NOTICE OF MEETING OF THE
ADVISORY PLANNING COMMISSION OF THE
TAHOE REGIONAL PLANNING AGENCY

NOTICE IS HEREBY GIVEN that on December 9, 1981 at
10:00 a.m. at the hearing room of the Tahoe
Regional Planning Agency, located at 2155 South Avenue, South
Lake Tahoe, California, the Advisory Planning Commission of
said agency will conduct its regular meeting. The agenda for
said meeting is attached to and made a part of this notice.

Dated: December 1, 1981

By: [Signature]
Philip A. Overeynder
Executive Director
Tahoe Regional Planning Agency
PRELIMINARY AGENDA

I  CALL TO ORDER AND DETERMINATION OF QUORUM

II  APPROVAL OF AGENDA

III  DISPOSITION OF MINUTES

IV  PLANNING MATTERS
   A.  1982 Nonattainment Air Quality Plan Status Report - D.N.
   B.  Environmental Threshold Carrying Capacity Study - R.S.
   C.  Water Quality (208) Plan Implementation
       2.  Remedial Erosion Controls - G.W.B. / K.E.
   D.  Shorezone Ordinance Amendments

V  REPORTS
   A.  Public Interest Comments
   B.  APC Members

VI  RESOLUTIONS

VII  CORRESPONDENCE

VIII  PENDING MATTERS

IX  ADJOURNMENT
TAHOE REGIONAL PLANNING AGENCY
ADVISORY PLANNING COMMISSION

TRPA Office, 2155 South Avenue
South Lake Tahoe, California
October 14, 1981
10:00 a.m.

REGULAR MEETING MINUTES

I. CALL TO ORDER AND DETERMINATION OF QUORUM

Chairman John Meder called the meeting of the Advisory Planning Commission to order at 10:15 a.m., and introduced Mr. Heitkemper who sat in for Ms. Bogush and introduced into the record a letter of authorization from the City of South Lake Tahoe.

APC Members Present: Mr. Hallam, Mr. Renz, Mr. Combs, Mr. Harper, Mr. Heitkemper, Mr. Hoole, Mr. Smith, Ms. Smith, Mr. McCurry, Mr. Schlumpf, Ms. McMorris, Ms. Shellhammer, Mr. Randolph, Mr. Meder

APC Members Absent: Mr. Hansen, Mr. Bidart, Mr. Pyle

II. APPROVAL OF AGENDA

Ms. Shellhammer commented on the topic of the Role of the APC, and inasmuch as the issue had not been resolved, that perhaps this item should be discussed and put on this Agenda. After some discussion it was decided that this item should be placed on the November agenda.

MOTION by Ms Smith with Second by Mr. Schlumpf to approve the October Agenda. The motion carried unanimously.

III. DISPOSITION OF MINUTES

Mr. Smith made several corrections to the August minutes. On Page 1, under agenda item VI.A. the word "fit" was changed to "bit". Page 2, second motion on agenda item VI.A., Mr. Smith voted Mr. Smith voted "nay". On Page 5, under agenda item VI, the word "to" was left out in the phrase "the role they would like to take on." and on agenda item VI.G, the word "staff" was left out as the first word in the paragraph.

Mr. Combs mentioned that at the August meeting he was uncertain as to whether he would be able to be a member of the threshold study steering committee, and wanted it to be placed in the record that he would indeed be a member of said committee.

MOTION by Ms. Smith with Second by Mr. Combs to approve the August minutes as amended. The motion carried unanimously.
Executive Director, Philip Overeynder, commented on the September minutes; specifically, agenda item IV.C. Report on the Status of Barton Hospital General Plan Amendment and Barton Street General Plan Amendment. Mr. Overeynder pointed out that there could be some problem with rezoning to Conservation Reserve in that on the California Side Land Use Ordinance this zoning could only permit residential not commercial use.

Mr. Overeynder also commented on item VI. Reports, stating that TRPA has now received the grant from EPA.

MOTION by Ms. Shellhammer with second by Mr. Hoole to approve the September minutes. The motion carried unanimously.

IV     PLANNING MATTERS

A. Conflict of Interest Requirements for Advisory Planning Commission Members

Executive Director, Philip Overeynder, updated the APC on the APC’s alternatives with regard to this subject. Mr. Overeynder reminded the APC of the APC's request to have legal counsel, Gary Owen review Mr. Hansen's proposed alternative read into the record in September, and informed the APC that Mr. Owen had no major problem with said alternative; however, he did feel that if the APC wanted to go with Mr. Hansen's alternatives then the proposal should be rewritten to comply with wording of the Compact. Ms. Smith stated that she would like to see the words "any discussion and" added to Mr. Hansen's proposed resolution. The sentence would then read. "Each member of the Advisory Planning Commission (herein "the APC") shall disclose that he has conflict of interest at the public meeting and refrain from any discussion and voting . . . "

There was much discussion and comment from the APC and Randy Sheffield on which alternative would be best, and on what the Governing Board wanted from the APC. Chairman Meder suggested that he go before the Governing Board and let them know the willingness of the APC to file Conflict of Interest Statements and set forth the APC's feelings on what the APC feels should be their role and also get the Governing Board's feelings and comments on what they would like to see as far as the APC's role. It was suggested that it be put on as a planning matter at the next month's Governing Board meeting. After some discussion it was decided that Chairman Meder would go before the Governing Board and explain to them the feelings of the APC as far as the role APC would like to carry out and to show the Governing Board that the APC is an earnest commission that the APC would like to have the same conflict of interest requirements as the Governing Board. Chairman Meder will also present to them the alternative presented by Mr. Hansen if it is the Governing Board's opinion that the resolution passed (81-8) was not necessary.
B. Shorezone Ordinance Amendments

Mr. James Williamson, of the Tahoe Shorezone Representation, submitted a letter into the record outlining the Tahoe Shorezone Representation's comments and suggested changes.

Planning Assistant, Kristina Elving, gave the presentation and went through the proposed shorezone amendments with the APC. Mr. Williamson and the APC felt they had no had enough time to comment on these proposed ordinance and have it go to the Governing Board for first reading. Staff informed the APC that this was a rough draft and that the staff planned to take the APC's comments and recommendations and the Tahoe Shorezone Representation's comments and recommendations and put together a final draft to be put on the Governing Board agenda under Planning Matters. There were many recommended changes and concerns brought up by the APC with regard to these proposed shorezone amendments and after much discussion from APC and the Tahoe Shorezone Representation, staff felt they had enough information and workable ideas to put together a draft for APC's and Governing Board's review.

C. Land Use Ordinance Amendments

Senior Planner, Gordon Barrett, gave the presentation to the APC, stating that the proposed amendments would combine the Nevada Side and California Side Land Use Ordinance. One of the issues raised was who should be the lead agency. The APC felt that the Agency staff should take the lead role. After much discussion and comment from the APC it was decided that the amendments would go before the Governing Board for their comments.

D. Discussion of Policy for Review of New and Modified Projects Which have Adverse Air Quality Impacts.

Executive Director, Philip Overeynder, informed the APC that this proposed ordinance was tabled by the Governing Board and stated the Board felt it was premature at this time. He also stated that the Board directed the Staff to develop a policy that would address these projects on a case-by-case basis.

Since the proposed Ordinance was tabled indefinitely by the Governing Board due to a number of concerns, staff outlined the procedure to be utilized in evaluating air quality impacts to insure compliance with the Compact requirements. Staff will continue to evaluate the air quality impacts of development proposals by screening out projects which generate over 100 vehicle trips daily or exceed 1% of the remaining roadway capacity in the project vicinity. If this criteria is exceeded, an Environmental Impact Statement (EIS) will be required pursuant to the amended Compact and the EIS will evaluate whether the state and federal air quality standards would be exceeded. If the standards are exceeded, the project would violate the Compact and must be rejected or modified. Mitigating measures for air quality will be considered as part of the EIS in order to reduce the air quality and traffic impacts to a less than significant level.
There were several questions raised by the APC on what criteria would be used in processing these projects, e.g., what projects would require review; what criteria would be used to determine whether or not a project would exceed the state air quality standard; and, if there is remaining road capacity how should we prevent further degradation in those areas. Mr. Randolph commented that in order to pass this ordinance an EIS would be necessary and that there was not enough time between now and when the general plan was updated to prepare and utilize this ordinance.

E. Environmental Threshold Carrying Capacities

Mr. Randy Sheffield gave a brief presentation and updated the APC on what has been done so far on this study.

V CLEARING HOUSE

A. Environmental Impact Statement for the Land Acquisition Plan for the Lake Tahoe Basin, U. S. Forest Service

Mr. Smith gave a brief presentation to the APC before the APC adjourned.

VI REPORTS

A. Public Interest Comments - none

B. APC Members - none

VII RESOLUTIONS

VIII CORRESPONDENCE

IX PENDING MATTERS

X ADJOURNMENT - The APC adjourned at 3:10 p.m.
MEMORANDUM

DATE: December 1, 1981

TO: The Advisory Planning Commission
FROM: The Staff
SUBJECT: Development of the 1982 Air Quality Plan for the Lake Tahoe Basin

Background

The Clean Air Act Amendments of 1977 required states to identify those areas not attaining air quality standards and established a planning process for developing a plan to attain the standards in these areas. This plan was to be submitted to EPA through the states by January 1, 1979. The Clean Air Act Amendments also required that the standards be attained by December 31, 1982 with the exception of areas with transportation related air quality problems not attaining the ozone and/or carbon monoxide standards. An extension of the attainment date to December 31, 1987 was allowed for these areas if the air quality plan was updated and submitted to EPA by July 1, 1982.

The Tahoe Basin was originally designated as not attaining the ozone and carbon monoxide air quality standards. EPA, however, changed the old ozone standard of 0.08 ppm to 0.12 ppm. As a result of this action, the Basin was redesignated to attainment because the new standard had never been exceeded.

TRPA was designated as the local agency responsible for preparing the 1979 air quality plan for the Nevada side of the Basin while the California Air Resources Board (ARB) was designated for the California side of the Basin.

In 1978 and 1979, the ARB, Nevada Division of Environmental Protection (NDEP), TRPA and other entities having a responsibility in air quality planning worked together to develop a bistate air quality plan for the Basin. This was done to take advantage of treating the Basin as a single planning area and cooperating in the evaluation, development and implementation of one plan. However, during this process there were several disagreements on the technical assumptions and on what control measures should be adopted. As a result, a separate plan was adopted by the ARB for California and by the Nevada Environmental Commission for Nevada. TRPA did not adopt an air quality plan but recommenced a plan nearly identical to the plan later adopted by Nevada for both states. Appendix A shows the measures included in the 1979 Air Quality Plans and the adoption status of each measure.
The California plan indicated that a number of control measures would have to be adopted to attain the standard and that the standard could not be attained by December 31, 1987. The Nevada plan indicated that the standard could be attained by 1982 with the completion of the Loop Road and installation of two pedestrian/vehicle separations in the South Shore casino area.

In November 1980, the TRPA Board passed a resolution requesting the ARB to designate it as the local agency responsible for air quality planning on the California side of the Basin so that one plan and program could be developed. In May 1981, the ARB concurred with the Board's request.

The TRPA staff then established a work program for preparing a 1982 Air Quality Plan and a Technical Advisory Committee to provide coordination with the involved entities and to provide input into the development of the plan.

In general, there are four steps involved in developing an air quality plan. These steps include:

1. Completing air quality modeling analyses to define the areas that have an air quality problem and to define the reduction in emissions needed to attain the standard in the problem areas.

2. Developing potential control measures for solving the air quality problem, and determining the effectiveness of each measure.

3. Developing a control strategy by relating the air quality modeling analyses to the control measures.

4. Obtaining agreements from the entities responsible for implementing the control measures.

Major Issues

The following is a list of the major issues that will most likely arise during the adoption of the 1982 Air Quality Plan:

1. Establishing an attainment date for the 6 ppm 8-hour high altitude carbon monoxide standard adopted for the Basin by both California and Nevada. The Clean Air Act has a required attainment date for the federal 9 ppm 8-hour carbon monoxide standard of December 31, 1982. However, there is not an attainment date for the state standard because the attainment strategy should take economic considerations into account. Possible options include:
- Establishing a deadline consistent with the federal deadline.

- Establishing a deadline beyond the federal deadline.

- Deferring any decision until the General Plan is updated so that any deadline would be consistent with any deadlines established in the General Plan for the Environmental Thresholds.

2. Resolving the conflicts in terms of what control measures should be adopted with Air Quality Plan and which should be deferred until adoption of the Transportation Plan because they conflict with the legal requirements of the Compact.

3. Meeting the May, 1982 submittal deadline established by California and Nevada without prejudging any environmental thresholds that may be established.

4. Obtaining the implementing agreements and implementation dates for the control measures adopted by the Board by the May, 1982 submittal deadline.

Proposed Adoption Process

The proposed adoption timing and process is presented below.

<table>
<thead>
<tr>
<th>Date</th>
<th>Process</th>
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<tbody>
<tr>
<td>January, 1982</td>
<td>Presentation to the APC and Governing Board on the air quality modeling and potential control measures to obtain direction for developing an acceptable control strategy.</td>
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<td>Direction from the Board on establishing a date for attaining the state air quality standard.</td>
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<td>A preliminary determination concerning the deferral of any control measures which may conflict with the legal requirements of the Transportation Plan required by the Compact.</td>
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<td>Start of the public comment period.</td>
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</table>
Memo to APC
December 1, 1981
Page four

- Any additional direction needed from the previous step in terms of developing an acceptable control strategy.

March, 1982

April, 1982
- Adoption of the Final Air Quality Plan and Environmental Impact Statement by the Board.
  - Coordinating with the Tahoe Transportation District to obtain the implementation agreements and implementation dates from the entities responsible for implementing the control measures.

May, 1982
- Submittal of the final Plan to both California and Nevada.
## APPENDIX A

### ARB AND OTHER ENTITY ACTIONS

<table>
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<tr>
<th>Control Measures</th>
<th>Action</th>
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*Noted upon other agencies as "Reduced Mass Transit Fares."

Adopted as Maintenance Measures by Resolution 79-199 (See Appendix G).

For S-8, which the Nevada Environmental Commission (NEC) relegated to further study, the NEC adopted the TRPA action for the Nevada SIP revision.
MEMORANDUM

December 1, 1981

To: The Advisory Planning Commission

From: The Staff

Subject: Environmental Threshold Carrying Capacity Update

The Steering Committee for the Environmental Threshold Carrying Capacity Study met November 20 to consider the final work plan, bring together the technical resource team, and review draft value statements. The value statements were provided the APC members on November 12.

The Steering Committee concurred with the work plan and, after some discussion, directed finalizing of the value statements. Environmental components were both added and changed resulting in a more complete listing for value statement development. Members of the technical resource team had not had an opportunity to review the statements until the day of the meeting. Technical team members will respond to staff by December 3 with any additional comment. We will finalize the value statements and make them available to the APC on December 9.

Components

Thresholds

Evaluation Components
OUTLINE--DRAFT OPTIONS PAPER

Transfer of Development Rights

I. STATUS

--TRPA staff researching all available options, "pros and cons"
--Staff is consulting with staff from Lahontan, Douglas County, City of South Lake Tahoe, CTRPA, others
--Tentative schedule calls for draft ordinance to APC for review in March, 1982
--Note that the California State Water Resources Control Board said TRPA should adopt necessary ordinance by December 31, 1981 (Resolution 81-64)

II. GENERAL PRINCIPLES

A. Primary Goal: to mitigate adverse economic impacts on owners of lots in critical areas in the Tahoe Basin, as a companion to direct acquisition

B. Secondary Goal: to enhance environmental protection programs (e.g., air quality, water quality) and public service availability (e.g., transportation, snow removal)

C. Aspects Common to All Options

   --Require identification of preservation zones (PZ's) and receiving zones (RZ's)
   --Need for good record-keeping
   --Need for a viable market, i.e., supply, demand, and transfer mechanism
   --Need to balance supply and demand to ensure fairness

D. Note presence of strong public opinion on this and related issues

III. AVAILABLE OPTIONS

A. Existing California-side system
B. Transfer of land coverage
C. Transfer of development credit
D. Direct purchase by local government--banking approach
E. Others?

NOTE: Descriptions and "pros and cons" of Options A-D attached.

IV. ISSUES FOR DISCUSSION

A. Problems and/or benefits of moving ahead before revisions of the 208 Plan
B. Criteria for evaluating options
C. Legal barriers
D. Equity considerations
E. Costs of the various options--private sector/public sector
F. Relationship to land acquisition programs
OPTION A:

Existing California-Side System

DESCRIPTION

--California lot owners in critical areas receiving random allocations under limits set in interstate compact may transfer allocation to another parcel
--Owner may:
  (1) transfer allocation to another lot of equal or lower use
  (2) sell allocation
  (3) relinquish allocation without prejudice
--Before an owner can transfer his allocation he must:
  (1) permanently give up development rights on his parcel
  (2) "bring current" sewer assessments and bonded indebtedness
--System is set forth in ordinances of City of South Lake Tahoe, Placer County, El Dorado County, and CTRPA for 1981 and 1982 building seasons
--TRPA could adopt the existing program as is, or modify it slightly, and extend it beyond the 1982 building season

"PROS"

--Existing, working system; fairly simple to administer
--Meets primary goal for those who receive random allocations
--Persons who receive benefits pay for them directly

"CONS"

--System will not work on Nevada side because there is no shortage of building permits at this time
--Temporary system for 1981 and 1982 building seasons only; pegged to building limits in Compact
--Imbalance of supply and demand; in California, demand for allocations exceeds supply, while in Nevada, supply far exceeds demand
--Depends on temporary land use restrictions
OPTION B:
Transfer of Land Coverage

DESCRIPTION

-- Owners of lots in critical areas could sell their land coverage allowances to owners of "receiving zone" lots who wish to obtain additional coverage for new construction or renovation
-- "Receiving zone" would consist of urban "nodes" along main transportation corridors where increased residential density might be desirable and where many properties already exceed allowable coverage
-- Would require new TRPA and/or local ordinances
-- Could be tied to remedial runoff/erosion control program for residential and commercial property

"PROS"

-- Would apply equally to California and Nevada lot owners
-- Meets primary and secondary goals
-- Administering agency could balance supply and demand
-- Gives opportunity to owners who exceed allowable coverage in "receiving zone" to comply with intent of land capability classification system
-- Those who benefit from system pay directly

"CONS"

-- Administrative burden
-- Involves land coverage overrides which may require additional mitigation
-- Requires identification of "receiving zones" before update of 208 Plan
-- Owners of highest-hazard lots (1 percent coverage) have the least coverage to sell
OUTLINE—DRAFT OPTIONS PAPER

Transfer of Development Rights

I. STATUS

-- TRPA staff is researching all available options, "pros and cons"
-- Staff is consulting with staff from Lahontan, Douglas County,
  City of South Lake Tahoe, CTRPA, and others
-- Note that the California State Water Resources Control Board said
  TRPA should adopt necessary ordinance by December 31, 1981
  (Resolution 81-64)

II. RECOMMENDED APPROACH

A. Short-Term

-- TRPA and CTRPA staffs work together to evaluate existing
  system and transition of responsibility from CTRPA to TRPA
-- TRPA staff monitor development in Nevada and consider adopting
  an interim TDR policy
-- TRPA, CTRPA, LRWQCB study specific, limited concepts such
  as land-coverage transfers on contiguous lots, bonuses

B. Long-Term

-- Begin work on a new, complete TDR system to accompany the
  update of the 208 plan
-- Use Option D (Transfer of Development Credits) as starting
  point for development of system

III. GENERAL PRINCIPLES OF TDR

A. Primary Goal: to mitigate adverse economic impacts of owners
  of lots in critical areas in the Tahoe Basin, as a companion to
  direct acquisition

B. Secondary Goal: to enhance environmental protection programs and
  public services

C. Aspects Common to All Options:

-- Require identification of preservation zones (PZ's) and
  receiving zones (RZ's)
-- Need for good record-keeping
-- Need for a viable market, i.e., supply, demand, transfer
  mechanism
-- Need to balance supply and demand to ensure fairness

D. Note presence of strong public opinion on this and related issues
IV. LONG-TERM OPTIONS FOR 208 PLAN UPDATE

A. Existing California-side system  
B. Transfer of land coverage  
C. Density transfer  
D. Transfer of development credits  
E. Direct Purchase by governmental entities—banking approach  

NOTE: Descriptions and "pros and cons" of Options A-E attached

V. ISSUES FOR FURTHER STUDY

A. Criteria for evaluating options  
B. Legal barriers  
C. Equity considerations  
D. Costs of the various options—private, public  
E. Relationship to land acquisition programs
OPTION A:

Existing California-Side System

DESCRIPTION

--California lot owners in critical areas receiving random allocations under limits set in interstate compact may transfer allocation to another parcel
--Owner may:
  (1) transfer allocation to another lot of equal or lower use
  (2) sell allocation
  (3) relinquish allocation without prejudice
--Before an owner can transfer his allocation he must:
  (1) permanently give up development rights on his parcel
  (2) "bring current" sewer assessments and bonded indebtedness
--System is set forth in ordinances of City of South Lake Tahoe, Placer County, El Dorado County, and CTRPA for 1981 and 1982 building seasons

"PROS"

--Existing, working system; fairly simple to administer
--Meets primary goal for those who receive random allocations
--Persons who receive benefits pay for them directly

"CONS"

--Imbalance of supply and demand; in California, demand for allocations exceeds supply, while in Nevada, supply far exceeds demand
OPTION B:
Transfer of Land Coverage

DESCRIPTION

-- Owners of lots in critical areas could sell their land coverage allowances to owners of receiving zone lots who wish to obtain additional coverage for new construction or renovation
-- The receiving zone would consist of urban "nodes" along main transportation corridors where increased residential density might be desirable and where many properties already exceed allowable coverage

"PROS"

-- Would apply equally to California and Nevada lot owners
-- Meets primary and secondary goals
-- Administering agency could balance supply and demand
-- Gives opportunity to owners who exceed allowable coverage in the receiving zone to comply with the intent of the land capability system
-- Those who benefit from system pay directly

"CONS"

-- Administrative burden
-- Involves land coverage overrides which may require additional mitigation
-- Owners of highest-hazard lots (1 percent coverage) have the least coverage to sell
OPTION C:

Density Transfer

DESCRIPTION

-- Owners of lots in receiving zone who wish to exceed set density limits could retire lots in critical areas in exchange for increased density.
-- Receiving zone could be narrowly-defined (as in Option B) or broadly-defined (e.g., all class 4-7 lands).

"PROS"

-- Would apply equally to all California and Nevada lot owners.
-- Meets primary and secondary goals.
-- Administering agency could balance supply and demand.
-- Could increase the availability of low- and moderate-income housing.

"CONS"

-- Administrative burden.
-- Requires relaxing density rules.
-- May conflict with CIRPA/SWRCB position on new multiple-family dwellings.
OPTION D:

Transfer of Development Credits

DESCRIPTION

-- Owners of all subdivided lots would be issued credits representing their share of the critical resources of the Tahoe Basin, specifically:
   -- sewage capacity
   -- water supply
   -- land coverage
   -- air resources
-- Owners of lots in critical areas would be free to sell their credits
-- To construct a home or other structure in a non-critical area, the owner would have to obtain, through the marketplace, additional credits based on his share of the specific resource at a built-out condition
-- Would require a knowledge of the "ultimate" supply of critical resources in each jurisdiction, based on the threshold study

"PROS"

-- Meets primary and secondary goals
-- Treats all owners of lots in critical areas equally
-- Would tie-in nicely with the acquisition program of the Forest Service
-- Would help implement the threshold study

"CONS"

-- Administrative burden
OPTION E:

Direct Purchase by Government Entities -- Banking Approach

DESCRIPTION

--Could apply to Options A, B, C, or D
--Units of government would act as intermediaries, buying, banking, and selling building allocations, land coverage, or development credits in their jurisdictions

"PROS"

--If funds to purchase development rights were available, would speed up purchases, stabilize prices
--Government agencies could regulate new development through banking and selling policies

"CONS"

--Would require substantial outlays of public funds
--Might encounter strong political opposition
OPTION C:
Transfer of Development Credits

DESCRIPTION

--Owners of all subdivided lots would be issued "credits" representing their share of the critical resources of the Tahoe Basin, specifically:
  --sewage capacity
  --water supply
  --land coverage
  --others?
--Owners of lots in critical areas would be free to sell their credits
--To construct a home (or other structure) in a non-critical area, the owner would have to obtain, through the marketplace, additional credits based on his share of the specific resource at a built-out condition
--Would require new ordinances and also a knowledge of the "ultimate" supply of critical resources in each jurisdiction

"PROS"

--Meets primary and secondary goals
--Treats all owners of lots in critical areas equally
--Would tie-in nicely with the acquisition program of the Forest Service

"CONS"

--Administrative burden
--Difficult or impossible to implement before completion of threshold study and update of 208 Plan
OPTION D:

Direct Purchase by Government Entities -- Banking Approach

DESCRIPTION

--Could apply to Options A, B, or C
--Units of government would act as intermediaries, buying, banking, and selling building allocations, land coverage, or development credits in their jurisdictions

"PROS"

--If funds to purchase development rights were available, would speed up purchases, stabilize prices
--Government agencies could regulate new development through banking and selling policies

"CONS"

--Would require substantial outlays of public funds
--Might encounter strong political opposition
DRAFT OUTLINE:

REMEDIAL EROSION AND RUNOFF CONTROL ORDINANCE

I. Findings

--- to implement adopted 208 Plan it is necessary to adopt this ordinance for remedial erosion runoff and control problems

--- timely implementation of remedial controls is necessary to maintain water quality at current levels and to reverse the process of degradation of water quality

--- ordinance establishes procedures, sets standards, and provides for enforcement

--- provisions of this ordinance are in accordance with the Tahoe Regional Planning Compact

--- appropriate public hearings conducted as required by law

II. General Provisions

--- Compliance: Operation of basin-wide remedial program shall be in compliance with this ordinance; action plans shall be required for high-priority problems; TRPA will provide technical assistance and stress voluntary compliance with erosion and runoff control standards; where responsible parties fail to take acceptable action after sufficient time period, TRPA may take enforcement actions in accordance with the Tahoe Regional Planning Compact

--- interpretation and severability

III. Definitions

IV. Procedures

A. Phase I -- Notice

--- TRPA staff verifies problem identification in 208 Plan through field surveys

--- TRPA staff develops mitigation priority list in accordance with priority system and criteria included in part V of this ordinance
WATERSHED PRIORITY CRITERIA

Goal: Reduction of Sediment Yield & Nutrient Loading to Lake Tahoe from Problem Areas

- Sediment and nutrient loads are generated from runoff and erosion
- Components of land development can significantly increase runoff and erosion
- Problems associated with these components directly impact runoff quality and erosion

Reduction of Sediment Yield & Nutrient Loading = f(Mitigation of Problems Associated With Components of Land Development)

Components of land development to evaluate magnitude of problem impact by watershed

- Development on high hazard lands
- Developed lands vs undeveloped lands
- Eroding road slopes
- Unstable roadside drainage
- Unvegetated areas
- Compacted or paved service areas

Priority By Land Classification

1. Stream environment zones are natural filtering systems which trap sediment and provide nutrient uptake, providing natural mitigation requiring preservation

2. High hazard lands account for 55% of the total sediment yield in the Basin

3. Low hazard lands are predominately developed areas which account for the majority of nutrient loads and 35% of the sediment yield.

