THE MCLURE FIRE AUGUST 2003

LESSONS LEARNED



RECOMMENDATIONS FOR COMMUNITY PREPAREDNESS AND MITIGATION

"Our local people are taking the wisdom that they received from the fire and are working with it to try and develop stuff that is going to make a difference"

THE MCLURE FIRE 2003

LESSONS LEARNED



Photo Courtesy of John Dale

"The whole experience was like a dream, you can't actually believe it's happening and even after this day when you go through McLure and Louis Creek...oh dear. This did happen!

It's still really unbelievable."

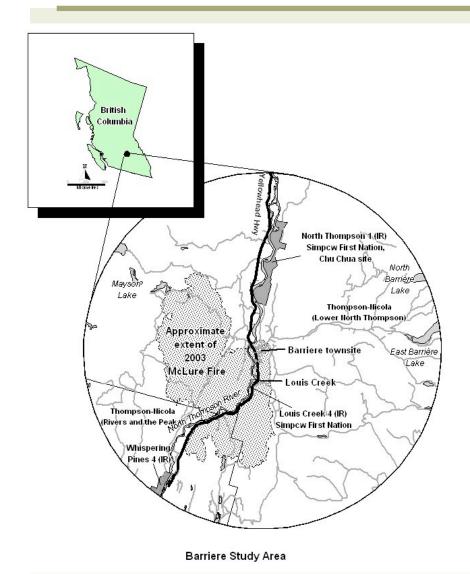
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BACKGROUND

THE VALLEY, BRITISH COLUMBIA, CANADA



ABOUT THE AREA

The Lower North Thompson Valley, or "The Valley" as it is referred to by local residents, includes the communities of Barriere, Louis Creek, Simpow First Nation Chua Chua site, Darfield, Little Fort, and McLure². It is located 81 kms north of Kamloops along the Yellowhead Highway¹.

The North Thompson River, which runs through the Valley was once a main mode of transportation for First Nations people, and afterwards, the fur traders, gold prospectors, ranchers, and settlers¹.

Forestry is an important economic activity in the Valley - with 75% of the area's labour force either directly or indirectly dependent on it². Tourism and agriculture are also important industries for the area².

The Valley is home to approximately 7,059 residents. Barriere, with a population of 2,088, is one of the largest communities within the valley and acts as a main service centre²

In the fall of 2007, the residents of Barriere voted to incorporate and the District of Barriere was created. On November 17, 2007, Barriere community members voted for their first mayor and councillors and a new page in the history of the Barriere community was turned³.

Started in 1949, the annual North Thompson Fall Fair and Rodeo is held each Labour Day Weekend³. The first fall fair drew a crowd of about 500 people. Currently, around 10,000 people attend the fair, which features a nationally recognized rodeo, amusement park rides, demonstrations, exhibitions of livestock, produce, fine arts and crafts as well as a parade and dances in the evening. The Fall Fair is a highlight for the entire North Thompson Valley Area³.

THE 2003 MCLURE FIRE

In August 2003, a state of emergency was declared as the McLure fire burned out of control and forced the evacuation of 3000 valley residents, including the entire town of Barriere³. Hydro services were lost for the area making communication in some areas difficult. The location of the fire resulted in the closure of the Yellowhead Highway—the area's main highway. In order to evacuate, people had to either take a small ferry out of McLure, or drive a windy route north climbing 1311 meters in elevation and then heading south to Kamloops.

The summer of 2003 in British Columbia marked a period of abnormally high temperatures and the driest three-year period on record⁴. Some areas in the southern Interior of B.C. were in the midst of the worst drought in 100 years⁴. Upon detection of the manmade McLure fire on July 30th, B.C. had already experienced 927 fires—189 fires of which were still burning⁵. Local resources such as the Thompson Nicola Regional District (TNRD) as well as provincial resources were taxed trying to attend to so many wildfires. At the same time, there were many fires burning outside of B.C., including in Alberta and California. Out of province firefighters as well as military were brought in to help fight the fire⁴.

