TCEQ REGULATORY GUIDANCE
Remediation Division
RG-366/TRRP-7 ● Revised October 2008

Land Use Classification

Overview of This Publication

Objectives: To describe and depict how land use classifications are made under the Texas Risk Reduction Program (TRRP) rule

Audience: Regulated Community, and Environmental Professionals

References: The regulatory citation for the Texas Risk Reduction Program (TRRP) rule is Title 30 Texas Administrative Code (TAC) Chapter 350.

The TRRP rule, together with conforming changes to related rules, is contained in 30 TAC Chapter 350, and was initially published in the September 17, 1999 Texas Register (24 TexReg 7413-7944). The rule was amended in 2007 (effective March 19, 2007; 32 TexReg 1526-1579). Find links for the TRRP rule and preamble, Tier 1 PCL tables, and other TRRP information at: <www.tceq.state.tx.us/remediation/trrp/>.

TRRP guidance documents undergo periodic revision and are subject to change. Referenced TRRP guidance documents may be in development. Links to current versions are at: <www.tceq.state.tx.us/remediation/trrp/guidance.html>.

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Introduction

For most properties, land use determinations under TRRP are straight-forward and are not difficult. For some properties, however, the classification process can be more complicated as a result of site-specific circumstances. The first purpose of this guidance document is to describe the TRRP land use classification process by discussing the relevant provisions of the rule. And, its second purpose is to use figures to help explain how the TRRP land use classification process works for some more complicated property situations. This document pertains to the classification of land use for the purpose of determining human health protective concentration levels (PCLs). It is not relevant to the determination of ecological PCLs, since ecological PCLs are not influenced by land use classification.

Figure 1 summarizes the steps in the TRRP process from beginning to end. Classification of the land use for affected properties is one of the initial actions in the TRRP process. Land use classification must be performed before PCLs can be developed since PCLs are dependent upon whether a property's land use is residential or commercial/industrial. Land use classification is one of the foundation determinations upon which the critical PCLs and protective concentration level exceedance (PCLE) zones are based. Since all response actions must remove, decontaminate, and/or

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control the PCLE zone(s) at an affected property and these are heavily influenced by land use, the land use determination also plays an important role when deciding which response action would be appropriate for a particular affected property.

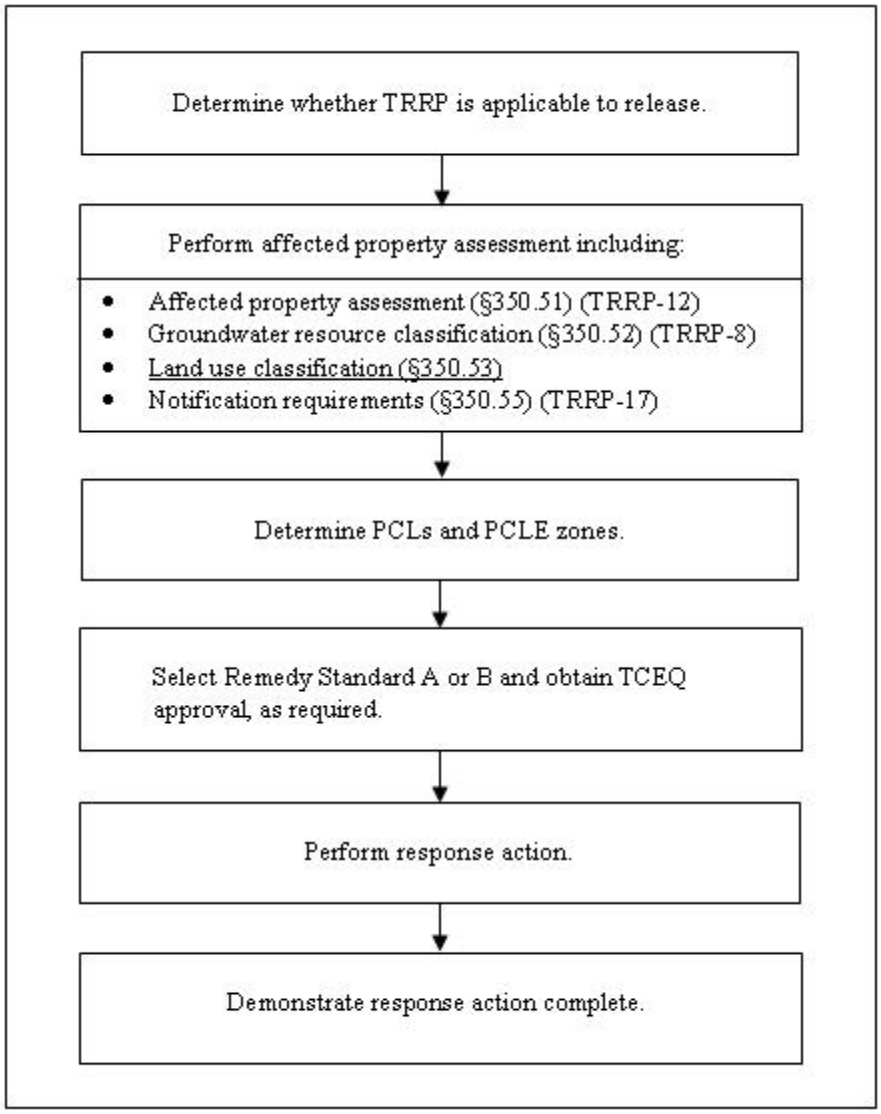

Figure 1. General TRRP process noting the early requirement to classify land use.

Land Use Classification Basics

The TRRP rule in §350.53, regarding Land Use Classification, requires a person to determine the current land use of all properties affected with concentrations of chemicals of concern (COCs) which exceed the residential human health assessment levels. This section further specifies that under TRRP a person must determine the land use for a property by comparing its current use to the definitions of residential and commercial/industrial land use provided in §350.4(a). These requirements establish the basic process for land use classification under TRRP. The steps for determining land use under TRRP are depicted in the flowchart

in Figure 2. The land use classification process should be performed separately for *each* on-site and off-site property within the affected property. This process should also be performed separately for *each* portion of a subdivided property within the affected property (for example, a strip mall).

