



County of Santa Cruz

HEALTH SERVICES AGENCY

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ENVIRONMENTAL HEALTH

May 12, 2000

Agenda: May 23, 2000

BOARD OF SUPERVISORS

County of Santa Cruz

701 Ocean Street

Santa Cruz, CA 95060

Subject: Amendments to Chapter 7.38, Sewage Disposal, and Related General Plan Policies

Members of the Board:

Environmental Health staff have prepared proposed amendments to the Sewage Disposal Ordinance (Chapter 7.38 of the County Code) and a related General Plan policy to allow commercial development in town plan areas of the San Lorenzo Valley, facilitate cluster development, allow deeper leachfields in specific circumstances, allow the use of effective curtain drains, require ongoing septic system maintenance and make other refinements of existing provisions. These amendments are being submitted to your Board for review and conceptual approval for inclusion in Round 2 of the 2000 General Plan/Local Coastal Plan amendments.

The proposed amendments to the Sewage Disposal Ordinance and General Plan policy 5.5.5 are attached (Attachment 1) and are summarized below. Detailed explanations of each change are included in the draft ordinance.

Proposed Amendments

Parcel Size in San Lorenzo Valley Commercial Districts - Since 1983, a minimum parcel size of one acre has been required for new development in the San Lorenzo River Watershed. This precludes development of many vacant parcels, including parcels in the downtown commercial districts of Felton, Ben Lomond and Boulder Creek. Because sewerage of these areas does not appear to be economically feasible, there is no way that additional commercial uses can be developed, unless some allowances are made to allow appropriate development of the vacant parcels. Staff has developed an ordinance amendment to allow commercial development of vacant parcels that are currently designated for commercial use and that are located in the designated rural services area. This would potentially allow development of only about twenty parcels. Water quality impacts would be mitigated by the requirement for enhanced treatment systems. Your Board considered this matter in 1997, and directed that this amendment be prepared. The matter was deferred pending further discussion and review with the Regional Water Quality Control Board. Their staff recognizes the appropriateness of the proposed amendment, given its very narrow application. County Counsel has also rendered an opinion that this change would not set a legal precedent for further relaxation of the one acre minimum (Attachment 2). Parallel changes to General Plan policy 5.5.5 are also proposed.

Easements and Development Clustering - The Sewage Disposal Ordinance currently prohibits the placement of septic systems for new development on an easement off of the parcel served. This has lead to conflicts with clustering of development to meet other land use objectives for new subdivisions. It has also lead to gerrymandered parcel configurations with long extensions through common open space from the homesite to the area most suitable for sewage disposal. The proposed amendment would allow the use of easements for sewage disposal for new subdivisions in order to promote clustered development. Homesites smaller than one acre would be allowed (down to 20,000 square feet), but a one acre minimum average parcel size would still be required.

Repairs - Minor revisions are proposed to clarify and codify the present practice of allowing septic system repairs and upgrades to meet the repair standards, even if the system is not actually malfunctioning. Repair standards have been deemed to be protective of water quality and public health, but are somewhat less stringent than new system standards in order to allow effective repair of systems serving existing development.

Floodplains - The proposed amendment brings the Sewage Disposal Ordinance into compliance with the floodplain regulations recently adopted by your Board in Chapter 16.10. Septic system repairs would be allowed in flood plains if there were no other alternatives, but major additions can not be made to properties where the septic system is in the flood plain.

Leachfield Depth - The proposed amendment would allow deeper trenches on a parcel under specified circumstances where surface soils were unsuitable and/or there was limited room on the parcel, provided all other standards can be met, including groundwater separation. This would primarily affect parcels in the mid county area, where surface soils are often unsuitable for sewage disposal, and can contribute to surfacing of untreated effluent. It is not believed that a case-by-case allowance for deeper disposal will significantly affect groundwater quality, as effluent disposal is already allowed at depths of 6 ½ feet, which is well below the zone of maximum biological activity in the soil. Other provisions for groundwater separation will be maintained, and shallow disposal will still be required in sandy, fast percolating soils.

Curtain Drains - The proposed amendment would remove the prohibition on use of curtain drains to lower groundwater levels in order to meet standards for new development or remodels. Staff believed this provision is overly restrictive if it can be documented through winter water table testing that the curtain drain is working effectively.

