from certain whether, absent legislative standards, the balancing process in such cases would take into account all of the peculiar factors appropriate to governmental, but irrelevant to private, nonliability. Similarly, it is arguable that prevailing private law rules governing liability for damage due to concussion and explosion may be unrealistically severe as applied in an inverse condemnation context.[316]

Conversely, growing national concern over problems of environmental pollution[317] is necessarily focused, in part, on the continuing expansion of governmental functions capable of contributing to pollution problems (e.g., sewage collection and treatment, garbage and rubbish collection).[318] Accordingly, a statutory rule of strict inverse liability may arguably be regarded as a desirable incentive to development of on-going intragovernmental anti-pollution programs supported by widespread cost distribution, and thus preferable to application of the somewhat ambiguous legal concepts which have developed in comparable private litigation.[319] The law of inverse condemnation liability for loss of soil stability and deprivation of lateral support, as already noted, is in need of clarification by legislation.[320] Here again, because of the vast volume of construction work undertaken by governmental agencies with

potential damage-producing characteristics, a rational approach--already adopted, for example, in several states, including Connecticut, Massachusetts, Pennsylvania, and Wisconsin--[321] might well substitute a statutory rule of strict inverse liability in place of rules developed for private controversies and predicated upon fault.[322] In connection with damage claims arising from drifting chemical sprays used in governmental pest abatement work, where current statutory provisions appear to impose a large measure of strict liability,[323] legislation would be helpful to clarify applicability of the relevant provisions to public entities.[324]

Legislative development of uniform inverse liability guidelines which avoid reliance upon established private legal rules would, it is submitted, improve predictability and rationality of decision-making. Statutory criteria would also tend to clarify the factors of risk exposure to be considered by responsible public officials, and might well produce systematic improvements in preventive procedures associated with the planning and engineering of public improvements.

A collateral advantage might be the identification of situations, elucidated in the process of formulating

appropriate criteria of public liability, in which reciprocal private liabilities may also appear worthy of legislative treatment: For example, a review of water damage problems in Wisconsin led in 1963 to abrogation of formerly inflexible rules and substitution of a new statutory duty, imposed correlatively upon both public entities and private persons, requiring the use of "sound engineering practices" in the construction of improvements so that "unreasonable" impediments to flow of surface water and stream water would be eliminated.[325] California statutes, however, have taken precisely the opposite stance: private landowners are denied the full benefit of private law rules according upper owners a privilege to discharge surface waters upon lower lying lands, as well as the "common enemy" privilege to repel flood waters, where damage to or flooding of state or county highways results.[326] As standards are developed for inverse liability of governmental entities for injuring private property, consideration should also be given to the possible justification if any, for retention of inconsistent standards, such as these governing the liability of private persons for damage to public property.

Complete displacement of existing private rules may not be essential to an effective legislative program; indeed,

in certain respects those rules may be worthy of retention.[327] Improvement could also take the form of statutory presumptions tied to existing liability criteria. This is essentially the approach now taken in private litigation involving interferences with surface water drainage. Where both parties are shown to have acted reasonably in disposing of and protecting against surface waters, respectively, liability ordinarily falls upon the upper owner who altered the drainage pattern; but the upper owner may still prevail if he establishes that the social and economic utility of his conduct outweigh the detriment sustained as a result.[328] A comparable legislative approach might, for example, provide that property damage newly caused by a public improvement is presumptively recoverable in inverse condemnation if private tort liability would follow on like facts, but is subject to a defense by the public entity grounded upon the existence of overriding justification. Conversely, property damage which public improvements (e.g., flood control works) were intended, but failed, to prevent could be declared, by statute, presumptively non-recoverable, if that result would obtain under private law, in the absence of persuasive evidence adduced by the claimant that the inadequacy of the improvement was attributable to the unreasonable taking by

the entity of a calculated risk that such damage would not result.

Constitutional protection for property rights, it should be noted, does not preclude the fashioning of reasonable inverse liability rules which differ from the rules of liability applied between private property owners. Over half a century ago, the California Supreme Court declared the existence of legislative power to alter the rules of private property law, to the detriment of inverse claimants, to the extent necessary to carry out the beneficent public purpose of government.[329] Moreover, the United States Supreme Court has indicated that the basic content of the "property" rights protected by the just compensation clause is governed by state law,[330] and that "no person has a vested right in any general rule of law or policy of legislation entitling him to insist that it shall remain unchanged for his benefit."[331] Significant changes in settled rules of law have, of course, repeatedly been given effect by the courts in actions against public entities, both in inverse condemnation[332] and in tort actions.[333]

C. Overlap of tort and inverse condemnation law. It is widely recognized that inverse condemnation liabilities developed, in part, as limited exceptions to the governmental

immunity doctrine.[334] The abrogation of that doctrine in California, and the statutory regime of governmental tort liability and immunity which replaced it, have produced inconsistencies between tort and inverse liabilities of governmental entities which are a source of confusion, possible uncertainty and occasional injustice.[335]

The precise status of nuisance as a source of inverse liability, notwithstanding its omission from the purview of statutory tort liabilities recognized by the California Tort Claims Act, is a prime example of law in need of legislative clarification.[336] In addition, the frequent interchangeability of tort and inverse condemnation theories, where property damage has resulted from a dangerous condition of public property, may result in inverse liability notwithstanding a clearly applicable statutory tort immunity.[337] Lack of conceptual symmetry is also seen in the fact that damages, for personal injuries or death are often wholly unrecoverable (due to a tort immunity) even though full recovery for property losses is assured by inverse condemnation law upon precisely the same facts.[338]

The overlap of trespass and inverse condemnation is presently reflected in Section 1242.5 of the Code of Civil Procedure, under which public entities with power to condemn

land for reservoirs may, on petition and deposit of security for damages, obtain a court order authorizing reservoir site investigations upon private land. Ordinarily, of course, official entries upon private land are a privileged exercise of governmental authority.[339] Section 1242.5 was designed to meet the special problem of substantial property damage likely to occur from the kinds of technical operations, including soil tests, trenching, and drilling operations, often necessitated by reservoir investigations.[340] It appears, however, that Section 1242.5 is both too broad and too narrow. By requiring a preliminary court proceeding in all cases, without regard for the degree of improbability that substantial damage will result from the entity's proposed investigatory methods, it imposes a requirement that is often unduly burdensome, time-consuming, and constitutionally unnecessary.[34] At the same time, since other kinds of privileged entries may also result in substantial property damage,[342] Section 1242.5 is more restricted in scope than its policy rationale warrants.

What is required, it is suggested, are general statutory criteria based upon Section 1242.5 but limited to those cases in which its safeguards are most urgently required. It would be desirable, for instance, to make the procedure

mandatory only when the owner's consent is not obtainable through negotiations,[343] and the planned survey (regardless of purpose) includes the digging of excavations, drilling of test holes or borings, extensive cutting of trees, clearing of land areas, moving of quantities of earth, use of explosives, or employment of vehicles or mechanized equipment. Bypassing the formal statutory procedure by voluntary agreement with the owner could be promoted by a statutory requirement that, in any event, the entity at its sole expense must repair and restore the property, so far as possible, after the survey is concluded[344] and, in addition, must compensate the owner for his damages if for any reason the entity is unable fully to restore the premises to their previous condition.[345] Section 1242.5 also has other minor defects that should be avoided in any generalizing of its terms.[346]

Procedural disparities also deserve legislative treatment. The remedy in inverse condemnation generally contemplates the recovery of monetary damages,[347] although in special circumstances, the courts have sometimes developed a "physical solution" where successive future damaging to an uncertain or speculative degree is anticipated.[348] Ordinarily, however, injunctive or other equitable relief is

not available in an inverse condemnation action where a public use of the property has attached.[349] Accordingly, the range of equitable powers to mold decrees to fit the practical situations presented in inverse litigation have seldom been exploited in California inverse condemnation litigation, perhaps on the assumption that "just compensation" contemplates pecuniary relief only.[350] If, by statute, inverse condemnation actions were treated as tort actions, greater flexibility of remedial resources could become available to adjust the relations between the parties in equitable fashion. Moreover, alternative ways to redress the property owner's grievance could be provided, perhaps subject to the public entity's option. In water damage cases, for example, a Wisconsin statute permits the entity to choose whether to pay damages, correct the deficiency, or condemn the rights necessary to allow a continuation of the damage.[351] Qualified judgments, under which a reduction in the amount of the inverse damage award is conditioned upon correction of the cause of the damage, might also be authorized.[352]

It appears reasonably probable, from what has been said, that much of the artificiality of inverse condemnation law, derived largely from its use as a device to evade sovereign immunity, can be eliminated in the process of codification of

statutory standards. Moreover, in cases where unintended physical property damage is the basis of the claim, it is now both possible (due to the demise of sovereign immunity) and desirable (in the interest of greater certainty and predictability,) to develop a single legislative remedy with adequate scope and flexibility to supplant the judicially developed action in inverse condemnation with all of its uncertainties and inconsistencies. The prospect is a worthy challenge for modern law reform.

#65

STUDY RELATING TO INVERSE CONDEMNATION

PART IV. INVERSE CONDEMNATION: UNINTENDED PHYSICAL DAMAGE

by

Arvo Van Alstyne

FOOTNOTES

7. See, e.g. Albers v. County of Los Angeles, 62 Cal. 2d 250, 42 Cal. Rptr. 89, 398 P.2d 129 (1965).

8. Liability for property damage has frequently been sustained in California cases upon alternative theories of inverse condemnation and tort as applied to the same facts. See, e.g., Bauer v. County of Ventura, 45 Cal. 2d 276, 289 P.2d 1 (1955); Granone v. County of Los Angeles, supra note 4.

9. 62 Cal. 2d 250, 42 Cal. Rptr. 89, 398 P.2d 129 (1965).

10. Reardon v. City & County of San Francisco, 62 Cal. 492, 6 Pac. 317 (1885).

11. The historical background of Cal. Const. art. I, § 14 is discussed in Van Alstyne, supra note 3, at 771-76.

12. The Albers opinion appears to treat foreseeability as an element of fault. Cf. Restatement, Torts (2d) 302 (1965). Foreseeability is more typically regarded, in the inverse liability decisions, as an element of proximate cause. See the text, infra, accompanying notes 33-35.

13. See Reardon v. City & County of San Francisco, supra note 10; Tyler v. Tehama County, 109 Cal. 618, 42 P. 240 (1895); Tormey v. Anderson-Cottonwood Irr. Dist., 53 Cal. App. 559, 568, 200 P. 814, 818 (3d Dist. 1921) (opinion of Supreme Court on denial of hearing); Powers Farms v. Consolidated Irr. Dist., 19 Cal. 2d 123, 119 P.2d 717 (1941); Clement v. State Reclamation Board, 35 Cal. 2d 628, 220 P.2d 897 (1950).

These cases, all cited in Albers, do not discuss directly the matter of foreseeability of the damages claimed; the facts in each case, however, are consistent with actual or constructive foresight.

14. Albers v. County of Los Angeles, 62 Cal. 2d 250, 42 Cal. Rptr. 89, 96, 398 P.2d 129, 136 (1965).

15. Id. at , 42 Cal. Rptr. at 97, 398 P.2d at 137.

16. Ibid. The words quoted at the end of the court's passage are taken from Clement v. State Reclamation Board, supra note 13, at 642, 220 P.2d at 905.

17. Efforts to secure judicial approval for the idea that inverse condemnation is a form of strict liability have generally failed. See Youngblood v. Los Angeles County Flood Control Dist., 56 Cal 2d 603, 15 Cal. Rptr. 904, 364 P.2d 840 (1961); Smith v. East Bay Municipal Utility Dist., 122 Cal. App. 2d 613, 265 P.2d 610 (1st Dist. 1954); Curci v. Palo Verde Irrigation Dist., 69 Cal. App. 2d 583, 159 P.2d 674 (4th Dist. 1945).

18. Cf. Van Alstyne, Statutory Modification of Inverse Condemnation: Deliberately Inflicted Injury or Destruction, 20 Stan. L. Rev. 617 (1968).

19. Illustrative decisions cited in Albers include Archer v. City of Los Angeles, 19 Cal. 2d 19, 119 P.2d 1 (1941) (privilege) and Gray v. Reclamation District No. 1500, 174 Cal.

622, 163 P. 1024 (1917) (police power). See text, infra, accompanying notes 46-87.

20. The ambiguous term "consequential damages" is often employed to describe generically the kinds of losses for which inverse condemnation liability is denied where no physical injury to, or appropriation of, tangible property is involved. See Richards v. Washington Terminal Co., 233 U.S. 546, 554 (1914); 2 P. Nichols, Eminent Domain § 6.4432, p. 503 (rev. 3d ed. 1963). One of the purposes for which the 'or damaged' clause was added to the constitution was to narrow the categories of injuries previously regarded as "consequential" and thus noncompensable. See Reardon v. City & County of San Francisco, 66 Cal 492, 6 P. 317 (1885), recognizing that certain kinds of consequential damages were made compensable by the 1879 constitution; Eachus v. Los Angeles Consolidated Elec. Ry. Co., 103 Cal. 614, 37 Pac. 750 (1894) (semble). Thus although some kinds of non-tangible damagings (i.e., loss of property values) resulting from public projects are now compensable, see e.g., Bacich v. Board of Control, 23 Cal. 2d 343, 144 P.2d 818 (1943) (loss of ingress and access) others are still deemed consequential and not within the purview of the just compensation clause. See cases cited infra, note 26. See generally 2 P. Nichols, op. cit., § 6.4432 [2], pp. 508-19.

21. Albers v. County of Los Angeles, 62 Cal. 2d 250, , 42 Cal. Rptr. 89, 95 398 P.2d 129, 135 (1965), quoting from 18 Am. Jur., Eminent Domain, § 139, p. 766 (1939).

22. Reardon v. City & County of San Francisco, 66 Cal. 492, 6 P. 317 (1885).

23. Tyler v. Tehama County, 109 Cal. 618, 42 P.240 (1895).

24. Powers Farms v. Consolidated Irrigation Dist., 19 Cal 2d 123, 119 P.2d 117 (1941) (dictum); Tormey v. Anderson-Cottonwood Irrigation Dist., 53 Cal. App. 559, 200 P. 814 (3d Dist. 1921) (opinion of Supreme Court on denial of hearing).

25. Clement v. State Reclamation Board, 35 Cal 2d 628, 220 P.2d 897 (1950).

26. Such cases as People ex rel. Department of Public Works v. Symonds, supra, 54 Cal. 2d 855, 9 Cal Rptr. 363, 357 P.2d 451 1960 , involving loss of business and diminution of value by diversion of traffic, circuity of travel, etc., do not involve direct physical damage to real property, but only diminution in its enjoyment." Albers v. County of Los Angeles, supra note 21, at , 42 Cal. Rptr. at 96, 398 P.2d at 136. To the same effect, see People ex rel. Department of Public Works v. Ayon, 54 Cal 2d 217, 9 Cal. Rptr. 151, 352 P.2d 519 (1960); People ex rel. Department of Public Works v. Russell, 48 Cal 2d 189, 309 P.2d 10 (1957).

27. See Akins v. County of Sonoma, 67 Cal 2d , 60 Cal. Rptr. 499, 507, 430 P.2d 57, 65 (1967); Mosley v. Arden Farms Co., 26 Cal 2d 213 157 P.2d 372 (1945); Gibson v. Garcia, 96 Cal App. 2d 681, 216 P.2d 119 (2d Dist. 1950). It is not necessary that the extent of harm, or the exact manner in which it is incurred, be foreseeable. See, e.g., Osborn v. City of Whittier, 103 Cal App 2d 609, 230 P.2d 132 (2d Dist. 1951).

28. See Premo v. Grigg, 237 Cal. App 2d 192 197, 46 Cal. Rptr. 683 687 (3d Dist. 1965); W. Prosser, Torts, § 51, pp. 320-21 (3d ed. 1964); F. Harper & F. James, The Law of Torts, 20.5, pp. 1134-51 (1956). The same results are reached, in most but not all cases, by using foreseeability to limit the scope of duty rather than causation. See Green, Foreseeability in Negligence Law, 61 Colum. L. Rev. 1401 (1961).

29. See Restatement, Torts (2d), § 431 comment a, 433 (1965).

30. Youngblood v. Los Angeles County Flood Control Dist. 56 Cal. 2d 603, , 15 Cal. Rptr 904, 906, 364 P.2d 840 842 (1961); Granone v. County of Los Angeles, 231 Cal. App. 2d 629, 42 Cal. Rptr. 34, 47 (2d Dist. 1965).

31 Los Angeles Cemetery Ass'n v. City of Los Angeles, 103 Cal. 461, 37 Pac. 375, 378 (1894). See also, Conger v. Pierce County, 116 Wash. 27, 198 P. 377 (1921).

32. Despite the generality of typical judicial language, see

cases cited supra notes 30, 31, there appears to be an implication running through the decisions that mere cause-in fact under the usual 'but for' test may not be sufficient unless accompanied by a showing that the injurious results were an inescapable or unavoidable consequence. See Great Northern Ry. v. State, 102 Wash. 348 173 P. 40 (1918); Restatement, Torts (2d) § 433, comment d (1965). Cause-in fact in the usual sense must of course, be shown. Youngblood v. Los Angeles County Flood Control Dist., supra note 30; Janssen v. County of Los Angeles 50 Cal. App 2d 45, 123 P.2d 122 (2d Dist. 1942).

33 Granone v. County of Los Angeles, 231 Cal. App 2d 629 42 Cal. Rptr 34 (2d Dist. 1965).

34 Los Angeles Cemetery Ass'n v. City of Los Angeles 103 Cal. 461, 37 P. 375 (1894); Dick v. City of Los Angeles 34 Cal. App. 724, 168 P. 703 (2d Dist. 1917) (dictum). To constitute an unforeseeable "act of God" which cuts off the chaim of causation, however the storm must be truly unforeseeable. The mere fact that it may be a heavy storm of unusual intensity or volume, or even set local records for magnitude, is not enough if heavy storms are expectable in the area. Southern Pacific Co. v. City of Los Angeles, 5 Cal. 2d 545, 55 P 2d 847 (1936)

35 Restatement Torts (2d), § 432(1) (1965). The fact that the

storm was unprecedented and unforeseeable, however, does not absolve the public entity from liability for additional damage which would not have occurred in the absence of the improvement Jeffers v. City of Monterey Park, 14 Cal. App. 2d 113, 57 P 2d 1374 (2d Dist. 1936) Nahl v. Alta Irrigation Dist 23 Cal App 333 137 P 1080 (3d Dist 1913) (dictum) See also Stone v. Los Angeles County Flood Control Dist 81 Cal App 2d 902 185 P 2d 396 (2d Dist. 1947)

36 Bauer v. County of Ventura, 45 Cal 2d 276 289 P.2d 1 (1955) and House v. Los Angeles County Flood Control Dist., 25 Cal. 2d 384, 153 P.2d 950 (1944) are the leading decisions.

