



Fire Management Handbook
Policy 821

Wildfire Home Protection Zone Evaluation

In accordance with [Executive Order 2020-02, Transparency in Agency Guidance Documents](#), guidance documents promulgated by the department are not new laws. They represent an interpretation of existing law, except as authorized by Idaho Code or incorporated into a contract.

Agency Contact

Fire Prevention and Education Coordinator

Purpose

For structures in a wildland urban interface situation, safety is always the most important priority in fire suppression. In 2009, an interagency cadre developed a standard guide and two forms for home evaluations in Idaho. The guide, **Idaho Wildfire Home Evaluation Guidelines, Attachment 1**, was created to explain utilization of both:

- The “homeowner” form, **Idaho Wildfire Home Protection Zone Evaluation–Homeowner Form, Attachment 2**; and
- The “agency” form, **Idaho Wildfire Home Protection Zone Evaluation–Agency Form, Attachment 3**.

The “agency” form captures more detailed data and is designed to be used with home evaluation software such as RedZone. Palm files for use in conjunction with the RedZone program are available in “Forms” on the IDL Intranet under “Fire Management.”

Applicability

IDL employees who respond to homeowners requesting a Wildfire Home Protection Zone Evaluation.

1. Associated Policies

National Fire Protection Association (NFPA) 299, Standard for Protection of Life and Property From Wildfire.

2. Exception Authorization

Exceptions to this policy may be granted by the Chief, Bureau of Fire Management.

3. Definitions

None

4. Policy

The Idaho Department of Lands will provide homeowners with a self-help action plan to create a defensible space around structures on private lands.

The evaluation also provides valuable information to city, county and rural fire departments.

5. Procedures

The Wildfire Home Protection Zone Evaluation form is designed to advise wildfire urban interface homeowners how to defend their home from the threat of wildfire. It aids firefighters with pre-operational inspections, which allows them to become familiar with local resources and hazards. The evaluation worksheet is broken down into general categories that affect fire control and behavior. The form provides a rating system that will indicate the relative survivability of the home.

Homeowners should accompany the inspector while the evaluation is being made. This is an excellent opportunity to educate individuals on the severity of the wildland urban interface fire problem.

A. Distribution

The Wildfire Home Protection Zone form should be completed, and two photocopies of the original should be made, distribution is as follows:

1. Original – IDL file copy
2. Homeowner
3. Local Fire Department

WILDFIRE HOME EVALUATION GUIDELINES

Information on structures is collected for a number of reasons. First and foremost is to provide homeowners and landowners with educational information on defensible space, hazards, and fuels reduction needs in order to better prepare people living in the wildland urban interface for a wildfire situation.

Home evaluation work is also done under a variety of conditions. The cadre may be called to complete evaluation work and training at a local level with a volunteer fire department or under the command of an incident management team. The following document provides *general* guidelines that can be used when collecting structural evaluation data. However, direction when working with homeowners, mitigation planners, and fire teams may vary depending on the situation in which a team is utilized.

Pre-coordination Procedures

- Before arrival, work should start at the local level to determine where evaluation work is to be completed. Work with the county, as well as other entities, to determine what maps and other GIS data is available and can be used by the cadre. Ownership maps, as well as topography, fuels data, WUI information, existing structural information, roads, and other records may be needed to identify the location of all structures in a designated evaluation area. Initially, it is important to tie in with key players or spokespersons within the community; or at least those with a visible interest regarding wildfire threats within the urban interface. Time invested with these individuals greatly encourages the participation of the broader community.
- Prior to any evaluation work being completed in a designated area, notification of homeowners in an area that the cadre will be working should take place. Canvassing a neighborhood prior to an evaluation yields great results. It allows us to provide information on why and how evaluations are being completed, provides an opportunity for questions and feedback, and coordinates scheduled visits with homeowners. Along with canvassing, disseminating information about evaluations can be handled in the following ways:
 1. News release/newspaper article/PSA.
 2. Fliers/posters that can be placed in the area that is targeted for evaluation.
 3. Mailings to the homeowners in a designated area.
 4. Cold calling to homeowners in a designated area (provided the information is available).
- After an area has been canvassed and a schedule for evaluations developed, check this against any structural maps that may exist in order to determine which homeowners have not been contacted or if any structures have been overlooked. Work with the local fire department or county on direction for collecting information from these areas. For homeowners not contacted, or where permission is not granted, evaluation information from the nearest available location may be used. (More often than not, this means the road.) **If a homeowner does not want an evaluation, do not force this issue with them. Do not trespass onto private lands to collect data.**
- If you are having difficulty getting homeowners to agree to buy into the concept of protecting their home from wildfire, consider establishing a home protection zone “demonstration site” in a highly visible location near the neighborhood you are targeting. The “aesthetic” look of a treated home site appeals to many homeowners, and often doesn’t match the “mental vision” they may imagine is necessary to protect their home from wildfire.

