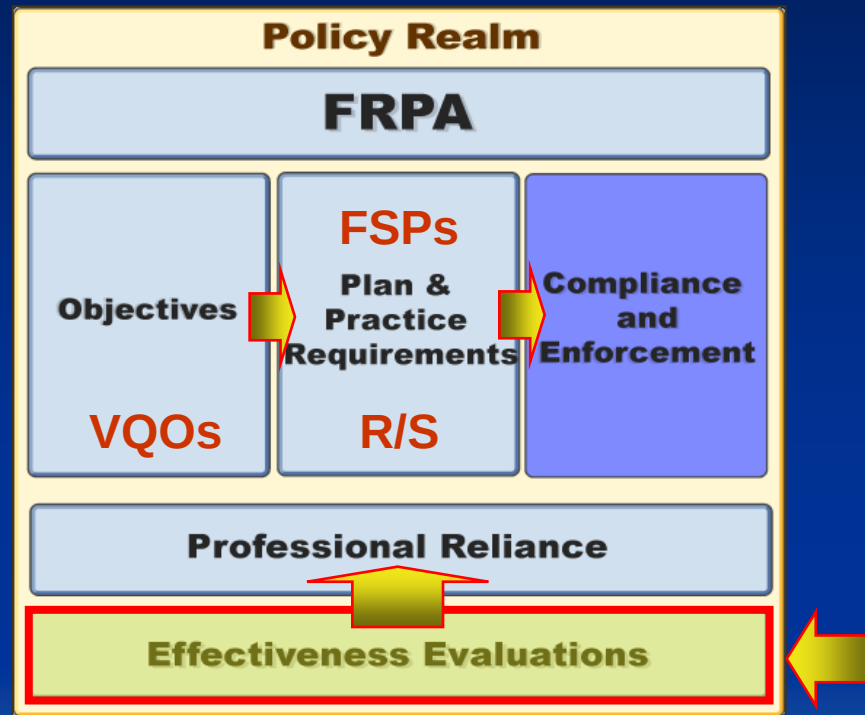


Visual Effectiveness Evaluations

Ensuring Good Visual Stewardship



One of the foundations of the *FRPA* functional architecture is Effectiveness Evaluations.



Forest and Range Evaluation Program



The MFLNRO Forest and Range Evaluation Program (FREP) was developed to collect high quality, science-based information for decision making and in support of continuous improvement of forest practices, policies, and legislation in British Columbia.

Visuals is one of the 11 values included under the FREP umbrella.

Effectiveness Evaluations

What are they?