37. See cases cited supra note 13.

38 See e.g., Clement v. State Reclamation Board 35 Cal 2d 628 , 220 P 2d 897, 905 (1950); "The construction of the public improvement is a deliberate act of the state or its agency in furtherance of public purposes If private property is damaged thereby the state or its agency must compensate the owner therefor, [citations] whether the damage was intentional or the result of negligence on the part of the governmental agency." (Emphasis supplied) Accord: Reardon v. City & County of San Francisco 66 Cal 492, , 6 P. 317 325 (1885) (conclusion stated that constitution requires compensation to the owner "where the damage is directly inflicted or inflicted by want of care and skill") (emphasis

supplied) Tormey v. Anderson-Cottonwood Irrigation Dist., 53 Cal App. 559, 568, 200 P. 814, 818 (3d Dist. 1921) (holding negligence not essential to inverse liability, since 'the care that may be taken in the construction of the public improvement which causes the damage is wholly immaterial to the right of the plaintiff to recover damage, if the improvement causes it')(opinion of Supreme Court on denial of hearing).

39 See House v. Los Angeles County Flood Control Dist. supra note 36; Granone v. County of Los Angeles, supra note 33 (alternate holding); Beckley v. Reclamation Board, 205 Cal. App 2d 734, 23 Cal Rptr 428 (3d Dist. 1962) (alternate holding); Ward Concrete Co v Los Angeles County Flood Control Dist., 149 Cal App. 2d 840, 309 P 2d 546 (2d Dist. 1957). Cf. Restatement, Torts (2d) § 302 (1965); W. Prosser Torts, § 51 (3d ed 1964).

40 Bauer v County of Ventura, 45 Cal.2d 276, 286, 289 P.2d 1, 7 (1955) (alternate holding). To the same effect, see Kaufman v. Tomich, 208 Cal. 19, 280 P. 130 (1929); Ambrosini v. Alisal Sanitary Dist., 154 Cal. App 2d 720, 317 P.2d 33 (1st Dist. 1957) (alternate holding)

41 Youngblood v Los Angeles County Flood Control Dist., 56 Cal 2d 603, 15 Cal. Rptr 904, 364 P.2d 840 (1961) (dictum); Clement v. State Reclamation Board, supra note 38

42. Pacific Seaside Home for Children v. Newbert Protection Dist., 190 Cal 544, 213 P 967 (1923) (diversion of natural stream); Newman v. City of Alhambra 179 Cal 42, 175 P. 414 (1918) (obstruction of natural drainage); Steiger v City of San Diego, 163 Cal App 2d 110, 329 P.2d 94 (4th Dist 1958) (collection and discharge of surface waters).

43. The quoted phrase is that of Mr. Justice Curtis, in House v. Los Angeles County Flood Control Dist , supra note 36, at , 153 P.2d at 954.

44 Youngblood v. Los Angeles County Flood Control Dist., 56 Cal.2d 603, 15 Cal. Rptr. 904, 905 364 P.2d 840, 841 (1961).

45. See text supra accompanying notes 27-35.

46. Albers v. County of Los Angeles, 62 Cal. 2d 250, , 42 Cal. Rptr. 89 96 398 P 2d 129, 136 (1965).

47. Gray v. Reclamation Dist. No 1500, 174 Cal. 622, 163 P. 1024 (1917).

48. Similar conclusions had been reached in Lamb v. Reclamation Dist. No. 108, 73 Cal 125, 14 P. 625 (1887) and Green v. Swift 47 Cal. 536 (1874), on the basis of facts which occurred prior to adoption of the "or damaged" clause in the 1879 constitution.

49. The common enemy doctrine is discussed in the text, infra accompanying notes 110-129.

50. Gray v. Reclamation Dist. No. 1500, supra note 47, at , 163 P. at 1031.

51. Ibid. The full statement is: "[W]hether in any given instance, as in this instance, the proper limits of the police power have been exceeded, with the result that unlawful confiscation or damage is worked, remains still a question for consideration. . . . Always the question in each case is whether the particular act complained of is without the legitimate purview and scope of the police power. If it be then the complainant is entitled to injunctive relief or to compensation. If it be not then it matters not what may be his loss, it is damnum absque injuria."

52. Id at , 163 P. at 1034.

53. Ibid.

54. See Hadacheck v. Sebastian, 239 U.S. 394, 410 (1915): ". . . we are dealing with one of the most essential powers of government, -- one that is the least limitable." See generally, Sax, Takings and the Police Power, 74 Yale L. J. 36 (1964); Havran, Eminent Domain and the Police Power, 5 Notre Dame Law. 380 (1930). Cf. Goldblatt v. Town of Hempstead, 369 U.S. 590, 594 (1962): "The term 'police power' connotes the time-tested conceptional limit of public encroachment upon private interests. Except for the substitution of the familiar standard of 'reasonableness'

this Court has generally refrained from announcing any specific criteria."

55. The court's police power discussion in Gray relies heavily upon decisions involving the noncompensability of losses of value resulting from police regulations, rather than cases (like Gray itself) in which physical damage or destruction was in issue. The principal cases discussed include Hadacheck v. Sebastian, supra note 54 (decrease in exploitation value due to land-use regulation); Chicago & Alton Ry. Co. v. Tranbarger, 238 U.S. 67 (1915) (regulation requiring construction of drainage culverts by railroad at its own expense); and Chicago B. & Q. Ry. v. Illinois, 200 U.S. 561 (1906) (requirement that railroad deepen, widen, and bridge natural watercourse crossing its right of way). The opinion seems to be oblivious to the distinction clearly recognized as a significant one in more recent times, between property value diminution unaccompanied by physical invasion and losses caused by tangible injury to or interference with use or enjoyment of property. Compare United States v. Causby, 328 U.S. 256 (1946) with Goldblatt v. Town of Hempstead, 369 U.S. 590 (1962).

56. See, e.g., O'Hara v. Los Angeles County Flood Control Dist., 19 Cal. 2d 61, 119 P.2d 23 (1941).

57. Rose v. State of California, 19 Cal 2d 713, 123 P.2d 505 (1942). See also, Bacich v. Board of Control, 23 Cal. 2d 343, 144 P.2d 818 (1943). People v. Ricciardi, 23 Cal.2d 390, 144 P.2d 799 (1943).

58. Rose v. State of California, supra note 57, at , 123 P.2d at 515.

59. Id. at , 123 P.2d at 516.

60. 25 Cal. 2d 384, 153 P.2d 950 (1944). To the same effect, see the anticipatory decision in Smith v. City of Los Angeles, 66 Cal. App. 2d 562, 153 P.2d 69 (1944).

61. Id. at 391, 153 P.2d at 953. See also, to the same effect Archer v. City of Los Angeles, 19 Cal 2d 19, 24, 119 P.2d 1, 4 (1941).

62. Id. at 392, 153 P.2d at 954 The O'Hara case, supra note 56 was distinguished upon the ground that the plaintiff there had failed to allege negligence.

63. Ibid. This position had the explicit concurrence of four members of the court. Traynor, J., with Edmonds, J., concurring, wrote a separate opinion reaching the same result, but on the ground that plaintiff's complaint adequately alleged a negligent and unprivileged diversion of water flowing in a natural channel. Agreement with the majority view of the police power, however, was indicated by this statement: "Barring situations of immediate emergency,

neither the property law nor the police power of the state entitles a governmental agency to divert water out of its natural channel onto private property." Id. at , 153 P.2d at 957. A second concurring opinion was written by Carter J., taking the position that the majority had not gone far enough in recognizing inverse compensability for property damage resulting from public improvements, but agreeing in principle with what he regarded as a 'commendable step" in the right direction. On limiting the scope of the police power doctrine the court was essentially unanimous.

64. Youngblood v. Los Angeles County Flood Control Dist., 56 Cal. 2d 603, 15 Cal. Rptr. 904, 364 P.2d 840 (1961) (dictum); Bauer v. County of Ventura, 45 Cal. 2d 276. 289 P.2d 1 (1955); Ward Concrete Co. v. Los Angeles County Flood Control Dist. 149 Cal. App. 2d 840. 309 P.2d 546 (2d Dist. 1957); Veteran's Welfare Board v. Oakland, 74 Cal App. 2d 818, 169 P.2d 1000 (1st Dist. 1946) Although some of the cases intimate that the rule is limited to instances of damage resulting from defective design or construction, the Bauer case, supra, squarely holds that it obtains also with respect to a defectively conceived plan of maintenance and operation as distinguished from routine negligence in carrying out an otherwise proper plan.

65. House v. Los Angeles County Flood Control Dist., 25 Cal. 2d

384, , 153 P.2d 950, 953 (1944). The problem of inverse liability for deliberate destruction of private property in the kinds of situations referred to by the court is discussed in Van Alstyne, Statutory Modification of Inverse Condemnation: Deliberately Inflicted Injury or Destruction, 20 Stan L. Rev. 617 (1968).

66. See Archer v. City of Los Angeles 19 Cal. 2d 19, 119 P.2d 1 (1941); San Gabriel Valley Country Club v. County of Los Angeles, 182 Cal. 392, 188 P. 554 (1920); Kambish v. Santa Clara Valley Water Conservation Dist., 185 Cal. App. 2d 107, 8 Cal. Rptr. 215 (1st Dist. 1960).

67. See, e.g , Youngblood v. Los Angeles County Flood Control Dist. supra note 64 at , 15 Cal. Rptr. at 906, 364 P.2d at 842: ". . . if a property owner would have no cause of action against a private citizen on the same facts, he can have no claim for compensation against the state under section 14 of article I ." Accord: Bauer v. County of Ventura 45 Cal 2d 276, 282-83, 289 P.2d 1, 5 (1955).

68. Albers v. County of Los Angeles, 62 Cal. 2d 250, , 42 Cal Rptr. 89, 95-96 398 P.2d 129 135-36 (1965). For a recent application of the "legal right" approach, see Joslin v. Marin Municipal Water Dist., 67 Cal 2d 60 Cal Rptr. 377 (1967).

69. San Gabriel Valley Country Club v. County of Los Angeles,

182 Cal. 392, 188 P. 554 (1920).

70. Gray v. Reclamation Dist. No. 1500, 174 Cal. 622 163 P. 1024 (1917) (alternative ground); Lamb v. Reclamation Dist. No. 108, 73 Cal 125, 14 P. 625 (1887) (alternate ground).

71. Archer v. City of Los Angeles, 19 Cal. 2d 19, 119 P.2d 1 (1941).

72. Albers v. County of Los Angeles, supra note 68, at , 42 Cal Rptr. at 95 398 P.2d at 135.

73. Id. at , 42 Cal. Rptr. at 96 n. 3, 398 P.2d at 136 n.3.

74. See, generally, W. Prosser, Torts 506-44 (3d ed. 1964). The court in Albers found it unnecessary to consider whether liability without fault could be supported by private law principles as applied to the facts before it.

75. See, e.g., Beckley v Reclamation Board, 205 Cal. App 2d 734, 23 Cal. Rptr. 428 (3d Dist. 1962) (alternate holding).

76. Horton v. Goodenough 184 Cal. 451, 194 P. 34 (1920).

77. Clement v. State Reclamation Board, 35 Cal 2d 628, 220 P. 2d 897 (1950); Elliott v. Los Angeles County, 183 Cal 472, 191 P. 899 (1920); Smith v. City of Los Angeles, 66 Cal. App. 2d 562, 153 P.2d 69 (2d Dist. 1944).

78. Bauer v. County of Ventura, 45 Cal. 2d 276, 289 P.2d 1 (1955); House v. Los Angeles County Flood Control Dist., 25 Cal 2d 384, 153 P.2d 950 (1944); Granone v. County of Los Angeles, 231 Cal. App. 2d 629, 42 Cal. Rptr. 34 (2d Dist. 1965) (alternate holding).

79. See, generally, Mandelker, Inverse Condemnation: The Constitutional Limits of Public Responsibility, 1966 Wis. L. Rev. 3.

80. See Bauer v. County of Ventura, supra note 78 at 282-83, 289 P.2d at 5: "Section 14 of article I, however, is designed not to create new causes of action but only to give the private property owner a remedy he would not otherwise have against the state for the unlawful dispossession, destruction or damage of his property. . . . The effect of section 14 is to waive the immunity of the state where property is taken or damaged for public purposes."

81. See, e.g., Granone v. County of Los Angeles, 231 Cal App. 2d 629, 42 Cal. Rptr. 34 (2d Dist. 1965) (liability affirmed on alternate grounds of inverse condemnation, nuisance and statutory liability for dangerous condition of public property).

82. See Bauer v. County of Ventura, supra note 80; Granone v. County of Los Angeles supra note 81.

83. Albers v. County of Los Angeles, 62 Cal. 2d 250, , 42 Cal. Rptr. 89, 95, 398 P.2d 129, 135 (1965).

84. Judicial abrogation of sovereign immunity had taken place only 4 years prior to the Albers decision. See Muskopf v. Corning Hospital Dist., 55 Cal. 2d 211, 11 Cal. Rptr. 89, 359 P.2d 457 (1961).

85. California Tort Claims Act of 1963, Cal Gov't Code 810-95.8 (West 1966); A. Van Alstyne, California Government Tort Liability (1964).

86. E.g., Bauer v. County of Ventura, supra note 80 (negligent improvement of drainage ditch by raising of bank); Granone v. County of Los Angeles, supra note 81 (negligently designed culverts).

87. See Cal. Gov't Code § 830.6 (West 1966), exonerating public entities from liability for injuries caused by defective plan or design of public improvements if the design or plan could reasonably have been approved by responsible public officials. This immunity has been given a broad interpretation. Cabell. v. State of California, 67 Cal. 2d 60 Cal. Rptr. 476, 430 P.2d 34 (1967); Becker v. Johnston, 67 Cal. 2d 60 Cal. Rptr. 485, 430 P.2d 43 (1967). See Note, Sovereign Liability for Defective or Dangerous Plan or Design -- California Government Code Section 830.6, 19 Hastings L. J. 584 (1968).

88. See, generally, David, Municipal Tort Liability in California -- Part IV, 7 So. Cal. L. Rev. 295 (1934).

89. Womar v. City of Long Beach, 45 Cal. App. 2d 643, 114 P.2d 704 (2d Dist. 1941).

90. Keys v. Romley, 64 Cal. 2d 396, , 50 Cal. Rptr.273, 275, 412 P.2d 529, 531 (1966) See Tiffany, Real Property, 740 (3d ed. 1939); Restatement, Torts, § 846 (1939).

91. See Kinyon & McClure, Interferences With Surface Waters, 24 Minn. L. Rev. 891 (1940).

92. See Keys v. Romley, supra note 90. But see Lampe v. City & County of San Francisco, 124 Cal. 546, 57 P. 461, 57 P. 1001 (1899).

93. LeBrun v. Richards, 210 Cal. 308, 291 P. 825 (1930); Ogburn v. Connor, 46 Cal. 346 (1873).

94. Archer v. City of Los Angeles, 19 Cal. 2d 19, 119 P.2d 1 (1941); Shaw v. Town of Sebastopol, 159 Cal. 623, 115 P. 213 (1911) (dictum); Los Angeles Cemetery Ass'n v. City of Los Angeles, 103 Cal. 461, 37 P. 375 (1894) (dictum); Corcoran v. Benicia, 96 Cal. 1, 30 P. 798 (1892); Andrew Jergens Co. v. City of Los Angeles, 103 Cal. App. 2d 232, 229 P.2d 475 (2d Dist. 1951).

95. 64 Cal. 2d 396, 50 Cal. Rptr. 273, 412 P.2d 529 (1966). See also, Pagliotti v. Aquistapace, 64 Cal. 2d 873, 50 Cal. Rptr. 282, 412 P.2d 538 (1966).

96. Id. at , 50 Cal. Rptr. at 280, 412 P.2d at 536.

97. Id. at , 50 Cal. Rptr. at 281, 412 P.2d at 537.

98. Ibid.

99. Conniff v. City & County of San Francisco, 67 Cal. 45, 7 P. 41 (1885). See also, Stanford v. City & County of San Francisco, 111 Cal. 198, 43 P. 605 (1896); Los Angeles Cemetery Ass'n v. City of Los Angeles, 103 Cal. 461, 37 P. 375 (1894) (dictum).

100. Inns v. San Juan Unified School Dist., 222 Cal. App. 2d 174,

34 Cal. Rptr. 903 (3d Dist. 1963); Callens v. County of Orange, 129 Cal. App. 2d 255, 276 P.2d 886 (4th Dist. 1954).

101. Steiger v. City of San Diego, 163 Cal. App. 2d 110, 329 P.2d 94 (4th Dist. 1958); Andrew Jergens Co. v. City of Los Angeles, 103 Cal. App. 2d 232, 229 P.2d 475 (2d Dist. 1951); Farrell v. City of Ontario, 39 Cal. App. 351, 178 P. 740 (2d Dist. 1919).

102. Archer v. City of Los Angeles, 19 Cal. 2d 19, 119 P.2d 1 (1941). A mere swale which serves as a natural route for escaping surface waters, but which does not have fixed banks and channel bed, is not a watercourse under this rule. See Steiger v. City of San Diego, supra note 101; Inns v. San Juan Unified School Dist., supra note 100.

103. See Pagliotti v. Aquistapace, 64 Cal. 2d 873, 50 Cal. Rptr. 282, 412 P.2d 538 (1966) (trial court judgment enjoining defendant from damming off discharge of surface waters from plaintiff's paved parking lot, where no other feasible means of disposal existed, reversed for reconsideration under modern "reasonableness" test; dictum suggests that same result may be found proper on remand after balancing of interests). Earlier cases on analogous facts have generally imposed liability. See notes 100-101, supra.

104. Compare Archer v. City of Los Angeles, supra note 102 at 26-27, 119 P.2d at 6 ("A California landowner . . . may

discharge surface waters for a reasonable purpose into the stream into which they naturally drain without incurring liability for damage to lower land caused by the increased flow of the stream") (emphasis added) with Inns v. San Juan Unified School Dist., supra note 100 (district held inversely liable for discharge of surface waters into swale through 28 inch concrete pipe). In other states, inverse liability has been imposed in similar fact situations without regard for fault. See, e.g., Lucas v. Carney, 167 Ohio St. 416, 149 N.E.2d 238 (1958); Snyder v. Platte Valley Public Power & Irrigation Dist., 144 Neb. 308, 13 N.W.2d 160, 160 A.L.R. 1154 (1944).

105. See O'Hara v. Los Angeles County Flood Control Dist., 19 Cal. 2d 61, , 119 P.2d 23, 24 (1941): "In the present case. . . the plaintiffs would have a cause of action against a private person who obstructed the flow of surface waters from their land in the manner have alleged. A governmental agency, however, in constructing public improvements such as streets and highways, may validly exercise its 'police power' to obstruct the flow of surface waters not running in a natural channel without making compensation for the resulting damage . . . . The defendant therefore is under no obligation to compensate for the damage caused by the obstruction." To the same effect, see

Callens v. County of Orange, 129 Cal. App. 2d 255, 276 P. 2d 886 (1954) (dictum). As noted above, text supra accompanying notes 57-65, the police power rationale has been substantially modified by decisions subsequent to O'Hara.