Inspection procedures

- When visiting each site, two people from the cadre should work together to collect evaluation data. One individual should use the Palm Pilot with the preloaded RedZone survey to collect data and should also take a minimum of two photographs of the site; the other should work with the resident/homeowner to collect data using the “Wildfire Home Protection Zone Evaluation – Homeowner Form”. If possible, both individuals should have a good understanding of current “Wildland Urban Interface” issues, and a basic knowledge of fire behavior characteristics (a working knowledge of structural fire suppression tactics also helps).

- Whenever possible, encourage the resident/homeowner to complete the evaluation with you in order to get the most complete information and to accomplish the primary goal of providing site specific prevention education to the homeowner. Only as a last resort should you do the evaluation without the homeowner or their agent present. If you work with the homeowner to find a mutually agreeable time and date when you can meet with them, you will be able to reduce or eliminate potential problems regarding legal access to the property. It is critical to get buy-in from the homeowner, as this directly relates to future maintenance of fire mitigation actions accomplished on the property.
- If a homeowner is unable to complete an evaluation with you, or if they are not a permanent resident of the home being evaluated (because they have a renter or it is a vacation home), ASK if you can follow up with them at the end of your evaluation to talk about what you've observed. Also, let the homeowner know that a copy of the computer-generated report from the Wildfire Home Protection Zone Evaluation can be mailed back to them.
- Start the inspection with a full walk-around of the area adjacent to the home. Include any adjacent structures during this review. This is a good time to engage the homeowner in a general discussion of wildfire hazards. Look for unusual hazards: motor homes, boats, abandoned/disabled vehicles adjacent to the home, dynamite, ammunition, flammable liquids, etc; as well as common hazards: overhead power lines, firewood, propane/fuel tanks, patio furniture, etc. These should be addressed by written comment on the homeowner form.
- Following the walk-around, start your evaluation of the structure. (Side A is generally the addressed side or the side with the front door. The remaining sides are B, C, & D labeled in a clockwise direction.) Address the roof, chimney, gutters, siding, windows, decks, eaves, balconies, attached wood fences, and any other risk factor directly associated with the structure itself.
- From the structure, you should move next to the 4-foot zone. This zone represents the highest wildfire risk to the structure, except the roof, as it allows fire to burn directly to the structure if not properly treated. End your evaluation with a thorough inspection of the 30 and 100-foot zones.
- Always leave the "Wildfire Home Protection Zone Evaluation – Homeowner Form" with the homeowner. This form should have a predetermined contact phone number (or numbers) for owners to use if they have follow-up questions or concerns. Be sure to discuss mitigation strategies with the homeowner, any resources that may be available to them and where to find them. If available, provide FireWise, Bushfire, and other literature and media.
- At the end of each data collection time frame, upload and organize the RedZone data from the Palm Pilots and photographs as quickly as possible. Delaying the uploading of information and photographs can make it difficult when trying to sort, analyze, and mail out products, and may result in a loss of data due to Palm Pilots with dead batteries.
- For homeowners that have requested it, print off and mail back computer-generated reports from the Wildfire Home Protection Zone Evaluation. When mailing back forms, reiterate where sources of information can be found, people or agencies to contact, and provide information about specific mitigation issues or questions. For example, if a homeowner has concerns about the types of vegetation to use around the home, provide them with a copy of *Fire-Resistant Plants for Home Landscapes* or *Firewise Guide to Landscape and Construction*.