The McLure fire lasted over 75 days. Its final size was 26,420 hectares₅. The above map shows the location and size of the fire relative to the area. The total estimated cost of the fire was 31.1 million dollars in addition to 8.2 million dollars in property losses³. In total, 72 homes and 9 businesses were destroyed³. The local Tolko Industries sawmill in Louis Creek was one of the businesses that was burned to the ground. The mill was a main source of employment for many local residents that was never rebuilt after the fire - its destruction left more than 180 employees permanently out of work⁴.

FROM THE MAYOR

BARRIERE, BRITISH COLUMBIA



Photo courtesy of the District of Barriere

In 2003 the lower North Thompson Valley was ravaged by a 26000 Hectare wildfire. The Barriere area lost 72 homes and 9 businesses, and 3800 were evacuated for up to 30 days.

The main part of Barriere was saved because of the heroic efforts of our fire department, other fire departments in the valley, and the local forest workers who stayed to fight the encroaching wildfires.

In June 2007 a vote was held to see if residents of the area wanted to incorporate. On December 4^{th} 2007 our first Council was sworn in and we became The District of Barriere, B.C.s 278th incorporated Community. I believe this came about because of the confidence gained through fighting the wild fires in 2003, and the recovery after.

Barriere is a special community, reliant on the forest industry, ranching and farming, and the tourism industry. We have all the basic services and are close to the large center of Kamloops which has all the amenities. Our area has a very low crime rate and we are becoming a destination for seniors from throughout the Province because of our rural setting and affordable housing.

The future looks very exciting, and as our economy diversifies, and we become a more sustainable community, I believe Barriere will grow and prosper.

Mike Fennell Mayor District of Barriere, B.C.

RURAL COMMUNITIES

Currently, the 20% of Canada's population that is rural lives throughout 99.8% of its landmass. Rural Canadians enjoy a lifestyle that is unique, compared to the majority of the population who still reside within cities. Issues such as youth migration, access to health care services, economic development and community involvement are all central to understanding rural communities.



Photo Courtesy of MDS

Rural to Urban Migration

Statistics Canada reports that there is a large rural-to-urban migration of youth aged 20-24 that is currently taking place, as youth leave their rural communities to pursue greater educational opportunities. However, individuals with a university education are three times more likely to move back to a rural location, after relocating to an urban setting. However, the same is not true for individuals with a grade nine education or less. Rural areas are indeed competitive in attracting community members.

Rural Health Status: What are the Issues?

Residents of rural communities rate their own health lower than residents of urban areas. Risk factors for poor health, such as travel distance to health care services, smoking, and obesity, are considerably higher in rural communities. Significantly higher rates of hypertension and arthritis have also contributed to decreased health and functioning in both rural and northern Canadian areas.

Rural dwellers report a lower likelihood of taking action to improve their health. This diminished health status in rural communities has been recognized by local, provincial and federal governments. Across Canada, healthy lifestyle activities have been initiated, in an effort to increase the level of health experienced by rural and northern Canadians.

One example of these initiatives is the "Kick the Nic" program funded federally in Yellowknife and the Northwest Territories. Similar youth anti-smoking initiatives recognize the dangers of smoking and challenge young rural Canadians to make healthy choices early in life.



Photo Courtesy of Judith C. Kulig

THE BENEFITS OF WORKING TOGETHER



Photo Courtesy of MDS

Community Involvement

Rural Canadians have strong ties to friends and family. Individuals who live in more rural places develop trusting and close relationships with their neighbors. A strong sense of belonging is also common and it is these characteristics that help rural residents work together when facing adversities such as economic downturns and natural disasters.

Furthermore, individuals who experience a sense of belonging feel as though they "fit" in the community and more often participate in its activities. They also self-rate their health as higher than those who do not feel as though they "fit or have a sense of belonging".

COMMUNITY RESILIENCY

Community resiliency has been defined as the ability of a community to deal with adversity and develop a higher level of functioning as a result. It is a process that most communities experience as they interact with their environment, particularly after events such as natural disasters.

What does resiliency look like?

The attribute of resiliency is the result of a dynamic process. Community members working collectively alongside each other will naturally develop a sense of belonging. This sense of belonging and shared outlook leads to community action that demonstrates leadership and conflict-resolution. While these qualities are borne of the specific actions of the community, resiliency does allow for feedback, input and new ideas from external sources.



Photo Courtesy of MDS

What are the benefits of resiliency?