4. Moderate hazard lands account for 15% of the total sediment yield and are moderately developed
1. Stream Environment Zone (Class 1b)
   - Protect or enhance SEZ from development
   - Revegetation of bare areas
   - Energy dissipation of drainage systems
   - Stabilization of dirt roads
   - Stabilization of roadway ditches and drainage

2. High Hazard Lands (Class 1a, 1c, 2)
   - Stabilization of roadway slopes
   - Stabilization of roadway ditches and drainage
   - Revegetation of bare areas
   - Energy dissipation of drainage systems
   - Stabilization of dirt roads

3. Low Hazard Lands (Class 5, 6 & 7)
   - Stabilization of roadway ditches & drainage
   - Energy dissipation of drainage systems
   - Revegetation of bare areas
   - Stabilization of roadway slopes
   - Stabilization of dirt roads

4. Moderate Hazard Lands (Class 3 & 4)
   - Stabilization of roadway slopes
   - Revegetation of bare areas
   - Stabilization of roadway ditches and drainage
   - Stabilization of dirt roads
   - Energy dissipation of drainage systems
PRELIMINARY DRAFT -- FOR DISCUSSION ONLY

within one year of effective date of this ordinance, TRPA issues first notices to parties responsible for high-priority problems; identifies available technical advice and assistance

B. Phase II -- Planning

-- responsible parties must develop acceptable action plans (per part VI of this ordinance) within specified time limit; plans are subject to Governing Board approval

-- TRPA staff provides technical advice on action plan preparation

-- action plan must be consistent with any applicable State or Federal discharge permit; approval of an action plan by the Governing Board does not constitute a permit to discharge to surface or ground waters

C. Phase III -- Compliance

-- if responsible party fails to submit plan within time limit, TRPA staff will prepare a plan for approval of both the responsible party and the Governing Body

-- if staff fails to reach agreement with responsible party on action plan, responsible party could appeal to TRPA Executive Director

-- if appeal to Executive Director fails to produce an acceptable action plan, responsible party will be asked to appear at a show-cause hearing before the Governing Body

-- after show-cause hearing, Governing Board will direct staff to prepare an action plan for the responsible party

-- if the terms of the final action plan are not met by the responsible party, the Governing Body may direct staff to initiate enforcement action

V. Priority System and Criteria

(proposals for priority system and criteria are currently under development by TRPA staff; staff will present options to APC at December, 1981 meeting)
VI. Required Investigations and Plans

-- TRPA staff will conduct field investigations to verify problem identification

-- Responsible parties who are unable to abate erosion or runoff problems promptly upon receipt of notice must submit action plan specifying:
   (1) control measures to be used
   (2) schedule
   (3) financing
   (4) off-site mitigation

VII. Inspections

-- After approval of action plan, TRPA staff will conduct periodic inspections to verify compliance with the Plan

VIII. Standards

-- Responsible parties will base action plans on TRPA BMP Handbook; occasionally with Governing Body approval

IX. Violations

-- Failure to comply with compliance provisions of this ordinance constitutes to misdemeanor; responsible parties are subject to enforcement action under Tahoe Regional Planning Compact, Article VI, parts j, k, and l
TAHOE REGIONAL PLANNING AGENCY

ORDINANCE NO. 76-3

SHOREZONE ORDINANCE

Draft Amendments
November 17, 1981
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Prohibition of New Pier Construction in Fish Spawning Areas Until 1981 (California Only)
TAHOE REGIONAL PLANNING AGENCY

ORDINANCE NO. 76-3

AN ORDINANCE ESTABLISHING REGIONAL SHOREZONE TOLERANCE DISTRICTS AND LIMITATIONS ON DEVELOPMENT WITHIN SUCH DISTRICTS; ESTABLISHING MINIMUM STANDARDS AND PROVIDING REGULATIONS FOR THE CONSTRUCTION, ALTERATION, REMOVAL AND MAINTENANCE OF PIERS, MOORING BUOYS, BOAT RAMPS, JETTIES, BREAKWATERS, AND SHORELINE PROTECTIVE STRUCTURES; FILLING AND DREDGING; AND OTHER SHOREZONE DEVELOPMENTS IN THE TAHOE REGION; PROVIDING FOR THE ISSUANCE OF PERMITS FOR NONCONFORMING USES AND VARIANCES; PROHIBITING CERTAIN SHOREZONE CONSTRUCTION AND DEVELOPMENTS; PROVIDING THAT VIOLATIONS OF THE PROVISIONS OF THE ORDINANCE SHALL CONSTITUTE A MISDEMEANOR; AND PROVIDING FOR OTHER MATTERS PROPERLY RELATING THERETO.

The Governing Body of the Tahoe Regional Planning Agency does ordain as follows:

Section 1.00 Findings

The Governing Body of the Tahoe Regional Planning Agency finds that in order to effectuate the adopted Regional Plan, it is necessary to adopt this ordinance establishing regional shorezone tolerance districts and limitations on development within such districts; establishing minimum standards and providing regulations for the construction, alteration, removal, and maintenance of piers, mooring buoys, boat ramps, jetties, breakwaters, and shoreline protective structures; filling and dredging; and other shorezone developments in the Tahoe Region; providing for nonconforming uses and variances; prohibiting certain construction and shorezone developments; providing that violations of the provisions of the ordinance shall constitute a misdemeanor; and providing for other matters properly relating thereto. The Governing Body further finds that the provisions of this ordinance are in accordance with the provisions and purposes of the Tahoe Regional Planning Compact.

Section 2.00 General Provisions

2.10 Compliance

Construction, alteration, removal, maintenance, and use of any structure within the shorezone, and alteration or use of the lake or lands within the shorezone shall be in compliance with the terms of
this ordinance. Permits shall be granted or denied in conformity with the provisions of this ordinance.

2.11 The provisions of this ordinance establish the minimum standards applicable within the region to the subject matters of the ordinance. Any political subdivision may enforce equal or higher standards within its territory and this ordinance shall not be deemed a limitation or repeal of any other powers granted to the governments of the Tahoe Region by the United States or the respective states.

2.20 Interpretation and Severability

The provisions of this ordinance shall be liberally construed to effectuate their purposes. If any section, clause, provision, or portion of this ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this ordinance shall not be affected thereby.

2.30 Short Title

This ordinance may be cited and referred to as the Shorezone Ordinance.

2.40 Applicability of Ordinance

This ordinance shall apply to all lakes and manmade lagoons in the Tahoe Region, except where otherwise indicated, provided that appropriate adjustments for elevation differences shall be taken into account in the application of this ordinance to lakes other than Lake Tahoe.

Section 3.00 Definitions

For the purposes of this ordinance, certain terms or words used herein shall be interpreted as follows: Words in the present tense include the future; words in the singular number include the plural number; and words in the plural number include the singular number. The word "shall" is mandatory, not permissive, unless the context indicates that a directory meaning is intended. All references to "Sections" herein are to sections of this ordinance and all subsections thereof (e.g., "Section 4.00" means Sections 4.00 to 4.60, inclusive) unless the context indicates to the contrary.

Accessory Uses - A use, structure or other facility customarily a part of any permitted use that is clearly incidental and secondary to the permitted use and which does not change the
character of the permitted use, or affect other properties in the vicinity.

[Administrative] Agency Permit - A permit issued by [a permit-issuing authority or] the Agency in accordance with Agency ordinances, respecting uses, structures, activities, and alterations under the provisions of this ordinance.

Agencies of Authority - The government agencies which have the authority and obligation to enforce the standards established by this ordinance and or their own specific rules and regulations in the shorezone.

Agency - The Tahoe Regional Planning Agency including the Agency Governing Body and/or Agency staff.

Application (Complete) - Receipt by [the permit-issuing authority or the] all agencies of authority and the Agency of documents which supply the data necessary for review of [something] projects subject to the provisions of this ordinance.

Artificial Beach Replenishment - The importation of materials to maintain an existing beach or create a new beach.

Artificial Islands - Offshore islands created to provide additional land area in the lake.

Backshore - Land lying contiguous to the shoreline above the [high water elevation and extending normal to the shoreline for a lateral distance of three hundred (300) feet or the total lateral distance of the littoral parcel of land, whichever is the lesser amount.] limit of wave runup during a 100 year storm at high water and extending landward for a lateral distance of three hundred (300) feet from Elevation 6229.1.

Barrier Wall - A wall separating the lake waters from the shoreland.

Beach Recreation - Uses and facilities pertaining to recreation activities such as sunbathing, swimming and boating carried on customarily in the backshore, nearshore and foreshore.

Beach Recreation (Unintensive) - Beach recreation uses for persons who reside in structures located in the backshore or on lands immediately contiguous to the backshore (or their guests), for which no fee is charged.

Boat Launching Facility - A device allowing boats to be launched into or retrieved from the water.

Boat Ramp - A ramp allowing boats to be launched into or retrieved from the water.
Boatlift - A device attached to a pier with forks extending no more than ten (10) feet, which is to be used to lift and store a boat. A boat lift does not include a boat house or boat hoist which requires additional structures beyond the pier itself.

Breakwater - A man-made barrier which diminishes the force of waves.

Construction - Repair of a structure or any new construction activity (e.g., filling, dredging or erection of a structure) unless the context indicates that repairs are not included within the term "construction" (i.e., "new construction").

Dredging - Removing or rearranging earthen materials which are in or under lake waters. Minor removals or relocation of loose boulders in the vicinity of piers and other structures for safety purposes and to improve navigation shall not be deemed dredging.

Existing Structures or Alterations - Structures or alterations which have been constructed before the effective date of this ordinance or for which a permit has been issued pursuant to this ordinance. They are authorized existing structures or alterations if all permits required under existing law at the time of their construction were obtained and they were constructed in conformity with such permits; they are unauthorized if constructed without a required permit or not in conformity with existing law at the time of their construction.

Fill - Any rock, soil, gravel, sand, or other earthen material deposited by man within the shorezone of the lake.

Find, Establish, Show - Unless the context indicates to the contrary, in each instance where the ordinance uses "find" or "establish" or "show" the applicant bears the burden of demonstrating the existence of the conditions identified.

Findings - The words "findings", "found" or "expressly found" mean a written statement of action upon an application and finding of ultimate fact, separately stated, in support of that application. Such findings consist of the ultimate facts supporting the conclusion that applicable ordinances criteria are met.

Fish Spawning Areas, Fish and Aquatic Habitats - Areas containing fish spawning or fish and aquatic habitats of sufficient magnitude, importance or uniqueness to warrant denial of an application for construction or alteration.

Floating Docks or Platforms - Structures designed to float on the water surface which are attached either to the shoreline or to the lake bottom.
Foreshore - The zone of wave run-up above the lake surface being [that] the area between [6,223 and 6,229.1 feet Lake Tahoe Datum.] Low water (Elevation 6223.0 Lake Tahoe Datum) and the limit of wave run-up during a 100 year storm when the lake level is at high water (Elevation 6229.1 Lake Tahoe Datum).

Harbor - A shorezone area that is protected from wave forces, and which is deep enough to provide for the anchorage or moorage of boats.

High Water Elevation - Elevation 6229.1 Feet Lake Tahoe Datum.

Houseboat - A barge-like boat fitted for use primarily as a floating dwelling.

Jetty or Groin - A man-made barrier which alters natural littoral currents and transport.

Lake - Unless otherwise indicated, each of the lakes of the Tahoe Region.

Lake Tahoe Datum - Elevation Lake Tahoe Datum equals elevation USGS + 1.14 feet.

Littoral Parcel - A parcel of land [in the shorezone.] for which there is a legal right of ownership to or lakeward of the established high water line.

Low Water Elevation - 6223.0 Feet Lake Tahoe Datum.

Maintenance Dredging - Dredging areas that have previously been dredged and require periodic maintenance. This is generally limited to confined areas such as harbors and man-made waterways.

Man-Made Lagoon - A man-made body of water connected to the lake.

Marina - A facility consisting of multiple docks, moorings and services for boats which may include sale of boats and accessories.

Mooring Buoy - A floating device attached to a bottom anchor used for the mooring of boats.

Multiple Use - A facility customarily used by more people than the owner of the facility, his family and guests.

Navigable Water - Water capable of being traversed by pleasure craft.

Navigational Structures - A structure or device maintained primarily as an aid to navigation.

Nearshore - The zone extending from low water elevation of Lake
Tahoe to an elevation of 6193.0 Feet Lake Tahoe Datum, but in no case a lateral distance less than three hundred and fifty (350) feet normal to the shoreline. In other lakes of the region the depth shall extend to twenty five (25) feet below the low water elevation.

Nonconforming Structures and Alterations - Existing structures or alterations which do not conform to the requirements of this ordinance.

Owners of a Structure - In the case of a structure located within the nearshore, the owner of land adjacent to the lake at the location of such a structure is presumed to own the structure for the purposes of this ordinance.

Parcel - An area of land owned by a person and shown on the records of the tax collector or assessor by a separate deed and/or parcel number.

[Permit-Issuing Authority - The local government within the territory of which the proposed structure or alteration is located which government has the authority and obligation to enforce the standards established by this ordinance.]

Person - An individual, partnership, corporation, association or governmental entity.

Pier - A fixed or floating platform extending from the shoreline over or upon the water.


Project - An activity undertaken by any person, including any public agency, if the activity may substantially affect the land, water, air, space or any other natural resources of the region. Activities that are not projects are defined in Ordinance 81-1.

Shoreline - The highest line normally covered by waters of the Lake (Lake Tahoe Datum 6229.1 Feet).

Shorezone Plan - The Shorezone Plan adopted by the Agency.

Shoreline Protective Structure - Walls, earthen banks, bulkheads, revetments, beach replenishment, or other devices designed to prevent direct erosion or flooding of the backshore by reinforcing the interface between land and water.

Shorezone - The area including the nearshore, foreshore and backshore.

Structural Repair - Repair of features of a structure, which
features affect the bearing capacity of the structure (e.g., pier pilings, bracing and supports).

Superstructure - Any man-made structure within the foreshore or nearshore (other than [a handrail]) those permitted in Sections 7.31(2)(b) and (c) of this ordinance which projects above high water or ground elevation more than five (5) feet.

Wetlands - [Marshes and areas characterized by herbaceous vegetation and by a higher water table than customary in the Lake Tahoe Basin.] Wetlands - Low lying areas where the water table stands near or above the land surface for a portion of the year. These areas are characterized by poor drainage, standing water and hydrophytes and include, but are not limited to, those areas identified in the land capability classification system as Class 1B lands.

Section 4.00 Permit Procedure

4.10 When Required

4.11 No person shall undertake or carry out any of the following [activities] projects (except those listed in Ordinance 81-1) within the shorezone or other navigable waters of the region without first obtaining a permit from the Agency:

1. New construction or placement of a buoy, pier, floating dock or platform for individual use;

2. Repair of an existing conforming buoy, pier, floating dock or platform for individual use when said repairs exceed $500.00 in cost in any one year period;

3. Structural repairs of a nonconforming structure;

4. Non-structural repairs of a nonconforming structure when said repairs exceed $500.00 in cost in any one year period;

5. Construction or placement of any multiple or commercial use facility including a pier, buoy, floating dock or platform, boat ramp, launching facility, jetties or breakwaters, marinas, or shoreline protective structure;

6. Filling and dredging;

7. Any construction or use for which a variance is required;
(8) Any cable, pipeline or submarine conduit to be constructed or placed in a lake including replacement of any existing facilities;

(9) Any new construction or use within the backshore which involves the creation of coverage on an area greater than two hundred (200) square feet;

(10) Construction or placement of any boat ramp, navigation structure, launching facility, jetty, breakwater, or shoreline protective structure;

(11) Any repairs of an unauthorized structure;

or

(12) Any construction or use within the nearshore or foreshore not specifically enumerated above.]

(1) Repairs to conforming structures exceeding $1,000 including marina repair;

(2) Minor and accessory structures including, but not exclusively:
   - Single use buoys
   - Catwalks
   - Swim float lines;
   - Fences;

(3) Nonstructural repairs to nonconforming structures exceeding $1,000;

(4) Maintenance dredging and filling, minor removal or relocation of rocks or boulders and beach cleaning;

(5) Shoreline protective devices;

(6) Placement of navigational buoys;

(7) Special events;

(8) Additions, accessory structures, grading in the backshore;

(9) New construction or placement of piers, boat ramps, launching facilities, jetties or breakwaters

(10) Structural repairs of a nonconforming structure;
(11) New filling and dredging and beach replenishment;

(12) New construction of primary use in the backshore;

(13) Variances from this ordinance;

(14) Construction or placement of any multiple or commercial use facility including, but not exclusively, piers, floating docks or platforms, boat ramps, launching facilities, jetties or breakwaters, marinas, or shorezone protective devices;

(15) Any repairs or construction of unauthorized structures;

(16) Any construction or use within the nearshore foreshore or navigable waters of the region not specifically enumerated above which the chairman or executive director deems significant.

4.12 Determination

The determination of whether or not TRPA review is required pursuant to this ordinance rests solely with the TRPA.

4.20 Permit for Existing Structures or Uses

4.21 (1) Within ninety (90) days after written request made by the Agency to a person who is the owner of a littoral parcel, such owner shall make application to the Agency for a permit to continue an existing unauthorized structure or use located in whole or in part in the nearshore or foreshore.

(2) Prior to written request made by the Agency, application for the continuance of any existing unauthorized structure or use within the nearshore or foreshore may be made by the person having an interest in such structure or use.

4.22 If the permit is denied, the structure or use must be altered to conform to the provisions of this ordinance or the structure removed and the use discontinued. The Agency in denying the permit shall specify whether the structure or use is to be altered or removed and discontinued.
4.30 Renewal of Permit

4.31 Permits issued by the Agency pursuant to the terms of this ordinance shall not require renewal unless such permits contain an "environmental concern" designation. Any permit issued pursuant to the terms of this ordinance containing an "environmental concern" designation shall require renewal at such time as the Agency deems appropriate. Such designation shall be placed on a permitted use or structure only when there is evidence that the structure or use may cause significant environmental harm.

4.31 If the renewal permit is denied the structure or use must be altered to conform to the provisions of this ordinance or the structure removed and the use discontinued. The Agency in denying the permit shall specify whether the structure is to be altered or removed and discontinued.

4.40 Application Requirements

4.41 Applicants for any permit required pursuant to the terms of this ordinance shall submit the application and information required to the Agency[.]. and other agencies of authority. The Agency may review and take action on the project; however, the permit shall not be issued until the applicant submits proof to the Agency that all other agencies have approved or waived approval of the project. No permit shall be issued unless there is compliance with all the requirements of this ordinance[.]. and the requirements of the agencies of authority.

4.42 Information Report

(1) Applicants for any permit required pursuant to the terms of this ordinance shall provide such information and reports as are required by Agency staff. In establishing the information and reports that shall be provided, the Agency staff shall require such information and reports as will demonstrate the applicant's compliance with the provisions of this ordinance, and as will adequately depict:

(a) The site;

(b) The proposed construction or use and the nature thereof;
(c) Existing conditions on and near the site; and;

(d) Probable individual and cumulative effects of the proposed construction or use.

(2) When the proposed construction or use, because of its intensive nature or proposed location, may pose substantial environmental hazards as determined by Agency staff, Agency staff shall require the applicant to provide such scientific analysis and expert opinion as will adequately explore same.] an EIS to be prepared.

(3) The Governing Body of the Agency shall adopt recommended guidelines for shorezone information reports. Agency staff shall follow such guidelines to the extent practicable in requiring information and reports respecting shorezone applications.

4.43 Rejection of Application

Any application for permit submitted without sufficient information to adequately review a proposal or use may be rejected by Agency staff or any other reviewing authority. Any such rejection may be appealed to the Agency Governing Body for a decision on the adequacy of the application.

4.44 Burden of Proof

The burden of proof in showing that an applicant is entitled to a permit or variance pursuant to this ordinance is on the applicant.

4.45 Prohibition of "In Concept" Approvals

The Agency shall not grant "in concept" approvals.

4.50 Consideration of Permits

4.51 The Governing Body of the Agency shall take final action respecting [all marinas and variances] those projects listed in Section 4.11(9-16). Agency staff shall review and take action whether to approve, to require modification of or to reject all other permits required pursuant to the provisions of this ordinance, and the action of Agency staff shall be final in the absence, or until disposition,
of any appeal. Action by the Governing Body or Agency staff pursuant to this ordinance shall be after reasonable notice and opportunity to be heard are given to the owners of certain affected real property, other than the applicant, as required by the Agency's Rules and Regulations of Practice and Procedure. [Agency staff shall post a written, public notice of all permits periodically approved by staff under this ordinance, posting to be at the principal office of the Agency and at two (2) other separate, prominent places within both the States of Nevada and California, and to occur no less frequently than twice each month at the times of posting of the agendas for the meetings of the Agency Governing Body and Advisory Planning Commission. Posting shall occur once for each such permit and shall include all such permits approved during the time from one posting until the next.] An appeal from the determination of Agency staff may be made by any aggrieved person by lodging with Agency staff a written notice of appeal within ten (10) days of the date of determination. On appeal, the Agency Governing Body may affirm, reverse or modify the determination of Agency staff, and such Governing Body action shall be final.

4.52
The Agency shall notify the [permit-issuing authority] agencies of authority within fifteen (15) days of any action it takes pursuant to any permits required by this ordinance.

4.53
Governing Body consideration of permits and appeals from determinations of Agency staff lodged pursuant to Section 4.51 shall be conducted at meetings open to the public. Reports considered at said meetings shall be available to the public at a reasonable time prior to the meetings. The applicant, appellant and other interested persons shall be afforded opportunity at such meetings to comment on the proposed permit or appeal. Agency action on the proposed permit, including action by staff under Section 4.51, and disposition of any appeal shall be supported by appropriate findings setting forth the basis for the Agency action.

4.54
In considering any application for permit relating to the provisions of this ordinance the permit-issuing authority and the Agency shall approve such permit only if it is expressly found that it meets the applicable standards and requirements of this ordinance.
In passing upon permits required pursuant to the terms of this ordinance, the Agency may impose such reasonable conditions of development as are necessary and appropriate to minimize or eliminate the environmental effects of the development or use.

Section 5.00 Standards for Regulating All Construction and Uses Within the Shorezone, Underlying Land, or Within the Lake

5.10 No application for permit shall be granted unless the applicant shows, and the Agency finds, that the proposed construction or use will not cause significant [harm to] individual or cumulative impacts on:

(1) The shorezone and underlying land;

(2) Fish and aquatic habitats and fish spawning grounds;

(3) The natural beauty of the area;

(4) Navigation, safety or health; and

(5) The water quality of the lake, including, but not limited to, its purity, its clarity, temperature, color, taste, and odor; the more restrictive of federal and state water quality standards shall set the minimum water quality standards applicable to a proposed development or use.

5.20 No application for permit shall be granted unless the applicant shows, and the permit-authority or the] Agency finds[. that:

(1) Granting such permit will not result in substantial interference with public use of the lake's navigable waters;

(2) There are sufficient accessory facilities to accommodate the proposed construction or use;

(3) Granting the proposed construction or use will not violate any other law (e.g., increasing shorezone coverage beyond that permitted in the Land Use Ordinance); and

(4) Granting the proposed construction or use will not be incompatible with existing shorezone uses or structures on or in the immediate vicinity of the littoral parcel, or that modifications of such existing uses or structures will be undertaken to assure such compatibility.
(5) There are no existing multiple use structures available to the applicant.

(6) The development of a multiple use structure or an agreement to develop a multiple use structure is not available to the applicant.

Section 6.00 Shorezone Tolerance Districts and Performance Standards

6.10 Establishment and Effect

There are eight (8) shorezone tolerance districts as established on the Tahoe Regional Planning Agency Shorezone Tolerance District aerial maps scaled at approximately one (1) inch equals four hundred (400) feet, which maps are presently on file with the Agency. Each of said maps are hereby incorporated herein by this reference. In addition the portions of the Shorezone Plan hereinbelow set forth are hereby incorporated herein by this reference. Any development, construction or use within the shorezone shall comply with: (1) the applicable provisions of the Land Use Ordinance; (2) the regulations and standards applicable within the shorezone tolerance district within which it is located; (3) the other provisions of this ordinance; and (4) all other Agency ordinances, rules, regulations, and policies.

6.20 Shorezone Tolerance District 1

6.21 Nature District

Barrier shorezone where barrier beach separates lake from marshes and wetlands in the backshore. Generally, the shorezone is ecologically fragile and any substantial use or alteration can lead to excessive sedimentation, beach erosion and water turbidity, as detailed in the Shorezone Plan.

6.22 Permitted Uses and Structures

None but the following uses and structures or those found to be appropriate and similar in nature:

(1) Nearshore and Foreshore

(a) Beach recreation (unintensive).

(b) Boating.
(c) Floating platforms, buoys, piers and existing marinas only where it is established that: (1) the backshore and land adjacent to such backshore was at the effective date of this ordinance devoted to recreation or residential uses that would be substantially and detrimentally affected if such existing facilities were prohibited; (2) the use of such existing facilities will not cause substantial harmful environmental consequences; and (3) access to such existing facilities will minimize environmental harms to the backshore and foreshore.

(d) Navigational structures.

(e) Shoreline protective structures where permissible under the applicable standards of the Shorezone Plan.

(2) Backshore

As otherwise permitted; provided, however, no use or structure shall be allowed on any wetland, except such ways as are required to enjoy permitted uses of the foreshore and nearshore.

6.23 Development Standards

Except as provided in Section 6.22:

(1) No fill or dredging of the nearshore or foreshall be permitted.

(2) Access to wetlands shall be limited to scientific and educational purposes.

(3) Access to shoreline shall be restricted to planned footpaths.

(4) Vegetation shall be preserved to the maximum extent feasible and the standards contained in the Biological Element and Biological Recommendations of the Shorezone Plan shall apply.

(5) No drainage or modification of backshore wetlands shall be permitted.

(6) Except for existing structures, no structure (other than a handrail) more than five (5) feet in height above ground or high water
level shall be located any closer to the shoreline of Lake Tahoe than the border of the wetland in such zone farthest from the shoreline.

(7) As otherwise provided in the Shorezone Plan for this Shorezone Tolerance District.

6.30 Shorezone Tolerance District 2

6.31 Nature of District

Volcanic and morainic debris shorezones with slopes thirty percent (30%) and over and alluvial shorezones at nine to thirty percent (9-30%) slopes. Present and potential shoreline erosion is high. Potential for disturbance in the nearshore is high as is potential for erosion and cliff collapse in the backshore.