Maintenance and Monitoring, of Nonstandard Svstems - This amendment would tighten up provisions for ensuring adequate maintenance on nonstandard systems. Many systems use proprietary treatment devices that require regular monitoring and specialized maintenance to ensure that they operate properly and produce the desired effluent quality.

The proposed ordinance amendments have been reviewed in concept by the Sewage Disposal Technical Advisory Committee. The committee concurs with the changes being proposed.

Recommendation

It is therefore RECOMMENDED that your Board direct the Environmental Health Director to work with the Planning Department to submit the proposed amendments to Chapter 7.38, Sewage Disposal, and related General Plan Policy 5.5.5 to the Environmental Coordinator and the Planning Commission, and bring them back to the Board as part of Round 2 of the General Plan/Local Coastal Plan amendments.

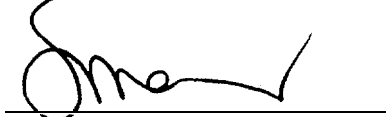
Sincerely,

Rama Khalsa, Ph.D.
Health Services Agency Administrator



Diane L. Evans, R.E.H.S.
Director of Environmental Health

RECOMMENDED



Susan A. Mauriello
County Administrative Officer

cc: CAO

Environmental Health
HSA Administration
County Counsel
Planning Department

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ORDINANCE NO. _____

AN ORDINANCE AMENDING SECTIONS OF CHAPTER 7.38, SEWAGE DISPOSAL,
RELATING TO PARCEL SIZE, EASEMENTS, LEACHFIELD DEPTH, CURTAIN DRAINS,
NONSTANDARD SYSTEM MAINTENANCE, AND OTHER MINOR CHANGES

~~Deletions~~ are shown as strikeouts

Additions are underlined

Explanations for changes are presented in italics

SECTION 1:	7.38.045	LOT SIZE REQUIREMENTS FOR EXISTING LOTS OF RECORD
SECTION 2:	7.38.060	EXCEPTIONS ALLOWING EASEMENTS FOR INDIVIDUAL SEWAGE DISPOSAL SYSTEMS
SECTION 3:	7.38.095	REPAIR PERMITS
SECTION 4:	7.38.130	GENERAL INSTALLATION REQUIREMENTS
SECTION 5:	7.38.150	SEWAGE LEACHING REQUIREMENTS
SECTION 6:	7.38.155	CURTAIN DRAINS - INSTALLATION REQUIREMENTS
SECTION 7:	7.38.184	NONSTANDARD SYSTEMS

SECTION 1

- A. County Code Section 7.38.045. Lot Size Requirements for Existing Lots of Record is hereby amended by adding Subsection D.6:

6. Within water ~~supply~~ watersheds, existing parcels of record less than one acre in size, and with a commercial General Plan designation as of May 24, 1994, may be approved for development utilizing a sewage disposal system for commercial use if they are within the Rural Services Line, provided the sewage disposal system will meet all of the standards contained in Sections 7.38.120 through 7.38.186 and the sewage disposal system utilizes the enhanced treatment provided for in Section 7.38.152.

*This modification would potentially allow commercial development on approximately 20 parcels in the downtown areas San Lorenzo Valley, to allow infill and promote vitality of the community commercial district. Water quality impacts **pf** this limited amount of development would be mitigated by the requirement for enhanced treatment. This amendment also requires an amendment of the General Plan, which is presented at the end of this document.*

- B. County Code Section 7.38.045 is hereby amended by adding Subsection E, as follows:

- E. Parcels less than one acre and greater than 20,000 square feet in size may be approved for development if they are located within a subdivision which meets all of the following requirements:
1. The average parcel size of the subdivision, excluding roadways, is greater than one acre.
 2. The proposed subdivision utilizes clustering of development, with reservation of common open space.
 3. The Health Officer determines that the property to be used for sewage disposal meets all standards contained in Chapter 7.38 and can provide satisfactory sewage disposal without creating pollution, a health hazard, or a nuisance condition.