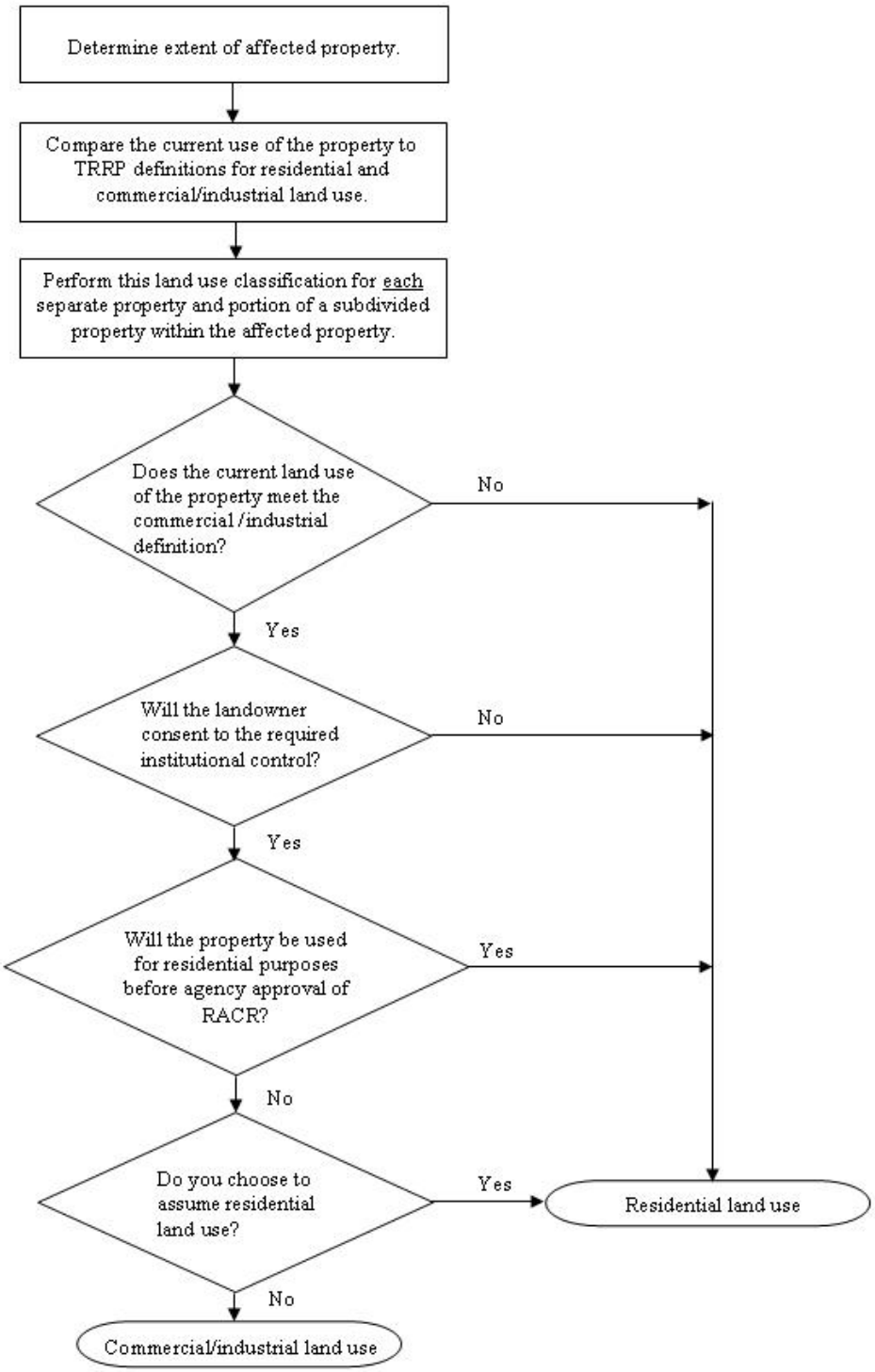

Figure 2. Steps for determining land use classification under TRRP.

Further details of the basic requirements of the TRRP land use classification process are provided in the following sections.

Importance of land use classification

Land use classification under TRRP is important for a number of reasons.

- Land use is a critical factor in determining PCLs. Progressive steps lead to the determination of the critical PCLs, the PCLE zone(s), and the proposed response action. Land use of an affected property is one of the initial conclusions drawn and provides a foundation for further determinations.
- Some exposure assumptions, exposure pathways, and points of exposure are different for residential versus commercial/industrial land use:
  - Regarding exposure assumptions, the human receptor is assumed to be a resident for residential property and a commercial/industrial worker for commercial/industrial property. Different exposure assumptions, including exposure duration and frequency, are used for a resident as opposed to a commercial/industrial worker in order to determine PCLs.
  - Regarding exposure pathways, the consumption of above and below ground vegetables is a relevant exposure pathway for residential land use but is not for commercial/industrial land use.
  - And regarding points of exposure, the depth of surface soils is 15 feet for residential land use and 5 feet for commercial/industrial land use.
- For commercial/industrial land use, the exposure duration and exposure frequency are less than for residential land use. As a result, commercial/industrial PCLs are typically higher than the PCLs for residential land use. So the bottom line is, land use is important because it is fundamental when determining the vertical and horizontal extent of the PCLE zone(s) at an affected property. The size of the PCLE zone(s) is crucial in determining the level of effort required to attain either Remedy Standard A or B.
- Land use classification is also important because it is a factor in determining whether an institutional control is required to be placed in the property deed records for an affected property. If required, the institutional control identifies the land use that was assumed in order to determine PCLs which are protective of human health. Because the classification is based on current use, the TCEQ is not regulating land use in the sense that a local agency does through zoning or a governmental ordinance. Instead, the agency is, where necessary, making sure that information is available in the property deed records following completion of a response action so that people will know what future land uses for the property are protective of human health.

In addition, the agency will utilize its rules and institutional controls to ensure that the land is not used in a manner that is unprotective, given the level of response achieved, without further response actions occurring.

Key definitions pertinent to the TRRP land use classification process

The classification of properties with regard to land use is highly dependent upon the definitions for residential land use and commercial/industrial land use.

- *Commercial/industrial land use* (§350.4(a)(13)) - Any real property or portions of a property not used for human habitation or for other purposes with a similar potential for human exposure as defined for residential land. Examples of commercial/industrial land use include manufacturing; industrial research and development; utilities; commercial warehouse operations; lumber yards; retail gas stations; auto service stations; auto dealerships; equipment repair and service stations; professional offices (lawyers, architects, engineers, real estate, insurance, etc.); medical/dental offices and clinics (not including hospitals); financial institutions; office buildings; any retail business whose principal activity is the sale of food or merchandise; personal service establishments (health clubs, barber/beauty salons, mortuaries, photographic studios, etc.); churches (not including churches providing day care or school services other than during normal worship services); motels/hotels (not including those which allow residence); agricultural lands; and portions of government-owned land (local, state, or federal) that have commercial/industrial activities occurring. Land use activities consistent with this classification have the North American Industrial Classification System code numbers 11–21 inclusive; 22 except 22131; 23–56 inclusive; 61 except 61111, 61121, and 61131; 62 except 62211, 62221, 62231, 62311, 62322, 623311, 623312, 62399, and 62441; 71 except 71219; 72 except 721211 and 72131; 81 except 814; and 92 excluding 92214.
- *Residential land use* (§350.4(a)(74) - Property used for dwellings such as single family houses and multi-family apartments, children's homes, nursing homes, and residential portions of government-owned lands (local, state, or federal). Because of the similarity of exposure potential and the sensitive nature of the potentially exposed population, day care facilities, educational facilities, hospitals, and parks (local, state, or federal) shall also be considered residential.

The person should investigate the North American Industry Classification System (NAICS) as a part of the land use classification process to determine whether the land use activity code for a property is either specifically included in or excluded from commercial/industrial land use. Examination of the land use classification of golf courses demonstrates

the use of NAICS codes. Since golf courses are not specifically mentioned in the definition for either commercial/industrial or residential land use, it might be reasonable to assume that they are most similar to local, state, or federal parks. However, there is a NAICS code for golf courses of 71391 labeled as "Golf Courses and Country Clubs". As noted in the commercial/industrial land use definition, all land use activities with a NAICS code beginning with 71, except 71219 (nature parks and other similar institutions), are commercial/industrial land use. Therefore, a golf course is commercial/industrial land use provided the landowner consents to the required institutional control. Note also, however, that in locations where a golf course is contained within a park, the total acreage (park with golf course) will be classified as residential. For a listing of the NAICS codes online, go to <www.census.gov/epcd/www/naics.html>.

The following other important definitions associated with the land use classification process are found in §350.4(a): affected property; assessment level; institutional control; off-site property; on-site property; person; and PCLE zone.