6.32 Permitted uses and Structures

None but the following uses and structures, or those found to be appropriate and similar in nature:

(1) Nearshore and Foreshore

Those provided in Section 6.22

(a) Buoys, floating platforms and piers, but only where the three criteria of Section 6.22(c) are met.

(2) Backshore

As otherwise permitted, except no new use or structure shall be permitted unless it is established that such use or structure and its attendant construction activity will not accelerate backshore erosion or cliff collapse.

6.33 Development Standards

Except as provided in Section 6.32, the development standards shall be as provided in Sections 6.23(1), (3) and (4) and:

(1) Permitted construction or continued use may conditioned upon installation and maintenance of vegetation to stabilize shorezone areas and to protect eroding areas from further destruction.
(2) As otherwise provided in the Shorezone Plan for this Shorezone Tolerance District.

6.40 Shorezone Tolerance District 3

6.41 Nature of District

Armored granite shorezones with slopes exceeding thirty percent (30%). High erosion potential immediately above the shore with moderate potential for disturbance in steep nearshore zone. Removal of vegetation in backshore will lead to mass movement and erosion.

6.42 Permitted Uses and Structures

(1) Nearshore and Foreshore

As provided in Section 6.32.

(2) Backshore

As otherwise permitted, except to the extent feasible no new structures shall be constructed on slopes greater than fifteen percent (15%), and no vegetation shall be removed except such minor removal as specifically allowed in the applicable permit.

6.43 Development Standards

Except as provided in Section 6.42, the development standards shall be as provided in Sections 6.23(3) and (4), Sections 6.33(1) and (2) and as otherwise provided in the Shorezone Plan for this Shorezone Tolerance District.

6.50 Shorezone Tolerance District 4

6.51 Nature of District

Volcanic rock shorelines with moderate potential for erosion which increases where colluvium of volcanic debris is present and stoney, sandy loams lie on fifteen to thirty percent (15-30%) slopes; morainic debris shorezones with high erosion potential above the shoreline; alluvial shorezones where the shoreline is characterized by steep, crumbling cliffs with continuing erosion problems.

6.52 Permitted Uses and Structures
None but the following uses and structures or those found to be appropriate and similar in nature:

(1) Nearshore and Foreshore

Those provided in Section 6.22, and

(a) Buoys where it is established the methods of access to such buoys are to be provided that will result in only minimum environmental harms, if any, to the foreshore and backshore.

(b) Piers, floating platforms and boat launching facilities, where it is established that: (1) the nearshore consists of materials capable of sustaining interference with minimal disturbance to the natural system; (2) methods of access to such piers or facilities are proposed that will avoid serious environmental harms to the foreshore and backshore; and (3) the applicant will undertake appropriate planting along existing cliffs and cliff tops.

(2) Backshore

As otherwise permitted if it is found that the activity will not substantially accelerate cliff crumbling and erosion and the applicant will undertake appropriate planting along existing cliffs and cliff tops.

6.53 Development Standards

Except as provided in Section 6.52, the development standards shall be as provided in Section 6.23(4) and Sections 6.33(1) and (2) and:

(1) Access to shoreline shall be restricted to planned footpaths so designed and located as to avoid erosion and minimize destruction of backshore cliffs.

(2) As otherwise provided in the Shorezone Plan for this Shorezone Tolerance District.

6.60 Shorezone Tolerance District 5

6.61 Nature of District
Armored granite shorezones with fifteen to thirty percent (15-30%) slopes with less erosion potential than similar lands in Shorezone 3.

6.62 Permitted Uses and Structures

None but the following uses and structures, or those found to be appropriate and similar in nature:

(1) Neaershore and Foreshore

As provided in Section 6.52.

(2) Backshore

As otherwise permitted, except to the extent feasible no new structures shall be constructed on slopes greater than twenty percent (20%).

6.63 Development Standards

Except as provided in Section 6.62, the development standards shall be as provided in Section 6.23(4) and Sections 6.33(1) and (2) and:

(1) Access to shoreline shall be restricted to planned footpaths so designed and located as to minimize backshore erosion and destruction of vegetation. Vehicular access to the shoreline shall not be permitted except where it is established that such access will not cause any substantial environmental harm.

(2) As otherwise provided in the Shorezone Plan for this Shorezone Tolerance District.

6.70 Shorezone Tolerance District 6

6.71 Nature of District

Shorezones underlain by weathered volcanic or morainic debris with slopes of five to fifteen percent (5-15%). Shoreline erosion problems are minimal.

6.72 Permitted Uses and Structures

None but the following uses and structures or those found to be appropriate and similar in nature:
(1) Nearshore and Foreshore

Those provided in Section 6.22 and:

(a) Beach recreation (intensive);
(b) Buoys; and
(c) Piers, floating platforms, boat launching facilities and marinas, where the nearshore shelf is of sufficient width to enable construction without potential for serious shelf erosion.

(2) Backshore

As otherwise permitted.

6.73 Development Standards

Except as provided in Section 6.72, development standards shall be as provided in Section 6.23(4) and Sections 6.33(1) and (2) and:

(1) Vehicular access to the shoreline shall not be permitted except where it is established that such access will not cause substantial environmental harm.

(2) Shoreline protection structures shall not be permitted unless it is established that such structures are necessary to avoid substantial environmental harm.

(3) As otherwise provided in the Shorezone Plan for this Shorezone Tolerance District.

6.80 Shorezone Tolerance Districts 7 and 8

6.81 Nature of District

(1) Tolerance District 7 - Comparatively level shorezones underlain by morainic and alluvial materials with slopes of zero to nine percent (0-9%).

(2) Tolerance District 8 - Gently sloping, armored granite shorezones with high capability for development. Shorelines are in equilibrium and potential for erosion in foreshore and nearshore is low. Backshore possesses a moderate erosion potential in some cases.
6.82 Permitted Uses and Structures

None but the following uses and structures, or those found to be appropriate and similar in nature:

(1) Nearshore and Foreshore

Those provided in Section 6.22 and:

(a) Beach recreation (intensive);

(b) Buoys; and

(c) Piers, floating platforms, boat launching facilities and marinas.

(2) Backshore

As otherwise permitted.

6.83 Development Standards

Development standards shall be as provided in Sections 6.23(4), 6.33(2) and 6.73(1), and as otherwise provided in the Shorezone Plan for this Shoreline Tolerance Zone.

Section 7.00 Standards for Piers, Mooring Buoys, Boat Ramps, Launching Facilities and Floating Docks or Platforms

7.10 Permit Applications

An [administrative permit] Agency permit must be obtained before constructing a pier, boat ramp, or launching facility, or placing a buoy, floating dock or platform as provided in Section 4.00.

7.20 Types and Numbers of Piers, Boat Ramps, Launching Facilities, Mooring Buoys, Floating Docks and Platforms

7.21 Piers, Boat Ramps and Mooring Buoys for Individual Use

An owner of a littoral parcel may be permitted to place no more than two (2) mooring buoys and to construct one (1) pier with a low-level boat lift or one (1) boat ramp [and place one (1) or more mooring buoys] within the area described in Section 7.26 for the use in connection with the parcel of an individual or family and guests if such pier, boat ramp or mooring buoy is otherwise permissible.
7.22 Floating Docks and Platforms for Individual Use

An owner of a littoral parcel may be permitted to place one (1) floating dock or platform within the area described in Section 7.26 for the use in connection with the parcel of an individual or family and guests if such floating dock or platform is otherwise permissible.

7.23 Piers, Launching Facilities, Mooring Buoys, Floating Docks and Platforms for Multiple Use or Commercial Use

An owner or lessee of a littoral parcel may be permitted to construct piers and launching facilities and to place mooring buoys, floating docks and platforms within the area described in Section 7.26 for the use of individuals on a multiple or commercial use basis if such use, structure and facility is otherwise permissible. If any such structure is, or is to be, accessory to a marina, the provisions of Section 9.00 shall also apply.

7.24 Piers, Launching Facilities, Mooring Buoys, Floating Docks and Platforms for Use in Connection With a Proposed Residential Development Project

Where the littoral parcel adjacent to the proposed pier, launching facility, mooring buoy, floating dock or platform is part of a residential land development served by the shorezone which is being developed for use by, or sale or lease to, more than one (1) person, no pier, launching facility, mooring buoy, floating dock or platform shall be approved intended solely for the use of one (1) individual or family and guests.

7.25 Piers, Launching Facilities, Mooring Buoys, Floating Docks and Platforms for Use in Connection With an Existing Residential Land Development Project

Where the littoral parcel adjacent to the proposed pier, launching facility, mooring buoy, floating dock or platform is held in common ownership by owners of parcels within a residential land development served by the shorezone, or by an association representing them, or by a person for use of such owners, no pier or launching facility, mooring buoy, floating dock, or platform shall be approved
intended solely for the use of one (1) individual or family and guests.

Placement of Piers, Mooring Buoys, Boat Ramps, Boat Launching Facilities and Floating Docks or Platforms

(1) The pierhead line is established as depicted on the Tahoe Regional Planning Agency Shorezone Tolerance District aerial maps, scaled at approximately one (1) inch equals four-hundred (400) feet, which maps are presently on file with the Agency. Each of said maps is hereby adopted and incorporated herein by reference. Except for mooring buoys and navigational structures, no facilities shall extend beyond the pierhead line, except as provided in Section 7.26(4).

(2) Piers, mooring buoys, boat ramps, boat launching facilities, and floating docks and platforms shall be placed only within an area that is enclosed by lines that are parallel to and [five (5) foot] twenty (20) foot minimum inward of parcel lines extended lakeward at right angles from the [low] high water line or as [specified] established by the Agency when it is found that unique site conditions make the above standards impractical to apply. [by Corps of Engineers regulations.]

(3) Those facilities described in Sections 7.21 and 7.22 shall extend no further lakeward from the high water elevation than as follows:

(a) Mooring Buoys: to a depth necessary for the safe mooring of a boat, but not to exceed three hundred and fifty (350) feet;

(b) Floating Docks and Platforms: to a depth necessary for safe use, but not beyond the pierhead line.

(c) Piers shall not extend beyond an elevation of 6219.0 Feet, Lake Tahoe Datum, nor beyond the pierhead line, whichever is more limiting.

(d) Boat Ramps and Launching Facilities: to a depth necessary for safe use, but not
to exceed a length of two hundred and fifty (250) feet.

(4) Those facilities described in Sections 7.23, 7.24 and 7.25 and all other facilities of multiple use in excess of that described in Section 7.21 shall extend no further than as specified in the project plans approved by the Agency, and the dimensions specified in Section 7.26 shall be utilized as distance guidelines for this purpose. The amount of deviation from the standards of Section 7.26 and 7.30 is dependent on:

(1) The reduction in development potential associated with the application; and

(2) The number of people utilizing the facility.

7.30 Dimensions and Features of Piers, Boat Lifts, Boat Ramps and Mooring Buoys for Individual Use

7.31 Those facilities described in Section 7.21 shall conform to the following standards:

(1) Width: Ten (10) foot maximum width including all appurtenant structures [(e.g., walkways and floats).] except low-level boat lifts and a catwalk may be permitted. [Additionally a] A catwalk below the level of the main deck not in excess of three (3) feet in width by forty-five (45) feet in length may be permitted for the loading and unloading of boats. A low-level boat lift whose forks are not in excess of ten (10) feet in width from the pier may be permitted.

(2) Height:

(a) Pier decks shall not extend above elevation 6232.0 Feet, Lake Tahoe Datum.

[(b) Handrails and similar safety devices shall not extend more than three (3) feet above the pier deck.]

(b) Boat lifts, pilings and handrails or similar safety devices shall not extend more than four (4) feet above the pier deck.
(c) Flag poles shall not exceed a height above the pier deck permitted in the land use district of the adjacent backshore.

(3) To permit free circulation of water, piers shall be floating or shall be built on a foundation which is at least ninety (90%) percent open.

(4) No superstructures shall be permitted.

[7.32] To permit free circulation of water, piers shall be floating or shall be built on a foundation which is at least ninety percent (90%) open, unless it is found that it is unlikely that an impermeable structure will cause shoreline erosion or harm water quality or clarity.]

7.40 Multiple Use Facilities

Multiple uses such as those described in Sections 7.23, 7.24, 7.25, and 9.00 [shall] may be permitted piers, launching facilities, mooring buoys, floating docks and platforms, and sundecks and superstructures in such numbers, sizes and for such water-related purposes as specified in project plans approved by the Agency, but the limitations hereinabove set forth respecting those facilities described in Section 7.26 and 7.30 shall be utilized as guidelines for this purpose. The amount of deviation from the standards of Sections 7.26 and 7.30 is dependent on:

(1) The reduction in development potential associated with the applicant, and

(2) The number of people utilizing the facility.

7.50 Safety Devices

Structures in the foreshore or extending lakeward beyond the foreshore shall incorporate in a conspicuous manner approved hazard lights or similar devices as aids to navigation [as may be required by the United States Coast Guard under appropriate Federal Regulations.] All such lights and devices shall meet U.S. Coast Guard standards if applicable.

7.60 Structures and Uses in Lakes and Lagoons Other Than Lake Tahoe

All structures and uses permitted by this ordinance in the nearshore and foreshore of Lake Tahoe may be permitted in other lakes and man-made lagoons within...
the region. The regulations for placement of such structures will be determined on an individual basis using the standards set forth in this ordinance as guidelines.

Section 8.00 Jetties and Breakwaters

8.10 Permit Application

An [administrative] Agency permit must be obtained before constructing or maintaining a jetty or breakwater as provided in Section 4.00.

8.20 Location of Jetties and Breakwaters

Jetties and breakwaters shall not be permitted in locations where beach erosion or loss of sediment from the shorezone is likely.

8.30 Permeability

8.31 Except as provided in Section 8.32, jetties and breakwaters shall be constructed with openings which allow adequate free circulation of water and sediment.

8.32 No jetty or breakwater having a solid or nearly solid structure may be constructed within the lake, unless it is found that it is unlikely that an impermeable structure will cause shoreline erosion or harm water quality or clarity.

8.33 Size, number and locations of openings in jetties or breakwaters shall be sufficient to avoid shoreline erosion, harm to underlying land and harm to water quality and clarity.

Section 9.00 Marinas

9.10 Permit Application

9.11 An [administrative] Agency permit must be obtained before constructing a marina as provided in Section 4.00.

9.12 The applicant may be required to post security to guarantee completion of the work undertaken and maintenance of the facilities completed.

9.20 Location of Marinas

9.21 Even where marinas are otherwise permissible, they shall not be permitted where: beach
erosion is likely to occur; unstable conditions exist [locations]; or where there is no demonstrable public need for such facilities.

9.22 Marinas, when otherwise permissible, shall be located in the following areas to the extent possible:

(1) In deeper water for lower water temperature and to avoid dredging;

(2) In harbors to avoid use of breakwaters;

(3) In conformity with the Recreation, Conservation and Open Space Plan of the Agency.

9.30 Boat Access

Floating piers or piers on pilings shall be used to provide boat access.

9.40 Shore Waste Facilities

9.41 Restrooms, pump-out facilities for boat sewage and trash receptacles for other boat wastes shall be provided at commercial marinas and harbors.

9.42 Boat washing facilities shall be connected to a sewer system or an acceptable alternate shall be provided.

9.50 Monitoring Information Requirements

Monitoring of water quality, current patterns and intensities, shore alterations, and any other conditions which may be altered by the construction of the marina may be required for a reasonable period after completion thereof.

9.60 Review of Onshore Facilities

Whenever review of marinas is required pursuant to the terms of this ordinance, such review shall encompass both onshore and water-related facilities to assure adequacy of the development as a whole.

Section 10.00 Shoreline Protective Structures

10.10 Permit Application
An [administrative] Agency permit must be obtained before constructing a shoreline protective structure as provided in Section 4.00.

10.20 Location of Shoreline Protective Structures

To prevent local beach loss, shoreline protective structures shall be used only where protection of the backshore is of greater importance than beach preservation.

10.30 Design and Construction Standards

10.31 Sloping permeable revetments are the preferred shoreline protective structures. Seawalls and bulkheads shall be permitted only when it is established that sloping permeable revetments are not feasible and that the alternative structure will cause no undue beach erosion.

10.32 Where a shoreline protective structure is necessary, it shall be of sufficient strength and depth to prevent movement of backfill materials into lake waters.

10.40 Artificial Beach Replenishment

Artificial beach replenishment is the preferred solution to beach erosion and shall be of non-organic, chemically and biologically inert material.

Section 11.00 Filling and Dredging

11.10 Permit Application

An [administrative] Agency permit must be obtained before dredging or filling within the shorezone, as provided in Section 4.00.

11.20 Filling

Except for beach replenishment, there shall be no fill placed in the lake, nearshore or foreshore except at those locations where such fill is found to be beneficial to existing shorezone conditions or water quality and clarity.

11.30 Dredging

There shall be no removal or rearrangement of materials within the water shorezone of the lake, except at those locations where such removal or rearrangement is found to be beneficial to existing
shorezone conditions, uses and water quality and clarity.

11.40 Disposal of Dredged Material

Where dredging is permitted, spoil materials shall not be deposited in the lake waters, in wetlands or within the 100 year flood plain of any tributary to the lake[,] except for beach replenishment, as provided in Section 10.40.

Section 12.00 Man-made Lagoons, Artificial Islands and [Houseboats Prohibited] Residential Uses

12.10 Construction of man-made lagoons connected to or in the backshore of the lake or the construction of artificial islands are prohibited.

12.20 There shall be no [houseboats] residential uses permitted in the [shorezone] nearshore, foreshore or on any other [the] waters [of the lake] within the region.

Section 13.00 Navigation Structures

New navigation structures in the lake are prohibited unless:

(1) Nautical safety requires such structures; or

(2) Temporary structures for regattas are necessary.

In any case, such structures shall be of a type and at a location approved by the United States Coast Guard.

Section 14.00 Construction Standards

14.10 Construction shall be performed in a manner to minimize disturbance of vegetation, the underlying lands of the lake, the nearshore and the backshore.

14.20 Materials utilized for any purpose in the foreshore or nearshore shall be chemically inert and insoluble and shall not harm water quality and clarity.

Section 15.00 Standards for Backshore Construction

15.10 Permit Application

An [administrative] Agency permit must be obtained before undertaking any construction or use within the
backshore which is not exempt under Ordinance 81-1, [involves the creation of coverage of an area greater than two hundred (200) square feet in an area described as follows:

Shorezone Tolerance Districts 1, 2 and 3

300 linear feet from high water elevation or entire littoral parcel, whichever is lesser.

Shorezone Tolerance Districts 4, 5 and 6

200 linear feet from high water elevation or entire littoral parcel, whichever is lesser.

Shorezone Tolerance Districts 7 and 8

100 linear feet from high water elevation or entire littoral parcel whichever is lesser.]

15.20 Permitted Uses

Uses undertaken in the backshore shall be those uses permitted pursuant to the provisions of this ordinance and other applicable laws (e.g., the Land Use Ordinance).

15.30 Scope of Review of Proposed Uses

[Unless the use or construction proposed violates other applicable laws or is required to be reviewed by ordinance provisions other than Section 15.00 and Section 4.11(9) hereof, no proposed backshore use or construction may be denied; provided, however, that reasonable conditions of development may be imposed with respect to:]

All activities for which a permit is required pursuant to Section 13.00 and Section 4.11(8) and (12) shall be reviewed for and conditions placed on:

[(1) The shape of the proposed structures;]

[(1)] The proposed use and accessory uses;

[(2) The exterior appearance of the proposed structures, including without limitation the colors and materials utilized in construction;]

[(2) The impacts of the proposed use on surrounding uses.

[(3) The siting of the proposed structures; and]

[(3) The height, coverage, and siting of the proposed and existing uses on the property;]
The size of the proposed structures; provided, however, that in imposing conditions respecting size, the reviewing authority shall be guided by an appraisal of the purposes and objectives of both the Land Use Ordinance and the Shorezone Ordinance.

(4) The construction methods and controls;

(5) The impacts on the site and the mitigation measures proposed;

(6) Exterior appearance of the proposed structure(s);

(7) The size of the proposed structures; provided that in imposing conditions respecting size, the reviewing authority shall be guided by an appraisal of the purposes and objectives of both the Land Use Ordinance and the Shorezone Ordinance.

15.40 Criteria for Review

In imposing conditions of development pursuant to the provisions of 15.30, the reviewing authority shall be guided by an appraisal of this ordinance in relation to the unique characteristics of the site and shall further attempt to meet the following objectives to the maximum extent feasible:

(1) The protection of significant vistas;

(2) Minimizing the visual impact of the proposed construction or use on the shorezone and area surrounding the site; and

(3) The preservation of the site and shorezone from environmental harm both during and after construction.

Section 16.00 Maintenance, Repair and Removal of Structures

16.10 Owners of all structures in the lake shall have the responsibility of maintaining them in a proper and safe condition and in accordance with the provisions and purposes of this ordinance at all times.

16.20 The owner of any installation or structure which the permit-issuing authority or the Agency finds is not being maintained in a proper and safe condition or is not being maintained in accordance with the provisions and purposes of this ordinance shall be
notified in writing of said improper or unsafe condition or unlawful operation and shall be given a reasonable time not exceeding one (1) year as determined by the [permit-issuing authority or the] Agency in which to accomplish the required corrective action. If the owner fails to act as required within that period, the [permit-issuing authority or] Agency may have the work performed at the owner's expense or have the structure removed at his expense, costs to constitute a lien against the real property of the owner until paid.

16.30 When a structure has been abandoned, it shall be removed by the owner or by the [permit-issuing authority or by the] Agency at the expense of the owner, costs to constitute a lien against the real property of the owner until paid.

16.40 Repairs to existing structures shall be performed in substantial compliance with the provisions of this ordinance.

16.50 Abatement of Nuisance

It is hereby declared to be a public nuisance and unlawful for any person to engage in any activity, use or maintain or construct any structure which has any of the following effects within the shorezone of a lake:

(1) The erosion or discharge or solid or liquid waste materials (e.g., soil, silt, clay or sand) into lake waters;

(2) Impair water quality;

(3) Impair water clarity;

(4) Impair fish spawning areas.

The person who engages in any activity, use or maintains or constructs any structure which has any of the effects declared herein to be a nuisance shall promptly abate same upon notice from Agency staff so requiring. Upon the person's failure to so abate, the [permit-issuing authority or the] Governing Body of the Agency may authorize the abatement at the person's or owner's expense, costs to constitute a lien against the real property of the owner until paid.

Section 17.00 Nonconforming Structures

17.10 Piers and Appurtenant Structures
(1) Length:

Piers and appurtenant structures that extend beyond the pierhead line are declared to be nonconforming and shall be removed or made conforming on or before December 31, 1999. Existing commercial and multiple use piers may be allowed beyond the pierhead line provided an [administrative] Agency permit is granted pursuant to Section 4.00.

(2) Height and Width:

Piers and appurtenant structures exceeding the provisions of Section 7.31 including 'T' and 'L' sections of piers located within the pierhead line are declared nonconforming and may not be replaced if removed, damaged or destroyed in excess of fifty percent (50%) of the replacement cost. Existing commercial and multiple use piers and appurtenant structures in excess of Section 7.31 may be allowed provided an [administrative] Agency permit is granted pursuant to Section 4.00.

17.20 Mooring Buoys, Floating Docks and Platforms

Mooring buoys, floating docks and floating platforms, and their anchoring devices that do not conform to the provisions of this ordinance shall be removed or made conforming within one (1) year of the effective date hereof.

17.30 All Other Structures

All other structures including superstructures on piers located within the nearshore or foreshore, that do not conform with the provisions of this ordinance shall be removed or made conforming on or before December 31, 1999. Existing commercial and multiple use facilities may be allowed to remain provided an [administrative] Agency permit is granted pursuant to Section 4.00.

17.40 [Conformity] Existing Nonconforming Uses and Structures

[Within the time specified by this ordinance, a nonconforming structure shall either be repaired to conform with the provisions of this ordinance or removed by the owner at his expense; provided, however, that when a structure cannot be repaired to conform with the provisions of this ordinance and its removal would cause more environmental harm than its continuance or expose additional boating hazards, the structure need not be removed, but such alterations]
 Existing uses and structures in the nearshore or foreshore which do not conform to the provisions of the ordinance may be continued, sold, or transferred provided that they meet the following criteria:

1. The uses or structures were lawfully existing on the date of adoption of this ordinance; or

2. The uses or structures had valid local, State Lands Commission, TRPA, and Corps of Engineers permits on the date of adoption of this ordinance.

Limitations on Nonconforming Uses and Structures

The following limitations, if stricter than Section 17.30, shall apply to existing nonconforming uses and structures:

1. Structures may be kept in good condition through the employment of ordinary maintenance.

2. Damaged or deteriorated nonstructural members may be repaired or replaced.

3. Damaged or deteriorated structural members may be replaced or repaired only if:
   a. The members are part of a conforming section of the structure; or
   b. The nonconforming structure is of cultural or historic importance and is open to the general public on a regular limited or unlimited basis.
   c. Damaged by fire or calamity less than 50% of the replacement value.

4. No new improvements shall be authorized in the nearshore or foreshore of the parcel unless and until the existing nonconforming use or structure is made conforming.

Section 18.00 Existing Unauthorized Structures

An [administrative] Agency permit must be obtained for the use of an existing unauthorized structure located in the nearshore or foreshore, as provided in Section 4.00. Permits for such existing unauthorized structures will be granted or denied according to the provisions of this ordinance in the same manner as permits for
proposed structures. If the permit is denied, the structure must be altered to conform to the provisions of this ordinance or removed by the owner at his expense. The Agency in denying the permit shall specify whether the structure is to be altered or removed.

Section 19.00 Noise and Motion Limitations and Discharge from Boats

Boats shall be operated on the waters of a lake only as follows:

(1) Noise emission levels shall not exceed eighty-six (86) dba at three thousand (3,000) rpm at a distance of fifty (50) feet.

(2) Speed of boats shall not exceed five (5) miles per hour within three hundred (300) feet of any structure or mooring buoy or the shoreline of any lake.

(3) Boats shall not discharge onto the shorezone or into waters of the Lake Tahoe Basin solid or liquid waste material of any kind excluding the normal operation of the engines (except for bilge pumps and automatic bailers) public craft and further excluding the normal operation of bilge pumps, automatic bailers and exhaust on private pleasure craft.

Section 20.00 Variances

Variances from the terms of this ordinance may be granted by the Agency Governing Body only if it is found that because of special circumstances applicable to the property involved a strict application deprives such property of privileges or safety enjoyed by other similarly situated property. Where such conditions are found, the variance permitted shall be the minimum departure from existing regulations necessary to avoid such deprivation of privileges enjoyed by such other property and to facilitate a reasonable use, and which will not create significant probabilities of harmful environmental consequences. In no case may a variance be granted that will provide the applicant with any special privileges not enjoyed by other similarly situated properties in the vicinity.