This change is made to complement the following change to allow clustering of development to maintain open space, viewsheds, biotic resources, etc. This could allow development of some existing parcels that are less than one acre in existing subdivisions which meet the requirements

SECTION 2:

County Code Section 7.38.060 is hereby amended as follows:

7.38.060 EXCEPTIONS ALLOWING EASEMENTS FOR INDIVIDUAL SEWAGE DISPOSAL SYSTEMS.

- A. Notwithstanding the provisions of Section 7.38.040 (C) (3), the Health Officer may permit the use of an easement for repair of an individual sewage disposal system under the following circumstances:
 - A1. The Health Officer determines that a satisfactory repair of existing sewage disposal system cannot be obtained on the property upon which it is located.
 - B2. The Health Officer determines that the property to be used for sewage disposal can provide satisfactory sewage disposal without creating a health hazard or nuisance condition.
 - C3. A recorded easement or easements shall guarantee access for use and maintenance of the individual sewage disposal system and transmission piping for as long as needed by the building served by the system. The easement shall be recorded against the deeds of both properties, and can only be removed with prior approval of the Health Officer.
- B. Notwithstanding the provisions of Section 7.38.040 (C) (3), the Health Officer may permit the use of an easement for installation of a new individual sewage disposal system for parcels created through subdivision after {the effective data of this ordinance }, under the following circumstances:
 - 1. The average parcel size of the subdivision, excluding roadways, will be greater than one acre.
 - 2. The proposed subdivision utilizes clustering of development, with reservation of common open space.
 - 3. The Health Officer determines that the property to be used for sewage disposal meets all standards contained in Chapter 7.38 and can provide satisfactory sewage disposal without creating pollution, a health hazard, or a nuisance condition.
 - 4. A recorded easement or easements shall guarantee access for use and maintenance of the individual sewage disposal system and transmission piping: for as long as needed by the building served by the svstem. The easement shall be recorded against the deeds of both properties, and can only be removed or modified with prior approval of the Health Officer.

*This change would facilitate the use **of** clustered develop **for** new subdivisions to maintain open space, viewsheds, biotic resources, etc. Individual parcels would continue to be served by individual sewage disposal systems, but the parcel configuration would not be Limited by the need to include the sewage disposal system in the parcel boundaries.*

SECTION 3

Section 7.38.095, Repair Permits, is hereby amended as follows:

- A. Notwithstanding the provisions of Section 7.38.093 (A), and the other provisions of this Chapter, permits for the repair off existing individual sewage disposal systems may be issued by the Health Officer upon proper application therefore; and, once issued, shall be valid and exercisable for a period of two years.
- B. Repairs to ~~failing~~ existing systems shall be made in conformance with the requirements specified in Sections 7.38.130 - 7.38.180 of this Chapter except that the following allowances for repairs of systems serving development that was first approved prior to September 16, 1983, may be permitted:
 1. The minimum separation between the bottom of any leaching device and seasonally high groundwater shall be:
 - Five feet where the leaching device is between fifty and one hundred feet from a stream, spring, or other waterbody.
 - Three feet where the device is over one hundred feet from a waterbody.
 - At distances greater than two hundred fifty feet from a waterbody, a system with groundwater separation below the leachfield less than three feet may be approved as a nonconforming system provided however that a separation of at least one foot must be maintained for at least ninety percent of the year.
 2. Setback to a stream shall be at least 50 feet.
 3. Setback to a seasonal drainage way shall be at least 25 feet.
 4. If soils are at least 7 feet deep and conditions are otherwise suitable to prevent lateral surfacing of effluent, installation on steeper slopes, above 30% up to 50% may be allowed if:
 - the distribution pipe is installed at least 2 feet below the surface (vertical depth)
 - A minimum separation of 5 feet is maintained between the leaching system and bedrock or other impermeable layer.
 5. Other requirements specified in Sections 7.38.130 - 7.38.180 of this Chapter shall be met to the greatest extent possible as necessary to protect public health and water quality. and shall comply with standards for system repairs established by the Health Officer pursuant to Section 7.38.095.E.

These modification recognizes that repairs to existing sewage disposal systems are frequently made before a system malfunctions, and that such repairs may not be able to fully meet all standards contained in Chapter 7.38 for new systems. These change clarifies and codifies long term practice.