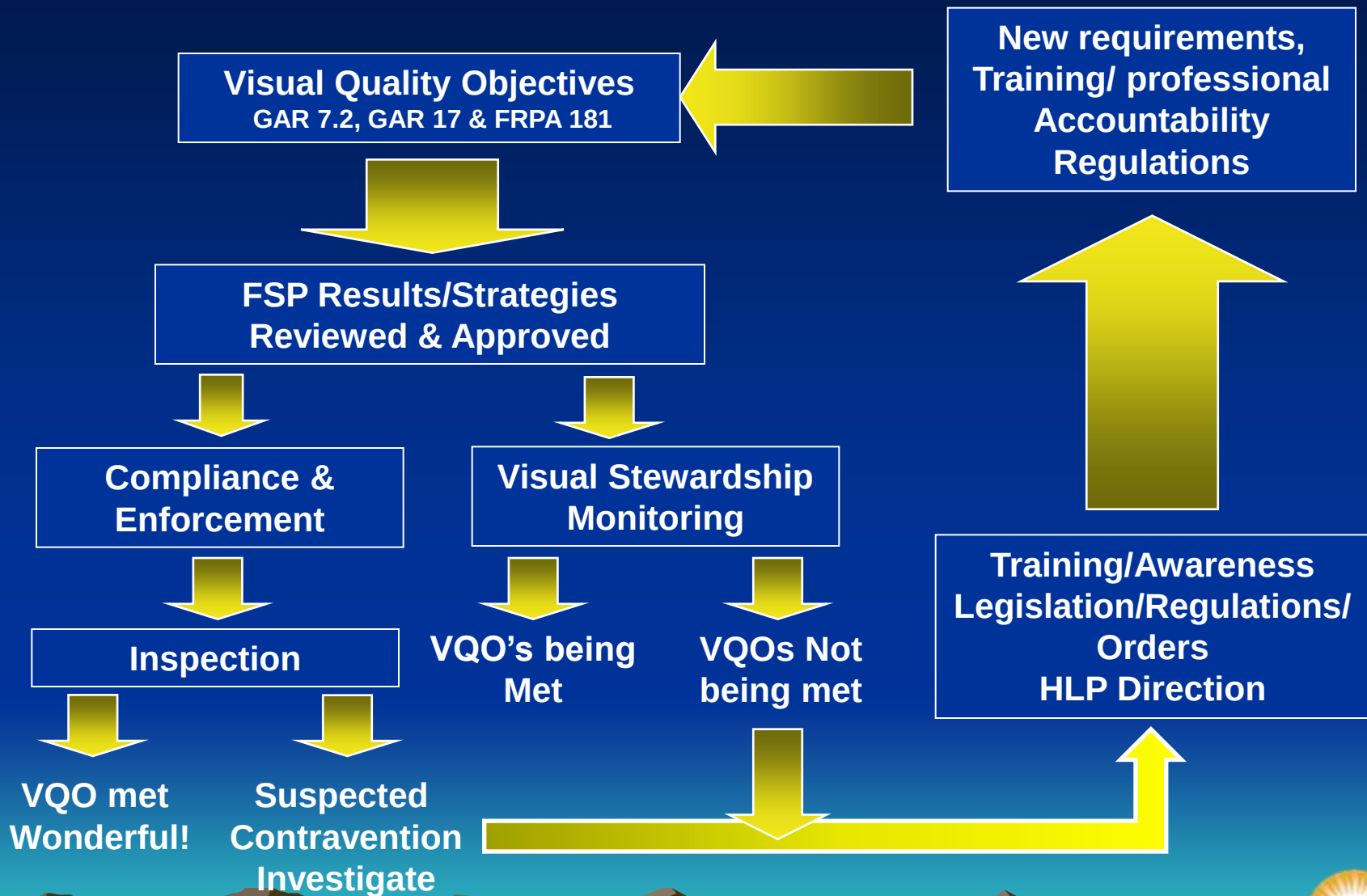
Effectiveness evaluations are about determining if forest and range values are being managed sustainably.

To determine this, an effectiveness evaluation must look at outcomes and trends over time.

Goal:

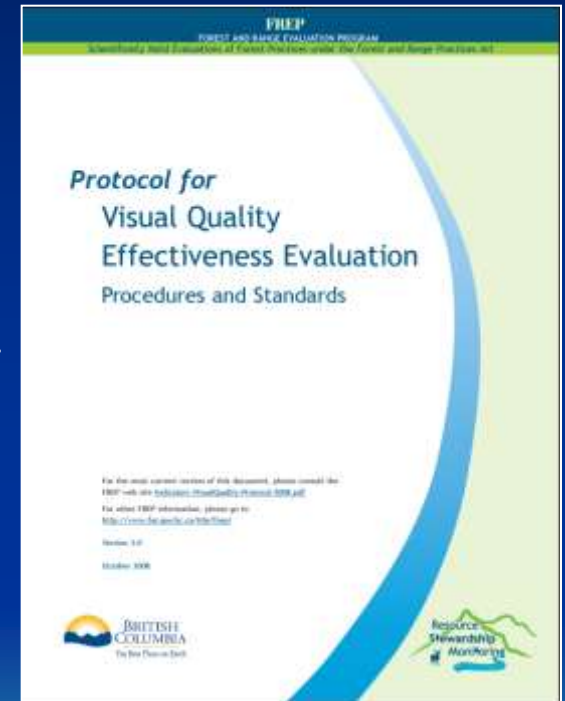
In the case of visual quality, the goal is to determine if the FRPA model is effective at managing and protecting the visual resource and to determine if there are implementation issues with respect to forest policies, practices and legislation.