Section 21.00 Change of Permitted Uses in Shorezone Tolerance Districts

Uses and structures exceeding or different from those permitted in a particular shorezone tolerance
district may be granted only when it is found that: the land of the applicant seeking the permit exhibits the characteristics generally existent in a shorezone tolerance district other than the one in which it has been located and the limitations of such other district are properly applicable to such land; or the proposed structure or use will not cause the harmful environmental consequences on the land of the applicant or on other lands or the waters of the lake that were the basis of the initial classification of the applicant's land in the applicable shorezone tolerance district.

Section 22.00 Violation of Ordinance

Violation of any provision of this ordinance shall be a misdemeanor. Upon notification of such violation, each day's violation subsequent to notification shall constitute a separate offense.

22.10 Civil Proceedings and Stop Work Orders

Violations of any provision of the ordinance may also be enforced by stop work order and/or civil judicial proceedings.

Section 23.00 Effective Date

This ordinance shall be effective sixty (60) days after its adoption.

Prohibition of New Pier Construction in Fish Spawning Areas Until 1983 (California Only)

In adopting the California State Water Resources Control Board's 208 Water Quality Plan, the TRPA approved the following prohibition against new pier construction in significant spawning habitats or offshore of biologically important stream inlets:

"The discharge or threatened discharge, attributable to new pier construction, of solid or liquid wastes, including soil, silt, sand, clay, rock, metal, plastic, or other organic, mineral, or earthen materials, to significant spawning habitats or to areas immediately offshore of important stream inlets in Lake Tahoe is prohibited."

The prohibition against discharges immediately offshore of important stream inlets shall apply up to a thirty foot contour. Discharges to the inlets themselves are subject to the prohibition against discharges to stream environment zones.

The determination whether an area is significant spawning habitat or an important stream inlet shall be made on a case-by-case basis by permitting agencies, in consultation with the U.S. Fish and Wildlife...
Service and state fish and wildlife agencies. Maps which have been produced by these agencies may be used by a guide. Because of the scale on which the maps have been produced, however, and the possibility that additional information may become available, the maps will not necessarily be determinative.

The term pier, as used in the prohibition quoted above, includes any fixed or floating platform extending from the shoreline over or upon the water. The term includes docks and boathouses. The prohibition does not apply to maintenance, repair, or replacement of piers at the same site. The prohibition shall also be subject to the exceptions which apply to the prohibitions setting restrictions on development.

First Reading: April 29, 1976
Second Reading: May 27, 1976

Passed and adopted by the Governing Body of the Tahoe Regional Planning Agency at a regular meeting held May 27, 1976 by the following vote:

Ayes: Mr. Meder, Mr. Woodward, Mr. Wynn, Mr. Cooke, Mrs. Onorato, Mr. Stewart, Mr. Scott

Nays: Mr. Henry

Abstain: None

Absent: Mr. Dayton, Mr. Bensinger

s/DICK SCOTT, Chairman
Section 23.00  Temporary Prohibition of New Pier Construction / No Single or Multi-Use Pier Whose Applications were Submitted after July 23, 1981 May be Approved by the Agency.

The term pier as used in this section only, includes any fixed or floating platform extending from the shoreline over or upon the water. The term includes docks and boathouses. The prohibition does not apply to maintenance, repair, or replacement of currently servicable piers at the same site. The prohibition shall also be subject to the exceptions which apply to the prohibition setting restrictions on development in the TRPA 208 Water Quality Plan as amended.

This section shall expire upon the adoption by the Agency or amendments to the Regional Plan pursuant to Article V (c) of the Compact.

- BARN STONE
TAHOE REGIONAL PLANNING AGENCY

ORDINANCE NO. 76-3

SHOREZONE ORDINANCE

Draft Amendments
November 17, 1981
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Prohibition of New Pier Construction in Fish Spawning Areas Until 1981 (California Only)
[brackets] = deletions
underscore = new material

TAHOE REGIONAL PLANNING AGENCY

ORDINANCE NO. 76-3

AN ORDINANCE ESTABLISHING REGIONAL SHOREZONE TOLERANCE DISTRICTS AND LIMITATIONS ON DEVELOPMENT WITHIN SUCH DISTRICTS; ESTABLISHING MINIMUM STANDARDS AND PROVIDING regulations for the construction, alteration, removal and maintenance of piers, mooring buoys, boat ramps, jetties, breakwaters, and shoreline protective structures; filling and dredging; and other shorezone developments in the Tahoe Region; providing for the issuance of permits for nonconforming uses and variances; prohibiting certain shorezone construction and developments; providing that violations of the provisions of the ordinance shall constitute a misdemeanor; and providing for other matters properly relating thereto.

The Governing Body of the Tahoe Regional Planning Agency does ordain as follows:

Section 1.00 Findings

The Governing Body of the Tahoe Regional Planning Agency finds that in order to effectuate the adopted Regional Plan, it is necessary to adopt this ordinance establishing regional shorezone tolerance districts and limitations on development within such districts; establishing minimum standards and providing regulations for the construction, alteration, removal, and maintenance of piers, mooring buoys, boat ramps, jetties, breakwaters, and shoreline protective structures; filling and dredging; and other shorezone developments in the Tahoe Region; providing for nonconforming uses and variances; prohibiting certain construction and shorezone developments; providing that violations of the provisions of the ordnance shall constitute a misdemeanor; and providing for other matters properly relating thereto. The Governing Body further finds that the provisions of this ordinance are in accordance with the provisions and purposes of the Tahoe Regional Planning Compact.

Section 2.00 General Provisions

2.10 Compliance

Construction, alteration, removal, maintenance, and use of any structure within the shorezone, and alteration or use of the lake or lands within the shorezone shall be in compliance with the terms of
this ordinance. Permits shall be granted or denied in conformity with the provisions of this ordinance
and other applicable agency rules.

2.11 The provisions of this ordinance establish the minimum standards applicable within the region to the subject matters of the ordinance. Any political subdivision may enforce equal or higher standards within its territory and this ordinance shall not be deemed a limitation or repeal of any other powers granted to the governments of the Tahoe Region by the United States or the respective states.

2.20 Interpretation and Severability

The provisions of this ordinance shall be liberally construed to effectuate their purposes. If any section, clause, provision, or portion of this ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this ordinance shall not be affected thereby.

2.30 Short Title

This ordinance may be cited and referred to as the Shorezone Ordinance.

2.40 Applicability of Ordinance

This ordinance shall apply to all lakes and manmade lagoons in the Tahoe Region, except where otherwise indicated, provided that appropriate adjustments for elevation differences shall be taken into account in the application of this ordinance to lakes other than Lake Tahoe.

Section 3.00 Definitions

For the purposes of this ordinance, certain terms or words used herein shall be interpreted as follows:
Words in the present tense include the future; words in the singular number include the plural number; and words in the plural number include the singular number. The word "shall" is mandatory, not permissive, unless the context indicates that a directory meaning is intended. All references to "Sections" herein are to sections of this ordinance and all subsections thereof (e.g., "Section 4.00" means Sections 4.00 to 4.60, inclusive) unless the context indicates to the contrary.

Accessory Uses - A use, structure or other facility customarily a part of any permitted use that is clearly incidental and secondary to the permitted use and which does not change the
character of the permitted use, or affect other properties in the vicinity.

[Administrative] Agency Permit - A permit issued by [a permit-issuing authority or] the Agency in accordance with Agency ordinances, respecting uses, structures, activities, and alterations under the provisions of this ordinance.

Agencies of Authority - The government agencies which have the authority and obligation to enforce the standards established by this ordinance and or their own specific rules and regulations in the shore zone.

Agency - The Tahoe Regional Planning Agency including the Agency Governing Body and/or Agency staff.

Application (Complete) - Receipt by [the permit-issuing authority or the] all agencies of authority and the Agency of documents which supply the data necessary for review of [something] projects subject to the provisions of this ordinance.

Artificial Beach Replenishment - The importation of materials to maintain an existing beach or create a new beach.

Artificial Islands - Offshore islands created to provide additional land area in the lake.

Backshore - Land lying contiguous to the shoreline above the [high water elevation and extending normal to the shoreline for a lateral distance of three hundred (300) feet or the total lateral distance of the littoral parcel of land, whichever is the lesser amount.] limit of wave runup during a 100 year storm at high water and extending landward for a lateral distance of three hundred (300) feet from Elevation 6229.1.

Barrier Wall - A wall separating the lake waters from the shoreland.

Beach Recreation - Uses and facilities pertaining to recreation activities such as sunbathing, swimming and boating carried on customarily in the backshore, nearshore and foreshore.

Beach Recreation (Unintensive) - Beach recreation uses for persons who reside in structures located in the backshore or on lands immediately contiguous to the backshore (or their guests), for which no fee is charged.

Boat Launching Facility - A device allowing boats to be launched into or retrieved from the water.

Boat Ramp - A ramp allowing boats to be launched into or retrieved from the water.
Boatlift - A device attached to a pier with forks extending no more than ten (10) feet, which is to be used to lift and store a boat. A boat lift does not include a boat house or boat hoist which requires additional structures beyond the pier itself.

Breakwater - A man-made barrier which diminishes the force of waves.

Construction - Repair of a structure or any new construction activity (e.g., filling, dredging or erection of a structure) unless the context indicates that repairs are not included within the term "construction" (i.e., "new construction").

Dredging - Removing or rearranging earthen materials which are in or under lake waters. Minor removals or relocation of loose boulders in the vicinity of piers and other structures for safety purposes and to improve navigation shall not be deemed dredging.

Existing Structures or Alterations - Structures or alterations which have been constructed before the effective date of this ordinance or for which a permit has been issued pursuant to this ordinance. They are authorized existing structures or alterations if all permits required under existing law at the time of their construction were obtained and they were constructed in conformity with such permits; they are unauthorized if constructed without a required permit or not in conformity with existing law at the time of their construction.

Fill - Any rock, soil, gravel, sand, or other earthen material deposited by man within the shorezone of the lake.

Find, Establish, Show - Unless the context indicates to the contrary, in each instance where the ordinance uses "find" or "establish" or "show" the applicant bears the burden of demonstrating the existence of the conditions identified.

Findings - The words "findings", "found" or "expressly found" mean a written statement of action upon an application and finding of ultimate fact, separately stated, in support of that application. Such findings consist of the ultimate facts supporting the conclusion that applicable ordinances criteria are met.

Fish Spawning Areas, Fish and Aquatic Habitats - Areas containing fish spawning or fish and aquatic habitats of sufficient magnitude, importance or uniqueness to warrant denial of an application for construction or alteration.

Floating Docks or Platforms - Structures designed to float on the water surface which are attached either to the shoreline or to the lake bottom.
Poreshore - The zone of wave run-up above the lake surface being [that] the area between [6,223 and 6,229.1 feet Lake Tahoe Datum.] Low water (Elevation 6223.0 Lake Tahoe Datum) and the limit of wave run-up during a 100 year storm when the lake level is at high water (Elevation 6229.1 Lake Tahoe Datum).

Harbor - A shorezone area that is protected from wave forces, and which is deep enough to provide for the anchorage or moorage of boats.

High Water Elevation - Elevation 6229.1 Feet Lake Tahoe Datum.

Houseboat - A barge-like boat fitted for use primarily as a floating dwelling.

Jetty or Groin - A man-made barrier which alters natural littoral currents and transport.

Lake - Unless otherwise indicated, each of the lakes of the Tahoe Region.

Lake Tahoe Datum - Elevation Lake Tahoe Datum equals elevation USGS + 1.14 feet.

Littoral Parcel - A parcel of land [in the shorezone.] for which there is a legal right of ownership to or lakeward of the established high water line.

Low Water Elevation - 6223.0 Feet Lake Tahoe Datum.

Maintenance Dredging - Dredging areas that have previously been dredged and require periodic maintenance. This is generally limited to confined areas such as harbors and man-made waterways.

Man-Made Lagoon - A man-made body of water connected to the lake.

Marina - A facility consisting of multiple docks, moorings and services for boats which may include sale of boat and accessories.

Mooring Buoy - A floating device attached to a bottom anchor used for the mooring of boats.

Multiple Use - A facility customarily used by more people than the owner of the facility, his family and guests.

Navigable Water - Water capable of being traversed by pleasure craft or supporting commerce.

Navigational Structures - A structure or device maintained primarily as an aid to navigation.

Nearshore - The zone extending from low water elevation of Lake
Tahoe to an elevation of 6193.0 Feet Lake Tahoe Datum, but in no case a lateral distance less than three hundred and fifty (350) feet normal to the shoreline. In other lakes of the region the depth shall extend to twenty five (25) feet below the low water elevation.

Nonconforming Structures and Alterations - Existing structures or alterations which do not conform to the requirements of this ordinance.

Owners of a Structure - In the case of a structure located within the nearshore, the owner of land adjacent to the lake at the location of such a structure is presumed to own the structure for the purposes of this ordinance.

Parcel - An area of land owned by a person and shown on the records of the tax collector or assessor by a separate deed and/or parcel number.

[Permit-Issuing Authority - The local government within the territory of which the proposed structure or alteration is located which government has the authority and obligation to enforce the standards established by this ordinance.]

Person - An individual, partnership, corporation, association or governmental entity.

Pier - A fixed or floating platform extending from the shoreline over or upon the water.


Project - An activity undertaken by any person, including any public agency, if the activity may substantially affect the land, water, air, space or any other natural resources of the region. Activities that are not projects are defined in Ordinance 81-1.

Shoreline - The highest line normally covered by waters of the lake (Lake Tahoe Datum 6229.1 Feet Lake Tahoe Datum).

Shorezone Plan - The Shorezone Plan adopted by the Agency.

Shoreline Protective Structure - Walls, earthen banks, bulkheads, revetments, beach replenishment, or other devices designed to prevent direct erosion or flooding of the backshore by reinforcing the interface between land and water.

Shorezone - The area including the nearshore, foreshore and backshore.

Structural Repair - Repair of features of a structure, which
features affect the bearing capacity of the structure (e.g., pier pilings, bracing and supports).

Superstructure - Any man-made structure within the foreshore or nearshore (other than [a handrail]) those permitted in Sections 7.31(2)(b) and (c) of this ordinance] which projects above high water or ground elevation more than five (5) feet.

Wetlands - [Marshes and areas characterized by herbaceous vegetation and by a higher water table than customary in the Lake Tahoe Basin.] Wetlands - Low lying areas where the water table stands near or above the land surface for a portion of the year. These areas are characterized by poor drainage, standing water and hydrophytes and include, but are not limited to, those areas identified in the land capability classification system as Class 1B lands.

Section 4.00 Permit Procedure

4.10 When Required

4.11 No person shall undertake or carry out any of the following [activities projects (except those listed in Ordinance 81-1)] within the shorezone or other navigable waters of the region without first obtaining a permit from the Agency:

[(1) New construction or placement of a buoy, pier, floating dock or platform for individual use;

(2) Repair of an existing conforming buoy, pier, floating dock or platform for individual use when said repairs exceed $500.00 in cost in any one year period;

(3) Structural repairs of a nonconforming structure;

(4) Non-structural repairs of a nonconforming structure when said repairs exceed $500.00 in cost in any one year period;

(5) Construction or placement of any multiple or commercial use facility including a pier, buoy, floating dock or platform, boat ramp, launching facility, jetties or breakwaters, marinas, or shoreline protective structure;

(6) Filling and dredging;

(7) Any construction or use for which a variance is required;]
(8) Any cable, pipeline or submarine conduit to be constructed or placed in a lake including replacement of any existing facilities;

(9) Any new construction or use within the backshore which involves the creation of coverage on an area greater than two hundred (200) square feet;

(10) Construction or placement of any boat ramp, navigation structure, launching facility, jetty, breakwater, or shoreline protective structure;

(11) Any repairs of an unauthorized structure; or

(12) Any construction or use within the nearshore or foreshore not specifically enumerated above.)

(1) Repairs to conforming structures exceeding $1,000 including marina repair;

(2) Minor and accessory structures including, but not exclusively:
   - Single use buoys
   - Catwalks
   - Swim float lines;
   - Fences;

(3) Nonstructural repairs to nonconforming structures exceeding $1,000;

(4) Maintenance dredging and filling, minor removal or relocation of rocks or boulders and beach cleaning;

(5) Shoreline protective devices;

(6) Placement of navigational buoys;

(7) Special events;

(8) Additions, accessory structures, grading in the backshore;

(9) New construction or placement of piers, boat ramps, launching facilities, jetties or breakwaters

(10) Structural repairs of a nonconforming structure;
(11) New filling and dredging and beach replenishment;

(12) New construction of primary use in the backshore;

(13) Variances from this ordinance;

(14) Construction or placement of any multiple or commercial use facility including, but not exclusively, piers, floating docks or platforms, boat ramps, launching facilities, jetties or breakwaters, marinas, or shorezone protective devices;

(15) Any repairs or construction of unauthorized structures;

(16) Any construction or use within the nearshore foreshore or navigable waters of the region not specifically enumerated above which the chairman or executive director deems significant.

4.12 Determination

The determination of whether or not TRPA review is required pursuant to this ordinance rests solely with the TRPA.

4.20 Permit for Existing Structures or Uses

4.21 (1) Within ninety (90) days after written request made by the Agency to a person who is the owner of a littoral parcel, such owner shall make application to the Agency for a permit to continue an existing unauthorized structure or use located in whole or in part in the nearshore or foreshore.

(2) Prior to written request made by the Agency, application for the continuance of any existing unauthorized structure or use within the nearshore or foreshore may be made by the person having an interest in such structure or use.

4.22 If the permit is denied, the structure or use must be altered to conform to the provisions of this ordinance or the structure removed and the use discontinued. The Agency in denying the permit shall specify whether the structure or use is to be altered or removed and discontinued.
4.30 Renewal of Permit

4.31 Permits issued by the Agency pursuant to the terms of this ordinance shall not require renewal unless such permits contain an "environmental concern" designation. Any permit issued pursuant to the terms of this ordinance containing an "environmental concern" designation shall require renewal at such time as the Agency deems appropriate. Such designation shall be placed on a permitted use or structure only when there is evidence that the structure or use may cause significant environmental harm.

4.31 If the renewal permit is denied the structure or use must be altered to conform to the provisions of this ordinance or the structure removed and the use discontinued. The Agency in denying the permit shall specify whether the structure is to be altered or removed and discontinued.

4.40 Application Requirements

4.41 Applicants for any permit required pursuant to the terms of this ordinance shall submit the application and information required to the Agency[.] and other agencies of authority. The Agency may review and take action on the project; however, the permit shall not be issued until the applicant submits proof to the Agency that all other agencies have approved or waived approval of the project. No permit shall be issued unless there is compliance with all the requirements of this ordinance[.] and the requirements of the agencies of authority.

4.42 Information Report

(1) Applicants for any permit required pursuant to the terms of this ordinance shall provide such information and reports as are required by Agency staff. In establishing the information and reports that shall be provided, the Agency staff shall require such information and reports as will demonstrate the applicant's compliance with the provisions of this ordinance, and as will adequately depict:

(a) The site;

(b) The proposed construction or use and the nature thereof;
(c) Existing conditions on and near the site; and;

(d) Probable individual and cumulative effects of the proposed construction or use.

(2) When the proposed construction or use, because of its intensive nature or proposed location, may pose substantial environmental [hazards] impacts as determined by Agency staff, Agency staff shall require [the applicant to provide such scientific analysis and expert opinion as will adequately explore same.] an EIS to be prepared.

(3) The Governing Body of the Agency shall adopt recommended guidelines for shorezone information reports. Agency staff shall follow such guidelines to the extent practicable in requiring information and reports respecting shorezone applications.

4.43 Rejection of Application

Any application for permit submitted without sufficient information to adequately review a proposal or use may be rejected by Agency staff or any other reviewing authority. Any such rejection may be appealed to the Agency Governing Body for a decision on the adequacy of the application.

4.44 Burden of Proof

The burden of proof in showing that an applicant is entitled to a permit or variance pursuant to this ordinance is on the applicant.

4.45 Prohibition of "In Concept" Approvals

The Agency shall not grant "in concept" approvals.

4.50 Consideration of Permits

4.51 The Governing Body of the Agency shall take final action respecting [all marinas and variances] those projects listed in Section 4.11(9-16). Agency staff shall review and take action whether to approve, to require modification of or to reject all other permits required pursuant to the provisions of this ordinance, and the action of Agency staff shall be final in the absence, or until disposition,
of any appeal. Action by the Governing Body or Agency staff pursuant to this ordinance shall be after reasonable notice and opportunity to be heard are given to the owners of certain affected real property, other than the applicant, as required by the Agency's Rules and Regulations of Practice and Procedure. [Agency staff shall post a written, public notice of all permits periodically approved by staff under this ordinance, posting to be at the principal office of the Agency and at two (2) other separate, prominent places within both the States of Nevada and California, and to occur no less frequently than twice each month at the times of posting of the agendas for the meetings of the Agency Governing Body and Advisory Planning Commission. Posting shall occur once for each such permit and shall include all such permits approved during the time from one posting until the next.] An appeal from the determination of Agency staff may be made by any aggrieved person by lodging with Agency staff a written notice of appeal within ten (10) days of the date of determination. On appeal, the Agency Governing Body may affirm, reverse or modify the determination of Agency staff, and such Governing Body action shall be final.

4.52 The Agency shall notify the [permit-issuing authority] agencies of authority within fifteen (15) days of any action it takes pursuant to any permits required by this ordinance.

4.53 Governing Body consideration of permits and appeals from determinations of Agency staff lodged pursuant to Section 4.51 shall be conducted at meetings open to the public. Reports considered at said meetings shall be available to the public at a reasonable time prior to the meetings. The applicant, appellant and other interested persons shall be afforded opportunity at such meetings to comment on the proposed permit or appeal. Agency action on the proposed permit, including action by staff under Section 4.51, and disposition of any appeal shall be supported by appropriate findings setting forth the basis for the Agency action.

4.54 In considering any application for permit relating to the provisions of this ordinance the permit-issuing authority and the Agency shall approve such permit only if it is expressly found that it meets the applicable standards and requirements of this ordinance.
4.60 In passing upon permits required pursuant to the terms of this ordinance, the Agency may impose such reasonable conditions of development as are necessary and appropriate to minimize or eliminate the environmental effects of the development or use.

Section 5.00 Standards for Regulating All Construction and Uses Within the Shorezone, Underlying Land, or Within the Lake

5.10 No application for permit shall be granted unless the applicant shows, and the Agency finds, that the proposed construction or use will not cause significant [harm to] individual or cumulative impacts on:

(1) The shorezone and underlying land;

(2) Fish and aquatic habitats and fish spawning grounds;

(3) The natural beauty of the area;

(4) Navigation, safety or health; and

(5) The water quality of the lake, including, but not limited to, its purity, its clarity, temperature, color, taste, and odor; the more restrictive of federal and state water quality standards shall set the minimum water quality standards applicable to a proposed development or use.

5.20 No application for permit shall be granted unless the [applicant shows, and the permit-authority or the] Agency finds[,] that:

(1) Granting such permit will not result in substantial interference with public use of the lake's navigable waters;

(2) There are sufficient accessory facilities to accommodate the proposed construction or use;

(3) Granting the proposed construction or use will not violate any other law (e.g., increasing shorezone coverage beyond that permitted in the Land Use Ordinance); and

(4) Granting the proposed construction or use will not be incompatible with existing shorezone uses or structures on or in the immediate vicinity of the littoral parcel, or that modifications of such existing uses or structures will be undertaken to assure such compatibility.
Section 6.00 Shorezone Tolerance Districts and Performance Standards

6.10 Establishment and Effect

There are eight (8) shorezone tolerance districts as established on the Tahoe Regional Planning Agency Shorezone Tolerance District aerial maps scaled at approximately one (1) inch equals four hundred (400) feet, which maps are presently on file with the Agency. Each of said maps are hereby incorporated herein by this reference. In addition the portions of the Shorezone Plan hereinbelow set forth are hereby incorporated herein by this reference. Any development, construction or use within the shorezone shall comply with: (1) the applicable provisions of the Land Use Ordinance; (2) the regulations and standards applicable within the shorezone tolerance district within which it is located; (3) the other provisions of this ordinance; and (4) all other Agency ordinances, rules, regulations, and policies.

6.20 Shorezone Tolerance District 1

6.21 Nature District

Barrier shorezone where barrier beach separates lake from marshes and wetlands in the backshore. Generally, the shorezone is ecologically fragile and any substantial use or alteration can lead to excessive sedimentation, beach erosion and water turbidity, as detailed in the Shorezone Plan.

6.22 Permitted Uses and Structures

None but the following uses and structures or those found to be appropriate and similar in nature:

(1) Nearshore and Foreshore

(a) Beach recreation (unintensive).

(b) Boating.
(c) Floating platforms, buoys, piers and existing marinas only where it is established that: (1) the backshore and land adjacent to such backshore was at the effective date of this ordinance devoted to recreation or residential uses that would be substantially and detrimentally affected if such existing facilities were prohibited; (2) the use of such existing facilities will not cause substantial harmful environmental consequences; and (3) access to such existing facilities will minimize environmental harms to the backshore and foreshore.

(d) Navigational structures.

(e) Shoreline protective structures where permissible under the applicable standards of the Shorezone Plan.

(2) Backshore

As otherwise permitted; provided, however, no use or structure shall be allowed on any wetland, except such ways as are required to enjoy permitted uses of the foreshore and nearshore.

6.23 Development Standards

Except as provided in Section 6.22:

(1) No fill or dredging of the nearshore or foreshall be permitted.

(2) Access to wetlands shall be limited to scientific and educational purposes.

(3) Access to shoreline shall be restricted to planned footpaths.

(4) Vegetation shall be preserved to the maximum extent feasible and the standards contained in the Biological Element and Biological Recommendations of the Shorezone Plan shall apply.

(5) No drainage or modification of backshore wetlands shall be permitted.

(6) Except for existing structures, no structure (other than a handrail) more than five (5) feet in height above ground or high water
level shall be located any closer to the shoreline of Lake Tahoe than the border of the wetland in such zone farthest from the shoreline.

(7) As otherwise provided in the Shorezone Plan for this Shorezone Tolerance District.

6.30 Shorezone Tolerance District 2

6.31 Nature of District

Volcanic and morainic debris shorezones with slopes thirty percent (30%) and over and alluvial shorezones at nine to thirty percent (9-30%) slopes. Present and potential shoreline erosion is high. Potential for disturbance in the nearshore is high as is potential for erosion and cliff collapse in the backshore.

6.32 Permitted uses and Structures

None but the following uses and structures, or those found to be appropriate and similar in nature:

(1) Nearshore and Foreshore

Those provided in Section 6.22

(a) Buoys, floating platforms and piers, but only where the three criteria of Section 6.22(c) are met.

(2) Backshore

As otherwise permitted, except no new use or structure shall be permitted unless it is established that such use or structure and its attendant construction activity will not accelerate backshore erosion or cliff collapse.