106. See, e.g., Lampe v. City & County of San Francisco, 124 Cal. 546, 57 P. 461, 1001 (1899). The question whether street improvements represent a sufficiently urgent public interest to justify inroads upon the constitutional guarantee of just compensation for "damage" to private property appears not to have been fully considered in any of the surface water decisions. But see Milhous v. State Highway Dept., 194 S.C. 33, 8 S.E.2d 852 (1940) (constitutional property interest prevails without regard for private liability rules, thus requiring holding of state liability for obstructing surface waters notwithstanding "common enemy" rule under which private obstruction would be nonactionable). Loss of direct access, however -- an intangible detriment often far less damaging than flooding -- is regarded as compensable when caused by street improvements. See Bacich v. Board of Control, 23 Cal. 2d 343, 144 P.2d 818 (1943).

107. Corcoran v. City of Benicia, 96 Cal. 1, 30 P. 798 (1892); Dick v. City of Los Angeles, 34 Cal. App. 724, 168 P. 703 (2d Dist. 1917) (dictum). See also, Womar v. City of Long

Beach, 45 Cal. App. 2d 643, 114 P.2d 704 (2d Dist. 1941) (semble). Surface waters flowing in a natural or artificial channel, however, cannot be obstructed with impunity where the result is to cast them upon lands which normally would not have received them. Newman v. City of Alhambra, 179 Cal. 42, 175 P. 414 (1918); Larabee v. Town of Cloverdale, 131 Cal. 96, 63 P. 143 (1900); Conniff v. City & County of San Francisco, 67 Cal. 45, 7 P. 41 (1885); Weisshand v. City of Petaluma, 37 Cal. App. 296, 174 P. 955 (3d Dist. 1918).

108. The opinion in O'Hara, supra note 105, for example, intimates that construction of public improvements along a stream "for purposes of flood control is . . . essential to the public health and safety" and for that reason outweighs the private property interest at stake. The Corcoran case, supra note 107, suggests that the interest of a landowner below official street grade is subordinate to the public interest in grading and paving at grade, since any temporary injury due to impounding of surface waters may be alleviated by bringing the adjoining property up to grade. To the same effect, see Dick v. City of Los Angeles, 34 Cal. App. 724, 168 P. 703 (2d Dist. 1917). Compare Stanford v. City & County of San Francisco, 111 Cal. 198, 43 P. 605 (1896) (inverse liability affirmed

for injury due to flooding of property above street grade as a result of street improvements; Corcoran distinguished as a case where owner assumed the risk of flooding by building below grade.)

109. See Keys v. Romley, supra note 95, and accompanying text. The modified civil law rule adopted in Keys has been treated as applicable to inverse condemnation actions based on alleged damage from interference with surface waters. Burrows v. State of California, 260 Cal. App. 2d , 66 Cal. Rptr. 868 (1968) (holding, under Keys, that burden of pleading and proof that plaintiff lower owner unreasonably failed to take precautions to avoid or reduce injury is upon the defendant state as upper owner).

110. Clement v. State Reclamation Board, 35 Cal. 2d 628, , 220 P.2d 897, 901-02 (1950).

111. Id. See also, San Gabriel Valley Country Club v. County of Los Angeles, 182 Cal. 392, 188 P.554 (1920); Lamb v. Reclamation Dist. No. 108, 73 Cal. 125, 14 P. 625 (1887). The common enemy rule, first announced in California in Lamb, supra, was originally developed in English cases. See Rex v. Commissioners, 8 B.& C. 355, 108 Eng. Rep. 1075 (K.B. 1828).(construction of groins by sewer commissioners to prevent erosion from ocean held privileged as protective measure against the "common enemy").

112. Tiffany, Real Property, § 740 (3d ed. 1939).

113. Clement v. State Reclamation Board, supra note 110; Beckley v. Reclamation Board, 205 Cal. App. 2d 734, 23 Cal. Rptr. 428 (3d Dist. 1962); Weck v. Los Angeles County Flood Control Dist., 80 Cal. App. 2d 182, 181 P.2d 935 (2d Dist. 1947). See also, Natural Soda Products Co. v. City of Los Angeles, 23 Cal. 2d 193, 143 P.2d 12 (1943); 1 Weil, Water Rights in the Western States, § 60, p. 59 (3d ed. 1911).

114. San Gabriel Valley Country Club v. County of Los Angeles, supra note 111, at , 188 P. at 558.

115. Jackson v. United States, 230 U.S. 1 (1913), cited with approval in Gray v. Reclamation Dist. No. 1500, 174 Cal. 622, 163 P. 1024 (1917).

116. Weck v. Los Angeles County Flood Control Dist., 80 Cal. App. 2d 182, 181 P.2d 935 (2d Dist. 1947); Janssen v. County of Los Angeles, 50 Cal. App. 2d 45, 123 P.2d 122 (2d Dist 1942). Cf. United States v. Sponenbarger, 308 U.S. 256 (1939).

117. Youngblood v. Los Angeles County Flood Control Dist., 56 Cal. 2d 603, 15 Cal. Rptr. 904, 364 P.2d 840 (1961).

118. Los Angeles Cemetery Ass'n v. City of Los Angeles, 103 Cal. 461, 37 P. 375 (1894) (no liability for damage resulting from inadequacy of culvert to drain waters from extraordinary and unforeseeable flood).

119. House v. Los Angeles County Flood Control Dist., 25 Cal. 2d 384, 153 P.2d 950 (1944). The rule as to private owners is similar. See, e.g., Weinberg Co. v. Bixby, 185 Cal. 87, 97, 196 P. 25, 30 (1921): "If the defendants merely fend the intruding [flood] waters from their own premises in a reasonable and prudent manner, they cannot be held responsible for the action of the stream in depositing more silt and debris either in the channel or on adjacent lands below than would have been done had it been permitted to spread over defendants' lands." (Emphasis added.)

120. Beckley v. Reclamation Board, 205 Cal. App. 2d 734, 23 Cal. Rptr. 428 (3d Dist. 1962). Cf. Keys v. Romley, 64 Cal. 2d 396, 50 Cal. Rptr. 273, 412 P.2d 529 (1966); United States v. Sponenbarger, supra note 116.

121. See Rose v. State of California, 19 Cal. 2d 713, 730, 123 P.2d 505, 515 (1942) (dictum). Cf. Van Alstyne, Statutory Modification of Inverse Condemnation: Deliberately Inflicted Injury or Destruction, 20 Stan. L. Rev. 617, 619-23 (1968) (denial destruction to prevent conflagration).

122. Beckley v. Reclamation Board, supra note 120, at , 23 Cal. Rptr. at 440.

123. Clement v. State Reclamation Board, 35 Cal. 2d 628, 220 P.2d 897 (1950).

124. Youngblood v. Los Angeles County Flood Control Dist., 56 Cal. 2d 603, 15 Cal. Rptr. 904, 364 P.2d 840 (1961)

(dictum); Bauer v. County of Ventura, 45 Cal. 2d 276, 289 P.2d 1 (1955); House v. Los Angeles County Flood Control Dist., 25 Cal. 2d 384, 153 P.2d 950 (1944); Granone v. County of Los Angeles, 231 Cal. App. 2d 629, 42 Cal. Rptr. 34 (2d Dist. 1965); Weck v. Los Angeles County Flood Control Dist., 80 Cal. App. 2d 182, 181 P.2d 935 (2d Dist. 1947) (dictum). Although inverse liability can be based upon a negligently conceived plan of maintenance or operation of a public improvement, see Bauer v. County of Ventura, supra, ordinary negligence in the course of routine operations will support only a possible tort recovery. See Kambish v. Santa Clara Valley Water Conservation Dist., 185 Cal. App. 2d 107, 8 Cal. Rptr. 215 (1st Dist. 1960); Hayashi v. Alameda County Flood Control and Water Conservation Dist., 167 Cal. App. 2d 584, 334 P.2d 1048 (1st Dist. 1959); Smith v. East Bay Municipal Utility Dist., 122 Cal. App. 2d 613, 265 P.2d 610 (1st Dist. 1954).

125. Compare Clement v. State Reclamation Board, 35 Cal. 2d 628, , 220 P.2d 897, 909-11 (1950) (Carter, J., dissenting) with San Gabriel Valley Country Club v. County of Los Angeles, 182 Cal. 392, 188 P. 554 (920). See also, House v. Los Angeles County Flood Control Dist., supra note 119, at , 153 P.2d at 957 (Traynor, J., concurring).

126. Compare Archer v. City of Los Angeles, 19 Cal. 2d 19, ,

119 P.2d 1, 6 (1941) ("evidence . . . shows clearly that the storm drains constructed by defendants either followed the channel of natural streams . . . or discharged into the creek surface waters which would naturally drain into it") with Clement v. State Reclamation Board, supra note 125, at , 220 P.2d at 905 ("applicability of common enemy doctrine . . . is set forth in Archer . . .") and Beckley v. Reclamation Board, 250 Cal. App. 2d 734, , 23 Cal. Rptr. 428, 437 (3d Dist. 1962).("In . . . Archer . . . no one was preventing plaintiff . . . from protecting his lands from floods" under the common enemy rule).

127. See Beckley v. Reclamation Board, supra note 126, at , 23 Cal. Rptr. at 439-40.

128. Ibid.

129. See Comment, California Flood Control Projects and the Common Enemy Doctrine, 3 Stan. L. Rev. 361, 364-66 (1951). Cf. Keys v. Romley, 64 Cal. 2d 396, 50 Cal. Rptr. 273, 412 P.2d 529 (1966).

130. ". . . by a watercourse is not meant the gathering of errant water while passing through a low depression, swale, or gully, but a stream in the real sense, with a definite channel with bed and banks, within which it flows at those times when the streams of the region habitually flow." Horton v. Goodenough, 184 Cal. 451, 453, 194 P. 34, 35

(1920). Compare Inns v. San Juan Unified School Dist., 222 Cal. App. 2d 174, 34 Cal. Rptr. 903 (3d Dist. 1963) (swale through which surface water normally drained held not a watercourse).

131. See Green v. Swift, 47 Cal. 536 (1874).

132. Causation often presents difficult problems of proof. See, e.g., Youngblood v. Los Angeles County Flood Control Dist., 56 Cal. 2d 603, 15 Cal. Rptr. 904, 364 P.2d 840 (1961); Stone v. Los Angeles County Flood Control Dist., 81 Cal. App. 2d 902, 185 P.2d 396 (2d Dist. 1947).

133. Most of the important California decisions are reviewed in Beckley v. Reclamation Board, 205 Cal. App. 2d 734, 23 Cal. Rptr. 428 (3d Dist. 1962).

134. Youngblood v. Los Angeles County Flood Control Dist., supra note 132, at , 15 Cal. Rptr. at 905, 364 P.2d at 841 (dictum); Pacific Seaside Home for Children v. Newbert Protection Dist., 190 Cal. 544, 213 P. 967 (1923); Elliott v. Los Angeles County, 183 Cal. 472, 191 P. 899 (1920). See also, Ghiozzi v. City of South San Francisco, 72 Cal. App. 2d 472, 164 P.2d 902 (1st Dist. 1946)(dictum).

135. Clement v. State Reclamation Board, 35 Cal. 2d 628, , 220 P.2d 897, 903 (1950). See also, Smith v. City of Los Angeles, 66 Cal. App. 2d 562, 153 P.2d 69 (2d Dist. 1944). Cases in other states are generally in accord.

See, e.g., Lage v. Pottawattamie County, 232 Iowa 944, 5 N.W.2d 161 (1942); Armbruster v. Stanton-Pilger Drainage Dist., 169 Neb. 594, 100 N.W.2d 781 (1960).

136. Clement v. State Reclamation Board, supra note 135, at 638, 220 P.2d at 903 (state may not "without liability tear out a man-made flood protection that has existed for sixty-two years to the lands of plaintiff upon which substantial sums have been expended in reliance upon the continuance of the protection.")

137. See Beckley v. Reclamation Board, supra note 133, at , 23 Cal. Rptr. at 439-40.

138. Smith v. City of Los Angeles, 66 Cal. App. 2d 562, , 153 P.2d 69, 78 (2d Dist. 1944): ". . . simply because the district constructed the dikes in question for the purpose of flood control does not make it immune from liability for damage inflicted thereby upon the plaintiff. There was here no emergency requiring split-second action."

139. See, e.g., Rudel v. Los Angeles County, 118 Cal. 281, 50 P. 400 (1897); Guerkink v. City of Petaluma, 112 Cal. 306, 44 P. 570 (1896). In litigation growing out of the great Feather River flood of December 1955, the state was adjudged liable upon the basis of ambiguous findings of fact that a levee on the west side of the Feather River, in the planning and design of which the state had

"participated", had "caused waters of the Feather River to be diverted onto Plaintiffs' property east of the Feather River and thus caused harm to Plaintiffs' property." Pedrozo v. State of California, Superior Court, Butte County, No. 41265, Findings of Fact and Conclusions of Law, par. 4 (January 30, 1967).

140. Artificial and natural watercourses are treated alike in the obstruction cases, apparently without regard for the length of existence of the artificial channel. See, e.g., Larabee v. Town of Cloverdale, 131 Cal. 96, 63 P. 143 (1900). Newman v. City of Alhambra, 179 Cal. 42, 175 P. 414 (1918); Cf. Bauer v. County of Ventura, 45 Cal. 2d 276, 289 P.2d 1 (1955). See also, notes 113, 136, supra.

141. See, e.g., Youngblood v. Los Angeles County Flood Control Dist., 56 Cal. 2d 603, 15 Cal. Rptr. 904, 364 P.2d 840 (1961) (dictum recognizing liability without fault for diversion of stream waters, but intimating that in other cases, including obstructions of watercourses, fault is required); Beckley v. Reclamation Board, supra note 133 (complaint held sufficient to state cause of action on ground of diversion, without fault, and alternately a cause for negligent obstruction of stream waters).

142. United States v. Kansas City Life Ins. Co., 339 U.S. 799 (1950); United States v. Dickinson, 331 U.S. 745 (1947);

Jacobs v. United States, 290 U.S. 13 (1933); Cotton Land Co. v. United States, 75 F. Supp. 232 (Ct. Cl. 1948); Brazos River Authority v. City of Graham, 163 Tex. 167, 354 S.W. 2d 99 (1962).

143. Dugan v. Rank, 372 U.S. 609 (1963); United States v. Gerlach Live Stock Co., 339 U.S. 725 (1950). But see Joslin v. Marin Municipal Water Dist., 67 Cal. 2d , 60 Cal. Rptr. 377, 429 P.2d 889 (1967).

144. Bauer v. County of Ventura, 45 Cal. 2d 276, 289 P.2d 1 (1955) (negligent plan of maintenance of drainage ditch which contemplated deposit and non-removal of stumps, debris, and intersecting pipe which obstructed flow of water, held actionable on inverse theory). See, to the same effect, Baum v. County of Scotts Bluff, 169 Neb. 816, 101 N.W.2d 455 (1960).

145. Larabee v. Town of Cloverdale, 131 Cal. 96, 63 P. 143 (1900); Richardson v. City of Eureka, 96 Cal. 443, 31 P. 458 (1892); Jefferis v. City of Monterey Park, 14 Cal. App. 2d 113, 57 P.2d 1374 (2d Dist. 1936); White v. City of Santa Monica, 114 Cal. App. 330, 299 P. 819 (2d Dist. 1931). Cases in other states are generally in accord. See, e.g., Renninger v. State, 70 Idaho 170, 213 P.2d 911 (1950).

146. Granone v. County of Los Angeles, 231 Cal. App. 2d 629, 42

Cal. Rptr. 34 (2d Dist. 1965); Weisshand v. City of Petaluma, 37 Cal. App. 296, 174 P. 955 (3d Dist. 1918).

147. Compare Hayashi v. Alameda County Flood Control and Water Conservation Dist., 167 Cal. App. 2d 584, 334 P.2d 1048 (1st Dist. 1959) (tort but not inverse liability for routine negligence in failing to clear debris) with Bauer v. County of Ventura, 45 Cal. 2d 276, 289 P.2d 1 (1955) (inverse liability obtains for defective plan which includes retention of debris).

148. See Beckley v. Reclamation Board, 205 Cal. App. 2d 734, 23 Cal. Rptr. 428 (3d Dist. 1962) (both theories held available under facts).

149. Ibid. See also, Granone v. County of Los Angeles, supra note 146; Pedrozo v. State of California, supra note 139 (ambiguous findings).

150. Crivelli v. State of California, Del Norte County Superior Court, No. 9142, Findings of Fact and Conclusions of Law, par. II (August 4, 1966).

151. Id. at par. V. Public improvement design standards are not required to provide adequate capacity or strength for storms of unforeseeable magnitude. Los Angeles Cemetery Ass'n v. City of Los Angeles, 103 Cal. 461, 37 P. 375 (1894). See notes 33-35, supra.

152. See Archer v. City of Los Angeles, 19 Cal. 2d 19, 119 P.2d

1 (1941); San Gabriel Valley Country Club v. County of Los Angeles, 182 Cal. 392, 188 P. 554 (1920). Although dictum in San Gabriel Valley Country Club suggests that nonliability attends an increase in both volume and velocity of downstream flow, the actual holding in both that case and in Archer is limited to damage resulting from increased volume only. This result may thus be consistent with the "common enemy" rule, under which individual efforts to stave off flood waters may increase downstream volume without incurring liability. The potential erosive effect of increased velocity, however, creates a hazard of greater destructive impact and possibly permanent devastation. Neither decision, it is submitted, should necessarily be taken as authoritative in the latter type of case.

153. House v. Los Angeles County Flood Control Dist., 25 Cal. 2d 384, 153 P.2d 950 (1944).

154. See, e.g., Tyler v. Tehama County, 109 Cal. 618, 42 P. 240 (1895) (diversion of current by bridge abutment resulting in downstream erosion). Cf. Green v. Swift, 47 Cal. 536 (1874) (not a "taking" under pre-1879 constitution). Cases in other states generally sustain inverse liability without fault in such cases. See, e.g., Dickinson v. City of Minden, 130 So.2d 160 (La. 1961); Tomasek v. State, 196

Ore. 120, 248 P.2d 703 (1952); Morrison v. Clackamas County, 141 Ore. 564, 18 P.2d 814 (1933); Conger v. Pierce County, 116 Wash. 27, 198 P. 377 (1921).

155. Beckley v. Reclamation Board, supra note 148; Granone v. County of Los Angeles, supra note 146.

156. Ambrosini v. Alisal Sanitary Dist., 154 Cal. App. 2d 720, 317 P.2d 33 (1st Dist. 1957) (alternate ground). See also, Mulloy v. Sharp Park Sanitary Dist., 164 Cal. App. 2d 438, 330 P.2d 441 (1st Dist. 1958) (semble).

157. See Southern Pacific Co. v. City of Los Angeles, 5 Cal. 2d 545, 55 P.2d 847 (1936) (break in aquaduct; rule recognized but held inapplicable on facts). See notes 33-35, supra.

158. Powers Farms v. Consolidated Irrigation Dist., 19 Cal. 2d 123, 126, 119 P.2d 717, 720 (1941) (dictum); Lourence v. West Side Irrigation Dist., 233 Cal. App. 2d 532, 43 Cal. Rptr. 889 (1st Dist. 1965); Hume v. Fresno Irrigation Dist., 21 Cal. App. 2d 348, 69 P.2d 483 (4th Dist. 1937); Ketcham v. Modesto Irrigation Dist., 135 Cal. App. 180, 26 P.2d 876 (3d Dist. 1933).