Visual Continuous Improvement Cycle

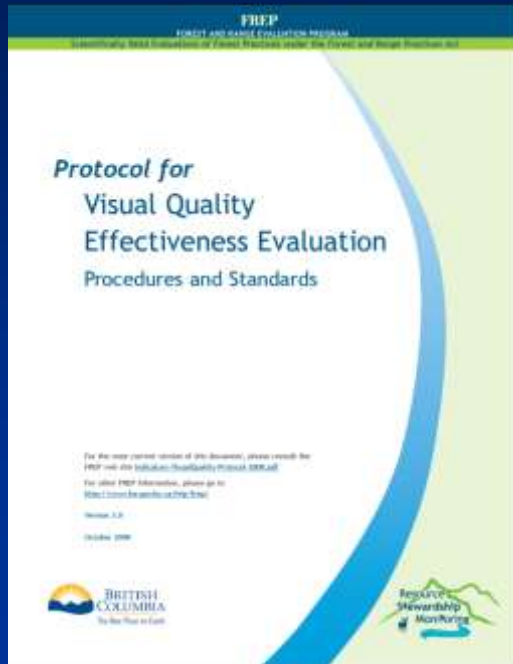


Visual Quality Evaluation Protocol

2004



Visual Quality Evaluation Procedures



Draft document released July 2004.

Protocol published 2007

The procedures & standards were developed to be completed from a single viewpoint and are applied to a randomly-chosen block or blocks. This allows for detailed data collection that can then be rolled up by district, region and/or province.

Procedures field tested on Coquihalla Highway June 2004

Target VQO Retention



Visual Evaluation Procedures

The visual evaluation approach assesses each landform using two independent measures:

1. the basic definition for each category of alteration (VQO) is evaluated through an ocular assessment and;
2. the perspective percent alteration and design elements are assessed using standards and criteria derived through research.

The two measures are combined to determine a final rating.

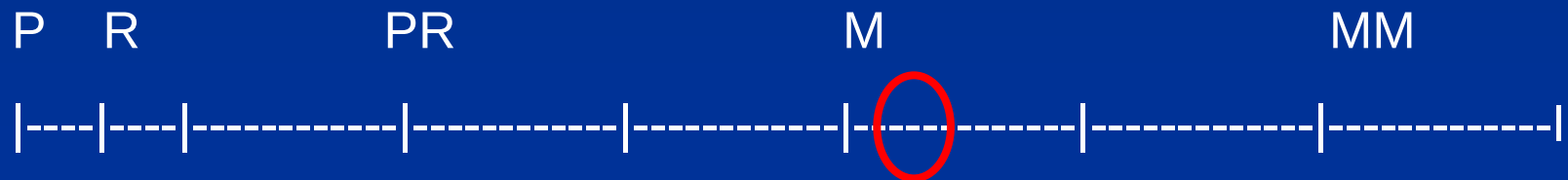
Step 1: Assess Basic Definition (Field)

Alterations meet which
Basic VQC definition?