Affected property and PCLE zone

Figure 3. shows several different zones where COCs are present on an on-site property and an adjacent off-site property. The focus of this section is to describe the interrelationships between these zones and how those relationships are influenced by land use classification.

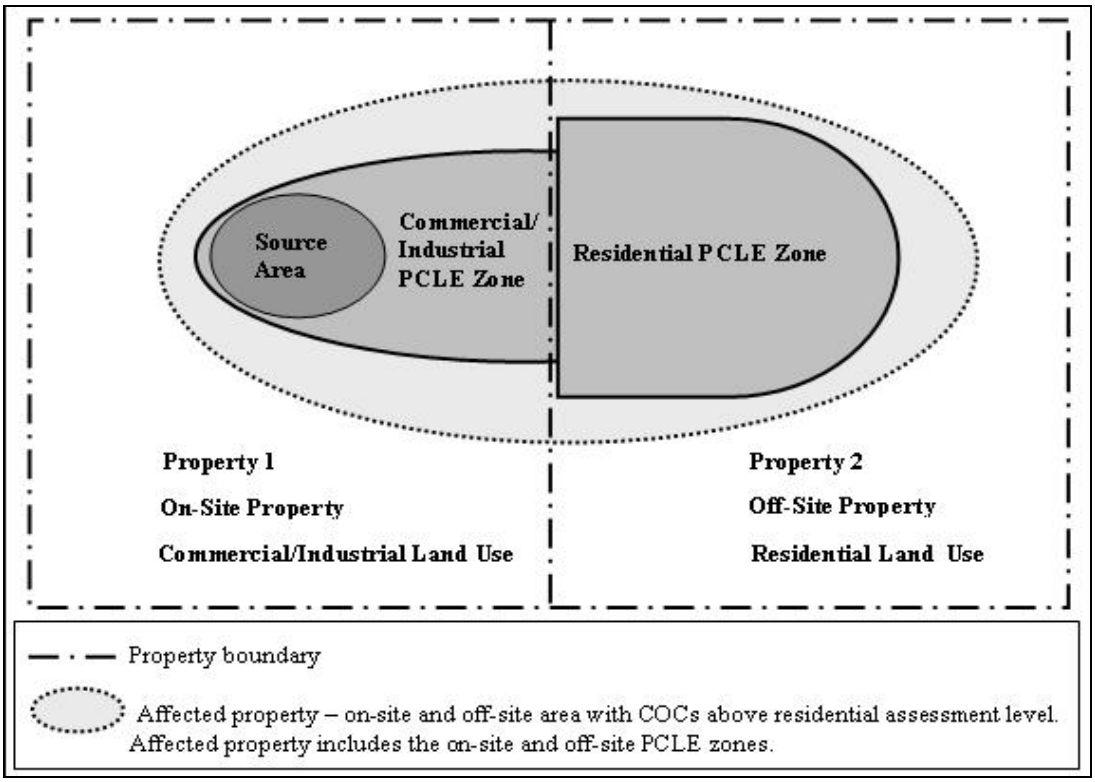

Figure 3. TRRP land use classification terms.

Property 1, on the left-hand side of Figure 3, has commercial/industrial land use and is the on-site property. On-site property means the property owned or leased by a person who has filed a response action plan for that property or who has become subject to such action through one of the TCEQ's program areas. In other words, it is the property where a release of COCs occurred (that is, the source property). Property 2, on the right-hand side of Figure 3, has residential land use and is an off-site property. This means than it is a property outside of the on-site property.

The affected property is all of the area, both on-site and off-site, with COC concentration(s) greater than the residential assessment level. This is essentially the area affected by the release. Generally some of the affected property will have COC concentrations which are less than the cleanup levels. The affected property on Property 1 and Property 2 in Figure 3 is shown as the area within the finely dotted line. In the circumstance shown in Figure 3, the release occurred on Property 1 as illustrated by a "source area" and over time COCs with concentrations above the residential assessment level migrated onto Property 2. After the limit of the affected property is determined, the land use of each property within the affected property must be classified. In this example, the on-site portion of the affected property is classified as commercial/industrial land use and the off-site portion of the affected property is residential.

PCLs are then developed based on the land use classifications and PCLE zones are identified. A commercial/industrial and residential PCLE zone are shown on Property 1 and Property 2, respectively, in Figure 3. The source area for these PCLE zones is located on Property 1, the source property. Each PCLE zone shown on Figure 3 represents the land surface area where COC concentrations exceed the critical PCL. In other words, the PCLE zone is the area that exceeds the cleanup level and, therefore, is the area where a response action is required. The PCLE zones are three-dimensional and have a depth component. The two-dimensional areas shown in Figure 3 represent the surface expression of the three-dimensional PCLE zones. In Figure 3 the residential PCLE zone shown on Property 2 has a greater land surface area (that is, footprint) than the commercial/industrial PCLE zone shown on Property 1. Residential PCLs have a lower concentration than commercial/industrial PCLs. As a result of the lower COC concentration for residential PCLs, the residential PCLE zone is larger than the commercial/industrial PCLE zone.

Typically the affected property covers a larger land surface area than either a residential or commercial/industrial PCLE zone. This is depicted in Figure 3. On Property 1 the affected property has a larger footprint than the commercial/industrial PCLE zone. And on Property 2 the affected property is bigger than the residential PCLE zone.

Who classifies land use

Section 350.53 indicates that the person, as defined in §350.4(a)(62), must define the land use for each property that is affected above the residential human health assessment level. If the person is not the owner of leased land or off-site property, then the person may not rely on a commercial/industrial classification for the property in the Response Action Completion Report (RACR), without the landowner's written consent for the filing of the associated institutional control. This institutional control is required in accordance with §350.111 (relating to Use of Institutional Controls). This means that even if the person provides information which demonstrates that the current use of the affected property is commercial/industrial, the person must classify the property as residential unless the landowner provides written consent for the filing of the institutional control required for commercial/industrial land use. Unless this consent is secured, the PCLs must be determined in accordance with the residential classification. Remember also that landowner consent does not have to be documented until the RACR is submitted. However, a person should be cautious about assuming that a landowner will eventually consent to commercial/industrial land use. If this assumption is mistaken, then the person will be required to undertake additional response work to restore the property to residential levels. Thus, if it is likely that a landowner will not agree to a commercial/industrial land use determination, then it would be prudent from the start of a project to assume that residential PCLs will be used (Figure 2). In short, with the exception of the situations noted below, the TCEQ will not approve a RACR which involves commercial/industrial land use for an affected property unless the person provides proof of written landowner consent for the filing of the associated institutional control.

Proof of written landowner consent is not always necessary

Proof of written landowner consent is not necessary in the following situations:

- When, in accordance with §350.53, the property is subject to a zoning or governmental ordinance that is equivalent to the deed notice, VCP certificate of completion, or restrictive covenant that would otherwise be required.
- §350.111(d) provides that the person does not need to obtain landowner consent for the filing of a deed notice or VCP certificate of completion when it is technically impracticable to attain a residential-based, Remedy Standard A response action and the person satisfies the other requirements of this section.

- §350.111(f) explains that landowner consent for a deed notice or VCP certificate of completion will not be required if, after the person's extensive and diligent inquiry, the TCEQ concludes that the landowner cannot be located.

Further details regarding institutional controls, including when proof of written landowner consent is not necessary, are provided in the TCEQ guidance document titled *Institutional Controls* (RG-366/TRRP-16).