Recommendations for Re-evaluation

It will be up to the individual agencies or departments to decide what they want or can reasonably do in regards to re-evaluating properties over time. For one entity, a reasonable goal may be to revisit again within three years, but for another, this may be out of the question. The number one priority should always be to work with homeowners that have not yet had an evaluation on their structures. Developing a positive relationship with the homeowner at the time of the visit will ensure that they keep you informed of changes they make to improve conditions around their property. Be sure to leave your contact information, as well as the contact information for the local rural or volunteer fire department, to facilitate the continuation of this relationship.

Idaho Wildfire Home Protection Zone Evaluation – Homeowner Form

(Formerly known as home ignition zone and/or defensible space.)

Homeowner Name: _____ Address: _____
City: _____ State: _____ Zip: _____ Phone _____

Structure

The following evaluation will provide you with recommendations on the steps you can take to protect your home in a wildland fire situation. Some of the recommendations may involve changing your roofing or siding. We recognize that these recommendations cannot always be implemented immediately as they can be costly and time consuming. We would only ask that you keep them in mind when it becomes feasible for you to replace or repair these things.

Roof	Metal/Tile/Composition	Wood Shake	Roof and gutters are cleaned of debris (needles/leaves/moss)	Roof and gutters have NOT been cleaned of debris(needles/leaves/moss)
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Siding	Metal/Brick/Stone/Stucco/Hardy Plank	Treated Log/Vinyl/Painted Wood	Wood Shake (untreated)
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Windows	Double-Paned Windows	Single-Paned Windows	Metal (non-vinyl) screen present on windows and doors
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- Regularly remove accumulated debris (leaves, needles, and moss) from gutter and roof, and prune overhanging limbs. Accumulated debris can cause direct flame to come in contact with your roof.
- Repair gaps in roofing; these provide openings where embers can collect.
- Enclose eaves, or maintain them so they are clear of combustible material (leaves, needles, nests).
- Cover vents with 1/8” or smaller metal (non-vinyl) screens.
- Consider replacing wood shake shingles and other combustible materials that make up the roof and/or siding with less combustible alternatives during times of routine repair, maintenance, or replacement.
- During fire season, close windows and doors when not at home to keep fire embers from entering the structure.

Comments: _____

Decks, Porches, & Balconies	Not present, or present with fire-resistant material, skirted	Combustible material, skirted	Combustible material, not skirted
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Firewood and Other Combustibles	None stored within 100’ of structure	Storage between 31’ and 100’	Storage within 30’	Wood fence attached to the structure
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- Enclose decks and eaves with 1/8” or smaller metal (non vinyl) screen and/or maintain a clear non-combustible area underneath.
- Store firewood and other combustibles a minimum of 30’ from your structure.
- Have propane/fuel tanks installed a minimum of 10 feet from your structure. Make sure that a 10-foot area around the tanks is well maintained to be free of grass and other combustible material.
- Cushions on deck furniture are combustible and can be considered a fuels risk. When you are not home and these items are not in use, store them away from your structure.
- Remember that lawnmowers, RVs, ATVs, and other mechanized equipment often contain gasoline; these items should be stored away from your structure (preferably in an enclosed area) when you are not home and these items are not in use.

Comments: _____

Vegetation

The vegetation around your home should be managed to reduce the hazard it would present in a wildfire situation. This doesn't mean that you should not have vegetation around your home. In order to provide you with an idea of where to focus your efforts, we have divided the area surrounding your home into three zones with recommendations for how you should manage your vegetation within each zone. After evaluating your vegetation, we will make note of the situation in the following table. Starting with the front of your house (A), work clockwise (B, C, and D); the goal is to have each item in the table checked off.

4-Foot Zone (immediately adjacent to structure, out to 4')	A	B	C	D
Non-flammable fuel break around structure.				
All leaf and litter cast is cleaned and removed on a regular basis – no contact with siding.				
All vegetation within this zone is restricted to fire-resistant species that are well maintained and irrigated with dead material removed.				
Landscaping material is non-flammable – for example, rock is more desirable than bark because it is non-flammable.				

Comments: _____

30 Foot Zone (4' from structure out to 30')	A	B	C	D
Grass in zone is maintained – irrigated and mown.				
Dead vegetation and ladder fuels removed.				
Trees pruned to 18 feet; (for small trees, prune one third the live crown by volume).				
Shrub spacing (2.5 times the height – example: 4-foot shrub, 10-foot spacing).				
Trees thinned to 15' spacing between the crowns.				