Circle where in the range
for that VQC:



Basic VQC:



is very easy to see, and is (A) large in scale and natural in its appearance, or (B) small to medium in scale but with some angular characteristics;

Step 2: Numerical & Design Assessments



2.2.4 Design Observations (Field)

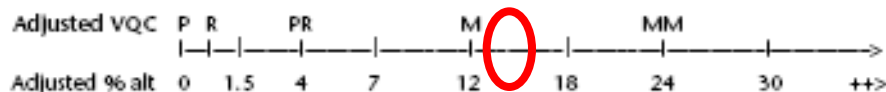
Design Elements:	G (-1)	M (0)	P (+1)
Response to visual force lines	-----	-----	X
Borrows from natural character	-----	-----	X
Edge treatments incorporated	-----	-----	X
Distance from the viewpoint	-----	-----	X
Position on the landform	-----	-----	X
Total Design			+ 5

2.3.2 Assess Initial VQC (Office)

a) % of landform altered by openings	7.3
b) % of landform in access roads (outside openings)	0
$X = (a+b) = $ 7.3 $ $ % alteration	M
Initial VQC	

2.3.3 Assess Adjusted VQC (Office)

c) Impact of roads, side cast, etc. (within openings)	
☐ None X Subordinate ☐ Significant ☐ Dominant	Adj. Factor +1
d) Tree retention	
☐ Good ☐ Moderate X Poor	Adj. Factor 0
e) Design (enter total from 2.2.4 above)	Adj. Factor + 5
Total adjustment $Y = (c+d+e)$	Adj. Total + 6
Calculate adjusted % alteration	$X*(1 + 0.14*Y) = $ 13.4



Determine Final EE Rating by comparing the VQO derived by ocular assessment with that derived through the numerical/ design assessment.



2.3.5 Determine EE rating for the Landform by comparing Basic VQC with Adjusted VQC (Office)

- | | | |
|---|--|---|
| 1 | ☐ Clearly not met | (Neither method indicates VQO achievement, both are far from class boundary) |
| 2 | ☐ Not met | (Neither method indicates VQO achievement, but both are close to class boundary) |
| 3 | ☐ Borderline | (One method indicates VQO achievement, one does not) |
| 4 | ☐ Met | (Both methods indicate VQO achievement, but one or both are close to the high end "maximum % alteration limit") |
| 5 | ☒ Well met | (Both methods indicate VQO achievement and are on the lower % alteration limit or mid-range for the class) |

Established VQO M

Exercise #1-5



Conduct an EE on this opening.

Exercise #1- 5

Step 1: Carry out ocular assessment.

Mark your position on line using VQO definitions

Basic VQC:



Exercise #1- 5

Step 2: Analyse opening from an numerical & design perspective and fill in the form accordingly.

2.2.4 Design Observations

Response to Lines of Force “**Poor**”.

Distance from the viewpoint **2.3 Km.**

2.3.2 Assess Initial VQC

Initial % alteration **8.7%**

Exercise #1-5

2.2.4 Design Observations (Field)

Design Elements:	G (-1)	M (0)	P (+1)
Response to visual force lines	_____	_____	X
Borrows from natural character	_____	_____	X
Edge treatments incorporated	_____	X	_____
Distance from the viewpoint	_____	X	_____
Position on the landform	_____	_____	X
Total Design	_____	_____	+3

2.3.2 Assess Initial VQC (Office)

a) % of landform altered by openings	_____	8.7
b) % of landform in access roads (outside openings)	_____	0
$X = (a+b) =$ 8.7 % alteration	Initial VQC	M

2.3.3 Assess Adjusted VQC (Office)

c) Impact of roads, side cast, etc. (within openings)		
☐ None X Subordinate ☐ Significant ☐ Dominant	Adj. Factor	+1
d) Tree retention		
X Good ☐ Moderate ☐ Poor	Adj. Factor	-2
e) Design (enter total from 2.2.4 above)	Adj. Factor	+3
Total adjustment $Y = (c+d+e)$	Adj. Total	+2
Calculate adjusted % alteration	$X(1 + 0.14*Y) =$	11.1