- C. All existing, developed parcels that have repaired, replaced or upgraded sewage disposal systems to meet the standards in Sections 7.38.130 - 7.38.180 including allowances described in B. above and any system that was approved between November 2, 1992 and May 2, 1995 to comply with standards in effect at that time, shall be regarded as a standard system and shall be deemed to be in compliance with this code and may be eligible for building alterations as described in Section 7.38.080.B.2.
- D. When repairing, replacing or upgrading an existing individual sewage disposal system, on an existing, developed parcel that is unable to accommodate a standard sewage disposal system that meets the standards in Sections 7.38.130 - 7.38.180 including allowances described in B. above, the system shall be deemed a Nonstandard sewage disposal system design which must meet the

requirements of Sections 7.38.182-7.38.186. The size of a building addition or change in use that will be allowed will depend on the type of system used:

1. No residential additions beyond the ~~250~~ 500 square feet described in Section 7.38.080.B. 1 or changes in use which will result in an increase in wastewater discharge shall be approved for parcels utilizing a haulaway or non-conforming sewage disposal system.
2. When an alternative sewage disposal system is used, the Health Officer may permit bedroom additions and additions beyond the ~~250~~ 500 square feet described in Section 7.38.080.B. 1 provided the design specifications for the alternative technology can safely treat and dispose of the projected peak wastewater flows and suitable expansion area exists on the property to replace the alternative sewage disposal system.
3. No building additions shall be approved which will encroach on the septic system or any area of the property needed to install a replacement system which meets the requirements for a standard or' alternative system to the greatest extent possible.

*These changes are made to be in conformance with **the** definition **of** a minor building addition that was approved previously by the Board **of** Supervisors and is contained in other sections **of** Chapter 7.38.*

- E. Procedures and standards for the repair of individual sewage disposal systems, including guidelines for the design and use of alternative systems for repairs shall be established by policy of the Health Officer.

SECTION 4

Subsection H. of County Code Section 7.38.130, General Installation Requirements, is hereby amended as follows:

- H. Leaching areas shall not be located in low lying areas receiving storm water drainage, or within 100 year flood zones, except for the repair of an existing septic system, which cannot be located outside the floodplain. If the septic system is located within the floodplain, no bedroom additions or remodels greater than 500 square feet are allowed. Leaching areas shall be separated by a minimum of 25 feet from seasonal drainage ways which flow no more than one week after significant rainfall.

*This section is amended to reflect changes regarding floodplains within Chapter 16.10, Geologic Hazards, previously adopted by the Board **of** Supervisors.*

SECTION 5

Amend Subsection B.6 of Section 7.38.150, Sewage Leaching Requirements, as follows:

6. The following construction standards shall be used in connection with the construction of any trench leaching system:

Construction Detail	Required Standard
Width of trench	18 - 36 inches
Standard trench depth	Maximum of 4 feet (2 ½ feet effective depth)*
Maximum length of trench	100 feet
Slope of leach line	3 inches per 100 feet maximum
Rock under pipe	Determined by Health Officer, based on soil conditions (min. 12")

Rock over pipe	2 inches
Size of rock	½ to 2 ½ inches
Spacing of trenches edge to edge	Twice the effective depth to a maximum of 10 feet

*Parcels with soils that percolate in the range 6-60 minutes per inch may use a deeper trench ~~(to a maximum of 6 ½ feet / 5 feet flow depth)~~ if space on the parcel prevents the use of the standard trench depth. However, in all such instances, the trench shall be as shallow as possible using the maximum lineal feet that can fit on the parcel while still reserving the required expansion area.

This change would allow deeper trenches, primarily in the mid county area, where surface soils are often unsuitable for sewage disposal, and can contribute to surfacing of untreated effluent. It is not believed that a case by case allowance for deeper disposal will significantly affect groundwater quality, as effluent disposal is already allowed at depths of 6 ½ feet, which is well below the zone of maximum biological activity in the soil. Other provisions for groundwater separation will be maintained, and shallow disposal will still be required in sandy, fast percolating soils.

SECTION 6

Amend Section 7.38.155, Curtain Drains, as follows:

A permit shall be required for any curtain drain proposed for use within one hundred feet of a leaching device. Curtain drains located down gradient from a leachfield must be at least twenty-five feet from the leachfield. If an impermeable layer is present or soils percolate faster than one minute per inch, curtain drains must be located at least fifty feet away. Curtain drains located up gradient of a leachfield must be installed with the bottom of the drain higher in elevation than the top of the leachfield, or must be located at least twenty-five feet away. Curtain drains shall not be installed in locations which would preclude the use of an area necessary for installation of a replacement sewage disposal system which meets the standards of this code on the same parcel or any adjacent parcel.