6.33 Development Standards

Except as provided in Section 6.32, the development standards shall be as provided in Sections 6.23(1), (3) and (4) and:

(1) Permitted construction or continued use may conditioned upon installation and maintenance of vegetation to stabilize shorezone areas and to protect eroding areas from further destruction.
(2) As otherwise provided in the Shorezone Plan for this Shorezone Tolerance District.

6.40 Shorezone Tolerance District 3

6.41 Nature of District

Armored granite shorezones with slopes exceeding thirty percent (30%). High erosion potential immediately above the shore with moderate potential for disturbance in steep nearshore zone. Removal of vegetation in backshore will lead to mass movement and erosion.

6.42 Permitted Uses and Structures

(1) Nearshore and Foreshore

As provided in Section 6.32.

(2) Backshore

As otherwise permitted, except to the extent feasible no new structures shall be constructed on slopes greater than fifteen percent (15%), and no vegetation shall be removed except such minor removal as specifically allowed in the applicable permit.

6.43 Development Standards

Except as provided in Section 6.42, the development standards shall be as provided in Sections 6.23(3) and (4), Sections 6.33(1) and (2) and as otherwise provided in the Shorezone Plan for this Shorezone Tolerance District.

6.50 Shorezone Tolerance District 4

6.51 Nature of District

Volcanic rock shorelines with moderate potential for erosion which increases where colluvium of volcanic debris is present and stoney, sandy loams lie on fifteen to thirty percent (15-30%) slopes; morainic debris shorezones with high erosion potential above the shoreline; alluvial shorezones where the shoreline is characterized by steep, crumbling cliffs with continuing erosion problems.

6.52 Permitted Uses and Structures
None but the following uses and structures or those found to be appropriate and similar in nature:

(1) Nearshore and Foreshore

Those provided in Section 6.22, and

(a) Buoys where it is established the methods of access to such buoys are to be provided that will result in only minimum environmental harms, if any, to the foreshore and backshore.

(b) Piers, floating platforms and boat launching facilities, where it is established that: (1) the nearshore consists of materials capable of sustaining interference with minimal disturbance to the natural system; (2) methods of access to such piers or facilities are proposed that will avoid serious environmental harms to the foreshore and backshore; and (3) the applicant will undertake appropriate planting along existing cliffs and cliff tops.

(2) Backshore

As otherwise permitted if it is found that the activity will not substantially accelerate cliff crumbling and erosion and the applicant will undertake appropriate planting along existing cliffs and cliff tops.

6.53 Development Standards

Except as provided in Section 6.52, the development standards shall be as provided in Section 6.23(4) and Sections 6.33(1) and (2) and:

(1) Access to shoreline shall be restricted to planned footpaths so designed and located as to avoid erosion and minimize destruction of backshore cliffs.

(2) As otherwise provided in the Shorezone Plan for this Shorezone Tolerance District.
Armored granite shorezones with fifteen to thirty percent (15-30%) slopes with less erosion potential than similar lands in Shorezone 3.

6.62 Permitted Uses and Structures

None but the following uses and structures, or those found to be appropriate and similar in nature:

(1) Neaershore and Foreshore

As provided in Section 6.52.

(2) Backshore

As otherwise permitted, except to the extent feasible no new structures shall be constructed on slopes greater than twenty percent (20%).

6.63 Development Standards

Except as provided in Section 6.62, the development standards shall be as provided in Section 6.23(4) and Sections 6.33(1) and (2) and:

(1) Access to shoreline shall be restricted to planned footpaths so designed and located as to minimize backshore erosion and destruction of vegetation. Vehicular access to the shoreline shall not be permitted except where it is established that such access will not cause any substantial environmental harm.

(2) As otherwise provided in the Shorezone Plan for this Shorezone Tolerance District.

6.70 Shorezone Tolerance District 6

6.71 Nature of District

Shorezones underlain by weathered volcanic or morainic debris with slopes of five to fifteen percent (5-15%). Shoreline erosion problems are minimal.

6.72 Permitted Uses and Structures

None but the following uses and structures or those found to be appropriate and similar in nature:
(1) Nearshore and Foreshore

Those provided in Section 6.22 and:

(a) Beach recreation (intensive);

(b) Buoys; and

(c) Piers, floating platforms, boat launching facilities and marinas, where the nearshore shelf is of sufficient width to enable construction without potential for serious shelf erosion.

(2) Backshore

As otherwise permitted.

6.73 Development Standards

Except as provided in Section 6.72, development standards shall be as provided in Section 6.23(4) and Sections 6.33(1) and (2) and:

(1) Vehicular access to the shoreline shall not be permitted except where it is established that such access will not cause substantial environmental harm.

(2) Shoreline protection structures shall not be permitted unless it is established that such structures are necessary to avoid substantial environmental harm.

(3) As otherwise provided in the Shorezone Plan for this Shorezone Tolerance District.

6.80 Shorezone Tolerance Districts 7 and 8

6.81 Nature of District

(1) Tolerance District 7 - Comparatively level shorezones underlain by morainic and alluvial materials with slopes of zero to nine percent (0-9%).

(2) Tolerance District 8 - Gently sloping, armored granite shorezones with high capability for development. Shorelines are in equilibrium and potential for erosion in foreshore and nearshore is low. Backshore possesses a moderate erosion potential in some cases.
6.82 Permitted Uses and Structures

None but the following uses and structures, or those found to be appropriate and similar in nature:

(1) Nearshore and Foreshore

Those provided in Section 6.22 and:

(a) Beach recreation (intensive);

(b) Buoys; and

(c) Piers, floating platforms, boat launching facilities and marinas.

(2) Backshore

As otherwise permitted.

6.83 Development Standards

Development standards shall be as provided in Sections 6.23(4), 6.33(2) and 6.73(1), and as otherwise provided in the Shorezone Plan for this Shoreline Tolerance Zone.

Section 7.00 Standards for Piers, Mooring Buoys, Boat Ramps, Launching Facilities and Floating Docks or Platforms

7.10 Permit Applications

An [administrative permit] Agency permit must be obtained before constructing a pier, boat ramp, or launching facility, or placing a buoy, floating dock or platform as provided in Section 4.00.

7.20 Types and Numbers of Piers, Boat Ramps, Launching Facilities, Mooring Buoys, Floating Docks and Platforms

7.21 Piers, Boat Ramps and Mooring Buoys for Individual Use

An owner of a littoral parcel may be permitted to place no more than two (2) mooring buoys and to construct one (1) pier with a low-level boat lift or one (1) boat ramp [and place one (1) or more mooring buoys] within the area described in Section 7.26 for the use in connection with the parcel of an individual or family and guests if such pier, boat ramp or mooring buoy is otherwise permissible.
7.22 Floating Docks and Platforms for Individual Use

An owner of a littoral parcel may be permitted to place one (1) floating dock or platform within the area described in Section 7.26 for the use in connection with the parcel of an individual or family and guests if such floating dock or platform is otherwise permissible.

7.23 Piers, Launching Facilities, Mooring Buoys, Floating Docks and Platforms for Multiple Use or Commercial Use

An owner or lessee of a littoral parcel may be permitted to construct piers and launching facilities and to place mooring buoys, floating docks and platforms within the area described in Section 7.26 for the use of individuals on a multiple or commercial use basis if such use, structure and facility is otherwise permissible. If any such structure is, or is to be, accessory to a marina, the provisions of Section 9.00 shall also apply.

7.24 Piers, Launching Facilities, Mooring Buoys, Floating Docks and Platforms for Use in Connection With a Proposed Residential Development Project

Where the littoral parcel adjacent to the proposed pier, launching facility, mooring buoy, floating dock or platform is part of a residential land development served by the shorezone which is being developed for use by, or sale or lease to, more than one (1) person, no pier, launching facility, mooring buoy, floating dock or platform shall be approved intended solely for the use of one (1) individual or family and guests.

7.25 Piers, Launching Facilities, Mooring Buoys, Floating Docks and Platforms for Use in Connection With an Existing Residential Land Development Project

Where the littoral parcel adjacent to the proposed pier, launching facility, mooring buoy, floating dock or platform is held in common ownership by owners of parcels within a residential land development served by the shorezone, or by an association representing them, or by a person for use of such owners, no pier or launching facility, mooring buoy, floating dock, or platform shall be approved
intended solely for the use of one (1) individual or family and guests.

7.26 Placement of Piers, Mooring Buoys, Boat Ramps, Boat Launching Facilities and Floating Docks or Platforms

(1) The pierhead line is established as depicted on the Tahoe Regional Planning Agency Shorezone Tolerance District aerial maps, scaled at approximately one (1) inch equals four-hundred (400) feet, which maps are presently on file with the Agency. Each of said maps is hereby adopted and incorporated herein by reference. Except for mooring buoys and navigational structures, no facilities shall extend beyond the pierhead line, except as provided in Section 7.26(4).

(2) Piers, mooring buoys, boat ramps, boat launching facilities, and floating docks and platforms shall be placed only within an area that is enclosed by lines that are parallel to and [five (5) foot] twenty (20) foot minimum inward of parcel lines extended lakeward at right angles from the [low] high water line or as [specified] established by the Agency when it is found that unique site conditions make the above standards impractical to apply. [by Corps of Engineers regulations.]

(3) Those facilities described in Sections 7.21 and 7.22 shall extend no further lakeward from the high water elevation than as follows:

(a) Mooring Buoys: to a depth necessary for the safe mooring of a boat, but not to exceed three hundred and fifty (350) feet;

(b) Floating Docks and Platforms: to a depth necessary for safe use, but not beyond the pierhead line.

(c) Piers shall not extend beyond an elevation of 6219.0 Feet, Lake Tahoe Datum, nor beyond the pierhead line, whichever is more limiting.

(d) Boat Ramps and Launching Facilities: to a depth necessary for safe use, but not
to exceed a length of two hundred and fifty (250) feet.

(4) Those facilities described in Sections 7.23, 7.24 and 7.25 and all other facilities of multiple use in excess of that described in Section 7.21 shall extend no further than as specified in the project plans approved by the Agency, and the dimensions specified in Section 7.26 shall be utilized as distance guidelines for this purpose. The amount of deviation from the standards of Section 7.26 and 7.30 is dependent on:

(1) The reduction in development potential associated with the application; and

(2) The number of people utilizing the facility.

7.30 Dimensions and Features of Piers, Boat Lifts, Boat Ramps and Mooring Buoys for Individual Use

7.31 Those facilities described in Section 7.21 shall conform to the following standards:

(1) Width: Ten (10) foot maximum width including all appurtenant structures [(e.g., walkways and floats).] except low-level boat lifts and a catwalk may be permitted. [Additionally a] A catwalk below the level of the main deck not in excess of three (3) feet in width by forty-five (45) feet in length may be permitted for the loading and unloading of boats. A low-level boat lift whose forks are not in excess of ten (10) feet in width from the pier may be permitted.

(2) Height:

(a) Pier decks shall not extend above elevation 6232.0 Feet, Lake Tahoe Datum.

[(b) Handrails and similar safety devices shall not extend more than three (3) feet above the pier deck.]

(b) Boat lifts, pilings and handrails or similar safety devices shall not extend more than four (4) feet above the pier deck.
(c) Flag poles shall not exceed a height above the pier deck permitted in the land use district of the adjacent backshore.

(3) To permit free circulation of water, piers shall be floating or shall be built on a foundation which is at least ninety (90) percent open.

(4) No superstructures shall be permitted.

[7.32 To permit free circulation of water, piers shall be floating or shall be built on a foundation which is at least ninety percent (90%) open, unless it is found that it is unlikely that an impermeable structure will cause shoreline erosion or harm water quality or clarity.]

7.40 Multiple Use Facilities

Multiple uses such as those described in Sections 7.23, 7.24, 7.25, and 9.00 [shall] may be permitted piers, launching facilities, mooring buoys, floating docks and platforms, and sundecks and superstructures in such numbers, sizes and for such water-related purposes as specified in project plans approved by the Agency, but the limitations hereinabove set forth respecting those facilities described in Section 7.26 and 7.30 shall be utilized as guidelines for this purpose. The amount of deviation from the standards of Sections 7.26 and 7.30 is dependent on:

(1) The reduction in development potential associated with the application; and

(2) The number of people utilizing the facility.

7.50 Safety Devices

Structures in the foreshore or extending lakeward beyond the foreshore shall incorporate in a conspicuous manner approved hazard lights or similar devices as aids to navigation [as may be required by the United States Coast Guard under appropriate Federal Regulations.] All such lights and devices shall meet U.S. Coast Guard standards if applicable.

7.60 Structures and Uses in Lakes and Lagoons Other Than Lake Tahoe

All structures and uses permitted by this ordinance in the nearshore and foreshore of Lake Tahoe may be permitted in other lakes and man-made lagoons within
the region. The regulations for placement of such structures will be determined on an individual basis using the standards set forth in this ordinance as guidelines.

Section 8.00 Jetties and Breakwaters

8.10 Permit Application

An [administrative] Agency permit must be obtained before constructing or maintaining a jetty or breakwater as provided in Section 4.00.

8.20 Location of Jetties and Breakwaters

Jetties and breakwaters shall not be permitted in locations where beach erosion or loss of sediment from the shorezone is likely.

8.30 Permeability

8.31 Except as provided in Section 8.32, jetties and breakwaters shall be constructed with openings which allow adequate free circulation of water and sediment.

8.32 No jetty or breakwater having a solid or nearly solid structure may be constructed within the lake, unless it is found that it is unlikely that an impermeable structure will cause shoreline erosion or harm water quality or clarity.

8.33 Size, number and locations of openings in jetties or breakwaters shall be sufficient to avoid shoreline erosion, harm to underlying land and harm to water quality and clarity.

Section 9.00 Marinas

9.10 Permit Application

9.11 An [administrative] Agency permit must be obtained before constructing a marina as provided in Section 4.00.

9.12 The applicant may be required to post security to guarantee completion of the work undertaken and maintenance of the facilities completed.

9.20 Location of Marinas

9.21 Even where marinas are otherwise permissible, they shall not be permitted where: beach
erosion is likely to occur; unstable conditions exist [locations]; or where there is no demonstrable public need for such facilities.

9.22 Marinas, when otherwise permissible, shall be located in the following areas to the extent possible:

1. In deeper water for lower water temperature and to avoid dredging;

2. In harbors to avoid use of breakwaters;

3. In conformity with the Recreation, Conservation and Open Space Plan of the Agency.

9.30 Boat Access

Floating piers or piers on pilings shall be used to provide boat access.

9.40 Shore Waste Facilities

9.41 Restrooms, pump-out facilities for boat sewage and trash receptacles for other boat wastes shall be provided at commercial marinas and harbors.

9.42 Boat washing facilities shall be connected to a sewer system or an acceptable alternate shall be provided.

9.50 Monitoring Information Requirements

Monitoring of water quality, current patterns and intensities, shore alterations, and any other conditions which may be altered by the construction of the marina may be required for a reasonable period after completion thereof.

9.60 Review of Onshore Facilities

Whenever review of marinas is required pursuant to the terms of this ordinance, such review shall encompass both onshore and water-related facilities to assure adequacy of the development as a whole.

Section 10.00 Shoreline Protective Structures

10.10 Permit Application
An [administrative] Agency permit must be obtained before constructing a shoreline protective structure as provided in Section 4.00.

10.20 Location of Shoreline Protective Structures

To prevent local beach loss, shoreline protective structures shall be used only where protection of the backshore is of greater importance than beach preservation.

10.30 Design and Construction Standards

10.31 Sloping permeable revetments are the preferred shoreline protective structures. Seawalls and bulkheads shall be permitted only when it is established that sloping permeable revetments are not feasible and that the alternative structure will cause no undue beach erosion.

10.32 Where a shoreline protective structure is necessary, it shall be of sufficient strength and depth to prevent movement of backfill materials into lake waters.

10.40 Artificial Beach Replenishment

Artificial beach replenishment is the preferred solution to beach erosion and shall be of non-organic, chemically and biologically inert material.

Section 11.00 Filling and Dredging

11.10 Permit Application

An [administrative] Agency permit must be obtained before dredging or filling within the shorezone, as provided in Section 4.00.

11.20 Filling

Except for beach replenishment, there shall be no fill placed in the lake, nearshore or foreshore except at those locations where such fill is found to be beneficial to existing shorezone conditions or water quality and clarity.

11.30 Dredging

There shall be no removal or rearrangement of materials within the water shorezone of the lake, except at those locations where such removal or rearrangement is found to be beneficial to existing
shorezone conditions, uses and water quality and clarity.

11.40 Disposal of Dredged Material

Where dredging is permitted, spoil materials shall not be deposited in the lake waters, in wetlands or within the 100 year flood plain of any tributary to the lake[,] except for beach replenishment, as provided in Section 10.40.

Section 12.00 Man-made Lagoons, Artificial Islands and [Houseboats Prohibited] Residential Uses

12.10 Construction of man-made lagoons connected to or in the backshore of the lake or the construction of artificial islands are prohibited.

12.20 There shall be no [houseboats] residential uses permitted in the [shorezone] nearshore, foreshore or on any other [the] waters [of the lake] within the region.

Section 13.00 Navigation Structures

New navigation structures in the lake are prohibited unless:

(1) Nautical safety requires such structures; or

(2) Temporary structures for regattas are necessary.

In any case, such structures shall be of a type and at a location approved by the United States Coast Guard.

Section 14.00 Construction Standards

14.10 Construction shall be performed in a manner to minimize disturbance of vegetation, the underlying lands of the lake, the nearshore and the backshore.

14.20 Materials utilized for any purpose in the foreshore or nearshore shall be chemically inert and insoluble and shall not harm water quality and clarity.

Section 15.00 Standards for Backshore Construction

[15.1]

15.10 Permit Application

An [administrative] Agency permit must be obtained before undertaking any construction or use within the
backshore which is not exempt under Ordinance 81-1. [involves the creation of coverage of an area greater than two hundred (200) square feet in an area described as follows:

Shorezone Tolerance Districts 1, 2 and 3

300 linear feet from high water elevation or entire littoral parcel, whichever is lesser.

Shorezone Tolerance Districts 4, 5 and 6

200 linear feet from high water elevation or entire littoral parcel, whichever is lesser.

Shorezone Tolerance Districts 7 and 8

100 linear feet from high water elevation or entire littoral parcel whichever is lesser.]

15.20 Permitted Uses

Uses undertaken in the backshore shall be those uses permitted pursuant to the provisions of this ordinance and other applicable laws (e.g., the Land Use Ordinance).

15.30 Scope of Review of Proposed Uses

[Unless the use or construction proposed violates other applicable laws or is required to be reviewed by ordinance provisions other than Section 15.00 and Section 4.11(9) hereof, no proposed backshore use or construction may be denied; provided, however, that reasonable conditions of development may be imposed with respect to:]

All activities for which a permit is required pursuant to Section 13.00 and Section 4.11(8) and (12) shall be reviewed for and conditions placed on:

[(1) The shape of the proposed structures;]

(1)) The proposed use and accessory uses;

[(2) The exterior appearance of the proposed structures, including without limitation the colors and materials utilized in construction;]

(2) The impacts of the proposed use on surrounding uses.

[(3) The siting of the proposed structures; and]

(3) The height, coverage, and siting of the proposed and existing uses on the property;
(4) The size of the proposed structures; provided, however, that in imposing conditions respecting size, the reviewing authority shall be guided by an appraisal of the purposes and objectives of both the Land Use Ordinance and the Shorezone Ordinance.

(4) The construction methods and controls;

(5) The impacts on the site and the mitigation measures proposed;

(6) Exterior appearance of the proposed structure(s);

(7) The size of the proposed structures; provided that in imposing conditions respecting size, the reviewing authority shall be guided by an appraisal of the purposes and objectives of both the Land Use Ordinance and the Shorezone Ordinance.

15.40 Criteria for Review

In imposing conditions of development pursuant to the provisions of 15.30, the reviewing authority shall be guided by an appraisal of this ordinance in relation to the unique characteristics of the site and shall further attempt to meet the following objectives to the maximum extent feasible:

(1) The protection of significant vistas;

(2) Minimizing the visual impact of the proposed construction or use on the shorezone and area surrounding the site; and

(3) The preservation of the site and shorezone from environmental harm both during and after construction.

Section 16.00 Maintenance, Repair and Removal of Structures

16.10 Owners of all structures in the lake shall have the responsibility of maintaining them in a proper and safe condition and in accordance with the provisions and purposes of this ordinance at all times.

16.20 The owner of any installation or structure which the permit-issuing authority or the Agency finds is not being maintained in a proper and safe condition or is not being maintained in accordance with the provisions and purposes of this ordinance shall be
notified in writing of said improper or unsafe condition or unlawful operation and shall be given a reasonable time not exceeding one (1) year as determined by the [permit-issuing authority or the] Agency in which to accomplish the required corrective action. If the owner fails to act as required within that period, the [permit-issuing authority or] Agency may have the work performed at the owner's expense or have the structure removed at his expense, costs to constitute a lien against the real property of the owner until paid.

16.30 When a structure has been abandoned, it shall be removed by the owner or by the [permit-issuing authority or by the] Agency at the expense of the owner, costs to constitute a lien against the real property of the owner until paid.

16.40 Repairs to existing structures shall be performed in substantial compliance with the provisions of this ordinance.

16.50 Abatement of Nuisance

It is hereby declared to be a public nuisance and unlawful for any person to engage in any activity, use or maintain or construct any structure which has any of the following effects within the shorezone of a lake:

1. The erosion or discharge or solid or liquid waste materials (e.g., soil, silt, clay or sand) into lake waters;

2. Impair water quality;

3. Impair water clarity;

4. Impair fish spawning areas.

The person who engages in any activity, use or maintains or constructs any structure which has any of the effects declared herein to be a nuisance shall promptly abate same upon notice from Agency staff so requiring. Upon the person's failure to so abate, the [permit-issuing authority or the] Governing Body of the Agency may authorize the abatement at the person's or owner's expense, costs to constitute a lien against the real property of the owner until paid.

Section 17.00 Nonconforming Structures

17.10 Piers and Appurtenant Structures
(1) Length:

Piers and appurtenant structures that extend beyond the pierhead line are declared to be nonconforming and shall be removed or made conforming on or before December 31, 1999. Existing commercial and multiple use piers may be allowed beyond the pierhead line provided an [administrative] Agency permit is granted pursuant to Section 4.00.

(2) Height and Width:

Piers and appurtenant structures exceeding the provisions of Section 7.31 including 'T' and 'L' sections of piers located within the pierhead line are declared nonconforming and may not be replaced if removed, damaged or destroyed in excess of fifty percent (50%) of the replacement cost. Existing commercial and multiple use piers and appurtenant structures in excess of Section 7.31 may be allowed provided an [administrative] Agency permit is granted pursuant to Section 4.00.

17.20 Mooring Buoys, Floating Docks and Platforms

Mooring buoys, floating docks and floating platforms, and their anchoring devices that do not conform to the provisions of this ordinance shall be removed or made conforming within one (1) year of the effective date hereof.

17.30 All Other Structures

All other structures including superstructures on piers located within the nearshore or foreshore, that do not conform with the provisions of this ordinance shall be removed or made conforming on or before December 31, 1999. Existing commercial and multiple use facilities may be allowed to remain provided an [administrative] Agency permit is granted pursuant to Section 4.00.

17.40 [Conformity] Existing Nonconforming Uses and Structures

[Within the time specified by this ordinance, a nonconforming structure shall either be repaired to conform with the provisions of this ordinance or removed by the owner at his expense; provided, however, that when a structure cannot be repaired to conform with the provisions of this ordinance and its removal would cause more environmental harm than its continuance or expose additional boating hazards, the structure need not be removed, but such alterations

- 33 -
as are necessary to minimize the nonconformity shall be required.]

Existing uses and structures in the nearshore or foreshore which do not conform to the provisions of the ordinance may be continued, sold, or transferred provided that they meet the following criteria:

(1) The uses or structures were lawfully existing on the date of adoption of this ordinance; or

(2) The uses or structures had valid local, State Lands Commission, TRPA, and Corps of Engineers permits on the date of adoption of this ordinance.

17.50 Limitations on Nonconforming Uses and Structures

The following limitations, if stricter than Section 17.30, shall apply to existing nonconforming uses and structures:

(1) Structures may be kept in good condition through the employment of ordinary maintenance.

(2) Damaged or deteriorated nonstructural members may be repaired or replaced.

(3) Damaged or deteriorated structural members may be replaced or repaired only if:

   (a) The members are part of a conforming section of the structure; or

   (b) The nonconforming structure is of cultural or historic importance and is open to the general public on a regular limited or unlimited basis.

   (c) Damaged by fire or calamity less than 50% of the replacement value.

(4) No new improvements shall be authorized in the nearshore or foreshore of the parcel unless and until the existing nonconforming use or structure is made conforming.

Section 18.00 Existing Unauthorized Structures

An [administrative] Agency permit must be obtained for the use of an existing unauthorized structure located in the nearshore or foreshore, as provided in Section 4.00. Permits for such existing unauthorized structures will be granted or denied according to the provisions of this ordinance in the same manner as permits for
proposed structures. If the permit is denied, the structure must be altered to conform to the provisions of this ordinance or removed by the owner at his expense. The Agency in denying the permit shall specify whether the structure is to be altered or removed.

Section 19.00 Noise and Motion Limitations and Discharge from Boats

Boats shall be operated on the waters of a lake only as follows:

(1) Noise emission levels shall not exceed eighty-six (86) dba at three thousand (3,000) rpm at a distance of fifty (50) feet.

(2) Speed of boats shall not exceed five (5) miles per hour within three hundred (300) feet of any structure or mooring buoy or the shoreline of any lake.

(3) Boats shall not discharge onto the shorezone or into waters of the Lake Tahoe Basin solid or liquid waste material of any kind excluding the normal operation of the engines (except for bilge pumps and automatic bailers) public craft and further excluding the normal operation of bilge pumps, automatic bailers and exhaust on private pleasure craft.

Section 20.00 Variances

Variances from the terms of this ordinance may be granted by the Agency Governing Body only if it is found that because of special circumstances applicable to the property involved a strict application deprives such property of privileges or safety enjoyed by other similarly situated property. Where such conditions are found, the variance permitted shall be the minimum departure from existing regulations necessary to avoid such deprivation of privileges enjoyed by such other property and to facilitate a reasonable use, and which will not create significant probabilities of harmful environmental consequences. In no case may a variance be granted that will provide the applicant with any special privileges not enjoyed by other similarly situated properties in the vicinity.

Section 21.00 Change of Permitted Uses in Shorezone Tolerance Districts

Uses and structures exceeding or different from those permitted in a particular shorezone tolerance
district may be granted only when it is found that: the land of the applicant seeking the permit exhibits the characteristics generally existent in a shorezone tolerance district other than the one in which it has been located and the limitations of such other district are properly applicable to such land; or the proposed structure or use will not cause the harmful environmental consequences on the land of the applicant or on other lands or the waters of the lake that were the basis of the initial classification of the applicant's land in the applicable shorezone tolerance district.