Adjusted VQC	P	R	PR	M	MM	
Adjusted % alt	0	1.5	4	12	18	24 30 ++>



$$8.7 \times [1 + (0.14 \times 2)] = 11.14\%$$

Exercise #1- 5

Established VQO PR

2.3.5 Determine EE rating for the Landform by comparing Basic VQC with Adjusted VQC (Office)

- 1 ☒ Clearly not met (Neither method indicates VQO achievement, both are far from class boundary)
- 2 ☐ Not met (Neither method indicates VQO achievement, but both are close to class boundary)
- 3 ☐ Borderline (One method indicates VQO achievement, one does not)
- 4 ☐ Met (Both methods indicate VQO achievement, but one or both are close to the high end "maximum % alteration limit")
- 5 ☐ Well met (Both methods indicate VQO achievement and are on the lower % alteration limit or mid-range for the class)



How effective have we been at Managing Visuals under FRPA?

Two projects:

- Standard FREP sampling
- FSP R/S Review

How effective are we at Managing Visuals under FRPA?

Between 2006 and 2008 FREP sampled 234 landforms within 15 participating districts. Between 2009 and 2012 FREP sampled 407 landforms within 22 districts.

Data was collected by district staff and contractors.

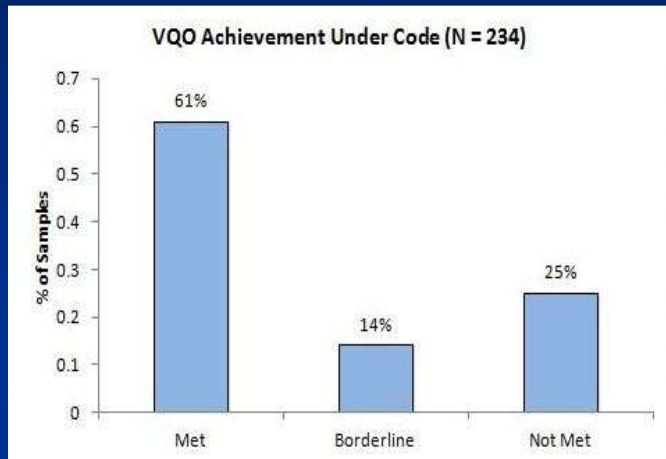
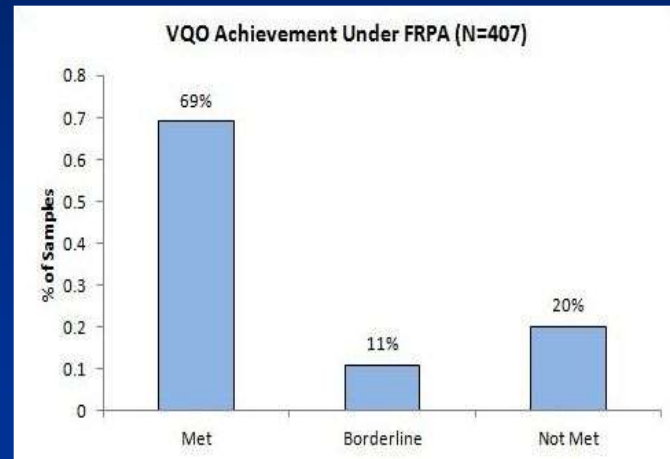
All samples were vetted through a quality assurance process.

Analysis was carried out using Excel graphing tools.