159. Tormey v. Anderson-Cottonwood Irrigation Dist., 53 Cal. App. 559, 568, 200 P. 814, 818 (3d Dist. 1921) (opinion of Supreme Court on denial of hearing).

160. Ibid. This statement is quoted approvingly in the recent case of Albers v. County of Los Angeles, 62 Cal. 2d 250,

42 Cal. Rptr. 89, 398 P.2d 129 (1965).

161. Curci v. Palo Verde Irrigation Dist., 69 Cal. App. 2d 583, 159 P.2d 674 (4th Dist. 1965). See also, Southern Pacific Co. v. City of Los Angeles, 5 Cal. 2d 545, 55 P.2d 847 (1936) (break in aquaduct caused by storm which was foreseeable).

162. L.R. 3 H.L. 330, 37 L.J.Ex. 161 (1868). See Bohlen, The Rule in Rylands v. Fletcher, 59 U. Pa. L. Rev. 298, 373, 423 (1911).

163. Water seepage problems have been regarded as within the Rylands doctrine in certain jurisdictions. See, e.g., Union Pacific R.R. v. Vale, Oregon, Irrigation Dist., 253 F. Supp. 251 (D. Ore. 1966).

164. Clark v. DiPrima, 241 Cal. App. 2d 823, 51 Cal. Rptr. 49 (5th Dist. 1966) (water escaping from break in irrigation ditch); Curci v. Palo Verde Irrigation Dist., supra note 161 (sudden escape of water from irrigation ditch); Guy F. Atkinson Co. v. Merritt, Chapman & Scott Corp., 123 F. Supp. 720 (N.D. Calif. 1954).(collapse of cofferdams). The Rylands doctrine has been denied application to a case of water escaping from a private reservoir. Sutliff v. Sweetwater Water Co., 182 Cal. 34, 186 P. 766 (1920). But see Rozewski v. Simpson, 9 Cal. 2d 515, 71 P.2d 72 (1937), suggesting that the application of Rylands to some kinds of escaping

water cases may be an open question. Liability without fault has been accepted in California decisions dealing with certain types of ultra-hazardous activities. See, e.g., Luthringer v. Moore, 13 Cal. 2d 489, 190 P.2d 1 (1948), 37 Calif. L. Rev. 269 (1949).

165. See Clark v. DiPrima, supra note 164.

166. See cases cited supra, note 158.

167. See, e.g, Fredericks v. Fredericks, 108 Cal. App. 2d 242, 238 P.2d 643 (3d Dist. 1951); Nelson v. Robinson, 47 Cal. App. 2d 520, 118 P.2d 350 (3d Dist. 1941); Kall v. Carruthers, 59 Cal. App. 555, 211 P. 43 (3d Dist. 1922). Cf. Nola v. Orlando, 119 Cal. App. 518, 6 P.2d 984 (1st Dist. 1932). Nuisance liability is a long-recognized exception to the doctrine of governmental tort immunity in California. See, e.g., Ambrosini v. Alisal Sanitary Dist., 154 Cal. App. 2d 720, 317 P.2d 33 (1st Dist. 1957). It evolved principally from decisions grounded on inverse condemnation. See A. Van Alstyne, A Study Relating to Sovereign Immunity, in 5 Calif. Law Revision Comm'n, Reports, Recommendations & Studies 1, 225-30 (1963). Because of its inherent ambiguity, see W. Prosser, Torts 592 (3d ed. 1964), it has been frequently relied upon as a convenient basis for imposing liability without regard for fault. See Comment, 37 Calif. L. Rev. 269, 270 n. 7 (1949).

168. See U.S. Dept. Agric., Water: The Yearbook of Agriculture 311 (1955).

169. See Curci v. Palo Verde Irrigation Dist., 69 Cal. App. 2d 583, , 159 P.2d 674, 676 (4th Dist. 1945): "An examination of the foregoing cases [including Powers, Hume, and Ketcham, supra note 158] . . . show that in the majority of them the landowner sought recovery for damages caused by seepage from canals constructed through porous soil that did not confine and hold water . . . . Although the canal was constructed carefully and according to specifications this has been referred to as improper designing or improper planning which would make the irrigation district liable for damage. In some cases it is pointed out that this seepage of water may be prevented easily by puddling the canal with clay, by the use of oil on the banks and bottom, or by other simple means." See also, Tormey v. Anderson-Cottonwood Irrigation Dist., 53 Cal. App. 559, 200 P. 814 (3d Dist. 1921).

170. See Calif. Water Code 12627.3 (West Supp. 1965): "It is declared to be the policy of the State that the costs of solution of seepage and erosion problems which arise or will arise by reason of construction and operation of water projects should be borne by the project."

171. Curci v. Palo Verde Irrigation Dist., supra note 169. But see Boitano v. Snohomish County, 11 Wash.2d 664, 120 P. 2d 490 (1941) (unexpected opening of underground spring in course of gravel operations, with resultant necessity for drainage; county held inversely liable without fault where excess waters were directed over plaintiff's property).

172. 66 Cal. 492, 6 Pac. 317 (1885).

173. Id. at 505, 6 P. at 325.

174. A recent student note, 13 U.C.L.A.L. Rev. 871, 872, n. 10 (1966), has classified Reardon as "dictum". This analysis ignores the reasoning of the court's unanimous opinion, as summarized in the text, supra. Moreover, subsequent decisions of the Supreme Court have explicitly treated Reardon as a holding on the point here being discussed. See, e.g., Tormey v. Anderson-Cottonwood Irrigation Dist., 53 Cal. App. 559, 568, 200 P. 814, 818 (3d Dist. 1921) (opinion of Supreme Court on denial of hearing).

175. See, e.g., City of Atlanta v. Kenny, 83 Ga. App. 823, 64 S.E.2d 912 (1951) (house collapsed into trench for fire communications); Brenitz v. City of St. Paul, 256 Minn. 525, 99 N.W.2d 456 (1959) (gullying and erosion due to loss of support after street grade lowered); Great Northern Ry. v. State, 102 Wash. 348, 173 P. 40 (1918) (slides and earth deposits resulting from uphill blasting and road work).

See, generally, 2 P. Nichols, Eminent Domain §6.4432 [2], pp. 508-19 (rev. 3d ed. 1963). A contrary view is often taken in states limiting inverse compensation to "takings". See, e.g., Hoene v. City of Milwaukee, 17 Wis. 2d 209, 116 N.W.2d 112 (1962) (damage to foundation of building due to inadequately constructed highway unable to sustain heavy traffic); Wisconsin Power & Light Co. v. Columbia County, 3 Wis.2d 1, 87 N.W.2d 279 (1958) (displacement of soil as result of deposit of heavy fill material caused twisting and destruction of transmission tower). Cf. Boston Edison Co. v. Campanella & Cardi Construction Co., 272 F. 2d 430 (1st Cir. 1959) (damage to transmission towers due to displacement of soil by highway embankment held not a "taking" but possibly subject to statutory liability) (dictum).

176. Hinckley v. City of Seattle, 74 Wash. 101, 132 P. 855 (1913). See also, Commonwealth, Dept. of Highways v. Widner, 388 S.W. 2d 583 (Ky. 1965) (destruction of home in landslide caused by removal of lateral support in course of downhill road project held compensable without proof of negligence); City of Newport v. Rosing, 319 S.W.2d 852 (Ky. 1958) (similar facts and holding).

177. See, e.g., Tyler v. County of Tehama, 109 Cal. 618, 42 P. 240 (1895); Tormey v. Anderson-Cottonwood Irrigation Dist.,

supra note 169; See also, Powers Farms v. Consolidated Irrigation Dist., 19 Cal. 2d 123, 119 P.2d 717 (1941) (dictum).

178. Porter v. City of Los Angeles, 182 Cal. 515, 189 P. 105 (1920). Although this opinion is concerned primarily with an issue of the statute of limitations, its substantive aspects have been regarded in subsequent decisions as authoritative with respect to issues of liability. See Los Angeles County Flood Control Dist. v. Southern California Bldg. & Loan Ass n, 188 Cal. App. 2d 850, , 10 Cal. Rptr. 811, 813 (2d Dist. 1961). See also, Marin Municipal Water Dist. v. Northwestern Pacific R. Co., 253 Cal. App. 2d , , 61 Cal. Rptr, 520, 526 (1st Dist. 1967).

179. Albers v. County of Los Angeles, 62 Cal. 2d 250, 42 Cal. Rptr. 89, 398 P.2d 129 (1965). See text supra, accompanying notes 9-35.

180. See, e.g., Bauer v. County of Ventura, 45 Cal. 2d 276, 289 P.2d 1 (1955); House v. Los Angeles County Flood Control Dist., 25 Cal. 2d 384, 153 P.2d 950 (1944).

181. Kaufman v. Tomich, 208 Cal. 19, 280 P. 130 (1929). The court here observes that it is unnecessary to determine whether liability was based on tort or inverse condemnation principles, for the same result would obtain in either event.

182. Veteran's Welfare Board v. City of Oakland, 74 Cal. App. 2d 818, , 169 P.2d 1000, 1009 (1st Dist. 1946). Emphasis added. See also, Wofford Heights Associates v. County of Kern, 219 Cal. App. 2d 34, 32 Cal. Rptr. 870 (5th Dist. 1963).

183. The common law rule of absolute liability for deprivation of lateral support, see Restatement, Torts, § 817 (1939), has been modified by Section 832 of the California Civil Code. Under this statutory rule, except in the case of very deep excavations, the adjoining owner is liable only if loss of lateral support results from negligence or from failure to notify one's neighbor so that he may take protective measures. See Wharam v. Investment Underwriters, 58 Cal. App. 2d 346, 136 P.2d 363 (2d Dist 1943); Conklin v. Coyne, 19 Cal. App. 2d 78, 64 P.2d 1123 (2d Dist. 1937). Section 832, however, applies only to lateral support situations; it does not impair the former rule of strict liability for loss of subjacent support. Marin Municipal Water Dist. v. Northwestern Pacific R. Co., 253 Cal. App. 2d , 61 Cal. Rptr. 520 (1st Dist. 1967); Restatement, Torts, § 820 (1939). Cf. Porter v. City of Los Angeles, 182 Cal. 515, 189 P. 105 (1920). Accordingly, the Kaufman and Veteran's Welfare Board decisions, supra notes 181, 182, may arguably be regarded as consistent with the fault

rationale required in lateral support cases by Section 832, while Reardon, supra note 172, as well as Porter, supra, may be understood as instances of strict liability for loss of subjacent support. This explanation, however, is inconsistent with explicit language in Reardon that "there could be no recovery at common law", id. at , 6 P. at 325, and has no formal support or recognition in Kaufman, Veteran's Welfare Board, or Porter.

It is not entirely clear whether Calif. Civ. Code § 832 governs excavation work by public agencies. It has been said to be in applicable to street excavation work by a municipal contractor which impairs lateral support of abutting land. Cassell v. McGuire & Hester, 187 Cal. App. 2d 579, , 10 Cal. Rptr. 33, 42 (1st Dist. 1960) (dictum). Cf. Gazzera v. City & County of San Francisco, 70 Cal. App. 2d 833, 161 P.2d 806 (1st Dist. 1945) (city held not liable for loss of lateral support in absence of showing that street excavation work caused plaintiff's damage; Section 832 neither cited nor discussed). On the other hand, previous uncertainty whether general statutory provisions governing tort liability were applicable to governmental entities has now been resolved, since sovereign immunity has been abrogated in California, in favor of applicability. See Flournoy v. State, 57 Cal. 2d 497, 20

Cal. Rptr. 627, 370 P.2d 331 (1962) (wrongful death act held applicable to state). Under the latter view, it seems that Section 832 would be regarded today as apropos in a lateral support case maintained against a public entity either on an inverse or tort theory.

184. De Freitas v. Town of Suisun, 170 Cal. 263, 149 P. 553 (1915). See also, Hillside Water Co. v. City of Los Angeles, 10 Cal. 2d 677, 76 P.2d 681 (1938) (city held liable for diminution of artesian well pressure resulting from extensive pumping and exportation of water from underground basin). A landowner's interest in spring water located on his premises is recognized, ordinarily, as being equally protectible as his ownership of the surface. See State v. Hansen, 189 Cal. App. 2d 604, 11 Cal. Rptr. 335 (4th Dist. 1961). The interest of a surface owner in percolating underground waters, however, has traditionally been subject to a rule of correlative reasonable use. See Katz v. Walkinshaw, 141 Cal. 116, 70 P. 663, 74 P. 766 (1903). Cf. City of Pasadena v. City of Alhambra, 33 Cal. 2d 908, 207 P.2d 17 (1949), cert. denied, 339 U.S. 937 (1950).

185. Dugan v. Rank, 372 U.S. 609 (1963); United States v. Gerlach Live Stock Co., 339 U.S. 725 (1950).

186. Joslin v. Marin Municipal Water Dist., 67 Cal. 2d , 60 Cal. Rptr. 377, 429 P.2d 889 (1967); De Freitas v. Town of Suisun, supra note 184. See, to the same effect, Volkmann

v. City of Crosby, 120 N.W.2d 18 (No. Dak. 1963) (city held inversely liable for impairment of private artesian well supply by drilling of municipal well); Canada v. City of Shawnee, 179 Okla. 53, 64 P.2d 694 (1936) (similar facts); Griswold v. School Dist. of Town of Weathersfield, 117 Vt. 224, 88 A.2d 829 (1952) (school district held inversely liable for diversion of underground stream, with consequent drying up of plaintiff's spring, due to blasting in course of district improvement project). Judicial enforcement of property rights in water, however, may be unavailable where conflicting prescriptive rights have matured. See City of Pasadena v. City of Alhambra, supra note 184.

187. 67 Cal. 2d , 60 Cal. Rptr. 377, 429 P.2d 889 (1967).

188. See Cal. Const. art. XIV, § 3, as amended in 1928 to modify the strict doctrine of superiority of riparian to appropriative rights as applied in cases like Herminghaus v. Southern California Edison Co., 200 Cal. 81, 252 P. 607 (1926). By the 1928 amendment, the rule of reasonable beneficial use became firmly established as the legal framework for adjudication of competing claims to water in California. See Peabody v. City of Vallejo, 2 Cal. 2d 351, 40 P.2d 486 (1935); Gin S. Chow v. City of Santa Barbara, 217 Cal. 673, 22 P. 2d 5 (1933); Calif. Water Code, §§ 100-101.

189. See, to the same effect, Peabody v. City of Vallejo, supra

note 188, at 189, 40 P.2d at 492. But see Miramar Co. v. City of Santa Barbara, 23 Cal. 2d 170, 143 P.2d 1 (1943), 32 Calif. L. Rev. 91 (1944) (court evenly divided as to existence, as against the state, of property right in littoral owner to uninterrupted sandy accretions from natural ocean currents).

190. United States v. Gerlach Live Stock Co., 339 U.S. 725 (1950). See Annot., 20 A.L.R.2d 656 (1951).

191. Cf. Calif. Civil Code § 106: "It is hereby declared to be the established policy of the State that the use of water for domestic purposes is the highest use of water and that the next highest use is for irrigation."

192. Joslin v. Marin Municipal Water Dist., supra note 187, at , 60 Cal. Rptr. at 386, 429 P.2d at 898.

193. Los Angeles County Flood Control Dist., v. Abbot, 24 Cal. App. 2d 728, 76 P.2d 188 (2d Dist. 1938).

194. Joslin v. Marin Municipal Water Dist., supra note 187, at , 60 Cal. Rptr. at 384, 429 P.2d at 896.

195. Id. at , 60 Cal. Rptr. at 382, 429 P.2d at 894. Accordingly, a use recognized as beneficial under some circumstances may, under other circumstances, be subordinated to more important uses. See Calif. Civil Code § 106, supra note 191; Tulare Irrigation Dist. v. Lindsay-Strathmore Irrigation Dist., 3 Cal. 2d 489, 45 P.2d 972 (1935).

196. City of Los Angeles v. Aitken, 10 Cal. App. 2d 460, 52 P.2d 585 (3d Dist. 1935).

197. See Calif. Water Code §§ 1200-1801.

198. Calif. Water Code § 1252.5.

199. Calif. Water Code § 1253. See also, the "State Water Plan" and "California Water Plan" provisions, Calif. Water Code §§ 10000-507, under which the state has assumed a primary interest in the orderly and coordinated conservation, development, and utilization of all water resources in the state.

200. Calif. Water Code §§ 106, 1254.

201. Calif. Water Code §§ 106.5, 1460-64. But compare the "county of origin" and "watershed of origin" preferences included in Calif. Water Code §§ 10505, 11460-63; Note, 12 Stan. L. Rev. 439, 450-55 (1960).

202. Calif. Water Code §§ 2000-76 (references), 2500-2866 (administrative adjudication subject to court review).

203. See generally, Edelman, Federal Air and Water Control: The Application of the Commerce Power to Abate Interstate and Intrastate Pollution, 33 Geo. Wash. L. Rev. 1067 (1965); Schwob, Pollution - A Growing Problem of a Growing Nation, in U.S. Dept. Agric., Water - The Yearbook of Agriculture 636 (1955).

204. E.g., Sewerage Dist. v. Black, 141 Ark. 550, 217 S.W.2d

813 (1920); Ivester v. City of Winston-Salem, 215 N.C. 1, 1 S.E.2d 88 (1939).

205. See Annots., 40 A.L.R.2d 1177 (1955) (sewage disposal plants); 38 A.L.R.2d 1265 (1954) (pollution of underground waters).

206. See Hassell v. City & County of San Francisco, 11 Cal. 2d 168, 78 P.2d 1021 (1938) (injunction against maintenance of comfort station in public park on showing that nuisance would result); Adams v. City of Modesto, 131 Cal. 501, 63 P. 1083 (1901) (open sewer ditch nuisance); Ingram v. City of Gridley, 100 Cal. App. 2d 815, 224 P.2d 798 (3d Dist. 1950) (sewage pollution of stream).

207. The legislative history of the Tort Claims Act of 1963 indicates a deliberate legislative decision to preclude governmental tort liability for damages on a common law nuisance theory. See Cal. Senate Comm. on the Judiciary, Report on Senate Bill No. 42, Cal. Senate Daily J., April 24, 1963, at 1887 (Reg. Sess. 1963), quoted in A. Van Alstyne, California Government Tort Liability 497 (1964). However, nuisance liability is not purely a matter of common law doctrine in California, but is codified in Calif. Civil Code §§ 3479, 3491, and 3501. Arguably, therefore, nuisance liability may still obtain under the last-cited provisions. See Van Alstyne, Statutory Modification of

Inverse Condemnation: The Scope of Legislative Power, 19 Stan. L. Rev. 727, 740 n. 56 (1967).

208. See Van Alstyne, Modernizing Inverse Condemnation: A Legislative Prospectus, 8 Santa Clara Law. 1,11 (1967).

209. A Van Alstyne, A Study Relating to Sovereign Immunity, in 5 Calif. Law Revision Comm'n, Reports, Recommendations & Studies 1, 225-30 (1963).

