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| Module - The Mighty Engine |
| Overview |
| Goal: Students should be able identify engine types and capabilities upon arrival on scene. Students will also gain an understanding of how to deploy and work with them effectively. |

Exercise

Read the following scenarios and choose the type of engine(s) that would be the most effective resource for that scenario. See the engine types at the end of the module for reference.

1) Great Basin Grass Fire

Size: 3,000 AC Location: Pershing County, NV

Fuel Type: cured grass Access: gravel roads

Water Source: reservoir (30 miles away)

Engine Type (circle best option(s)): 1 / 2 / 3 / 4 / 5 / 6 / 7

Justification: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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2) Structure Protection – Wildland Urban Interface

Size: 700 AC Location: Larimer County, CO

Fuel Type: timber, grass Access: mix of paved county and gravel roads

Water Source: limited hydrants, stream (6 miles away)

Engine Type (circle best option(s)): 1 / 2 / 3 / 4 / 5 / 6 / 7

Justification: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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3) Southeast Area Initial Attack

Size: 1/2 AC Location: Caldwell County, NC

Fuel Type: hardwood litter, debris Access: forest road

Water Source: standing water nearby

Engine Type (circle best option(s)): 1 / 2 / 3 / 4 / 5 / 6 / 7

Justification: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4) Pacific Northwest Timber Fire

Size: 1 AC Location: Clallam County, WA

Fuel Type: timber, grass Access: windy mountain road

Water Source: lake, 7 miles away

Engine Type (circle best option(s)): 1 / 2 / 3 / 4 / 5 / 6 / 7

Justification: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| Type 7 Engine  Min. Gallons: 50  Min. Flow: 10 GPM  Min. Pressure: 100 PSI  Min. Personnel: 2 | Type 6 Engine  Min. Gallons: 150  Min. Flow: 30 GPM  Min. Pressure:  100 PSI  Min. Personnel: 2 |
| Type 5 Engine  Min. Gallons: 400  Min. Flow: 50 GPM  Min. Pressure:100 PSI  Min. Personnel: 2 | Type 4 Engine  Min. Gallons: 750  Min. Flow: 50 GPM  Min. Pressure:  100 PSI  Min. Personnel: 2 |
| Type 3 Engine  Min. Gallons: 500  Min. Flow: 150 GPM  Min. Pressure:250 PSI  Min. Personnel: 3 | Type 2 Engine  Min. Gallons: 400  Min. Flow: 250 GPM  Min. Pressure:  150 PSI  Min. Personnel: 3  Ladders: 48’ |
| Type 1 Engine  Min. Gallons: 500  Min. Flow:1000 GPM  Min. Pressure:150 PSI  Min. Personnel: 4  Ladders: 48’  Master Stream: 500 GPM |  |

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