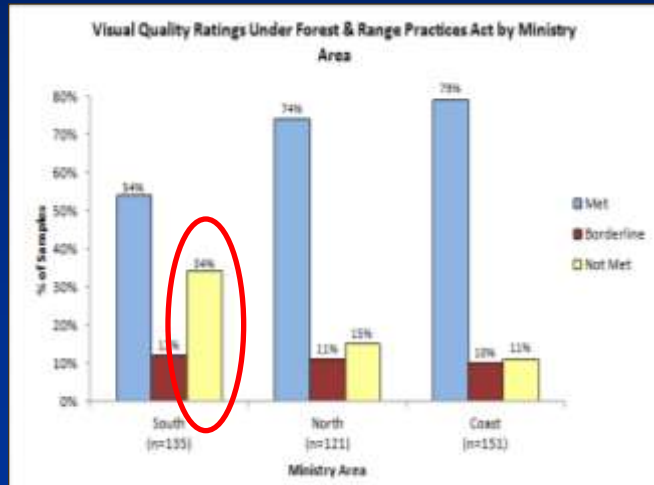
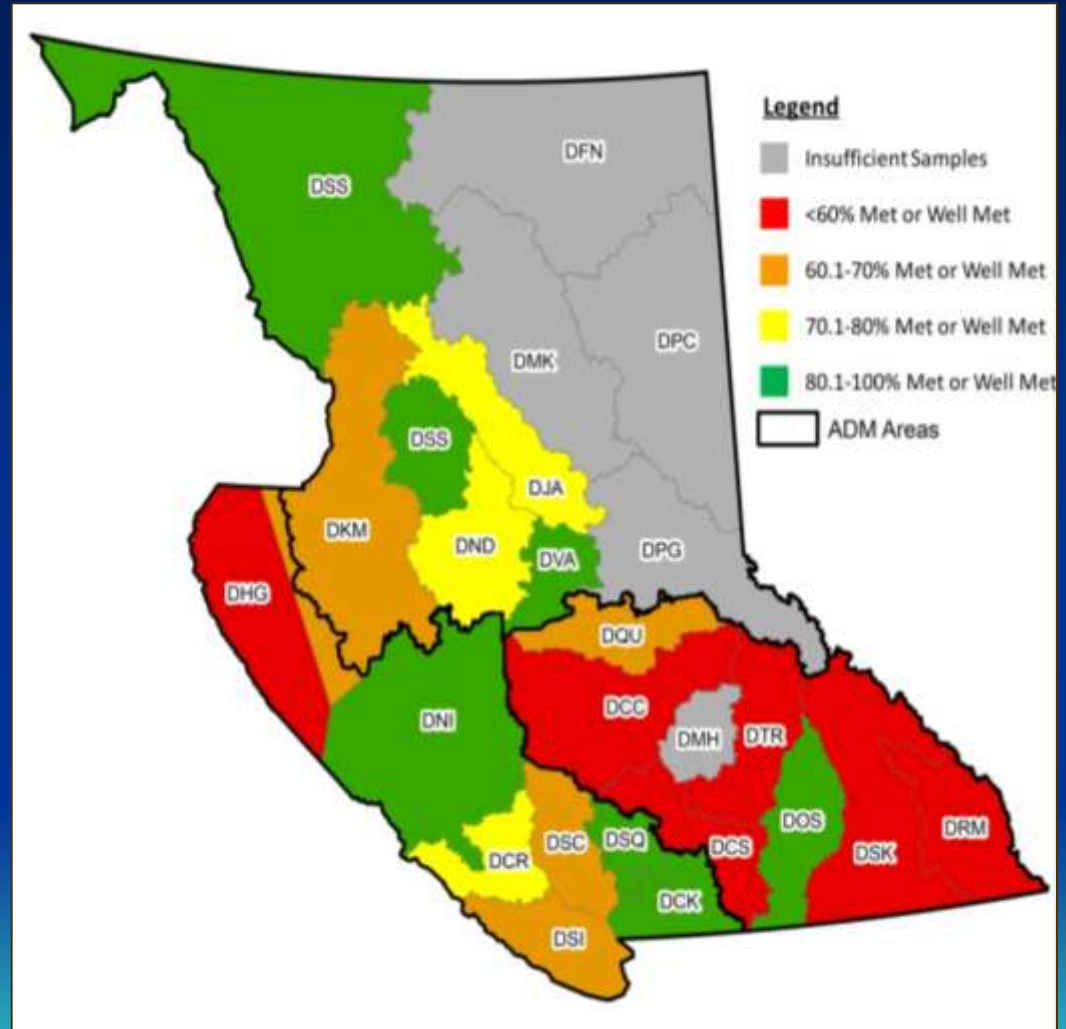
Question 1:

To what extent are VQOs achieved under the Forest and Range Practices Act?