210. See County Sanitation Dist. No. 2 v. Averill, 8 Cal. App. 2d 556, 47 P.2d 786 (2d Dist. 1935) (dictum). Cf. Ambrosini v. Alisal Sanitary Dist., 154 Cal. App. 2d 720, 317 P.2d 33 (1st Dist. 1957).

211. Gibson v. City of Tampa, 135 Fla. 637, 185 So. 319 (1938).

212. Game & Fish Comm'n v. Farmers Irrigation Co., Colo. , 426 P.2d 562 (1967) (pollution by waters discharged from fish hatchery); Cunningham v. Town of Tieton, 60 Wash.2d 434, 374 P.2d 375 (1962) (percolation from sewage lagoon to underground wells); Snavely v. City of Goldendale, 10 Wash. 2d 453, 117 P.2d 221 (1941) (sewage discharge into stream).

213. Early v. South Carolina Public Service Authority, 228 S.C. 392, 90 S.E.2d 472 (1955); Rice Hope Plantation v. South Carolina Public Service Authority, 216 S.C. 500, 59 S.E.2d 132 (1950).

214. Commonwealth, Dept. of Highways v. Cochrane, 397 S.W.2d

155 (Ky. App. 1965); Kendall v. Dept. of Highways, 168 So.2d 840 (La. App. 1964), writ ref'd 247 La. 341, 170 So.2d 864 (1965).

215. Clinard v. City of Kernersville, 215 N.C. 745, 3 S.E.2d 267 (1939); Gray v. City of High Point, 203 N.C. 756, 166 S.E. 911 (1932).

216. See, e.g., Parsons v. City of Sious Falls, 65 S.D. 145, 272 N.W. 288 (1937); Clinard v. City of Kernersville, supra note 215. Cf. City of Phoenix v. Johnson, 51 Ariz. 115, 75 P.2d 30 (1938).

217. See Brewster v. Forney, 223 S.W. 175 (Tex. Com. App.1920); Southworth c. City of Seattle, 145 Wash. 138, 259 P. 26 (1927).

218. See Aliverti v. City of Walla Walla, 102 Wash. 487, 298 P. 698 (1931); Parsons v. City of Sioux Falls, 65 S.D. 145, 272 N.W. 288 (1937). Cf. Ambrosini v. Alisal Sanitary Dist., 154 Cal. App. 2d 720, 317 P.2d 33 (1st Dist. 1957).

219. "There is perhaps no more impenetrable jungle in the entire law than that which surrounds the word 'nuisance.' It has meant all things to all men, and has been applied indiscriminately to everything from an alarming advertisement to a cockroach baked in a pie. There is general agreement that it is incapable of any exact or comprehensive

definition. Few terms have afforded so excellent an illustration of the familiar tendency of the courts to seize upon a catchword as a substitute for analysis of a problem . . . ." W. Prosser, Torts 592 (3d ed. 1964).

220. See, e.g., Jones v. Sewer Improvement Dist., 119 Ark. 166, 177 S.W. 888 (1915); Lakeland v. State, 143 Fla. 761, 197 So. 470 (1940); Briggson v. Viroqua, 264 Wis. 47, 58 N.W.2d 546 (1953). The limited availability of remedies other than damages, where inverse takings or damagings have occurred, is surveyed in Note, Eminent Domain -- Rights and Remedies of an Uncompensated Landowner, 1962 Wash. U. L. Q. 210. See also, Horrell, Rights and Remedies of Property Owners Not Proceeded Against, 1966 Univ. Ill. L. Forum 113.

221. In private tort law, a division of authority exists as to whether such damage is actionable without fault. See Annot., 20 A.L.R.2d 1372 (1951). On the California position, see notes 224 and 229, infra, and accompanying text.

222. State ex rel. Fejes v. City of Akron, 5 Ohio St. 2d 47, 213 N.E.2d 353 (1966). This result is also reached in some "damaging" states by narrow construction. See, e.g., Klein v. Department of Highways, 175 So.2d 454 (La. App. 1965), writ ref'd, 248 La. 369, 178 So.2d 658 (1965) (collapse of roof due to vibration from pile drivers held

noncompensable since not an intentional or purposeful infliction of damage); Beck v. Boh Bros. Construction Co., 72 So.2d 765 (La. App. 1954) (similar).

223. Bartholomae Corp. v. United States, 253 F.2d 716 (9th Cir. 1963) (atomic test detonations); Sullivan v. Commonwealth, 355 Mass. 619, 142 N.E.2d 347 (1957) (non-negligent blasting during aquaduct tunnel project); Crisafi v. City of Cleveland, 169 Ohio St. 137, 158 N.E.2d 379 (1959) (single blast during park improvement project). Some of the holdings of noncompensability for blast and vibration damage appear to be based on the view that the resulting injuries were de minimis. See, e.g., Moeller v. Multnomah County, 218 Ore. 413, 345 P.2d 813 (1959). Cf. Louden v. City of Cincinnati, 90 Ohio St. 144, 106 N.E. 970 (1914) (severe and prolonged blast and vibration damage may amont to a "taking").

224. Colton v. Onderdonk, 69 Cal. 155, 10 P. 395 (1886); Smith v. Lockheed Propulsion Co., 247 Cal. App. 2d 774, 56 Cal. Rptr. 128 (4th Dist. 1967); Balding v. D. B. Stutsman, Inc., 246 Cal. App. 2d 559, 54 Cal. Rptr. 717 (3d Dist. 1966).

225. Los Angeles County Flood Control Dist. v. Southern Calif. Bldg. & Loan Ass n, 188 Cal. App. 2d 850, 10 Cal. Rptr. 811 (2d Dist. 1961) (vibration damage from pile driver). Cases in other "damaging" states are in substantial agreement

See, e.g., Richmond County v. Williams, 109 Ga. App. 670, 137 S.E.2d 343 (1964) (physical damage from pile driver vibration held compensable; annoyance from dust, fumes and noise held noncompensable); City of Muskogee v. Hancock, 58 Okla. 1, 158 P. 622 (1916) (concussion damage from blasting during sewer construction); City of Knoxville v. Peebles, 19 Tenn. App. 340, 87 S.W.2d 1022 (1935) (vibration and concussion damage from blasting).

226. Inverse liability for damage caused by rocks and debris thrown upon private property by construction blasting is generally recognized. See, e.g., Jefferson County v. Bischoff, 238 Ky. 176, 37 S.W.2d 24 (1931); Adams & Sullivan v. Sengel, 177 Ky. 535, 197 S.W. 974 (1917).

227. See McGrath v. Basich Bros. Constr. Co., 7 Cal. App. 2d 573, 46 P.2d 981 (1st Dist. 1935); McKenna v. Pacific Electric R. Co., 104 Cal. App. 538, 286 P. 445 (2d Dist. 1930). To the same effect, see Whiteman Hotel Corp. v. Elliott & W. Engineering Co., 137 Conn. 562, 79 A.2d 591 (1951).

228. Smith v. Lockheed Propulsion Co., 247 Cal. App. 2d 774, 56 Cal. Rptr. 128 (4th Dist. 1967) (loss of underground water supply due to subterranean vibration and earth shifting caused by test of rocket engine of unusual power and size). Where inverse liability is limited to a "taking", however, contrary results have been reached.

See, e.g., Leavell v. United States, 234 F. Supp. 734 (E. D. So. Car. 1964) (jet engine test).

229. See Alonso v. Hills, 95 Cal. App. 2d 778, 214 P.2d 50 (1st Dist. 1950). Cf. Wilson v. Sespe Rancho, 207 Cal. App. 2d 10, 24 Cal. Rptr. 296 (2d Dist. 1962) (fire caused by blasting in remote area); Houghton v. Loma Prieta Lumber Co., 152 Cal. 500, 93 P. 82 (1907) (personal injuries from blasting in unpopulated area).

230. The strict liability rule, however, has been strongly criticized as inconsistent with a rational balancing of the competing interests in the light of modern technology. See, e.g., Reynolds v. W. H. Hinman Co., 145 Me. 343, 75 A.2d 802, 20 A.L.R.2d 1360 (1950); Smith, Liability for Damage to Land by Blasting (pts. 1-2), 33 Harv. L. Rev. 542, 667 (1920).

231. See Berg v. Reaction Motors Division, 37 N. J. 396, 181 A.2d 487 (1962), cited with approval in Smith v. Lockheed Propulsion Co., supra note 228, at , 56 Cal. Rptr. at 137-38; Restatement, Torts, § 520 (1938).

232. See Smith v. Lockheed Propulsion Co., supra note 228, at , 56 Cal. Rptr. at 138.

233. Cf. Los Angeles County Flood Control Dist. v. Southern Calif. Bldg. & Loan Ass'n, 188 Cal. App. 2d 850, 10 Cal. Rptr. 811 (2d Dist. 1961). But see Pumphrey v. J.A.Jones Constr.

Co., 250 Iowa 559, 94 N.W.2d 737 (1959) (no liability for concussion damage caused by non-negligent blasting by government waterway project contractor under government supervision and in accordance with government-approved plans).

234. See Miller v. City of Palo Alto, 208 Cal. 74, 280 P. 108 (1929); Hansen v. City of Los Angeles, 63 Cal. App. 2d 426, 147 P.2d 109 (2d Dist. 1944).

235. Ibid.

236. See Miller v. City of Palo Alto, supra note 234, holding inverse condemnation theory inapplicable where complaint alleged a single act of negligence which permitted escape of fire from city dump. See also, McNeil v. City of Montague, 124 Cal. App. 2d 326, 268 P.2d 497 (3d Dist. 1954); Western Assurance Co. v. Sacramento & San Joaquin Drainage Dist., 72 Cal. App. 68, 237 P. 59 (3d Dist. 1925).

237. Osborn v. City of Whittier, 103 Cal. App. 2d 609, 230 P.2d 132 (2d Dist. 1951). See also, Pittam v. City of Riverside, 128 Cal. App. 57, 16 P.2d 768 (4th Dist. 1933) (dictum).

238. See Bauer v. County of Ventura, 45 Cal. 2d 276, 284-85, 289 P.2d 1, 7 (1955), expressly distinguishing Miller, McNeil, and Western Assurance Co., supra note 236, as instances of escaping as a result of a single act of negligence in routine operations, and sustaining the

sufficiency of a complaint for inverse condemnation (for flood damage) based on an inherently defective plan of construction and maintenance of a governmental project. See text, supra, accompanying notes 38-43. This distinction was also noted in Western Assurance Co., supra note 236, at , 237 P. at 63, where the court observed that inverse liability would obtain if the work which caused the fire had been done "in accordance with specific directions of . . . plans and specifications" approved by the district and the damage had resulted "necessarily and directly" therefrom.

239. See McNeil v. City of Montague, supra note 235.

240. See note 238, supra, and cases there cited.

241. Neff v. Imperial Irrigation Dist., 142 Cal. App. 2d 755, 299 P.2d 359 (4th Dist. 1956). To the same effect, see St. Francis Drainage Dist. v. Austin, 227 Ark. 167, 296 S.W.2d 668 (1956); Dallas County Flood Control Dist. v. Benson, 157 Tex. 617, 306 S.W.2d 350 (1957).

242. See St. Francis Drainage Dist. v. Austin, supra note 241 (dictum); Dallas County Flood Control Dist. v. Benson, supra note 241 (dictum). Cf. Bauer v. County of Ventura, supra note 238; Cope v. Louisiana State Live Stock Sanitary Board, 176 So. 657 (La. App. 1937) (death of mule by ingestion of arsenic solution during anti-tick dipping

operation).

243. See Note, Crop Dusting: Two Theories of Liability ?, 19 Hastings L. J. 476 (1968). Technical data cited in this note suggest that substantial drift from chemical applications is an inherent risk of dusting and spraying operations notwithstanding use of reasonable care.

244. The former doctrine of soverign immunity has been supplanted by a statutory rule making public entities liable, except where otherwise provided by statute, for the tortious acts and omissions of their employees. Calif. Gov't Code § 815.2. Although there is a specific statutory immunity for "any injury caused in fighting fires", Calif. Gov't Code § 850.4, this immunity would not preclude governmental tort liability for negligently permitting a fire started or attended by public employees to escape: (1) Negligently permitting the fire to escape is probably not within the purview of the immunity for "fighting fires". See A. Van Alstyne, California Government Tort Liability § 7.29 (1964). (2) There is an express statutory liability for negligently or wilfully permitting a fire to escape, Calif. Health & S. Code § 13007, which, although framed in general terms, applies to public entities and their employees, see Flournoy v. State of California, 57 Cal. 2d 497, 20 Cal. Rptr. 627, 370 P.2d 331 (1962), and supersedes (i.e.,

"otherwise provides") the immunity provisions of the Government Code. See Calif. Gov't Code § 815 (introductory exception); A. Van Alstyne, op. cit., §§ 5.11, 5.28, (2) Negligently or deliberately permitting a fire under the control of a public employee to escape appears to constitute a failure to exercise reasonable diligence to discharge a mandatory duty imposed by statute, see Calif. Pub. Res. Code § 4422; Calif. Health & S. Code § 13000, and thus is a basis of governmental liability under Calif. Govt. Code §815.6. (4) Escaping fire would, in some cases, be actionable as a dangerous condition of public property. Calif. Gov't Code § 835; Osborn v. City of Whittier, supra note 237.

245. Although governmental use of dangerous chemicals for pest control purposes is expressly authorized by statute, see Calif. Agric. Code §§ 14002, 14093, 14063, such authorization does not relieve the user from liability for property damage caused thereby. Calif. Agric. Code § 14003, 14034. Moreover, use of pesticides in such a manner as to cause "any substantial drift" is a misdemeanor, Calif. Agric. Code § 12972; see id. § 9, violation of which appears to be an actionable tort. See Note, Crop Dusting: Two Theories of Liability ?, 19 Hastings L. J. 476, 486-87 (1968). However, the applicability of the Agricultural Code Provisions to governmental entities, and their

interrelationship to the Tort Claims Act of 1963, are in need of clarification. See note 324, infra.

246. Actions to impose statutory tort liability for a dangerous condition of public property, see note 244 supra, are subject to certain defenses not available in inverse condemnation. See, e.g., Calif. Gov't Code §§ 835.2 (lack of notice), 835.4 (reasonableness of entity's actions after notice). See also, Calif. Gov't Code § 830.6 (immunity for injury resulting from defective plan or design where not wholly unreasonable at time of adoption); Note, Sovereign Liability for Defective or Dangerous Plan or Design --California Government Code Section 830.6, 19 Hastings L. J. 584 (1968).

247. See, e.g., Cal. Code Civ. Proc. § 1242 (surveys of land required for public use); Cal. Health & S. Code § 2270(f) (investigations and nuisance abatement work by mosquito abatement district); Cal. Water Code § 2229 (surveys for irrigation district purposes). For a comprehensive list of citations, see A. Van Alstyne, A Study Relating to Sovereign Immunity, in 5 Cal. Law Revision Comm'n, Reports, Recommendations and Studies 1, 110-19 (1963). Entries into private buildings, unless consent is given by the owner, must be supported by a valid search warrant. Camara v. Municipal Court, 387 U.S. 523 (1967); See v. City of

Seattle, 387 U.S. 541 (1967). Under the cited decisions, however, the warrant may authorize an "area inspection", and need not be particularized to individual structures.

248. Onick v. Long, 154 Cal. App. 2d 381, 316 P.2d 427 (1st Dist. 1957) (by implication); Giacona v. United States, 257 F.2d 450 (5th Cir. 1958); Johnson v. Steele County, 240 Minn. 154, 60 N.W.2d 32 (1953); Commonwealth v. Carr, 312 Ky. 393, 227 S.W.2d 904 (1950); Restatement, Torts § 211 (1934); 1 Harper & James, The Law of Torts § 1.20, pp. 56-57 (1956).

249. Restatement, Torts § 214 (1934), apparently approved as the California rule in Reichhold v. Sommarstrom Inv. Co., 83 Cal. App. 2d 173, 256 Pac. 592 (1927) and Onick v. Long, supra note 248. See also, Heinze v. Murphy, 180 Md. 423, 24 A.2d 917 (1942); 1 Harper & James, The Law of Torts § 1.21, pp. 58-59 (1956).

250. The California Tort Claims Act of 1963 declares public entities and public employees immune from tort liability for authorized official entries upon private property, but this immunity does not extent to injuries caused by the employee's "own negligent or wrongful act or omission". Cal. Gov't Code § 821.8. See A. Van Alstyne, California Government Tort Liability § 5.62 (1964).

251. Frustuck v. City of Fairfax, 212 Cal. App. 2d 345, 28 Cal. Rptr. 357 (1st Dist. 1963); Bernard v. State, 127 So.2d

774 (La. 1961). See also, Podesta v. Linden Irrigation Dist., 141 Cal. App. 2d. 38, 296 P.2d 401 (3d Dist. 1956) (burdening of servitude for drainage by widening and deepening normally dry watercourse traversing private ranch, thereby preventing use for agricultural purposes, held compensable).

252. Examples of actionable interferences include Heimann v. City of Los Angeles, 30 Cal. 2d 746, 185 P.2d 597 (1947) (substantial temporary interference with access to adjoining property by storage of construction materials and erection of seeds upon and in front of plaintiff's land), and O'Dea v. County of San Mateo, 139 Cal. App. 2d 659, 294 P.2d 171 (1st Dist. 1956) (obstruction of surface for over ten months by storing drainage pipes on easement while awaiting underground installation).

253. Irvine v. Citrus Pest Dist. No. 2 of San Bernardino County, 62 Cal. App. 2d 378, 144 P.2d 857 (4th Dist. 1944); County of Contra Costa v. Cowell Portland Cement Co., 126 Cal. App. 267, 14 P.2d 606 (1st Dist. 1932) (by implication). See Annot., 29 A.L.R. 1409 (1924).

254. 192 Cal. 319, 219 Pac. 986 (1923).

255. Id. at 329, 219 P. at 991. See also, Dancy v. Alabama Power Co., 198 Ala. 504, 73 So. 901 (1916); 2 P. Nichols, Eminent Domain, § 6.11, pp. 379-83 (rev. 3d ed. 1963).

256. See Heimann v. City of Los Angeles, supra note 252 (no inverse recovery for personal discomfort or annoyance or for insubstantial interferences with property). Cf. People ex rel. Dep't of Public Works v. Ayon, 54 Cal. 2d 217, 9 Cal. Rptr. 151, 352 P.2d 519 (1960) (semble).

257. In addition to the cases cited in notes 251 and 252, supra, see Onorato Bros. v. Massachusetts Turnpike Authority, 336 Mass. 54, 142 N.E.2d 389 (1957) (highway route survey); Wood v. Mississippi Power Co., 245 Miss. 103, 146 So.2d 546 (1962) (utility line route survey); Vreeland v. Forest Park Reservation Comm'n, 82 N. J. Eq. 349, 87 A. 435 (1913) (fire prevention); Litchfield v. Bond, 186 N.Y. 66, 78 N.E. 719 (1906) (county boundary survey); Rhyne v. Town of Mt. Holly, 251 N. C. 521, 112 S.E.2d 40 (1960) (weed abatement work).