Comments: _____

30 - 100 Foot Zone (30' from structure out to 100' structure)	A	B	C	D
Dead Vegetation and ladder fuels removed				
Trees pruned to 10 feet; (for small trees prune one third the live crown by volume)				
Shrub spacing (2.5 times the height – example: 4 foot shrub, 10 foot spacing)				
Trees thinned to 10' spacing between crowns				

Comments: _____

Evaluation completed by _____ Evaluator Phone Number: _____

Neither this home evaluation, nor any work completed as a result, can guarantee your structure will survive a wildfire. It simply improves the odds in your favor. The evaluator does not accept any liability for findings or recommendations made during structural or private property evaluations. The main purpose of these evaluations is to educate homeowners on the mitigating measures they can undertake to protect their property. The changes possible from one evaluation to the next mandates that if private property were threatened by wildfire, suppression actions will be based on current site conditions at the time of the fire. Additionally, decisions relevant to the protection of these private inholdings will be made, when possible, during the time that an actual fire takes place.

Idaho Wildfire Home Protection Zone Evaluation – Agency Form

(Same as the Redzone Software Survey)

Latitude: _____ Longitude: _____

Homeowner Name: _____ Phone Number: _____

Address: _____ City: _____ State: _____ Zip: _____ Parcel#: _____

Evaluation Completed By: _____ Date: _____

1. Was homeowner present and contacted?

- Present and contacted 0 pts
- Not present but contacted 0 pts
- Present but not contacted 0 pts
- Not present or contacted 0 pts

2. Type of Structure

- Primary Residence 0 pts
- Seasonal Residence 0 pts
- Outbuilding – (garage, barn, shed, etc.) 0 pts
- Lodge/Hotel/Camp 0 pts
- Commercial Facility 0 pts
- Campground 0 pts
- Infrastructure Facility 0 pts
- Other _____ 0 pts

Driveway

3. Is the driveway / home addressed with a reflective non-flammable sign?

- Yes 0 pts
- No 5 pts

4. What is the width of the driveway?

- > 12 feet wide 0 pts
- < 12 feet wide 3 pts

5. Turnarounds present?

- Available 0 pts
- Non available 3 pts

6. What is the length of the driveway?

- <150 feet 0 pts
- 151 feet to 1320 feet 2 pts
- > 1320 feet 3 pts

7. What is the driveway surface?

- Concrete or asphalt 0 pts
- Gravel or rock 1 pts
- Dirt or grass 3 pts

8. What is the driveway grade?

- 0 to 5% 0 pts
- 6 to 10% 1 pts
- >10% 3 pts

9. What is the vegetation clearance/ maintenance along driveway?

- >20 ft 0 pt
- 10 to 20 ft 2 pts
- <10ft 5 pts

Structure and closely associated outbuildings

10. What is the roofing material?
 - Metal/Tile/Non-burnable 0 pt
 - Composition/Asphalt shingles 0 pt
 - Wood Shakes 100 pts

11. Have the roof and gutters been cleaned of debris?
 - Yes 0 pts
 - No 10 pts

12. Eaves, Vents, and other Openings:
 - Closed eaves, vents screened w 1/8" metal (non-vinyl) screen and accessible (0 pts.)
 - Closed eaves, vents not screened w 1/8" metal (non-vinyl) screen (5 pts)
 - Open eaves, vents not screened (10 pts)

13. What type of siding is used?
 - Metal/Brick/Stone/Stucco/Hardy Plank 0 pt
 - Treated wood or logs 5 pts
 - Vinyl siding or painted wood 8 pts
 - Wood/shake (untreated) 10pts

14. Windows:
 - Double paned 0 pts
 - Single paned 10pts

15. Do windows and doors have 1/8" or smaller metal (non-vinyl) screens attached during the fire season to prevent embers flying into the structure?
 - Yes 0 pts
 - No 10 pts

16. Structure Recommendations:
 - Regularly remove accumulated debris (leaves, needles, and moss) from gutter and roof and prune overhanging limbs. Accumulated debris can cause direct flame to come in contact with your roof 0 pts
 - Repair gaps in roofing, these provide openings where embers can collect 0 pts
 - Enclose eaves or maintain them so they are clear of combustible material (leaves, needles, nests) 0 pts
 - Cover vents with 1/8" or smaller metal (non-vinyl) screen 0 pts
 - Consider replacing wood shake shingles and other combustible materials that make up the roof and/or siding with less combustible alternatives during times of routine repair, maintenance, or replacement 0 pts
 - None noted 0 pts