Properties which must be land use classified

All properties affected with concentrations of COCs above a residential human health assessment level must be classified. That is, the person must classify the affected property regarding land use (Figure 2). The requirement to use residential assessment levels to determine which properties must be land use classified applies to both on-site and off-site properties (that is, to both the on-site and any off-site portion of an affected property). The person is required to only classify those properties which have been affected by at least one COC which is both derived from the on-site release the person is assessing and is above its residential assessment level. Thus, a person has to classify the land use of an off-site property in the event that the nature and distribution of the on-site release causes one or more COCs above a residential assessment level to be located on the off-site property. Various programs, such as the Voluntary Cleanup Program, covered by the TRRP rule may have a more stringent standard which requires the person to perform on-site land use classification even if the source is located off-site.

Making a land use determination

The person looks at how the property is currently being used and determines whether that current use compares more closely with the definition of residential or commercial/industrial land use (Figure 2). Based on this comparison, the land use is classified as either residential or commercial/industrial.

Importance of past or future land use

Land use classification under TRRP is based upon the current use of the land. The historic use of the land is not relevant to its current land use classification. Unless the landowner agrees, the person cannot classify on-site leased or off-site affected land as commercial/industrial based upon the rationale that it is currently being used for commercial/industrial purposes. Unless one of the exceptions described previously applies, the landowner may require that an affected property be restored to residential PCLs without use of physical or institutional controls even though the property is currently being used for commercial/industrial purposes. Also, the anticipated future use of a property does not dictate its current land

use classification. The comparison used to determine a property's land use classification must be based on its current use rather than its expected future use. Future use is difficult to predict with any reasonable degree of certainty. However, the person may choose to restore a property to residential levels even though the property qualifies at present for commercial/industrial land use (Figure 2). A person may want to do this if there are plans to use a current commercial/industrial property as a residential property in the future.

Procedure for changing land use classification

Changes in a property's current land use classification are described in several portions of the TRRP rule. Section 350.111 specifies that if the land use changes prior to the TCEQ's approval of the RACR, then the PCLs must be changed, if necessary, to be protective following the final response action (Figure 2). As a more stringent program requirement, land use classification for Superfund sites is set after a public meeting. In accordance with §350.35(b) (relating to Substantial Change in Circumstance), no person shall cause, suffer, allow, or permit a threat to human health or the environment by changing the land use in an approved RACR from commercial/industrial to residential. Section 350.35(c) specifies the procedure to obtain approval to change the land use classification from commercial/industrial to residential after the RACR has been approved.

Examples and Figures for Land Use Classification

On-Site Affected Property Land Use Classification

Figure 4.depicts the situation where the person is not the owner of the on-site property. In this example the person is leasing the on-site property and is responsible for the release of COCs which has resulted in the on-site soil and/or groundwater PCLE zone. While the land use for the entire on-site property could be either commercial/industrial or residential, in this example the use of the land meets the commercial/industrial land use definition. There are two possible scenarios for the use classification of the on-site land associated with the soil and/or groundwater PCLE zone. These two possibilities are referred to as Situation A and Situation B. For both of these scenarios one central fact must be kept in mind. Under TRRP, it is the landowner, not the person, who controls, through landowner consent requirements in §350.111, what land use classification will be used to determine the PCLs for a property.

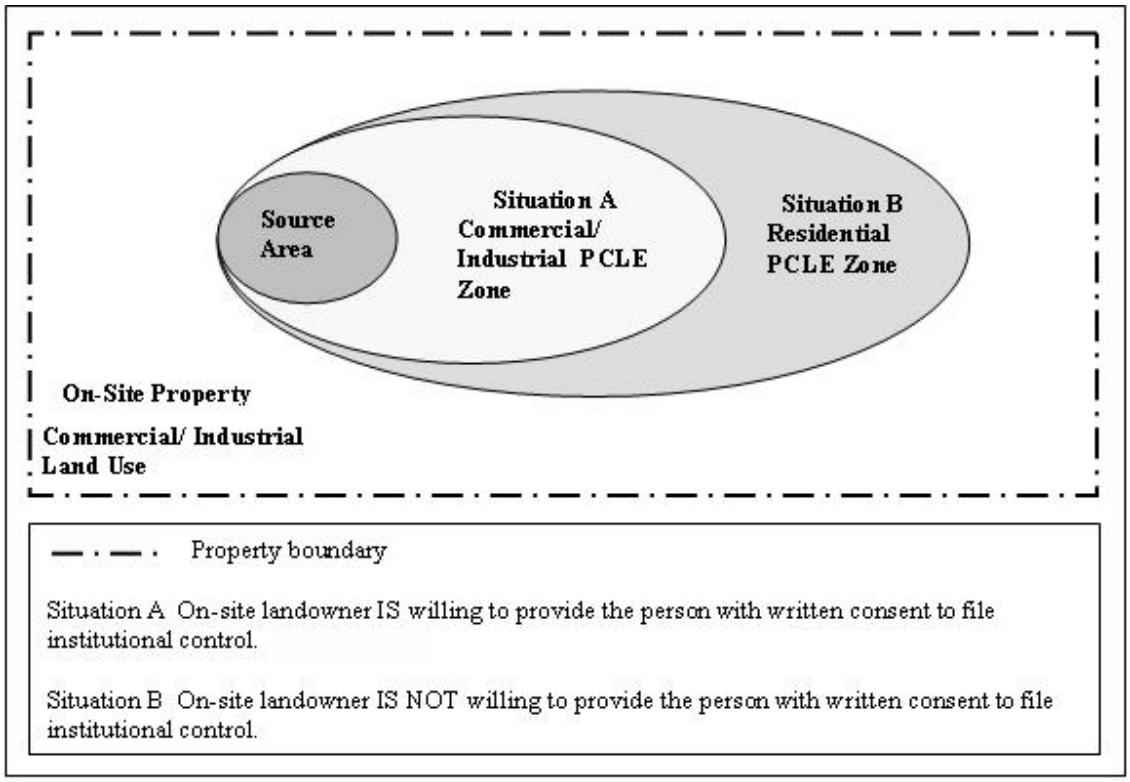

Figure 4. On-site affected land use classification where the person is not the owner.

For Situation A, the on-site landowner provides the person written consent for the filing of the institutional control required by §350.111 when the response action is complete. As a result, the person is allowed to determine PCLs for the soil and/or groundwater PCLE zone based on an assumption of commercial/industrial land use.

For Situation B, the on-site landowner is not willing to provide the person written consent for the filing of an institutional control in the on-site property deed records. This means that the person must complete a response action which assumes residential land use under Remedy Standard A for the **on-site** soil and/or groundwater PCLE zone. There are, however, several exceptions to this requirement. These exceptions were listed previously and, if applicable, would allow the person to proceed with the response action without providing proof of written landowner consent.

Off-Site Affected Property Land Use Classification

Figure 5. depicts a common condition where an on-site soil and/or groundwater PCLE zone extends onto an off-site property. This example assumes that both the on-site and off-site properties are actually used for commercial/industrial land use. There are two possible outcomes which could result from these circumstances. These are labeled in Figure 5 as Situation A and Situation B.

In Situation A, the owner of the off-site affected property is willing to provide the person written consent for the filing of the institutional control required by §350.111 at the time of response action completion. Section 350.111 requires the filing of an institutional control for all response actions except those conducted for residential land use under Remedy Standard A. In this situation the person or the off-site landowner will file an institutional control when the response action is complete. As a result, the person may use a commercial/industrial land use assumption to determine PCLs for that portion of the soil and/or groundwater PCLE zone which extends onto the off-site property.