258. See Dugan v. Rank, 372 U.S. 609 (1963); 2 P. Nichols, Eminent Domain, § 6.21, p. 393 (rev. 3d ed. 1963). See also, Wofford Heights Associates v. County of Kern, 219 Cal. App. 2d 34, 32 Cal. Rptr. 870 (5th Dist. 1963) (unintentional but foreseeable damaging held compensable). The emergency exception is discussed in Van Alstyne, Statutory Modification of Inverse Condemnation: Deliberately Inflicted Injury or Destruction, 20 Stan. L. Rev. 617 (1968).

259. See, e.g., Eyherabide v. United States, 345 F.2d 565 (Ct. Cl. 1965); Commonwealth, Department of Highways v. Gisborne, 391 S.W.2d 714 (Ky. 1965).

260. City of Napa v. Navoni, 56 Cal. App. 2d 289, 132 P.2d 566 (3d Dist. 1942) (water pipeline laid in plaintiff's land under mistaken belief that easement had been acquired); Commonwealth, Department of Highways v. Gisborne, supra note 259 (highway engineer staked out more land than had been acquired, and contractor proceeded with improvement work thereon in good faith reliance). Cf. State Road Dep't v. Cuyahoga Wrecking Co., 171 So.2d 50 (Fla. App. 1965) (highway contractor removed building from land not yet condemned, apparently by mistake).

261. Bridges v. Alaska Housing Authority, 375 P.2d 696 (Alaska 1962) (destruction of private structure; owner awarded value of building, attorneys fees, and damages for mental anguish). See also, R. J. Widen Co. v. United States, 357 F.2d 988 (Ct. Cl. 1966) (U. S. Corps of Engineers mistakenly commenced flood control work under joint federal-state project three months before state, pursuant to agreement, "took" the property by condemnation).

262. Eyherabide v. United States, supra note 259.

263. Compare City of Napa v. Navoni, supra note 260 (inverse condemnation) with Slater v. Shell Oil Co., 58 Cal. App.

2d 864, 137 P.2d 713 (1st Dist. 1943) (trespass).

264. See, generally, Kornoff v. Kingsburg Cotton Oil Co., 45 Cal. 2d 265, 288 P.2d 507 (1955); Slater v. Shell Oil Co., supra note 263; Restatement, Torts (2d), § 161, comment b (1965). Cf. Spaulding v. Cameron, 38 Cal. 2d 265, 239 P.2d 625 (1952). The option is ordinarily denied, however, when the offending structure is maintained as a necessary part of a public utility operation. See Thompson v. Illinois Central R. R. Co., 191 Iowa 35, 179 N.W. 191 (1920); McCormick, Damages for Anticipated Injury to Land, 37 Harv. L. Rev. 574, 584-85 (1924).

265. Frustuck v. City of Fairfax, 212 Cal. App. 2d 345, 28 Cal. Rptr. 357 (1963). Cf. Loma Portal Civic Club v. American Airlines, Inc., 61 Cal. 2d 582, 39 Cal. Rptr. 708, 394 P.2d 548 (1964) (denial of injunction to prevent excessive jet aircraft noise by commercial planes landing and taking off at public airport held proper in view of public interest in continuation of air transportation).

266. Kornoff v. Kingsburg Cotton Oil Co., supra note 264.

267. See People ex rel. Dept of Public Works v. Ayon, 54 Cal. 2d 217, 9 Cal. Rptr. 151, 352 P.2d 519 (1960); Heimann v. City of Los Angeles, 30 Cal. 2d 746, 185 P.2d 597 (1947); Brandenburg v. Los Angeles County Flood Control Dist.,

45 Cal. App. 2d 306, 114 P.2d 14 (2d Dist. 1941). Bridges v. Alaska Housing Authority, supra note 261, seems to be a unique decision contra.

268. Although common law governmental immunity is no longer a defense to trespass as a remedy against California public entities for mistaken occupation or destruction of private property, relief in tort may not always be available in light of the special defenses included in the California Tort Claims Act of 1963. See, e.g., Cal. Govt. Code §§ 820.2 (discretionary conduct), 820.4 (non-negligent enforcement of law), 821.8 (trespass within express or implied authority).

269. See, e.g., Archer v. City of Los Angeles, 19 Cal. 2d 19, 24, 119 P.2d 1, 4 (1941). Statements to this effect in Archer and other cases were characterized as dicta in Albers v. County of Los Angeles, 62 Cal. 2d 250, 42 Cal. Rptr. 89, 398 P.2d 129 (1965).

270. See, e.g., Bauer v. County of Ventura, 45 Cal. 2d 176, 289 P.2d 1 (1955); Ward Concrete Co. v. Los Angeles County Flood Control Dist., 149 Cal. App. 2d 840, 309 P.2d 546 (2d Dist. 1957).

271. See, e.g., Granone v. County of Los Angeles, 231 Cal. App. 2d 629, 42 Cal. Rptr. 34 (2d Dist. 1965); Beckley v. Reclamation Board, 205 Cal. App. 2d 734, 23 Cal. Rptr. 428 (3d Dist. 1962).

272. See text supra, accompanying notes 38-43.

273. Clement v. State Reclamation Board, 35 Cal. 2d 628, , 220 P.2d 897, 905 (1950). See also, Youngblood v. Los Angeles County Flood Control Dist., 56 Cal. 2d 603, 15 Cal. Rptr. 904, 361 P.2d 840 (1961).

274. Reardon v. City & County of San Francisco, 66 Cal. 492, 6 P. 317 (1885), discussed supra at notes 172-74.

275. See Smith v. City of Los Angeles, 66 Cal. App. 2d 562, , 153 P.2d 69, 78 (2d Dist. 1944): "During this six year period the district had ample time and opportunity to make adequate provision for the care of the diverted waters and for the protection of plaintiffs' property. It was simply a choice of means deliberately made by the governing board of the district in selecting one method of controlling possible future floods as against another." (Emphasis added.) See also, Lubin v. Iowa City, 257 Iowa 383, , 131 N.W.2d 765, 770 (1965) (flooding of basement due to break in 80 year old water main installed six feet beneath surface without reasonable inspection capability; order granting new trial affirmed, after judgment for defendant in tort suit for damages): "A city . . . so operating knows that eventually a break will occur, water will escape and in all probability flow onto the premises of another with resulting damages. . . . The risk from such a method of

operation should be borne by the water supplier who is in a position to spread the cost among the consumers who are in fact the true beneficiaries of this practice and of the resulting savings in inspection and maintenance costs." (Emphasis added.) Cf. Broeder, Torts and Just Compensation: Some Personal Reflections, 17 Hastings L. J. 217, 224 (1965).

276. The legislative approach to governmental tort liability for dangerous conditions of public property includes directly analogous considerations. For example: (1) Tort liability cannot be based upon defects in the plan or design of a public improvement where reasonable grounds for official approval thereof existed at the time the plan or design was accepted. Cal. Gov't Code § 830.6; Cabell v. State, 67 Cal. 2d , 60 Cal. Rptr. 476, 430 P.2d 34 (1967); Note, Sovereign Liability for Defective or Dangerous Plan or Design -- California Government Code Section 830.6, 19 Hastings L. J. 584 (1968). (2) A condition of public property which causes injury is not regarded as "dangerous" if the court determines, as a matter of law, that the risk of harm thereby created was minor, trivial, or insignificant in light of the surrounding circumstances. Cal. Gov't Code § 830.2; See Barrett v. City of Claremont, 41 Cal. 2d 70, 256 P.2d 977 (1953). (3) Even if the condition is a dangerous one, liability is

not imposed if the public agency establishes that either "(a) . . . the act or omission that created the condition was reasonable . . . as determined by weighing the probability and gravity of potential injury . . . against the practicability and cost of taking alternative action . . . ." or "(b) . . . the action it took to protect against the risk . . . or its failure to take such action was reasonable . . . as determined by taking into consideration the time and opportunity it had to take action and by weighing the probability and gravity of potential injury . . . against the practicability and cost of protecting against the risk of such injury." Cal. Gov't Code §835.4. See A. Van Alstyne, California Government Tort Liability § 6.29, 6.30 (1964).

277. See Restatement, Torts (2d), §302, comment (1965). Evidence that planners or designers failed to employ sound engineering practices, see, e.g., Granone v. County of Los Angeles, 231 Cal. App. 2d 629, 41 Cal. Rptr. 34 (2d Dist. 1965) (expert testimony), may thus be explainable on grounds other than negligence. The deficient culverts in Granone, for example, may have represented an intermediate or temporary stage of the channel improvement project; the county may have elected to bridge the stream by a less expensive technique (earth fill pierced by culverts)

within current budget appropriations, rather than the more expensive expedient of a wide-span steel and concrete bridge. On the other hand, the decision to culvert rather than bridge may, in fact, have been due to negligence or incompetence of the responsible officers. The latter conclusion, if true, would merely move the risk analysis back an additional step. Employment of engineers, designers, and managers to develop and execute public improvement projects of substantial size and complexity entails a calculated risk of human error resulting in defective plans. An alternate analysis might emphasize the view that standards of personnel recruitment, methods of qualification investigation, and levels of compensation may not have been pitched at a level reasonably calculated to exclude the risk of employing untrained, incompetent, and careless designers and planners.

278. Clement v. State Reclamation Board, 35 Cal. 2d 628, 642, 220 P.2d 897, 905 (1950).

279. See House v. Los Angeles County Flood Control Dist., 25 Cal. 2d 384, , 153 P.2d 950, 954 (1944): "In view of the organic rights to acquire, possess and protect property and to due process and equal protection of the laws, the principles of nonliability and damnum absque injuria are not applicable when in the exercise of the police power,

private, personal and property rights are interferred with, injured or impaired in a manner or by a means, or to an extent that is not reasonably necessary to serve a public purpose for the general welfare." (Emphasis added.)

280. See Smith v. City of Los Angeles, supra note 275.

281. Cf. Bacich v. Board of Control, 23 Cal. 2d 343, , 144 P.2d 818, 828 (1943) (concurring opinion of Edmonds, J.): "The factors to be considered in deciding an inverse condemnation claim are, on the one hand, the magnitude of the damage to the owner of the land, and, on the other, the desirability and necessity for the particular type of improvement and the danger that the granting of compensation will tend to retard or prevent it. . . . In addition, before compensation may be denied, the court must find that the particular improvement be not unreasonably more drastic or injurious than necessary to achieve the public objective." (Emphasis added.)

282. See Clement v. State Reclamation Board, 35 Cal. 2d 628, 220 P.2d 897 (1950) (reliance on flood protection afforded by existing levees; Podesta v. Linden Irrigation Dist., 141 Cal. App. 2d 38, 296 P.2d 401 (3d Dist. 1956) (reliance upon continuance of drainage channel in natural condition); Los Angeles County Flood Control Dist. v. Abbot, 24 Cal. App. 2d 728, 76 P.2d 188 (2d Dist. 1938) (reliance on

accretions of sand); City of Los Angeles v. Aitken, 10 Cal. App. 2d 460, 52 P.2d 585 (3d Dist. 1935) (reliance on continued water level of recreational lake).

283. See note 276, supra. It is clear, however, that the conditional "plan or design" immunity provided by Cal. Gov't Code § 830.6 withholds tort liability in precisely the same situations in which well settled rules of inverse condemnation law impose liability. Compare Cabell v. State, 67 Cal. 2d , 60 Cal. Rptr. 476, 430 P.2d 34 (1967). (tort liability withheld) with Granone v. County of Los Angeles, 231 Cal. App. 2d 629, 42 Cal. Rptr. 34 (2d Dist. 1965) (inverse liability affirmed).

284. Even though the risk may be deemed remote or even unforeseeable, the damage which eventuates is actionable if it results "directly" from the improvement. See Albers v. County of Los Angeles, 62 Cal. 2d 250, 42 Cal. Rptr. 89, 298 P.2d 129 (1965), as discussed in the text, supra, accompanying notes 27-35. See also, House v. Los Angeles County Flood Control Dist., 25 Cal. 2d 384, , 153 P.2d 950, 957 (1944) (concurring opinion of Traynor, J.): "It is of no avail to defendant that the invasion of plaintiff's property in the manner in which it happened was not foreseeable. . . . The public purpose was not the mere construction of the improvement but the protection that it would afford against floods. The dangers inherent in the

improvement would cause injury only when storms put the flood control system to a test. The injury sustained by plaintiff was therefore not too remote."

285. The conclusion in Albers, supra note 284, that the County of Los Angeles was a better loss distributor than the plaintiff property owners (the losses in question were presumably not of a kind ordinarily covered by insurance) is unexceptional. But many public entities have very limited fiscal resources. See Van Alstyne, Governmental Tort Liability: A Public Policy Prospectus, 10 U.C.L.A.L. Rev. 463, 465 n. 7 (1963) (pointing out "the tremendous disparities in size, population and fiscal capacity" of local public entities, as evidenced by the fact that some counties, cities, and special districts "function on annual fiscal budgets of less than $50,000, while other cities, counties and districts have budgets averaging more than that sum per day.") (Emphasis in original.) See, generally, Vieg, California Local Finance (1960); Cal. State Controller, Annual Report of Financial Transactions Concerning Special Districts of California (Fiscal Year 1965-66). The total liability of the defendant in Albers exceeded $5,000,000. Reliance upon loss distribution capacity as a significant criterion of inverse liability would thus, upon occasion, result in inequitable and discriminatory treatment of

equally deserving property owners, depending upon the differing fiscal capacities of the defendant public entities.

This difficulty, of course, could be minimized by development of adequate means for funding of inverse liabilities by even the smallest of public entities. Even if it is assumed that commercial insurance against such risks is obtainable at reasonable premiums, it is not entirely clear that adequate statutory authority exists for public entities to insure against all inverse liabilities. See Cal. Gov't Code §§ 989-991.2, 11007.4, authorizing insurance against "any injury"; but see Cal. Gov't Code § 810.8 (defining "injury" to mean losses that would be actionable if inflicted by a private person). Since inverse liability may obtain where private tort liability does not, Albers v. County of Los Angeles, supra note 284, comprehensive tort liability insurance may still be regarded as inapplicable to some inverse claims. Existing statutory authority to fund judgment liabilities with bond issues, Cal. Gov't Code §§ 975-978.8, are, however, clearly broad enough to include inverse liability judgments. See A. Van Alstyne, California Government Tort Liability 9.16 (1964). And although authority for payment of judgments by instalments, Cal. Gov't Code § 970.6,

is, in terms, limited to "tort" judgments, id. , 915, inverse liabilities may possibly be a form of "tort" for this purpose. See Douglass v. City of Los Angeles, 5 Cal. 2d 123, 128, 53 P.2d 353, 355 (1935).

In principle, the existing devices for funding tort liabilities appear to provide ample flexibility for administering inverse liabilities of the great majority of public entities. The statutes should, however, be clarified to avoid any doubt as to their applicability to inverse situations. In addition, the "catastrophe" liability problem should be given appropriate legislative attention. See generally, Borchard, State and Municipal Liability in Tort -- Proposed Statutory Reform, 20 A.B.A.J. 747, 751-52 (1934) (proposal for state "backup" insurance to supplement insurance efforts of small local entities); A. Van Alstyne, A Study Relating to Sovereign Immunity, in 5 Cal. Law Revision Comm'n, Reports, Recommendations & Studies 1, 308-11 (1963) (similar proposal geared to local "fiscal effort"). The development of an equitable plan of state-funded "backup" insurance presupposes the availability of appropriate and fair tests of local fiscal effort to fund such protection more directly. Such tests appear to be available. See U. S. Advisory Comm'n on Intergovernmental Relations, Measures of State and Local

Fiscal Capacity and Effort (1962).

286. See Van Alstyne, Statutory Modification of Inverse Condemnation: The Scope of Legislative Power, 19 Stan. L. Rev. 727, 771-76 (1967), for a review of the constitutional convention proceedings which led to adoption of the "or damaged" clause in Cal. Const. art. I, § 14.

287. Cf. Calabresi, The Decision for Accidents; An Approach to Nonfault Allocation of Costs, 78 Harv. L. Rev. 713 (1965).

288. See, generally, 2 F. Harper & F. James, The Law of Torts § 11.4 (1956); Calabresi, Some Thoughts on Risk Distribution and the Law of Torts, 70 Yale L. J. 499, 500-17 (1961).

289. See Cal. Gov't Code §§ 820.2, 830.6: A. Van Alstyne, California Government Tort Liability §§ 5.51 - 5.57 (1964). See also, Recommendation Relating to Sovereign Immunity, in 4 Cal. Law Revision Comm'n, Reports, Recommendations & Studies 801, 810 (1963).

290. See, generally, Ne Casek v. City of Los Angeles, 233 Cal. App. 2d 131, 43 Cal. Rptr. 294 (2d Dist. 1965); Gregoire v. Biddle, 177 F.2d 579 (2d Cir. 1949). But see Van Alstyne, Governmental Tort Liability: A Public Policy Prospectus, 10 U.C.L.A.L. Rev. 463, 473-91 (1963).

291. The leading California decisions are House v. Los Angeles County Flood Control Dist., 25 Cal. 2d 384, 153 P.2d 950 (1944) and Bauer v. County of Ventura, 45 Cal. 2d 276,

289 P.2d 1 (1955). Cases in other states are discussed in Mandelker, Inverse Condemnation: The Constitutional Limits of Public Responsibility, 1966 Wis. L. Rev. 3. Imposition of inverse liability upon public entities for defectively designed public structures is consistent with the trend in private tort law toward imposition of liability upon architects and engineers for defective plans. See Comment, 55 Calif. L. Rev. 1361 (1967).

292. See Van Alstyne, supra note 286.

293. See the text, supra, accompanying notes 9-35. Despite the implications of the Albers decision, however, subsequent inverse litigation has continued to revolve principally around the concept of fault. See, e.g., Sutfin v. State of California, 261 Cal. App. 2d 67 Cal. Rptr 665 . (3d Dist. 1968) (flooding caused by highway improvement and related flood control works).

294. Restatement, Torts (2d), Tentative Draft No. 10, § 520, p. 56 (April 20, 1964): "In determining whether an activity is abnormally dangerous, the following factors are to be considered: (a) Whether the activity involves a high degree of risk of some harm to the person, land or chattels of others; (b) whether the gravity of the harm which may result from it is likely to be great; (c) whether the risk cannot be eliminated by the exercise of reasonable care;

(d) whether the activity is not a matter of common usage; (e) whether the activity is inappropriate to the place where it is carried on; and (f) the value of the activity of the community." See also, id., § 521 (no strict liability for abnormally dangerous activities required or authorized by law; liability to be governed by standard of reasonable care appropriate to such activity).

295. Id., § 522(a), p. 82 (minority proposal by Reporter, W. Prosser, and three Advisors).

296. Id., § 523, p. 86. See also, id., § 524, p. 91 (contributory negligence).

297. Id., § 524A, p. 93.

298. Mass. Laws Ann. ch. 81 § 7 (1964). See, e.g., U. S. Gypsum Co. v. Mystic River Bridge Authority, 329 Mass. 130, 106 N.E.2d 677 (1952). Although Massachusetts is a "taking" state, it has enacted an extensive pattern of legislation providing for payment of compensation for damage inflicted by governmental programs. For citations of Massachusetts cases, see 2 P. Nichols, Eminent Domain, § 6.42 - 6.43, pp. 464-86 (rev. 3d ed. 1963).