Section 22.00 Violation of Ordinance

Violation of any provision of this ordinance shall be a misdemeanor. Upon notification of such violation, each day's violation subsequent to notification shall constitute a separate offense.

22.10 Civil Proceedings and Stop Work Orders

Violations of any provision of the ordinance may also be enforced by stop work order and/or civil judicial proceedings.

Section 23.00 Effective Date

This ordinance shall be effective sixty (60) days after its adoption.

Prohibition of New Pier Construction in Fish Spawning Areas Until 1983 (California Only)

In adopting the California State Water Resources Control Board's 208 Water Quality Plan, the TRPA approved the following prohibition against new pier construction in significant spawning habitats or offshore of biologically important stream inlets:

"The discharge or threatened discharge, attributable to new pier construction, of solid or liquid wastes, including soil, silt, sand, clay, rock, metal, plastic, or other organic, mineral, or earthen materials, to significant spawning habitats or to areas immediately offshore of important stream inlets in Lake Tahoe is prohibited."

The prohibition against discharges immediately offshore of important stream inlets shall apply up to a thirty foot contour. Discharges to the inlets themselves are subject to the prohibition against discharges to stream environment zones.

The determination whether an area is significant spawning habitat or an important stream inlet shall be made on a case-by-case basis by permitting agencies, in consultation with the U.S. Fish and Wildlife
Service and state fish and wildlife agencies. Maps which have been produced by these agencies may be used by a guide. Because of the scale on which the maps have been produced, however, and the possibility that additional information may become available, the maps will not necessarily be determinative.

The term pier, as used in the prohibition quoted above, includes any fixed or floating platform extending from the shoreline over or upon the water. The term includes docks and boathouses. The prohibition does not apply to maintenance, repair, or replacement of piers at the same site. The prohibition shall also be subject to the exceptions which apply to the prohibitions setting restrictions on development.

First Reading: April 29, 1976
Second Reading: May 27, 1976

Passed and adopted by the Governing Body of the Tahoe Regional Planning Agency at a regular meeting held May 27, 1976 by the following vote:

Ayes: Mr. Meder, Mr. Woodward, Mr. Wynn, Mr. Cooke, Mrs. Onorato, Mr. Stewart, Mr. Scott

Nays: Mr. Henry

Abstain: None

Absent: Mr. Dayton, Mr. Bensinger

s/DICK SCOTT, Chairman
Subject: Development of the 1982 Air Quality Plan for the Lake Tahoe Basin

Introduction and Background

Issues

A. Options on dealing with the specific measures identified in the Compact. The Loop Road and Rail proposals are included in the 1979 Air Quality Plans. "Refer to regional plan?"

B. Discussion on guidelines for resolving the conflicts in terms of what control measures should be adopted and implemented with the 1982 Air Quality Plan and which should be deferred until adoption of the Transportation Plan because they conflict with the legal requirements of the Compact.

C. Options on Dealing with Mass Transit Improvements, Staggered Work and/or Operating Hours and Measures to Encourage Midesharing:

1. Goal orientation with interium guidelines before the Transportation Plan is adopted (e.g., mass transit improvements must reduce the number of trips in an area exceeding the carbon monoxide air quality standards by X trips).

2. Specific details on how to obtain the goal (e.g., identify the number of buses, turnouts, routes, etc. it will take to attain the carbon monoxide air quality standard).

D. Control Strategy Options:

1. Limit to Problem Areas exceeding standards
2. Limit to Regional Areas nondegradation policy
3. Basinwide

Air Quality Modeling Description

A. Monitored Air Quality Values

B. Description of Modeling Methodology

C. Validation Study

D. Base Year and Projected Air Quality Values
Potential Alternatives for the Areas Exceeding the Carbon Monoxide Standard

A. No Action

B. I/M Program Options:
   1. Bay Area, Sacramento and Fresno implementation (California Program)
   2. California Program and full implementation in the Basin
   3. California Program and implementation in the Basin within El Dorado and Douglas Counties

C. High Altitude Tuning of Local Automobiles

D. Reduce Cold Start Condition Options:
   1. Installation of block heater outlets
   2. Public awareness program

E. Specific Traffic Flow Improvements:
   1. Individual intersection modifications:
      a. Options:
         - Adding turn lanes
         - Turning movement and lane use restrictions
         - Signal modifications
      b. Specific areas for consideration:
         - Intersection modification at the South Lake Tahoe WYE intersection
         - Intersection modification at the Route 50 and Al Tahoe Blvd. intersection.
         - Intersection modification at the Route 50 and Ski Run Blvd. intersection.
         - Installation of a free right turn lane at the Route 50 and Wildwood Ave. intersection for traffic turning onto Wildwood Ave. from Route 50.
         - Signing at the Pioneer Trail and Ski Run Blvd. intersection to direct traffic to Myers.
         - Intersection modification at the Route 50 and Park Ave. intersection.
         - Intersection modification at the Route 50 and State-line intersection.
- Installation of a pedestrian/vehicle separation between Sahara Tahoe and Caesar's.
- Intersection modification at the Route 50 and Loop Road intersection.
- Intersection modification at the Route 50 and Kingsbury Grade intersection.

2. Arterial traffic signalization system.
   a. Progressive timing of signals
   b. Computerized Traffic Control

F. Traffic Reduction Measures:
   1. Parking Surcharges
   2. Mail Delivery
   3. Staggered work and/or operating hours

G. Mass Transit Improvements for STAGE

H. Other Measures:
   1. Parking Operation
   2. Driver Advisories

Land Use and Planning Measures

A. Project Review:
   1. Pedestrian Facilities
   2. Parking Operation
   3. Review of new parking moves and turnouts

B. Ordinance Development:
   1. ISR Options:
      - Current Program until the General Plan is adopted
      - Adopt a basinwide ordinance

C. Parking Supply Management

D. Purchases of Fragile Lands

E. Area Parking Licenses

2. Idling Restriction Options:
   - Continue the current program until the General Plan adopted
   - Adopt a basinwide ordinance
Attainment Date for the State Air Quality Standards:

- Establishing a deadline consistent with the federal deadline
- Establishing a deadline beyond the federal deadline
- Deferring any decision until the General Plan is updated so that any deadline would be consistent with any established in the General Plan for the Environmental Thresholds

Appendix A - Summary of the Control Measures Included in the 1979 Air Quality Plans

January Hearing Memo
Are all these five issues.

No staff recommendation.
December 2, 1981

Re: Development of the 1982 Lake Tahoe Air Quality Plan

To whom it may concern:

The fifth Technical Review Committee meeting will be held on December 10, 1981, at 10:00 a.m. at the TRPA office.

The purpose of this meeting will be to discuss the attached memo that will be presented to the APC and Board concerning the air quality planning process, the four chapters of the 1982 Air Quality Plan that are attached, and the modeling analyses completed for Nevada with capacity constraints and projected traffic data. The four chapters of the Air Quality Plan will be discussed in general terms and final comments should be submitted by January 7, 1982.

Sincerely,

Dale Neiman
Associate Planner

DN;sf

Attachments
TAHOE REGIONAL PLANNING AGENCY
MINUTES OF THE NOVEMBER 17, 1981 MEETING

1. The following people were present:

   David R. Cowperthwaite - Nevada Division of Environmental Protection
   Glenn Smith - Forest Service, USDA
   Rick Heitkemper - City of South Lake Tahoe
   Bill Himenes - El Dorado County APCD
   Ken Selover - Placer County
   Steve Balog - CTRPA
   John Eells - Caltrans 03
   Dennis Goodenow - ARB
   Randy Sheffield - TRPA
   Marci Nystrom - ARB
   Elliot Mulberg - ARB
   Dale Neiman - TRPA

2. Minutes:

I asked the ARB and NDEP the status of the 1980 RFP Report. Dennis Goodenow of the ARB commented that the Report was undergoing review and that he could not comment. David Cowperthwaite stated that a RFP Report should not be done until EPA takes final action on the 1979 Air Quality Plan. He further stated that NDEP did not have any problems with the Report and that they would submit it to EPA.

There was a general discussion on the status of the Environmental Threshold Study.

Caltrans, Placer County and El Dorado County brought up the issue of the validity of the state 6 ppm 8-hour carbon monoxide standard. Dennis Goodenow and I stated that the ARB is reviewing the standard. As a result of this discussion, I indicated that I would write a letter to the ARB asking them if they could review the standard by March because it will be important in developing the environmental threshold values and General Plan Update.

Elliot Mulberg of the ARB discussed the results of the California modeling analyses and I discussed the results of the Nevada analyses.
MEMORANDUM

DATE: December 1, 1981

TO: The Advisory Planning Commission

FROM: The Staff

SUBJECT: Development of the 1982 Air Quality Plan for the Lake Tahoe Basin

Background

The Clean Air Act Amendments of 1977 required states to identify those areas not attaining air quality standards and established a planning process for developing a plan to attain the standards in these areas. This plan was to be submitted to EPA through the states by January 1, 1979. The Clean Air Act Amendments also required that the standards be attained by December 31, 1987 with the exception of areas with transportation related air quality problems not attaining the ozone and/or carbon monoxide standards. An extension of the attainment date to December 31, 1987 was allowed for these areas if the air quality plan was updated and submitted to EPA by July 1, 1982.

The Tahoe Basin was originally designated as not attaining the ozone and carbon monoxide air quality standards. EPA, however, changed the old ozone standard of 0.08 ppm to 0.12 ppm. As a result of this action, the Basin was redesignated to attainment because the new standard had never been exceeded.

TRPA was designated as the local agency responsible for preparing the 1979 air quality plan for the Nevada side of the Basin while the California Air Resources Board (ARB) was designated for the California side of the Basin.

In 1978 and 1979, the ARB, Nevada Division of Environmental Protection (NDEP), TRPA and other entities having a responsibility in air quality planning worked together to develop a bистate air quality plan for the Basin. This was done to take advantage of treating the Basin as a single planning area and cooperating in the evaluation, development and implementation of one plan. However, during this process there were several disagreements on the technical assumptions and on what control measures should be adopted. As a result, a separate plan was adopted by the ARB for California and by the Nevada Environmental Commission for Nevada. TRPA did not adopt an air quality plan but recommended a plan nearly identical to the plan later adopted by Nevada for both states. Appendix A shows the measures included in the 1979 Air Quality Plans and the adoption status of each measure.
Memo to APC
December 1, 1981
Page two

The California plan indicated that a number of control measures would have to be adopted to attain the standard and that the standard could not be attained by December 31, 1982. The Nevada plan indicated that the standard could be attained by 1982 with the completion of the Loop Road and installation of two pedestrian/vehicle separations in the South Shore casino area.

In November 1980, the TRPA Board passed a resolution requesting the ARB to designate it as the local agency responsible for air quality planning on the California side of the Basin so that one plan and program could be developed. In May 1981, the ARB concurred with the Board's request.

The TRPA staff then established a work program for preparing a 1982 Air Quality Plan and a Technical Advisory Committee to provide coordination with the involved entities and to provide input into the development of the plan.

In general, there are four steps involved in developing an air quality plan. These steps include:

1. Completing air quality modeling analyses to define the areas that have an air quality problem and to define the reduction in emissions needed to attain the standard in the problem areas.

2. Developing potential control measures for solving the air quality problem, and determining the effectiveness of each measure.

3. Developing a control strategy by relating the air quality modeling analyses to the control measures.

4. Obtaining agreements from the entities responsible for implementing the control measures.

Major Issues

The following is a list of the major issues that will most likely arise during the adoption of the 1982 Air Quality Plan:

1. Establishing an attainment date for the 6 ppm 8-hour high altitude carbon monoxide standard adopted for the Basin by both California and Nevada. The Clean Air Act has a required attainment date for the federal 9 ppm 8-hour carbon monoxide standard of December 31, 1982. However, there is not an attainment date for the state standard because the attainment strategy should take economic considerations into account. Possible options include:
- Establishing a deadline consistent with the federal deadline.

- Establishing a deadline beyond the federal deadline.

- Deferring any decision until the General Plan is updated so that any deadline would be consistent with any deadlines established in the General Plan for the Environmental Thresholds.

2. Resolving the conflicts in terms of what control measures should be adopted with Air Quality Plan and which should be deferred until adoption of the Transportation Plan because they conflict with the legal requirements of the Compact.

3. Meeting the May, 1982 submittal deadline established by California and Nevada without prejudging any environmental thresholds that may be established.

4. Obtaining the implementing agreements and implementation dates for the control measures adopted by the Board by the May, 1982 submittal deadline.

Proposed Adoption Process

The proposed adoption timing and process is presented below.

<table>
<thead>
<tr>
<th>Date</th>
<th>Process</th>
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<tbody>
<tr>
<td>January, 1982</td>
<td>Presentation to the APC and Governing Board on the air quality modeling and potential control measures to obtain direction for developing an acceptable control strategy.</td>
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<td>- Direction from the Board on establishing a date for attaining the state air quality standard.</td>
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<td>- A preliminary determination concerning the deferral of any control measures which may conflict with the legal requirements of the Transportation Plan required by the Compact.</td>
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<td>- Start of the public comment period.</td>
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</table>
Memo to APC
December 1, 1981
Page four

- Any additional direction needed from the previous step in terms of developing an acceptable control strategy.


April, 1982 - Adoption of the Final Air Quality Plan and Environmental Impact Statement by the Board.

- Coordinating with the Tahoe Transportation District to obtain the implementation agreements and implementation dates from the entities responsible for implementing the control measures.

May, 1982 - Submittal of the final Plan to both California and Nevada.
### Table 8-1

| Control Measures | Action | ATC | DOT | EDC | RE | CM | FS | STS | NAT | CTS | Agency
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*Acted upon by other agencies as "Reduced Mass Transit Fees."
**Adapted as Maintenance Measures by Resolution *19-192 (see Appendix G).
***Except for S-9, which the Nevada Environmental Commission (NEC) referred to further study, the NEC adopted the TDRP actions for the Nevada SIP revision.
PARTIAL DRAFT OF THE 1982 AIR QUALITY PLAN

The following portion of the Draft 1982 Air Quality Plan are attached for your review and comment:

- Table of Contents
- Chapter II, Background
- Chapter III, Air Quality Problem
- Chapter IV, Transportation Planning
- Chapter VII, Reasonable Further Progress

In addition, these chapters have not been totally completed. A number of tables and figures will be included later in addition to other information.

The following chapters of the Plan have not be completed:

- Chapter I, Summary
- Chapter V, Potential Control Measures and Alternative Control Strategies
- Chapter VI, Implementation Responsibilities
- Chapter VIII, Future Planning
- Chapter IX, Public Participation

However, a brief description of the chapter and anticipated completion date is included in the attached document.
DRAFT 1982 AIR QUALITY PLAN
FOR THE
LAKE TAHOE BASIN

December 1981
Prepared by the
TAHOE REGIONAL PLANNING AGENCY
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Page 3
I. Summary

This chapter will include a summary of the contents and major findings of the air quality plan. This chapter should also be completed by February, 1982.
Background

II. Background

A. Environmental Setting:


1. Regional Description:

The Lake Tahoe Basin is located on the California-Nevada border between the crests of the Sierra Nevada and the Carson Range. Roughly two-thirds of the Basin lies in California, and one-third in Nevada. The maximum surface elevation of the Lake is 6,229 feet above mean sea level, the surrounding peaks average 2,000 to 3,000 feet above lake level, and reach 10,881 feet at Freel Peak. The physical characteristics of the Basin are summarized in Table 1 and Figure 1 shows the general geographical location of the Lake Tahoe Basin.

2. Topography:

All of the land area in the Basin slopes either toward the Lake, toward one of its tributary streams, or toward its outlet in the lower Truckee River at Tahoe City. Topography determines surface and subsurface hydrology, air drainage characteristics and geography.

3. Climate:

The climate of the Lake Tahoe Basin is characterized by long cold winters and short dry summers. Precipitation comes mainly from Pacific storms and falls primarily as winter snow. Average annual precipitation ranges from over 50 inches on the western side of the Basin to about 25 inches along the eastern side. Winter temperatures in the Basin are relatively mild.

| TABLE 1 |
|-----------------|----------------|
| PHYSICAL CHARACTERISTICS OF THE LAKE TAHOE BASIN |              |
| Total Surface Area of Basin | 501 square miles |
| Land Surface Area | 310 square miles |
| Elevation of Surrounding Mountains | 10,881 feet at Freel Peak |

Lake Tahoe:

| Surface Area | 191 square miles |
TABLE 1 (continued)

PHYSICAL CHARACTERISTICS OF
THE LAKE TAHOE BASIN

<p>| | |</p>
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<tr>
<td>Surface Elevation</td>
<td>6,223 to 6,229.1 feet</td>
</tr>
<tr>
<td>Length</td>
<td>22 miles</td>
</tr>
<tr>
<td>Width</td>
<td>12 miles</td>
</tr>
<tr>
<td>Length of Shoreline</td>
<td>71 miles</td>
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<tr>
<td>Maximum Depth</td>
<td>1,645 feet</td>
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<tr>
<td>Average Depth</td>
<td>1,027 feet</td>
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<tr>
<td>Storage Volume (Top 6 feet)</td>
<td>720,000 acre-feet</td>
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<tr>
<td>Total Volume</td>
<td>126,000,000 acre-feet</td>
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</tbody>
</table>

Source: TRPA, 1977

4. Water Quality and Quantity:
   a. Existing Water Quality of Lake Tahoe:

Lake Tahoe is a water body of exceptional natural purity, one of the clearest lakes in the world (Smith, et al., 1973). While lakes generally contain more algae and become less transparent with age, this natural eutrophication had not proceeded to any significant extent before recent human disturbances in the Lake Tahoe Basin. The natural balance has been upset, however, and Lake Tahoe is deteriorating. Over the past 20 years, the rate of algal growth in the Lake has more than doubled. The algal growth rate is increasing at an accelerating rate. Evidence indicates that the Lake's exceptional water clarity has diminished within the last decade. If the trend continues, the Lake's translucent blue color will be altered.

A white ten-inch diameter Secchi disk is visible on an average day down to 28.5 meters, and on the clearest days to 38 meters. Secchi disk measurements for Lake Tahoe, as well as suspended solids and turbidity readings, indicate extraordinary clarity. The water is so clear that light penetration is sufficient to support algal growth within a deep euphotic zone extending to a depth of 100 meters or more. Secchi disk data collected by the U. C. Davis Tahoe Research Group shows a trend of decreasing water clarity over the past 12 years. Decreasing water clarity is most pronounced for data collected in winter months, typically the time when water clarity is greatest.

The processes which control algal growth can be illustrated by considering the seasonal cycle of productivity in Lake Tahoe. During the winter low light intensity and low temperatures limit algal growth. With the approach of spring, increasing sunlight, warmer temperatures, and available nutrient supplies produce conditions which favor increased productivity. Peak seasonal productivity falls off in late spring as nutrients are depleted in the euphotic zone, well before the onset of optimum light and temperature conditions which peak in summer. In fall and winter, algal growth rates are further reduced by decreased sunlight and lower water temperatures. Winter mixing of relatively nutrient rich, deep waters into the surface
Background

euphotic zone restores nutrients which support the next cycle of algal growth the following spring (Paerl, et al., 1975). The seasonal addition of nutrients associated with spring runoff further accentuates the nutrient cycle.

Measurements of algal growth rates clearly indicate trends in water quality, and show that human activity is altering the quality of Lake Tahoe. Studies of phytoplankton growth in recent years indicate accelerated rates of production. The season of maximum phytoplankton productivity has lengthened; it now extends well into summer, formerly a period of decreasing productivity attributable to nutrient depletion (Goldman, 1974).

Nearshore waters of Lake Tahoe provide the main visual evidence of water quality to persons visiting the Lake. Changes in nearshore water quality may also indicate trends occurring more slowly in open waters. Reported changes in nearshore water are a cause for serious concern because they indicate that Lake Tahoe is visibly deteriorating. Scientists studying the Lake, Basin residents, and regular visitors to the Lake report an increase in attached algal growth in nearshore waters (Loeb, 1980). Sediment plumes also provide visible evidence of water quality degradation.

Sediment plumes which cloud nearshore waters are a highly visible indication of nearshore water quality. These plumes of turbid water frequently are observed issuing from the mouths of streams which drain disturbed watersheds. The occurrence and size of sediment plumes correspond to rainfall events and to the spring peak in snowmelt and stream discharge. Because of the variability of these events and the spatial complexity of the plumes, the limited physical measurements which have been taken of nearshore water transparency are not adequate to assess trends.

b. Existing Water Quality of Tributary Streams:

Tributaries draining subdivided or otherwise developed areas contain higher concentrations of nutrients than streams which drain relatively less disturbed watersheds. Streams in disturbed watersheds have an algal growth stimulating potential which is ten times that of streams in relatively undisturbed watersheds (California Nevada Federal Investigation, 1975).

Impacts of erosion range from subtle to obviously detrimental changes in stream quality. A study by the Lahontan Regional Water Quality Control Board (Baker and Davis, 1976) found significant reductions in abundance and diversity of aquatic organisms downstream of disturbed areas, with several types of organisms eliminated. In the worst cases, siltation smothered organisms which provide food for fish, obliterated spawning and nursery habitats of sport fish, limited recreation potential and impaired the appearance of streams. In cases where increased erosion has not visibly affected streams, the additional nutrients released by erosion still contribute to the eutrophication of the Lake. Data collected as part of the State Water Resources Control Board’s Lake Tahoe Erosion Control Demonstration Project (White and Franks, 1978) documented up to a 99% reduction in
Background

aquatic life in a stream tributary to Lake Tahoe due to damaging development and disturbance of its watershed. Conversely, another watershed developed in conformance with land capability and with implementation of mitigation measures was shown to have almost no impact on monitored aquatic life.

c. Water Quality Problems:

Current water quality problems and trends are tied to increasing nutrient and sediment loads entering Lake Tahoe. Nutrients enter Lake Tahoe through erosion and surface runoff, groundwater flows, washout of airborne materials in rain and snow, and leaching of sewage previously disposed on land.

Evaluation of present suspended sediment and nutrient sources within the Lake Tahoe Basin leads to the following conclusions:

. Sediment and nutrient loads have increased greatly above natural conditions; and

. Surface runoff is the dominant source of nutrients to Lake Tahoe, and will become even more important in the future.

. Prevention of further deterioriation of the quality of Lake Tahoe will require that nutrient and sediment loads be reduced to a fraction of current levels.

Surface runoff from eroding land carries soil particles (sediment) and plant nutrients that otherwise would remain in the soil. Furthermore, urban runoff primarily from impervious surfaces also shows significant increases in suspended sediment and nutrient levels over undisturbed conditions. Overall, nutrient levels in surface water runoff increase when suspended sediment levels increase.

Although some erosion and accompanying nutrient loading occurs under natural conditions, the process has been tremendously accelerated by development. Nutrient concentrations in runoff are increased not only by erosion on developed properties but also by the presence of impervious surfaces. Impervious surfaces reduce the capacity of the natural soil-vegetation system to capture and hold nutrients. Nutrient loads to Lake Tahoe are estimated to be 5 to 16 times natural conditions.

d. Water Quantity Considerations:

Only a limited amount of water is legally available for municipal and domestic use in the Lake Tahoe Basin. If water use in the Basin increases beyond that limit, the rights of downstream water users dependent on the Lake's outflow into the Truckee River will be infringed upon.

Since 1901, when reliable records were first kept, the Lake Tahoe outflow has varied widely, ranging from 4,700 to 657,000 acre-feet per year. This wide range is due not only to climatic conditions but also
to variation in the manner of operation Lake Tahoe as a reservoir. Over the past 76 years the average annual outflow to the Truckee River has been 179,400 af. During the 1977 drought year, total outflow was reduced to 81,000 af, with a 300,000 af loss in storage capacity. At the present time, existing watershed export, existing in-Basin depletion, potential depletion under currently unused export rights total 20,000 acre-feet per year. During an average year this constitutes about 11% of the total Lake Tahoe outflow to the Truckee River. During the 1977 drought year existing and potential Basin exports and in-Basin depletion constituted 20% of the total Lake Tahoe outflow. At potential levels of future development within Lake Tahoe Basin, the net depletion may total about 30,000 afa or more. This depletion is 15% of the total average annual outflow and 30% of the 1977 drought year outflow of the Lake Tahoe Basin. Figures 15 and 16 show the historical and present levels of water diversion for use for the California and Nevada portions, respectively, of the Lake Tahoe Basin.

In 1968, after 13 years of extensive debate and negotiation, the Joint California-Nevada Interstate Compact Commission adopted the "California-Nevada Interstate Compact" allocating water in the Lake Tahoe, Truckee River, Carson River and Walker River Basins. California ratified the Compact in 1970; Nevada ratified in 1971. Although ratification by Congress is still pending, the Compact has been accepted in both states as the only comprehensive basis available for allocating water rights. The principal uncertainty concerning the allocation made by the interstate water compact involves the unresolved claims of the Paiute Tribe of Indians of Pyramid Lake. These claims are for more water at Pyramid Lake, the terminus of the Truckee River, than is provided under the Compact. Thus, the allocation set by the Interstate Water Compact sets an upper limit on the amount of water which can be diverted for use in the Lake Tahoe Basin, but there is a possibility that the amount available will be less.

Consistent with the hydrologic conditions of the Lake Tahoe watershed, where the groundwater and surface water systems are interconnected, the compact allocation is based on all diversions from ground and surface water. The Interstate Water Compact sets the total amount of water which may be diverted for use in the Lake Tahoe Basin at 34,000 acre-feet per year, with 23,000 acre-feet per year allocated to California and 11,000 acre-feet per year allocated to Nevada.

The presently unused portion of the Interstate Water Compact allocation could well be exhausted without the approval of any further subdivision development. Within the California portion of the Basin, there are approximately 15,600 vacant lots in existing subdivisions. Full development of these lots, even with modest conservation measures, would lead to a level of water commitment in excess of the allocation specified in the Interstate Water Compact. Enforcement of the CTRPA Regional Plan and SWRCB Water Quality Plan will allow development on only about 8,500 of these lots, however, keeping water use on the California side within the compact allocation unless water use rates per household increase substantially.
Within the Nevada portion of the Basin, several individual water utilities may be rapidly approaching their legal water rights allocation. Incline Village General Improvement District, for example, does not appear to have sufficient existing water rights to serve buildout of existing subdivided areas within its jurisdiction. Furthermore, other potential water users, of which the U. S. Forest Service figures most prominently, hold water rights which they wish to preserve for uses other than urban development.