Resilient communities provide good examples for other communities. By understanding how affected communities have coped with adversity, others can benefit from their strategies. Residents of resilient communities carry a local pride that manifests itself in the life-perspective of its members. These community members will exhibit community action as conflict resolution and problem-solving activities occur.

What can be done to increase resiliency?

The social strengths of a community, such as multi-generational families, a healthy cohesiveness between residents and the influence of powerful informal leaders, can be valuable assets in a time of disaster. Resiliency will be promoted once community members increase their recognition that all residents are vulnerable and interdependent.

"Then again, that speaks to the bottom line of rural community and rural gentry. They do what it takes to get things done and will do it as long as it takes to get it done."

FROM THE FIRE CHIEF

THE BARRIERE & DISTRICT FIRE DEPT



Photo Courtesy of Judith C. Kulig

As I look back on the events of the 2003 McLure wildfire, a few thoughts come to mind that I would like to pass on.

In this day and age we take the fact that we are protected from wildfires for granted. As the members of my community and I have learned, this is not the case.

I encourage people to work towards developing a fire safe plan in their homes and within their communities.

Losing all of one's possessions is not an easy thing to cope with. Being firesmart and pre-planning what to do in case of a wildfire will benefit everyone in your community.

- Al Kirkwood, Chief, Barriere & District Fire Department

TIPS TO BE PREPARED:

- Have adequate home insurance and review your insurance plan annually
- Have an updated community disaster plan which includes a back-up community that can assist
- Reduce the risk of wildfire impacting your home by adopting FireSmart® activities - for e.g.:
 - \implies Be familiar with fire protection services in your area
 - ⇒ Remove all brush and debris from around your home to decrease fire fuel
- Be prepared during Fire Season:
 - \Rightarrow Always leave sufficient gas in vehicles
 - \Rightarrow Have cash on hand
 - ⇒ Have a "grab and go" bag for all members of one's family prepared in advance

SONS LEARNED

LESSON ONE

THE MCLURE FIRE

COMMUNICATION

COMMUNICATION WITH ALL INDIVIDUALS WITHIN THE COMMUNITY AFFECTED BY DISASTER IS THE KEY

QUESTIONS REGARDING COMMUNICATION...

- Is there a prepared emergency communication plan including official, community and media contacts and their pertinent information?
- Is there a plan for communicating with the media? Who will brief them, how often and from where?
- Who are the unofficial, local individuals and groups that could be helpful? Who can be contacted to mobilize their assistance?

"The worst thing was not knowing and being left in the dark. If you were told your house was gone you could have started to deal with it, but you got confusing reports. It was terrible. That was one of the biggest things they should have had in place, reliable information in the system to get it out to the public."



Jill Hayward and Mayor Mike Fennell photo courtesy of Judith C. Kulig

From the initial confirmation of a fire, local individuals, administration, local and out-ofprovince firefighters as well as the Thompson Nicola Regional District (TNRD) staff, and different forestry officials, were engaged in frequent communication.

During the McLure Fire a number of communication resources were utilized that helped in inter-agency cooperation and dissemination of information to community members. However there were some communication issues:

Communication proved difficult due to the loss of local hydro services and telephone lines early on during the fire.

There was no main source of communication for officials, community members and the media to obtain information about the fire.

At the time of the fire, the Forestry Incident Command System (ICS) was the main system used to issue orders. However, the system was not unified across the province

People need one main source of communication to receive reliable and timely information during a disaster. After the fire the TNRD, met with the media to discuss their experiences and developed a comprehensive media plan to implement in any future disasters.

Community members need to be involved. Community members mentioned their desire to help during the evacuation process because of their intimate knowledge of the area. There were a large number of individuals living in isolated areas that were not shown on local maps. This made it difficult for search and rescue workers who did not live in the area to issue evacuation notices.

The Province has since developed the "British Columbia Crisis Communications Strategy", an all hazards plan that defines the roles and responsibilities of those involved for major provincial emergencies.

WHO NEEDS WHAT? RECOGNIZING COMMUNICATION NEEDS

COMMUNITY MEMBERS

Community members require diverse information. Individuals desire detailed information regarding the land they know intimately. The public also requires information that is presented in a straightforward manner, free of jargon with clear, concise directions.