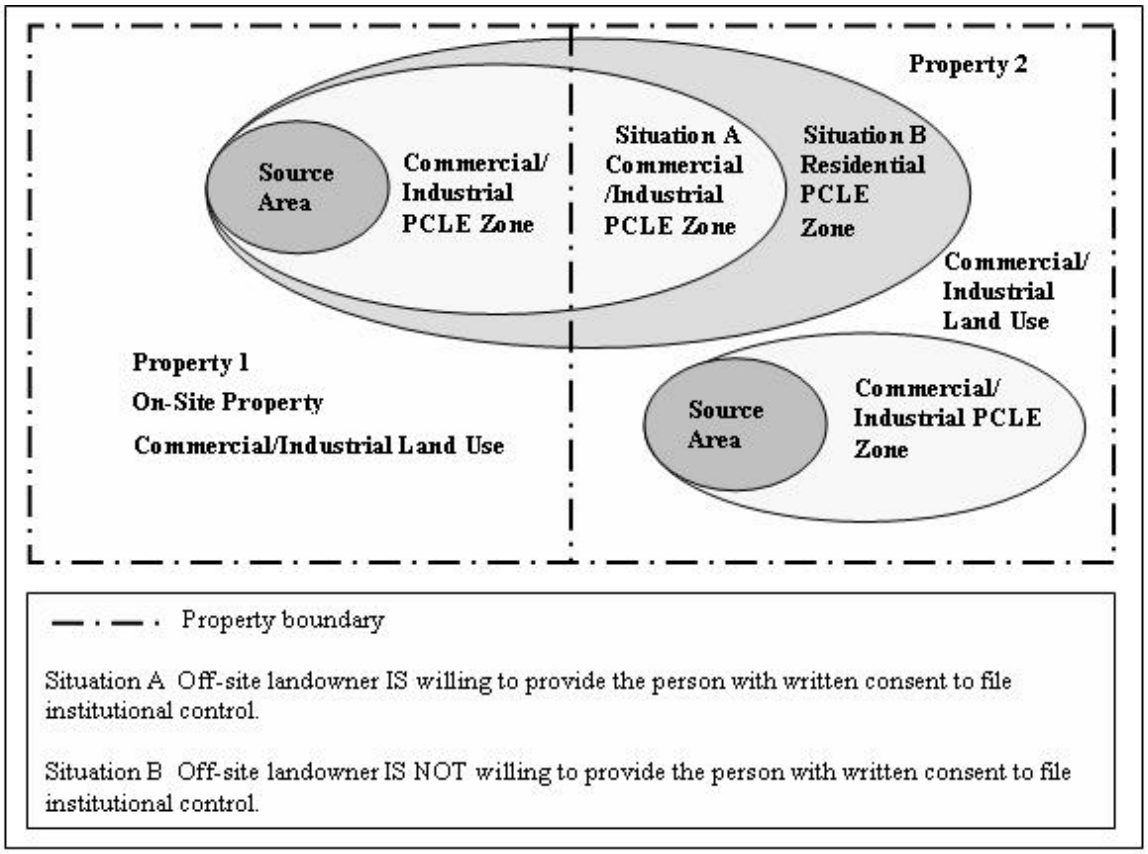

Figure 5. Off-site affected property land use classification where an on-site soil and/or groundwater PCLE zone extends off-site.

In Situation B, the off-site affected property landowner is not willing to provide the person written consent for the filing of an institutional control in his property deed records. This means that the person must perform a response action which does not require the filing of an institutional control under TRRP for the off-site property. In this circumstance, the person must complete a response action which assumes residential land use under Remedy Standard A for the off-site portion of the soil and/or groundwater PCLE zone. As discussed previously, however, there are several limited exceptions to this requirement which could allow the person to proceed without providing proof of written landowner consent.

The current land use for Property 2 on Figure 5 is commercial/industrial. However, this commercial/industrial land use classification is based upon two attributes. First, the current land use must be commercial/industrial. And second, any required institutional control must be obtained. If either of these requirements is missing, then the property is classified as residential. For Situation B, the residential PCLE zone extends onto Property 2 and the required institutional control cannot be obtained. Therefore, residential land use must be assumed for this portion of Property 2.

Also, in this example, there has been a separate historic release of COCs from a source area located on Property 2. If the Property 2 landowner is willing to file the required institutional control for this historical release, then commercial/industrial land use can be used to determine the PCLs for the historical PCLE zone.

Classification of Agricultural Land

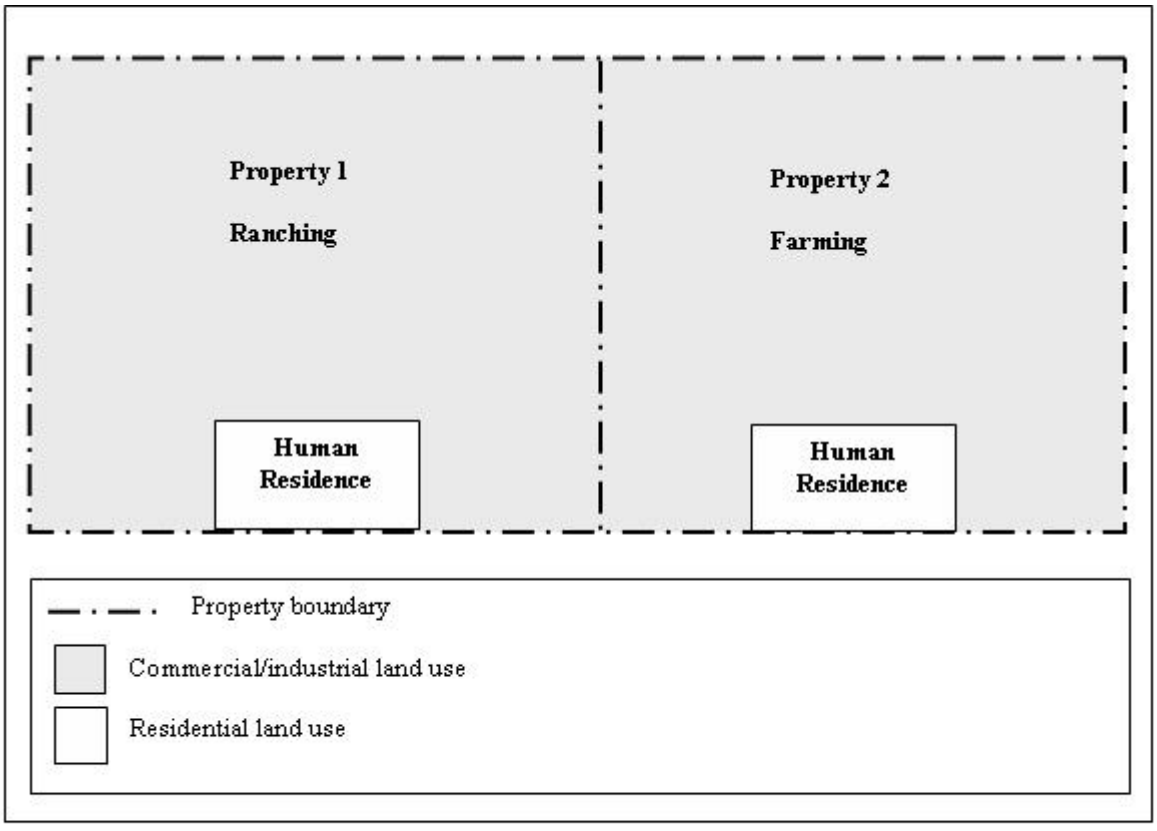

Figure 6. Commercial/industrial land use classification of ranch, farming, and other agricultural lands.