17. Decks, Porches and Balconies:
 - Not present, or present with fire resistant material, skirted (0 pts.)
 - Combustible material, skirted (2 pts.)
 - Combustible material, not skirted (6 pts)

18. Storage of firewood and other combustibles:
 - None stored within 101 ft of structure 0 pts
 - Storage between 31 to 100 ft of structure 2 pts
 - Storage within 30 ft of structure 10 pts

19. Is a wood fence attached to the structure?
 - Yes 3 pts
 - No 0 pt

20. If fuel tanks are present, are they located greater than 10 ft from structures?
- Yes 0 pts
 - No 5pts
 - Not present 0 pts
21. If fuel tanks are present, is the area clear of burnable vegetation for 10 ft?
- Yes 0 pts
 - No 5 pts
 - Not present 0 pts
22. Surrounding Area Recommendations:
- Enclose decks and eaves with 1/8" or smaller metal (non-vinyl) screen metal screen and/or maintain a clear non-combustible area underneath 0 pts
 - Store firewood and other combustibles a minimum of 30' from your structure 0 pts
 - Have propane tanks been installed a minimum of 10' from your structure. Make sure that area around tanks is well maintained to be free of grass and other combustible material. 0 pts
 - Cushions on deck furniture are combustible and can be considered a fuels risk. When you are not home and these items are not in use, store them away from your structure. 0 pts
 - Remember that lawnmowers, RVs, ATVs and other mechanized equipment often contains gasoline, these items should be stored away from your structure (preferably in an enclosed area) when you are not home and these items are not in use. 0 pts
 - None noted 0 pts

4 ft Zone (consider each side of the building as 25% of the total)

23. Is there a non-flammable fuel break around the structure?
- All sides of the home have been treated 0 pts
 - 3 sides of the home have been treated 5 pts
 - 2 sides of the home have been treated 7 pts
 - 3 or more sides of the home are untreated 10 pts
24. Is all leaf and litter cast cleaned and removed on a regular basis, so that there is no contact with the siding?
- All sides of the home have been treated 0 pts
 - 3 sides of the home have been treated 5 pts
 - 2 sides of the home have been treated 7 pts
 - 3 or more sides of the home are untreated 10 pts
25. Is all vegetation within this zone restricted to fire resistant species that are well maintained (i.e. irrigated with dead material removed)?
- All sides of the home have been treated 0 pts
 - 3 sides of the home have been treated 5 pts
 - 2 sides of the home have been treated 7 pts
 - 3 or more sides of the home are untreated 10 pts
26. Is landscaping material non-flammable (i.e. rock vs. bark mulch)?
- All sides of the home have been treated 0 pts
 - 3 sides of the home have been treated 5 pts
 - 2 sides of the home have been treated 7 pts
 - 3 or more sides of the home are untreated 10 pts

30 ft Zone

27. Is the grass in the zone maintained (i.e. irrigated and mown)?
- All sides of the home have been treated 0 pts
 - 3 sides of the home have been treated 5 pts
 - 2 sides of the home have been treated 7 pts
 - 3 or more sides of the home are untreated 10 pts

28. Is all dead vegetation and ladder fuel removed?
- All sides of the home have been treated 0 pts
 - 3 sides of the home have been treated 5 pts
 - 2 sides of the home have been treated 7 pts
 - 3 or more sides of the home are untreated 10 pts
29. Have trees been pruned to 18 feet? (for small trees prune one third the live crown by volume)
- All sides of the home have been treated 0 pts
 - 3 sides of the home have been treated 5 pts
 - 2 sides of the home have been treated 7 pts
 - 3 or more sides of the home are untreated 10 pts
30. Is shrub spacing 2.5 times shrub height or greater? (i.e. 4 foot shrub; 10 foot spacing)
- All sides of the home have been treated 0 pts
 - 3 sides of the home have been treated 5 pts
 - 2 sides of the home have been treated 7 pts
 - 3 or more sides of the home are untreated 10 pts
31. Have trees been thinned to 15 foot spacing between crowns?
- All sides of the home have been treated 0 pts
 - 3 sides of the home have been treated 5 pts
 - 2 sides of the home have been treated 7 pts
 - 3 or more sides of the home are untreated 10 pts