THE MEDIA

The media can be a powerful ally for informing and educating the public. Effective planning on getting consistent and accurate information to the media will in the end, benefit community members and ultimately the collective fire effort.

FIRE ADMINISTRATION

Fire administration officials require accurate reports from the "front". With correct information, officials will be better prepared to make decisions. These officials also need regular and candid communication with one another to ensure efficient progress.

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LESSON TWO

MCLURE

LEADERSHIP

WHO IS IN CHARGE

Government officials need to know who the leaders are in a community in order to work together during a wildfire. Often in rural communities there are no obvious leaders for officials to connect with.

Since the incorporation of Barriere and the appointment of a mayor and town council, the leaders in this community are much more visible. It is also important to have a key community contact who is in charge of coordinating with government officials.

LEADERSHIP THROUGH **TEAMWORK**

The Barriere, McLure & Simpow First Nation Fire departments all worked long hours helping to fight the fire. The Chu Chua Fire Department provided the use of both of their fire trucks.

The local volunteer fire departments, out-of-province Rural firefighters play an intefirefighters and the military worked gral role during a wildfire and together to fight the wildfire.

Local community members helped to evacuate people who were less mobile such as the elderly, people with disabilities and people with livestock.

LEADERSHIP COMES FROM THE TOP...

In the province of British Columbia, the B.C. Wildfire Management Branch, which is part of the Ministry of Forest is responsible for wildfire and interface fires on crown land and other non-fire protection areas.

Locally, the Thompson Nicola Regional District (TNRD) is responsible for designated fire protection areas, including Barriere & area.

The Office of the Fire Commissioner is located in Victoria, BC. They were in charge of making decisions during the wildfire including issuing evacuation notices. Victoria is far away from where the majority of the wildfires were burning at this time.



BARRIERE & DISTRICT FIRE DEPARTMENT

Photo courtesy of Ivan Townshend

It is important for people closer to the action to be more involved in making these decisions.

Recently, the Provincial Wildfire Coordination Centre has opened in Kamloops in order to respond faster and more efficiently to wildfires.

Cross training is important to maximize efficiency and ensure that local firefighters can contribute as much as possible during a wildfire. This means that in addition to training

in structural firefighting, rural firefighters have the proper training, clothing and equipment for interface fire fighting as well.

Since the fire the BC government has invested millions of dollars towards increasing the size of Firefighting Crews and improving Resources and Training throughout the province.

...AND FROM WITHIN IT TAKES MORE THAN ONE TO ACHIEVE SUCCESS

VOLUNTEER FIRE FIGHTERS

are usually first on the scene. Their devotion is admirable as they often hold full-time jobs and act as firefighters in their spare time.

LOCAL KNOWLEDGE

Community members were willing to share their extensive knowledge of the local terrain. This willingness to provide first-hand information about the geography of the land, allows for fire leadership to make solid decisions.

VOLUNTEERS

Volunteers helped to strengthen community ties and build community spirit. When individuals found an area where they could lend their support, a purpose was discovered that transformed them from would-be victims to leaders with intention.

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LESSON THREE

MCLURE FIRE

COMMUNITY

THE PRESENCE OF A WELL-DESIGNED COMMUNITY DISASTER RELIEF PROGRAM IS VERY IMPORTANT

WHO IS AT RISK?

When considering who may be at risk in your community during a disaster, it is important to delineate between different types of risk. Some things that may be "at risk" are economic security, physical property, individual health and social cohesiveness. When planning and preparing your community for a possible disaster, it is crucial to consider (and plan for) the multifaceted face of risk.

LENDING A **HELPING HAND**

Our findings show that people in the Valley have high levels of Cohesion. This means that they are friendly to one another, feel a sense of community, attachment and social connectedness to the area.

This sense of community support and connectedness is an important factor in reducing risk and promoting resilience, both at the community and individual levels.

This was evidenced during the fire as community members worked together to save people's homes and evacuate pets and livestock.

Columbia is now provincially loved ones at the appointed locamandated to have a disaster tion, while local residents will be relief program; however, the able to contact one another dur-TNRD opted for an Emergency ing the uncertainty of evacua-Management Program in 2001. tions. At the time of the fire the TNRD was in charge of providing emer-

gency services to Barriere and area. This proved challenging due to the sheer land area the TNRD was responsible for. The government learned valuable lessons while meeting community needs throughout the disaster.