Figure 6 depicts two properties that represent ranches, farms, and other kinds of agricultural lands. A single family house is also located on each of these example agricultural properties. The bulk of the land surface area of these two properties can be classified as commercial/industrial land use. This is consistent with the commercial/industrial land use definition.

This definition specifically lists agricultural land as commercial/industrial. However, state, local, or federal parks are classified as residential land use. This definition also states that commercial/industrial land use does not include any real property or portions of a property used for human habitation or for other purposes with a similar potential for human exposure as defined for residential land use. Thus, a portion of these two properties, illustrated in Figure 6, in the vicinity of the houses does not meet the definition of commercial/industrial land use and must be classified as residential land use. In this instance, the residential classification will be limited to houses and any land, such as the yard, associated with the structures, which has a similar potential for human exposure as residential land use. This is a site-specific determination with any areas of crop or pasture being classified as commercial/industrial land, as long as the landowner consents to the required institutional control. Additionally, however, agricultural lands classified as commercial/industrial may require consideration of additional exposure pathways (for example, consumption of home grown food items such as beef) that would not normally be evaluated at non-agricultural commercial/industrial properties.

TRRP land use classification is based upon the current use of a property rather than trying to predict the future use of a tract of land. Of course, at the time of the initial response action, the person may know the future plans for an agricultural property and choose to restore a property to residential concentration levels even though the property presently qualifies for commercial/industrial land use.

Vacant Land, Adjacent Properties, and Zoning

Figure 7 shows the circumstance where a vacant property (that is, Property 3) is located adjacent to five other properties (that is, Properties 1, 2, 4, 5, and 6) with residential land use. The land use of the adjacent properties does not have any effect under TRRP on the land use classification of Property 3. As long as Property 3 is properly categorized as vacant land, the landowner may choose either residential or commercial/industrial land use for the property. Vacant land means that the current use of the property is neither a specifically listed use, nor an associated use, described for either residential or commercial/industrial land use. Of course, if the property in question meets either of these definitions, then it must be classified in accordance with that definition, provided the institutional control can be filed in the case of commercial/industrial land use. However, in the circumstance depicted where the property is vacant, the Property 3 landowner may choose either residential or commercial/industrial land use. Thus, there are two possibilities, described as Situation A and Situation B on Figure 7 for the land use classification of Property 3. Under TRRP the land use of the adjacent property does not enter into the land use classification of the affected property in either of these scenarios.

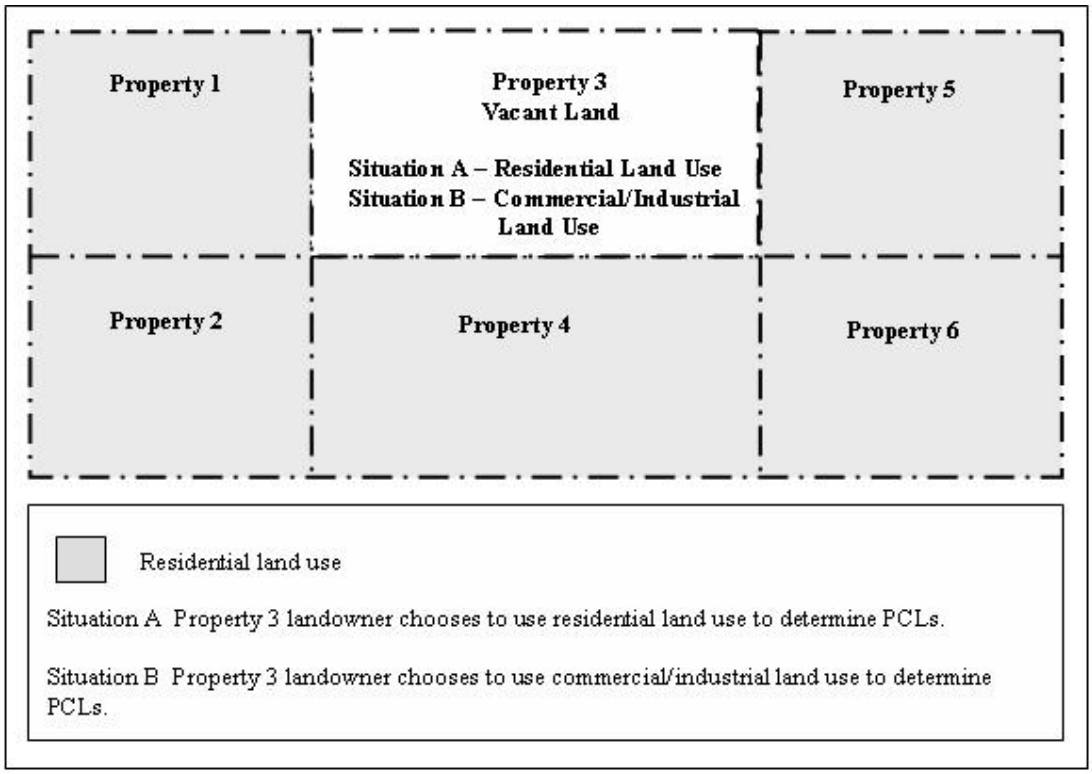

Figure 7. Land use classification of vacant land under TRRP.

Under Situation A, the Property 3 landowner chooses residential land use. This means that a residential land use assumption will be used to determine PCLs for this property. As a result, the on-site and off-site properties all have residential land use.

Under Situation B, the Property 3 landowner chooses commercial/ industrial land use for this vacant property. Accordingly, a commercial/ industrial land use assumption is used to determine PCLs for that property. Under this approach, all on-site commercial/industrial-based PCLs must also be protective for residential use of the off-site, adjacent properties. The potential for trespassers to enter onto commercial/ industrial properties located adjacent to residential properties is not sufficient justification to require all such commercial properties to use residential PCLs for the remedy. However, under TRRP, if such a property is being used as an impromptu park or playground, then the person is required to either prevent the trespassing from occurring or respond to the property as residential land.

A local zoning or governmental ordinance which specifies that the land use of the property will be for residential purposes does not have any effect on the land use classification for the property under TRRP. However, the TCEQ does not discourage persons from classifying the land use of a property in accordance with not only this agency's rule and guidance but also any applicable zoning or other ordinances issued by local governmental authorities. The TCEQ may, however, only take an enforcement action against a person regarding land use classification in

the event that the person violates TRRP. Less stringent local regulations may not substitute for the TRRP rule and persons must perform actions at least as stringent as the TRRP requirements.

And finally, proof of written landowner consent for the filing of an institutional control is not necessary when the property is subject to a zoning or governmental ordinance that is equivalent to the deed notice, VCP certificate of completion, or restrictive covenant that would otherwise be required under TRRP. The TCEQ guidance document titled *Institutional Controls* (RG-366/TRRP-16) describes the criteria that typically would need to be met for zoning or a governmental ordinance to be **equivalent** to the institutional control required by TRRP. If zoning or a governmental ordinance, restricting the property to commercial/industrial land use, is determined to be equivalent to the TRRP institutional control, then the landowner could choose commercial/industrial land use for Property 3 without the requirement to file an institutional control. If a tenant is responsible for a release of COCs into environmental media on Property 3, then the tenant also could choose commercial/industrial land use without receiving permission from the landowner. In both of these circumstances, PCLs determined by assuming commercial/industrial land use would be used to determine the soil and/or groundwater PCLE zones.