Curtain drains shall not be permitted for the purposes of attempting to lower groundwater levels to meet the required setback to groundwater from leaching devices for new development or expansion of existing development.

~~Curtain drains shall not be permitted~~ Any time a curtain drain is installed for the purposes of ~~attempting to~~ **lowering** groundwater levels to meet the required setback to groundwater from leaching devices for new development or expansion of existing development, measurement of groundwater levels pursuant to Section 7.38.120.B after installation shall be required to demonstrate that groundwater setback standards are met.

*This would **modify** a clause which staff believes is unnecessarily prohibitive and is contrary to the purpose of a curtain drain. A current drain can lower water tables in particular geologic settings if it is properly designed and constructed.*

SECTION 7

Amend Section 7.38.184, Nonstandard Systems, by adding subsection G, as follows:

G. Ongoing Maintenance and Monitoring. The Health Officer shall establish specifications and requirements for the ongoing; maintenance and monitoring to ensure proper functioning of nonstandard sewage disposal systems that have been installed pursuant to this section. These

Rock over pipe	2 inches
Size of rock	½ to 2 ½ inches
Spacing of trenches edge to edge	Twice the effective depth to a maximum of 10 feet

*Parcels with soils that percolate in the range 6-60 minutes per inch may use a deeper trench ~~(to a maximum of 6 ½ feet (5 feet flow depth))~~ if space on the parcel prevents the use of the standard trench depth. However, in all such instances, the trench shall be as shallow as possible using the maximum lineal feet that can fit on the parcel while still reserving the required expansion area.

*This change would allow deeper trenches, primarily in the mid county area, where surface soils **are often** unsuitable **for** sewage disposal, and can contribute to **surfacing of untreated effluent**. It is not believed that a case by case allowance **for** deeper disposal will significantly affect groundwater quality, as **effluent disposal is already allowed at depths of 6 ½ feet**, which is well below the zone **of** maximum biological activity in the soil. Other provisions **for** groundwater separation will be maintained, and shallow disposal will still be required in sandy, fast percolating soils.*

SECTION 6

Amend Section 7.38.155, Curtain Drains, as follows:

A permit shall be required for any curtain drain proposed for use within one hundred feet of a leaching device. Curtain drains located down gradient from a leachfield must be at least twenty-five feet from the leachfield. If an impermeable layer is present or soils percolate faster than one minute per inch, curtain drains must be located at least fifty feet away. Curtain drains located up gradient of a leachfield must be installed with the bottom of the drain higher in elevation than the top of the leachfield, or must be located at least twenty-five feet away. Curtain drains shall not be installed in locations which would preclude the use of an area necessary for installation of a replacement sewage disposal system which meets the standards of this code on the same parcel or any adjacent parcel.

~~Curtain drains shall not be permitted~~ Any time a curtain drain is installed for the purposes of attempting to lowering groundwater levels to meet the required setback to groundwater from leaching devices for new development or expansion of existing development, measurement of groundwater levels pursuant to Section 7.38.120.B after installation shall be required to demonstrate that groundwater setback standards are met.

*This would modify a clause which staff believes is unnecessarily prohibitive and is contrary to the purpose **of** a curtain drain. A current drain can lower water tables in particular geologic settings if it is properly designed and constructed.*

SECTION 7

Amend Section 7.38.184, Nonstandard Systems, by adding subsection G, as follows:

G. Ongoing Maintenance and Monitoring. The Health Officer shall establish specifications and requirements for the ongoing maintenance and monitoring to ensure proper functioning of nonstandard sewage disposal systems that have been installed pursuant to this section. These

specifications and requirements may include, but are not limited to: requirement of regular monitoring, maintenance and service by a treatment system operator approved by the Health Officer; site specific monitoring and maintenance requirements; effluent testing; and, new technology upgrade necessary to meet the requirements of Sections 7.38.152, 7.38.182 and 7.38.184.