299. The development of the Massachusetts doctrine is reviewed fully in Boston Edison Co. v. Campanella & Cardi Constr. Co., 272 F.2d 430 (1st Cir. 1959), a case factually similar to Reardon v. City & County of San Francisco, 66 Cal. 492,

6 Pac. 317 (1885), discussed in the text supra, accompanying notes 176-83.

300. Murray Realty, Inc. v. Berke Moore Co., Inc., 342 Mass. 689, 175 N.E.2d 366 (1961); Boston Edison Co. v. Campanella & Cardi Constr. Co., supra note 299. See also, Webster Thomas Co. v. Commonwealth, 336 Mass. 130, 143 N.E.2d 216 (1957). Economic considerations are deemed relevant to a determination of the practicability of damage avoidance: "In determining whether the damage was inevitable, the test is not whether the method was absolutely necessary, but whether in choosing another method so as to avoid damage 'the expense would be so disproportionate to the end to be reached as to make [the other method] from a business and common sense point of view impracticable.'" Murray Realty, Inc. v. Berke Moore Co., Inc., supra, at , 175 N.E.2d at 368. In this case, the use of explosives for demolition work had been disapproved by the state as too risky, and the "pin and feather" method (drilling of series of holes and driving of wedges to break paving) as too expensive and time-consuming. Adoption of the steel-ball-and-crane technique was thus found to be a reasonable decision, and, absent negligence in the actual use of this technique, was thus a basis for statutory liability for "necessary" damage that resulted.

Compare Boston Edison Co. v. Campanella & Cardi Constr. Co., supra (twisting of plaintiff's foundation as result of dumping of heavy fill on unstable soil at adjoining public improvement site held to be foreseeable; but evidence failed to support finding that avoidance techniques were practicable).

301. See, e.g., Murray Realty, Inc. v. Berke Moore Co., Inc., supra note 300 (negligent use of steel ball for demolition work); Holbrook v. Massachusetts Turnpike Authority, 338 Mass. 218, 154 N.E.2d 605 (1958) (flood damage due to negligently constructed embankment that interfered with drainage).

302. Cf. Albers v. County of Los Angele 62 Cal. 2d 250, 42 Cal. Rptr. 89, 398 P.2d 129 (1965). But see Sutfin v. State of California, 261 Cal. App. 2d , 67 Cal. Rptr. 665 (3d Dist. 1968); Burrows v. State of California, 260 Cal. App. 2d , 66 Cal. Rptr. 868 (2d Dist. 1968). Compare Milhous v. State Highway Dept., 194 S.C. 33, 8 S.E.2d 852 (1940) (state held liable for flooding due to obstruction of surface waters even though, under private water law rules, a private person would not be liable; inverse liability for "taking" of private property held to be unfettered by rules of common law).

303. See 2 P. Nichols, Eminent Domain, § 5. 1, p. pp. 4-8 (rev. 3d ed. 1963).

304. See text, supra, accompanying notes 46-65. See also, Van Alstyne, Statutory Modification of Inverse Condemnation: Deliberately Inflicted Injury or Destruction, 20 Stan. L. Rev. 617 (1968).

305. See text, supra, accompanying notes 9-35.

306. See, e.g., Sutfin v. State of California, supra note 302 (stream water diversion); Burrows v. State of California, supra note 302 (surface water diversion).

307. See notes 114-18, supra.

308. See San Gabriel Valley Country Club v. County of Los Angeles, 182 Cal. 392, 188 P.554 (1920). The first comprehensive legislative approach to regional flood control involved the creation of the Sacramento & San Joaquin Drainage District as a state agency to implement, in cooperation with the federal government, the flood control plans formulated by the California Debris Commission, Cal. Stat. Ex. Sess. 1911, ch. 25; Cal. Stat. 1913, ch. 170. See Gray v. Reclamation Dist. No. 1500, 174 Cal. 622, 163 P. 1024 (1917). Local flood control organizations, until recent years, consisted principally of relatively small drainage, levee, or flood control districts created pursuant to general enabling statutes, such as the Protection

District Act of 1895, Cal. Stat. 1895, ch. 201, p. 247, Cal. Water Code App., §§ 6-1 to 6-29 (West 1956) and the Levee District Act of 1905, Cal. Stat. 1905, ch. 310, p. 327, Cal. Water Code App., §§ 9-1 to 9-34 (West 1956). A few flood control districts of more sweeping geographical scope had been established by special legislation before 1939, including those in Los Angeles County, Cal. Stat. 1915, ch. 755, p. 1502, Cal. Water Code App. §§ 28-1 to 28-23 (West), Orange County, Cal. Stat. 1927, ch. 723, p. 1325, Cal. Water Code App. §§ 36-1 to 36-23 (West), and in the American River basin, Cal. Stat. 1927, ch. 808, p. 1596, Cal. Water Code App. §§ 37-1 to 37-30 (West). However, the modern trend to establishment of such districts in a majority of the counties of California by carefully tailored special laws began in 1939 with the creation of the San Bernardino County Flood Control Act. Cal. Stat. 1939, ch. 73, p. 1011, Cal. Water Code App. §§ 43-1 to 43-28 (West). In the thirty years since then, some thirty-five major flood control districts have been created by special act. See Cal. Water Code App., ch. 46-106 (West). The validity of such specially created districts, despite the constitutional prohibition against local and special legislation, has been repeatedly affirmed. See American River Flood Control Dist. v. Sweet, 214 Cal.

778, 7 P.2d 1030 (1932).

309. See, e.g., Gray v. Reclamation Dist. No. 1500, 174 Cal. 622, 163 P. 1024 (1917).

310. See Beckley v. Reclamation Board, 205 Cal. App. 2d 734, 23 Cal. Rptr. 428 (3d Dist. 1962); Note, 3 Stan. L. Rev. 361 (1951). A collateral problem, to which little or no attention has been given in the decisional law, is the question of notice. The physical activity of one farmer in putting up protective levees might well give adequate notice to his immediate neighbors of the need for similar self-help to repel the "common enemy"; but it seems unrealistic to expect that lower landowners will necessarily realize that upstream flood control improvements being installed by a large public district, possibly many miles distant, will augment the volume, velocity, and intensity of downstream flow to a degree that warrants additional protective barriers. To the extent that the "common enemy" rule assumes that the resulting downstream flood damage is the result of the injured owner's failure to take self-protective measures, despite absence of notice of the need to do so, it tends to function as a rule of strict liability operating in reverse. Cf. Archer v. City of Los Angeles, 19 Cal. 2d 19, 119 P.2d 1 (1941); San Gabriel Valley Country Club v. County of Los Angeles,

182 Cal. 392, 188 P. 554 (1920). The analogous problem of allocating responsibility for protection against loss of lateral support due to normal excavations for improvement purposes has been resolved by statutory provision for giving of "reasonable notice" by the improver as a condition of non-liability. Cal. Civil Code 832. See note 183, supra.

311. Gray v. Reclamation Dist. No. 1500, supra note 309. See also, United States v. Sponenbarger, 308 U.S. 256 (1939); Kambish v. Santa Clara Valley Water Conservation Dist., 185 Cal. App. 2d 107, 8 Cal. Rptr. 215 (1st Dist. 1960); Weck v. Los Angeles County Flood Control Dist., 80 Cal. App. 2d 182, 181 P.2d 935 (2d Dist. 1947).

312. See text supra, accompanying notes 125-29, 148-49, 154-55.

313. See, e.g., Clement v. State Reclamation Board, 35 Cal. 2d 628, 220 P.2d 897 (1950); Rudel v. Los Angeles County, 118 Cal. 281, 50 P. 400 (1897).

314. Although most of the California decisions have tended to exemplify a somewhat mechanical application of doctrinal precepts, see, e.g., Callens v. County of Orange, 129 Cal. App. 2d 255, 276 P.2d 886 (4th Dist. 1954), some notable exceptions can be found. E.g., Dunbar v. Humboldt Bay Municipal Water Dist., 254 Cal. App. 2d , 62 Cal. Rptr. 358 (3d Dist. 1967) (damage issues); Beckley v.

Reclamation Board, 205 Cal. App. 2d 734, 23 Cal. Rptr. 428 (3d Dist. 1962) (liability issues); Smith v. City of Los Angeles, 66 Cal. App. 2d 562, 153 P.2d 69 (2d Dist. 1944) (liability issues). Instructive examples of explicit balancing of interests are also found in United States v. Gerlach Live Stock Co., 339 U.S. 725 (1950) (feasability of equitable cost distribution deemed relevant to compensability for loss of riparian rights to seasonal overflowing of agricultural lands); United States v. Willow River Power Co., 324 U.S. 499 (1945) (appraisal of competing private and public interests deemed relevant to compensability for loss of head due to raise in water level).

315. See Joslin v. Marin Municipal Water Dist., 67 Cal. 2d , 60 Cal. Rptr. 377, 429 P.2d 889 (1967) (stream water); Keys v. Romley, 64 Cal. 2d 396, 50 Cal. Rptr. 273, 412 P. 2d 529 (1966) (surface water), deemed applicable to inverse condemnation in Burrows v. State of California, 260 Cal. App. 2d , 66 Cal. Rptr. 868 (2d Dist. 1968).

316. See text, supra, accompanying notes 294-297.

317. See, e.g., Clean Air Act, 77 Stat. 392 (1963); Water Quality Act of 1965, 79 Stat. 903 (1965); Clean Water Restoration Act of 1966, 80 Stat. 1246 (1966); Federal Water Pollution Control Admin, 1 The Cost of Clean Water: Summary Report (1968), passim; U.S. Dept. of Agriculture, A Place

to Live: The Yearbook of Agriculture 83-132 (1963).

318. It has been authoritatively estimated that "municipal waste treatment plant and interceptor sewer construction costs to attain federal water quality standards in the five-year period, FY 1969-73, will require the expenditure of $8.0 billion", excluding land costs, Federal Water Pollution Control Adm'n, supra note 317, at 10. See also, Bryan, Water Supply and Pollution Control Aspects of Urbanization, 30 Law & Contemp. Prob. 176, 188-92 (1965).

319. See text, supra, accompanying notes 203-220. But see New Jersey Stat. Ann., tit. 40 63-129: "The owner of any land adjacent to any plant, works or station for the treatment, disposal or rendering of sewage . . . who shall sustain any direct injury by reason of the negligence or lack of reasonable care of the contracting municipalities . . . in the establishment and maintenance of any such plant, works, or station, may maintain an action at law . . . for the recovery of all damages sustained by him by reason of such injury." (Emphasis added.) Since the concept of "nuisance" appears to be the principal doctrinal basis for tort liability (and possibly for inverse liability) in pollution cases, there is a need for legislative clarification of the extent of governmental tort liability for nuisance under the Tort Claims Act of 1963. See note

207, supra, and accompanying text.

320. See text supra, accompanying notes 172-83.

321. Conn. Gen. Stat. Rev., § 13a-82 (rev. 1966); Mass. Laws Ann. ch. 81 § 7 (1964); Penna. Stat. Ann. tit. 26 § 1-612 (Supp. 1966); Wis. Stat. Ann. § 80.47 (1957).

322. To some extent, of course, a form of strict inverse liability is already required in some cases by the decision in Albers v. County of Los Angeles, 62 Cal. 2d 250, 42 Cal. Rptr. 89, 398 P.2d 129 (1965). The full implications of this decision, however, remain to be worked out. Cf. Sutfin v. State of California, 261 Cal. App. 2d ,67 Cal. Rptr.665 (1968) (opinion quotes extensively from pre-Albers opinions)(dictum).

323. See note 245, supra.

324. For example, Cal. Agric. Code §§ 14063 and 14093 explicitly authorize governmental agencies to use certain dangerous chemicals in pest control operations, while id. § 14033 (apparently but not explicitly applicable to public entities) authorizes use of 2, 4-D and other injurious herbicides in accordance with administrative regulations. Use of these chemicals may, of course, result in damage to private property. See Comment, Crop Dusting: Two Theories of Liability?, 19 Hastings L. J. 476 (1968). Legislative recognition of this risk is implicit in provisions declaring that authorized and lawful use of

pesticides will not relieve "any person" from liability for damage to others caused by such use. Cal. Agric. Code, §§ 14003, 14034. Furthermore, in the interest of preventing improper and harmful methods from being employed, the legislature has delegated extensive authority to the director of agriculture to promulgate regulations, including a permit procedure, to govern the actual use of injurious agricultural chemicals. Cal. Agric. Code, §§ 14005-11, 14033. All users are under a mandatory duty to prevent substantial drift of economic poisons employed in the course of pest control operations and to conform to applicable regulations. Cal. Agric. Code, §§ 12972, 14011, 14032, 14063.

Although it seems probable that the courts would hold governmental agencies subject to the cited statutory provisions, under the rule of Flournoy v. State, 57 Cal. 2d 497, 20 Cal. Rptr. 627, 370 P.2d 331 (1962) (general statutory language held applicable to public entities absent legislative intent to contrary), this conclusion is open to some doubt. Express reference to public agencies in certain code sections (see §§ 14063 and 14093, supra) suggests the intended non-applicability of others in which no such reference is included. On the other hand, the code expressly makes Chapter 3 of Division 7 (§§14001-98,

dealing with "Injurious Materials") inapplicable to public entities while engaged in research projects, Cal. Agric. Code § 14002, thus impliedly indicating that it does apply in non-research stiuations. Legislation clarifying applicability would, it is submitted, be helpful.

Assuming applicability of the code provisions, the scope of governmental tort liability resulting from violations is not entirely clear. In some instances, such violations (e.g., use of a method of chemical pest control which caused substantial drift in violation of § 12972, supra) would presumably constitute a basis for entity liability for breach of a mandatory duty. Cal. Gov't Code § 815.6. In some instances, however, it may be questionable whether such property damage resulted from actionable negligence in applying the chemicals or from the immune discretionary determination to apply them under circumstances in which drift, and resultant damage, was inevitable. See Cal. Gov't Code §§ 820.2, 855.4; A Van Alstyne, California Governmental Tort Liability 639, note 4 (1964). If no negligence is found or the discretionarytort immunity obtains, the question remains whether liability could be predicated upon inverse condemnation or nuisance theories. See Bright v. East Side Mosquito

Abatement Dist., 168 Cal. App. 2d 7, 335 P.2d 527 (3d Dist. 1959) (nuisance theory). On the need for legislative treatment of the scope of nuisance liability of public entities, in conjunction with inverse condemnation, see notes 167, 205-220, supra, and accompanying text. Finally, it is not clear whether the special "report of loss" procedures, which may affect the injured party's ability to establish the extent of his damages from chemical drift, see Cal. Agric. Code §§ 11761-65, are applicable to governmental operations or are limited to private commercial pest control activities. Clarification of these doubtful areas by legislation would also be helpful.

325. Wis. Stat. Ann., § 88.87 (Supp. 1967). In this measure, the Wisconsin legislature explicitly recognizes that some diversions and changes in both volume and direction of flow of surface and stream waters are the inevitable consequences of the improvement of property by public and private proprietors. Accordingly, in the interest of eliminating discouragements to the physical development of land, and to promote responsible drainage engineering to reduce unnecessary water damage, a statutory test of "reasonableness" was substituted for the less flexible and more mechanical criteria recognized under prior law. See Note, 1963 Wis. L. Rev. 649. Compare the varying

approaches taken in other states: No. Dak. Code § 24-03-06 (1960) (highway construction required to be "so designed as to permit the waters . . . to drain into coulees, rivers, and lakes according to the surface and terrain . . . in accordance with scientific highway construction and engineering so as to avoid the waters flowing into and accumulating in the ditches to overflow adjacent and adjoining lands"); No. Dak. Code § 24-03-08 (1960) (when highway has been constructed over watercourse into which surface waters from farmlands flow and discharge, state conservation commission, on petition, "shall determine as nearly as practicable the maximum quantity of water, in terms of second feet, which such watercourse or draw may be required to carry", after which the responsible authority is required to install a culvert or bridge of sufficient capacity to permit "such maximum quantity of water to flow freely and unimpeded through the culvert or under such bridge"); Ohio Rev. Code Ann. § 123.39 - 123.42 (1953) (administrative procedure for adjusting claims for private property damage resulting from overflow or leakage of public reservoir, canal or dam, or insufficiency of a public culvert; appointed board of commissioners required to award "such damages as they may deem just" upon a finding that the injury resulted from "defective construction

of any part of the public work which might have been avoided by the use of ordinary skill or care, or resulted from the want of proper care on the part of the officers or agents of the state in maintaining or repairing" the improvement).

326. Cal. Sts. & Hwys. Code, §§ 725, 1487, 1488; People ex rel. Dep't of Public Works v. Lindskog, 195 Cal. App. 2d 582, 16 Cal. Rptr. 58 (1st Dist. 1961). But see People v. Stowell, 139 Cal. App. 2d 728, 294 P.2d 474 (4th Dist. 1956). Cf. County of Colusa v. Strain, 215 Cal. App. 2d 472, 30 Cal. Rptr. 415 (3d Dist. 1963) (sustaining validity of county ordinance requiring permit for land leveling or excavation work that changes drainage pattern, even though such work may be privileged under common law rules governing water damage).

327. For example, present statutory provisions relating to liability for escaping fire, see note 244, supra, and for damage due to drifting of injurious chemicals used in past abatement work, see note 245, supra, may be reasonably appropriate for retention as part of the tort-inverse liability framework. Modification of the existing statutes in the interest of clarification may, however, be necessary. See the suggestions advanced in note 324, supra, relating to the chemical drift problem.

328. Burrows v. State of California, 260 Cal. App. 2d , 66 Cal. Rptr. 868 (2d Dist. 1968). Care should be taken, of course, to appraise the validity of the suggested approach in varying kinds of situations. For example, the problem of flooding of adjoining property as the result of inadequate drainage of public streets is marked, in the California cases, by excessive confusion and uncertainty. See the text, supra, accompanying notes 106-108. Consideration should be given to the question whether, in this type of case, damages should be administered under a rule of strict liability, see, e.g., So. Car. Code of Laws, § 59-224 (1962) (municipalities under mandatory duty to provide "sufficient drainage" for surface water collected in streets, after demand by property owners, and are liable for failure or refusal to do so); Hall v. Greenville, 227 S. C. 375, 88 S.E.2d (1955), or according to a rule of reasonableness geared to standard engineering expertise. See the statutes referred to supra, note 325.

329. Gray v. Reclamation Dist. No. 1500, 174 Cal. 622, , 163 P. 1024, 1037 (1917).

330. See Van Alstyne, Statutory Modification of Inverse Condemnation: The Scope of Legislative Power, 19 Stan. L. Rev. 727, 758-59 (1967).

331. Chicago & Alton R. Co. v. Tranbarger, 238 U.S. 68, 76 (1915) (duty imposed on railroad by statute to construct culverts for drainage of surface water across right-of-way, contrary to state common law rules of property law, held not a compensable "taking" of property right).