Provide a central location from which to offer services: This location can serve as a point of registration as well as a place of refuge for evacuees. Out-of-town family members will be able to

Every Regional District in British confidently leave messages for



Photo Courtesy of Judith C. Kulig

Rural Communities also need a location to bring their pets and livestock where they will be safe.

Develop an awareness of community needs: Discover what things community members af-

fected by a disaster actually need before donating goods, in order to ensure donations are useful. Cash donations are helpful to empower people to make their own decisions and to support local businesses.

Local community businesses and individuals donated money, clothing, and food to people during and after the McLure fire.

Encourage local participation: Local volunteers were a huge source of support during the McLure fire. Money and supplies donated in the aftermath of the fire helped buy supplies to rebuild homes and gave people who had lost everything the basic necessities to start over.

IN RURAL AREAS...

OMMUNITY IS A OF LIFE"

THE MCLURE FERRY ON THE NORTH THOMPSON RIVER



Photo Courtesy of Judith C. Kulig

"I was really amazed how we were so taken care of and how everyone pulled in together. I really think that the fire really brought this community together."

Rural communities possess a depth that is built from shared history, shared rela-

tionships and shared activities.

When disaster strikes, citizens can be counted on to meet the needs of their community, both by anticipating the needs and responding to the communicated needs that are described by local officials and media.

ESSONS LEARNED

LESSON FOUR

THE MCLURE FIRE

PERSONNEL

MAKE SURE THE **RIGHT PEOPLE**ARE AT THE HELM

Security & Efficiency

During the 2003 firestorm, local RCMP, along with the 2nd largest domestic deployment of military troops in recent Canadian history⁵ were required for assisting with evacuations and providing security to the community.

To maximize efficiency, involve local law enforcement agencies from the beginning of the disaster management planning. A co-created plan can be quickly acted upon for the benefit of the local residents.

"It [the fire] was a tragic incident for a lot of people, but the people that helped to fight the fire and the people that worked hard behind the scenes, as well as the people that helped to bring the houses back, showed that success can be achieved from a tragedy."

BC forestry is learning to work with communities to include the knowledge of local residents in the management and control of wildfires.

The Provincial Emergency Program brought in many different supplies during the fire, which continued for several weeks.



Photo courtesy of the Salvation Army

The Salvation Army provided 100's of free meals during the fire. They also managed incoming donations of cash and

goods as well as offered counseling services to emergency workers, evacuees and other personnel during this time.

The Mennonite Disaster Service (MDS) was an invaluable resource to the community after the fire. They volunteered their time to rebuild numerous homes and other structures such as garden sheds for people who did not have insurance and could not afford to rebuild themselves.

The Red Cross provided a significant amount of resources and services including mental health counselors for a short time after the fire.

After a disaster, parents need support looking after children

as they must contend with a myriad of issues such as dealing with insurance agencies, rebuilding their homes, and, if employment structures were lost (as was the case in Barriere), looking for employment.

Our findings indicate that there is a grieving period for people after a disaster. People need time to process the magnitude of what has occurred and the impact it has had on their lives.

Mental health services need to be readily available to help both adults and children cope after a disaster. Community members expressed a desire for more long term counseling in addition to the short-term crisis counseling that was provided.

WHO IS QUALIFIED TO HELP?

AND IS THERE REALLY TIME TO FIND OUT?

In an emergency situation, the people willing to volunteer are often the ones recruited. There is little time or available staff to conduct formal interviews, perform criminal record checks and contact former employers for references.

Having a reliable volunteer base already recruited, properly screened, and equipped with necessary skills and certification is an integral part of disaster planning.

The Emergency Social Services Program is an example of this type of service. It's pre-established volunteer base plans and provides for the needs of individuals and families during an emergency. Advance preparation reduces concerns regarding proper volunteer placement. It may be helpful to consider relying on volunteers that have been

approved for other service positions.

During the McLure Fire local community members, including volunteers from the Simpcw band office, set up registration tables and volunteered in various roles. Because everyone knew each other, community members could trust that the volunteers were knowledgeable and competent.