This section would tighten up provisions for ensuring adequate maintenance on nonstandard systems. Many systems use proprietary treatment devices that require regular monitoring and specialized maintenance to ensure that they operate properly and produce the desired effluent quality.

SECTION 8

This ordinance shall take effect within the Coastal Zone ten days after certification by the State Coastal Commission. This ordinance shall take effect in areas outside the Coastal Zone 30 days after approval by the Board of Supervisors.

PASSED AND ADOPTED this _____ day of _____, 2000, by the Board of Supervisors of the County of Santa Cruz by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

SUPERVISORS
SUPERVISORS
SUPERVISORS
SUPERVISORS

Chairperson of Board of Supervisors

ATTEST: _____
Clerk of the Board

APPROVED AS TO FORM:

/Larry A. Oberhelman Jr.
County Counsel

DISTRIBUTION:

CAO
County Counsel
Environmental Health
Environmental Planning

Implementation of the sewage ordinance amendment will also require amendment of General Plan Policy 5.5.5 as follows:

Minimum Size for Developing Existing Parcels of Record in Water Supply Watersheds

Require one ~~net~~ acre minimum parcel sizes for development of existing lots of record in water supply watersheds in the Coastal Zone and in the North Coast and Bonny Doon Planning Areas, and in the San Lorenzo Water Supply Watershed, in accordance with the existing Sewage Disposal ordinance and incorporate as General Plan and LCP Land Use Plan requirements the provisions of the existing Sewage Disposal ordinance with respect to Kristen Park and Water Quality Constraint Areas. Allow an exception to the one acre minimum parcel size only for existing parcels of record with a commercial General Plan designation as of May 24, 1994, which are to be developed for commercial use, are within the Rural Services Line, will meet all technical standards of the Sewage Disposal Ordinance, and will utilize an enhanced treatment system in accordance with the Sewage Disposal Ordinance

This modification would potentially allow commercial development on 20 parcels in the downtown areas of the San Lorenzo Valley, that are currently designated for commercial use. Such uses have the potential to provide various community services.

COUNTY OF SANTA CRUZ

INTER-OFFICE CORRESPONDENCE

CONFIDENTIAL
ATTORNEY-CLIENT INFORMATION

DATE: October 15, 1997
TO: Tom Burns, Acting Planning Director
FROM: Dwight L. Herr *DWH*
SUBJECT: Minimum Parcel Size for Septic Tanks to Serve Existing
Commercial Parcels in the San Lorenzo Water Supply
Watershed

On August 19, 1997, the Board of Supervisors directed that a review be made by County Counsel of an ordinance amendment to permit development of small existing commercial properties in the San Lorenzo Valley and directed Planning to report back on the issue of whether a General Plan amendment would also be required and with an opinion from County Counsel to address whether this would set a precedent that could be used by owners of other types of properties. (Attached is a copy of the minute order of August 19, 1997 on this item.)

Please find enclosed a proposed ordinance amending Section 7.38.045(D) in response to the direction of the Board of Supervisors. This proposed ordinance has been reviewed with Environmental Health.

It is my opinion that an amendment of Section 5.5.5 of the 1994 County General Plan would also be necessary to authorize the proposed ordinance amendment. I would recommend the following language be added to Section 5.5.5:

"Allow an exception to the one net acre minimum parcel size only for existing parcels of **record** with a commercial General Plan designation as of August 19, 1997, which are to be developed for commercial use, are between 10,000 square feet and one acre in size, are within the Rural Services Line, will meet all technical standards of the Sewage Disposal Ordinance, and will utilize an enhanced treatment system in accordance with the Sewage Disposal Ordinance."

John Ricker of Environmental Health has agreed to look at developing revised language for the existing provisions of Section 5.5.5 since those provisions state that the General Plan and LCP should incorporate the existing Sewage Disposal Ordinance

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provisions with respect to the Kristen Park and Water Quality constraint Areas.

It is my further opinion that the adoption of an exception for development of existing commercial parcels in the San Lorenzo River Watershed would not set a legal precedent for other types of property. Environmental Health has advised that the exception as proposed would affect less than 15 parcels. Both the Board of Supervisors and the Regional Quality Control Board could thus find that this limited exception for existing commercial parcels would not have any significant effect on the watershed, but could reach the opposite conclusion with regard to other types of properties which would include many more parcels.