Leadership Intent Message from Patty Grantham, Acting WO Fire & Aviation Management Director

More than 73,000 wildfires burn an average of about 7 million acres of private, state, and federal land in the United States each year. Forest Service firefighters respond to a significant number of those, either because they are assisting another federal, tribal, state, or local partner, or because the fires are burning on national forest system land.

We are in a good position to bring the “greening” fire message to every fire wherever we go. In that way, we can spread a good idea quickly across agencies and the Fire Service. We need to continue being proactive and innovative in conserving energy and water and reducing waste at our fire camps. The Interagency Standards for Fire and Fire Aviation Operations (aka the “Red Book”) includes the following with respect to incident management and environmental sustainability:

- “Every incident should seek opportunities to reduce unnecessary waste and limit impacts associated with management actions. This may be accomplished, for example, by promoting recycling and encouraging the use of alternative energy sources as long as such efforts do not compromise operational or safety objectives” (Source).

As we prepare for Fire Year 2021, those who support fire operations are asked to identify opportunities to apply sustainable business practices and to use the Greening Fire Team tools referenced in this Bulletin and our agency’s Leader’s Intent letter. Actions to reduce consumption of financial and natural resources must be implemented without compromising firefighter and public safety or impeding incident objectives.

Specifically, we expect the following during the 2021 fire year:

- Line Officers: a) include expectations for implementing sustainability Best Management Practices on incidents in the Delegation of Authority and Incident Management Team (IMT) in-briefings and b) provide on-forest assistance with identifying local sustainability resources.

- At Type 1 and 2 incidents, IMTs leverage the On-site Incident Recycling Blanket Purchase Agreement (BPA) to order a recycling contractor to streamline and increase the efficacy of waste diversion efforts, where feasible. This BPA provides on-site recycling services for the Northwest, Northern California, Southern California, and Southwest Geographic Area Coordination Centers (GACCs).

- All other GACCs are encouraged to employ other means (e.g., Emergency Equipment Rental Agreements) to implement incident recycling.

Now more than ever, health and safety are our greatest concern. The unique challenges associated with COVID-19
Present an opportunity to synchronize safety and sustainability, to find ways to be more conscientious, and to think “outside the box.” Let’s work together to pivot our incident management operations in a way that can fulfill these multiple objectives. I look forward to hearing your successes!

GFT Spotlight: Denise Kusnir

Realty Specialist, Delores Ranger District, San Juan National Forest, IMT Team 11-Type 2 (RS) as BCMG, FACL and INVF, U.S. Forest Service National Greening Fire Team Ambassador Program Lead.

1. How did you learn about the Greening Fire Team, and what made you decide to become a GFT Ambassador and then assume the Ambassador Program Lead role?

I learned about the Greening Fire Team (GFT) during the first Annual Southwest Teams Conference when GFT Co-Chair Kelly Jaramillo provided a presentation with an overview of the GFT and the Incident Recycling Blanket Purchase Agreement. My second conference, Kelly introduced me to the Ambassador Program after I offered feedback on my experience (at main and a spike camp) on my first fire as a Base Camp Manager (BCMG). Seeing the potential that I could possibly influence changes as an Ambassador in my new role as BCMG and Facility Unit Leader (FACL) on an IMT was exciting. In February, I was presented with an opportunity to take my involvement one step further by assuming the role of GFT Ambassador Program Lead. I look forward to supporting our current Ambassadors and continuing to recruit new Ambassadors to our growing network!

2. In what roles have you served on incidents, and how do you think your community could play a more pronounced role in “greening fire” in the future?

I have served for 13 years as a firefighter and now 2 years on an Incident Management Team (IMT) on fire incidents in logistics as a BCMG and FACL. I believe the local community, agency administrators, and the local units have huge influence on how IMTs manage incidents. Direction is given on every incident during the initial briefing to the IMT from the local unit on the incident requirements. These vary from community to community, including extraordinary situations as managing COVID. If one of the incident requirements stresses the need to increase waste diversion and reduce related waste management costs, this will create a huge impact on each incident.

3. Do you believe it is important for the USDA Forest Service to take an active role in “greening” fire operations? If so, why?