5. Population, Housing, and Economy:

The existing characteristics of the Basin's population, housing, and economy are extensively reviewed in the Lake Tahoe Environmental Assessment (WFRC, 1979, pgs. 44-54 and 75-82). This document is incorporated by reference. The following discussion is a summary of this document:

a. Population:

In the Lake Tahoe Basin, two major categories of population are generally recognized - residents, including permanent and seasonal residents, and visitors, including gaming and outdoor recreationalists as well as second home owners. The growth in the resident and visitor population in the summer at Tahoe is shown in Table 5 and Figure 6. Table 6 presents population data for 1980. Both the resident and visitor population increased steadily since 1970, and the rate of increase was greater between 1974 and 1978 (9.6 percent per year compounded) than between 1970 and 1974 (8.6 percent per year compounded). Between 1970 and 1978, the Basin resident population increased by an average of 4,950 people per year, while the visitor population increased by an average of 4,830 people per year. Overall, the Basin's summer population increased 97 percent between 1970 and 1978. The total summer population of the Basin is now about 159,200 on an average summer day and 223,300 on a peak summer day. Total winter population averages half of the summer population with tourism dropping by two-thirds in the winter except for the holiday periods.

The major urban centers in the Lake Tahoe Basin are all located along Tahoe's shoreline. The City of South Lake Tahoe is the largest of the urban areas, containing 44 percent of the resident population. The Incline Village area, on the north shore, has been growing very rapidly over the last 5 years; most Washoe County, Nevada residents live there. Similarly, most Douglas County, Nevada residents live in the Stateline area of the south shore. Nearly the entire shoreline in Placer County, California is developed with the largest city being Tahoe City. Overall, about 80 percent of the residents live in California and 20 percent in Nevada.

b. Housing:

The housing stock in the Lake Tahoe Basin is comprised of single and multifamily dwelling units occupied by permanent and seasonal residents and by second home owners. Housing growth has occurred in response to
Background

an expanding job market associated with recreational facilities and in response to raising demands for second homes. Housing in Lake Tahoe is described here, historically, in terms of quantity, type, location, cost, occupancy rates, and adequacy.

i. Quantity, Type and Location:

Table 6 gives the number and type of dwelling units in each state in 1980. Between 1970 and 1978, the total housing stock increased 1.8 times from 20,263 to 36,043 dwelling units. The rate of increase was 6.5 percent per year between 1970 and 1975, increasing to 9.4 percent per year between 1975 and 1978.

Multifamily units are clustered in three areas - Incline Village, Tahoe City, and South Lake Tahoe - while residential units occur all along Lake Tahoe's shoreline.

The vast majority of dwelling units are in California (79 percent in 1975), but Nevada's share has been increasing. Since 1976, the number of residential units permitted each year in California decreased from 1,949 to 667, primarily because of sewer connection bans. In contrast, the number of permits issued each year in Nevada increased in the same period from 496 to 1,111.

While the most significant growth has been in multifamily dwellings in Nevada, single-family dwellings still comprise the predominant type of housing, (72 percent in 1970 and 65 percent in 1978). Seasonal and second home units comprise a significant segment of Tahoe's total housing inventory; they represented about 56 percent of all dwelling units in 1970 but declined to 44 percent in 1978.

ii. Occupancy Rates, Adequacy, and Cost:

Planners at Tahoe indicate that occupancy rates and housing adequacy have increased and housing adequacy has decreased dramatically in the last 4 years. However, data for these variables are available for 1974 only.

In 1974, 29 percent of all dwelling units were vacant during the summer, and 38 percent were vacant during the winter. Although these appear to be high vacancy rates, housing availability was inadequate even in 1974. Many home owners in Tahoe are seasonal visitors and choose not to rent their property during periods of vacancy. Consequently, these housing units are not available, and a true measure of housing availability requires considerations that go beyond vacancy rates. In Tahoe, measures of housing adequacy must include consideration of those existing households which are: (1) "overpaying" for their house, (2) living in substandard conditions, and, (3) experiencing overcrowding.

Overpaying is generally defined as a monthly payment or rental cost greater than 25 percent of household income. Using this definition, in 1974 20 percent of south shore families who owned homes were overpaying and 8 percent of north shore families were overpaying. In
1976, this increased to 45 percent at the south shore and remained the same at the north shore. This difference in housing availability and adequacy between the south and north shore is also manifested in overpayment by renters. In 1974, 68 percent of the household population in the south shore with incomes under $10,000, were overpaying; but a large number of rental units were available to households with higher incomes. In the north shore, only 30 percent of the renters were overpaying. For perspective, renter overpayment nationwide is about 42 percent. Thus, the proportion of households overpaying at the south shore is considerably higher than the national average, but it is lower in the north shore area. The frequency of overpayment at the south shore reflects the lower income of service employees, the inadequate available supply of low and moderately priced rental units, the second home/tourist rental market, and inflation of rental prices caused by tourist demand. On the other hand, the north shore rental market has a larger supply of low and moderately priced rental units relative to household income.

Overcrowding is defined as more than 1.01 persons per room and is both a symptom of an inadequate housing supply as well as a contributor to substandard housing. According to the 1970 Census, about 9 percent of all the occupied housing units in the Tahoe area were overcrowed. The problem is potentially worse in the south shore than the north shore because the south shore is susceptible to sudden significant changes in its economy.

All of these problems are apparently worse now than in 1974. Vacancy rates are estimated at 10 to 15 percent in the offseason and essentially zero during summer and winter peak periods. Both overpayment and overcrowding are thought to be significantly higher now than in 1974. Present housing inadequacy is probably caused by a combination of the sewer bans and nationwide inflation, both of which increase the price of housing.

c. The Economy:

The industries that contribute money to the economy of an area in the form of salaries and wages are generally divided into "basic" and "non-basic." Basic industries are those that bring income into the area from outside of that area's boundaries. In contrast, income related to non-basic industries is largely derived from local sources. In the Lake Tahoe Basin, the major basic industries are gaming, hotel/motel operation, outdoor recreation, and construction. With the exception of construction, all of these are directly related to tourism where the income source is external to the Basin. Construction is considered basic because a large proportion of development in the Basin is financed by out-of-Basin sources. At Tahoe, non-basic industries are almost entirely service-related. These include wholesale and retail trade, finance, business, medical and educational services, and government. The residents of Tahoe spend more money on retail items and on services than do visitors; consequently, they are considered non-basic industries.
Employment and income distribution in these industries are shown in Figure 7. As shown, the four basic industries (gaming, hotel/motel, construction, and outdoor recreation) account for 49.1 percent of employment and 51.3 percent of income in the Basin. Of these, the gaming industry dominates, accounting for about one-third of all employment and income. Household income in the gaming industry is somewhat lower than the average income in the Basin, reflecting the large number of low-paying jobs in that industry. The non-basic industries are dominated by retail trade, which accounts for 15 percent of all employment and income in the Basin.

These percentages remain fairly constant in winter and summer but the absolute values change dramatically between seasons. In 1970, annual average employment was 18,420, increasing to 38,060 by 1978. This represents a 107 percent increase in employment at Tahoe, which is substantially greater than the 20 percent increase in employment nationwide during the same period. At Tahoe, winter employment is about 75 percent as great as summer employment, in response to decreased tourist activity. Similarly, the occupancy rate of Tahoe's 12,000 hotel/motel rooms decreases from an average of 77 percent in summer to 28 percent in winter. This seasonality of tourist activity is one of the factors that account for the high unemployment rates, which are characteristic of Tahoe's economy. The attractiveness of the area to young people also contributes to the unemployment rates, which are characteristic of Tahoe's economy. The attractiveness of the area to young people also contributes to the unemployment problem.

Also characteristic of tourist-oriented economies such as Tahoe's, is the high percentage of residents that are employed. At Tahoe, about half of the residents are employed; there is an average of only 3.6 people per household, 1.9 of whom are employed. For perspective, in California as a whole only about one-third of the members of a household are employed. Because a higher than average proportion of household members are employed, the average household income in the Lake Tahoe Basin is also higher than average. In 1974, the average household income at Tahoe was about $19,730 per year (1975 dollars), and was higher in the Nevada portion of the Basin than in the California portion.

When one of the basic industries expands (e.g., gaming), it creates employment. These new jobs, along with the population influx and income that result, increase the demand for goods and services in the non-basic industries. This, in turn, creates more jobs accompanied by additional population growth and income. Every additional job in a basic industry is estimated to create an average of 1.04 jobs in a non-basic industries (33 percent directly and 31 percent indirectly from the basic industries).

5. Public Services:

a. Wastewater Treatment:

Wastewater treatment has had an important influence on planning and land use in the Tahoe Basin. Until the late 1960's, wastewater was
Background

Wastewater discharges from small community treatment systems or individual septic tank-leachfield systems can reach Lake Tahoe and its tributaries via groundwater. Nutrients from this wastewater were implicated in an increase in algal productivity in the lake. In response to this concern, California and Nevada mandated the export of sewage from the Basin. Completion of the systems for treatment and export of sewage from the Basin has eliminated most of the threats to Lake Tahoe from domestic wastewater.

The sewer systems in the Tahoe Basin may have contributed to increased erosion and surface runoff, permitting development on steep slopes and shallow soils which would not be suitable for septic tanks. Today, wastewater treatment capacity is a constraint to development in the Basin. Several of the region's treatment facilities are at or near capacity. The Tahoe-Truckee Sanitation Agency, which serves the north and northwest shores in California, has recently approved plans for the expansion of its treatment plant, but has committed itself not to serve new development within the Tahoe Basin which would be prohibited by the SWRCB Water Quality Plan or the CTRPA Regional Plan. The South Tahoe Public Utility District and Douglas County Sewer Improvement District, which serve the south shore, are also seeking to expand and/or upgrade their treatment facilities. Concern for the potential impacts of such expansion on the environment of the Basin and adjoining areas led the Environmental Protection Agency to prepare a detailed EIS (EPA, 1979), which concluded that expansion would have many significant adverse environmental impacts. A task force including the wastewater treatment agencies, and state, regional, and local governments has been meeting with EPA to negotiate a package of acceptable mitigation measures.

The partial moratorium in the revised bistate compact also addresses wastewater treatment facilities. During the moratorium period, no sewage facilities within the Basin may be constructed or enlarged except to comply with state and federal water pollution control laws, to accommodate development which is not prohibited or limited by the moratorium, or to upgrade the Douglas County SID facility to enable it to treat the flows for which it was designed.

b. Water Supply:

Water use in the Tahoe Basin is limited by the California-Nevada Interstate Compact. Although ratification by Congress is still pending, the Interstate Water Compact has been accepted by both states as the only comprehensive basis available for allocating water rights in the Tahoe Basin. The compact limits water use in the California portion of the Basin to 23,000 acre-feet per year (afy), and in Nevada to 11,000 afy.

The revised Tahoe Regional Planning Compact specifically provides that no provision of that compact "shall have any effect upon the allocation, distribution, or storage of interstate waters or upon any appropriative water right."
Background

Water for consumptive use in the Lake Tahoe Basin is withdrawn from Lake Tahoe, small lakes, streams, and groundwater sources by 93 separate water supply systems. Because all of the water sources are high quality, very little, if any, treatment is required. More than half of all water use occurs in the south shore area, but water use in the Incline Village and Crystal Bay areas of the north shore has been increasing rapidly. Seasonal variations in water use are also substantial (WFRC, 1979).

The California SWRCB completed a "Study on Water Use and Water Rights, Lake Tahoe Basin" in 1979. This study identified problems with capacity and distribution for many small water systems on the California side of the Basin, and concluded that if existing subdivisions are built out, annual water use on private lands will exceed the quantity legally available for use in the Lake Tahoe Basin unless consumption per household is reduced to levels below the 1964-1977 average. The report also estimates that it is unlikely that there will be enough water available to support development in Nevada beyond buildout of existing subdivisions. A TRPA staff report concludes the Incline Village General Improvement District will exceed its present water rights allowance if all parcels in existing subdivisions within the district are built out.

c. Solid Waste Disposal:

Detailed discussions of solid waste disposal in the Basin are included in WFRC (1979), EPA (1979), SWRCB (1980) and Development and Assessment of Regional Solid Waste Management Alternatives (1981).

California and Nevada both prohibit the disposal of solid waste within the Tahoe Basin. Waste from the South Shore is exported to the Douglas County Landfill near Gardnerville, Nevada; the North Tahoe Landfill near Truckee serves the California North Shore; and the Carson City Landfill serves the North Shore of Nevada. The North Tahoe Landfill is expected to reach capacity by 1984, and alternatives are being studied.

The Tahoe Basin Association of Governments, a voluntary association of the cities and counties in the Basin, is conducting a study on the feasibility of alternative solid waste disposal methods. These include an incinerator facility which could meet air quality standards and generate energy for use in the Basin, and a single large transfer station to receive all Basin wastes, which would be shipped to Carson Valley for incineration, resource recovery, or landfill.

d. Energy:

The Sierra Pacific Power Company (SPPC) service area includes all the Tahoe Basin. Peak loads are approximately equal to reliable capacity of the distribution system. SPPC is proposing a master plan calling for additional transmission lines to increase the system's reliable capacity.
Background

California-Pacific Utilities Company (CPUC) supplies parts of Douglas County and most of the City of South Lake Tahoe with natural gas. The Southwest Gas Corporation supplies natural gas to most of Placer County. These systems appear to be capable of meeting peak demand for some time into the future.

e. Other Public Services:

The following discussion of existing conditions for other public services, including schools, police and fire protection, and health care is taken from the Lake Tahoe Environmental Assessment (WFRP; 1979; p. 100) which is incorporated by reference.

El Dorado County, Placer County, the City of South Lake Tahoe, Carson City, Douglas County, and Washoe County are responsible for land-use planning and zoning, building inspections and permits, public works, public and environmental health services, community development, and local parks and recreation within their respective jurisdictions. Additionally, a multitude of special purpose districts provide health, education and police and fire protection services. Community facilities for providing these services have the capacity to meet existing demand.

Barton Hospital, located at the south shore, and Tahoe Forest Hospital, located outside of the Basin in Truckee, serve the Lake Tahoe Basin. Barton Hospital has 62 licensed beds and 28 unlicensed beds available during peak summer periods. Tahoe Forest Hospital has 42 licensed beds. Using a standard of two beds per 1,000 people, the capacity of the Barton Hospital was exceeded about 25 days in 1976. Average use of the Tahoe Forest Hospital was 36 percent of capacity in 1976.

Five school districts serve the educational needs of the Basin: The Lake Tahoe Unified School District, the Tahoe-Truckee Unified School District, the Douglas County School District, the Washoe-Incline Village School District, and the Lake Tahoe Community College District. Student-teacher ratios range from 16:1 to 25:1, indicating no overcrowding now. All the school districts have additional capacity.

Police protection is provided by the City of South Lake Tahoe and El Dorado, Placer, Douglas, and Washoe Counties' Sheriffs Departments. The City of South Lake Tahoe reports a 35 percent crime increase from 1970 to 1977 (2,173 to 2,933 crimes). Washoe County records indicate a 46 percent increase in crime from 1975 to 1978 (784 to 1,145 crimes). The major crimes are burglary, robbery, larceny, and assault, with crime peak periods corresponding to peak visitation in summer and winter.

Fire protection is provided by five departments in California, three in Nevada, and by the Forest Service. Fire protection service is adequate in most areas. A few areas have an inadequate number of fire hydrants or inadequate flow rates. Fire hydrants are inadequate near Rubicon Bay and a few areas on the north shore. The outlying parts of
the City of South Lake Tahoe and Tahoe City also experience inadequate flow rates. In these areas, the recommended 750 to 1,000 gallons per minute (gpm) flow rates for rural residences are not being met. Additionally, the 800 to 900 gpm hydrants near the South Lake Tahoe schools do not meet the recommended standard of 1,000 gpm.

Local revenues have traditionally equaled or exceeded expenses for these services. Local revenues were $104 million in 1977, and most communities are planning new facilities.

7. Land Use and Planning:

Entities with responsibility for different aspects of land use planning in the Basin include the federal government (mainly the U. S. Forest Service), the states of California and Nevada, the Tahoe Regional Planning Agency, the California and Nevada Tahoe Regional Planning Agencies, Placer and El Dorado counties in California, Washoe, Douglas and Carson City counties in Nevada, and the City of South Lake Tahoe. The Environmental Protection Agency's EIS (1979) and the SWRCB's Lake Tahoe Water Quality Plan (SWRCB, 1980) summarize the responsibilities of other agencies whose activities affect the Tahoe Basin's environment.

In approving the original bistate compact, California and Nevada established separate state regional planning agencies with authority over each state's portion of the Basin. The Nevada Tahoe Regional Planning Agency has jurisdiction only over proposals for casino development. The California Tahoe Regional Planning Agency (CTRPA) initially limited its review to public works projects but, because of dissatisfaction with actions taken by TRPA, CTRPA was given additional authority by the California Legislature in 1973.

In 1975, CTRPA adopted a Regional Plan which set stricter land use controls than those established by TRPA. The CTRPA plan and ordinances set stricter standards than the TRPA regulations. In November 1980, CTRPA approved a Regional Plan update which contains a number of actions designed to prevent further deterioration of air and water quality of Lake Tahoe and to protect valuable habitats.

Articles V and VI of the revised bistate compact direct TRPA to prepare and adopt an new Regional Plan and ordinances, based on environmental threshold carrying capacities. The new plan is to include land use, transportation, conservation, recreation, and public services and facilities elements. The plan must provide for the attainment and maintenance of the strictest applicable federal, state, or local air and water quality standards, and TRPA is empowered to adopt even more stringent standards. Each element of the plan must contain provisions and time schedules for implementation by agency ordinances. TRPA must also make specific findings that any project which it approves will not cause its environmental threshold carrying capacities to be exceeded. In addition, TRPA must prepare a detailed EIS for any project which may have a significant effect on the environment.
Background

Article VI of the revised Compact establishes a partial moratorium on development in the Basin until the adoption of the new Regional Plan or until May 1, 1983, whichever is earlier. Until that time, there are to be:

a. No new subdivisions, planned unit developments or condominium projects, except for certain property owned by the Round Hill General Improvement District.

b. No building permits for new single family dwellings or other residential units in numbers greater than were authorized by each county or city during calendar year 1978. Development is limited to 1,078 units per year in California and 530 units per year in Nevada. No new apartment buildings are allowed except those permitted within these limitations.

c. No building permits for new commercial construction of a greater square footage than was authorized in each county or city in calendar year 1978. This amounts to 87,324 square feet of new commercial space in California, and 107,954 square feet in Nevada.

The Compact also includes specific provisions restricting construction or expansion of sewage treatment facilities, highways, parking garages, and gaming facilities. The partial moratorium sets the maximum amount of development which may be permitted. The Compact allows TRPA to set stricter controls.

8. Transportation:

The following discussion was primarily taken from the 1980 CTRPA Regional Transportation Plan, pages 9-10 and 17-26. The discussion was also updated by the Placer County Department of Public Works, the City of South Lake Tahoe, CTRPA and TRPA.

a. The Existing Transportation Facilities:

The existing transportation facilities in the Tahoe Basin consist mainly of a highway network, local and intercity public transportation, and two airports. The existing facilities are shown on the map on the following page.

Highway 50 generally serves the east-west corridor between Sacramento and Carson City and is the major route through the City of South Lake Tahoe. Highway 80 serves as the major freight route for the Sacramento-Tahoe-Reno corridor.

A translake excursion service was initiated during the summer of 1979 on a trial basis. Schedules in the winter months offer transport between North and South Shores with connecting service to ski bus shuttles leaving from Tahoe City for Squaw Valley and Alpine Meadows. Summer operation includes excursion trips to Emerald Bay as well as ferry service to Tahoe City. Service frequency has been somewhat limited because of difficulties encountered by the operator in obtaining
all of the necessary permits and because the operation is currently using only one vessel.

The City of South Lake Tahoe operates the South Tahoe Area Ground Express (STAGE) on a 24 hour, year around basis. Operations include an express service on U. S. 50 and three neighborhood day routes and two neighborhood night routes. In addition, commencing in July, 1981, El Dorado County initiated a five month demonstration project operated by the City to provide bus service to the Tahoe Paradise and Meyers area. The future of this service will be dependent upon the level of ridership.

During the winter months four routes are added to serve the Heavenly Valley Ski Area and the City of South Lake Tahoe. Three of these routes operate within the City to serve the main base of the Heavenly Valley ski operation and a fourth route serves the hotels located at Stateline in Douglas County with service to Heavenly Valley North atop Kingsbury Grade. The buses used on this shuttle service have been purchased by Heavenly Valley and are operated by the City of South Lake Tahoe.

The STAGE operates all daytime routes on 30 minute headways and service is limited to those areas within the City limits. STAGE carried 609,705 passengers during the 1980-81 FY which marks a 25% increase from the 1978-79 FY and a 16% increase over the 1979-80 FY. The winter ski bus shuttle caused 89,214 passengers in 1979-80 FY. Ridership on the Meyers service is not currently available.

The fare to ride STAGE is 15¢ for seniors and handicapped, 25¢ for students, and 75¢ for regular passengers. Tokens may be purchased for 50¢ at various public facilities in advance. In October, 1981, STAGE also implemented a monthly pass program providing unlimited passenger trips for the price of the pass. Monthly costs are $6.00 for the elderly and handicapped, $10.00 for juniors, and $20.00 for adults. This program has been quit successful to date.

During the summer of 1980 a special bus route operated between the city motel/hotel area and the United States Forest Service (USFS) beaches north of the City. This service was operated under contract with the USFS. The contract was not renewed in 1981 because of budget cuts and unsuccessful efforts to allocate alternative funding sources.

The City of South Lake Tahoe has issued Certificates of Convenience and Necessity to 14 private transit service providers, which operate approximately 30 vehicles. Operators receiving these certificates have included ambulance companies, casinos, hotel/motel operators, ski bus shuttles, waterborne transit providers, a taxi service, limousine services, and a dial-a-ride service.

Three Nevada casinos operate local dial-a-ride shuttle service form local motels to the Stateline area and also provide round trip charter bus service to the Tahoe Basin from the Bay Area and the Central Valley areas. Greyhound Stage Lines Inc. also provides intercity service to the Basin. The Las Vegas-Tonopah-Reno Stage lines (LTR)
Background

provides service between the Reno Airport and the Stateline casino area.

Three taxi companies operate in the Tahoe Basin at this time. One provides service in the South Shore area, the other two on the North, including Incline Village.

A private dial-a-ride operation operates in the South Shore area including the City of South Lake Tahoe, portions of El Dorado County, and the Stateline portion of Douglas County.

The Lake Tahoe Unified School District operates a school bus fleet of 22 vehicles throughout the City of South Lake Tahoe, and portions of El Dorado County extending as far west as Camp Sacramento.

In addition to these transportation services in the Basin, several private operations provide transportation services in the South Shore area. These include White Water Tours, Alpine Meadows which has two buses operating between Thanksgiving and April 1, and Kirkwood Ski Resorts which operates during the winter season.

It should also be noted that besides passenger services, there are three freight companies operating in the Basin.

Placer County operates the Tahoe Area Regional Transit System (TART) on the north shore serving the area from Tahoe City to Tahoma and Brockway. TART operates two daily routes year-round with one additional ski shuttle route running to Squaw Valley during the winter months. The ski bus has been purchased by Squaw Valley resort, and is operated by TART on a contractual basis. In the 1980-81 FY TART carried 106,500 passengers, including the ski bus service, which marks a 200% increase in patronage over the 1975-76 FY and a 10% increase over the 1980-81 FY. TART buses operate on one hour headways, and the fare is 50¢ for children 12 and under and 75¢ for adults. Twenty-ride "Student Only" tickets are available for $15.00.

The Lake Tahoe Basin is served by four air facilities; the South Lake Tahoe Airport and Homewood Seaplane Base within the Basin, and the Tahoe-Truckee and Reno Airports outside the Basin.

South Lake Tahoe Airport (Tahoe Valley) provides commercial service to a varying number of passengers annually, depending upon which air carriers are operating at any given time. Since 1975 several airlines have instituted and subsequently eliminated scheduled operations. At present, two commuter airlines provide scheduled service to major California cities. This airport serves as the primary general aviation facility in the Basin.

The Homewood Seaplane Base accommodates limited seasonal recreational flights within the Basin and no significant expansion of this service is currently foreseen.

The Truckee-Tahoe Airport is a heavy resort-recreational facility which has once again instituted commercial service in addition to its
Background

general aviation operations. Although situated outside of the Basin, the Truckee-Tahoe Airport traffic is bound primarily for the Tahoe Basin.

Reno International Airport, well outside the Tahoe Basin, accommodates a significant number of passengers whose ultimate destination is the Tahoe Basin. Since airline deregulation, larger airlines which once served the Tahoe Airport have diverted operations to Reno. Passengers may now transfer from Reno to Lake Tahoe by air, bus, or limousine.

The lack of local manufacturing and processing facilities requires a higher than average proportion of goods to be shipped into the Basin from external sources. Lumber, bottled and canned goods, dairy products, household items, etc., are nearly always delivered in their final form rather than a bulk or unprocessed form, necessitating a greater number of shipments. Because of the particular geographic setting of the Tahoe Basin, most chain stores provide their own private freight service, and one common carrier maintains a terminal facility in South Lake Tahoe. In addition, numerous for-hire carriers deliver a wide variety of goods to consumers, industrial firms, and commercial establishments.

The United Parcel Service, Greyhound Bus Lines, Amtrak, and Aspen Airways currently provides express package service for the area. Although the commodity tonnage represents a minor proportion of total goods movement into and within the Basin, these services are significant in terms of total individual consignments. Predominantly small bulk, high time value items are shipped in this manner.

Fuel oil, gasoline and propane are transported entirely by truck into the Basin. Additionally, energy requirements are met by natural gas pipelines and electrical transmission lines.

b. Overview of the Existing Travel Characteristics, Travel Patterns, Trips, and Transportation Problems:

i. Travel Characteristics:

The population in the Lake Tahoe region lives in a narrow band around the lake. Consequently, most travel occurs in a few corridors of limited width. The major north and south corridors exhibit a high all day demand with peak periods extending over eight or more hours. Travel demand is more uniform throughout the day than in other urban and rural areas. The very high short peaks of most urban communities does not occur in this region.

The Tahoe region experiences high recreational travel peaks in both the summer and winter months with many of these trips going to locations with constrained auto capacity. Winter travel averages about 2/3 of the summer demand although peak winter demand can approach summer levels and the capacity of the transportation facilities is often lower during winter conditions.
Background

CHART

ii. Travel Patterns:

Travel into and within the Tahoe Basin is dominated by the private automobile. The travel patterns in the Basin fall into three basic categories: trips entering or leaving the Basin (External-Internal), trips within the Basin (Internal-Internal) and trips through the Basin (External-External)(Source).

1. External-Internal Travel:

Trips entering or leaving the Basin account for approximately 19% of all trips. Of these, 72% enter or exit through the California side of the Basin. Data indicates that about 55% of external-internal trips enter the south end of the Basin, including Nevada Route 50, and 45% through the north end. Only about half of the vehicles entering either the north or south end are destined for those areas.

CHART

2. Internal-Internal Travel:

Travel wholly within the Basin (both ends of the trip) is composed of trips on the north end of the Lake (35%), trips on the south end (60%), and trips between the north and south ends (5%). Together these trips account for approximately 80% of the total Basin travel. Traffic counts have increased 24% on the north shore, since 1974, and 15% on the south shore. However, based on 1979 data, the internal trip distribution remains essentially unchanged.