332. See, e.g., Joslin v. Marin Municipal Water Dist., 67 Cal. 2d , 60 Cal. Rptr. 377, 429 P.2d 889 (1967), discussing the historical changes in California law relating to riparian water rights.

333. See, e.g., cases sustaining the retroactive application of statutory provisions destroying previously accrued tort causes of action against governmental agencies: County of Los Angeles v Superior Court, 62 Cal. 2d 889, 44 Cal. Rptr. 796, 402 P.2d 868 (1965); Flournoy v. State of California, 230 Cal. App. 2d 520, 41 Cal. Rptr. 190 (3d Dist. 1964).

334. Van Alstyne, supra note 330, at 728.

335. See, e.g., City of Burbank v. Superior Court, 231 Cal. App. 2d 675, 42 Cal. Rptr. 23 (2d Dist. 1965) (mandamus granted to compel trial court to sustain demurrer to complaint for interference with surface water drainage so that plaintiff would be required to set out tort and inverse theories of liability in separate counts). See also, text supra, accompanying notes 75-87.

336. See notes 167, 205-220, supra, and accompanying text.

337. See, e.g., Granone v. County of Los Angeles, 231 Cal. App. 2d 629, 42 Cal. Rptr. 34 (2d Dist. 1965) (defective plan of culvert design held actionable for inverse condemnation purposes; court does not discuss possible application of immunity provision of Cal. Gov't Code § 830.6). Cf. City of Burbank v. Superior Court, 231 Cal. App. 2d 675, 42 Cal. Rptr. 23 (2d Dist. 1965) (newly created defenses to "dangerous property condition" liability, as provided in Cal. Gov't Code § 835.4, held retroactively applicable; such defenses, however, impliedly deemed not a limitation upon inverse condemnation). The need for legislative reconsideration of the present tort immunity for public improvements which are dangerous because of their plan or design, Cal. Gov't Code § 830.6, is underscored by the Supreme Court's position that the reasonableness of the plan must be judged solely as of its origin, without regard for latent dangers inherent therein which became apparent in the course of use and experience. Cabell v. State of California, 67 Cal. 2d , 60 Cal. Rptr. 476, 430 P.2d 34 (1967); Note, Sovereign Liability for Defective or Dangerous Plan or Design -- California Government Code Section 830.6, 19 Hastings L. J. 584 (1968). Inverse liability thus serves as a "loophole" to the tort immunity

conferred for initial bad planning; but neither tort nor inverse remedies are available for governmental failure to correct known dangers that later develop. Any incentive for accident prevention or for upgrading public facilities for safety purposes is not conspicuous here.

338. Although inverse condemnation liability is not limited to real property but extends also to personalty, see Sutfin v. State of California, 261 Cal. App. 2d 67, Cal. Rptr. 665 (3d Dist. 1968), it has never been deemed applicable to personal injuries or death claims. Brandenburg v. Los Angeles County Flood Control Dist., 45 Cal. App. 2d 306, 114 P.2d 14 (2d Dist 1941); see note 267, supra. However, if the factual basis for inverse liability also constitutes a nuisance, damages for personal injuries are recoverable. See Murphy v. City of Tacoma, 60 Wash.2d 603, 374 P.2d 976 (1962). Cf. Bright v. East Side Mosquito Abatement District, 168 Cal. App. 2d 7, 335 P.2d 527 (3d Dist. 1959).

339. Cal. Code Civ. Proc., § 1242; Cal. Gov t Code, § 821.8; A. Van Alstyne, California Government Tort Liability, § 5.62 (1964).

340. See Jacobsen v. Superior Court, discussed supra at note 254.

341. See 2 P. Nichols, Eminent Domain § 6.11 (rev. 3d ed. 1963); Annot., 29 A.L.R. 1409 (1924). Disproportionate costs of

administering a system for settlement of nominal inverse condemnation claims is a rational basis for withholding compensation for trivial injuries. See Michelman, Property, Utility, and Fairness: Comments on the Ethical Foundations of 'Just Compensation" Law 80 Harv. L. Rev. 1165, 1214 (1967). Cf. Bacich v. Board of Control, 23 Cal. 2d 343, 144 P.2d 818, 839 (1943) (Traynor, J., dissenting).

342. See note 257, supra.

343. Section 1242.5 presently provides that the petition and deposit procedure need be employed only "in the event the public agency is unable by negotiations to obtain the consent of the owner".

344. Precedent for imposition of a duty to restore the previous condition of the premises is found in numerous statutes providing, in connection with authorization for the construction of public improvements in or across streets, rivers, railroad lines, and the like, that the public entity "shall restore" the intersection, street, or other location to its former state. See, e.g., Cal. Health & S. Code § 6518 (sanitary districts); Cal. Pub. Util. Code § 16466 (public utility districts); Cal. Water Code § 71695 (municipal water districts). Statutory provisions to this effect are collected in A. Van Alstyne, A Study Relating to Sovereign Immunity, in 5 Cal. Law Revision Comm'n, Reports,

Recommendations and Studies 1, 91-96 (1963).

345. Statutes of other states, which authorize official entries upon private property for survey and investigational purposes, typically require the entity to reimburse the owner for "any actual damage" resulting therefrom. See, e.g., Kans. Stat. Ann § 68-2005 (1964) (entry by turnpike authority to make "surveys, soundings, drillings and examinations" authorized; authority required to make reimbursement for "any actual damages"); Mass. Laws Ann. c. 81 § 7F (1964) (entry by highway department for surveys, soundings, drillings or examination" authorized; department required to restore lands to previous condition, and to reimburse owner for "any injury or actual damage"); Ohio Rev. Code Ann. § 163.03 (Supp. 1966) (condemning public agencies authorized, prior to instituting eminent domain proceedings, to enter to make "surveys, soundings, drillings appraisals, and examinations" after notice to owner; agency required to "make restitution or reimbursement for any actual damage resulting" to the premises or improvements and personal property located thereon); Okla. Stat. Ann. tit. 69 § 46.1, 46.2 (Supp. 1966) (entry by department of highways to make "surveys, soundings and drillings, and examinations" authorized; department required to make reimbursement for "any actual damages resulting" to

premises); Pa. Stat. Ann. tit. 26 § 1-409 (Supp. 1966) (condemning agencies authorized to enter property, prior to filing declaration of taking, to make" studies, surveys, tests, soundings and appraisals";agencies required to pay "any actual damages sustained" by owner).

The courts have generally construed statutes of this type as limited to reimbursement for substantial physical damages only. See, e.g., Onorato Bros. v. Massachusetts Turnpike Authority, 336 Mass. 54, 142 N.E.2d 389 (1957) (no recovery authorized for "trivial" damage caused by setting of surveyors' stakes, nor for temporary loss of marketability due to apprehension by prospective buyers that property being surveyed would be condemned in near future). Cf. Wood v. Mississippi Power Co., 245 Miss. 103, 146 So.2d 546 (1962). Since the owner may fear that some injuries will occur despite the entity's assurances to the contrary, authority for the entity to pay the owner a reasonable amount within stated limits as compensation for prospective apprehension and annoyance (in addition to assurance of payment of actual damages) could also usefully assist in promoting owner cooperation through negotiation.

346. Defects deserving considerations include:

(1) It is not entirely clear under Section 1242.5

whether the court proceedings preliminary to the order for the survey are ex parte or on notice to the owner. See City of Los Angeles v. Schweitzer, 200 Cal. App.2d 448, 19 Cal. Rptr. 429 (2d Dist. 1962)(on appeal from order for reservoir survey made under Cal. Code Civ. Proc. § 1242.5, report fails to indicate whether owner received notice and hearing; interlocutory order held nonappealable). Since no elements of emergency justify summary entries for survey and testing purposes, it is doubtful that ex parte proceedings would meet the requirements of procedural due process. Cf. People v. Broad, 216 Cal. 1, 12 P.2d 941 (1932)(notice and hearing required before narcotics forfeiture of vehicle is effective); Thain v. City of Palo Alto, 207 Cal. App. 2d 173, 24 Cal. Rptr. 515 (1st Dist. 1962) (notice and hearing required, absent emergency, before weed abatement action taken on private property.) Assurance of a fully informed decision with respect to the amount of the security to be required would be promoted by a noticed hearing with opportunity for presentation of evidence by the owner. If in the course of the survey, the deposit becomes inadequate because of unforeseen injuries inflicted, the court should also be authorized to require deposit of additional security and the statute should indicate the procedures open to the owner to obtain such

an order.

(2) Section 1242.5 is silent on the scope of the court's authority to inquire into the techniques of exploration and survey that are contemplated, as to the extent of its power to impose limitations and restrictions upon their use in the interest of reducing the prospective damages or requiring utilization of the least detrimental techniques where alternatives are technologically feasible. See City of Los Angeles v. Schweitzer, supra (appeal from trial court order imposing specific limitations upon investigatory methods, under Section 1242.5, dismissed without consideration of merits).

(3) Section 1242.5 fails to provide for remedies available to the owner when a public entity fails to invoke the statutory procedure, whether inadvertently or by design.

(4) Although Section 1242.5 expressly authorizes the landowner to recover, out of the deposited security, compensation for the damages caused by the survey, plus court costs and a reasonable attorney fee "incurred in the proceeding before the court", it is not clear what "proceeding" is referred to - the initial proceeding leading to the order permitting the survey, or the subsequent proceeding to obtain compensation for the damages incurred,

or both.

347. Legislative clarification of the rules of damages applicable in inverse condemnation proceedings would be appropriate, since present statutory provisions governing eminent domain awards are geared solely to affirmative condemnation proceedings. See Cal. Code Civ. Proc. §§ 1248 - 55b. Consideration should be given to the following aspects of inverse damages rules:

(a) Should a "before-and-after" test, as a measure of loss of value, be established by statute as the basic rule of damages, in accordance with the decisional law? See Rose v. State of California, 19 Cal.2d 713, 737, 123 P.2d 505, 519 (1942). It is clear that loss of value is not the only constitutionally permissible measure of just compensation. United States v. Virginia Electric & Power Co., 365 U.S. 624 (1961); Citizens Util. Co. v. Superior Court, 59 Cal. 2d 805, 31 Cal. Rptr. 316, 382 P.2d 356 (1963). If this standard is adopted, however, it should be recognized that exceptions may be needed to deal equitably with situations in which damage to improvements may not be reflected in diminished land value. See, e.g., Kane v. City of Chicago, 392 Ill. 172, 64 N.E.2d 506 (1946) (no inverse damage recognized where, after destruction of building, land was more valuable than before); Evans v.

Wheeler, 348 S.W.2d 500 (Tenn. 1951) (detriment to operation of riding academy, caused by diversion of river, held noncompensable since no loss was established when property values were judged by "before-and-after" method in light of fact that highest and best use was for residential subdivision); Note, Compensation For a Partial Taking of Property: Balancing Factors in Eminent Domain, 72 Yale L. J. 392 (1962). Furthermore, the method of computing loss of value should exclude increased values attributable to general inflationary trends, especially where the damage was inflicted over an extended period of time. See Steiger v. City of San Diego, 163 Cal. App. 2d 110, 329 P.2d 94 (4th Dist. 1958).

(b) Should "special" benefits be set off against inverse damages, in accordance with the case law? See Dunbar v. Humboldt Bay Municipal Water Dist., 254 Cal. App. 2d , 62 Cal. Rptr. 358 (3d Dist. 1967). In affirmative eminent domain proceedings, special benefits may only be set off against severance damages, not against the value of what is taken. Cal. Code Civ. Proc. § 1248, par. 3; see Gleaves, Special Benefits: Phantom of the Opera, 40 Cal. S. B. J. 245 (1965); Comment, The Offset of Benefits Against Losses in Eminent Domain Cases in Texas: A Critical Appraisal, 44 Tex. L. Rev. 1564 (1966). Inverse litigation, however, ordinarily does not involve issues of severance damages; hence, to allow a complete offset

against inverse damages might, in some cases, reduce the plaintiff's recovery to nothing, cf. United States v. Easements and Rights Over Certain Land etc., 259 F. Supp. 377 (E.D. Tenn. 1966), even though, had the identical facts been the subject of an affirmative condemnation suit, no offset would have been permissible. But see Cal. Code Civ. Prov. § 1248, par. 4 (offset of specifically defined benefits against damages for appropriation of water), incorporated by reference in Cal. Code Civ. Proc. § 534 (inverse damage award as alternate relief in suit to enjoin appropriation of water).

(c) To what extent should expenses incurred by the plaintiff in an effort to mitigate inverse damages be recoverable? Such mitigation expenses are presently recoverable by decisional law, when incurred in good faith and reasonable amount, even though the mitigation efforts were unsuccessful. Albers v. County of Los Angeles, 62 Cal. 2d 250, 269-72, 42 Cal. Rptr. 100-02, 398 P.2d 129, 140-42 (1965). Such mitigation expenses are recoverable in addition to loss of market value. Ibid. See also, Game & Fish Comm'n v. Farmers Irrigation Co., Colo. , 426 P.2d 562 (1967); Kane v. City of Chicago, 392 Ill. 172, 64 N.E.2d 506 (1945).

(d) When "cost-to-cure" is less than loss of market

value, should this measure of damages be authorized or required in lieu of loss-of-value? See Dunbar v. Humboldt Bay Municipal Water Dist., 254 Cal. App. 2d , 62 Cal. Rptr. 358 (3d Dist. 1967) (cost of remedial measures held relevant to damage issues); Steiger v. City of San Diego, 163 Cal. App. 2d 110, 329 P.2d 94 (4th Dist. 1958) (cost of constructing adequate drainage to alleviate erosion held relevant to loss of value); Bernard v. State, 127 So.2d 774 (La. 1961)(cost of construction of new bridge to restore access destroyed by enlargement of drainage canal); Brewitz v. City of St. Paul, 256 Minn. 525, 99 N.W.2d 456 (1959) (cost of retaining wall to control erosion caused by lowering of street grade). Should the cost of available remedial measures limit inverse damages where the owner, by unreasonably failing to take such measures in mitigation of damages, increased the physical injuries and loss of value sustained? See United States v. Dickinson, 331 U.S. 745, 751 (1947) (fair to measure erosion damage by cost of reasonable protective measures which plaintiffs could have undertaken). See, generally, Note, 72 Yale L. J. 392 (1962).

(e) Should removal and relocation costs be authorized in inverse condemnation proceedings? See, generally, Staff of House Comm. on Public Works, 88th Cong., 2d Sess.,

Study of Compensation and Assistance for Persons Affected by Real Property Acquisition in Federal and Federally Assisted Programs 194-237 (Comm. Print 1964) (collection of statutory provisions for relocation and removal costs); U. S. Advisory Comm'n of Intergovernmental Relations, Relocation: Unequal Treatment of People and Business Displaced by Governments (1965). Cf. Albers v. County of Los Angeles, 62 Cal. 2d 250, 267-68, 42 Cal. Rptr. 89, 99, 398 P.2d 129, 139 (1965) (removal and relocation costs held not allowable, pursuant to Cal. Code Civ. Proc. § 1248 (6), in addition to loss of value).

(f) Should attorneys fees and expert witness fees be recoverable in inverse condemnation proceedings? Ordinarily such losses are not presently recoverable in inverse suits. See Frustuck v. City of Fairfax, 230 Cal. App. 2d 412, 41 Cal. Rptr. 56 (1st Dist. 1964) (abandonment of project causing inverse damages held not a basis for statutory award of attorneys fees and expert witness fees under Cal. Code Civ. Proc. § 1255a). But see Cal.Code Civ. Proc. § 532 (attorneys fees authorized in water appropriation suit where defendant posts bond on obtaining modification of injunction).

348. See City of Pasadena v. City of Alhambra, 33 Cal. 2d 908, 207 P.2d 17 (1949) (allocation of water rights in underground

basin); Hillside Water Co. v. City of Los Angeles, 10 Cal. 2d 677, 76 P.2d 681 (1938) (replacement of public school water supply depleted by municipal exportation). Although unconditional mandatory orders for physical correction of a cause of recurrent damaging have sometimes been approved, see, e.g., Weisshand v. City of Petaluma, 37 Cal. App. 296, 174 P. 955 (3d Dist. 1918) (mandatory installation of culvert); Union Pacific R. R. v. Vale, Oregon, Irrigation Dist., 253 F. Supp. 251 (D. Ore. 1966) (mandatory correction of seepage from irrigation canal); Colella v. King County, Wash.2d , 433 P.2d 154 (1967) (mandatory injunction to county to provide drainage for plaintiff's lands), it is submitted that the public entity preferably should be given a choice, in the form of a conditional judgment, whether to undertake physical correction of the difficulty or pay just compensation and thereby acquire the right to continuation of the injurious condition in the future. See, e.g., Gibson v. City of Tampa, 135 Fla. 637, 185 So. 319 (1938) (city could not be compelled to erect expensive sewage treatment plant in lieu of just compensation for pollution damage); Buxel v. King County, 60 Wash.2d 404, 374 P.2d 250 (1962) (city given alternative between construction of drainage facilities or payment of damages). Cf. City of Harrisonville v.

W. S. Dickey Clay Mfg. Co., 289 U.S. 334, 339-41 (1933) (injunction against sewage nuisance conditioned upon city's failure to pay damages) (Brandeis, J.). The latter view would reduce the danger of judicial interference with the discretionary determinations of elected public officials in matters relating to fiscal and budget policy, scope of improvement projects, and arrangement of priorities in allocation of public resources.

349. Peabody v. City of Vallejo, 2 Cal. 2d 351, 40 P.2d 486 (1935); Frustuck v. City of Fairfax, 212 Cal. App. 2d 345, 28 Cal. Rptr. 357 (1st Dist. 1963). But see cases cited supra, note 348. Injunctive relief has been recognized as generally appropriate to prevent a threatened taking or damaging of private property if a public use has not yet materialized. Beals v. City of Los Angeles, 23 Cal. 2d 381, 144 P.2d 839 (1944). Cf. Hassell v. City & County of San Francisco, 11 Cal. 2d 168, 78 P.2d 1021 (1938) (nuisance).

350. For a good review of the flexible inverse remedies which could be made available, see Note, Eminent Domain -- Rights and Remedies of an Uncompensated Landowner, 1962 Wash. U. L. Q. 210. See also, Horrell, Rights and Remedies of Property Owners Not Proceeded Against, 1966 U. Ill. L. Forum 113; Oberst & Lewis, Claims Against the

State of Kentucky -- Reverse Eminent Domain, 42 Ky. L. J. 163 (1953); Note, 72 Yale L. J. 392 (1962).

351. Wis. Stat. Ann. § 88.87 (Supp. 1967). See also, id. 88.89.

352. See note 348, supra. In appropriate cases, the court could be authorized to award just compensation for damages accrued in the past, plus a mandatory order to undertake corrective measures to prevent future damaging, unless the defendant public entity formally asserts its desire to acquire title to a permanent easement or servitude and pay compensation therefor. See Game & Fish Comm'n v. Farmers Irrigation Co., Colo. , 426 P.2d 562 (1967) (stream pollution); Armbruster v. Stanton-Pilger Drainage Dist, 169 Neb. 594, 100 N.W.2d 781 (1960) (stream diversion and erosion).