Yes, all you must do is look to the USDA Forest Service mission and motto to know the answer to this question. The mission of the USDA Forest Service is to sustain the health, diversity, and productivity of the Nation’s forests and grasslands to meet the needs of present and future generations. The phrase “Caring for the Land and Serving
People" captures the Forest Service core competency of protecting and managing the National Forests and Grasslands so we can best demonstrate the sustainable multiple-use management concept. Greening Fire just fits!

4. **Over the years, have you noticed any changes in the USDA Forest Service’s efforts to reduce the environmental footprint of incidents? If so, what changes have been most successful?**

When I first observed contracted recycling on fires around 5 years ago, it made me laugh and think to myself, “That will never work!” I heard the same from my cohorts and those who worked at camp. Yet after years of seeing recycling on incidents function effectively and witnessing the creativity to make great changes in camps, I have seen minds slowly change. Also, young, new firefighters influence their crew members to participate and IMTs to provide the service in camps. It has been exciting to witness a new program take root in a sometimes “change averse” fire world.

5. **Having observed implementation of the On-site Incident Recycling Blanket Purchase Agreement, what suggestions do you have to improve recycling at incidents?**

The BPA works very well if your Dispatch knows how to order them and if there is a qualified vendor available during a busy season. Yet the BPA is only available in four (4) Geographic Areas (i.e., NWCC, ONCC, OSCC, and SWCC) which makes it hard to get the recycling program ordered through the Buying Team in a different Geographic Area. The biggest improvement would be to make the recycling program part of VIPR contracts, like all the other contractors for incidents. This would create the same level of professionalism and credibility to those who have never used recycling on an incident. This would greatly improve efficiency in ordering recycling to an incident and creating a fair rotation for the contractors.

6. **As you know, the Department of Energy National Renewable Energy Laboratory (NREL) investigated “greening fire” best practices at fire camps and published a compilation of recommendations. Which NREL recommendations do you feel we should focus on in the future?**

NREL has some great recommendations in this publication.

One that stands out to me is the multiple meal-size options. Other countries and CalFire use this tool successfully with 2 types of meals, Regular and Admin. This is a recommendation that is already implemented successfully that we can easily replicate on federally managed incidents.

The second one that would be easy to implement, and was seen used successfully in Australia this year, was replacing sport drinks with electrolyte powders. The amount of waste, storage, and hauling capacity you need for sport drinks compared to electrolytes is much greater. You can see a shift in firefighter behavior moving for the past 6+ years now to electrolytes. I know I always had my own personal cache of electrolytes that I would bring to each fire, as did most on my fire crew. Also, the medical world is now seeing the positive impacts that electrolytes can have to reduce medical incidents due to dehydration on fires.

Finally, recycling is clearly key. This is such an easy way for logistics to reduce waste, costs, and labor needs on every incident.

7. **What else should our GFT Bulletin readers know about you?**

I am excited to see the USDA Forest Service moving towards more creative ways to protect our public lands and communities for the current and future generations. I am still young in my career, and I cannot wait to see what will happen in the future. I just hope I can help move ideas forward and impact change as often as I can!
GFT Ambassador Feature

Our GFT Ambassadors are integral to advancing our mission and vision and amplifying our messaging. Starting with this Bulletin, we will be featuring one of our all-star Ambassadors in each release. We hope this will foster a sense of connection. Be on the lookout for someone you know!

Name, Title, Role on Incidents, and Home Agency/Duty Station

Nick Swagger  
Fuels Technician, Logistics Section Chief with Pacific Northwest Team 2  
USDA Forest Service, Deschutes National Forest (Bend, OR)

2020 “Greening Fire” Accomplishment Summary

Hosted recycling contractors on incidents in USDA Forest Service Region 5 in 2020, plus coordinated small-scale, local recycling on Type 3 fires in the Northwest Area.

Folks are asking, “Are we getting recycling on this incident like we had on the last one? It was really easy to recycle!” This is an excellent sign. The word is getting out. Recycling works!

Greening Fire Team Ambassador Program Update

The Greening Fire Team Ambassador Program, launched in April 2020, continues to gain momentum. Now up to 90 Ambassadors, this network is beginning to coalesce and guide the GFT into a more field-grounded and interagency space.