CHART

3. External-External Travel:

The Basin is a resort area and as such, few trips entering the Basin go all the way through to points east or west of the Basin. External-external trips (trips through the Basin) accounted for less than 1% of total trips in 1979.

iii. Trips:

The Lake Tahoe Basin has 335,000 (estimated for 1979) daily internal and external vehicle trips. Air and bicycle travel and walking also account for a small percentage of the total trips, but are not included in the 335,000. During the peak month, 350 passengers per day are carried by public transportation at the north shore and 1,540 passengers per day at the south shore.

Residents of the Basin produce about 60% of the total trips and visitors 40%. The visitors have longer trips, 6.3 miles on the average, compared to 4.4 miles for the residents. Therefore, the
overall vehicle miles of travel are about the same for visitors and residents. However, vehicle occupancy for visitors is about twice that of Basin residents.

iv. Transportation Problems:

1. Road Congestion:

The permanent residents of the Basin could be adequately served by the existing transportation system. However, on any given day the Basin may contain in excess of three times that population, when the second home, hotel/motel, campground and day use population are added.

The transportation problem derives from the fact that existing roads and highways are inadequate to serve demands by the private automobile. The roads entering the Basin and along the major travel corridors within the Basin have already reached or are nearing their practical capacity. Heavy snowfalls, icy conditions, snow storage and removal, and narrow two-lane roadways with inadequate shoulders, increase congestion. The existing local transit systems provide only limited mobility in the Basin.

Problems are aggravated because the geography of the region tends to channel most travel into a few highway corridors. Topography dictates that all roads leading into the Basin from the California side remain basically two-lane facilities. Roads on the north shore, west shore and east shore are similarly constrained.

Existing Highway 50 in South Lake Tahoe has reached practical capacity along many sections, particularly near the stateline area. It frequently requires waiting for three or more changes of the signal light before passing an intersection. Normal growth within the Basin and additional visitor day use of the Basin will compound an already intolerable situation. This kind of congestion already hinders the efficiency of the various emergency vehicles and services. It contributes increasingly to pollution of air, noise and stress of vehicle occupants.

Congestion also exists along the west and north shores of Lake Tahoe during the summer and winter peak periods. Heavy commercial and roadside parking contribute to restrict traffic flow.

2. Major Corridor Characteristics:

Average daily traffic for the Lake Tahoe Basin, in general, is still increasing. However, the rate of growth appears to be slowing. This slow down in traffic growth rate may be attributable to a combination of rising fuel cost, economic recession, and saturation or near saturation of the Basin's roadway capacity.

A closer look at the two major in-Basin travel corridors (Route 89/28 on the north shore and Route 50 on the south shore) shows that many short trips combine along the corridor to produce existing problems.
The analysis of travel to selected areas from the area of trip origin shows that: (1) most trips destined to the South Lake casino area originated within areas close to the Highway 50 corridor, (2) most trips destined to the South Lake Tahoe "Y" originate in zones close to Highway 50, and (3) most trips destined to the Tahoe City area originate within areas (zones) close to the Highway 28/89 corridor.

The traffic profiles indicate that Highway 50 is operating at capacity during the peak summer and winter periods. Traffic congestion along this facility can cause half hour delays along the five-mile section through South Lake Tahoe. A significant number of the short trips on Highway 50 are produced by two types of trip patterns. First, there are a large number of origin and destination points within the corridor and adjacent areas. Second, most of the trips in the South Shore area are generated within the corridor or destined for the corridor. Both of these trips patterns could be well served by a public transportation system.

B. Air Quality Planning Background:

1. Clean Air Act of 1970 and Amendments of 1977:

The Clean Air Act passed by Congress in 1970 established the framework under which this plan is being prepared. The 1970 Act required the Environmental Protection Agency (EPA) to set uniform national ambient air quality standards to protect the public health and welfare, and required each state to develop and submit to EPA a State Implementation Plan (SIP) providing for the attainment of these standards by January 1, 1975.

The attainment date of January 1, 1975 was not met in most states, so Congress passed the Clean Air Act Amendments of 1977. These Amendments established a new timetable to meet the air quality standards, required the states to identify all the areas not meeting the air quality standards, established a planning process, and established possible sanctions for failure to meet the revised deadlines or failure to implement the required plan.

The Clean Air Act Amendments of 1977 require that the air quality standards be met by December 31, 1982. However, areas with transportation related air quality problems violating the ozone and/or carbon monoxide standards can be granted an extension to December 31, 1987.

In May of 1978 and April of 1979, EPA issued guidelines that summarized the planning process. These guidelines identified the elements which must be contained in the air quality plans for areas not attaining the air quality standards. Table II-3 contains a list of the required plan elements.
TABLE II-3
EPA REQUIRED AIR QUALITY PLAN ELEMENTS

1. Definition of the geographic area covered by the plan.
2. Current emissions inventory.
3. Air quality modeling analysis showing the emission reductions needed to attain the air quality standard(s).
4. Emission reduction estimates for each control measure or groups of control measures.
5. Identification of a growth increment.
6. An analysis showing the date by which the air quality standards will be attained.
7. Adoption of legally enforceable measures necessary to attain the standards, or where adoption by 1979 is not possible, a schedule for development, adoption, and submittal to EPA.
8. Identification of the financial and manpower resources needed to implement the control measures and plan.
9. Provision for annual reporting showing progress toward attaining the air quality standard(s).
10. Requirement that permits be issued for new or modified major stationary sources.
11. Analysis of the effects of the plan.
12. Evidence of public participation.
13. Evidence that the plan was adopted by the state after reasonable notice and public hearing.

The Clean Air Act Amendments also identified 18 transportation related control measures that are reasonably available. Urbanized areas with a population greater than 200,000 are required to provide for the implementation of these measures or a reason why they cannot be implemented. Table II-1 contains a list of these measures.

TABLE II-1
REASONABLY AVAILABLE CONTROL MEASURES INCLUDED IN THE CLEAN AIR ACT AMENDMENTS OF 1977

1. Inspection and maintenance program
2. Program to control vapor emissions
3. Program for improving public transit
Background

TABLE II-1 (continued)
REASONABLY AVAILABLE CONTROL MEASURES INCLUDED IN THE CLEAN AIR ACT AMENDMENTS OF 1977

4. Long-range transit improvement program

5. Program to establish exclusive bus and carpool lanes and an area wide carpool program

6. Program to restrict the use of private cars

7. Program to control on-street parking

8. Program to develop park-and-ride lots

9. Program to develop pedestrian malls

10. Program for employers to encourage carpooling, vanpooling, mass transit, bicycling, and walking

11. Program to develop bicycle lanes and bicycle storage facilities

12. Program for staggered work hours

13. Program to institute road pricing to discourage single occupancy automobile trips

14. Program to control extended vehicle idling

15. Program to improve traffic flow

16. Program for converting fleet vehicles to cleaner engines or fuels

17. Program to retrofit emission control devices on other than light duty vehicles

18. Program to reduce automobile emissions which are caused by extreme cold start conditions

If an area could not attain of the standards for carbon monoxide and/or ozone prior to December 31, 1982, the following items also had to be included in the 1979 air quality plans:

1. Program requiring an analysis demonstrating that the benefits of any proposed new or modified source significantly outweigh the costs.

2. Commitment to implement an inspection and maintenance program.

3. Commitment to establish, expand, or improve public transportation.
Background

The Clean Air Act also provided for sanctions. These sanctions are contained in Sections 176 and 316 of the Act and deal primarily with federal grant assistance.

Subsection (a) of Section 176 gives the Administrator of EPA the authority to withhold any transportation grants or projects except for safety, mass transit, and air quality improvements unless an air quality plan is adopted and implemented. This section also allows the Administrator to withhold air quality planning grants.

Section 316 allows the Administrator of EPA to "withhold, condition, or restrict the making of any grant" for construction of sewage treatment works if:

1. The proposed facility will violate any emission standard.

2. The air quality plan does not document the level of emissions which would be either directly or indirectly created by an increase in the capacity of the proposed facility.

3. The capacity increase created by the proposed facility would lead to more emissions than are allowable under an approved plan.

4. The capacity would lead to increased emissions violating an approved air quality plan in another state.

2. Development of the 1979 and 1982 Air Quality Plans:

The State of Nevada designated the Nevada portion of the Tahoe Basin as a nonattainment area for the ozone and carbon monoxide air quality standards on November 25, 1977. This designation was based upon monitoring data from 1976. The data showed a total of ___ violations of the ozone standard and 17 violations of the eight-hour carbon monoxide standard. All of these violations were recorded at the Stateline site which is the only ozone and carbon monoxide station in Nevada.

The California Air Resources Board designated the California portion of the Tahoe Basin a nonattainment area for the ozone and carbon monoxide standards on December 2, 1977. The ozone designation was based upon monitoring data from three Air Resources Board monitoring sites at South Shore on the California side of the Basin and one ARB site on the north shore at Incline Village on the Nevada side. These sites recorded a total of 22 days with violations of the ozone standard in 1975 and 1977. The designation of the California portion of the Tahoe Basin as nonattainment for carbon monoxide was based upon the monitoring data from the Nevada Stateline station at the south shore.

EPA concurred with the nonattainment designations from California and Nevada in March 1978. However, EPA established a new standard for ozone of 0.12 ppm to replace the old standard of 0.08 ppm on February
Background

8, 1979. As a result, both states requested that the Basin be redesignated to attainment because the new standard had never been exceeded. EPA concurred on March 3, 1981.

The Governing Board of the TRPA requested that TRPA be designated as the local lead agency for both California and Nevada. The Governor of Nevada concurred because air pollution is not limited by political boundaries, and because the coordinated, cooperative approach which could be provided by TRPA would be the most reasonable alternative.

For the California portion of the Tahoe Basin, the decision regarding the lead agency responsibilities generated differences of opinion among the involved agencies. In addition to the formal request for designation by TRPA, positions of support for either the designation of TRPA or the Tahoe Air Basin Control Council were submitted from the Control Council, El Dorado County, Placer County and City of South Lake Tahoe. CTRPA recommended that the ARB assume the lead agency responsibilities jointly with the Nevada Division of Environmental Protection. The ARB designated themselves as the local lead agency on

In 1978 and 1979, the ARB, NDEP, TRPA and other jurisdictions having a responsibility in air quality planning worked together to develop a bistate air quality plan for the Basin. This was done to take advantage of treating the Basin as a single planning area and cooperating in the evaluation, development and implementation of one plan. However, during this process there were several disagreements on the technical assumptions and what control measures to adopt. As a result, a separate plan was adopted for both California and Nevada.

The TRPA Governing Board recommended that a plan approved by them be adopted by both California and Nevada for the Basin on April 26, 1979. The Nevada Environmental Commission adopted the TRPA recommended plan on May 9, 1979. The ARB Board adopted a different plan on May 9, 1979.

Because TRPA recommended the adoption of a plan for the Basin, it became responsible for implementing certain measures and policies. However, as a result of financial constraints, TRPA could not fulfill these requirements. As a result, the board adopted a resolution on August 15, 1979 stating that the staff should incorporate, to the extent possible, implementation of the plan recommended by the Board on April 26, 1979 in the Agency's ongoing project review, enforcement activities and in its policy development activities.

On September 10, 1980, EPA proposed to conditionally approve both the California and Nevada Plans in one rulemaking notice. This notice encouraged the development of one plan for the Basin. The following is a summary of EPA's proposed actions on each element of the California and Nevada Plans:
## Background

### Figure II-1

A Summary of EPA's Proposed Actions on the 1979 Air Quality Plans

<table>
<thead>
<tr>
<th>EPA's Criteria of Approval</th>
<th>Status California</th>
<th>Status Nevada</th>
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</thead>
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<tr>
<td>13. Extension Requirements</td>
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<tr>
<td>A. Alternative Sitting</td>
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<td>B. I/M</td>
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<tr>
<td>C. Other Measures</td>
<td>Cond.</td>
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<tr>
<td>D. Basic Transportation Needs</td>
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<tr>
<td>14. Extension Requirements for VOC RACT</td>
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In November 1981, the TRPA Board passed a resolution requesting the ARB to designate TRPA as the local agency responsible for air quality planning on the California side of the Basin so that one plan and program could be developed for the entire Basin.

On December 19, 1980, the bistate Compact between California and Nevada was signed by President Carter. The revised Compact reestablished TRPA as the primary agency responsible for the attainment of environmental goals in the Tahoe Basin. The revised compact also strengthened TRPA's ability to deal with environmental problems.

On May 17, 1981, the ARB designated TRPA as the local lead agency for California. TRPA then established a Technical Advisory Committee and developed this Plan.
III. Air Quality Problem:

This section reviews emissions data, ambient air quality data, and the base year (1980) air quality modeling analyses completed during the development of the Plan.

Carbon monoxide is the product of incomplete combustion of all types of fossil fuels. In Tahoe, combustion of gasoline by automobiles contributed over 95 percent of the total carbon monoxide in the Basin in 1977. Carbon monoxide also disperses fairly rapidly and more emissions are generated when automobiles travel at lower speeds. As a result, carbon monoxide concentrations closely follow traffic patterns and the highest concentrations occur in areas with traffic congestion. In addition, although there are generally more cars in the Basin in the summer, carbon monoxide emissions are greater in the winter because lower temperatures causes less complete combustion of gasoline (Table III-1).

In addition to more emissions being generated in the winter, meteorological conditions that occur during the winter also trap carbon monoxide close to the ground. Higher concentrations occur during stable atmospheric conditions associated with nocturnal radiation inversions and low wind speeds. These conditions occur during the evening and early morning on most nonstorm nights from October through April. As a result of these considerations, the analyses in the Air Quality Plan are limited to the winter.

Table III-1
Carbon Monoxide Emissions in the Lake Tahoe Basin for 1977

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<tr>
<th></th>
<th>Stationary Sources A</th>
<th>Mobile Sources B</th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
<td>Tons/Day Percent</td>
<td>Tons/Day Percent</td>
<td>Tons/Day</td>
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<tr>
<td>Winter</td>
<td>11.7</td>
<td>186.8</td>
<td>198.5</td>
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<tr>
<td>Summer</td>
<td>2.2</td>
<td>179.9</td>
<td>182.1</td>
</tr>
</tbody>
</table>

Source: The California Air Resources Board (CARB), 1977 Lake Tahoe Air Basin Emission Inventory

a. Stationary sources include residential heating and gasoline service stations as well as other miscellaneous activities.

b. Mobile sources include light, medium, and heavy duty on-the-road vehicles as well as off-road vehicles, aircraft, boats, and construction equipment.
The Air Quality Problem

A. Monitored Air Quality Values:

Because concentrations of carbon monoxide closely follow traffic patterns the location of the monitoring instruments significantly affects the measured values. EPA has established two scales for measuring carbon monoxide concentrations. First is the microscale. A microscale monitor must be located 10 or more meters from an intersection and should be located at a mid-block location. It must also be located 2-10 meters from the nearest traffic lane. Second is the middle neighborhood scale. Spacing from roadways for the middle neighborhood scale varies with the traffic volumes of the roadway. The minimum separation distance between neighborhood scale and roadways is as follows:

<table>
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<tr>
<th>Average daily traffic (vehicles per day)</th>
<th>Minimum separation distance between stations and roadways (meters)</th>
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<tr>
<td>≤10,000</td>
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<td>15,000</td>
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<td>40,000</td>
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<td>135</td>
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<tr>
<td>≤60,000</td>
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*Distances should be interpolated based on traffic flow.

The Federal carbon monoxide 8-hour average standard is 9 ppm. In order to account for the higher altitude of Tahoe, both California and Nevada adopted a carbon monoxide 8-hour average standard of 6 ppm. This more stringent standard was adopted because a person is exposed to more carbon monoxide because people breathe more at higher altitudes. Both the Federal and State governments have adopted standards averaged over different times for carbon monoxide, but the 8-hour average at Tahoe is the most restrictive. As a result, the analyses in the Air Quality Plan are limited to the state and federal 8-hour standards.

Figure IV--- shows the locations of the monitoring sites, the number of days with violations of either the Federal or the state 8-hour standard, and the two maximum values for the years between 1977 and 1981. A violation occurs when the average concentration during the worst 8-hours of the day is above either the federal (9 ppm) or state (6 ppm) standards.
Table IV-1
Ambient 8-Hour Carbon Monoxide Air Quality Values for the Lake Tahoe Basin

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### Figure IV-1 (continued)
Ambient 8-Hour Carbon Monoxide Air Quality Values for the Lake Tahoe Basin

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### The Air Quality Problem

Figure IV-1 (continued)

Ambient 8-Hour Carbon Monoxide Air Quality Values for the Lake Tahoe Basin

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<td>Second Highest Value</td>
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<td>Violations:</td>
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### Nevada

**Middle Neighborhood Scale Monitors**

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<td>10.6</td>
<td>5.1</td>
<td>7.3</td>
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<tr>
<td>Second Highest Value</td>
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<td>10.3</td>
<td>4.8</td>
<td>7.1</td>
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<td>Violations:</td>
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<td>State</td>
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*a* No date was available from April to October and December.

*b* No date was available from January to June. A new instrument was also installed and the station was moved.
B. Modeled Air Quality Values for 1980:

CALINE III, which is a line source air quality model developed by the California Department of Transportation, was used to estimate the ambient concentrations of carbon monoxide throughout the Basin. The input to the model includes emission factors, traffic volumes, meteorology, site geometry and background concentrations of carbon monoxide. The modeling was done on a microscale basis for both intersections and mid-block locations. A comparison of the modeled concentrations to measured concentrations is provided in Table IV-2, and the estimated concentrations for 1981 are presented in Figures VI-.... The air quality modeling was performed by the ARB, NDEP, and TRPA with assistance from Caltrans, ÇTRPA, and NDOT. The information and methodology used in the analysis is contained in Appendix A.
IV. Transportation Planning:

The Compact prevents the Agency from approving certain transportation improvements until the new Transportation Plan is adopted. This was done because the States of California and Nevada found that it was necessary to limit development in the Region because it might absorb the entire capability of the Region for further development or direct it out of harmony with the new General Plan. The purpose of this chapter is to discuss the Compact requirements with respect to transportation planning by the Tahoe Transportation District established under Article IX of the Compact.

A. Compact Requirements:

The new Compact limits the transportation planning process until the Environmental Threshold Study is completed. The Compact states that until the Regional Plan is revised, or a new transportation plan is adopted in accordance with Article (V)(c)(2), Transportation, the Agency has no effective transportation plan. The compact further states in Article (VI)(c) that no new highway may be built or existing highway be widened to accommodate additional continuous lanes for automobiles until the regional transportation plan is revised and adopted.

The new Compact also states in Article V(c)(2) that the goal of transportation planning shall be:

1. To reduce dependency on the automobile by making more effective use of existing transportation modes and of public transit.
2. To reduce to the extent feasible air pollution which is caused by motor vehicles.

The Compact further states in this section that where increases in capacity are required, the Agency shall give preference to providing such capacity through public transportation, and the Agency shall review and consider all existing transportation plans in preparing its transportation plan.

Article V(c)(2) also requires the Agency to give consideration to the following:

1. Completion of the Loop Road in the States of Nevada and California.
2. Utilization of a light rail mass transit system in the South Shore area.
3. Utilization of a transit terminal in the Kingsbury Grade area.
The Compact also requires that the Board approve all the transportation improvements in the Basin until the Transportation Plan is adopted.

As a result of these considerations, the staff proposed to develop a transportation plan before the General Plan is adopted. At the August Board hearing, the staff proposed that a short- and long-range transportation plan be prepared so that certain improvements can be made to the transportation system before the General Plan is adopted.

As required by the compact, the short-range transportation plan proposed by the staff would be based on the environmental threshold study and it would also address the completion of the Loop Road, utilization of a light rail mass transit system in the South Shore area, and a transit terminal in the Kingsbury Grade area. However, the proposed plan would not make any recommendations concerning the completion of these transportation measures. Any action would have been deferred to the long-range transportation plan. The short-range plan would have also included only those measures that could be implemented between 1982 and 1987. In addition, since the short-range transportation plan would be developed out of the Air Quality Plan, it would focus on reducing air pollution caused by automobiles and on improving the two mass transit systems in the Basin.

The long-range transportation plan would address those improvements that require a number of years to schedule.

The Board did not approve the staff recommendation. However, the Board directed the staff to research the issues further and provide a recommendation to the Board.

There are two alternatives in terms of proceeding with the implementation of the control measures in the Air Quality Plan: These include:

1. Developing a short-range transportation plan, or
2. Obtaining Board approval on which measures should be implemented before the Transportation Plan is adopted.

B. Tahoe Transportation District:

The Compact (Article IX) also established the Tahoe Transportation District. This District covers the entire Basin and is authorized to own, operate, and propose taxes to be submitted to the voters of the District for the financing of public transportation systems. The District is also responsible for implementing the TRPA Transportation Plan envisioned in the Compact. Since the Transportation Plan would not be prepared for approximately two years, it was not clear what role the District should take during this time frame. The Compact implied that the District should gear up for this period, but it did not provide any financial means for doing so.
In December 1980, the Tahoe Basin Transportation Authority, which includes representatives from the southern portion of the Basin to coordinate transportation planning, began the transition to the Transportation District. One of the first steps involved expanding the membership of the Technical Advisory Committee and Tahoe Basin Transportation Authority Board to include representatives from the entire Basin. In January 1981, the City of South Lake Tahoe was asked and agreed to assign staff to aid the District in its function. TRPA also agreed to underwrite the legal fees of the District.

In February 1981, the TRPA Board discussed the role and function of the Transportation District while the TRPA Transportation Plan is being developed. The District indicated that it would like to proceed in implementing transportation improvements in those areas that will not generate much controversy. The District also requested that TRPA provide the District with policy direction on how to proceed while the Transportation Plan is being developed, and what kind of agreement could be worked out between the District and TRPA. It was agreed that the District would develop a work program.

In April 1981, the TRPA Board approved the work program adopted by the District as a starting point. Also in April 1981, the District approved a FY 1981-82 budget that would cover the cost incurred by the City of South Lake Tahoe and TRPA for their support to the District.

Since December 1980, the Technical Advisory Committee and Tahoe Transportation District Board have been generally meeting on a monthly basis. The major accomplishments of the District include developing Rules and Procedures for the District, performing as lead agency in two of the proposed transportation studies (Acquisition and/or Expansion of Transit Services and Alternatives to use for the Charter Bus Service) funded by Section 8 of the Act, and developing a Legislative Policy statement regarding funding of the District and changes to the Compact concerning the District.
V. Potential Control Measures and Alternative Control Strategies:

This chapter will include all the control measures adopted in the 1979 Air Quality Plans and those measures that were to be studied further, alternative control strategies and the recommended control strategy adopted by the Board.

This chapter should be completed by February, 1982.
VI. Implementation Responsibilities:

This chapter will include a chart that identifies the control measures adopted by the Board, the responsible entities for implementing the control measures and the implementation status. This chapter will also be completed after the Board takes final action of the Air Quality Plan.
VII. Reasonable Further Progress:

The Clean Air Act Amendments of 1977 require that the agencies that prepare 1979 and 1982 air quality plans submit annual reports to EPA assessing the air quality planning program, the emission reductions achieved because of the 1979 plans, and comparisons of these reductions with the reductions predicted in the 1979 plans. In the 1977 Amendments, this report is known as "demonstrating reasonable further progress" (RFP) towards attaining the air quality standards. This requirement does not present an accurate picture of RFP towards attaining the carbon monoxide air quality standard for the following three reasons. First, EPA requires that agencies show annual reductions that have been achieved because of their air quality plan. This requirement is of little value for carbon monoxide because it is a microscale problem that varies both geographically and seasonally. Second, emissions cannot be accurately compared from year to year because the techniques for estimating emissions are continuously being refined, and the information used to estimate the emissions may change from year to year. Third, it is difficult if not impossible to quantify the emission reductions for some control measures because of the lack of data.

The 1979 Air Quality Plans for the Basin did not include a method for tracking the effectiveness of the control measures because of the lack of time. As a result, a method needs to be developed and included in the 1982 Air Quality Plan.

There are three factors that reduce ambient concentrations of carbon monoxide. These factors include technological controls on automobiles, improving traffic flow and reducing automobile trips. It is relatively simple and accurate to determine the emission reductions for technological control measures. Technological control measures are also incorporated into the air quality modeling analyses used to determine the emission reductions needed to attain the carbon monoxide air quality standard. It is more difficult and less accurate to estimate the emission reductions associated with traffic flow improvements. However, assumptions can be made in the air quality modeling analyses that estimate the reductions associated with traffic flow improvements. The air quality modeling analyses also show the reduction in trips that will be required to attain the state and federal air quality standards.

It is fairly difficult to quantify the emission reductions associated with reducing vehicle trips because of the lack of data. However, decreases and increases in vehicle counts can be measured using traffic counters.

As a result, measuring progress toward attaining the carbon monoxide air quality standard should be based on implementation of the technological controls, traffic flow improvements and on relative increases and/or decreases in vehicle counts for each area of analysis.
Table V-1 shows the current traffic level and the traffic level that has to be reached to attain both the state and Federal air quality standards for each area of analysis. These levels are based upon the modeling analyses and recommended control measures.
### TABLE V-1
Traffic Data for the Geographic Areas Analized in the 1982 Lake Tahoe Basin Air Quality Plan

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<td><strong>California</strong></td>
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<td><strong>South Shore</strong></td>
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<td>. Junction of Routes 50 &amp; 89 (South Tahoe Wye)</td>
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<td>. Route 50 east of South Tahoe Wye to Sierra Blvd.</td>
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<td>. Route 50 between Sierra Blvd. and Ski Run Ave.</td>
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<td>. Route 50 between Ski Run Blvd. and Pioneer Trail</td>
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<td>. Route 50 between Pioneer Trail and Park Ave.</td>
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<td>. Intersection of Route 50 and Park Ave.</td>
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<td>. Route 50 between Park Ave. and Stateline</td>
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<td>. Pioneer Trail and Ski Run</td>
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<td>. Pioneer Trail between Glen Road and Route 50</td>
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<td><strong>North Shore</strong></td>
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<td>. Route 28 through Kings Beach between Beach St. and Deer St.</td>
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<td>. Route 28 at the Junction with Route 267</td>
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<td><strong>West Shore</strong></td>
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<tr>
<td>Route 28 through Tahoe City between Route 28/89 Junction and the Tahoe State Recreation Area</td>
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<td>Route 89 between Olympic Drive and the Route 28/89 Junction (S. of Tahoe City)</td>
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<td>Junction of Routes 89 and 28 in Tahoe City</td>
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<td><strong>South Shore</strong></td>
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<td>Casino Area</td>
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<td>Kingsbury Grade</td>
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VIII. Future Planning:

This chapter will discuss the status of the other pollutants, how the air quality plan will be integrated into the Environmental Threshold Study and General Plan update. This chapter should be completed by February, 1982.