Land Use Of Multiple Tracts On Single Property

Figure 8 shows a single property which is divided into portions or multiple tracts with different land uses. The example depicted in Figure 8 is a strip center similar to ones that may be found in any metropolitan, suburban, or even rural areas of Texas. One or more tracts of land on a property can have commercial/industrial land use, while one or more other tracts on that property have residential land use.

However, it is the landowner who decides whether this is acceptable, not a tenant. The following sentence from the definition of commercial/industrial land use indicates when discussing "portions of a property" that the TCEQ has the authority, when warranted, to approve different land uses for different tracts on a property:

> Any real property or *portions of a property* not used for human habitation or for other purposes with a similar potential for human exposure as defined for residential land.

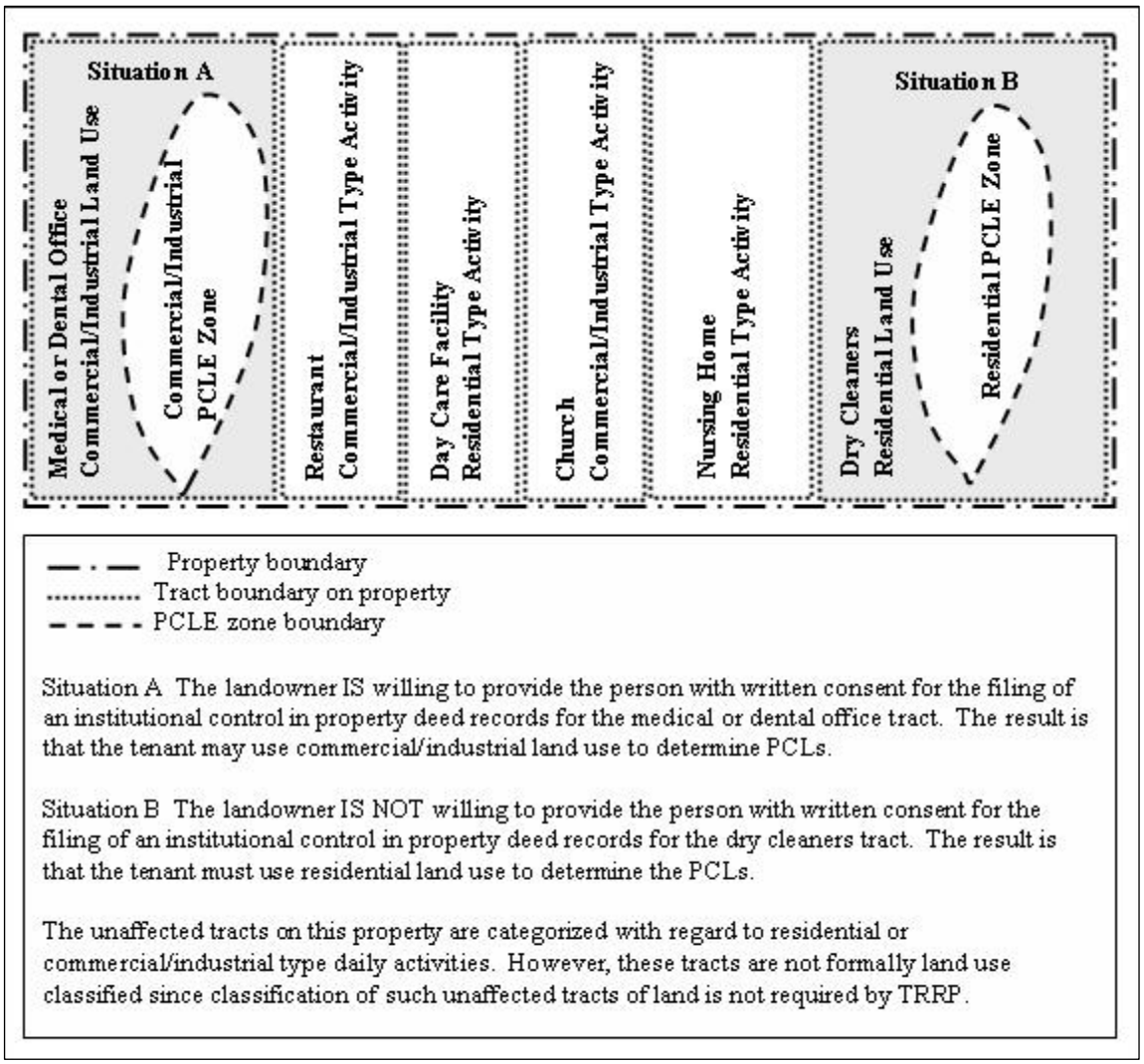

Figure 8. Land use classification of multiple tracts on a single piece of property.

For the person (that is, the tenant), who caused the release of COCs, to employ a land use and remedy standard combination other than residential and Remedy Standard A, the person must obtain written consent from the landowner for the filing of the institutional control required by §350.111. Particularly pertinent to multiple land use properties is the requirement in §350.111(a)(1) for the person or landowner to file "a metes and bounds description of the portion(s) of the affected property to which the institutional control applies." Also, §350.111(a)(2) requires the person or landowner to file "a plat map clearly demarking the portion(s) of the affected property to which the institutional control applies." If the landowner is not willing to have such an institutional control placed in the property deed records, then the person (tenant) must complete a response action which assumes residential land use under Remedy Standard A for any soil and/or groundwater PCLE zone. The list of situations when proof of written landowner consent is not necessary is provided earlier in this document.

The TCEQ will only become involved with those land use determinations associated with evaluating an affected property. Classification of land use is a necessary step in defining appropriate cleanup levels and in evaluating the need for and appropriate completion of a response action. If there is no release from the property depicted in Figure 8, then the TCEQ will not require, under TRRP, land use classifications for the property or tracts on the property. However, if there is a release to an environmental medium from an activity on the property and TRRP is applicable to that release, then the person (tenant) is required to propose a land use classification for all properties or tracts that are affected by a release with a COC above its residential assessment level. The landowner may essentially veto any recommendation by the person (tenant) for a commercial/industrial land use for a tract of land. The landowner may require residential land use by refusing to provide written consent to place an institutional control in the property deed records.

In the example in Figure 8, the medical or dental office, restaurant, church, and dry cleaners are all commercial/industrial type activities. A church is classified as a residential activity if it provides day care or school services other than during normal worship services. The day care facility and nursing home are residential type activities. Figure 8 assumes that there have been separate releases of COCs from the medical or dental office and the dry cleaners which are above the residential assessment level and therefore each is an affected property. This means that the person responsible for the release on each of these tracts must determine the land use for that tract. For Situation A noted on Figure 8, the landowner, after negotiation, is willing to provide written concurrence to the person (medical or dental office tenant) for the filing of an institutional control in the property deed records. This institutional control specifies the commercial/industrial future use for that tract of the property. Thus, the medical or dental office tenant can determine PCLs by assuming commercial/industrial land use for that tract. For Situation B, the dry cleaners tenant, however, is not able to persuade the landowner to concur with the placement of an institutional control for this tract within the property deed records. As a result, even though dry cleaning is considered a commercial/industrial type activity, the portion of the property occupied by the dry cleaning facility is treated as residential land use. The result is that the tenant must use residential land use classification to determine PCLs. The tenant would also in this situation be required to use Remedy Standard A, rather than remedy Standard B.