Table 1. GFT Network by Agency (as of April 2021)

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<th>Agency</th>
<th># of GFT “Core Team” Members and “Ambassadors”</th>
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I wanted to remind you of the GFT Ambassador Program expectations:

1.) As a GFT Ambassador, we respectfully ask that you consider committing at least one year to this role from the time of your pledge. During this time, we request your help with receiving, sharing, and acting on important communications about increasing awareness and aligning actions towards sustainably conducting incident management operations.

2.) GFT Ambassadors choose and accomplish tasks in a “Level of Involvement” (LOI) that suits their interests, passions, and capacity. Ambassadors are asked to implement two (2) action items within two (2) Footprint Areas for the target LOI. Ambassadors are asked to complete a brief survey to document their accomplishments at the end of each season.

Actions GFT Ambassadors can take (based on their LOI) are posted on the GFT website.

Here are resources that the GFT Core Team and Ambassadors have created for the FY21 Fire Year:

- Incident Recycling BPA “Why, What & How” (2-page justification & resource guide)
- Forest Focus Podcast (Topic: Incident Recycling) – Just for Fun!

To sign up as a GFT Ambassador, email the GFT Shared Inbox: SM.FS.greeningfire@usda.gov.

- In the Subject Line write: “GFT Ambassador Program Sign Up”
- In the Message Body, provide the following:
  - Contact information
  - Level of involvement (bronze, silver, gold, platinum)
    - Reference the Master LOI Matrix
  - Tasks you would consider completing over the next year
    - Reference the Master LOI Matrix

On-site Incident Recycling BPA – Results from 2020 and Preparing for 2021

On-site Incident Recycling services are available for interagency incidents in Arizona, New Mexico, Washington, Oregon, and California. These services were piloted as part of a three-year Blanket Purchase Agreement (BPA), and 2021 marks the third and final pilot year. Changes are expected in 2021, and a new, expanded BPA is scheduled to launch in 2022.

In 2019, incident recycling was ordered on nine Type 1 or 2 fires (5 in the SWCC, 3 in the ONCC, and 1 in NWCC). The recycling vendors and IMTs diverted 46% of the waste from fire camps. In 2020, incident recycling was ordered on 14 incidents (over 50% increase in orders from 2019). Trash per capita in 2020 roughly doubled from 2019 (largely due to “to go” meal-related waste). Although recycling volumes per capita are roughly consistent with last year, the overall diversion rate dropped (due to the increased trash).
Waste diversion rates from teams in most GACCs were just under 30%, while teams in ONCC were closer to 40%. Four of the five BPA vendors were ordered in 2020 (HumanEco Consulting, LLC, Meadowhawk Recycling, Triple Flare, ZeroHero, and Knowaste).

All incident recycling vendors followed COVID-related guidelines and took proper precautions; a subset of them have engaged OSHA consultants in advising on risk mitigation measures related to managing solid waste and recycling.

Shawn Heinert, a Type 1 Facilities Unit Leader from the Northern Rockies Coordination Center (NRCC), shared his experience with and without recycling on two large incidents in 2020. On the Woodward fire in California, the dumpster service simply could not match the volume of garbage being generated by the incident. He did not know that he could have requested on-site incident recycling services. Later, when arrived on the Slater/Devil fire spanning California and Oregon, he was surprised to see contracted incident recycling in action. This incident had twice as many personnel as the Woodward, but the same number of dumpsters.

Shawn further shared:

“The recycling service contractor assigned to the Slater-Devil Fire in 2020 proved to be very valuable. It was a very demanding time with limited resources available to help manage multiple spike-camps and a large base camp. Waste management companies struggled to meet the demand of the local communities and the needs of Fire Camp. The result of having the recycling service’s presence and full-time attention to waste management ultimately reduced the number of times dumpsters required tipping by half each week. Camp crew resource orders were unable to be filled due to the shortage of availability. As a result of the recycling/sanitation service, the fire camp was able to operate with one 11-person camp crew and maintain duties associated with servicing up to 1500 personnel.”