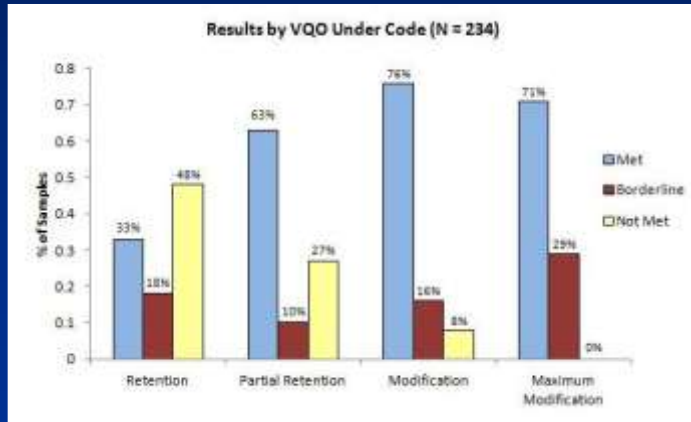
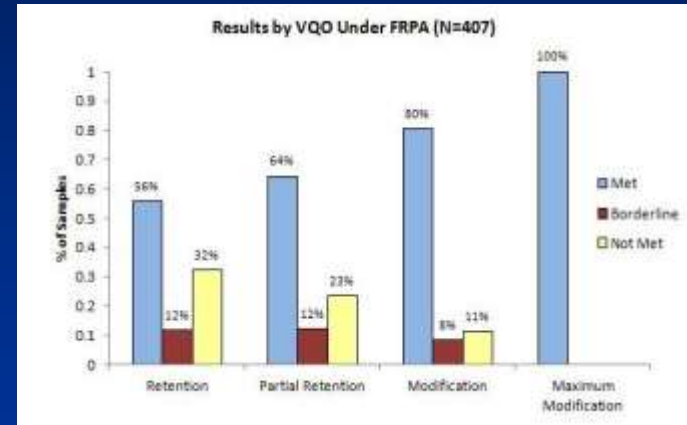
Observation: Under the Code VQO's were achieved on average 61% of the time. Under FRPA the achievement rate is 69% provincially.

Map showing proportion of FRPA samples meeting VQOs by District



Question 2:

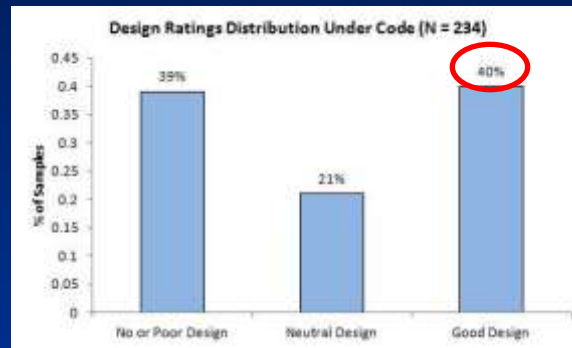
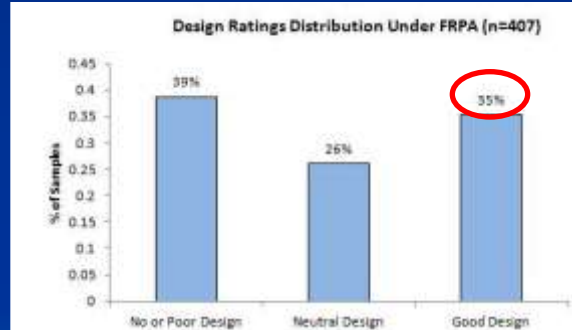
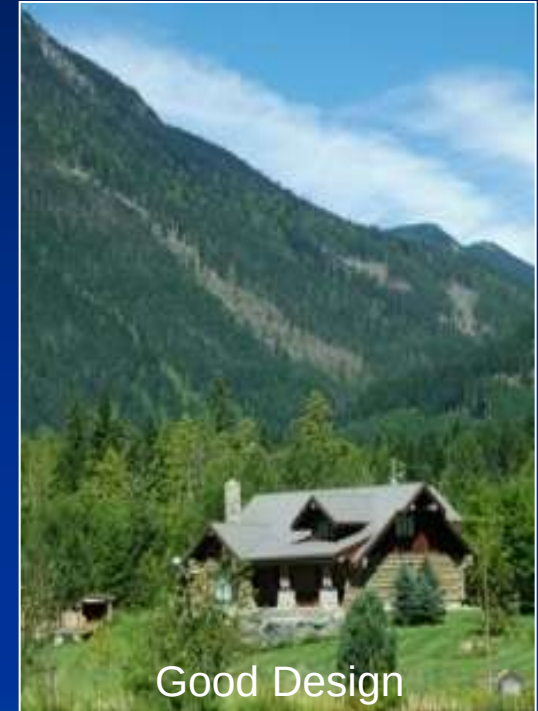
Does VQO achievement vary by VQO class?