30 to 100 ft Zone

32. Is all dead vegetation and ladder fuel removed?
- All sides of the home have been treated 0 pts
 - 3 sides of the home have been treated 5 pts
 - 2 sides of the home have been treated 7 pts
 - 3 or more sides of the home are untreated 10 pts
33. Have trees been pruned to 10 feet? (for small trees prune one third the live crown by volume)
- All sides of the home have been treated 0 pts
 - 3 sides of the home have been treated 5 pts
 - 2 sides of the home have been treated 7 pts
 - 3 or more sides of the home are untreated 10 pts
34. Is shrub spacing 2.5 times shrub height or greater? (example: 4 foot shrub; 10 foot spacing)
- All sides of the home have been treated 0 pts
 - 3 sides of the home have been treated 5 pts
 - 2 sides of the home have been treated 7 pts
 - 3 or more sides of the home are untreated 10 pts
35. Have trees been thinned to 10 foot spacing between crowns?
- All sides of the home have been treated 0 pts
 - 3 sides of the home have been treated 5 pts
 - 2 sides of the home have been treated 7 pts
 - 3 or more sides of the home are untreated 10 pts
36. Calculated Management Zone Rating (CMZ) _____ This rating is defined as the probability of a homeowner's structure survivability without personnel (homeowner, wildland firefighters, or structural firefighters) present to protect an individual's property during a wildfire event.
37. Calculated Management Zone Class
- Low 0-40 pts
 - Moderate 41-100 pts
 - High > 100 pts

Other important discussion prompts (these questions won't be used to determine the CMZ)
- all are 0 pts

38. Is there more than one ingress/egress route to the structure?
- Yes 0 pts
 - No 0 pts
39. Aspect of topographic features surrounding the structure?
- N
 - NE
 - NW
 - E
 - W
 - S
 - SE
 - SW
 - Flat
40. Overall slope of the area within 300 ft of the house.
- 0-10%
 - 11-20%
 - 21-30%
 - >30%
41. Other dangerous topographic features present within 300 feet of structure:
- Midslope
 - Steep draws/ravines
 - Box canyon (chimney)
 - Ridgetop
 - None present
42. Location of septic tank from home site:
- North
 - South
 - West
 - East
 - None present
43. Type of utility lines:
- Underground electrical
 - Above ground electrical w/ ROW maintained
 - Above ground w/ poorly maintained ROW
 - None present
44. Are bridges accessing the private property?
- Present and rated
 - Present and unrated
 - None present
45. Are there gates accessing the private property?
- Gates with locks present
 - Gates with no locks present
 - No gates present
46. Is the structure within a structural fire protection district?
- Yes
 - No

- 47. Describe the water supply available to responding fire trucks.
 - Pond or stream is accessible and available for drafting
 - Pond or stream is available for drafting with a portable pump.
 - 12' diameter by 36" depth pool (1800 gallons) or larger filled with water
 - 2000 Gallon reservoir – may be required in some jurisdictions
 - Private well (25 gallons/minute or greater)
 - Fire Hydrant
 - No reliable water supply present

- 48. Describe the location of any heating fuel shutoff in relation to home site.
 - North
 - East
 - South
 - West
 - None present

- 49. Describe the location of the electrical power shutoff in relation to home site.
 - North
 - East
 - South
 - West
 - None present

- 50. What items present serious risks to responders?
 - Access
 - Poor escape routes/safety zones
 - Propane tanks
 - Medical oxygen
 - Pets
 - Livestock
 - Hazardous materials
 - Dynamite or blasting caps
 - Other (please list) _____
 - None

- 51. How many buildings are located on the residential site (including outbuildings)?
 - 1
 - 2
 - 3
 - 4
 - 5
 - 6 to 10
 - >10

52. Record the photo number(s) _____

53 Additional notes:

The above information can be compiled and summarized by a RedZone or GIS software program. This program is encouraged but not required. However, all parties conducting home site evaluations across the state are encouraged to use this form to promote consistency at a statewide level.