Because the incident recycling vendor was diverting so many recyclables from the waste stream, these dumpsters only needed to be hauled to the landfill once a week. The team achieved a 43% waste diversion rate and diverted 37,000 pounds of materials and 3,600 pounds of non-perishable food!

By diverting recyclables out of the waste stream, the National Greening Fire Team estimates that trash hauling costs can be reduced 50-80% on incidents, which could mean a savings of anywhere up to $18,000 per week, depending on the location and size of the incident.

The GFT is currently modifying the incident recycling BPA to address changes to fire operations brought on by COVID-19 mitigation measures, to include decentralized operations. These changes are intended to manage expectations while maximizing flexibility in the field.

In 2021, incident recycling can be easily ordered using the BPA in Arizona, New Mexico, Washington, Oregon, and California. Incidents outside of these states can request on-site incident recycling services using an Emergency Equipment Rental Agreement (EERA). The GFT website includes EERA resources, such as a sample scope of work and a list of vendors that are capable of providing nationwide, on-site incident recycling.
The GFT intends to launch a new on-site incident recycling BPA in 2022 that includes expanded service to many more Geographic Area Coordination Centers in the country. This is in response to survey results from interagency Logistics professionals across the country requesting the ability to easily order on-site incident recycling from a BPA in the Rocky Mountain, Northern Rockies, Great Basin, Southern Area, Eastern Area, and Alaska Geographic Area Coordination Centers.

The GFT maintains the most current tools, resources, and information on the incident recycling program on their public website. You can also contact the GFT at SM.FS.greeningfire@usda.gov with any questions or ideas that you may have.

**Resources – Hot off the Press**

- **Attention Food Unit Leaders! Expect Mobile Food Service Contract Changes to Reduce Waste**
  - The following catering contract updates planned for 2021 will reduce waste generation at ICPs and/or increase the proportion of the waste stream that can be recycled:
    - Single-serve containers shall follow C.23 AFFIRMATIVE PROCUREMENT OF BIOBASED PRODUCTS UNDER SERVICE AND CONSTRUCTION CONTRACTS (FAR 52.223-2) (SEP 2013).
    - Polypropylene containers - recyclable (#5 recycle) - shall be used for the hot portions of the hot breakfast and hot dinner meals.
    - Bio-based or other disposable clamshells and containers shall be used for the cold portions of breakfast and dinner.
    - Hot cereal shall be packaged separately in Bio-based or other disposable containers.
    - Single-serve containers shall NOT contain polystyrene foam.
  - Additionally, while not included in the latest contract modification, caterers agree to allow personnel to use their own reusable utensils and mugs.

- **Attention Agency Administrators! See Sample Delegation of Authority Integrating Sustainability**
  - The Delegation of Authority is where the rubber hits the road. Yet, it may not be immediately apparent how to integrate sustainable operations considerations in previously established templates. Look no further than these GFT-derived examples!

  **Delegation of Authority/Letter of Leader’s Intent Language Suggestions:**

  **BROAD STATEMENT:**
  - Work with [Contact’s Name Here] to incorporate sustainable operations and utilize sustainability best management practices in all incident management activities to minimize environmental, social, and, when possible, fiscal impacts without compromising firefighter and public safety or impeding incident operations.

  **SPECIFIC ACTIONS:**
  - Implement sustainability best management practices (BMPs), as described in this letter and as outlined in the 2019 Department of Energy National Renewable Energy Laboratory *Opportunities for Energy, Water, and Waste Reduction at U.S. Forest Service Fire Camps* Report, that are applicable to your incident.
  - Utilize on-site recycle services to collect, sort, transport, and report on waste diversion rates throughout the incident.

  - A sample Delegation of Authority incorporating a strategic subset of sustainable operations considerations is available for review on the GFT Pinyon Site (internal).
Fun Facts

- **90** – The current number of Greening Fire Team Ambassadors in our network!
- **5** – The number of clamshell meals each Cambro box can hold.
- **30%** – 2020 waste diversion rates from teams in most Geographic Areas were just under this value due to a ~50% increase in trash volumes due to single-use containers/meal-related waste.
- **37,000** – The number of pounds of materials diverted from the landfill due to ordering contracted recycling at the Slater-Devil fire spanning California and Oregon.

-- END --