Observation: Retention VQOs on highly sensitive landscapes have improved from 33% to 56% under FRPA. Partial Retention VQOs have remained about the same - 63% under the Code and 64% under FRPA.

Question 3:

To what extent are visual design concepts and principles being applied in harvest planning?



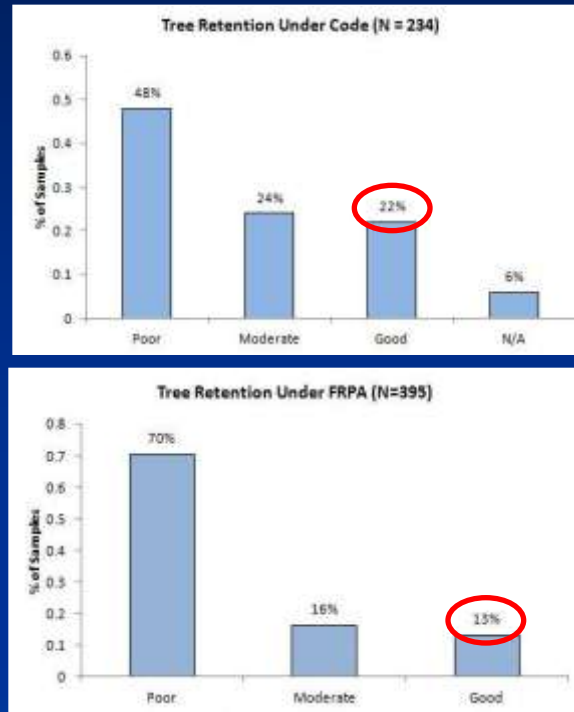
Observation: Well designed forest alterations have dropped from 40% to 35% under FRPA. This is of concern since visual design is a key tool in meeting VQOs.

Question 4:

What levels of tree retention are being implemented within harvest openings to achieve VQOs?



In-effective Retention



Effective Retention

Observation:

Visually effective tree retention (22% and greater) has dropped from 22% to 13% under FRPA. Again, this is of concern since tree retention is an important tool in meeting VQOs.

Evaluation Take Home Messages

Visual Management success in meeting VQOs continues to struggle under FRPA.

- Consistency with VQOs is up 8% provincially, however 75% (18 of 24) Districts are still performing below the 80% success level.
- Under FRPA, Retention VQOs are achieved 56% of the time while Partial Retention is achieved 64% of the time. There is room for significant improvement on our most sensitive landscapes.
- Application of visual design principles is dropping. Well designed samples slipped from 40% to 35% under FRPA.
- Visually effective tree retention has dropped from 22% to 13% under FRPA.

Questions & Discussion?