LEARN S **Z**

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LESSON FIVE

MCLURE FIRE

COMMUNITY RESOURCES

The McLure Fire Required:

End of 1st Day:

- 386,553 liters of fire retardant
- 87 firefighters
- 4 helicopters & 5 dozers
- 2 excavators, & 2 water tenders

End of 2nd Day:

- 100 firefighters
- 4 helicopters & 9 dozers
- 2 excavators, & 5 water tenders

1 week Into the Fire:

- 700 firefighters, including 180 military personnel
- 220 military personnel in other support positions

WHAT CAN THE MUNICIPALITY DO TO HELP ITS LANDOWNERS WITH DISASTER PLANNING?

- Work with local health & social services personnel to conduct public education about disaster management and preparation.
- **Develop** materials such as fridge magnets that emphasize the essentials needed for successful Reminder notices evacuation. can be sent in monthly bills or tax notices and the inclusion of information about disaster planning and management can be placed in the local newspapers.
- **Adopt** updated provincial policies related to disaster planning.
- Create evacuation plans for the community including plans for the evacuation of pets and large-scale animals.

UIPMENT AND RESOURCES TO DEAL WITH THE DISASTER MUST BE ALLOCATED



Photo courtesy of MDS

The McLure fire demonstrated the need for human resources and revised infrastructure as well as physical resources. Human resources including community volunteers such as **Emergency Social Services and** Search and Rescue as well as paid employees contributed greatly to dealing with the disaster.

volunteer Allowing firemen time away from their regular employment is an example of the need for flexibility when it comes to allocating human resources.

Redistributing military personnel to work in various support positions was one way that the revised infrastructure contributed to a more effective disaster management.

Creating inventories of what human and physical resources are available in your community, will be a useful exercise in preparation for disaster management.

Rural communities have more limited physical resources than urban areas; therefore, issues such as transportation of evacuees, evacuation of pets & livestock, and generation of power all need to be addressed with a clearly articulated plan before disaster strikes.

Since the fire the TNRD's emergency planning committee have developed a detailed disaster plan reviewed and approved annually by the mayor & council of Barriere. The plan addresses preparations for and procedures during and after an emergency or disaster and involves extensive training and emergency response exercises.

SIGNED CONTRACTS MUST BE IN PLACE TO PROTECT OPERT

Having an up-to-date list of contractors with equipment useful in fire management will be helpful. Having signed contracts with these individuals and their companies to access their equipment during disasters will help ensure efficient disaster planning.



RESOURCES TO ACCESS

GROUPS PROVIDING INFORMATION TO INDIVIDUALS AND COMMUNITIES INTERESTED IN DISASTER PLANNING

PARTNERS IN PROTECTION

http://www.partnersinprotection.ab.ca

CANADIAN RED CROSS- DISASTER PREPAREDNESS

http://www.redcross.ca/article.asp?id=000005&tid=003

AUSTRALIAN RED CROSS- DISASTER PREPAREDNESS

http://www.redcross.org.au/default.asp
Follow the "disaster and emergency services" quick link

THE CANADIAN CENTRE FOR EMERGENCY PREPAREDNESS

www.ccep.ca

MENNONITE DISASTER SERVICE

www.mds.mennonite.net

UNIVERSITY OF CALIFORNIA

HOMEOWNER'S WILDFIRE MITIGATION GUIDE

http://groups.ucanr.org/HWMG/

LIVING WITH FIRE- A GUIDE FOR THE HOMEOWNER EVACUATION PREPARATION AND CHECKLIST

http://www.scribd.com/doc/19381124/Living-With-Fire-A-Guide-for-the-Homeowner

IS YOUR FAMILY PREPARED?

http://www.getprepared.gc.ca/index-eng.aspx

SALVATION ARMY- EMERGENCY DISASTER SERVICES

http://www.salvationarmy.ca/eds/

B.C. HORSE INDUSTRY

DISASTER PREPAREDNESS GUIDELINES FOR HORSEOWNERS

www.abbotsford.ca/AssetFactory.aspx?did=5443



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Photo Courtesy of Judith C. Kulig

The McLure Wildfire Monument Dedication, July 2008
Louis Creek, British Columbia, Canada

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