Easements/Rights-of-Way

Figure 9 shows an easement/right-of-way that crosses three different properties. An easement/right-of-way is an interest that a person holds in a property owned by another person that entitles its holder to specific limited use of the property. The terms “easement” and “right-of-way” are used interchangeably here. The easement shown in Figure 9 could be for a

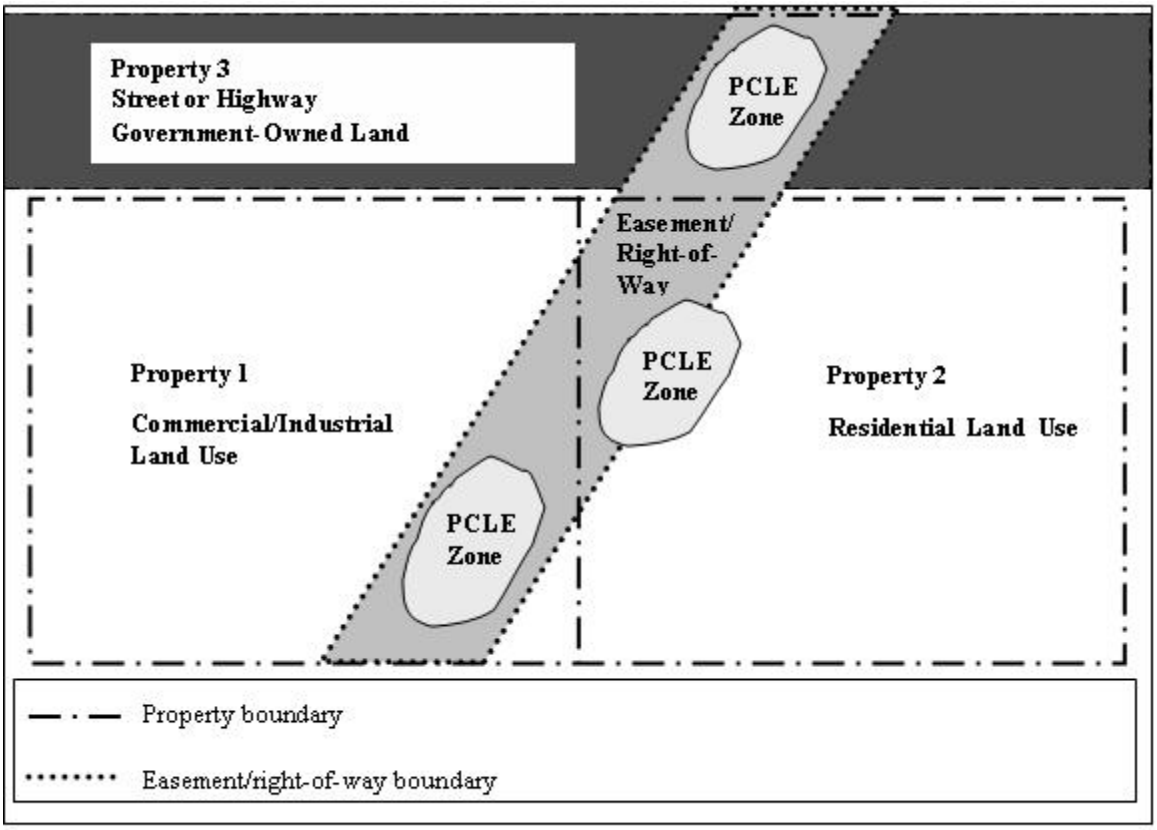

Figure 9. Easements/right-of-ways and land use classification.

pipeline, for electrical transmission, for a roadway, or for many other purposes. It is the property and not the easement that is subject to land use classification under TRRP. Thus, the landowner, not the easement holder, ultimately controls through the landowner consent requirements in §350.111 which land use classification will be used to determine PCLs for a property.

In the following discussion, assume for each property that the easement holder is responsible for a release of COCs to the easement area and that this has formed a PCLE zone. These PCLE zones are shown in Figure 9. Even though Property 1 in Figure 9 has commercial/industrial land use, if the landowner is not willing to consent to an institutional control, the landowner can require the easement holder to restore the area using residential land use and Remedy Standard A. Property 2 in Figure 9 has residential land use. In a similar fashion, if the landowner is not willing to consent to the placement of an institutional control in the Property 2 deed records, then the easement holder would be required to restore the property so that such a control is not needed (that is, residential land use and Remedy Standard A).

Property 3 in Figure 9 is a government-owned street or highway with commercial/industrial land use. In this instance, the governmental entity is the landowner and may control the land use by either consenting or not consenting to the recording of an institutional control in the property

deed records. Thus, in Figure 9, the local or state government could require the easement holder to restore a release of COCs within or beyond the easement area to Remedy Standard A for residential land use by refusing consent for placement of an institutional control.

There are other circumstances where highways or streets are constructed using an easement such that the builder of the roadway does not own the land. In this instance, the landowner controls the land use classification of the property over which such a roadway is constructed.

Motels/Hotels and Government-Owned Land

Motels and hotels are considered commercial/industrial land use except in the circumstance where people reside at a facility. A motel or hotel is classified as residential only in the circumstance where it serves as a person's residence. If a manager or maintenance person's primary residence is at a motel or hotel then residential land use classification must be used.

For local, state, and federal government-owned lands used for mixed commercial/industrial and residential purposes, a distinction must be made between the residential and commercial/industrial portions of these properties. Any portion of such lands used for residential purposes is classified as residential land use. Any portion of such lands that has commercial/industrial activities occurring is classified as commercial/industrial land use. This provision does not apply to local, state, or federal parks which are classified as residential land use due to the potential for human exposure.

Land Use Classification and Notification Requirements

This section discusses the relationship between land use classification and the TRRP notification requirements prescribed in §350.55.

As specified in §350.51(c), the horizontal extent of COCs must typically be determined using the residential assessment level. The residential assessment level is always used to determine if off-site properties have been affected and also to guide the assessment of any such off-site affected properties.

Among other requirements, §350.55 requires a person to provide analytical results to other parties in both of the following circumstances whenever the Tier 1 human health PCLs are exceeded.

- §350.55(a) thru (c) require the person to provide analytical results to the current easement holders/franchisees for any samples collected from any depth within an easement area (for example, municipal or private utility, right-of-way, etc.) whenever those results exceed the

Tier 1 human health PCLs for the applicable land use and the results will be provided to the agency.

- In accordance with §350.55(e), whenever there is an actual of probable human exposure to a COC at a concentration which exceeds the Tier 1 human health PCL established in accordance with the applicable land use, the person shall provide notice to those actually or potentially exposed.

In both of the circumstances presented above, the person must provide the Tier 1 critical PCL values for the applicable land use classification along with sample analytical results. The applicable land use classification is based upon the current use of the property. In the instance of §350.55(e), the current use determination is made by the person without consideration of whether a landowner will provide consent for an institutional control. Thus, if an affected property or portion of an affected property is currently being used for commercial/industrial purposes, then the Tier 1 PCLs used to guide the person's actions would be based on commercial/industrial land use for that affected property or portion of an affected property. However, for §350.55(a) thru (c), the requirement for landowner consent for commercial/industrial land use has not been waived. Therefore, it may be more practical for a person to just assume residential land use in order to avoid the risk of providing notice based on commercial/industrial land use and then not receiving the required consent.

The TCEQ guidance document titled *Notification Requirements* (RG-366/TRRP-17) describes the circumstances and the manner in which the person must notify other people of the results from sampling environmental media.